JSC-19413
Revision V

NASA-TM-111711

Shuttle Flight Data and In-Flight Anomaly List

STS-1 through STS-71, STS-73 and STS-74

Revision V
April 1996

LIBRARY COPY
MAY 14
LANGLEY RESEARCH CENTER
LIBRARY NASA
HAMPTON, VIRGINIA

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas

PCN inserted
ARM 5/96

JSC-19413
Revision V
PCN 1

PAGE CHANGE NOTICE 1

May 8, 1996

Shuttle Flight Data and In-Flight Anomaly List

May 1996

Replace the following listed pages:

Signature Page, Pages 1-121, 1-122, 1-173, 1-174, 1-293 through 1-298, 1-315, and 1-316.

Insert the following listed pages:

Signature Page, 1-121, 1-121A, 1-121B, 1-122, 1-173, 1-173A, 1-173B, 1-174, 1-293 through 1-298, 1-306A through 1-306D, 1-315, 1-315A through 1-315D, 1-316, and 1-324A through 1-324D.

File this page change notice (PCN) immediately behind the front cover and write on the cover "PCN-1 Inserted".

Approved by: David W. Camp
David W. Camp
Manager, Operations Engineering Office

MAY
LANGLEY ... ER
LIBRARY
HAMPTON, VIRGINIA

Enclosure: 32 pages

JSC 19413
Revision V
Change 1

SHUTTLE

FLIGHT DATA

AND

IN-FLIGHT ANOMALY LIST

STS-1 through STS-71, STS-73 and STS-74

Prepared by:

Telemetry Data Acquisition and Analysis Project
Lockheed Martin Engineering and Sciences

for

Operations Engineering Office
Space Shuttle Program Office

Approved by:

David W. Camp
Manager, Operations Engineering Office

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

May 1996

TABLE OF CONTENTS

Section	Page
SHUTTLE FLIGHT DATA	1-1
LAUNCH AND LANDING DATES AND TIMES	1-3
CREW MEMBERS	1-13
ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS	1-24
SUMMARY OF CARGO AND SATELLITE WEIGHTS	1-30
CARGO SUMMARY	1-40
ASCENT AND ORBIT INSERTION	1-78
ENTRY AERODYNAMICS	1-89
LANDING DECELERATION	1-92
ORBITER DRAG CHUTE	1-95
CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS	1-98
LANDING AND FERRY	1-108
SPACE SHUTTLE FLIGHT DURATIONS FOR THE ENTIRE FLEET	1-117
ORBITER MASS PROPERTIES	1-122
AUXILIARY POWER UNITS	1-129
APU SERIAL NUMBER/PART NUMBER MATRIX	1-145
WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION	1-147
FUEL CELLS	1-164
FUEL CELL SERIAL NUMBER/PART NUMBER USAGE MATRIX	1-174
ORBITER TIRES	1-177
ORBITAL MANEUVERING SYSTEM: BURN DATA SUMMARY	1-181
PROPELLANT USAGE SUMMARY	1-192

TABLE OF CONTENTS (Continued)

Section Page

REACTION CONTROL SYSTEM VERNIER THRUSTERS CONFIGURATION AND USAGE SUMMARY 1-195

OMS/RCS PODS AND FLIGHT ASSIGNMENTS 1-196

EXTRAVEHICULAR ACTIVITIES 1-198

REMOTE MANIPULATOR SYSTEM 1-204

ORBITER THERMAL PROTECTION SYSTEM: MAXIMUM TEMPERATURES DURING ENTRY 1-216

MAXIMUM TEMPERATURE RISE DURING ENTRY 1-218

DEBRIS IMPACT DAMAGE TO ORBITER THERMAL PROTECTION SYSTEM 1-220

ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS 1-223

WINDOW DATA 1-231

ACTIVE THERMAL CONTROL SUBSYSTEM: ASCENT, ENTRY & POSTLANDING EVENTS AND PERFORMANCE DATA 1-239

FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA 1-242

ATMOSPHERIC REVITALIZATION SUBSYSTEM 1-245

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS 1-248

AFT FUSELAGE GAS SAMPLE ANALYSIS 1-255

KSC FACILITIES AND PROCESSING DATES 1-269

SOLID ROCKETS BOOSTERS 1-285

EXTERNAL TANK 1-293

MAIN ENGINE POSITION 1 1-298

MAIN ENGINE POSITION 2 1-307

TABLE OF CONTENTS (Continued)

Section Page

MAIN ENGINE POSITION 3 1-316

MAIN ENGINE SERIAL NUMBER/MAIN PROPULSION SYSTEM ENGINE LOCATION 1-325

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM 1-328

SPECIFICATIONS FOR AVIONICS INCLUDING DPS, GNC, AND COMMUNICATIONS AND TRACKING 1-351

COMPONENT - SERIAL NUMBER LOCATION MATRIX

DATA PROCESSING SUBSYSTEM 1-354

GUIDANCE, NAVIGATION, AND CONTROL (GNC) SUBSYSTEM . .1-372

COMMUNICATIONS AND TRACKING SUBSYSTEM 1-408

DISPLAYS AND CONTROLS SUBSYSTEM 1-434

ELECTRICAL POWER DISTRIBUTION AND CONTROL (EPDC) . . .1-474

MODULAR AUXILIARY DATA SUBSYSTEM 1-498

OPERATIONAL INSTRUMENTATION 1-502

ORBITER PROPULSION SYSTEMS

RCS FORWARD THRUSTERS 1-509

LEFT-HAND POD RCS THRUSTERS 1-513

RIGHT-HAND POD RCS THRUSTERS 1-517

QUAD CHECK VALVE FLIGHT HISTORY 1-522

OMRSD FILE IX REQUIREMENTS HISTORY 1-525

DATA SOURCES 1-526

SHUTTLE INFLIGHT ANOMALY LIST 2-1

TABLE OF CONTENTS (Concluded)

Section	Page
ORBITER SYSTEMS WORK UNIT CODE INDEX	2-2
ORBITER IN-FLIGHT ANOMALIES FOR THE FLEET	2-3
INFLIGHT ANOMALY LIST BY WUC	2-9
MSFC FLIGHT PROBLEMS	2-37
ORBITER ATTITUDE TIMELINE	3-1
INDEX	4-1

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-71, STS-73 and STS-74.

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.

Through the utilization of the Internet, the Flight Engineering and Vehicle Management Office is now able to provide the Shuttle Flight Data and In-Flight Anomaly List document ('Green Book') electronically. The electronic version of the Shuttle Flight Data and In-Flight Anomaly List document is being provided as a means for cost saving and process improvement.

The Shuttle Flight Data and In-Flight Anomaly List document can be accessed through the JSC Projects Home Page. The specific address for the home page is http://139.169.5.218/. The Shuttle Flight Data and In-Flight Anomaly List document is specifically located under the Flight Engineering and Vehicle Management Office home page. By selecting the Shuttle Flight Data and In-Flight Anomaly List document highlighted bullet you will be transferred to the Shuttle Flight Data and In-Flight Anomaly List document data pages. The page

can be easily recognized by the icon of the 'Green Book' at the top of the page. Each page of the Shuttle Flight Data and In-Flight Anomaly List document is listed as it would be in the actual paper document. To view the electronic page you have selected, double click the line item with your mouse. This should start your Acrobat viewer and display the Shuttle Flight Data and In-Flight Anomaly List document page you have selected.

These pages from the Shuttle Flight Data and In-Flight Anomaly List document have been converted to the Acrobat .pdf format. If you do not have the Acrobat reader installed on your machine you will not be able to view these pages. This viewer is provided to all NASA employees and can be accessed for installation by selecting the highlighted bullet at the bottom of the JSC Projects home page.

The Flight Engineering and Vehicle Management Office would like your help in reducing the number of people on the paper distribution list. Therefore, If you do not have the ability to access the data electronically, please contact Robert W. Fricke at (713) 483-3313.

For any information concerning the Electronic Shuttle Flight Data and In-Flight Anomaly List document please contact John A. Pasquali/FA2 at (713) 483-3332 or electronically at pasquali@va1.jsc.nasa.gov .

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
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	EAFB WSNMa	--------- 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 EAFBa	--------- 6/24/83	---------- - 175:13:56:59	5:23:20s 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

*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 in orbit. Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Orbital Data Incl., deg	Orbital Data Land Rev
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 EAFBa	--------- 4/13/84	---------- - 104:13:38:07	6:00:00s 6:23:40:07a	---- 272	------ 28.45	92s 108a
12	41D (14	103 1	KSC	6/25/84spd 6/26/84rspd 8/29/84rspd 8/30/84a	---------- 243:12:35:00s 243:12:41:50a	EAFB	9/05/84	249:13:37:54	6:00:56:04	179	28.45	97
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	102:13:04:00s 102:13:59:05a	KSC	4/19/85	109:13:54:28	5:00:11:00s 6:23:55:23a	---- 251	------ 28.45	79s 110a

*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 in orbit. Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
17	51B (24	099 7	KSC	4/29/85	119:16:00:00s 119:16:02:18a	--------- EAFB	---------- 5/6/85	---------- - 126:16:11:04	6:20:58:00s 7:00:08:46a	----- 193	------- 57.0	109s 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	---------- 210:19:23:00s 210:21:00:00a	EAFB	8/06/85	218:19:45:26	7:22:45:26	173	49.5	110s 127a
20	51I (27	103 6	KSC	8/24/85spd 8/25/85rspd 8/27/85a	---------- 239:10:55:00s 239:10:58:01a	EAFB	9/03/85	246:13:15:43	7:02:17:42	242	28.45	127s 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
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 EAFBa	1/17/86s 1/18/86a	---------- 018:13:58:51 (predawn)	---------- 6:02:03:51	----- - 185	------- 28.45	----- -98

*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 in orbit. Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Orbital Data Incl., deg	Orbital Data Land Rev
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	12/1/88rspd 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	N/A DOD
28	29	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	4/28/89rspd 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 8	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	291:16:53:40a	EAFB	10/23/89	296:16:33:01	4:23:39:21	177	34.30	80
32	33	103 9	KSC	11/22/89a	327(Classified)s 327:00:23:30a	EAFB	11/28/89	332:00:30:18	5:00:06:48	302	28.45	79

*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 in orbit. Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Orbital Data Incl., deg	Orbital Data Land Rev
33	32	102 9	KSC	12/18/89pd 1/8/90pd 1/9/90a	---------- ---------- 009:12:35:00a	EAFB	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	059:07:50:22a	EAFB	3/4/90	063:18:08:44	4:10:18:22	132	62.00	72
35	31	103 10	KSC	4/10/90pd 4/24/90pd 4/24/90a	114:12:33:00s 114:12:33:51a	EAFB	4/29/90	119:13:49:57	5:01:16:06	330	28.45	80
36	41	103 11	KSC	10/06/90a	279:11:35:00s 279:11:45:43pd 279:11:45:53pd 279.11.47.15a	EAFB	10/10/90	283:13:57:19	4:02:10:04	160	28.45	66
37	38	104 7	KSC	11/15/90a	319(classified)s 319:23:48:15.006a	EAFBs KSCa	11/20/90	324:21:42:46	4:21:54:31	142	28.5	79
38	35	102 10	KSC	12/2/90a	336:06:28:00s 336:06:49:01.02a	EAFB	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	EAFB	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	EAFBs KSCa	5/6/91	126:18:55:37	08:07:22:23	140	57.0	134

*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 in orbit. Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
41	40	102 11	KSC	5/22/91rspd 6/11/91rspd 6/5/91a	156:13:24:51.008a	EAFB	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	214:15:01:59.986a	KSC	8/11/91	223:12:23:25	08:21:21:25	174	28.45	142
43	48	103 13	KSC	9/12/91a	255:23:11:04.005a	KSCs EAFBa	9/18/91	261:07:38:42 (darkness)	05:08:27:38	313	57.0	81
44	44	104 10	KSC	11/19/91rspd 11/24/91a	---------- 328:23:44:00.006a	KSCs EAFBa	——— 12/1/91	---------- - 335:22:34:44	---------- 06:22:50:44	---- 197	—— 28.5	---- 110
45	42	103 14	KSC	1/22/92pd 1/22/92pd	022:14:52:32.992	EAFB	1/30/92	030:16:07:17	08:01:14:44	163	57.0	129
46	45	104 11	KSC	3/23/92rs 3/24/92a	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	5/7/92a	128:23:40:00.019	EAFB	5/16/92	137:20:57:38	08:21:17:38	195	28.35	141
48	50	102 12	KSC	6/25/92pd 6/25/92a	177:16:07:00s 177:16:12:22.997a	KSC	7/9/92	191:11:42:27	13:19:30:04	160	28.45	221

*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 in orbit. Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
49	46	104 12	KSC	7/31/92pd 7/31/92a	213:13:56:00s 213:13:56:48.011a	KSC	8/8/92	221:13:11:51	07:23:15:03	230	28.45	127
50	47	105 2	KSC	9/12/92a	256:14:23:00.010a	KSC	9/20/92	264:12:53:23	07:22:30:23	166	57.0	126
51	52	102 13	KSC	10/22/92pd 10/22/92a	196:15:16:00s 296:17:09:39.007a	KSC	11/1/92	306:14:05:52	09:20:56:13	163	28.45	159
52	53	103 15	KSC	12/2/92pd 12/2/92a	337:11:59:00s 337:13:23:59.993a	KSCs EAFBa	12/9/92	344:20:43:47	07:07:19:47	174	57.0	116
53	54	105 3	KSC	1/13/93pd 1/13/93a	013:13:52:00s 013:13:59:29.989a	KSC	1/19/93	019:13:37:49	05:23:38:19	165	28.45	96
54	56	103 16	KSC	4/6/93rspd 4/8/93a	---------- 098:05:28:59.986a	--------- 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 4/26/93a	---------- 116:14:50:00.017a	KSCs EAFBa	5/6/93	126:14:29:59	09:23:39:59	163	28.45	160
56	57	105 4	KSC	6/20/93rspd 6/21/93pd 6/21/93a	172:13:07:00s 172:13:07:21.989a	--------- KSC	--------- 7/1/93	---------- - 182:12:52:16	---------- 09:23:44:54	---- 252	------- 28.45	---- 155

*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 in orbit. Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
57	51	103 17	KSC	7/17/93rspd 7/24/93rspd 8/12/93rspd 9/10/93rspd 9/12/93a	---------- 255:11:45:00.006	-------- KSC	--------- 9/22/93	---------- - 265:07:56:11	---------- 09:20:11:11	----- 160	------- 28.45	----- 157
58	58	102 15	KSC	10/14/93rspd 10/15/93rspd 10/18/93pd 10/18/93a	291:14:53:00s 291:14:53:10.009a	EAFB	11/1/93	305:15:05:42	14:00:12:32	155	39	225
59	61	105 5	KSC	12/1/93rspd 12/2/93a	---------- 336:09:26:59.983	-------- KSC	--------- 12/12/93	---------- - 347:05:25:37	---------- 10:19:58:37	----- 321	------- 28.45	----- 163
60	60	103 18	KSC	2/3/94a	034:12:10:00.000	KSC	2/11/94	042:19:19:22	08:07:09:22	191	57	130
61	62	102 16	KSC	3/3/94rspd 3/4/94a	063:13:53:00.009	KSC	3/18/94	077:13:09:41	13:23:16:41	163	39	224
62	59	105 6	KSC	4/8/94rspd 4/9/94a	099:11:05:00.020	KSCs	4/20/94	110:16:54:30	11:05:49:30	121	57	183
63	65	102 17	KSC	7/8/94a	189:16:43:00.013	KSC	7/23/94	204:10:38:00	14:17:55:00	160	28.45	235
64	64	103 19	KSC	9/9/94a	252:20:30:00s 252:22:22:54.982a	EAFB	9/20/94	263:21:12:52	10:22:49:57	140	57	176

*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 in orbit. Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
65	68	105 7	KSC	8/18/94pd 9/30/94a	---------- 273:11:16:00.011	--------- EAFB	--------- 10/11/94	---------- -- 284:17:02:08	---------- 11:05:46:08	----- 120	----- 57	----- 182
66	66	104 13	KSC	11/03/94pd 11/03/94a	307:16:40:00s 307:16:59:43.004a	EAFB	11/14/94	318:15:33:45	10:22:34:02	164	57	174
67	63	103 20	KSC	02/02/95pd 02/03/95a	---------- 034:05:22:03.994	------ KSC	--------- 2/11/95	---------- 042:11:50:19	---------- 08:06:28:15	----- 213	----- 51.6	----- 129
68	67	105 8	KSC	03/02/95pd 03/02/95a	061:06:37:00s 061:06:38:12.989a	EAFB	3/18/95	077:21:47:01	16:15:08:48	187	28.45	262
69	71	104 14	KSC	06/23/95rspd 06/24/95rspd 06/27/95a	178:19:32:18.988	KSC	7/7/95	188:14:54:36	09:19:22:17	213	51.6	154
70	70	102 21	KSC	07/13/95a	194:13:41:55:020	KSC	7/22/95	203:12:02:02	08:22:20:07	160	28.45	142
71	69	105 9	KSC	08/03/95rspd 08/31/95rspd 09/07/95a	250:15:08:59:995	KSC	09/18/95	261:11:37:56	10:20:28:56	215	28.45	170
72	73	102 18	KSC	09/28/95rspd 10/05/95rspd 10/06/95rspd 10/07/95rspd	293:13:53:00:013	KSC	11/5/95	309:11:45:29	15:21:52:21	150	39	255

*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 in orbit. Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

LAUNCH AND LANDING DATES AND TIMES

Miss Seq. No.	STS-No.	Orb. OV-	Launch Site	Launch Date	Launch Time G.m.t., day:hr:min:sec*	Landing Site*	Landing Date	Landing Time G.m.t., day:hr:min:sec*	Flight Duration lift-off to MGTD. day:hr:min:sec*	Orbital Data Alt** nmi	Incl., deg	Land Rev
73	74	104 15	KSC	11/11/95rspd 11/12/95a	316:12:30:43:013	KSC	11/20/95	324:17:01:29	08:04:30:46	162	51.6	128

*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 in orbit. Note: Numbers in parentheses in STS No. column refer to flight planning numbers. N/A = Not Available

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
1	1	102	John W. Young USN Ret. 1	Robert L. Crippen USN Capt. 1									108 : 41 : 46 108 : 41 : 46
2	2	102	Joe Henry Engle USAF Col. 1	Richard H. Truly USN Capt. 1									108 : 26 : 22 217 : 08 : 08
3	3	102	Jack R. Lousma USMC Col. 1	C. Gordon Fullerton USAF Col. 1									384 : 09 : 32 601 : 17 : 40
4	4	102	Thomas K. Mattingly USN Capt. 1	Henry W. Hartsfield Jr. USAF Ret. 1									338 : 19 : 02 939 : 36 : 42
5	5	102	Vance D. Brand Civ. 1	Robert F. Overmyer USMC Col. 1	Joseph P. Allen Civ. PhD 1	William B. Lenoir Civ. PhD 1							488 : 57 : 44 1,428 : 34 : 26
6	6	99	Paul J. Weitz 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	7	99	Robert L. Crippen USN Capt. 2	Frederick H. Hauck USN Capt. 1	Sally K. Ride Civ. PhD. 1	John M. Fabian USAF Col. 1	Norman E. Thagard Civ. MD 1						731 : 59 : 55 2,642 : 09 : 09

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
8	8	99	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	9	102	John W. Young USN Ret. 2	Brewster H. 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	99	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	99	Robert L. Crippen USN Capt. 3	Francis R.(Dic Scobee 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
12	41D	103	Henry W. Hartsfield, Jr. USAF Ret. 2	Michael L. Coats USN Cdr. 1	Judith A. Resnik Civ. PhD 1	Steve A. Hawley Civ. PhD 1	Richard M. Mullane USAF Lt.Col 1			Charles Walker Civ. 1			869 : 36 : 24 7,518 : 53 : 42
13	41G	99	Robert L. Crippen USN Capt. 4	Jon A. McBride USN Cdr. 1	Kathryn D. Sullivan Civ. PhD 1	Sally K. Ride Civ. PhD 2	David C. Leestma USN 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	103	Frederick H. Hauck USN Capt. 2	David M. Walker USN Cdr. 1	Anna L. Fisher Civ. MD 1	Dale A. Gardner USN Cdr. 2	Joseph P. Allen Civ. PhD 2						958 : 44 : 40 9,859 : 23 : 48

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
15	51C	103	Thomas K. Mattingly USN Capt. 2	Loren J. Shriver USAF Lt. Col 1	Ellison S. Onizuka USAF Maj. 1	James F. Buchli USMC Lt.Col 1				Gary E. Payton USAF Maj. 1			367 : 46 : 55 10,227 : 10 : 43
16	51D	103	Karol J. Bobko USAF Col. 2	Donald E. Williams USN 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 Civ. U.S. Senator 1		1,175 : 27 : 41 11,402 : 38 : 24
17	51B	99	Robert F. 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	103	Daniel C. Brandenstein USN Capt. 2	John O. Creighton USN 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 Salman Al-Saud Civ. Saudi Arabia 1		1,187 : 32 : 04 13,767 : 11 : 50
19	51F	99	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. Henize 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	103	Joe Henry Engle USAF Col. 2	Richard O. Covey USAF Lt. Col 1	James D. A. van Hoften Civ. PhD 2	John M. Lounge Civ. 1	William F. Fisher Civ. D 1						851 : 28 : 30 15,953 : 58 : 22
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			488 : 43 : 10 16,442 : 41 : 32

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
22	61A	99	Henry W. Hartsfield, Jr. USAF Ret. 3	Steven R. Nagel 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. GermanyPhD 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 Neri Vela Mexico PhD	Charles D. Walker Civ. 3		1,155 : 33 : 43 18,948 : 14 : 19
24	61C	102	Robert L. Gibson USN Cdr. 2	Charles F. Bolden, Jr. USMC Lt.Col. 1	Franklin R. Chang-Diaz Civ. PhD 1	Steven A. Hewley 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	99 a	Francis R. Scobee USAF Ret. 2	Michael J. Smith USN Cdr. 1	Judith A. Resnik Civ. PhD 2	Ellison S. Onizuka USAF Lt.Col 2	Ronal E. McNair Civ. PhD 2			Gregory B. Jarvis Civ. 1	Sharon Christa McAuliffe Civ. 1		: : 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. Mullane USAF Col. 2	Jerry L. Ross USAF Maj. 2	William M. Shepherd USN Cdr. 1						525 : 28 : 05 20,981 : 10 : 16
28	29	103	Michael L. Coats USN Capt. 2	John E. Blaha USAF Col. 1	James P. Bagian Civ. M.D. 1	James F. Buchli USMC Col. 3	Robert C. Springer USMC Col. 1						598 : 14 : 10 21,579 : 24 : 26

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
29	30	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	28	102	Brewster H. Shaw USAF Col. 3	Richard N. Richards USN Cdr. 1	James C. Adamson USAF Lt.Col. 1	David C. Leestma USN Cdr. 2	Mark N. Brown USAF Lt.Col 1						605 : 00 : 40 22,669 : 07 : 21
31	34	104	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						598 : 16 : 45 23,267 : 24 : 06
32	33	103	Frederick 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	102	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						1,305 : 03 : 00 25,173 : 01 : 06
34	36	104	John O. Creighton USN Capt. 2	John H. Casper USAF Col. 1	Richard M. Mullane USAF Col. 3	David C. Hilmers USMC Lt.Col 3	Pierre J. Thuot USN Lt.Cdr. 1						531 : 31 : 50 25,704 : 32 : 56
35	31	103	Loren J. Shriver USAF Col. 2	Charles F. Bolden 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

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
36	41	103	Richard N. Richards USN Capt. 2	Robert D. Cabana USMC Lt.Col. 1	William M. Shepherd USN Capt. 2	Bruce E. Melnick USCG Cmdr. 1	Thomas D. Akers USAF Major 1						490 : 50 : 20 26,801 : 43 : 46
37	38	104	Richard O. Covey USAF Col. 3	Frank L. Culbertson USN Capt. 1	Robert C. Springer USMC Col. 2	Carl J. Meade USAF Major 1	Charles D. Gemar USA Capt. 1						589 : 32 : 35 27,391 : 16 : 21
38	35	102	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			Samuel T. Durrance Civ. PhD. 1	Ronald A. Parise Civ. PhD. 1		1,505 : 35 : 56 28,896 : 52 : 17
39	37	104	Steven R. Nagel USAF Col. 3	Kenneth D. Cameron USMC Lt.Col. 1	Jerry L. Ross USAF Lt Col 1	Jerome (Jay) Apt PhD. 3	Linda M. Godwin Ph.D. 1						717 : 43 : 40 29,614 : 35 : 57
40	39	103	Michael L. Coats USN Capt. 3	L. Blaine Hammond USAF Lt. Col 1	Guion S. Bluford USAF Col. 3	Gregory G. Harbaugh Civ. 1	Richard J. Hieb Civ. 1	Donald R.. McMonagle USAF Lt Col 1	Charles L. Veach Civ. 1				1,395 : 36 : 41 31,010 : 12 : 38
41	40	102	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			Drew Gaffney M.D. 1	Millie Hughes-Fulfor PhD. 1		1,527 : 40 : 20 32,537 : 52 : 58
42	43	104	John E. Blaha USAF Col. 3	Michael A. Baker USN Cdr. 1	Shannon W. Lucid Ph.D 3	James W. Adamson USA Col. 2	G. David Low Civ. 2						1,066 : 47 : 05 33,604 : 40 : 03

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
43	48	103	John O. Creighton USN Capt. 3	Kenneth O. Reightler USN Cdr. 1	James F. Buchli USMC Col. 4	Charles D Gemar USAF Lt Col 2	Mark N. Brown USAF Col 2						642 : 18 : 10 34,246 : 58 : 13
44	44	104	Frederick D. Gregory USAF Col. 3	Terence T. Henricks USAF Col. 1	F. Story Musgrave 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			1,001 : 04 : 24 35,248 : 02 : 37
45	42	103	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			Roberta L. Bondar Civ. PhD 1	Ulf D. Merbold Civ. PhD 2		1,352 : 43 : 08 36,600 : 45 : 45
46	45	104	Charles F. Bolden, Jr. USMC Col. 3	Brian K. Duffy USAF Lt.Col. 1	Kathryn D. Sullivan Civ. PhD 3	David C. Leestma USN Capt. 3	C. Michael Foale Civ. PhD 1			Bryon K. Lichtenberg Civ. PhD 2	Dirk D. Frimout Civ. PhD 1		1,499 : 06 : 16 38,099 : 52 : 01
47	49	105	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 2	Thomas D. Akers USAF Lt Col 2	Bruce E. Melnick USCG Cdr. 2				1,493 : 03 : 26 39,592 : 55 : 27
48	50	102	Richard N. 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			Lawrence J. DeLucas Civ. PhD. 1	Eugene H. Trinh Civ. PhD. 1		2,320 : 30 : 28 41,913 : 25 : 55
49	46	104	Loren J. Shriver USAF Col. 3	Andrew M. Allen USAF Maj. 1	Jeffrey A. Hoffman Civ. PhD 3	Franklin Chang-Diaz Civ. PhD. 3	Claude Nicollier Civ. PhD 1	Marsha S. Ivins Civ. 2		Franco Malerba Civ. PhD. 1			1,338 : 45 : 21 43,252 : 11 : 16

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
50	47	105	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	Mae C. Jemison Civ. M.D. 1		Mamoru Mohri Civ. PhD. 1			1,333 : 32 : 41 44,585 : 43 : 57
51	52	102	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			Steven G. MacLean Civ. PhD. 1			1,421 : 37 : 18 46,007 : 21 : 15
52	53	103	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						876 : 38 : 55 46,884 : 00 : 10
53	54	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	56	103	Kenneth D. Cameron USMC Col. 2	Steven S. Oswald Civ. 2	C. Michael Foale Civ. PhD 2	Kenneth D. Cockrell Civ. 1	Ellen Ochoa Civ. 1						1,110 : 41 : 55 48,712 : 53 : 40
55	55	102	Steven R. Nagel 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 Civ. Germany 1		1,677 : 39 : 53 50,390 : 33 : 33
56	57	105	Ronald J. Grabe USAF Col. 4	Brian Duffy USAF Col. 2	G. David Low Civ. 3	Nancy J. Sherlock Civ. 1	Peter J.K. Wisoff Civ. PhD 1	Janice Voss Civ. PhD 1					1,438 : 29 : 24 51,829 : 02 : 57

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
57	51	103	Frank L. Culbertson USN Capt. 2	William F. Readdy Civ. 2	James H. Newman Civ. PhD 1	Daniel W. Bursch USN Cdr. 1	Carl E. Walz USAF Lt Col 1						1,180 : 55 : 55 53,009 : 58 : 52
58	58	102	John E. Blaha USAF Col. 4	Richard A. Searfoss USAF Lt Col 1	M. Rhea Sheddon Civ. M.D. 3	William S. McArthur USAF Lt Col 1	David A. Wolf Civ. M.D. 1	Shannon W. Lucid Civ. M.D. 4		Martin J. Fettman Civ. D.V.M. PhD 1			2,353 : 27 : 44 55,363 : 26 : 36
59	61	105	Richard O. Covey USAF Col. 4	Kenneth Bowersox USN Cdr. 2	Kathryn C. Thornton Civ. 3	Claude Nicollier Civ. 2	Jeffrey A. Hoffman Civ. 4	F. Story Musgrave Civ. M.D. PhD 5	Thomas D. Akers USAF Lt Col 3				1,819 : 50 : 19 57,183 : 16 : 55
60	60	103	Charles F. Bolden USMC Col. 4	Kenneth S. Reightler,Jr USN Capt. 2	N. Jan Davis Civ. PhD 2	Ronald M. Sega Civ. PhD 1	Franklin R. Chang-Diaz Civ. PhD 4	Sergei K. Krikalov Civ. Cosmonaut 1					1,194 : 56 : 12 58,378 : 13 : 07
61	62	102	John H. Casper USAF Col. 3	Andrew M. Allen USMC Maj. 2	Pierre J. Thout USN Cmdr. 3	Charles D. Gemar USA Lt Col. 3	Marsha S. Ivins Civ. 3						1,676 : 23 : 25 60,054 : 36 : 32
62	59	105	Sidney M. Gutierrez USAF Col. 2	Kevin P. Chilton USAF Col. 2	Jerome Apt Civ. PhD 3	M. Richard Clifford USA Lt Col. 2	Linda M. Godwin Civ. PhD 2	Thomas D. Jones Civ. PhD 1					1,618 : 57 : 00 61,673 : 33 : 32
63	65	102	Robert D. Cabana USMC Col. 3	James D. Halsell USAF Lt. Col. 1	Richard J. Hieb Civ. 3	Carl E. Walz USAF Lt Col 2	Leroy Chiao Civ. PhD 1	Donald A. Thomas Civ. PhD 1		Chiaki Mukai Civ. PhD M.D. 1			2,377 : 25 : 00 64,050 : 58 : 32

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
64	64	103	Richard N. Richards USN Capt. 4	Blaine L. Hammond USAF Col. 2	Jerry M. Linenger USN Cdr. M.D. PhD 1	Susan J. Helms USAF Lt Col 2	Carl J. Meade USAF Col. 3	Mark C. Lee USAF Col. 3					1,576 : 59 : 42 65,627 : 58 : 14
65	68	105	Michael A. Baker USN Capt. 3	Terrence W. Wilcutt USMC Maj. 1	Steven L. Smith Civ. 1	Daniel W. Bursch USN Cdr. 2	Peter J. K. Wisoff Civ. PhD 2	Thomas D. Jones Civ. PhD 2					1,618 : 36 : 48 67,246 : 35 : 02
66	66	104	Donald R. McMonagle USAF Lt. Col. 3	Curtis L. Brown USAF Lt. Col. 2	Ellen Ochoa Civ. PhD 2	Joseph R. Tanner Civ. 1	Jean-Francis Clervoy Civ. ESA 1	Scott E. Parazinski Civ. M.D. 1					1,575 : 24 : 12 68,821 : 59 : 14
67	63	103	James D. Wetherbee USN Cdr. 3	Eileen M. Collins USAF Lt. Col. 1	Bernard A. Harris, Jr. Civ. M.D. 3	C. Michael Foale Civ. PhD 3	Janice Voss Civ. PhD 2	Vladimir G. Titov Russian AF Col. 1					1,190 : 49 : 30 70,012 : 48 : 44
68	67	105	Stephen S. Oswald Civ. 3	William G. Gregory USAF Lt. Col. 1	John M. Grunsfeld Civ. PhD 1	Wendy B. Lawrence USN Lt. Cdr. 1	Tamara E. Jernigan Civ. PhD 3			Samual T. Durrance Civ. PhD 2	Ronald Parise Civ. PhD 2		2,794 : 01 : 36 72,806 : 50 : 20
69	71	104	Robert L. Gibson USN Capt 5	Charles J. Prcourt USAF Lt. Col. 2	Ellen S. Baker Civ. M.D. 3	Gregory J. Harbaugh Civ. 3	Bonnie Dunbar Civ. PhD. 4	Anatoly Y. Solovyev Cdr. Mir-19	Nikolai M. Budarin Flt. Eng. Mir-19	Viadimir N. Dezhurov Cdr Mir-18	Gennady M. Strekalov Flt. Eng. Mir-18	Norman E. Thagard Cosm. Res. Mir-18	1,176 : 51 : 25 73,983 : 41 : 45
70	70	103	Terence T. Henricks USAF Col. 3	Kevin R. Kregel Civ. 1	Donald A. Thomas Civ. PhD. 2	Nancy J. Currie USA Maj. 2	Mary Ellen Weber Civ. PhD. 1	0	0	0	0	0	1,071 : 40 : 35 75,055 : 22 : 20

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

CREW MEMBERS

Miss Seq. No.	STS-No.	Orb. OV-	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	Payload, Specialist, 3 No. Flts	Operational Crew-Person Hour, h:m:s Mission/ Cumulative*
71	69	105	David M. Walker USN Capt. 4	Kenneth D. Cockrell Civ. 2	James S. Voss USA Col 3	Jim Newman Civ. PhD. 2	Michael L. Gernhardt Civ. PhD. 1	0	0	0	0	0	1,302 : 24 : 40 76,357 : 47 : 00
72	73	102	Kenneth D. Bowersox USN Cdr. 3	Kent V. Reminger USN Cdr. 1	Catherine C. Coleman USAF Capt. 1	Michael E. Lopez-Alegria USN Lt. Cdr. 1	Kathryn C. Thornton Civ. PhD. 4	0	0	Fred W. Leslie Civ. PhD. 1	Albert Sacco Jr. Civ. PhD. 1	0	2,673 : 06 : 27 79,030 : 53 : 27
73	74	104	Kenneth D. Cameron USMC Col. 3	James D. Halsell, Jr. USAF Lt. Col. 2	Chris A. Hadfield CAF Maj. 1	Jerry L. Ross USAF Col. 5	William S. McArthur,Jr USA Lt. Col. 2	0	0	0	0	0	982 : 33 : 50 80,013 : 27 : 17

Note:

* = All times were audited in January 1993

a = Vehicle destroyed at 73 second

Source: STS Mission Reports published by JSC/FA22

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED CREW MEMBERS

	Name			Rank	Affiliation	1st Flight/ Position		2nd Flight/ Position		3rd Flight/ Position		4th Flight/ Position		5th Flight/ Position	Total Flight Time h:m:s
	Last	First	Middle												
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	61	MS5				647 : 41 : 14
4	Al-Saud	Salman			Civ.	51-G	PS2								169 : 38 : 52
5	Allen	Joseph	P.	PhD	Civ.	5	MS1	51-A	MS3						313 : 59 : 22
6	Allen	Andrew	M.	Major	USAF	46	Plt.	62	Plt.						526 : 31 : 44
7	Apt	Jerome	(Jay)	PhD	Civ.	37	MS2	47	MS2	59	MS1				603 : 52 : 37
8	Baglan	James	P.	MD	Civ.	29	MS1	40	MS2						337 : 53 : 10
9	Baker	Ellen	S.	MD	Civ.	34	MS3	50	MS2	71	MS1				686 : 31 : 42
10	Baker	Michael	A.	Capt.	USN	43	Plt.	52	Plt.	68	Cdr.				720 : 3 : 46
11	Bartoe	John-David	F.	PhD	Civ.	51-F	PS2								190 : 45 : 26
12	Baudry	Patrick		Lt. Col.	FAF	51-G	PS1								169 : 38 : 52
13	Blaha	John	E.	Col.	USAF	29	Plt.	33	Plt.	43	Cdr.	58	Cdr.		789 : 19 : 35
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 : 3 : 43
16	Bolden	Charles	F.	Col.	USMC	61-C	Plt.	31	Plt.	45	Cdr.	60	Cdr.		680 : 38 : 47
17	Bondar	Roberta	L.	PhD	Civ.	42	PS1								193 : 14 : 44
18	Bowersox	Kenneth	D.	Lt. Cdr.	USN	50	Plt.	61	Plt.	73	Cdr.				1049 : 34 : 57
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 : 5 : 49
21	Bridges	Roy	D.	Col.	USAF	51-F	Plt.								190 : 45 : 26
22	Brown	Curtis	L.	Lt. Col.	USAF	47	Plt.	66	Plt.						453 : 4 : 25
23	Brown	Mark	N.	Col.	USAF	28	MS3	48	MS3						249 : 27 : 46
24	Buchli	James	F.	Col.	USMC	51-C	MS2	61-A	MS1	29	MS2	48	MS1		490 : 24 : 44
25	Bursch	Daniel	W.	Cdr.	USN	51	MS2	68	MS2						505 : 57 : 19
26	Cabana	Robert	D.	Col.	USMC	41	Plt.	53	Plt.	65	Cdr				627 : 24 : 51
27	Cameron	Keneneth	D.	Col.	USMC	37	Plt.	56	Cdr.	74	Cdr				562 : 11 : 53
28	Carter	Manley		Cdr.	USN	33	MS2								120 : 6 : 48
29	Casper	John	H.	Col.	USAF	36	Plt.	54	Cdr.	62	Cdr.				585 : 13 : 22
30	Cenker	Robert	J.		Civ.	61-C	PS1								146 : 3 : 51
31	Chang-Diaz	Franklin	R.	PhD	Civ.	61-C	MS1	34	MS1	46	MS2	60	MS3		656 : 7 : 37
32	Chiao	Leroy		PhD	Civ.	65	MS3								353 : 55 : 0
33	Chilton	Kevin	P.	Col.	USAF	49	Plt.	59	Plt.						483 : 7 : 8
34	Cleave	Mary	L.	PhD	Civ.	61-B	MS1	30	MS2						262 : 1 : 16
35	Clervoy	Jean-Francois			Civ. (ESA)	66	MS3								262 : 34 : 2
36	Clifford	Michael	R.	Lt. Col.	USA	53	MS3	59	MS2						445 : 9 : 17
37	Coats	Michael	L.	Capt.	USN	41-D	Plt.	29	Cdr.	39	Cdr.				463 : 57 : 17
38	Cockrell	Kenneth	D.		Civ.	56	MS2	69	Plt						482 : 37 : 19

a = Payload Commander

Source: STS Mission Reports published by FA22.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED CREW MEMBERS

	Name			Rank	Affiliation	1st Flight/ Position		2nd Flight/ Position		3rd Flight/ Position		4th Flight/ Position		5th Flight/ Position		Total Flight Time h:m:s
	Last	First	Middle													
I	39 Coleman,	Catherine	G.	Capt.	USAF	73	MS1									381 : 52 : 21
	40 Collins	Eileen	M.	Lt. Col.	USAF	63	Plt.									198 : 28 : 15
	41 Covey	Richard	O.	Col.	USAF	51-I	Plt.	26	Plt.	38	Cdr.	61	Cdr.			645 : 11 : 1
	42 Creighton	John	O.	Capt.	USN	51-G	Plt.	36	Cdr.	48	Cdr.					404 : 24 : 52
	43 Crippen	Robert	L.	Capt.	USN	1	Plt.	7	Cdr.	41-C	Cdr.	41-G	Cdr.			565 : 48 : 37
	44 Culbertson	Frank	L.	Capt.	USN	38	Plt.	51	Cdr.							354 : 5 : 42
I	45 Currie	Nancy	J.	Maj.	USA	57	MS2	70	MS2							454 : 5 : 1
	46 Davis	N.	Jan	PhD.	Civ.	47	MS3	60	MS1							399 : 39 : 45
	47 DeLucas	Lawrence	J.	PhD.	Civ.	50	PS1									331 : 30 : 4
	48 Duffy	Brian	K.	Lt. Col.	USAF	45	Plt.	57	Plt.							453 : 54 : 22
I	49 Dunbar	Bonnie	J.	PhD	Civ.	61-A	MS3	32	MS1	50	MS1	71	MS3			996 : 37 : 50
	50 Durrance	Samuel	T.	PhD	Civ.	35	PS1	67	PS1							614 : 13 : 56
	51 England	Anthony	W.	PhD	Civ.	51-F	MS2									190 : 45 : 26
	52 Engle	Joe	H.	Col.	USAF	2	Cdr.	51-I	Cdr.							224 : 30 : 53
	53 Fabian	John	M.	Col.	USAF	7	MS2	51-G	MS2							316 : 2 : 51
	54 Fettman	Martin	J.	DVM	PhD	Civ.	58	PL1								0 : 336 : 12
	55 Fisher	Anna	L.	MD	Civ.	51-A	MS1									191 : 44 : 56
	56 Fisher	William	F.	MD	Civ.	51-I	MS3									170 : 17 : 42
	57 Foale	C.	Michael	PhD	Civ.	45	MS3	56	MS1	63	MS2					634 : 46 : 6
	58 Frimout	Dirk	D.	PhD	Civ.	45	PS2									214 : 9 : 28
	59 Fullerton	C.	Gordon	Col.	USAF	3	Plt.	51-F	Cdr.							382 : 50 : 12
	60 Furrer	Reinhard		PhD	Civ.	61-A	PS1									168 : 44 : 53
	61 Gaffney	F.	Drew	MS	Civ.	40	PS1									218 : 14 : 20
	62 Gardner	Guy	S.	Col.	USAF	27	Plt.	35	Plt.							320 : 10 : 45
	63 Gardner	Dale	A.	Capt.	USN	8	MS1	51-A	MS2							336 : 53 : 39
	64 Garn	E.	J. 'Jake'		Civ.	51-D	PS2									167 : 55 : 23
	65 Gameau	Marc		PhD	Civ.	41-G	PS1									197 : 23 : 38
	66 Garriott	Owen	K.	PhD	Civ.	9	MS1									247 : 47 : 24
	67 Gemar	Charles	D.	Lt. Col.	USA	38	MS3	48	MS2	62	MS2					581 : 38 : 50
I	68 Gernhardt	Michael	L.	PhD	Civ	69	MS3									260 : 28 : 56
I	69 Gibson	Robert	L.	Capt.	USN	41-B	Plt.	61-C	Cdr.	27	Cdr.	47	Cdr.	71	Cdr	868 : 18 : 3
	70 Godwin	Linda	M.	PhD	Civ.	37	MS3	59	MS3a							413 : 22 : 14
	71 Grabe	Ronald	J.	Col.	USAF	51-J	Plt.	30	Plt.	42	Cdr.	57	Cdr.			627 : 40 : 43
	72 Gregory	William	G.	Lt. Col.	USAF	67	Plt.									399 : 8 : 48
	73 Gregory	Frederick	D.	Col.	USAF	51-B	Plt.	33	Cdr.	44	Cdr.					455 : 6 : 18
	74 Griggs	S.	David		Civ.	51-D	MS3									167 : 55 : 23
	75 Grunsfeld	John	M.	PhD	Civ.	67	MS1									399 : 8 : 48
	76 Gutierrez	Sidney	M.	Col.	USAF	40	Plt.	59	Cdr.							488 : 3 : 50

a = Payload Commander

Source: STS Mission Reports published by FA22.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED CREW MEMBERS

	Name				Rank	Affiliation	1st Flight/ Position		2nd Flight/ Position		3rd Flight/ Position		4th Flight/ Position		5th Flight/ Position	Total Flight Time h:m:s
		Last	First	Middle												
I	77	Hadfield	Chris	A.	Maj.	CAF	74	MS1								196 : 30 : 46
I	78	Halsell	James	D.	Lt. Col.	USAF	65	Plt.	74	Plt						550 : 25 : 46
	79	Hammond	L.	Blaine	Lt. Col.	USAF	39	Plt.	64	Plt.						462 : 12 : 20
I	80	Harbaugh	Gregory	J.		Civ.	39	MS2	54	MS2	71	MS2				578 : 22 : 59
	81	Harris	Bernard	A. Jr.	M.D.	Civ.	55	MS3	63	MS1a						438 : 8 : 14
	82	Hart	Terry	J.		Civ.	41-C	MS3								167 : 40 : 7
	83	Hartsfield	Henry	W.		USAF Ret	4	Plt.	41-D	Cdr.	61-A	Cdr.				482 : 50 : 28
	84	Hauck	Frederick	H.	Capt.	USN	7	Plt.	51-A	Cdr.	26	Cdr.				435 : 9 : 6
	85	Hawley	Steven	A.	PhD	Civ.	41-D	MS2	61-C	MS2	31	MS1				412 : 16 : 1
	86	Helms	Susan	J.	Lt. Col.	USAF	54	MS3	64	MS2						406 : 28 : 16
	87	Henize	Karl	G.	PhD	Civ.	51-F	MS3								190 : 45 : 26
	88	Hennen	Thomas	J.	CWO-3	USA	44	PS1								166 : 50 : 44
I	89	Henricks	Terence	T.	Col.	USAF	44	Plt.	55	Plt.	70	Cdr				620 : 50 : 50
	90	Hieb	Richard	J.		Civ.	39	MS3	49	MS3	65	MS1				766 : 35 : 1
	91	Hilmers	David	C.	Col.	USMC	51-J	MS1	26	MS3	36	MS2	42	MS2		494 : 17 : 55
	92	Hoffman	Jeffery	A.	PhD	Civ.	51-D	MS2	35	MS1	46	MS1	61	MS3		910 : 28 : 6
	93	Hughes-Fulford	Millie		PhD	Civ.	40	PS2								218 : 14 : 20
	94	Ivins	Marsha	S.		Civ.	32	MS3	46	MS4	62	MS3				787 : 32 : 20
	95	Jarvis	Gregory	B.		Civ.	51-L	PS1								0 : 0 : 0
	96	Jemison	Mae	C.	M. D.	Civ.	47	MS4								190 : 30 : 23
	97	Jernigan	Tamara	E.	PhD	Civ.	39	MS3	52	MS3	67	MS3a				854 : 19 : 21
	98	Jones	Thomas	D.	PhD	Civ.	59	MS4	68	MS4a						539 : 35 : 38
I	99	Kregel	Kevin	R.		Civ	70	Plt								214 : 20 : 7
	100	Krikalev	Sergei	K.	Cosmonaut	Civ.	60	MS4								199 : 9 : 22
	101	Lawrence	Wendy	B.	Lt. Cdr.	USN	67	MS2								399 : 8 : 48
	102	Lee	Mark	C.	Col.	USAF	30	MS3	47	MS1	64	MS4				550 : 16 : 47
	103	Leestma	David	C.	Cdr.	USN	41-G	MS3	28	MS2	45	MS2				532 : 33 : 14
	104	Lenoir	William	B.	PhD	Civ.	5	MS2								122 : 14 : 26
I	105	Leslie	Fred	W.	PhD	Civ	73	PS1								381 : 52 : 21
	106	Lichtenberg	Bryon	K.	PhD	Civ.	9	PS1	45	PS1						461 : 56 : 52
	107	Lind	Don	Leslie	PhD	Civ.	51-B	MS1								168 : 8 : 46
	108	Linenger	Jerry	M.	Cdr. MD,PhD	USN	64	MS1								262 : 49 : 57
I	109	Lopez-Alegria	Michael	E.	Lt. Cdr	USN	73	MS2								381 : 52 : 21
	110	Lounge	John	M.		Civ.	51-I	MS2	26	MS1	35	MS2				482 : 23 : 1
	111	Lousma	Jack	R.	Col.	USMC	3	Cdr.								192 : 4 : 46
	112	Low	G.	David		Civ.	32	MS2	43	MS3	57	MS1				714 : 6 : 55
	113	Lucid	Shannon	W.	PhD	Civ.	51-G	MS1	34	MS2	43	MS1	58	MS4		838 : 52 : 10
	114	MacLean	Steven	G.	PhD.	Civ.	52	PS1								236 : 56 : 13

a = Payload Commander

Source: STS Mission Reports published by FA22.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED CREW MEMBERS

	Name			Rank	Affiliation	1st Flight/ Position		2nd Flight/ Position		3rd Flight/ Position		4th Flight/ Position		5th Flight/ Position		Total Flight Time h:m:s
	Last	First	Middle													
115	Malerba	Franco		PhD.	Civ.	46	PS1									191 : 15 : 3
116	Mattingly	Thomas	K.	Capt.	USN	4	Cdr.	51-C	Cdr.							242 : 42 : 54
117	McArther	William	S.	Lt. Col.	USA	58	MS2	74	MS3							532 : 43 : 18
118	McAuliffe	S.	Christa		Civ.	51-L	PS2									0 : 0 : 0
119	McBride	Jon	A.	Cdr.	USN	41-G	Plt.									197 : 23 : 38
120	McCandless	Bruce		Capt.	USN	41-B	MS1	31	MS2							312 : 32 : 1
121	McCulley	Michael		Cdr.	USN	34	Plt.									119 : 39 : 21
122	McMonagle	Donald	R.	Lt Col.	USAF	39	MS4	54	Plt.	66	Cdr.					605 : 34 : 44
123	McNair	Ronald	E.	PhD	Civ.	41-B	MS3	51-L	MS3							191 : 15 : 55
124	Meade	Carl	J.	Col.	USAF	38	MS2	50	MS3	64	MS3					712 : 14 : 32
125	Melnick	Bruce	E.	Cmdr	USCG	41	MS2	49	MS5							311 : 27 : 42
126	Merbold	Ulf		PhD	Civ.	9	PS2	42	PS2							441 : 2 : 8
127	Messerschmid	Ernest		PhD	Civ.	61-A	PS2									168 : 44 : 53
128	Mohri	Mamoru		PhD.	Civ.	47	PS1									190 : 30 : 23
129	Mukai	Chiaki		PhD	M.D.	Civ.	65	PS1								0 : 353 : 55
130	Mullane	Richard	M.	Col.	USAF	41-D	MS3	27	MS1	36	MS1					356 : 20 : 3
131	Musgrave	F.	Story	MD,PhD.	Civ.	6	MS2	51-F	MS1	33	MS1	44	MS1	61	MS4	934 : 19 : 12
132	Nagel	Steven	R.	Col.	USAF	51-G	MS3	61-A	Plt.	37	Cdr.	55	Cdr.			721 : 36 : 28
133	Nelson	Bill			Civ.	61-C	PS2									146 : 3 : 51
134	Nelson	George	D.	PhD	Civ.	41-C	MS1	61-C	MS3	26	MS2					410 : 44 : 9
135	Neri	Vela	Rodolpho	PhD	Civ.	61-B	PS1									165 : 4 : 49
136	Newman	James	H.	PhD	Civ.	51	MS1	69	MS2							496 : 40 : 7
137	Nicollier	Claude		PhD.	Civ.	46	MS3	61	MS2							528 : 3 : 35
138	O'Connor	Bryan	O.	Col.	USMC	61-B	Plt.	40	Cdr.							383 : 19 : 9
139	Ochoa	Ellen		PhD	Civ.	56	MS3	66	MS1a							484 : 42 : 25
240	Ockels	Wubbo	J.	PhD	Civ.	61-A	PS3									168 : 44 : 53
141	Onizuka	Ellison	S.	Lt. Col.	USAF	51-C	MS1	51-L	MS2							73 : 33 : 23
142	Oswald	Steven	S.		Civ.	42	Plt.	56	Plt.	67	Cdr.					814 : 31 : 55
143	Overmyer	Robert	F.	Col.	USMC	5	Plt.	51-B	Cdr.							290 : 23 : 12
144	Pailes	William	A.	Maj.	USAF	51-J	PS1									97 : 44 : 38
145	Parazinski	Scott	E.	M.D.	Civ.	66	MS4									262 : 34 : 2
146	Parise	Ronald	A.	PhD	Civ.	35	PS2	67	PS2							614 : 13 : 56
147	Parker	Robert	A.	PhD	Civ.	9	MS2	35	MS3							462 : 52 : 32
148	Payton	Gary	E.	Maj.	USAF	51-C	PS1									73 : 33 : 23
149	Peterson	Donald	H.		USAF Ret	6	MS1									120 : 23 : 42
150	Precourt	Charles	J.	Lt. Col.	USAF	55	MS2	71	Plt							475 : 2 : 16
151	Readdy	William	F.		Civ.	42	MS3	51	Plt.							429 : 25 : 55
152	Reightler	Kenneth	S.	Capt.	USN	48	Plt.	60	Plt.							327 : 37 : 0

a = Payload Commander

Source: STS Mission Reports published by FA22.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED CREW MEMBERS

	Name			Rank	Affiliation	1st Flight/ Position		2nd Flight/ Position		3rd Flight/ Position		4th Flight/ Position		5th Flight/ Position		Total Flight Time h:m:s
	Last	First	Middle													
153	Resnik	Judith	A.	PhD	Civ.	41-D	MS1	51-L	MS1							144 : 56 : 4
154	Richards	Richard	N.	Capt.	USN	28	Plt.	41	Cdr.	50	Cdr.	64	Cdr.			813 : 30 : 13
155	Ride	Sally	K.	PhD	Civ.	7	MS1	41-G	MS2							343 : 47 : 37
156	Rominger	Kent	V.	Cdr	USN	73	Plt									381 : 52 : 21
157	Ross	Jerry	L.	Col.	USAF	61-B	MS3	27	MS2	37	MS1	55	MS1	74	MS2	849 : 53 : 55
158	Runco	Mario		Lt. Cdr.	USN	44	MS2	54	MS1							310 : 29 : 3
159	Sacco	Albert	Jr.	PhD.	Civ	73	PS2									381 : 52 : 21
160	Schlegel	Hans	W.		Civ.	55	PS2									239 : 39 : 59
161	Scobee	Francis	R. (Dick)		USAF Ret	41-C	Plt.	51-L	Cdr.							167 : 40 : 7
162	Scully-Power	Paul	D.		Civ.	41-G	PS2									197 : 23 : 38
163	Searfoss	Richard	A.	Lt. Col.	USAF	58	Plt.									336 : 12 : 32
164	Seddon	M.	Rhea	MD	Civ.	51-D	MS1	40	MS1	58	MS1					722 : 22 : 15
165	Sega	Ronald	M.	PhD	Civ.	60	MS2									199 : 9 : 22
166	Shaw	Brewster	H.	Col.	USAF	9	Plt.	61-B	Cdr.	28	Cdr.					533 : 52 : 21
167	Shepherd	William	M.	Capt.	USN	27	MS3	38	MS1	52	MS2					440 : 11 : 54
168	Shriver	Loren	J.	Col.	USAF	51-C	Plt.	31	Cdr.	46	Cdr.					386 : 4 : 32
169	Smith	Michael	J.	Cdr.	USN	51-L	Plt.									0 : 0 : 0
170	Smith	Steven	L.		Civ.	68	MS1									269 : 46 : 8
171	Spring	Sherwood	C.	Lt. Col.	USA	61-B	MS2									165 : 4 : 49
172	Springer	Robert	C.	Col.	USMC	29	MS3	38	MS1							237 : 33 : 21
173	Stewart	Robert	L.	Col.	USA	41-B	MS2	51-J	MS2							289 : 0 : 33
174	Sullivan	Kathryn	D.	PhD	Civ.	41-G	MS1	31	MS3	45	MS1					532 : 49 : 12
175	Tanner	Joseph	R.		Civ.	66	MS2									262 : 34 : 2
176	Thagard	Norman	E.	MD	Civ.	7	MS3	51-B	MS2	30	MS1	42	MS1			604 : 43 : 56
177	Thomas	Donald	A.	PhD	Civ.	65	MS4	70	MS1							568 : 15 : 7
178	Thornton	Kathryn	C.	PhD	Civ.	33	MS3	49	MS2	61	MS1	73	MS3a			1051 : 29 : 19
179	Thornton	William	E.	MD	Civ.	8	MS3	51-B	MS3							313 : 17 : 29
180	Thuot	Pierre	J.	Cdr.	USN	36	MS3	49	MS1	62	MS1					654 : 52 : 41
181	Titov	Vladimir	G.	Col	Russian AF	63	MS4									198 : 28 : 15
182	Trinh	Eugene	H.	PhD.	Civ.	50	PS2									331 : 30 : 4
183	Truly	Richard	H.	RADM.	USN Ret.	2	Plt.	8	Cdr.							199 : 21 : 54
184	Van Den Berg	Lodewijk		PhD	Civ.	51-B	PS1									168 : 8 : 46
185	Van Hoften	James	D.	PhD	Civ.	41-C	MS2	51-I	MS2							377 : 57 : 49
186	Veach	Charles	L.		Civ.	39	MS5	52	MS1							436 : 18 : 36
187	Voss	James	S.	Lt. Col	USA	44	MS3	53	MS2	69	MS1					602 : 39 : 27
188	Voss	Janice		PhD	Civ.	57	MS4	63	MS3							438 : 13 : 9
189	Walker	Charles	D.		Civ.	41-D	PS1	51-D	PS1	61-B	PS2					477 : 56 : 16
190	Walker	David	M.	Capt.	USN	51-A	Plt.	30	Cdr.	53	Cdr.	69	Cdr			724 : 30 : 6

a = Payload Commander

Source: STS Mission Reports published by FA22.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED CREW MEMBERS

Name				Rank	Affiliation	1st Flight/ Position		2nd Flight/ Position		3rd Flight/ Position		4th Flight/ Position	5th Flight/ Position	Total Flight Time h:m:s
	Last	First	Middle											
191	Walter	Ulrich			Civ.	55	PS1							239 : 39 : 59
192	Walz	Carl	E.	Lt. Col.	USAF	51	MS3	65	MS2					590 : 6 : 12
193	Wang	Taylor	G.	PhD	Civ.	51-B	PS2							168 : 8 : 46
194	Weber	Mary	Ellen	PhD	Civ.	70	MS3							214 : 20 : 7
195	Weitz	Paul	J.		USN Ret.	6	Cdr.							120 : 23 : 42
196	Wetherbee	James		Cdr.	USN	32	Plt.	52	Cdr.	63	Cdr.			696 : 25 : 4
197	Wilcutt	Terrence	W.	Maj.	USMC	68	Plt.							269 : 46 : 8
198	Williams	Donald	E.	Capt.	USN	51-D	Plt.	34	Cdr.					287 : 34 : 44
199	Wisoff	Peter	J. K.	PhD	Civ.	57	MS3	68	MS3					509 : 31 : 2
200	Wolf	David	A.	M.D.	Civ.	58	MS3							336 : 12 : 32
201	Young	John	W.		USN Ret.	1	Cdr.	9	Cdr.					302 : 8 : 17

a = Payload Commander

Source: STS Mission Reports published by FA22.

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS-No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Flt inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Self Deployed Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
1	1	102	10,823		9,290									
2	2	102	18,778		11,048									
3	3	102	22,710		11,048			PDP (d)	344					
4	4	102	11,644		9,900			IECM (d)	816					
5	5	102	20,830	14,585						SBS-C ANIK-C	7,211 7,374			
6	6	099	46,662	37,546						TDRS-A	37,546			
7	7	099	31,893	14,949				SPAS (d&r)	3,192	ANIK-C PALAPA B-1	7,374 7,575			
8	8	099	25,790	7,445				PFTA (d)	7,350	INSAT	7,445			

Legend: d = deployed
r = retrieved

a = Payload chargeable weight - VF Weight Reports
b = Department of Defense Mission - Data Not Availabl
c = Vehicle destroyed 73 seconds after liftoff.

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS-No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Fit Inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Self Deployed Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
9	9	102	33,131											Spacelab Mission
10	41B	099	28,252	15,073						WESTAR VI PALAPA B-2 IRT	7,307 7,556 210			IRT failed to inflate. WESTAR VI and PALAPA B-2 failed to achieve orbit.
11	41C	099	33,831	21,396			4,740	LDEF (d) SMM (r)	21,396 4,740			SMM (r&d)	4,740	SMM launched 2-14-80 on ELV, failed to function 10 months later.
12	41D	103	41,382	30,086						SBS SYNCOM IV-2 TELSTAR	7,383 15196 7,507			SYNCOM IV-2 failed to activate after deployment.
13	41G	099	17,592	4,949				ERBS (d)	4,949					
14	51A	103	38,003	22,764		2,381				ANIK D-2 SYNCOM IV-1	7,574 15,190	WESTAR VI PALAPA B-2	1,119 1,262	WESTAR and PALAPA B-2 launched on STS 41-B.
15	51C	103	(b)											
16	51D	103	28,747	22,576						SYNCOM IV-3 ANIK C-1	15,190 7,386			

Legend: d = deployed
r = retrieved

a = Payload chargeable weight - VF Weight Reports
b = Department of Defense Mission - Data Not Availabl
c = Vehicle destroyed 73 seconds after liftoff.

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS-No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Flt Inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Self Deployed Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
17	51B	099	30,748	105						GAS, NUSAT	105			Spacelab Mission
18	51G	103	38,258	22,832				SPARTAN-101 (d&r)	2,217	TELSTAR 3-D ARABSAT-A MORELOS-A	7,546 7,695 7,591			
19	51F	099	33,012					PDP (d&r)	628					Spacelab Mission
20	51I	103	38,884	30,289			15,190	LEASAT-3 (r&d)	15,190	ASC-1 AUSSAT-1 SYNCOM IV-4	7,591 7,508 15,190	LEASAT-3 (r&d)	15,190	LEASAT 3 was originally launched on STS 41-D as SYNCOM IV-2.
21	51J	104	(b)											
22	61A	099	30,519	150						GAS-GLOMR	150			SPACELAB Mission
23	61B	104	42,788	27,465						MORELOS-B AUSSAT-2 SATCOM KU2	7,573 7,634 12,258			
24	61C	102	28,625	12,351						SATCOM KU1	12,351			

Legend: d = deployed
r = retrieved

a = Payload chargeable weight - VF Weight Reports
b = Department of Defense Mission - Data Not Availabl
c = Vehicle destroyed 73 seconds after liftoff.

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS-No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Fit Inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Self Deployed Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
25	51L	099	48,633	(c)										
26	26	103	44,601	37,514						TDRS-C/IUS	37,514			
27	27	104	48,633	(b)										
28	29	103	45,316	37,640						TDRS/IUS	37,640			
29	30	104	45,823	40,118						MAGELLAN/ IUS	40,118			
30	28	102	(b)											
31	34	104	45,905	38,323						GALILEO/ IUS	38,323			
32	33	103	(b)											

Legend: d = deployed
r = retrieved

a = Payload chargeable weight - VF Weight Reports
b = Department of Defense Mission - Data Not Availabl
c = Vehicle destroyed 73 seconds after liftoff.

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS-No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Fit Inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Self Deployed Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
33	32	102	18,317	15,316		21,393		LDEF (r)	21,393	SYNCOM IV-5	15,316	LDEF	21,393	
34	36	104	(b)											
35	31	103	25,517	23,905				Hubble Space Telescope (d)	23,905					
36	41	103	46,173	38,604						Ulysses/ IUS/PAM-S	38,604			
37	38	104	(b)											
38	35	102	27,760											
39	37	104	36,800	34,442				GRO (d)	34,442					
40	39	103	21,413	4,873				IBSS (d & r)	(d)4046 b (r)3955	CRO A, B, and C MEPC	548 270			

Legend: d = deployed
r = retrieved

a = Payload chargeable weight - VF Weight Reports
b = Department of Defense Mission - Data Not Availabl
c = Vehicle destroyed 73 seconds after liftoff.

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS-No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Fit inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Self Deployed Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
41	40	102	28,114											
42	43	104	46,712	37,575						TDRS/IUS	37,575			
43	48	103	17,144	14,388				UARS (d)	14,388					
44	44	104	44,637	37,588						DSP/IUS	37,588			
45	42	103	28,663											
46	45	104	17,683											
47	49	105	32,809				INTELSAT 8,961	INTELSAT VI (r)	8961	INTELSAT STAGE MOTOR	23,346	INTELSAT VI	8,961	
48	50	102	24,305											

Legend: d = deployed
r = retrieved

a = Payload chargeable weight - VF Weight Reports
b = Department of Defense Mission - Data Not Availabl
c = Vehicle destroyed 73 seconds after liftoff.

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS-No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Flt Inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Self Deployed Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
49	46	104	28,585	11,387		1,396		(d) EURECA	9,901	TSS	1,396	TSS	1,396	
50	47	105	27,607											
51	52	102	20,132	5,577				(d) CTA	180	LAGEOS	5,397			
52	53	103	26,118	20,953						DOD-1	20,953			
53	54	105	46,540	37,497						TDRS	37,497			
54	56	103	16,439	2,840		2,798		(d) SPARTAN (r) SPARTAN	2,840 2,798					
55	55	102	26,881											
56	57	105	19,630	132		9,424						EURECA 1	9,424	SPACEHAB

Legend: d = deployed
r = retrieved

a = Payload chargeable weight - VF Weight Reports
b = Department of Defense Mission - Data Not Availabl
c = Vehicle destroyed 73 seconds after liftoff.

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS-No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Fit Inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Self Deployed Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
57	51	103	42,637	34,210				ORFEUS/SPAS (d&r)	d) 7,321 r) 7,321	ACTS-TOS	26,889			
58	58	102	23,127											SLS-2
59	61	105	17,401	334 (HST Solar Wing)			Hubble Space Telescope 23,905	HST (r) HST (d)	24,065 23,905					HST servicing mission
60	60	103	22,311					Wake Shield Facility (d+r)	3,785					WSF remained on RMS while deployed
61	61	102	19,972											
62	59	105	27,447											
63	65	102	24,159											Spacelab (IML-2)
64	64	103	19,260					SPARTAN-201 (d&r)	2840					

Legend: d = deployed
r = retrieved

a = Payload chargeable weight - VF Weight Reports
b = Department of Defense Mission - Data Not Availabl
c = Vehicle destroyed 73 seconds after liftoff.

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS-No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Fit Inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Self Deployed Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
65	68	105	27,582											Space Radar Laboratory
66	66	104	18,001					CRISTA-SPAS (d&r)	7194					Spacelab (Atlas-3)
67	63	103	19,108					SPARTAN-204 (d&r)	2,617.0	ODERACS	23.0			Spacelab-3
68	67	105	20,250											ASTRO-2
69	71	104	18,299	0	0	0	0	0	0	0	0	0	0	First docking mission
70	70	103	44,232	37,575	0	0	0	0	0	TDRS-G	37,575	0	0	Final TDRS Mission
71	69	105	25,352	7,206	0	0	0	SPARTAN-201 Wake Shield Facility	2600 4358	0	0	Wake Shield Facility SPARTAN	4352 2758	Deployed and retrieved Wake Shield Facility and SPARTAN 201
72	73	102	25,167	0	0	0	0	0	0	0	0	0	0	U.S. Micro-gravity Laboratory-2

Legend: d = deployed
r = retrieved

a = Payload chargeable weight - VF Weight Reports
b = Department of Defense Mission - Data Not Availabl
c = Vehicle destroyed 73 seconds after liftoff.

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

Miss Seq. No.	STS-No.	Orb. OV-	Cargo (a) Weight at Liftoff, lb	Deploy to Space/ Weight lb	Design Fit Inst/ Weight lb	Retrieved Satellite Weight lb	Retrieved Re-deployed Weight lb	RMS Deployed Retrieved Satellite		Self Deployed Satellite		Self Deployed Satellite		Remarks
								Satellite	Weight lb	Satellite	Weight lb	Satellite	Weight lb	
73	74	104	13,525	9,587	0	0	0	Docking Module & Solar Arrays	9,587	0	0	0	0	Delivered Russian Docking Module
	Total		1,918,809	812,549	41,286	37,392	52,796	3 (r) 9 (d) 12 (d&r)	245,319	44	694,765	10	55,405	

Legend: d = deployed
r = retrieved

a = Payload chargeable weight - VF Weight Reports
b = Department of Defense Mission - Data Not Availabl
c = Vehicle destroyed 73 seconds after liftoff.

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

CARGO SUMMARY		MISSION SEQUENCE: 2	STS-2	ORBITER OV-102
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
18,778	-0-	18,778		
DEPLOYABLE PAYLOADS: None			CREW COMPARTMENT PAYLOAD: None	
ATTACHED PLB PAYLOADS: 1. OFT (Orbital Flight Test) Pallet a. MAPS (Measurement of Air Pollution from Satellite) b. SMIRR (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 11,048 lb 3. ACIP (Aerodynamic Coefficient Identification Package) 4. IECM (Induced Environment Contamination Monitor) 5. OSTA-1 (Office of Space and Terrestrial Application) 5,395 lb			SPECIAL PAYLOAD MISSION KITS: 1. RMS (Remote Manipulator System) S/N 201	

CARGO SUMMARY		MISSION SEQUENCE: 3	STS-3	ORBITER OV-102
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): Verification Canister	
22,710	344*	22,170		

DEPLOYABLE PAYLOADS:	CREW COMPARTMENT PAYLOAD:
* Plasma Diagnostic Package (PDP) Deployed Retrieved and Berthed Wt.= 344 lb (See RMS section)	1.MLR (Monodisperse Latex Reactor) 2. HBT (Heflex Bioengineering Test)
ATTACHED PLB PAYLOADS:	**SPECIAL PAYLOAD MISSION KITS:**
1. OSS (Office of Space Science)-1 Pallet (8,740 lb) 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. DFI Pallet, 11,048 3. ACIP 448 lb *RMS deployed/berthed	1. RMS - S/N 201

CARGO SUMMARY		MISSION SEQUENCE: 4	STS-4	ORBITER OV-102

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
11,644	816	11,644

DEPLOYABLE PAYLOADS:

IECM (Induced Environment Contamination Monitor) deployed/reberthed by RMS
Deployed and Berthed Wt. = 816 lb
(See RMS section)

GAS (Getaway Special):

1. Utah State University
   a. Drosophilla Melanogaster (fruit fly) Growth Experiment
   b. Artemia (Brine Shrimp) Growth Experiment
   c. Surface Tension Experiments
   d. Composite Curing Experiment
   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

ATTACHED PLB PAYLOADS:

DFI Pallet, 9,900 lb

CREW COMPARTMENT PAYLOAD:

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)

DEPARTMENT OF DEFENSE

DOD 82-1

SPECIAL PAYLOAD MISSION KITS:

1. RMS (Remote Manipulator System) S/N 201

CARGO SUMMARY		MISSION SEQUENCE: 5	STS-5	ORBITER OV-102

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
20,830	14,585	6,245

DEPLOYABLE PAYLOADS:

1. SBS-C/PAM-D (Satellite Business Systems/Payload Assist Module
   Deployed Wt = 7,211 lb
2. ANIK-C/PAM-D - TELESAT Canada, Ltd/Payload Assist Module
   Deployed Wt = 7,374 lb

GAS (Getaway Special):

G-026: ERNO/Stability Of Metallic Dispersions.
(JSC PIP 14021)

CREW COMPARTMENT PAYLOAD:

SSIP (Shuttle Student Involvement Program)
a. SE81-5 - Crystal Formation In Zero Gravity
b. SE81-9 - Convection In Zero Gravity
c. SE81-2 - Growth Of Porifera

ATTACHED PLB PAYLOADS:

DFI (Development Flight Instrumentation)
a. EIOM (Effects of Interaction of Oxygen with Materials)
b. ISAL (Investigation of STS Atmospheric Luminosities)

SPECIAL PAYLOAD MISSION KITS:

Mission Specialist Seats (2)

Note: RMS NOT FLOWN

CARGO SUMMARY		MISSION SEQUENCE: 6	STS-6	ORBITER OV-099

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
46,662	37,546	9,116

DEPLOYABLE PAYLOADS:

TDRS-A/IUS (Tracking and Data Relay Satellite/Inertial Upper Stage)
Deployed Wt = 37,546 lb

ATTACHED PLB PAYLOADS:

CBSA (Cargo Bay Stowage Assembly)

GAS (Getaway Special):

1. G-005: Asahi Shimban, Japan
2. G-049: U. S. Air Force Academy
3. G-381: Park Seed Company

CREW COMPARTMENT PAYLOAD:

1. CFES
2. MLR
3. RME (Radiation Monitoring Experiment)
4. NOSL (Night/Day Optical Survey Of Lightning)

SPECIAL PAYLOAD MISSION KITS:

1. Mini-MADS
2. EMU (Extravehicular Mobility Unit)

Note: RMS NOT FLOWN

CARGO SUMMARY		MISSION SEQUENCE: 7	STS-7	ORBITER OV-099

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
31,893	14,949	16,944

DEPLOYABLE PAYLOADS:

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 RMS Section)

ATTACHED PLB PAYLOADS:

1. OSTA (Office of Space and Terrestrial Applications)-2
2. CBSA

GAS (Getaway Special):

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

CREW COMPARTMENT PAYLOAD:

1. CFES
2. MLR
3. SSIP

SPECIAL PAYLOAD MISSION KITS:

1. RMS - S/N 201
2. TAGS (Text and Graphics System)
3. Mini-MADS

CARGO SUMMARY	MISSION SEQUENCE: 8	STS-8	ORBITER OV-099

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
25,790	7,445	22,631

DEPLOYABLE PAYLOADS:

1. INSAT/PAM-D: Indian National Satellite
   Deployed Wt = 7,445 lb
2. PFTA (Payload Flight Test Article) Test
   Unberthing/Berthing Tests
   Deployed and Retrieved Wt = 7,350 lb

GAS (Getaway Special):

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
5. G-346: Goddard Space Flight Center - Cosmic Ray Upset Experiment

ATTACHED PLB PAYLOADS:

1. DFI (Development Flight Instrumentation) Pallet
   a. Oxygen Interaction and Heat Pipe Experiment
   b. Postal Covers (2 boxes)
2. CBSA
3. SPAS - 01
   Umbilical Disconnect

CREW COMPARTMENT PAYLOAD:

1. CFES
2. ICAT (Incubator-Cell Attachment Test)
3. ISAL (Investigation of STS Atmospheric Luminosities)
4. AEM (Animal Enclosure Module) - Evaluation of AEM using rats
5. RME
6. SSIP
   Biofeedback

SPECIAL PAYLOAD MISSION KITS:

1. RMS - S/N 201
2. MADS
3. COMSEC (Communication Security)
4. TAGS

CARGO SUMMARY	MISSION SEQUENCE: 9	STS-9	ORBITER OV-102

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFTI-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
33,131	-0-	33,131

DEPLOYABLE PAYLOADS:

None

GAS (Getaway Special):

None

ATTACHED PLB PAYLOADS:

1. Spacelab-1:
   a. Spacelab Long Module
   b. Spacelab Pallet
   c. Tunnel
   d. Tunnel Extension
   e. Tunnel Adapter

2. Experiments (73)
   a. Astronomy and Physics (6)
   b. Atmospheric Physics (4)
   c. Earth Observations (2)
   d. Life Sciences (16)
   e. Materials Sciences (39)
   f. Space Plasma Physics (5)
   g. Technology (1)

CREW COMPARTMENT PAYLOAD:

None

SPECIAL PAYLOAD MISSION KITS:

1. Cryogenic sets 4 and 5.
2. Spacelab utility kit
3. TAGS
4. Galley

Note: RMS NOT FLOWN

CARGO SUMMARY	MISSION SEQUENCE: 10	STS-41-B	ORBITER OV-099

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
28,252	15,073	13,179

DEPLOYABLE PAYLOADS:

1. WESTAR VI/PAM-D - Western Union Communications Satellite/Payload Assist Module
   Deployed Wt = 7,307 lb
2.. PALAPA-B/PAM-D - Indonesian Communications Satellite/Payload Assist Module
   Deployed Wt = 7,556 lb
3. SPAS - 01 - Not deployed due to RMS anomaly
4. IRT (Integrated Rendezvous Target) - Failed to inflate due to internal failure
   Deployed Wt =210

ATTACHED PLB PAYLOADS:

1. MFR (Manipulator Foot Restraint)
2. SESA (Special Equipment Stowage Assembly)
3. Cinema 360 - High Quality Motion Picture Camera

GAS (Getaway Special):

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)

CREW COMPARTMENT PAYLOAD:

1. ACES (Acoustic Containerless Experiment System)
2. IEF (Isoelectric Focusing)
3. Cinema 360 Camera
4. Student Experiment SE81-10 - Effects of Zero g on Arthritis
5. MLR
6. RME

SPECIAL PAYLOAD MISSION KITS:

1. RMS - S/N 201
2. MMU (Manned Maneuvering Unit) -
3. Mini-MADS
4. Galley

CARGO SUMMARY	MISSION SEQUENCE: 11	STS-41-C	ORBITER OV-099

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
33,831	21,396	12,435

DEPLOYABLE PAYLOADS:

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)

ATTACHED PLB PAYLOADS:

1. SMRM (Solar Maximum Repair Mission) - Flight Support System
2. Cinema 360 - High quality motion picture camera
   CBSA (Cargo Bay Storage Assembly bay 2 starboard side

GAS (Getaway Special):

None

CREW COMPARTMENT PAYLOAD:

1. RME
2. IMAX Camera - Canadian Commercial Company color film camera using 70mm x 280mm film
3. SSIP
   Comparison of honeycomb structure of bees in low g and bees in 1 g

SPECIAL PAYLOAD MISSION KITS:

1. MMU - 2
2. EMU (Extravehicular Mobility Units) - 3
3. RMS - S/N 302
4. MFR
5. Galley

CARGO SUMMARY	MISSION SEQUENCE: 12	STS-41-D	ORBITER OV-103

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
41,382	30.086	11,296

GAS (Getaway Special):

None

DEPLOYABLE PAYLOADS:

1. SBS/PAM-D (Satellite Business System/Payload Assist Module)
   Deployed Wt = 7,383
2. SYNCOM 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

CREW COMPARTMENT PAYLOAD:

1. CFES III (Continuous Flow Electrophoresis System)
2. IMAX Camera - IMAX System Corporation (Canadian) Company) 70mm x 280mm film
3. RME - 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.I

ATTACHED PLB PAYLOADS:

OAST-1 (Office of Application and Space Technology)
a. SAE (Solar Array Experiment)
b. DAE (Dynamic Augmentation Experiment)
c. SCCF (Solar Cell Calibration Facility)

SPECIAL PAYLOAD MISSION KITS:

1. RMS - S/N 301
2. MADS

CARGO SUMMARY	MISSION SEQUENCE: 13	STS-41-G	ORBITER OV-102

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
17,592	4,949	12,643

DEPLOYABLE PAYLOADS:

1. ERBS (Earth Radiation Budget Satellite)
   Deployed Wt = 4,949 lb.

ATTACHED PLB PAYLOADS:

1. OSTA-3 (Office of Space and Terrestrial Applications)
   a. SIR-B (Shuttle Imaging Radar)
   b. FILE (Feature Ident. and Location Exp.)
   c. MAPS (Measurement of Air Pollution from Satellite)
2. LFC (Large Format Camera)
   ORS (Orbital Refueling System)

CREW COMPARTMENT PAYLOAD:

1. APE (Auroral Photography Experiment)
2. CANEX (Canadian Experiments)
   a. VISET
   b. ACOMEX
   c. OGLOW (Orbital Glow & Atmospheric Emissions)
   d. SPEAM (Sun Photometer Earth Atmosphere Measurement)
e. SASSE (Space Adaptation Syndrome Studies Exp)
4. RME
5. TLD (Thermoluminescent Dosimeter)

GAS (Getaway Special):

1. G007: Alabama Space and Rocket Center
   Solidification of lead-antimony; and aluminum copper student experiment
2. G032: ASAHI National Broadcasting Corp., Japan
   Surface tension and viscosity; and materials experiment
3. G306: Air Force and U. S. Naval Research Laboratory
   Low Energy Heavy Ions Search in the Inner Magnetosphere
4. G469: Goddard Space Flight Center - Cosmic Ray Upset Experiment (CRUX)
5. G038: Marshall-McShane
   Vapor Deposition of Metals and Non-Metals
6. G074: McDonnell Douglas Company
   Study Proposed Propellant Acquisition System
7. G013: Kayser Threde, West Germany
   Verify Transport Mechanism in Halogen Lamps Performance in Extended Micro-g
8. G518: Utah State University
   Study Solar Flux Separation, Capillary Waves on Water Surface, and Thermo-Capillary Flow in Liquid Columns

SPECIAL PAYLOAD MISSION KITS:

1. RMS - S/N 302
2. Galley
3. EMU - (3)
4. PSA (Provisions Stowage Assembly)

CARGO SUMMARY		MISSION SEQUENCE: 14	STS-51-A	ORBITER OV-103

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
38,003	22,764	17,620

GAS (Getaway Special):

None

DEPLOYABLE PAYLOADS:

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
2. SYNCOM IV-1 - Synchronous Communication Satellite, also called LEASAT, leased to U. S. Navy. 2)
   Deployed weight: 15,190 lb

RETRIEVED PAYLOADS

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
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

CREW COMPARTMENT PAYLOAD:

1. DMOS (Diffusive Mixing of Organic Solutions) 3M Corp.
2.. RME

SPECIAL PAYLOAD MISSION KITS:

1. RMS - S/N 301
2. MMU (2)
3. EMU (3)
4. PSA Restraint (2)
5. Satellite Retrieval Hardware:
   a. Modified Spacelab pallet (2)
   b. MFR (Manipulator Foot Restraint)
   c. Stinger Adapter (2)
   d. Satellite Adapter Trunnion (2)
   e. Berthing A Frame (2)

CARGO SUMMARY		MISSION SEQUENCE: 15	STS-51C	ORBITER OV-103

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
10,823	-0-	10,823

GAS (Getaway Special):

Data not available
DOD Classified Mission

DEPLOYABLE PAYLOADS:

Data not available, DOD Classified Mission

CREW COMPARTMENT PAYLOAD:

Data not available, DOD Classified Mission

ATTACHED PLB PAYLOADS:

Data not available, DOD Classified Mission

SPECIAL PAYLOAD MISSION KITS:

RMS - S/N 301

Other data not available, DOD Classified Mission

CARGO SUMMARY		MISSION SEQUENCE: 16	STS-51D	ORBITER OV-103

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
28,747	22,576	6,171

DEPLOYABLE PAYLOADS:

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
TELESAT-I (ANIK C-1)/PAM D - Canadian communication
Placed in three year storage orbit
Deployed wt: 7,386 lb

ATTACHED PLB PAYLOADS:

None

CREW COMPARTMENT PAYLOAD:

1. CFES-III
2. AFE (American Flight Echocardiograph) satellite.
3. PPE (Phase Partitioning Experiment)
4. SSIP (2)
   a. Corn Statolith
   b. Brain Cell

GAS (Getaway Special):

1. G-035 - Asahi National Broadcasting Corporation, Japan
   a. Surface tension and viscosity
   b. Alloy, lead oxide and carbon fiber
2. G-471 - Goddard Space Flight Center, Thermal Engineering Branch Capillary Pump Loop (CPU) Priming Experiment

SPECIAL PAYLOAD MISSION KITS:

1. RMS - S/N 301
2. PSA
3. MADS III

CARGO SUMMARY		MISSION SEQUENCE: 17	STS-51-B	ORBITER OV-099

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
30,748	105	30,643

DEPLOYABLE PAYLOADS:

Refer to GAS section

ATTACHED PLB PAYLOADS - Spacelab 3:

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 (ION)
Life Sciences
1. Research Animal Holding Facility (RAHF)
2. Urine Monitoring Investigation (UMI)
3. Autogenic Feedback Training (AFT)

GAS (Getaway Special):

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

G-303 GLOMR, Global Low Orbiting Message Relay Satellite
Defense Systems Inc., McLean, Va
Failed to eject from GAS canister

CREW COMPARTMENT PAYLOAD:

UMS: Urine Monitoring System

SPECIAL PAYLOAD MISSION KITS:

1. Airlock
2. Long Transfer Tunnel
3. Galley
4. MPESS - Mission Peculiar Equipment Support Structure, carried ATMOS & ION

Note: RMS NOT FLOWN

CARGO SUMMARY		MISSION SEQUENCE: 18	STS-51-G	ORBITER OV-103

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
38,258	22,832	15,426

DEPLOYABLE PAYLOADS:

1. TELSTAR-3D/PAM-D: Hughes 376 Comm Satellite with McDac Payload Assist Module Booster. Owned by AT&T Co
   Wt. = 7,546.0
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
   Wt. = 7,591.0 lb
4. SPARTAN-101: Shuttle Pointed Autonomous 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
Deployed and retrieved Wt = 2,217.0 lb

GAS (Getaway Special):

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

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 Students
12 Biological/physical science experi ments
1 Microprocessor controller
G-314: USAF and USNRL - SURE (Space Ultra-violet Radiation Environment)

CREW COMPARTMENT PAYLOAD:

ADSF (Automated Directional Solidification
FEE (French Echocardiograph Experiment)
FPE (French Postural Experiment)
HPTE (High Precision Tracking Experiment)

ATTACHED PLB PAYLOADS:

None

SPECIAL PAYLOAD MISSION KITS:

RMS - S/N 301

Galley

CARGO SUMMARY		MISSION SEQUENCE: 19	STS-51-F	ORBITER OV-099

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED RETRIEVED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
33,012	628	33,012

GAS (Getaway Special):

None

DEPLOYABLE PAYLOADS:

Ejectable Plasma Diagnostic Package, Exp No. 3 second flight of PDP (STS-3 first flight
First flight as a free flyer to sample plasma from the Shuttle
Deployed/Retrieved Wt = 628.0 lb

ATTACHED PLB PAYLOADS: Spacelab 2

0 Plasma Physics
- ° Deployable/Retrievable Plasma Diagnostic Package (PDP) (Exp 3)
- ° Plasma Depletion Experiments for Ionospheric and Radio Astronomical Studies (Exp 4)
- ° Vehicle Charging and Potential (VCAP) (Exp 14)

0 Astrophysical Research
- ° Small Helium Cooled Infrared Telescope (IRT) (Exp 5)
- ° Hard X-ray Imaging of Clusters of Galaxies and Other Extended X-ray Sources (XRT) (Exp 7)
- ° Elemental Composition and Energy Spectra of Cosmic Ray Nuclei (CRNE) (Exp 6)

0 Solar Astronomy
- ° Solar Magnetic and Velocity Field Measurement System (SOUP) (Exp 8)
- ° Coronal Helium Abundance Spacelab Experiment (CHASE) (Exp 9)
- ° High Resolution Telescope and Spectrograph (HRTS (Exp 10)
- ° Solar Ultraviolet Spectral Irradiance Monitor (SUSIM) (Exp 11)

0 Technology
Properties of Superfluid Helium Zero-g (SFHe) (Exp 13)

CREW COMPARTMENT PAYLOAD:

0 Life Sciences
- °Vitamin D Metabolites and Bone Demineralization (Exp 1)
- °The Interaction of Oxygen and Gravity Induced Lignification (Exp 2)
- °Shuttle Amateur Radio Experiment (SAREX)
- °Dispenser Technology Experiment - Dispensing carbonated Beverages in Micro-g
- °Protein Crystal Growth

SPECIAL PAYLOAD MISSION KITS:

RMS - S/N 302
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
38,884	30,289	8,595

GAS (Getaway Special):

None

DEPLOYABLE PAYLOADS:

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 than2,250 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 Communication 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

ATTACHED PLB PAYLOADS:

None

CREW COMPARTMENT PAYLOAD:

PVTOS - Physical Vapor Transport Organic Solid Experiment, 3M Corporation

SPECIAL PAYLOAD MISSION KITS:

1. RMS - 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
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): Data not available, DOD Classified Mission	
DEPLOYABLE PAYLOADS: Data not available, DOD Classified Mission			CREW COMPARTMENT PAYLOAD: Data not available, DOD Classified Mission	
ATTACHED PLB PAYLOADS: Data not available, DOD Classified Mission			SPECIAL PAYLOAD MISSION KITS: Data not available, DOD Classified Mission	

CARGO SUMMARY		MISSION SEQUENCE: 22	STS-61-A	ORBITER OV-099
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB		
30, 519	150	30, 369		

DEPLOYABLE PAYLOADS:

GLOMR - Global Low Orbiting Message Relay Satellite. Built by Defense System, Inc., for DARPA. First launch attempt was on STS 51-B which failed. Deployed from GAS canister.

Deployed Wt = 150 lb

ATTACHED PLB PAYLOADS:

Spacelab D-1 - First completed Spacelab mission under German Mission Management. Joint control by BMFT (Federal Ministry of Research and Technology) and DFVLR (Deutsche Forschungs-und Versuchanstalt FurLuft-und Raumfahrt).

Experiment Facilities:

1. WL-Werkstoff Labor; experiments relating to metallurgy, crystal growth, glasses/ceramics, and fluid physics. Experiment facilities include:
   - Mirror Heating Facility
   - Isothermal Heating Facility
   - Gradient Heating Facility
   - High Temperature Thermostat
   - Fluid Physics Module
   - Cryostat
2. PK-Progresskammer; experiment relating to Bubble Transport Boundary Layer, and Transparent Media. Experiment facilities include:
   - Holographic Interferometric Apparatus
   - Marangoni Convection Boat
   - Interdiffusion in Salt Melt
3. MD-MEDEA: A material science double rack. Experiment facilities include:
   - Gradient Heating Facility
   - Mono-ellipsoid Mirror Heating Facility
   - High Precision Thermostat Facility
4. BW-Biowissenschaften: Experiments relating to Life Sciences. Experiments include:
   - Biological (1)
   - Medical (2)
   - Botanical (3)
5. VS-Vestibular Sled: Experiments in Life Science regarding visio-vestibular coordination system and sensory perception process. Experiment facilities include:
   - Mechanically accelerated sled
   - Instrumented helmet
6. BR-Biorack: Multi-purpose facility for biological research in cell development physiology, cell fertilization and radio-biology. Facilities include:
   - 2 incubators
   - Cooler freeze
   - Glove box
7. NX-NAVEX: Navigation Experiment; located in payload bay attached to USS (unique support structure).
8. ME-MEA Materials Experiment Assembly; mounted on USS containing three materials processing experiments.

GAS (Getaway Special)

None

SPECIAL PAYLOAD MISSION KITS:

1. Airlock
2. Long Transfer
3. Galley
4. USS - Unique Support Structure
5. RMS - S/N 302.

CARGO SUMMARY	MISSION SEQUENCE: 23	STS-61-B	ORBITER OV-104

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
42,788	27,465	15,323

DEPLOYABLE PAYLOADS:

1. MORELOS-B/PAM-D: Hughes 376 Comm Satellite with MDAC Payload Assist Module booster. Owned by Mexican Communications and Transportation Agency.
Deployed Wt = 7,573 lb
2. AUSSAT-2/PAM D: Hughes 376 Comm Satellite with MDAC Payload Assist Module booster. Owned by AUSSAT Proprietary Ltd.
Deployed Wt = 7,634 lb
3. SATCOM KU-2/PAM-D2: RCA built/owned 16 channel Ku-band communications satellite. First of four satellites. MDAC Payload Assist Module D2 is an uprated version of the PAM-D used for heavier payloads
Deployed Wt = 12,258 lb

ATTACHED PLB PAYLOADS:

1. EASE: 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.
2. ACCESS: Assembly Concept for Construction of Erectable Space Structures (ACCESS) is validation of ground - based timelines based on simulations. A 45-feet truss was assembled/disassembled by the two EV crew members.
3. ICBC: IMAX Cargo Bay Camera, joint effort between the Canadian IMAX Corp. and NASA, consists of a 70mm film camera in pressurized container used to document EASE/ACCESS operations.

GAS (Getaway Special):

G-479 Telesat-Canada
a. Primary surface mirror production
b. Metallic crystal production

CREW COMPARTMENT PAYLOAD:

1. CFES: - Owned by McDonnell Douglas, separate biological samples using electrophoretic process. Third flight of this equipment.
2. DMOS: 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.
3. MPSE: Morelos Payload Specialist Experiments, includes experiments in transportation of nutrients inside bean plants, innoculation 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.
4. OEX: Orbiter Experiments, an onboard experimental. A digital autopilot software package designed to provide precise stationkeeping capabilities between space vehicles.

SPECIAL PAYLOAD MISSION KITS:

1. Food Warmers (2), galley not flown
2. RMS - S/N 303
3. PSA (Provision Stowage Assembly)

CARGO SUMMARY	MISSION SEQUENCE: 24	STS-61-C	ORBITER OV-102

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
28,625	12,351	16,274

DEPLOYABLE PAYLOADS:

SATCOM KU-1/PAM D-2: RCA built/owned 16 channel Ku-Band communications satellite. Second of four satellites. MDAC Payload Assist Module

Deployment Wt. = 12,351.0 lb

ATTACHED PLB PAYLOADS:

1. MSL-2 (Materials Science Laboratory) consisting of MSL Carrier; MPE (Mission Peculiar Equipment), and 3 experiments
   a. 3AAL (3-Axis Acoustic Levitator)
   b. ADSF (Automated Directional Solidification Furnace)
   c. SEECM (Shuttle Environmental Effects of Coated Mirrors).
2. HITCHHIKER G-1: A Goddard Space Flight Center (GSFC) managed program consisting of 3 experiments
   a. PACS (Particle Analysis Camera for Shuttle)
   b. CPL (Capillary Pump Loop)
   c. SEECM (Shuttle Environment Effects of coated Mirrors)
3. IR-IE (Infrared - Imaging Experiment consisting of a RCA IR TV camera mounted in Orbiter CCTV pan/tilt unit.

GAS (Getaway Special):

1. G-464: UVX (Ultraviolet Experiment) referred to as UCB (Univ. of Calif. at Berkley) contains a Bowyer UV spectrometer. GSFC experiment.
2. G-463: UVX, referred to as JHU (John Hopkins Univerisity) contains a Feldman Spectrophotometer. GSFC experiment.
3. G-462: UVX, referred to as GAP (GSFC Avionics Package) contains Telemetry System, Tape Recorder, and Battery. GSFC experiment
4. G-007: Alabama Space and Rocket Center/Marshall Amateur Club. Contains 3 student experiments and 1 radio transmission experiment.
5. G-446: HPLC (High Performance Liquid Chromatography) analytical columns. All Tech Assoc. Inc
6. G-494: PHOTONS (Photometric Thermospheric Oxygen Night-glow Study). Canada Centre for Space Science, NRC of Can
7. Not numbered: EMP (Environmental Monitoring Package) measures the environment for GSFC.

GAS (Getaway Special) (continued)

8. G-481: Unprimed, prepared linen and painted canvas reactions to space travel. Vertical Horizons.
9. G-062: 4 part experiment from Pennsylvania State University/General Electric.
10. G-449: JULIE (Joint Utilization of Laser Integrated Experiments). Four part experiment from St. Mary's Hospital, Milwaukee WI
11. G-332: 2 part experiment from Booker T. Washington Senior High School and High School for Engineering, Houston, TX.
12. G-310: USAF Academy experiment

Note: Above 12 GAS canisters mounted on Gas Bridge carrier.

13. G-470: Experiment from GSFC and U.S. Dept of Agriculture.

CREW COMPARTMENT PAYLOAD:

1. IBSE (Initial Blood Storage Experiment) package in 4 mid- deck lockers
2. CHAMP (Comet Halley Active Monitoring Program) uses cameras spectroscopic grating and filters to observe comet through aft flight-deck overhead window.
3. HPCG (Handheld Protein Crystal Growth) experiment.
4. SSIP (Shuttle Student Involvement Program)
   a. SE83-4, Production of Paper Fiber in Space.
   b. SE83-6, Argon Injection as an Alternative to Honey combing.-
   c. SE82-19, Measurement of Auxin Levels and Starch Grains in Plant Roots

SPECIAL PAYLOAD MISSION KITS:

1. GAS Bridge Carrier
2. Galley

Note: RMS NOT FLOWN

CARGO SUMMARY		MISSION SEQUENCE: 25	STS-51-L	ORBITER OV-099

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
48,633	N/A	N/A

DEPLOYABLE PAYLOADS:

1. TDRS-B/IUS: Tracking and Data Relay Satellite/Inertial Upper Stage.
   Deployment Weight = 37,636 lb
(IUS = 32,636, TDRS-B = 5000 lb) Non-deployable Weight = 5,603 lb
2. SPARTAN-203/Halley: Shuttle pointed Autonomous Research Tool for Astronomy/ Halley's Comet Experiment Deployable retrieval packages using RMS
   a. SPARTAN experiment package:
      1) 2 UV Spectrometers from University of Colorado
      2) 2 Nikon F-3 Cameras.
      3) Optic Bench
   b. Halley's Comet Experiment; measure Halley's Comet composition/activity

GAS (Getaway Special):

None

CREW COMPARTMENT PAYLOAD:

1. Fluid Dynamics Experiment (FDE)
Hughes Aircraft Company Experiment composed of six experiments:
   a. Fluid position and ullage
   b. Fluid motion due to spin
   c. Fluid self-inertia
   d. Fluid motion due to payload deployment.
   e. Energy dissipation due to fluid motion
   f. Fluid transfer
2. Comet Halley Active Monitoring Program (CHAMP), second flight.
Phase Partitioning Experiment (PPE) dissolves two polymer solutions in water to observe their separation.
Teacher in Space: Six experiments including hydrophonics magnetism, Newton's laws, effervescence chromatography and simple machines.
Shuttle Student Involvement Packages:

SE82-4 "The effects of weightlessness on grain formationl and strength in metals From: L. Bruce - St. Louis, MO Sponsor: McDonnell Douglas
SE82-5 "Utilizing a semi-permeable membrane to direct crystal growth in zero gravity" From: S. Cavou Marlboro, NY Sponsor: Union College
SE83-9 "Chicken embryo development in space From: J. Vellinger - Lafayette, In Sponsor: Kentucky Fried Chicken Corporation

SPECIAL PAYLOAD MISSION KITS:

1. RMS - S/N 302
2. Galley
3. MADS

CARGO SUMMARY		MISSION SEQUENCE: 26	STS-26	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
44,601	37,514	7,087	CREW COMPARTMENT PAYLOADS	

DEPLOYABLE PAYLOADS:

1. TDRS-C/IUS: Tracking and Data Relay Satellite/Inertial Upper Stage
   Deployable Wt = 37,514 lb
   (IUS = 32,877 lb
   TDRS-C = 4,637 lb
   Non-deployable Weight = 5,592 lb)

CREW COMPARTMENT PAYLOADS

1. PVTOS - Physical Vapor Transport of Organic Solids, 3M Corporation; Second flight.
2. ADSF - Automated Directional Solidification Furnace, MSFC, Third flight, test material solidification in zero g
3. IRCFE - Infrared Communication Flight Experiment, JSC, first flight; Test infrared transmitting crew headsets
4. PCG - Protein Crystal Growth, MSFC, flown four previous flights in less complicated configurations to examine growth of protein crystals in zero g.
5. IEF - Isoelectric Focusing, MSFC, second flight, test isoelectric transport through a permeable membrane in zero g.
6. PPE - Phase Partitioning Experiment, MSFC, second flight. Photograph fluid phase partitioning phenomena in zero g.
7. ARC - 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 SE82-4 -"Effects of weightlessness on Ti grain formation and strength". From L. Bruce St. Louis, Mo., sponsor: McDonnell-Douglas
11. Student Experiment SE82-5 - "Utilizing a semi-permeable membrane to direct crystal growth in zero gravity". From S. Cavou, Marlboro, N. Y., sponsor: Union College.

ATTACHED PLB PAYLOADS:

OASIS-1: Orbiter Experiment Autonomous Supporting Instrumentation System measures and records payload bay environmental data.

SPECIAL PAYLOAD MISSION KITS:

1. Galley
2. MADS

Note: RMS NOT FLOWN

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

CARGO SUMMARY		MISSION SEQUENCE: 28	STS-29	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special):	
45,316	37,640	7,676		
DEPLOYABLE PAYLOADS: 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			CREW COMPARTMENT PAYLOAD: 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 on Bones (SSIP - 82-08) Total weight = 58 lb	
ATTACHED PLB PAYLOADS: 1. Space Station Heat Pipe Advanced Radiator Element (SHARE) 2. Orbiter Experiments Autonomous Supporting Instrumentation System (OASIS-1)			SPECIAL PAYLOAD MISSION KITS: Note: RMS NOT FLOWN	

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	GAS (Getaway Special): None	
45,823	40,118	5,705		
DEPLOYABLE PAYLOADS: 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.			CREW COMPARTMENT PAYLOAD: 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) Total weight = 0 lb	
ATTACHED PLB PAYLOADS: None			SPECIAL PAYLOAD MISSION KITS: Note: RMS NOT FLOWN	

CARGO SUMMARY		MISSION SEQUENCE: 30	STS-28	ORBITER OV-104
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): Data not available - DOD Classified Mission	
DEPLOYABLE PAYLOADS: Data not available - DOD Classified Mission			CREW COMPARTMENT PAYLOAD: Data not available - DOD Classified Mission	
ATTACHED PLB PAYLOADS: Data not available - DOD Classified Mission			SPECIAL PAYLOAD MISSION KITS: 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	GAS (Getaway Special): 1. Zero Gravity Growth of Ice Crystals	
45,905	38,323	7,582		
DEPLOYABLE PAYLOADS: 1. GALILEO/IUS, an unmanned spin-stabilized exploration spacecraft comprising a Jupiter orbiter and a Jupiter atmospheric entry probe mated to the IUS. Deployable weight = 38,323 lb.			CREW COMPARTMENT PAYLOAD: 1. Polymer Morphology 2. Growth Horome Concentration and Distribution in Plants 3. Sensor Technology Experiment 4. IMAX Camera 5. Mesoscale Lightning Experiment 6. Air Force Maui Optical Site Calibration Test	
ATTACHED PLB PAYLOADS: 1. Shuttle Solar Backscatter Ultraviolet (SSBUV)			SPECIAL PAYLOAD MISSION KITS: None	

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	GAS (Getaway Special): Data not available - DOD Classified Mission	
DEPLOYABLE PAYLOADS: Data not available - DOD Classified Mission			CREW COMPARTMENT PAYLOAD: Data not available - DOD Classified Mission	
ATTACHED PLB PAYLOADS: Data not available - DOD Classified Mission			SPECIAL PAYLOAD MISSION KITS: Data not available - DOD Classified Mission	

CARGO SUMMARY		MISSION SEQUENCE: 33	STS-32	ORBITER OV-102
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
18,317	15,316	24,394	CREW COMPARTMENT PAYLOAD: 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)	
DEPLOYABLE PAYLOADS: SYNCOM IV-5, a geostationary communications satellite also known as LEASAT; leased to U.S. Navy Deployed weight: 15,316 lb				
ATTACHED PLB PAYLOAD: None				
RETRIEVED CARGO: LDEF, a non-powered space vehicle containing experiments. LDEF deployed on STS-41C Retrieved weight: 21,393 lb			SPECIAL PAYLOAD MISSION KITS: 1. RMS - S/N 201 2. Galley 3. MADS	

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

CARGO SUMMARY		MISSION SEQUENCE: 35	STS-31	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
25,517	23,905	1,612		
DEPLOYABLE PAYLOADS: Hubble Space Telescope (HST), a large aperture optical telescope. Total deployed wt = 23,905 lb			CREW COMPARTMENT PAYLOAD 1. Air Force Maui Optical Site Calibration Test (AMOS) 2. IMAX Camera 3. Investigation into Polymer Membrane Processing (IPMP) 4. Protein Crystal Growth (PCG) 5. Radiation Monitoring Experiment (RME) 6. Investigation of Arc and Ion Behavior in Microgravity (Student Experiment 82-16)	
ATTACHED PLB PAYLOADS: 1. IMAX Cargo Bay Camera (ICBC) 2. Ascent Particle Monitor (APM)			SPECIAL PAYLOAD MISSION KITS 1. RMS 301 2. Galley 3. HST EVA Tools;	

CARGO SUMMARY		MISSION SEQUENCE: 36	STS-41	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
46,173	38,604	7,569		
DEPLOYABLE PAYLOADS: Ulysses/IUS/PAM-S - Deployable weight = 38,604 lb			CREW COMPARTMENT PAYLOAD: CHROMEX - Chromosome and Plant Cell Division in Space Environment SSCE - Solid Surface Combustion Experiment VCS - Voice Command System Experiment PSE - Physiological Systems Experiment RME - Radiation Monitoring Experiment IPMP - Investigation into Polymer Membrane Processing AMOS - Air Force Maui Optical Site Calibration Test	
ATTACHED PLB PAYLOADS SSBUV - Shuttle Solar Backscatter Ultraviolet Spectometer ISAC - Intelsat Solar Array Coupon (Attached to RMS arm)			SPECIAL PAYLOAD MISSION KITS: 1. RMS 301 2. Galley 3. Radioisotope Generator (RTG) Cooling System	

CARGO SUMMARY		MISSION SEQUENCE: 37	STS-38	ORBITER OV-104
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): Data not available - DOD Classified Mission	
DEPLOYABLE PAYLOADS: Data not available - DOD Classified Mission			CREW COMPARTMENT PAYLOAD Data not available - DOD Classified Mission	
ATTACHED PLB PAYLOADS: Spacelab 2 Data not available - DOD Classified Mission			SPECIAL PAYLOAD MISSION KITS: Data not available - DOD Classified Mission	

CARGO SUMMARY		MISSION SEQUENCE: 38	STS-35	ORBITER OV-102
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
27,760	0	27,760		
DEPLOYABLE PAYLOADS: None			CREW COMPARTMENT PAYLOAD: SAREX - Shuttle Amateur Radio Experiment AMOS - Air Force Maui Optical Site Calibration Test	
ATTACHED PLB PAYLOADS: 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) BBXRT - Broad Band X-Ray Telescope Attached to its own two-axis pointing system (TAPS)			SPECIAL PAYLOAD MISSION KITS: 1. Galley 2. Aerodynamic Coefficient Identification Package (ACIP)	

CARGO SUMMARY		MISSION SEQUENCE: 39	STS-37	ORBITER OV-104
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
36,800	34,442	2,358		
DEPLOYABLE PAYLOADS: Gamma Ray Observatory (GRO), an unmanned observatory designed to image objects at high (gamma ray) wavelengths. Deployment weight: 34,442 lb			CREW COMPARTMENT PAYLOAD: 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)	
ATTACHED PLB PAYLOADS: 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			SPECIAL PAYLOAD MISSION KITS: RMS - S/N 303	

CARGO SUMMARY		MISSION SEQUENCE: 40	STS-39	ORBITER OV-103

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
21,413	4,873	20,495

DEPLOYABLE PAYLOADS:

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
CRO A, B, and C canister - Three canisters of chemicals were released.
Deployed weight: 548 lb

ATTACHED PLB PAYLOAD:

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.

GAS (Getaway Special)

None

CREW COMPARTMENT PAYLOAD:

Cloud Logic to Optimize Use of Defense Systems (CLOUDS) - 1A
Radiation Monitoring Equipment (RME) - III

SPECIAL PAYLOAD MISSION KITS:

RMS - S/N 301

CARGO SUMMARY		MISSION SEQUENCE: 41	STS-40	ORBITER OV-102

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
28,114	0	28,114

DEPLOYABLE PAYLOADS:

None

ATTACHED PLB PAYLOADS:

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 PLB

GAS (Getaway Special):

12 Experiments on GBA
Solid State MicroaccelerometerExperiment
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

CREW COMPARTMENT PAYLOAD:

Physiological Monitoring System (PMS)
Urine Monitoring System (UMS)
Animal Enclosure Modules (AEM)
Middeck Zero-Gravity Experiment (MODE)

SPECIAL PAYLOAD MISSION KITS:

Airlock Transfer Tunnel
Note RMS NOT FLOWN

CARGO SUMMARY		MISSION SEQUENCE: 42	STS-43	ORBITER OV-104
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special) (continued) 1. Tank Pressure Control Experiment (TPCE)	
46,712	37,575	9.137	CREW COMPARTMENT PAYLOAD: 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	
DEPLOYABLE PAYLOADS: 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				
ATTACHED PLB PAYLOADS: 1. Space Station Heatpipe Advanced Radiator Element(SHARE-II) 2. Shuttle Solar Backscatter Ultraviolet Instrument 03 (SSBUV) 3. Optical Communications Through the Window (OCTW) Gas Bridge Assembly (GBA)			SPECIAL PAYLOAD MISSION KITS: None	

CARGO SUMMARY		MISSION SEQUENCE: 43	STS-48	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
17,144	14,388	2,756	CREW COMPARTMENT PAYLOAD: 1. Ascent Particle Monitor (APM) 2. Cosmic Radiation Effects and Activation Monitor (CREAM) 3. Radiation Monitoring Experiment (RME) 4. Investigations into Polymer Membrane Processing (IPMP) 5. Protein Crystal Growth (PCG) 6. Middeck 0-Gravity Dynamics Experiment (MODE) 7. Shuttle Activation Monitor (SAM) 8. Physiological and Anatomical Rodent Experiment (PARE)	
DEPLOYABLE PAYLOADS: Upper Atmosphere Research Satellite (UARS) UARS Weight = 17,144 lb Deployable weight: 14,388 lb Non-deployable weight: 2,050 lb				
ATTACHED PLB PAYLOAD: Gas Bridge Assembly (GBA)			SPECIAL PAYLOAD MISSION KITS: RMS 301	

CARGO SUMMARY		MISSION SEQUENCE: 44	STS-44	ORBITER OV-104

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
44,637	37,588	7,049

DEPLOYABLE PAYLOADS:

Defense Support Program/Inertial Upper Stage satellite DSP/IUS Weight

Deployed weight: 37,588 lb
Non-deployed weight: 5,612 lb

ATTACHED PLB PAYLOADS:

Interim Operational Contamination Monitor (IOCM)

Gas Bridge Assembly (GBA)

GAS (Getaway Special):

None

CREW COMPARTMENT PAYLOADS

1. Terra Scout
2. Military Man in Space (M88-1)
3. Air Force Maui Optical Site Calibration Test (AMOS)
4. Cosmic Radiation Effects and Activation Monitor (CREAM)
5. Shuttle Activation Monitor (SAM)
6. Radiation Monitoring Equipment (RME-III)
7. Visual Function Monitor (VFT-1)
8. Ultraviolet Plume Instrument (UVPI)

SPECIAL PAYLOAD MISSION KITS:

None

CARGO SUMMARY		MISSION SEQUENCE: 45	STS-42	ORBITER OV-103

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFTI-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
28,663	0	28,663

DEPLOYABLE PAYLOADS:

None

ATTACHED PLB 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
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 adaption and motion sickness
12. Microgravity Vestibular Investigations - Study space motion sickness
13. Biostack - Investigate space readiation effects on biological materials
14. Mental Workload and Performance Evaluation - Test human performance of computer tasks in Zero-G
15. Radiation Monitoring Container/Dosimeter Measure effect of space radiation on biological materials

GAS (Getaway Special): (GAS) BRIDGE CONSISTING OF 12 CANNISTERS

G-086: Effects of microgravity on cysts hatched in space; thermal conductivirty 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 zodical and galactic emissions at B, R, & V standard astronomical wavelengths
G-337: Performance of thermoacoustic refrigerator under microgravity
G457: Gas-liquid separation under microgravity
G609, G610: Ultraviolet observations of deep space
G-614: Motion of debris under microgravity conditions: low melting point materials processing
GAS ballast payload no. 1 (GBP 1)
GAS ballast payload no. 2 (GBP 2)

CREW COMPARTMENT PAYLOAD

Gelation of Sols: Applied Microgravity Research (GOSMAR)
Student Experiment SE 83-2
Investigation into Polymer Membrane Processing (IPMP)
Radiation Monitoring Equipment (RME-III)

SPECIAL PAYLOAD MISSION KITS:

None

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
17,683	0	17,683

DEPLOYABLE PAYLOADS:

None

GAS (Getaway Special):

Getaway Special 229 (GAS-229)
Objective: To melt and regrow gallium arsenide crystals with convective efects absent.

ATTACHED PLB PAYLOADS:

ATLAS-1 (2 Spacelab Pallet and Igloo)
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.
Atmosphere Physics
Atmosphere Trace Molecule Spectroscopy (ATMOS) previously flew on Spacelab 1, Reflight from Spacelab 3
Millimeter Wave Atmospheric Sounder (MAS), first flight
Atmospheric Lyman Alpha Emissions (ALAE), previously flew on Spacelab 1
Grille Spectometer (GRILLE), previously flew on Spacelab 1
Imaging Spectrometric Observatory (ISO), previously flew on Spacelab 1
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 Photometricimaging (AEPI)
Previously flown on Spacelab 1
Space Experiments with Particle Accelerators (SEPAC)
Previously flown on Spacelab 1
Energetic Neutral; Atom Precipitation
Ultraviolet Astronomy - Far Ultraviolet Space Telescope (FAUST), previously flown on Spcelab 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

CREW COMPARTMENT PAYLOAD:

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
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 orbital space flight environment
Cloud Logic 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.

SPECIAL PAYLOAD MISSION KITS:

None

CARGO SUMMARY		MISSION SEQUENCE: 47	STS-49	ORBITER OV-105
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
32,809	23,346	9,463		
DEPLOYABLE PAYLOADS: International telecommunications satellite VI F3 (Intelsat) perigee kick motor (PKM)			CREW COMPARTMENT PAYLOAD: Commercial protein crystal growth (CPCG) Air Force Maui Optical Site Calibration (AMOS) Ultraviolet Plume Instrument (UVPI)	
ATTACHED PLB PAYLOADS: Assembly of station by EVA methods			SPECIAL PAYLOAD MISSION KITS: RMS 303	

CARGO SUMMARY		MISSION SEQUENCE: 48	STS-50	ORBITER OV-102
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
24,305	0	24,305		
DEPLOYABLE PAYLOADS: None			CREW COMPARTMENT PAYLOAD Zeolite Crystal Growth *Generic Bioprocesing 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)	
ATTACHED PLB PAYLOADS: 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			SPECIAL PAYLOAD MISSION KITS: None	

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): None	
28,585	11,387	18,594		
DEPLOYABLE PAYLOADS: EURECA Deployable weight: 9,901 lb			CREW COMPARTMENT PAYLOAD: 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)	
ATTACHED PLB PAYLOADS: 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 - Autonomous Payload-II (CONCAP-II) CONCAP-III - Limited Duration Space Environment Candidate Materials Exposure (LDCE)			SPECIAL PAYLOAD MISSION KITS: RMS S/N 201	

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): None	
27,607	0	27,607		
DEPLOYABLE PAYLOADS: None			CREW COMPARTMENT PAYLOAD: Israeli Space Agency Investigation about Hornets (ISAIAH) Shuttle Amateur Radio Experiment (SAREX) Solid Surface Combustion Experiment (SSCE) Ultraviolet Plume Instrument (UVPI) - Payload of Opportunity	
ATTACHED PLB PAYLOADS: Japanese Spacelab (Spacelab-J) Long Module Gas Bridge Assembly (GBA) with 12 gas canisters			SPECIAL PAYLOAD MISSION KITS: RMS 303	

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): None	
20,132	5,577	14,555	CREW COMPARTMENT PAYLOAD: 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)	
DEPLOYABLE PAYLOADS: Laser Geodynamics Satellite (LAGEOS				
ATTACHED PLB PAYLOADS: United States Microgravity Payload-2 (USMP-1)			SPECIAL PAYLOAD MISSION KITS: RMS 301	

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): None	
26,118	20,953	7,557	CREW COMPARTMENT PAYLOAD	
DEPLOYABLE PAYLOADS: DOD-1 Payload Deployment Weight: 20,953 lb			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	
ATTACHED PLB PAYLOADS: ODERACS - Orbital Debris Radar Calibration Spheres GLO - Glow Experiment/Cryogenic Heat Pipe Experiment			SPECIAL PAYLOAD MISSION KITS Note: RMS NOT FLOWN	

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): None	
46,540	37,497	11,572	CREW COMPARTMENT PAYLOAD:	
DEPLOYABLE PAYLOADS: TDRS/IUS - Tracking and Data Relay Satellite/Inertial Upper Stage Deployment Weight = 37,497 lb.			CHROMEX - Chromosome and Plant Cell Division in Space CGBA - Commercial Generic Bioprocessing Apparatus PARE - Physiological and Anatomical Rodent Experiment SSCE - Solid Surface Combustion Experiment	
ATTACHED PLB PAYLOADS - Spacelab 3: DXS - Diffuse X-Ray Spectrometer			SPECIAL PAYLOAD MISSION KITS: None	

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): None	
16,439	2,840	20,988	CREW COMPARTMENT PAYLOAD:	
DEPLOYABLE PAYLOADS: SPARTAN-201 - Shuttle Pointed Autonomous Research Tool for Astronomy-201 Deployed Weight: 2,840 lb Retrieved Weight: 2,798 lb			SUVE - Solar Ultraviolet Spectrometer HERCULES - Hand-Held, Earth-Oriented, Real-Time, Cooperative, User-Friendly, Location Targeting, and Environmental System RME III - Radiation Monitoring Equipment III CREAM - Cosmic Radiation Effects and Activation Monitor SAREX II - Shuttle Amateur Radio Experiment II CMIX - Commercial Materials Dispersion Apparatus ITA Experiments STL - Space Tissue Loss Experiment PARE - Physiological and Anatomical Rodent Experiment	
ATTACHED PLB PAYLOADS: ATLAS-2 - Atmospheric Laboratory for Applications and Science			SPECIAL PAYLOAD MISSION KITS: RMS - S/N 201	

CARGO SUMMARY	MISSION SEQUENCE: 55	STS-55	ORBITER OV-102

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
26,881	0	33,721

GAS (Getaway Special):

RKGM - Reaction Kinetics in Glass Melts

DEPLOYABLE PAYLOADS:

None

CREW COMPARTMENT PAYLOAD

Crew Telesupport Experiment
SAREX - Shuttle Amateur Radio Experiment

ATTACHED PLB PAYLOADS:

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

SPECIAL PAYLOAD MISSION KITS:

Note: RMS NOT FLOWN

CARGO SUMMARY	MISSION SEQUENCE: 56	STS-57	ORBITER OV-105

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
19,630	132	29,149

DEPLOYABLE PAYLOADS:

EURECA - European Retrievable Carrier
Retrieval Weight = 9424 lb

ATTACHED PLB PAYLOADS:

SPACEHAB-1
- Bioserve Pilot Laboratory
- Liquid Encapsulated Melt Zone

ECLSS Flight Experiment
- Human Factors Assessment
- Physiological Systems Experiment
- Space Acceleration Measurement System

Superfluid Helium On Orbit Transfer
Consortium for Materials Development in Space Complex Autonomous Payload-IV

GAS (Getaway Special):

G-022 - Liquid Gauging Technology Experiment
G-324 - Can Do
G-399 - Insulin Tagging & Artemia Growth Experiment
G-450 - Multiple Experiments
G-452 - Crystal Growth Gallium Arsenide
G-453 - Semi-Conductor/Super Conductor Experiment
G-454 - Crystal Growth
G-535 - The Pool Boiling Experiment
G-601 - High Frequency Variations of the Sun
G-647 - Configurable Hardware for Multi- Disciplinary Projects in Space

CREW COMPARTMENT PAYLOAD:

Fluid Acquisition & Resupply Experiment
Shuttle Amateur Radio Experiment
Air Force Maui Optical Calibration Site Calibration Test

SPECIAL PAYLOAD MISSION KITS:

RMS

CARGO SUMMARY	MISSION SEQUENCE: 55	STS-55	ORBITER OV-102

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
26,881	0	33,721

GAS (Getaway Special):

RKGM - Reaction Kinetics in Glass Melts

DEPLOYABLE PAYLOADS:

None

CREW COMPARTMENT PAYLOAD

Crew Telesupport Experiment
SAREX - Shuttle Amateur Radio Experiment

ATTACHED PLB PAYLOADS:

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

SPECIAL PAYLOAD MISSION KITS:

Note: RMS NOT FLOWN

CARGO SUMMARY	MISSION SEQUENCE: 56	STS-57	ORBITER OV-105

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
19,630	132	29,149

DEPLOYABLE PAYLOADS:

EURECA - European Retrievable Carrier
Retrieval Weight = 9424 lb

ATTACHED PLB PAYLOADS:

SPACEHAB-1
- Bioserve Pilot Laboratory
- Liquid Encapsulated Melt Zone

ECLSS Flight Experiment
- Human Factors Assessment
- Physiological Systems Experiment
- Space Acceleration Measurement System

Superfluid Helium On Orbit Transfer
Consortium for Materials Development in Space Complex Autonomous Payload-IV

GAS (Getaway Special):

G-022 - Liquid Gauging Technology Experiment
G-324 - Can Do
G-399 - Insulin Tagging & Artemia Growth Experiment
G-450 - Multiple Experiments
G-452 - Crystal Growth Gallium Arsenide
G-453 - Semi-Conductor/Super Conductor Experiment
G-454 - Crystal Growth
G-535 - The Pool Boiling Experiment
G-601 - High Frequency Variations of the Sun
G-647 - Configurable Hardware for Multi- Disciplinary Projects in Space

CREW COMPARTMENT PAYLOAD:

Fluid Acquisition & Resupply Experiment
Shuttle Amateur Radio Experiment
Air Force Maui Optical Calibration Site Calibration Test

SPECIAL PAYLOAD MISSION KITS:

RMS

CARGO SUMMARY		MISSION SEQUENCE: 57	STS-51	ORBITER OV-104
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
42,637	34,210	19,826	CREW COMPARTMENT PAYLOAD: IMAX - In-Cabin Operations	
DEPLOYABLE PAYLOADS: ACTS/TOS - Advanced Communications Technology Satellite/ Transfer Orbit Stage Deployment Wt. = 26,889 lb ORFEUS/SPAS - Orbiting Retrievable Far and Extreme Ultraviolet Spectrometer-Shuttle Satellite Deployment Wt. = 7321 lb Retrieval Wt. = 7321 lb				
ATTACHED PLB PAYLOADS: LDCE - Limited Duration Space Environment Candidate Materials Exposure CHROMEX - Chromosome & Plant Cell Division in Space CPCG - Commercial Protein Crystal Growth HRSGS - High Resolution Shuttle Glow Spectrocopy APE-B - Auroral Photography Experiment-B PMP - Investigation into Polymer Membrane Processing RME-III - Radiation Monitoring Experiment AMOS - Air Force Maui Optical Site Calibration Test RIMC - Remote IMAX Camera			SPECIAL PAYLOAD MISSION KITS: RMS Special EVA Tools	

CARGO SUMMARY		MISSION SEQUENCE: 58	STS-58	ORBITER OV-102
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special) None	
23,127	0	32,041	CREW COMPARTMENT PAYLOAD: Orbital Acceleration Research Experiment Shuttle Amateur Radio Experiment Urine Monitoring System	
DEPLOYABLE PAYLOADS: None				
ATTACHED PLB PAYLOAD: SPACELAB LIFE SCIENCES-2 Cardiovascular/Cardiopulmonary System Experiments 066 - In-Flight Study of Cardiovascular Deconditioning 294 - Cardiovascular Adaptation to Zero Gravity 198 - Pulmonary Function During Weightlessness Neurovascular System 238 - Effects of Space Travel on Mammalian Gravity Receptors 072 - Vestibular Experiments in Spacelab Regulatory Physiology 192 - Fluid-Electrolyte Regulation During Space Flight 141 - Regulation of Blood Volume During Space Flight 012 - Regulation of elythropoiesis in Rats During Space Flight 261 - Influence of Space Flight on Elythrokinetics in Man Masculo Skeletal System 120 - Protein Metabolism During Space Flight 127 - Effect of Zero Gravity on the Functional & Biochemical Properties of Anti-Gravity Skeletal Muscles 303 - Effects of Microgravity on the Electron Microscopy Histrochemistry & Protease Activity of Rat Hindlimb Muscles 305 - Pathophysiology of Mineral Loss During Space Flight 194 - Bone, Calcium & Space Flight			SPECIAL PAYLOAD MISSION KITS: None	

CARGO SUMMARY		MISSION SEQUENCE: 59	STS-61	ORBITER OV-105
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
17,401	2,308	24,543		
DEPLOYABLE PAYLOADS: Hubble Space Telescope Replacement Equipment Retrieved Wt. = 1,814.0 lb (deployed solar array not included)			CREW COMPARTMENT PAYLOAD: IMAX Camera	
ATTACHED PLB PAYLOADS: HST Solar Arrays HST Wide Field/Planetary Camera II HST Corrective Optics Space Telescope Axial Replacement(COSTAR) HST Rate Sensing Units HST Electronic Control Units HST Magnetic Sensing Systems IMAX Cargo Bay Camera			SPECIAL PAYLOAD MISSION KITS: RMS HST EVA Tools & Crew Aids	

CARGO SUMMARY		MISSION SEQUENCE: 60	STS-60	ORBITER OV-103
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special) G-071 - Ball Bearing Experiment G-514 - Orbiter Stability Experiment & Medicines in Microgravity G-536 - Heat Flux G-577 - Capillary Pumped Loop Experiment	
22,311	3,956	28,831		
DEPLOYABLE PAYLOADS: Wake Shield Facility Deployment Wt. = 3,785 lb (Not deployed) Retrieval Wt. = 3,785 lb Bremen Satellite Deployment Wt. = 139 lb ODERACS Deployment Wt. = 32 lb			CREW COMPARTMENT PAYLOAD: SAREX - Shuttle Amateur Radio Experiment APE-B - Auroral Photography Experiment	
ATTACHED PLB PAYLOADS: SPACEHAB-2 PAYLOAD Astroculture-3 Bioserve Pilot Laboratory Commercial Generic Bioprocessing Apparatus Equipment for Controlled Liquid Phase Sintering Experiment Immunology Experiment-01 Organic Separation Pennsylvania State Biomodule Space Acceleration Measurement System Space Experiment Facility Stirling Orbiter Refrigerator/Freezer Sample Return Experiment Three-dimensional Microgravity Accelerator ODERACS - Orbital Debris Radar Calibration Spheres BREMSAT - Bremen Satellite Experiment			SPECIAL PAYLOAD MISSION KITS: None	

CARGO SUMMARY		MISSION SEQUENCE: 61	STS-62	ORBITER OV-102
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): None	
19,792	0	30,046	CREW COMPARTMENT PAYLOAD: Advanced Protein Crystal Growth Experiments Commercial Protein Crystal Growth Payload Middeck 0-Gravity Dynamics Experiment Air Force Maui Optical Calibration Test Auroral Photography Experiment-B Bioreactor Demonstration System Physiological Systems Experiment	
DEPLOYABLE PAYLOADS: None				
ATTACHED PLB PAYLOAD: United States Microgravity Payload-2 - Advanced Automated Directional Solidification Furnace - Material pour L-Etude des Phenomenes Interessant la Solidification sur Tere et an Orbite - Isothermal Dendritic Growth Experiment - Critical Fluid Light Scattering Experiment - Space Acceleration Measurement System Office of Aeronautics & Space Technology - Experimental Investigation of Spacecraft Glow - Spacecraft Kinetic Infrared Test Experiment - Cryogenic Two-Phase Experiment - Solar Array Module Plasma Interaction Experiment - Thermal Energy Stowage Experiment - Emulsion Chamber Technology Experiment Shuttle Solar Backscatter Ultraviolet A Experiment Dexterous End Effector Limited Duration Space Environment Candidate Materials Exposure Experiment			SPECIAL PAYLOAD MISSION KITS: None	

CARGO SUMMARY		MISSION SEQUENCE: 62	STS-59	ORBITER OV-105
PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB	GAS (Getaway Special): G-203 - Study of Freezing & Crystallization G-300 - Thermal Conductivity Measurements on Liquids in Microgravity G-458 - Growth of Small Fruiting Bodies in Microgravity	
27,447	0	33,788		
DEPLOYABLE PAYLOADS: None			CREW COMPARTMENT PAYLOADS: Space Tissue Loss Shuttle Amateur Raio Experiment II Toughened Uni-Piece Fibrous Insulation Visual Function Tester-4	
ATTACHED PLB PAYLOADS: Space Radar Laboratory - 1 Consortium for Materials Development in Space Complex Autonomous Payload-IV Measurement of Air Pollution from Satellite			SPECIAL PAYLOAD MISSION KITS: None	

CARGO SUMMARY	MISSION SEQUENCE: 63	STS-65	ORBITER OV-102

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
24,159	0	24,159

DEPLOYABLE PAYLOADS:

None

ATTACHED PLB PAYLOADS:

International Microgravity Laboratory-2 (Spacelab)

1. Life Sciences
   a. Aquatic Animal Experiment Unit
   b. Biorack
   c. Biostack
   d. Extended Duration Orbiter (EDO) Medical Project
   e. Linear Compressor Enhanced Orbiter Refrigerator/Freezer
   f. Slow Rotating Centrifuge Microscope
   g. Microgravity Effects on Standardized Cognitive Performance Measures
   h. Applied Research of Separation Methods Using Space Electrophoresis
   i. Real-Time Radiation Monitoring Device
   j. Spinal Injuries in Microgravity
   k. Thermoelectric Incubator and Cell Culture Kits
2. Materials Science:
   a. Advance Protein Crystallization Facility
   b. Bubble, Drop, and Particle Unit
   c. Critical Point Facility
   d. Free Flow Electrophoresis Unit
   e. Large Isothermal Furnace
   f. Quasi - Steady Acceleration Measurement
   g. Space Acceleration Measurement System
   h. Electromagnetic Containerless Processing Facility
   i Vibration Isolation Box Experiment Station

Orbital Acceleration Research Experiment

Inter-Mars Tissue Equivalent Proportional Counter (ITEPC)

GAS (Getaway Special):

None

CREW COMPARTMENT PAYLOADS

Commercial Protein Crystal Growth

Shuttle Amateur Radio Experiment

Military Applications of Ship Tracks

Air Force Maui Optical System

SPECIAL PAYLOAD MISSION KITS:

None

CARGO SUMMARY	MISSION SEQUENCE: 64	STS-64	ORBITER OV-103

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
19,260	2,840	19,218

DEPLOYABLE PAYLOADS:

Shuttle Pointed Autonomous Research Tool For Astronomy - 201 (SPARTAN)
Deployable Weight: 2840 lb
Retrieval Weight: 2798 lb

ATTACHED PLB PAYLOADS:

Robot Operated Materials Processing System (ROMPS)
LIDAR In-Space Technology Experiment (LITE)
Shuttle Plume Impingement Flight Experiment
Simplified Aid for EVA Rescue
Trajectory Control Sensor

CREW COMPARTMENT PAYLOADS:

Air Force Maui Optical Site
Military Applications of Ship Tracks
Solid Surface Compustion Experiment
Radiation Monitoring Experiment III
Shuttle Amateur Radio Experiment
Biological Research In Canisters

GETAWAY SPECIALS:

G-178 - Ozone Measurements of Earth's Upper Atmosphere in the Ultraviolet 200 to 400 Nanometer Spectral Range

GETAWAY SPECIALS CONT'D:

G-254 - Four Experiments
- a. Distillation Experiment
- b. Float Zone Instability Experiment
- c. Pachamama
- d. Bubble Interferometer Experiment

G-325 - Sound Effects on Dust Particles in Near Zero Gravity

G-417 - Three Experiments
- a. Reproduction of Paramecums
- b. Surface Interaction of Different Fluids
- c. Survey of Surface Interaction of Solids and Liquids

G-453 - Two Experiments:
- a. Formation of Silicon-Lead Alloy
- b. Boiling of Organic Solvent under Microgravity and in the Absence of Convection

G-454 - Two Experiments:
- a. Crystal Growth of 3-Selenic Niobium from the Vapor Phase
- b. Crystal Growth of the Optoelectronic Crystal by the Diffusion Method.

G-456 - Electrophoresis Experiment.

G-485 - Feasibility of Depositing Different Materials in a Vacuum Environment in Microgravity

G-506 - Orbiter Stability Experiment

G-562 - Quest-2 Material Sciences Experiment
- a. Droplet Growth in Liquid-Liquid Systems
- b. Metal-Matrix Composites
- c. Distribution of Reinforcing Material Produced in Microgravity and One-Gravity

SPECIAL PAYLOAD MISSION KITS:

RMS 201 - Not used

CARGO SUMMARY	MISSION SEQUENCE: 65	STS-68	ORBITER OV-105

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
27,582	0	27,582

DEPLOYABLE PAYLOADS:

None

ATTACHED PLB PAYLOADS:

Space Radar Laboratory-2

CREW COMPARTMENT PAYLOADS:

Chromosome and Plant Cell Division in Space
Commercial Protein Crystal Growth
Biological Research in Canisters
Cosmic Radiation Effects and Activation Monitor
Military Applications of Ship Tracks

GAS (GETAWAY SPECIALS):

G-316 - Two Experiments:
1. Effects of Microgravity on Survival, Mating and Development of Milkweed Bug.
2. Microgravity Effects on Growth Quality and Size of Crystal of Rochelle Salt.

G-503 - Four Experiments:
1. Microgravity and Cosmic Radiation Effects on Diatoms
2. Concrete Curing in Microgravity
3. Root Growth in Space
4. Microgravity Corrosion

G-541 - Study of Breakdown of Planar Solid/Liquid Interface during Crystal Growth

SPECIAL PAYLOAD MISSION KITS:

RMS - 303

CARGO SUMMARY	MISSION SEQUENCE: 66	STS-66	ORBITER OV-104

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
18,001	7194	18,001

DEPLOYABLE PAYLOADS:

CRISTA - SPAs
Deployed Wt. 7194 lb
Retrieval Wt. 7194 lb

ATTACHED PLB PAYLOADS:

ATLAS - 3 (SPACELAB)
a. Chemical Constituents of the Middle Atmosphere
1. Atmospheric Trace Molecule Spectroscopy
2. Millimeter Wave Atmospheric Sounder
3. Shuttle Solar Backscatter Ultraviolet/A
b. Solar Radiation and the Middle Atmosphere
1. Solar Spectrum Experiment
2. Solar Ultraviolet Spectral Radiation Monitor
TOTAL SOLAR IRRADIANCE MEASUREMENTS
1. Active Cavity Radiometer Irradiance Monitor
2. Solar Constant
PAYLOAD MISSION-PECULIAR/MISSION DEPENDENT EQUIPMENT - Global Pointing System

ATTACHED PLB PAYLOADS (CONT'D)

Inter Mars Tissue Equivalent Proportional Counter
Experiment of the Sun complementing the Atlas Payload and Education - II

GAS (GETAWAY SPECIALS):

None

CREW COMPARTMENT PAYLOADS:

Physiological and Anatomical Rodent Experiment/National Institutes of Health - Rodents (PARE - NIH-R)
Protein Crystal Growth Experiments
Space Tissue Loss/National Institutes of Health - Cells (STL-NIH-C)
Space Acceleration Measurement System
Heat Pipe Performance Experiment

SPECIAL PAYLOAD MISSION KITS:

RMS 202

CARGO SUMMARY	MISSION SEQUENCE: 67	STS-63	ORBITER OV-103

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
19,108	2674	19,051

DEPLOYABLE PAYLOADS:

SPARTAN - 204
Deployed Wt. 2651 lb
Retrieval Wt. 2617 lb
ODERACS
Deployed Wt. 23.0 lb

ATTACHED PLB PAYLOADS:

SPACEHAB - 3
Astroculture IV
Bio Serve Pilot Laboratory
Protein Crystallization Facility
3 Dimensional Microgravity Accelerometer
Biological Research in Canisters
Commercial Generic Processing Apparatus
Charlotte
Chromosome and Plant Cell Division in Space
Commercial Protein Crystal Growth - Vapor Diffusion Apparatus
Charged Particle Directional Spectrometer
Cosmic Radiation Effects and Activation Monitoring
Equipment for Controlled Liquid Phase & Sintering Experiment

ATTACHED PLB PAYLOADS (CONT'D)

Gas Permeable Polymer Membrane
Fluids Generic Bioprocessing Apparatus
Protein Crystal Growth - Small Thermal Enclosure Sys
Immunology Experiment
National Institute of Health - Cells
Radiation Monitoring Experiment - III
Space Acceleration Measurement System
Window Experiment
Trajectory Control Sensor
Cryogenic System Experiment
Shuttle Glow - 2 Experiment
IMAX Cargo Bay Camera

CREW COMPARTMENT PAYLOADS:

Solid Surface Combustion Experiment
Air Force Maui Optical Site

SPECIAL PAYLOAD MISSION KITS:

RMS 201
Payload Recorder

CARGO SUMMARY		MISSION SEQUENCE: 68	STS-67	ORBITER OV-105

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
20,250	0	20,250

DEPLOYABLE PAYLOADS:

None

CREW COMPARTMENT PAYLOADS:

Middeck Active Control Experiment
Protein Crystal Growth Experiments
Commercial Materials Dispersion Apparatus
Instrumentation Technology Associates Experiment
Shuttle Amateur Radio Experiment - II

ATTACHED PLB PAYLOADS:

Astro-2 Obervatory
Instrument Pointing System (IPS)
Hopkins Ultraviolet Telescope (HUT)
Ultraviolet Imaging Telescope (UIT)
Wisconsin Ultraviolet Photo-Polarimeter Experiment (WUPPE)

GAS (Getaway Special):

G-387 - Ultraviolet Telescope
G-388 - Ultraviolet Telescope

SPECIAL PAYLOAD MISSION KITS:

RMS 303

CARGO SUMMARY		MISSION SEQUENCE: 69	STS-71	ORBITER OV-104

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
18,299	0	18,299

DEPLOYABLE PAYLOADS:

None

CREW COMPARTMENT PAYLOADS:

Protein Crystal Growth Experiment
Space Acceleration Measurement Experiment
IMAX Camera System
Shuttle Amateur Radio Experiment II

ATTACHED PAYLOAD BAY PAYLOADS:

SPACELAB
Metabolic Research
Cardiovascular and Pulmonary Research
Neurosensory Research
Hygiene, Sanitation and Radiation Research
Behavior and Performance Research
Fundmental Biology Research
Microgravity Research

RISK MITIGATION EXPERIMENT:

1301 - Mated Model and MIR Structural Dynamic Test

SPECIAL PAYLOAD MISSION KITS:

Orbiter Docking System

CARGO SUMMARY		MISSION SEQUENCE: 70	STS-70	ORBITER OV-103

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
44,232	37,575	6,657

DEPLOYABLE PAYLOADS:

Tracking and Data Relay Satellite - G/Inertial Upper Stage
Deployable Weight: 37,575 lb

ATTACHED PAYLOAD BAY PAYLOADS:

None

CREW COMPARTMENT PAYLOADS:

Physiological and Anatomical Rodent Experiments/National Institute of Health Rodents
Bioreactor Demonstration System
Commercial Protein Crystal Growth Experiment
Space Tissue Loss Experiment
Bioreasearch In Canister Experiment
Shuttle Amateur Radio Experiment II
Vision Function Tester
Hand-Held, Earth-Oriented, Cooperative, Real-Time, User Friendly, Location Targeting and Environmental System
Microencapsulation In Space-B Experiment
Window Experiment
Radiation Monitoring Experiment
Military Applicalton of Ship Tracks

GETAWAY SPECIALS (GAS)

None

SPECIAL PAYLOAD MISSION KITS:

None

CARGO SUMMARY		MISSION SEQUENCE: 71	STS-69	ORBITER OV-105

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
25,352	7,206	25,304

DEPLOYABLE PAYLOADS:

1. Shuttle Pointed Autonomous Research Tool for Astronomy - (SPARTAN)
   201-03
   Deployable Weight: 2800 lb
   Retrievable Weight: 2758 lb
2. Wake Shield Facility (WSF):
   Deployable Weight: 4358 lb
   Retrievable Weight: 4352 lb

ATTACHED PAYLOAD BAY PAYLOADS:

1. International Extreme Ultraviolet Hitchhiker
   a. Solar Extreme Ultraviolet Hitchhiker
   b. UV Spectropraph Telescope for Astronomical Research
2. Shuttle Glow Experiment
3. Capillary Pumped Loop/Getaway Special Bridge Assembly
   a. Capillary Pumped Loop Demonstration
   b. Thermal Energy Storage

CREW COMPARTMENT PAYLOADS:

Space Tissue Loss/National Institute of Health - Cells
Commerical Generic Bioprocessing Apparatus
Biological Research In Canister
Electrolysis Performance Improvement Concept & Study
Commercial Materials Dispersion Apparatus Instrumentation Technology Associates Experiment

GAS (Getaway Special):

G-515: Control Flexibility Interaction Experiment
G-645: Structural Damping Evaluation of Electrorheological Fluid-filled Beans In Space
G-702: Microgravity Smoldering Combustion Experiment
G-726: Joint Damping Experiment

RISK MITIGATION EXPERIMENT:

1311: Relative Global Position System

SPECIAL PAYLOAD MISSION KITS

RMS 303
EVA Task Board

CARGO SUMMARY		MISSION SEQUENCE: 72	STS-73	ORBITER OV-102

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
25,167	0	25,167

DEPLOYABLE PAYLOADS:

None

ATTACHED PAYLOAD BAY PAYLOADS:

United States Microgravity Laboratory (USML)-2

1. Surface Tension Driven Convection Experiment
2. Drop Physics Module
3. Drop Dynamics Experiment
4. Science and Technology of Surface-Controlled Phenomena
5. Geophysical Fluid Flow Cell Experiment
6. Crystal Growth Furnace
7. Orbiter Processing of High Quality Cadmium Zinc Telluride Compound Semiconductors
8. Study of Dopant Segregation Behavior During Crystal Growth of Gallium Arsenide
9. Crystal Growth of Selected 1/-V1 Semiconducting Alloys by Directional Solidification
10. Vapor Transport Crystal Growtth of Mercury Cadmium Telluride in Microgravity
11. Zeolite Crystal Growth Furnace
12. Glovebox Facility
13. Interface Configuration Experiment
14. Oscillatory Thermocapillary Flow Experiment
15. Fiber Supported Droplet Combustion
16. Protein Crystal Growth - Glovebox
17. Zeolite Crystal Growth-Glovebox
18. Colloidal Disorder/Order Transitions
19. Particle Dispersion Experiment
20. Protein Crystal Growth Experiments
21. Crystal Growth by Liquid-Liquid Diffusion
22. Advanced Protein Crystallization Facility
23. Commercial Generic Bioprocessing Apparatus
24. Astroculture Facility and Experiment
25. Space Acceleration Measurement System
26. Three Dimensional Microgravity Accelerometer
27. Suppression of Transient Accelerations by Levitation Evaluation
28. High Packed Digital Television Technical Demonstration

CREW COMPARTMENT PAYLOADS:

Single Locker Protein Crystal Growth
Commercial Protein Crystal Growth
Orbital Acceleration Research Experiment

CARGO SUMMARY		MISSION SEQUENCE: 73	STS-74	ORBITER OV-104

PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB	DEPLOYED P/L WEIGHT, LB	RETURNED CARGO WEIGHT, LB
13,525	9,587	13,860

DEPLOYABLE PAYLOADS:

Docking Module
Deployment Weight: 9587 lb

ATTACHED PLB PAYLOADS:

IMAX Cargo Bay Camera
Shuttle Glo Experiment
Photogrammetric Appendage Structural Dynamics Experiment

CREW COMPARTMENT PAYLOADS:

Shuttle Amateur Radio Experiment - II

SPECIAL PAYOAD MISSION KITS:

RMS: 301

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
1	1	102		4,457,111	617 1.06	PBD WEB Payload Bay Door Shear Hinge Fitting Web	80.7	131.7	514	532.1	00 : 10 : 34.0	87		00 : 44 : 02.0	75	
2	2	102		4,470,308	640 1.09	FWD FFOIN Foward External Tank Attach Fitting Load	90	130	513.8	537.2	00 : 10 : 33.9	77.6		00 : 41 : 41.7	71	
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		00 : 40 : 50.4	88	
4	4	102		4,481,935	721 1.74	ET 4-11 Midpoint Lefthand Vertical Strut (P4)	97.4	130 156024	512.7 25677	530.4 354800	00 : 10 : 32.6	88	130 34	00 : 37 : 40.6	105	130 130
5	5	102		4,487,268	738 1.7	VT-6-R Vertical Tail Root Rib	96.6	129.08 155206	510.68 25672 361206	528.77 366193	00 : 10 : 30.8	137.8	160.2 51.8	00 : 44 : 40.8	116.8	160 160
6	6	99		4,487,255	688 1.47	WINGRA17 Right Wing Spar Web X = 1249, Y = 130	104.6	129.42 151453	499.4 25672 361122	517.55 366139	00 : 10 : 19.6	135.3	154.2 50.6	00 : 43 : 37.6	117	154.6 154
7	7	99		4,482,241	701 1.56	WINGRA17 Right Wing Spar Web X = 1249, Y =130	90.8	126.2 4319 149357	500.1 25595 361420	518.2 25668 366506	00 : 10 : 20.2	139.5	160.2 51.9	00 : 44 : 30.2	117.5	160.4 160.2
8	8	99		4,492,074	701 1.53	WINGRA17 Right Wing Spar Web X = 1249, Y = 130	106.9	124.34 4235 152110	521.62 25593 360803	539.66 25669 365878	00 : 10 : 41.7	138.1	160 51.5	00 : 44 : 51.7	115.6	160.5 160.2

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has conparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
9	9	102		4,503,361	676 1.52	WINGLA22 Left Wing Spar Web X = 1191, Y =130	93.7	126.24 4289 161689	509.18 25647 372249	527.32 25723 378580	00 : 10 : 29.3	63.8	135 44.6	00 : 40 : 37.3	101.5	134.9 134.4
10	41B	99		4,498,443	676 1.55	WLE8R Left Wing Leading Edge	94.8	127.92 4330 152605	521.42 25589 361029	539.57 25667 366061	00 : 10 : 41.6	150.2	165.1 51.1	00 : 45 : 24.6	125	165 165
11	41C	99	b	4,508,234	635 1.03	WINGLA17 Left Wing Spar Web	94.8	125.57 4137 169426	510.76 25942 360986	528.9 26013 37011	: :			00 : 42 : 54.0	95.2	251.6 115.4
12	41D	103		4,517,534	611 1.26	F2L Left Wing Carry-through Structure X = 1365, Y = 82	96.1	124.5 3990 162535	515.19 25595 360945	533 25666 365877	00 : 10 : 36.9	153.5	160.8 50.9	00 : 44 : 52.2	126.2	160.8 160.8
13	41G	99		4,493,317	716 1.42	OMS PT6R Left OMS Pod Point 6	85	124.12 4157 157374	530.34 25644 372883	548.41 25719 378859	00 : 10 : 50.4	134.5	190.5 53.4	00 : 46 : 30.4	143.3	191.7 190.4
14	51A	103		4,519,901	651 1.1	WINGRA20 Right Wing Spar Web X = 1365, Y = 240	91.1	125.72 4095 156242	513.16 25593 361491	531.29 25669 366591	00 : 10 : 33.3	151	160.2 51.7	00 : 44 : 43.0	114.8	160.1 150.4
15	51C	103	c								: :			: :		185 185
16	51D	103	b	4,505,245	666 1.25	WINGLA20 Left Wing Spar Web X = 1365, Y = 240	98.3	126.84 4077 153102	531.96 25938 360594	550 26014 369603	: :			00 : 43 : 15.0	142.6	248.6 160.4

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has conparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
9	9	102		4,503,361	676 1.52	WINGLA22 Left Wing Spar Web X = 1191, Y =130	93.7	126.24 4289 161689	509.18 25647 372249	527.32 25723 378580	00 : 10 : 29.3	63.8	135 44.6	00 : 40 : 37.3	101.5	134.9 134.4
10	41B	99		4,498,443	676 1.55	WLE8R Left Wing Leading Edge	94.8	127.92 4330 152605	521.42 25589 361029	539.57 25667 366061	00 : 10 : 41.6	150.2	165.1 51.1	00 : 45 : 24.6	125	165 165
11	41C	99	b	4,508,234	635 1.03	WINGLA17 Left Wing Spar Web	94.8	125.57 4137 169426	510.76 25942 360986	528.9 26013 37011	: :			00 : 42 : 54.0	95.2	251.6 115.4
12	41D	103		4,517,534	611 1.26	F2L Left Wing Carry-through Structure X = 1365, Y = 82	96.1	124.5 3990 162535	515.19 25595 360945	533 25666 365877	00 : 10 : 36.9	153.5	160.8 50.9	00 : 44 : 52.2	126.2	160.8 160.8
13	41G	99		4,493,317	716 1.42	OMS PT6R Left OMS Pod Point 6	85	124.12 4157 157374	530.34 25644 372883	548.41 25719 378859	00 : 10 : 50.4	134.5	190.5 53.4	00 : 46 : 30.4	143.3	191.7 190.4
14	51A	103		4,519,901	651 1.1	WINGRA20 Right Wing Spar Web X = 1365, Y = 240	91.1	125.72 4095 156242	513.16 25593 361491	531.29 25669 366591	00 : 10 : 33.3	151	160.2 51.7	00 : 44 : 43.0	114.8	160.1 150.4
15	51C	103	c								: :			: :		185 185
16	51D	103	b	4,505,245	666 1.25	WINGLA20 Left Wing Spar Web X = 1365, Y = 240	98.3	126.84 4077 153102	531.96 25938 360594	550 26014 369603	: :			00 : 43 : 15.0	142.6	248.6 160.4

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has conparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
17	51B	99		4,512,009	700 1.31	WINGLA15 Left Wing Spar Web X = 1307, Y = 136	87.2	125.88 4195 156700	514.96 25647 372561	533.05 25723 378806	00 : 10 : 35.0	133.4	190.6 53.6	00 : 46 : 15.0	145.2	190.6 190.4
18	51G	103	b	4,516,613	648 1.24	WINGLA20 Left Wing Spar Web X = 1365, Y = 240	88.7	124.68 3973 164000	515.77 25842 360915	533.93 25914 368228	: :			00 : 40 : 29.0	177.6	192.1 190.5
19	51F	99	d	4,515,554	762 1.63	ROWINDOW Right Overhead Window	91.3	125.24 4284 157308	581.24 25690 372077	599.29 25756 381932	00 : 11 : 41.0	106.4	142.6 2.96	00 : 33 : 00	119.4	142.9 108.7
20	51I	103	b	4,512,130	735 1.61	WINGLA8 Left Wing Spar Web X = 1365, Y = 334	101.5	121 4235 154479	507.59 25839 361481	525.77 25912 368863	: :			00 : 40 : 28.0	183.2	190.3 189.7
21	51J	104	c								: :			: :		
22	61A	99		4,508,496	665 1.25	LWINGMX Left Wing Root Bending Moment	85.7	125.08 4190 162256	514.96 25646 372707	533.05 25721 379121	00 : 10 : 35.0	121.2	178 52.4	00 : 44 : 40.0	131.6	177.7 175.8
23	61B	104	b	4,514,530	723 1.16	LWINGMX Left Wing Root Bending Moment	89.1	123.56 4274 146782	511.29 25643 360661	529.45 25915 367881	: :			00 : 40 : 25.0	180.4	191.2 190.6
24	61C	102		4,509,360	696 1.13	WINGLA14 Left Wing Upper Spar Cap X = 1307, Y = 131	92.1	127.23 4442 152555	501.64 25594 360985	519.77 25670 36643	00 : 10 : 22.0	164.2	175.1 53.9	00 : 46 : 06.0	134.6	176.5 175.1

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has conparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
25	51L	99	e	4,526,583	720 1.35	ET 3-42 External Tank Barrel Panel THETA = 43 °, X = 1859	83.2				: :			: :		
26	26	103	b,f	4,522,411	707 1.16	WLE-14R WLE-14L	102	124.8 4127 151816	513.43 25871 360878	530.5 25869 367122	: :			00 : 39 : 56.0	141.6	178 162
27	27	104	c	4,505,773		L-2, WRA 18 Upper Spar Cap Mid Right X = 1307					: :			: :		244 239
28	29	103	b	4,524,261	710 1.44	L-2 AFT OMS Frame inner cap X = 1360	98	124.5 4200 154800	510.8 25827 361300	528 25868 367500	: :			00 : 39 : 58.0	141.6	166.6 162.5
29	30	104		4,527,426	676 1.07	L-2 WING LA18 Upper Spar Cap Mid Left X = 1307	97	125.26 4190 155000	509.37 25664 360962	526.67 25677 365579	: 10 : 29.0	141.8	160.5 50.7	00 : 44 : 27.0	125.6	166.3 160
30	28	102	c	4,510,019	679 1.12	LP-2.0 AFT OMS F OMS Frame Inner Cap X=1360	93.2				: :			: :		166 160
31	34	104	b	4,524,224	687.9 1.63	LP-2.0 Aft OMS F OMS Frame Inner Cap X=1360	89.8	124.98 5277.04 156990	511.88 25780.63 365780	530.08 25868.83 371779	: :			00 : 39 : 55.0	140.6	168.46 161.35
32	33	103	c	4,529,160	729.3 1.5	LP-2.0 AFT OMS F OMS Frame Inner Cap X=1360	96.1				: :			: :		302 126

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has conparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
33	32	102	b	4,519,487	641.1 1.05	L-2.0 AFT OMS F OMS Frame Inner Cap X=1360	91.3	125 5281.42 157254	511 25750.66 361119	530 25911.68 368882	: :			00 : 40 : 25.6	139.5	178 173
34	36	104	c	4,507,283	743.9 1.49	L-2.0 AFT OMS F OMS Frame Inner Cap X=1360	94				: :			: :		132 115
35	31	103	b	4,514,665	656.3 1.08	L-2.0 Aft OMS F OMS Frame Inner Cap X=1360	92.7	125 5324.21 155453	510 26016.36 360068	528 26134.83 372084	: :			00 : 42 : 35.9	304.4	333 327
36	41	103	b	4,544,024	665 1.1	L-2.0 AFT OMS F OMS Inner Frame Cap	88	126.16 4113 156553	510.39 25868.2	528.37	: :			00 : 39 : 53.4	143.6	160.2 159.4
37	38	104	c	4,531,909							: :			: :		142 115
38	35	102	b	4,600,228	696 0	L-2.0 WING LA 20 Left Wing Spar Shear X = 1362, y = 235	92	125.68 4200 152000	511.6	529.67	: :			00 : 40 : 24.7	179.2	190.2 187.7
39	37	104	b	4,519,158	681 1.57	L-2.0 Wing LA20	85	125.28 5294.5 156097	512.71 25912 361246	530.16 26000.7 369797	: :			00 : 41 : 43.1	234.7	247 239
40	39	103	b	4,512,698	706.6 1.65	L-2.0 Aft OMS	99	124.76 5035.9 152683	514.51 25720.4 361306	531.4 25793.3 367696	: :			00 : 36 : 07.5	129	140 138

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has conparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
41	40	102	b	4,518,801	688.9 1.12	L-2.0 Wing LA21	88	124.74 5275.1 153002	509.8 25803.2 361444	527.86 25869 366809	: :			00 : 42 : 17.6	124.1	157 146
42	43	104	b	4,522,828	775 1.62	L-2.0 Throttle low yaw positive WLE-P7	91	125.6 4265.2 149261	507.8 25796 360846	526.04 25689 366906	: :			00 : 39 : 51.0	142.7	174 161
43	48	103	b	4,503,424	767.4 0	L-2.0 DOLILU Wing L-A21	96	125.04 4148.9 155365	516.12 26002 372308	534.52 26074 382935	: :			00 : 43 : 40.0	266.2	313 302
44	44	104	b	4,520,641	730 1.45	L-2.0 Nominal Aft OMS F	90	126.56 4229.3 152899	509.7 25826 360535	528.07 25924 367944	: :			00 : 40 : 48.0	183.8	197 194
45	42	103	b	4,518,872	685 1.39	L-2.0 Nominal WLE P7	87	127.84 4252.7 155716	510.1 24938 373301	528.6 24994 382889	: :			00 : 36 : 08.1	159.2	163 161
46	45	104	b	4,495,720	670 1.4	L-2.0 Yaw neg Aft OMS F	91	128 4221.5 155044	510.4 24845 372180	528.6 24994 382889	: :			00 : 36 : 20.0	145.6	162 159
47	49	105	b	4,518,872	675 1.55	L-2.0 DOLILU Wing L-A21	83	127.2 4215.8 156553	509.4 24350.6 360713	527.6 24446 368365	: :			00 : 39 : 57.8	124.3	182 148
48	50	102	b	4,520,103	659.8	L-2.0 NOMINAL WING L-A14	96	126.24 4215.7 157456	507.2 25794 360806	526.5 25868 366831	: :			00 : 39 : 50.7	141.3	160 160

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has comparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
49	46	104	b	4,516,789	730	L-2.0 DOLILU WING L-A14	94	125.12 4232.6 152815	509.4 25907 350589	527.7 25978 369300	: :			00 : 41 : 23.4	222.4	230 228
50	47	105	b	4,506,804	682.4	L-2.0 NOMINAL RO WINDOW	96	124 4121.8 157413	513.6 25746 372695	532 25822 381731	: :			00 : 39 : 50.7	158.7	160 160
51	52	102	b	4,515,380	706.4	L-2.0 DOLILU TANK LT 1-14	101	123.12 4107.9 149168	512.08 25795 360888	530.4 25866 367142	: :			00 : 39 : 55.5	137.4	163 160
52	53	103	b	4,507,750	699.81 1.3	L-2.0 DOLILU WING A16L	102	126.32 4216.2 153648	513.36 25805 371923	531.57 25875.5 383692	: :			00 : 36 : 53.8	204	200.9 200.7
53	54	105	b	4,523,381	697.44 1.55	L-2.0 DOLILU PLBT BOX	96	125.68 4212.1 152106.7	509.92 25797 360792	528.29 25868.9 366833	: :			00 : 38 : 53.4	143.8	164.1 160.3
54	56	103	b	4,502,299	707 1.5	L-2.0 NOMINAL PLBT BOX	94	125.84 4178.9 151247.7	514.3 25749 372390	532.7 25820.1 381364	: :			00 : 37 : 18.2	148.8	160.7 158.9
55	55	102	b	4,518,969	703.43 1.55	L-2.0 DOLILU PLBT BOX	95	125.52 4171.9 154325.6	510.28 25758 360743	528.62 25866.6 367076	: :			00 : 39 : 54.9	140.2	162.9 157.2
56	57	105	b	4,518,566	780.57 1.65	L-2.0 NOMINAL PLBT BOX	96	124.72 4224.29 146296	512.16 25914.6 361543	531.41 26019.6 370822	: :			00 : 42 : 12.4	198.6	252.2 210.5

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has conparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
57	51	103	b	4,532,125	709.21 1.5	L-2.0 DOLILU PLBT BOX	92	124.72 4202.9 154673	509.52 25797 360970	528.78 25866.5 367409	: :			00 : 39 : 53.8	145.2	160.4 160
58	58	102	b	4,517,138	693.36 1.35	L-2.0 NOMINAL PLBT BOX	96	123.6 4073.82 152511.2	515.56 24584.18 367699.1	534.43 24659.49 373247.4	: :			00 : 41 : 54.9	124.9	155.2 152
59	61	105	b	4,511,794	695 1.5	L-2.0 DOLILU PLBT BOX	97	126.48 4229.32 154032	511.36 26041.1 361401	530.56 26107.6 372736	: :			00 : 43 : 30.2	201.4	308.4 214.9
60	60	103	b	4,442,490	706.05 1.44	L-2.0 DOLILU PLBT BOX	98	125.04 4216.1 154650	512.04 25839.2 372670	531.26 25911.6 380432	: :			00 : 42 : 16.3	163.5	191.4 189.6
61	62	102	b	4,519,801	674.99 1.1	L-2.0 DOLILU PLBT BOX	96	126.32 4227 155483	510.72 25806.5 367277	529.74 25882.4 372880	: :			00 : 42 : 20.0	132.2	163 160
62	59	105	b	4,511,411	678.09 1.45	L-2.0 DOLILU LEFT OVHD WINDOW	86	124.08 4196.4 150886	513.08 25698.4 372933	532.4 25774.6 379629	: :			00 : 35 : 10.3	100.2	121.3 120.5
63	65	102	b	4,523,441	710.5 1.55	L-2.0 NOMINAL LO WINDOW	92	123.44 4138.1 150801	510.6 25798.7 361251.7	529.9 25872.3 367744	: :			00 : 39 : 55.2	141.3	162.9 160.3
64	64	103	b	4,503,921	687.23 1.61	L-2.0 NOMINAL LO WINDOW	87	122.48 4155.8 148952	514.6 25723.2 373194	533.84 25798.8 381528	: :			00 : 36 : 04.8	125.4	140.8 139.9

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has conparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
65	68	105	b	4,510,613	679.91 1.67	L-2.0 NOMINAL LO WINDOW	87	123.6 4158 151793	513.72 25695.4 372898.4	532.72 25771.2 379587	: :			00 : 35 : 09.0	99	119.7 119.4
66	66	104	b	4,508,715	726.64 1.41	L-2.0 NOMINAL WING LA8	89	124.72 4196.5 149107	513.88 25748.6 372849	533.12 25822.1 383039	: :			00 : 36 : 13.1	160	165.1 164
67	63	103	b	4,511,630	663.97 1.04	L-2.0 NOMINAL LO WINDOW	86	124.88 4241.8 155357	511.1 25809.6 368745	530.1 25884 377632	: :			00 : 42 : 10.0	155.7	183.9 168.8
68	67	105	b	4,520,187	676.3 1.1	L-2.0 DOLILU ET 3-73	102	125.04 4263.6 152923	507 25841.2 360925	526.27 25908.9 368592	: :			00 : 40 : 21.5	177.6	190.4 187.3
69	71	104	b	4,511,586	716.21 1.734	L-2.0 DOLILU FTO-8	91	123.52 4280 150973	510.56 25871.3 371041	529.62 24868 377285	: :			00 : 42 : 57.7	47.1	160 84
70	70	103	b	4,520,654	686.32 1.128	L-3.0 DOLILU II FTO-8	89	122.72 4157.4 152664	510.6 25871.2 367444	529.82 24432 36714	: :			00 : 38 : 49.4	143.2	160.6 160.3
71	69	105	b	4,519,114	714.59 1.14	L-2.0 DOLILU II FTO-8	90	122.4 4205.6 151749	510.15 25937.6 360853	529.3 24464 368783	: :			00 : 41 : 44.4	187.1	200.8 199.2
72	73	102	b	4,521,518	713.41 1.127	L-4.5 DOLILU II RO WINDOW	93	123.52 4216.6 153975	509.36 26858.3 367753	528.58 24638 373585	: :			00 : 41 : 28.7	118.4	150.5 146.6

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has conparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ASCENT AND ORBIT INSERTION

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Shuttle Lift-off Weight, lb	Max Q, psf, at M=	Calculated Wind Load Data, L-3.5 Hour Winds: Top Load Indicator Code/Description/ Location	Load (a) Value, Percent	SRB Sep Met, sec/ Vel,fps/ Alt, ft	MECO Met, sec/ Vel,fps/ Alt, ft	ET Sep Met, sec/ Vel,fps/ Alt, ft	OMS-1 Burn: Tig Met, h:m:s	OMS-1 Burn: Burn Duration, sec.	OMS-1 Burn: Apogee/ Perigee Alt.,nmi	OMS-2 Burn: Tig Met, h:m:s	OMS-2 Burn: Burn Duration, sec.	OMS-2 Burn: Apogee/ Perigee Alt.,nmi
73	74	104	b	4,512,395	711.32 1.138	L-2 DOLILU II RO WINDOW	87	122.88 4205.1 151230	512.64 25871.5 371138	532.82 24930 377862	: :			00 : 43 : 51.9	131.1	162.5 162.3
74	72	105	b	4,514,647	712.63 1.114	L-2.0 DOLILU II FTO-8	92	124.32 4216.5 156819	506.68 26018.4 361546	529.62 24868 377285	: :			00 : 43 : 30.0	71.6	248.9 95.2

a = STS-1 thru STS-4 based on a systems dispersion of 99 percent, all other flights based on a systems dispersion of 90 percent.
b = OMS-1 Not Performed - Direct Insertion
c = Data not available - Department of Defense Mission
d = Abort to orbit
e = Vehicle lost at approximately 73 seconds
f = Comparison of launch-day wind load conditions with an existing stress analysis that has conparable wind loads showed positive margins of safety for the winds, and as a result, the launch countdown was resumed
g = Data not available at time of publication.

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

ENTRY AERODYNAMICS

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

a - Data not Available - DOD Mission

b - Report containing data not as yet published

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

ENTRY AERODYNAMICS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Entry Interface Velocity, fps	Entry Interface Flt. Pth. Angle, deg	Entry Interface Range, nmi.	Cross Range, nmi.	Max. Load Factor, g	Max. Dyn. Press., psf	First Roll Rev. Vel., fps	Term. Area Energy Mgmt I/F Range, nmi.	Term. Area Energy Mgmt Load Factor, g	Term. Area Energy Mgmt Max. Dyn. Press., psf	Term. Area Energy Mgmt I/F Alt ft.	Approach and Landing Glide Slope, deg	Approach and Landing Velocity, Keas Max.	Approach and Landing Velocity, Keas Over thld	Approach and Landing Velocity, Keas At MGTD
36	41	103		25,762.	-1.2	4147	492	0	212.7	13,639.	60	1.67	291	9,777	19	306	224	192
37	38	104		25,729.	-1.16	4146	3	1.57	207	20,816.	60.3	1.42	273	9,819	19	301	218	199
38	35	102		25,858.	-1.32	4266	426	1.58	245.8	15,406.	59.15	1.59	279	8,052	17	300	217	201
39	37	104		24,612.	-1.4	4175	375	1.57	205	16,455.	59	1.66	276	5,048	19	288	161	168
40	39	103		25,765.	-1.06	4502	616	1.57	246.5	11,543.	60.2	1.5	295	9,862	19	302	222.1	218
41	40	102		25,772.	-1.23	4339	211	1.56	245.4	18,904.	58.9	1.7	298	10,014	17	311	218.6	203
42	43	104		25,794.	-1.16	4312	180	1.57	294	19,141.	60.3	1.4	223	10,000	19	295	221	197
43	48	103		26,077.	-1.58	4194	690	1.56	286	11,167.	59.9	1.5	217.5	10,000	19	297	219	203
44	44	104		25,868.	-1.28	4195	379	1.6	285	16,190.	60.5	1.74	222.5	9,833	19	295	222	189
45	42	103		25,785.	-1.12	4358	536	1.61	232	14,053.	59.6	1.4	308	10,000	19	310	229	196
46	45	104		25,785.	-1.13	4231	679	1.56	241.23	10,840.6	60.4	1.82	328	7,451	19	309	212	192
47	49	105		25,841.	-1.28	4162	410.8	1.56	215	15,850.	59.2	1.57	293	9,931	19	299	217	194
48	50	102		25,786.	-1.18	4347	389	1.51	248.4	15,984.3	59.7	1.51	313	9,885	17	311	229	203
49	46	104		25,698.	-0.99	4397	499	1.57	225	13,624.	59.7	1.45	299	9,869	19	303	216	195
50	47	105		25,803.	-1.11	4341	669	1.57	240.1	11,228.4	60.6	1.39	307	9,917	17	305	233	202
51	52	102		25,666.	-0.94	4454	223	1.58	247	18,350.	60.1	1.51	297	9,820	19	302	224	211
52	53	103		25,813.	-1.28	4237	791	1.56	210	7,202.	60	1.96	287	9,431	19	301	226	212
53	54	105		25,780.	-1.2	4213	320	1.56	211	17,043.	60.5	1.8	295	9,873	19	302	232	212
54	56	103		25,797.	-1.23	4375	6	1.63	227	21,354.	60.1	1.69	291	9,844	19	304	219	206
55	55	102		25,779.	-1.16	4299	640	1.56	260	10,463.	58.8	1.5	309	9,848	17	319	238	217
56	57	105		25,988.	-1.43	4210	587	1.58	252	12,389.	58.9	1.38	320	9,907	17	313	233	207
57	51	103		25,794.	-1.22	4250	89	1.56	221	20,253.	59.9	1.43	281	9,840	19	302	222	194
58	58	102		25,755.	-1.21	4378	144	1.58	250	19,625.	59.2	1.51	323	9,888	18	315	237	198
59	61	105		26,096.	-1.56	4220	3	1.54	231	21,281.	60.8	1.68	312	9,787	20	312	236	201
60	60	103		25,858.	-1.35	4349	376	1.57	230	16,900.	59.9	1.72	308	9,866	20	315	235	205
61	62	102		25,708.	-1.13	4391	116	1.59	250	19,802.	59.5	1.49	309	9,964	18	306	236	207
62	59	105		25,660.	-1.02	4468	721	1.57	252	9,331.	59.2	1.62	318	9,937	18	315	231	215
63	65	102		25,720.	-1.1	4381	180	1.59	265	19,114.	59	1.45	315	9,966	18	305	233	199
64	64	103		25,727.	-0.98	4433	110	1.54	228	20,344.	59.7	1.77	305	9,892	20	311	229	198
65	68	105		25,658.	-1.02	4479.5	746	1.57	258	8,686.	58.4	1.75	314	9,841	18	305	234	193
66	66	104		25,798.	-1.09	4387	310	1.58	251	17,796.	59.7	1.5	309	9,914	20	314	232	193
67	63	103		25,903.	-1.36	4329	469	1.56	243	15,176.	59.7	1.81	316	9,897	20	319	229	212
68	67	105		25,852.	-1.26	4216	628	1.56	242	10,780.	59.9	1.5	309	9,843	20	317	227	209
69	71	104		25,913.	-1.19	4320	645	1.6	245	11,299.	60	1.5	308	9,972	-20	311	221	201
70	70	103	b	25,789.	-1.14	4265	430	1.56				1.35	297	9,805	-20	310	225	198

a - Data not Available - DOD Mission

b - Report containing data not as yet published

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

ENTRY AERODYNAMICS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Entry Interface			Cross Range, nmi.	Max. Load Factor, g	Max. Dyn. Press., psf	First Roll Rev. Vel., fps	Term. Area Energy Mgmt				Approach and Landing			
				Velocity, fps	Flt. Pth. Angle, deg	Range, nmi.					I/F Range, nmi.	Load Factor, g	Max. Dyn. Press., psf	I/F Alt ft.	Glide Slope, deg	Velocity, Keas		
																Max.	Over thld	At MGTD
71	69	105		25,839.	-1.23	4332	202	1.59	255	18,979.	59.6	1.55	309	9,839	-18	309	233	201
72	73	102	b	25,744.	-1.1	4519	231	1.58				1.56	319	9,939	-18	313		214
73	74	104	b	25,840.	-1.29	4346	612	1.58				1.45	313	9,802	-20	321		196
74	72	105	b	25,799.	-1.17	4340	220	1.56				1.7	309	9,891	-20	306		193

a - Data not Available - DOD Mission

b - Report containing data not as yet published

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

LANDING DECELERATION

Miss Seq. No.	STS- No.	Orb. OV-	Notes	Velocities and Rates					Distance from Threshold, ft [a]				Total Rollout, ft	Rollout time, sec	Runway Data
				MGTD kgs [b]	Sink rates, ft/sec	NGTD, kgs [a]	Pitch rate, deg/sec	Brake init., kgs [b]	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	8,993.00	60	Edwards 23 Lakebed
2	2	102		185.9	1.0	135	4.4	109.5	780	4,429	5,780	8,491	7,711.00	53	Edwards 23 Lakebed
3	3	102		232.5	5.7	177.4	7.2	149	1,092	6,261	8,159	14,824	13,732.00	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	9,878.00	73	Edwards 22 Concrete
5	5	102		201	1.0	175.9	4	167	1,637	4,675	5,286	11,190	9,553.00	63	Edwards 22 Concrete
6	6	099		180	2.0	147	3.4	136	2,026	4,970	5,072	9,270	7,244.00	49	Edwards 22 Concrete
7	7	099		200	2.5	154.4	4.4	124.5	2,726	6,843	7,040	13,176	10,450.00	75	Edwards 15 Lakebed
8	8	099		196	1.6	174.6	3.7	154.3	2,793	5,515	7,403	12,164	9,371.00	50	Edwards 22 Concrete
9	9	102		204	2.5	144.6	8.5	126	1,649	5,897	6,749	10,105	8,456.00	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	10,807.00	67	KSC 15 Concrete
11	41C	099		220	2.0	138	4	110	1,912	7,167	8,538	10,628	8,716.00	49	Edwards 17L Lakebed
12	41D	103		216.3	<2.0	166	4.8	106.5	2,510	6,713	10,018	12,785	10,275.00	60	Edwards 17L Lakebed
13	41G	099	c	209.4	1.8c	161	2.6	113	962	5,505	8,986	11,527	10,565.00	54	KSC 33 Concrete
14	51A	103	c	193.7	2.0c	157.8	4	141.6	2,724	6,380	7,550	12,178	9,454.00	58	KSC 15 Concrete
15	51C	103	c	179.1	0.7c	142.7	3.4	116.7	2,753	5,752	7,677	10,105	7,352.00	50	KSC 15 Concrete
16	51D	103	c	209	2.8c	180	5.1	156	1,639	4,303	6,667	11,937	10,298.00	63	KSC 33 Concrete
17	51B	099		206.5	<1.0	153	6.1	106	1,576	5,528	7,589	9,893	8,317.00	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	7,433.00	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	8,569.00	55	Edwards 23 Lakebed
20	51I	103		175	<2.0	142	4.8	114	2,101	4,384	5,571	8,201	6,100.00	47	Edwards 23 Lakebed
21	51J	104		187	3.0	154.8	4.8	117.2	2,476	4,873	7,421	10,532	8,056.00	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	8,304.00	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	10,759.00	78	Edwards 22 Concrete
24	61C	102		217	2.0	162.9	2.7	138.4	1,530	6,300	7,831	10,197	10,202.00	59	Edwards 22 Concrete
25	51L	099	d												
26	26	103		195	1.0	154	4	134	2,569	5,671	6,750	10,020	7,451.00	46	Edwards 17L Lakebed
27	27	104		204	1.0	168	3.8	134	1,469	4,423	5,906	8,592	7,123.00	43	Edwards 17L Lakebed
28	29	103		204	2.9	163	1.7	130	1,195	5,027	7,550	10,534	9,339.00	52.7	Edwards 22 Concrete
29	30	104		204	2.4	164	2	138	1,314	5,088	6,028	11,609	10,295.00	64.3	Edwards 22 Concrete
30	28	102		158	1.0	128	7.6	82	5,311	7,393	9,776	11,326	6,015.00	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	9,677.00	60.4	Edwards 23L Lakebed
32	33	103		191.6	3.0	159.4	2.9	148	740	3,982	4,856	8,504	7,764.00	46.1	Edwards 04 Concrete
33	32	102		209.3	1.0	161.5	2.2	141.3	2,399	6,606	8,096	12,495	10,096.00	62.2	Edwards 22 Concrete
34	36	104		187.8	1.0	143.2	3.8	97	1,622	4,862	6,405	9,522	7,900.00	52.9	Edwards 23L Lakebed

a. Based on runway measurements except for brake initiation (onboard servic

b. kgs = knots, ground speed

c. Sink rate based on LaRC analysis of KSC spin-up measureme

d. Data not available

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

LANDING DECELERATION

Miss Seq. No.	STS- No.	Orb. OV-	Notes	MGTD kgs b	Velocities and Rates: Sink rates, ft/sec	NGTD, kgs a	Pitch rate, deg/sec	Brake init., kgs b	Distance from Threshold, ft a: MGTD	NGTD	Brake init.	Stop	Total Rollout, ft	Rollout time, sec	Runway Data
35	31	103		180.1	3.0	144.4	2.9	118.6	1,176	4,560	6,718	10,065	8,889.00	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	8,532.00	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	9,003.00	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	10,566.00	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	6,364.00	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	9,235.00	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	9,438.00	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	9,890.00	58.9	KSC 15 Concrete
43	48	103		215.7	1.0	172	2.5	145.4	1,235	4,882	6,851	10,619	9,384.00	49.6	Edwards 22 Concrete
44	44	104		183.4	1.0	150	4.5	15.2	2,607	5,077	13,570	13,798	11,191.00	106.6	Edwards 05R Lakebed
45	42	103		199.5	2.0	169	3.7	134.8	2,835	5,901	8,769	12,676	9,841.00	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	9,227.00	59.6	KSC 33 Concrete
47	49	105		211	1.0	175.1	3	96.3	2,156	5,770	9,923	11,646	9,490.00	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	10,674.00	58.6	KSC 33 Concrete
49	46	104		203.8	2.0	156	3.7	132.2	1,865	6,521	8,510	12,725	10,860.00	65.6	KSC 33 Concrete
50	47	105		210.6	1.0	137	1.9	115.6	2,458	7,651	8,591	11,025	8,567.00	50.9	KSC 33 Concrete
51	52	102		219.6	1.0	151.4	3	101.1	1,080	6,949	9,321	11,788	10,708.00	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	10,165.00	72.8	Edwards 22 Concrete
53	54	105		205	2.0	150.2	2.7	106.8	1,536	6,249	8,233	10,260	8,724.00	49.2	KSC 33 Concrete
54	56	103		196.1	3.0	143.8	2.9	128	1,075	5,587	6,295	10,605	9,530.00	63.1	KSC 33 Concrete
55	55	102		210.3	3.5	149	3.9	85	1,819	7,283	10,030	11,944	10,125.00	60.9	Edwards 22 Concrete
56	57	105		203	1.5	135	2.9	99.7	2,297	7,498	9,371	12,251	9,954.00	65.3	KSC 33 Concrete
57	51	103		198.4	1.5	144.1	3.3	113.4	2,099	6,539	7,977	10,370	8,271.00	50.1	KSC 15 Concrete
58	58	102		204.9	2.0	167.6	3.2	137.2	3,380	6,948	8,772	13,020	9,640.00	60.9	Edwards 22 Concrete
59	61	105		192.1	1.5	148.7	3	118	2,903	6,635	8,029	10,825	7,922.00	53.4	KSC 33 Concrete
60	60	103		191.9	2.0	118.2	3.52	97.5	2,463	7,455	8,295	10,234	7,771.00	49.8	KSC 15 Concrete
61	62	102		210.5	3.0	148.2	3.2	122.4	3,004	8,746	10,044	13,155	10,151.00	54.5	KSC 33 Concrete
62	59	105		228.3	3.5	171.4	3.8	117.9	1,664	7,067	9,819	12,355	10,691.00	53.7	EAFB 22 Concrete
63	65	102		206.9	3.0	138.7	-4.9	114.6	2,996	8,313	9,655	13,207	10,211.00	68.4	KSC 33 Concrete
64	64	103		207.8	1.0	163.4	-5.8	133.3	3,386	7,192	7,595	13,042	9,656.00	61.5	EAFB 4 Concrete
65	68	105		196.8	1.0	137.9	-4.4	81.8	3,522	7,299	9,888	12,107	8,495.00	61.8	EAFB 22 Concrete
66	66	104		195.8	1.0	150.6	-3.8	108.5	3,224	6,390	8,376	10,866	7,642.00	51.5	EAFB 22 Concrete
67	63	103		205.9	3.0	149.2	-4.2	57.1	1,349	5,437	10,617	12,351	11,002.00	80.4	KSC 15 Concrete
68	67	105		201	2.5	151.5	-5.4	141.6	17	6,240	6,936	11,634	11,617.30	60.9	EAFB 22 Concrete

a. Based on runway measurements except for brake initiation (onboard servic

b. kgs = knots, ground speed

c. Sink rate based on LaRC analysis of KSC spin-up measureme

d. Data not available

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

LANDING DECELERATION

Miss Seq. No.	STS- No.	Orb. OV-	Notes		Velocities and Rates				Distance from Threshold, ft [a]				Total Rollout, ft	Rollout time, sec	Runway Data
				MGTD kgs [b]	Sink rates, ft/sec	NGTD, kgs [a]	Pitch rate, deg/sec	Brake init., kgs [b]	MGTD	NGTD	Brake init.	Stop			
69	71	104		206.2	2.0	166	-5.2	143.9	2,243	5,474	5,471	10,607	8,364.00	53.8	KSC 15 Concrete
70	70	103		198.7	1.6	163.4	-5.2	89.4	2,601	5,478	9,051	11,066	8,465.00	58.4	KSC 33 Concrete
71	69	105		218.1	4.4	167.1	-5.6	118	1,912	6,325	8,710	12,142	10,230.00	59.9	KSC 33 Concrete
72	73	102		213.3	2.0	157.1	-4.9	125.3	2,500	7,098	8,541	11,617	9,117.00	55.6	KSC 33 Concrete
73	74	104		195.8	2.2	156.6	-5.8	71.5	2,471	5,567	9,732	11,162	8,691.00	57.8	KSC 33 Concrete

a. Based on runway measurements except for brake initiation (onboard servic
b. kgs = knots, ground speed
c. Sink rate based on LaRC analysis of KSC spin-up measureme
d. Data not available

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

ORBITER DRAG CHUTE

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Serial Numbers (a) and Status Main Chute Pilot Chute	Event, G.m.t. (b) Deploy Jettison	Velocities (c) Deploy, kgs (keas) Jettison (kgs)	Distance from (d) Threshold, ft Deploy Jettison	Remarks
47	49	105		04/01-WAA New 01/01-WAA 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 (DTO 521, test 1). Drag chute MADS instrumented. Peak loads: 19,274 lb reefed; 47,406 lb disreefed.
48	50	102		04/02-WAA New 01/02-WAA 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 (DTO 521 test 0).
49	46	104		N/A	: : : : : :	()		OV-104 was not equipped with the Orbiter drag chute system on this flight.
50	47	105		04/03-WAA New 01/03-WAA New	264 : 12 : 53 : 30.7 264 : 12 : 53 : 57.2	182.2 (177.4) 54.7	5,326 10,409	DTO 521, test 2. Drag chute MADS instrumented. Peak loads: 26,829 lb reefed; 64,564 lb disreefed.
51	52	102		04/04-WAA New 01/05-WAA New	306 : 14 : 06 : 6.0 306 : 14 : 06 : 36.4	169.8 (163.7) 51.3	5,685 11,165	
52	53	103		04/05-WAA New 01/04-WAA New	344 : 20 : 44 : 0.2 344 : 20 : 44 : 24.9	159 (161.2) 60.4	5,468 9,775	
53	54	105		04/06-WAA New 01/06-WAA New	019 : 13 : 37 : 59.8 019 : 13 : 38 : 22.6	160.2 (161) 52.1	5,639 9,734	Drag chute MADS instrumented. Peak loads: 22,267 lb. reefed; 37,972 lb disreefed.
54	56	103		16/18-WAB New 01/08-WAA 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 percent.
55	55	102		04/07-WAA New 01/07-WAA New	126 : 14 : 30 : 14.9 126 : 14 : 30 : 40.6	157.2 (160.2) 54.2	6,772 11,153	
56	57	105		16/15-WAB New 01/09-WAA New	182 : 12 : 52 : 25.4 182 : 12 : 52 : 57.1	169.7 (173.7) 56.5	5,438 11,196	Main parachute canopy was permanently reefed at 90 percent. Drag chute MADS instrumented. Peak loads: 30,799 lb reefed; 46,314 lb disreefed.
57	51	103		18/17-WAB New 01/10-WAA New	265 : 07 : 56 : 15.6 265 : 07 : 56 : 42.5	165.7 (162) 47.5	5,044 9,948	First flight on main chute canopy configurd with five ribbons removed (applicable all subsequent flights).

Notes: (a) = Traceability ID: 07718-00XXXXXX
(b) = Taken from the instant of pyrotechnic capacitor voltage discharge
(c) = Equivalent airspeed data are unavailable below approx. 66.0 KEAS
(d) = From onboard service (V95H0220C)

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

ORBITER DRAG CHUTE

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Serial Numbers (a) and Status Main Chute Pilot Chute	Event, G.m.t. (b) Deploy Jettison	Velocities (c) Deploy, kgs (keas) Jettison (kgs)	Distance from (d) Threshold, ft Deploy Jettison	Remarks
58	58	102		18/16-WAB New 01/01-WAB New	305 : 15 : 05 : 51.4 305 : 15 : 06 : 24.4	174.5 (163.3) 47.3	6,436 12,428	Main chute canopy configured with five ribbons removed.
59	61	105		18/08-WAA New 01/03-WAB New	347 : 05 : 25 : 41.3 347 : 05 : 26 : 7.3	163.8 (167.4) 49.3	5,595 10,280	DTO 521 test 2 (rev.). Drag chute MADS instrumented. Peak loads: 27,774 lb reefed; 40,540 lb disreefed.
60	60	103		14-WAB New 02-WAB New	042 : 19 : 19 : 32.4 042 : 19 : 19 : 54.8	157.8 (169.9) 52.7	5,466 9,449	
61	62	102		009-WAA New 04-WAB New	077 : 13 : 09 : 54.6 077 : 13 : 10 : 21.5	165.9 (162.8) 57	7,460 12,489	
62	59	105		10-WAA New 05-WAB New	110 : 16 : 54 : 41.4 110 : 16 : 55 : 11.7	186.7 (177.7) 49.4	5,912 11,922	Drag chute MADS instrumented. MADS recorder failure no data.
63	65	102		011 WAB New 007 WAC New	204 : 10 : 38 : 8.9 204 : 10 : 38 : 42.5	175.9 (168) 52.9	6,064 9,655	
64	64	103		012 WAB New 006 WAB New	263 : 21 : 12 : 58.5 263 : 21 : 13 : 31.1	183.8 (182.9) 56.4	4,779 7,595	
65	68	105		013 WAB New 008 WAC New	284 : 17 : 02 : 10.5 284 : 17 : 02 : 45.2	187.9 (184.4) 54.9	4,399 9,888	DTO 521 test 4. Drag chute MADS instrumented. Peak loads 33,269 lb reefed; 61,589 lb disreefed.
66	66	104		009 WAA Used 009 WAC New	318 : 15 : 33 : 49.1 318 : 15 : 34 : 16.1	181.2 (179.4) 104.9	4,564 8,376	DTO 521 test 5. No instrumentation.
67	63	103		010 WAA Used 011 WAC New	042 : 11 : 50 : 26.5 042 : 11 : 51 : 5.1	177.7 (182.2) 59.5	3,720 10,617	
68	67	105		011 WAB Used 010 WAC New	077 : 21 : 47 : 15.9 077 : 21 : 47 : 42.9	145.6 (144.1) 53.7	6,635 6,936	Drag chute MADS instrumented. Peak loads: 12380 lb reefed; 21,934 lb disreefed.

Notes: (a) = Traceability ID: 07718-00XXXXXX
(b) = Taken from the instant of pyrotechnic capacitor voltage discharge
(c) = Equivalent airspeed data are unavailable below approx. 66.0 KEAS
(d) = From onboard service (V95H0220C)

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

ORBITER DRAG CHUTE

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Serial Numbers (a) and Status		Event, G.m.t. (b)	Velocities (c)	Distance from (d) Threshold, ft	Remarks
				Main Chute Pilot Chute		Deploy Jettison	Deploy, kgs (keas) Jettison (kgs)	Deploy Jettison	
69	71	104		012WAB (2) 012WAC	Used New	188 : 14 : 54 : 38.7 188 : 14 : 55 : 9.1	189.6 (183.2) 52.6	3,872 9,895	
70	70	103		013WAB (2) 013WAC	Used New	203 : 12 : 02 : 3.3 203 : 12 : 02 : 34.7	185.7 (180.4) 59.1	3,910 10,095	
71	69	105		010WAA (3) 015WAC	Used New	261 : 11 : 38 : 3.2 261 : 11 : 38 : 35.6	188.3 (183.2) 60.9	4,798 11,373	Drag chute MADs instrumented. Peak loads: 35,634 lb reefed; 43,433 lb disreefed.
72	73	102		011WAB (3) 014WAC	Used New	309 : 11 : 45 : 29.3 309 : 11 : 45 : 58.1	183.5 (183.5) 49.2	5,395 10,987	
73	74	104		009WAA (3) 016WAC	Used New	324 : 17 : 01 : 32.5 324 : 17 : 02 : 6.7	176.1 (176.9) 54.4	4,297 10,391	

Notes: (a) = Traceability ID: 07718-00XXXXXX
(b) = Taken from the instant of pyrotechnic capacitor voltage discharge
(c) = Equivalent airspeed data are unavailable below approx. 66.0 KEAS
(d) = From onboard service (V95H0220C)

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

CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers								Total	Maximum Pressures, psia				Remarks
				Left Hand				Right Hand					Left Hand		Right Hand		
				Outboard		Inboard		Outboard		Inboard			Outbd	Inbd	Inbd	Outbd	
				Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN						
1	1	102	a	12.39	04 / 22	14.23	04 / 24	20.85	04 / 21	4.02	04 / 23 Minor damage	51.49	896	864	1,480	624	
2	2	102	a,d	12.82	04 / 22	18.27	04 / 24	13.62	04 / 09	9.71	04 / 23	54.42	832	960	824	776	Longer wheel drive lug inserts installed.
3	3	102	a	12.30	04 / 22 Minor damage	19.90	04 / 24 Minor damage	27.80	04 / 09 Damage	21.10	04 / 23 Damage	81.10	976	1,080	936	984	
4	4	102	a	22.80	04 / 33	28.40	04 / 08 Damage	29.10	04 / 07 Damage	23.70	04 / 06	104.00	1,160	1,304	1,232	1,232	
5	5	102	a	37.40	04 / 33 Damage	42.60	04 / 31 Damage	32.40	04 / 32 Minor damage	29.80	04 / 06 Minor damage	142.20	1,720	1,728	1,632	1,632	Broken stator on LHIB, brake locked up last 60 feet of rollout.
6	6	099	b,d	34.90	18 / 17	32.30	18 / 18	16.20	18 / 14 Damage	13.80	18 / 16	97.20	1,648	1,664	1,176	1,096	Demonstration of hard braking. 118 deg saddle fitting installed.
7	7	099	a,d	2.88	17 / 38 Minor damage	1.96	17 / 36 Minor damage	13.64	17 / 35 Damage	8.26	17 / 37 Minor damage	26.74	840	768	776	704	Broken rotors on RHIB. Rotor and stator drive clips installed, and rivet material grade change.
8	8	099	a	36.60	17 / 24 Damage	34.00	17 / 22 Damage	29.60	17 / 21 Damage	25.70	17 / 34 Damage	125.90	1,432	1,368	1,184	1,160	

* Part Number/Serial Number
- a: PN MC621-0051-00XX/ SN 971530000XX
- b: PN MC621-0051-00XX/ SN 039530000XX
- c: PN MC621-0075-00XX/ SN 971530000XX
- d: Modifications were included on subsequent flights

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

CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers								Total	Maximum Pressures, psia				Remarks
				Left Hand				Right Hand					Left Hand		Right Hand		
				Outboard		Inboard		Outboard		Inboard			Outbd	Inbd	Inbd	Outbd	
				Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN						
9	9	102	a	13.75	17 / 06	18.24	17 / 33	14.08	17 / 31	11.87	17 / 32 Minor damage	57.94	720	824	792	768	
10	41B	099	a	27.57	17 / 16	22.39	17 / 14	27.19	17 / 18	19.12	17 / 08 Minor damage	96.27	888	768	856	752	
11	41C	099	b	16.27	17 / 35 Damage	14.02	17 / 23 Damage	17.18	17 / 09 Damage	13.73	17 / 07 Damage	61.20	984	904	864	768	
12	41D	103	a	11.03	19 / 40	12.57	17 / 41 Minor damage	7.71	17 / 42 Minor damage	5.55	17 / 39 Minor damage	36.86	824	864	832	752	New drive lug inserts and 360 deg saddle installed on outboard brakes. RH MLG strut partially deflated, GN2 leak at Schrader valve.
13	41G	099	a	20.65	22 / 37	16.14	22 / 38 Damage	22.80	22 / 36 Damage	21.67	22 / 08 Damage	81.26	1,400	1,270	1,747	1,466	360 deg saddle installed on all brakes. RH brakes MADS instrumented.
14	51A	103	a	22.88	22 / 43 Minor damage	24.21	19 / 40 Minor damage	32.38	22 / 46 Minor damage	30.34	22 / 45 Damage	109.81	728	776	968	920	
15	51C	103	a,d	23.48	20 / 14	24.26	20 / 16 Damage	22.19	20 / 17	20.79	20 / 18	90.72	1,240	1,280	1,128	1,056	Redesigned rotor drive clips installed.
16	51D	103	a	20.28	20 / 39	20.60	20 / 41 Minor damage	41.01	20 / 44 Damage	41.13	20 / 42 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.

* Part Number/Serial Number
- a: PN MC621-0051-00XX/ SN 971530000XX
- b: PN MC621-0051-00XX/ SN 039530000XX
- c: PN MC621-0075-00XX/ SN 971530000XX
- d: Modifications were included on subsequent flights

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

CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers								Total	Maximum Pressures, psia				Remarks
				Left Hand				Right Hand					Left Hand		Right Hand		
				Outboard		Inboard		Outboard		Inboard			Outbd	Inbd	Inbd	Outbd	
				Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN						
17	51B	099	a	16.28	20 / 35 Damage	14.35	20 / 22 Damage	15.01	20 / 24	11.04	20 / 34	56.68	1,090	1,090	1,090	1,060	Broken rotors on LH brakes; RH brakes MADS instrumented.
18	51G	103	a	22.21	20 / 08	23.17	20 / 36	12.86	20 / 38	11.63	20 / 37 Minor damage	69.87	1,472	1,592	944	960	
19	51F	099	a	26.45	20 / 40	22.20	20 / 43 Minor damage	21.15	20 / 46	14.67	20 / 45	84.47	1,407	1,272	1,080	983	RH brakes MADS instrumented.
20	51I	103	a	8.72	20 / 14	8.65	20 / 16	10.58	20 / 18 Minor damage	9.06	20 / 17 Minor damage	37.01	928	904	912	968	
21	51J	104	a	8.81	20 / 09 Minor damage	10.67	20 / 07 Minor damage	10.56	20 / 06	10.46	20 / 23 Minor damage	40.50	944	792	864	960	
22	61A	099	a,d	13.72	20 / 39	9.85	20 / 44	14.30	20 / 41	9.39	20 / 42	47.26	867	780	973	1,002	RH brakes MADS instrumented. Brake pedal bungee used.
23	61B	104	a	22.18	20 / 35	28.53	20 / 34	26.59	20 / 22	26.81	20 / 24	104.11	768	1,016	904	1,016	
24	61C	102	a,d	24.06	20 / 32	29.47	20 / 31 Minor damage	33.92	20 / 21 Damage	32.07	20 / 33 Damage	119.52	1,032	1,136	1,176	1,224	RHIB stator 3 had major cracks in beryllium due to over temperature. Brake pedal bungee used.

* Part Number/Serial Number
- a: PN MC621-0051-00XX/ SN 971530000XX
- b: PN MC621-0051-00XX/ SN 039530000XX
- c: PN MC621-0075-00XX/ SN 971530000XX
- d: Modifications were included on subsequent flights

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

CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers								Total	Maximum Pressures, psia				Remarks
				Left Hand				Right Hand					Left Hand		Right Hand		
				Outboard		Inboard		Outboard		Inboard			Outbd	Inbd	Inbd	Outbd	
				Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN						
25	51L	099	a	00.0	20 / 43	0.00	20 / 40	0.00	20 / 46	0.00	20 / 45	0.00	0	0	0	0	Vehicle lost at 73 seconds
26	26	103	a,d	16.49	30 / 24	14.89	30 / 22	17.55	30 / 35	19.36	30 / 34	68.29	1,093	850	1,070	1,053	RH brakes MADS instrumented. Added thick stator brake, stiffer axle, 6 brake orifices, and A/S circuit.
27	27	104	a	14.69	30 / 06	15.28	30 / 07	18.19	30 / 21	17.55	30 / 44	65.71	824	816	992	864	
28	29	103	a	23.49	30 / 22	22.09	30 / 24	28.72	30 / 35	29.49	30 / 34 Minor damage	103.79	976	855	1,190	1,097	Cracked rotor on RHOB. RH brakes MADS instrumented.
29	30	104	a	22.30	30 / 08	24.18	30 / 16	28.78	30 / 39	26.41	30 / 42	101.67	672	680	1,008	928	
30	28	102	a	8.84	30 / 09	8.06	30 / 17	7.84	30 / 14	9.06	30 / 18	33.80	752	680	664	792	
31	34	104	a	7.15	30 / 06 Minor damage	7.40	30 / 07	7.16	30 / 21	6.70	30 / 44 Minor damage	28.41	720	736	672	768	
32	33	103	a	33.44	30 / 08 Damage	30.96	30 / 16 Damage	34.47	30 / 35	34.29	30 / 34	133.16	1,200	1,116	1,097	1,060	Rotor cracking and beryllium carbide found on LH brakes. RH brakes MADS instrumented.

* Part Number/Serial Number
- a: PN MC621-0051-00XX/ SN 971530000XX
- b: PN MC621-0051-00XX/ SN 039530000XX
- c: PN MC621-0075-00XX/ SN 971530000XX
- d: Modifications were included on subsequent flights

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

CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers								Total	Maximum Pressures, psia				Remarks
				Left Hand				Right Hand					Left Hand		Right Hand		
				Outboard		Inboard		Outboard		Inboard			Outbd	Inbd	Inbd	Outbd	
				Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN						
33	32	102	a	39.42	30 / 22	36.84	30 / 24 Damage	26.44	30 / 39	31.28	30 / 42	133.99	1,184	1,088	856	968	Beryllium carbide found on all LHIB brake rotors
34	36	104	a	6.41	30 / 37	7.49	30 / 38	8.43	30 / 41	6.68	30 / 49	29.00	632	680	664	640	
35	31	103	c	15.80	01 / 29	20.16	01 / 26	22.86	01 / 24	26.07	01 / 25	84.89	793	833	1,031	952	RH brakes MADS instrumented. First carbon brake flight (DTO 519)
36	41	103	c	30.27	01 / 29	28.21	01 / 26	26.98	01 / 24	28.67	01 / 25	114.13	1,189	1,242	1,480	1,388	RH brakes MADS instrumented. Second carbon brake flight (DTO 519)
37	38	104	a	23.32	30 / 06	22.24	30 / 07	30.18	30 / 44	29.48	30 / 21	105.22	760	736	1,008	984	
38	35	102	a	34.11	30 / 09	32.71	30 / 18	31.42	30 / 14	34.49	30 / 17	132.73	1,240	1,120	1,272	1,376	
39	37	104	c	8.42	01 / 16	10.10	01 / 21	10.88	01 / 32	6.77	01 / 33	36.17	540	576	732	648	RHOB 4 brake pressure failed low during braking. Carbon brake DTO 519, condition 4.
40	39	103	c	29.64	01 / 29	30.39	01 / 26	37.28	01 / 24	36.68	01 / 25	133.99	1,335	1,335	1,573	1,533	RH brakes MADS instrumented. Carbon brake DTO 519, condition 3.

* Part Number/Serial Number
- a: PN MC621-0051-00XX/ SN 971530000XX
- b: PN MC621-0051-00XX/ SN 039530000XX
- c: PN MC621-0075-00XX/ SN 971530000XX
- d: Modifications were included on subsequent flights

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

CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers								Total	Maximum Pressures, psia				Remarks
				Left Hand				Right Hand					Left Hand		Right Hand		
				Outboard		Inboard		Outboard		Inboard			Outbd	Inbd	Inbd	Outbd	
				Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN						
41	40	102	a	30.16	30 / 08	28.16	30 / 16	34.20	30 / 42	38.24	30 / 39	130.76	1,160	1,024	1,144	1,248	Last STS flight of carbon beryllium brakes.
42	43	104	c	24.04	01 / 18	27.21	01 / 20	31.96	01 / 23	27.62	01 / 19	110.83	852	936	1,008	972	RHOB 4 brake pressure failed low during braking.
43	48	103	c	26.03	01 / 22	26.62	01 / 34	31.64	01 / 27	30.45	01 / 32	114.74	1,189	1,150	1,361	1,269	RH brakes MADS instrumented.
44	44	104	c	0.12	01 / 18	0.18	01 / 20 Minor damage	0.51	01 / 30 Damage	0.22	01 / 19 Minor damage	1.03	372	396	624	492	Cracked rotor on RHIB. All brake damage due to improper workmanship. Lakebed DTO 520 (minimum braking).
45	42	103	c	27.95	01 / 22	28.03	01 / 34	30.32	01 / 27	30.83	01 / 32	117.13	912	872	938	991	Brakes MADS instrumented.
46	45	104	c	27.26	01 / 24	29.32	01 / 25	29.10	01 / 33	25.90	01 / 23	111.58	1,044	1,044	1,104	972	
47	49	105	c	15.05	01 / 15	16.27	01 / 13	12.36	01 / 28	11.65	01 / 31	55.33	1,080	1,092	852	792	Carbon brake DTO 519, condition 6.
48	50	102	c	25.67	01 / 21	27.50	01 / 16	19.43	01 / 29	12.76	01 / 26	85.36	1,164	1,212	984	1,008	RHOB 4 brake pressure failed low during braking. Carbon brake DTO 519, condition 5.

* Part Number/Serial Number
- a: PN MC621-0051-00XX/ SN 971530000XX
- b: PN MC621-0051-00XX/ SN 039530000XX
- c: PN MC621-0075-00XX/ SN 971530000XX
- d: Modifications were included on subsequent flights

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

CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers								Total	Maximum Pressures, psia				Remarks
				Left Hand				Right Hand					Left Hand		Right Hand		
				Outboard		Inboard		Outboard		Inboard			Outbd	Inbd	Inbd	Outbd	
				Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN						
49	46	104	c	24.95	01 / 24	27.37	01 / 25	31.17	01 / 33	26.96	01 / 23	110.50	840	876	1,068	972	
50	47	105	c	19.53	01 / 15	17.86	01 / 13	27.01	01 / 28	24.42	01 / 31	88.82	1,272	1,140	1,728	1,476	
51	52	102	c	11.84	01 / 21	12.71	01 / 16	16.87	01 / 29 Minor Damage	17.92	01 / 26	59.34	648	636	984	960	Many of the rivet bushings on RHIB rotor 2 were damaged.
52	53	103	c	6.20	01 / 22	9.98	01 / 34	11.31	01 / 27	6.00	01 / 32	33.49	502	515	793	621	RH brake MADS instrumented, but all data were lost due to MADS anomaly.
53	54	105	c	16.21	01 / 15	17.90	01 / 13	12.77	01 / 28	10.96	01 / 31	57.84	1,284	1,272	1,116	948	LH0B 4 brake pressure failed low during braking.
54	56	103	c	11.37	01 / 22	13.65	01 / 34	11.62	01 / 27	8.15	01 / 32	44.79	714	767	859	846	RH brakes MADS instrumented (some data lost due to MADS anomaly).
55	55	102	c	10.15	01 / 21	13.03	01 / 16	16.16	01 / 25	18.67	01 / 26	58.01	864	936	1,332	1,344	
56	57	105	c	19.90	01 / 15	19.09	01 / 13	11.42	01 / 28	8.84	01 / 31	59.25	1,188	1,176	1,092	972	

* Part Number/Serial Number
- a: PN MC621-0051-00XX/ SN 971530000XX
- b: PN MC621-0051-00XX/ SN 039530000XX
- c: PN MC621-0075-00XX/ SN 971530000XX
- d: Modifications were included on subsequent flights

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

CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers								Total	Maximum Pressures, psia				Remarks
				Left Hand				Right Hand					Left Hand		Right Hand		
				Outboard		Inboard		Outboard		Inboard			Outbd	Inbd	Inbd	Outbd	
				Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN						
57	51	103	c	17.37	01 / 22	19.94	01 / 34	18.13	01 / 27	15.01	01 / 18	70.45	1,071	1,150	1,031	872	RH brake MADS instrumented.
58	58	102	c	26.52	01 / 21	27.29	01 / 16	14.04	01 / 25	16.26	01 / 26	84.11	1,104	1,176	708	768	
59	61	105	c	20.64	01 / 15	20.21	01 / 13	14.23	01 / 28	11.59	01 / 31	66.67	1,248	1,236	1,032	996	
60	60	103	c	13.19	01 / 29	16.68	01 / 33	18.90	01 / 24	15.25	01 / 18	64.02	1,084	1,097	1,282	1,150	
61	62	102	c	25.53	01 / 21	26.45	01 / 16	15.56	01 / 25	18.24	01 / 26	85.78	1,428	1,404	1,272	1,272	
62	59	105	c	16.73	01 / 27	28.39	01 / 32	22.87	01 / 22	18.72	01 / 34	86.71	1,272	1,296	1,140	984	LOB channel 2 intentionally disconnected prior to flight.
63	65	102	c	18.04	01 / 21	15.80	01 / 16	17.96	01 / 25	20.75	01 / 26	72.55	1,164	1,140	880	960	
64	64	103	c	9.29	01 / 29	12.20	01 / 33	23.62	01 / 24	18.96	01 / 18	64.07	714	714	938	780	

* Part Number/Serial Number
- a: PN MC621-0051-00XX/ SN 971530000XX
- b: PN MC621-0051-00XX/ SN 039530000XX
- c: PN MC621-0075-00XX/ SN 971530000XX
- d: Modifications were included on subsequent flights

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

CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers								Total	Maximum Pressures, psia				Remarks
				Left Hand				Right Hand					Left Hand		Right Hand		
				Outboard		Inboard		Outboard		Inboard			Outbd	Inbd	Inbd	Outbd	
				Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN						
65	68	105	c	10.05	01 / 27	12.54	01 / 32	11.45	01 / 22	8.60	01 / 34	42.64	552	648	588	444	
66	66	104	c	17.68	01 / 19	20.53	01 / 30	16.18	01 / 23	15.19	01 / 20	69.58	996	1,044	840	846	
67	63	103	c	5.36	01 / 29	7.52	01 / 33	6.54	01 / 24	3.88	01 / 18	23.30	647	687	726	568	
68	67	105	c	12.31	01 / 27	14.17	01 / 32	14.90	01 / 22	10.73	01 / 34	52.11	1,404	1,428	1,464	1,416	
I 69	71	104	c	16.77	01 / 19	19.62	01 / 30	24.18	01 / 23	23.09	01 / 20	83.66	828	864	852	792	No brake damage.
I 70	70	103	c	11.09	01 / 29	12.81	01 / 33	12.92	01 / 24	10.82	01 / 18	47.64	674	687	819	661	No brake damage.
I 71	69	105	c	15.52	01 / 27	16.20	01 / 32	18.12	01 / 22	16.31	01 / 34	66.15	888	936	1,020	876	No brake damage.
I 72	73	102	c	19.97	01 / 15	21.17	01 / 13	23.98	01 / 31	25.23	01 / 28	90.35	984	1,032	1,344	1,382	No brake damage.

* Part Number/Serial Number
- a: PN MC621-0051-00XX/ SN 971530000XX
- b: PN MC621-0051-00XX/ SN 039530000XX
- c: PN MC621-0075-00XX/ SN 971530000XX
- d: Modifications were included on subsequent flights

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

CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Gross Brake Energies, Million ft-lb, and Serial/Part Numbers								Total	Maximum Pressures, psia				Remarks
				Left Hand				Right Hand					Left Hand		Right Hand		
				Outboard		Inboard		Outboard		Inboard			Outbd	Inbd	Inbd	Outbd	
				Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN	Energy	*PN/SN						
73	74	104	c	6.75	01 / 19	7.74	01 / 30	9.84	01 / 23	9.89	01 / 20	34.22	708	768	864	840	No brake damage.

* Part Number/Serial Number
- a: PN MC621-0051-00XX/ SN 971530000XX
- b: PN MC621-0051-00XX/ SN 039530000XX
- c: PN MC621-0075-00XX/ SN 971530000XX
- d: Modifications were included on subsequent flights

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

LANDING AND FERRY

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Planned/ Actual Landing Site	Landing Time, G.m.t Main Gear Nose Gear Wheels Stop	Runway Day No	Runway Day Type	Winds True Dir Deg./Speed(a.) Alt,ft	Ferry Flight Data Prep. Time d:h:m	Actual Departure Date/Time	Actual Landing Date/Time	Stops Over Night	Stops Fuel	Remarks
1	1	102		EAFB /	104 : 18 : 20 : 57.0 104 : 18 : 21 : 07.0 104 : 18 : 21 : 57.0 : : :	23	Dry lake bed	000 / 00 (Calm)	12 : 22 : 55	04 / 27 / 81 10 : 16 pdt	04 / 28 / 81 11 : 00 edt	1	0	
2	2	102		EAFB /	318 : 21 : 23 : 11.0 318 : 21 : 23 : 27.0 318 : 21 : 24 : 04.0 : : :	23	Dry lake bed	220 / 08	10 : 01 : 05	11 / 24 / 81 14 : 28 pst	11 / 25 / 81 13 : 19 est	1	0	
3	3	102		EAFB / WSSH,NM	089 : 16 : 04 : 46.0 089 : 16 : 05 : 00.0 089 : 16 : 06 : 09.0 : : :	17	Gyp-sum lake bed	220 / 13	06 : 21 : 55	04 / 06 / 82 07 : 00 ms	04 / 06 / 82 16 : 00 est	0	1	Wet EAFB lakebed resulted in landing at WSSH, NM.
4	4	102		EAFB /	185 : 16 : 09 : 31.0 185 : 16 : 09 : 54.0 185 : 16 : 10 : 44.0 : : :	22	Con-crete	240 / 12	09 : 22 : 36	07 / 14 / 82 07 : 46 pdt	07 / 15 / 82 10 : 30 edt	1	0	
5	5	102		EAFB /	320 : 14 : 33 : 26.0 320 : 14 : 33 : 34.0 320 : 14 : 34 : 29.0 : : :	22	Con-crete	012 / 02	05 : 00 : 57	11 / 21 / 82 07 : 30 pst	11 / 22 / 82 12 : 16 est	1	0	
6	6	099		EAFB /	099 : 18 : 53 : 42.0 099 : 18 : 53 : 53.0 099 : 18 : 54 : 31.0 : : :	22	Con-crete	210 / 18	04 : 19 : 06	04 / 14 / 83 06 : 00 pst	04 / 16 / 83 12 : 45 est	2	0	
7	7	099		KSC / EAFB	175 : 13 : 56 : 59.0 175 : 13 : 57 : 19.0 175 : 13 : 58 : 14.0 : : :	15	Dry lake bed	190 / 07	04 : 03 : 33	06 / 28 / 83 10 : 30 pdt	06 / 29 / 83 10 : 20 edt	1	0	Poor visibility at KSC resulted in landing at EAFB.
8	8	099		EAFB /	248 : 07 : 40 : 43.0 248 : 07 : 40 : 50.0 248 : 07 : 41 : 33.0 : : :	22	Con-crete	210 / 06	04 : 05 : 41	09 / 09 / 83 06 : 22 pdt	09 / 09 / 83 19 : 00 edt	0	1	First night landing.
9	9	102		EAFB /	342 : 23 : 47 : 24.0 342 : 23 : 47 : 38.0 342 : 23 : 48 : 17.0 : : :	17L	Dry lake bed	010 / 03	05 : 17 : 08	12 / 14 / 83 08 : 55 pst	12 / 15 / 83 14 : 53 est	1	2	

a
p = peak

Source: JSC/ZS8, NOAA Spaceflight Meteorology Group, and
JSC/ES6, Mechanical Design and Analysis Branch
In-house Mission Reports
JSC/CC2, Aircraft Systems Quality Assurance Branch, Report

LANDING AND FERRY

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Planned/ Actual Landing Site	Landing Time, G.m.t Main Gear / Nose Gear / Wheels Stop	Runway Day No	Runway Day Type	Winds True Dir Deg./Speed(a.) Alt,ft	Ferry Flight Data Prep. Time d:h:m	Actual Departure Date/Time	Actual Landing Date/Time	Stops Over Night	Stops Fuel	Remarks
10	41B	099		KSC /	042 : 12 : 15 : 55.0 042 : 12 : 16 : 06.0 042 : 12 : 17 : 02.0 : : :	15	Con-crete	010 / 03	: :	/ / : :	/ / : :			Wind caused change from RW 33 to 15. Landed kat KSC. On ferry required.
11	41C	099		KSC / EAFB	104 : 13 : 38 : 07.0 104 : 13 : 38 : 22.0 104 : 13 : 38 : 56.0 : : :	17L	Dry lake bed	000 / 00 (Calm)	04 : 00 : 09	04 / 17 / 84 05 : 47 pst	04 / 18 / 84 10 : 08 est	1	0	Storms at KSC resulted in landing at EAFB.
12	41D	103		EAFB /	249 : 13 : 37 : 54.0 249 : 13 : 38 : 08.0 249 : 13 : 38 : 54.0 : : :	17L	Dry lake bed	220 / 04	03 : 23 : 57	09 / 09 / 84 06 : 35 pdt	09 / 10 / 84 11 : 45 edt	0	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 : 38.0 287 : 16 : 26 : 47.0 287 : 16 : 27 : 32.0 : : :	33	Con-crete	320 / 08	: :	/ / : :	/ / : :			Landed at KSC. No ferry required.
14	51A	103		KSC /	321 : 11 : 59 : 56.0 321 : 12 : 00 : 09.0 321 : 12 : 00 : 54.0 : : :	15	Con-crete	330 / 05	: :	/ / : :	/ / : :			Landed at KSC. No ferry required.
15	51C	103		KSC /	027 : 21 : 23 : 23.0 027 : 21 : 23 : 35.0 027 : 21 : 24 : 13.0 : : :	15	Con-crete	160 / 08	: :	/ / : :	/ / : :			Landed at KSC. No ferry required.
16	51D	103		KSC /	109 : 13 : 54 : 28.0 109 : 13 : 54 : 36.0 109 : 13 : 55 : 31.0 : : :	33	Con-crete	090 / 09	: :	/ / : :	/ / : :			Landed at KSC. No ferry required.
17	51B	099		EAFB /	126 : 16 : 11 : 04.0 126 : 16 : 11 : 16.0 126 : 16 : 12 : 03.0 : : :	17L	Dry lake bed	210 / 05	04 : 03 : 09	05 / 10 / 85 12 : 20 pdt	05 / 11 / 85 11 : 05 edt	1	0	Stopped at Kelly AFB, TX.
18	51G	103		EAFB /	175 : 13 : 11 : 52.0 175 : 13 : 12 : 05.0 175 : 13 : 12 : 34.0 : : :	23	Dry lake bed	160 / 11	03 : 23 : 58	06 / 28 / 85 06 : 10 pdt	06 / 28 / 85 16 : 52 edt	0	1	Fuel stop at Bergstrom AFB, TX.

a
p = peak

Source: JSC/ZS8, NOAA Spaceflight Meteorology Group, and
JSC/ES6, Mechanical Design and Analysis Branch
In-house Mission Reports
JSC/CC2, Aircraft Systems Quality Assurance Branch, Report

LANDING AND FERRY

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Planned/ Actual Landing Site	Landing Time, G.m.t Main Gear Nose Gear Wheels Stop	Runway Day No	Runway Day Type	Winds True Dir Deg./Speed(a.) Alt,ft	Ferry Flight Data Prep. Time d:h:m	Actual Departure Date/Time	Actual Landing Date/Time	Stops Over Night	Stops Fuel	Remarks
19	51F	099		EAFB /	218 : 19 : 45 : 26.0 218 : 19 : 45 : 33.0 218 : 19 : 46 : 21.0 : : :	23	Dry lake bed	220 / 10	03 : 18 : 05	08 / 10 / 85 02 : 51 pdt	08 / 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 : 43.0 246 : 13 : 15 : 51.0 246 : 13 : 16 : 30.0 : : :	23	Dry lake bed	240 / 18	04 : 00 : 14	09 / 07 / 85 06 : 30 pdt	09 / 08 / 85 11 : 30 edt	1	0	Overnight stop at Kelly AFB, TX.
21	51J	104		EAFB /	280 : 17 : 00 : 08.0 280 : 17 : 00 : 15.0 280 : 17 : 01 : 13.0 : : :	23	Dry lake bed	270 / 12	03 : 20 : 55	10 / 11 / 85 06 : 55 pdt	10 / 11 / 85 18 : 10 edt	0	1	Fuel stop at Kelly AFB, TX.
22	61A	099		EAFB /	310 : 17 : 44 : 53.0 310 : 17 : 45 : 01.0 310 : 17 : 45 : 38.0 : : :	17L	Dry lake bed	170 / 01	03 : 21 : 05	11 / 10 / 85 06 : 50 pst	11 / 11 / 85 13 : 35 est	1	2	Fuel stops at Davis-Monthan AFB, AZ, and Eglin AFB, FL. Overnight stop at Kelly AFB, TX
23	61B	104		EAFB /	337 : 21 : 33 : 49.0 337 : 21 : 34 : 00.0 337 : 21 : 35 : 07.0 : : :	22	Con-crete	010 / 05	03 : 16 : 56	12 / 07 / 85 06 : 30 pst	12 / 07 / 85 17 : 15 est	0	1	Fuel stop at Kelly AFB, TX.
24	61C	102		KSC / EAFB	018 : 13 : 58 : 51.0 018 : 13 : 59 : 07.0 018 : 13 : 59 : 50.0 : : :	22	Con-crete	260 / 01	04 : 01 : 06	01 / 22 / 86 07 : 05 pst	01 / 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		/	: : : : : : : : : : : :			/	: :	/ / :	/ / :			Vehicle destroyed at 73 seconds.
26	26	103		EAFB /	277 : 16 : 37 : 11.0 277 : 16 : 37 : 17.0 277 : 16 : 37 : 56.0 : : :	17L	Dry lake-bed	010 / 02	04 : 22 : 06	10 / 08 / 88 07 : 43 pdt	10 / 08 / 88 19 : 03 edt	0	1	Fuel stop at Kelly AFB, TX.
27	27	104		EAFB /	341 : 23 : 36 : 11.0 341 : 23 : 36 : 17.0 341 : 23 : 36 : 52.0 : : :	17L	Dry lake-bed	110 / 02	04 : 23 : 48	12 / 11 / 88 15 : 24 pst	12 / 13 / 88 18 : 37 est	2	0	Fuel stop at Davis-Monthan AFB, AZ, and Kelly AFB, TX.

a
p = peak

Source: JSC/ZS8, NOAA Spaceflight Meteorology Group, and
JSC/ES6, Mechanical Design and Analysis Branch
In-house Mission Reports
JSC/CC2, Aircraft Systems Quality Assurance Branch, Report

LANDING AND FERRY

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Planned/ Actual Landing Site	Landing Time, G.m.t Main Gear Nose Gear Wheels Stop	Runway Day No	Runway Day Type	Winds True Dir Deg./Speed(a.) Alt,ft	Ferry Flight Data Prep. Time d:h:m	Ferry Flight Data Actual Departure Date/Time	Ferry Flight Data Actual Landing Date/Time	Ferry Flight Data Stops Over Night	Ferry Flight Data Stops Fuel	Remarks
28	29	103		EAFB /	077 : 14 : 35 : 50.0 077 : 14 : 36 : 00.0 077 : 14 : 36 : 40.0 : : :	22	Con-crete	220 / 06	05 : 04 : 24	03 / 23 / 89 11 : 00 pst	03 / 24 / 89 12 : 05 est	1	1	Fuel stop at Kelly AFB, TX.
29	30	104		EAFB /	128 : 19 : 43 : 26.0 128 : 19 : 43 : 37.0 128 : 19 : 44 : 30.0 : : :	22	Con-crete	280 / 08P16 Crosswind DTO 8	05 : 02 : 57	05 / 13 / 89 15 : 40 pdt	05 / 15 / 89 20 : 09 edt	2	3	Biggs AAF, TX, for overnight. DFW Dallas, TX Fuel. Robbins AFB, GA - Fuel.
30	28	102		EAFB /	225 : 13 : 37 : 08.0 225 : 13 : 37 : 13.0 225 : 13 : 37 : 52.0 : : :	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 : 01.0 296 : 16 : 33 : 10.0 296 : 16 : 34 : 00.0 : : :	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 : 18.0 332 : 00 : 30 : 26.0 332 : 00 : 31 : 02.0 : : :	04	Con-crete	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 : 36.0 020 : 09 : 35 : 50.0 020 : 09 : 36 : 38.0 : : :	22	Con-crete	300 / 04P05	05 : 05 : 54	01 / 25 / 90 07 : 30 pst	01 / 26 / 90 15 : 29 est	1	2	Fuel stop at Davis Monthan AFB, AZ. Overnight and fuel stops at Kelly AFB TX., and Eglin AFB
34	36	104		EAFB /	063 : 18 : 08 : 44.0 063 : 18 : 08 : 54.0 063 : 18 : 09 : 37.0 : : :	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 : 57.0 119 : 13 : 50 : 09.0 119 : 13 : 50 : 58.0 : : :	22	Con-crete	180 / 07P10	06 : 00 : 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 : 19.0 283 : 13 : 57 : 31.0 283 : 13 : 58 : 08.0 : : :	22	Con-crete	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.

a
p = peak

Source: JSC/ZS8, NOAA Spaceflight Meteorology Group, and
JSC/ES6, Mechanical Design and Analysis Branch
In-house Mission Reports
JSC/CC2, Aircraft Systems Quality Assurance Branch, Report

LANDING AND FERRY

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Planned/ Actual Landing Site	Landing Time, G.m.t Main Gear Nose Gear Wheels Stop	Runway Day No	Runway Day Type	Winds True Dir Deg./Speed(a.) Alt,ft	Ferry Flight Data Prep. Time d:h:m	Actual Departure Date/Time	Actual Landing Date/Time	Stops Over Night	Stops Fuel	Remarks
37	38	104		EAFB / KSC	324 : 21 : 42 : 46.0 324 : 21 : 42 : 52.0 324 : 21 : 43 : 38.0 : : :	33	Concrete	020 / 05P07	: :	/ / : 	/ / : 			Weather concerns at EAFB resulted in landing at KSC. No ferry required.
38	35	102		EAFB /	345 : 05 : 54 : 09.0 345 : 05 : 54 : 20.0 345 : 05 : 55 : 06.0 : : :	22	Concrete	014 / 01P02	07 : 09 : 06	12 / 18 / 90 07 : 00 pst	12 / 20 / 90 13 : 01 est	2	3	Refuel at Biggs AAF, TX and Kelly AFB, TX. RON Kelly AFB. Refuel and RON at
39	37	104		EAFB /	101 : 13 : 55 : 29.0 101 : 13 : 55 : 35.0 101 : 13 : 56 : 24.0 : : :	33	Dry lake bed	008 / 17P21	05 : 03 : 15	04 / 16 / 91 10 : 10 pdt	04 / 18 / 91 09 : 36 edt	2	2	RON at Columbus AFB, MS., and RON at MacDill AFB, FL.
40	39	103		EAFB / KSC	126 : 18 : 55 : 37.0 126 : 18 : 55 : 49.0 126 : 18 : 56 : 31.0 : : :	15	Concrete	155 / 12P16	: :	/ / : 	/ / : 			Landed at KSC. No ferry required.
41	40	102		EAFB /	165 : 15 : 39 : 11.0 165 : 15 : 39 : 25.0 165 : 15 : 40 : 05.0 : : :	22	Concrete	227 / 12P17	05 : 00 : 20	06 / 19 / 91 08 : 59 pdt	06 / 21 / 91 08 : 28 edt	2	2	RON at Biggs AAF, TX, and at Columbus AFB, MS.
42	43	104		KSC /	223 : 12 : 23 : 25.0 223 : 12 : 23 : 36.0 223 : 12 : 24 : 23.0 : : :	15	Concrete	240 / 07	: :	/ / : 	/ / : 			Landed at KSC. No ferry required.
43	48	103		KSC / EAFB	261 : 07 : 38 : 42.0 261 : 07 : 38 : 53.0 261 : 07 : 39 : 31.0 : : :	22	Concrete	200 / 08	06 : 08 : 59	09 / 24 / 91 09 : 38 pdt	09 / 26 / 91 12 : 15 edt	2	3	Fuel stop at Biggs AAF, TX; RON at Tinker AFB, OK; RON at Columbus AFB, MS
44	44	104		KSC / EAFB	335 : 22 : 34 : 44.0 335 : 22 : 34 : 50.0 335 : 22 : 36 : 28.0 : : :	05R	Dry lake bed	074 / 13P15	05 : 17 : 25	12 / 07 / 91 07 : 40 pst	12 / 08 / 91 12 : 27 est	1	1	RON at Sheppard AFB, TX.
45	42	103		EAFB /	030 : 16 : 07 : 17.0 030 : 16 : 07 : 27.0 030 : 16 : 08 : 15.0 : : :	22	Concrete	300 / 02	15 : 00 : 03	02 / 14 / 92 08 : 10 pst	02 / 16 / 92 12 : 50 est	2	1	RON at Biggs AAF, TX. RON at Kelly AFB, TX.

a
p = peak

Source: JSC/ZS8, NOAA Spaceflight Meteorology Group, and
JSC/ES6, Mechanical Design and Analysis Branch
In-house Mission Reports
JSC/CC2, Aircraft Systems Quality Assurance Branch, Report

LANDING AND FERRY

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Planned/ Actual Landing Site	Landing Time, G.m.t Main Gear Nose Gear Wheels Stop	Runway Day No	Runway Day Type	Winds True Dir Deg./Speed(a.) Alt,ft	Ferry Flight Data Prep. Time d:h:m	Ferry Flight Data Actual Departure Date/Time	Ferry Flight Data Actual Landing Date/Time	Stops Over Night	Stops Fuel	Remarks
46	45	104		KSC /	093 : 11 : 23 : 08.0 093 : 11 : 23 : 13.0 093 : 11 : 24 : 04.0 : : :	33	Con-crete	290 / 08P12	: :	/ / : 	/ / : 			Landed at KSC. No ferry required.
47	49	105		EAFB /	137 : 20 : 57 : 38.0 137 : 20 : 57 : 48.0 137 : 20 : 58 : 36.0 : : :	22	Con-crete	232 / 02P06	10 : 15 : 57	05 / 27 / 92 05 : 55 pdt	05 / 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 : 27.0 191 : 11 : 42 : 44.0 191 : 11 : 43 : 25.0 : : :	33	Con-crete	258 / 05P08	: :	/ / : 	/ / : 			Landed at KSC. No ferry required.
49	46	104		KSC /	221 : 13 : 11 : 51.0 221 : 13 : 12 : 05.0 221 : 13 : 12 : 55.0 : : :	33	Con-crete	330 / 01	: :	/ / : 	/ / : 			Landed at KSC. No ferry required.
50	47	105		KSC /	264 : 12 : 53 : 23.0 264 : 12 : 53 : 39.0 264 : 12 : 54 : 13.0 : : :	33	Con-crete	270 / 02P04	: :	/ / : 	/ / : 			Landed at KSC. No ferry required.
51	52	102		KSC /	306 : 14 : 05 : 52.0 306 : 14 : 06 : 10.0 306 : 14 : 06 : 55.0 : : :	33	Con-crete	080 / 06P09	: :	/ / : 	/ / : 			Landed at KSC. No ferry required.
52	53	103		KSC / EAFB	344 : 20 : 43 : 46.6 344 : 20 : 44 : 03.6 344 : 20 : 44 : 59.4 : : :	22	Con-crete	274 / 14P19	06 : 00 : 12	12 / 15 / 92 13 : 55 pst	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	Con-crete	360 / 04P06	: :	/ / : 	/ / : 			Landed at KSC. No ferry required.
54	56	103		KSC /	107 : 11 : 37 : 23.0 107 : 11 : 37 : 34.0 107 : 11 : 38 : 21.7 : : :	33	Con-crete	320 / 06P08	: :	/ / : 	/ / : 			Landed at KSC. No ferry required.

a
p = peak

Source: JSC/ZS8, NOAA Spaceflight Meteorology Group, and
JSC/ES6, Mechanical Design and Analysis Branch
In-house Mission Reports
JSC/CC2, Aircraft Systems Quality Assurance Branch, Report

LANDING AND FERRY

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Planned/ Actual Landing Site	Landing Time, G.m.t Main Gear Nose Gear Wheels Stop	Runway Day No	Runway Day Type	Winds True Dir Deg./Speed(a.) Alt,ft	Ferry Flight Data Prep. Time d:h:m	Actual Departure Date/Time	Actual Landing Date/Time	Stops Over Night	Stops Fuel	Remarks
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	05 / 11 / 93 11 : 56 pst	05 / 14 / 93 14 : 30 edt	3	1	RON at Biggs AAF, TX. RON (2) at Kelly AFB, TX
56	57	105		KSC /	182 : 12 : 52 : 15.7 182 : 12 : 52 : 33.4 182 : 12 : 53 : 21.0 : : :	33	Concrete	320 / 07P10	: :	/ / :	/ / :			Landed at KSC. No ferry required.
57	51	103		KSC /	265 : 07 : 56 : 06.3 265 : 07 : 56 : 21.3 265 : 07 : 56 : 56.4 : : :	15	Concrete	000 / 00 calm	: :	/ / :	/ / :			Landed at KSC. No ferry required.
58	58	102		EAFB /	305 : 15 : 05 : 42.1 305 : 15 : 05 : 53.1 305 : 15 : 06 : 43.0 : : :	22	Concrete	029 / 02P03	05 : 22 : 59	11 / 7 / 93 06 : 05 pst	11 / 08 / 93 10 : 00 est	1	2	RON at Columbus AFB Ms.
59	61	105		KSC /	347 : 05 : 25 : 32.6 347 : 05 : 25 : 45.2 347 : 05 : 26 : 26.0 : : :	33	Concrete	330 / 05P08	: :	/ / :	/ / :			Landed at KSC. No ferry required.
60	60	103		KSC /	042 : 19 : 19 : 22.2 042 : 19 : 19 : 41.1 042 : 19 : 20 : 13.0 : : :	15	Concrete	150 / 08P18	: :	/ / :	/ / :			Landed at KSC. No ferry required.
61	62	102		KSC /	077 : 13 : 09 : 40.5 077 : 13 : 09 : 59.6 077 : 13 : 10 : 35.0 : : :	33	Concrete	190 / 05P08	: :	/ / :	/ / :			Landed at KSC. No ferry required.
62	59	105		KSC / EAFB	110 : 16 : 54 : 29.3 110 : 16 : 54 : 45.2 110 : 16 : 55 : 23.0 : : :	22	Concrete	354 / 00P02	08 : 23 : 05	04 / 29 / 94 09 : 00 pdt	05 / 02 / 94 09 : 00 edt	3	1	RON at Biggs AAF, Tx. RON (2) at Little Rock Air Force Base, Ark.
63	65	102		KSC /	204 : 10 : 37 : 59.6 204 : 10 : 38 : 17.3 204 : 10 : 39 : 08.0 : : :	33	Concrete	150 / 3P4	: :	/ / :	/ / :			Landed at KSC. No ferry required.

a
p = peak

Source: JSC/ZS8, NOAA Spaceflight Meteorology Group, and
JSC/ES6, Mechanical Design and Analysis Branch
In-house Mission Reports
JSC/CC2, Aircraft Systems Quality Assurance Branch, Report

LANDING AND FERRY

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Planned/ Actual Landing Site	Landing Time, G.m.t Main Gear Nose Gear Wheels Stop	Runway Day No	Runway Day Type	Winds True Dir Deg./Speed(a.) Alt,ft	Ferry Flight Data Prep. Time d:h:m	Ferry Flight Data Actual Departure Date/Time	Ferry Flight Data Actual Landing Date/Time	Ferry Flight Data Stops Over Night	Ferry Flight Data Stops Fuel	Remarks
64	64	103		KSC / EAFB	263 : 21 : 12 : 51.5 263 : 21 : 13 : 03.3 263 : 21 : 13 : 53.0 : : :	4	Con-crete	40 / 10P13	05 : 20 : 53	09 / 26 / 94 11 : 05 pdt	09 / 27 / 94 10 : 30 edt	1	0	RON at Kelly AFB, TX
65	68	105		KSC / EAFB	284 : 17 : 02 : 08.0 284 : 17 : 02 : 21.1 284 : 17 : 03 : 09.8 : : :	22	Con-crete	200 / 8P10	08 : 00 : 53	10 / 19 / 94 10 : 55 pdt	10 / 20 / 94 16 : 05 edt	1	2	RON at Dyess AFB, TX.
66	66	104		KSC / EAFB	318 : 15 : 33 : 45.2 318 : 15 : 33 : 55.7 318 : 15 : 34 : 36.7 : : :	22	Con-crete	360 / 4P4	06 : 22 : 52	11 / 21 / 94 06 : 25 pst	11 / 22 / 94 09 : 25 est	1	1	RON at Eglin AFB, FL.
67	63	103		KSC /	042 : 11 : 50 : 19.2 042 : 11 : 50 : 32.8 042 : 11 : 51 : 39.6 : : :	15	Con-crete	170 / 5P7	: :	/ / :	/ / :			Landed at KSC. No ferry required.
68	67	105		KSC / EAFB	077 : 21 : 46 : 59.1 077 : 21 : 47 : 14.2 077 : 21 : 48 : 00.0 : : :	22	Con-crete	231 / 15P22	07 : 20 : 12	03 / 26 / 95 10 : 00 pst	03 / 27 / 95 16 : 50 est	1	1	RON at Dyess AFB, TX.
69	71	104		KSC /	188 : 14 : 54 : 34.1 188 : 14 : 54 : 44.1 188 : 14 : 55 : 27.9 : : :	15	Con-crete	30 / 7P11	: :	/ / :	/ / :			No ferry required.
70	70	103		KSC /	203 : 12 : 01 : 59.6 203 : 12 : 02 : 08.6 203 : 12 : 02 : 58.0 : : :	33	Con-crete	200 / 5P5	: :	/ / :	/ / :			No ferry required
71	69	105		KSC /	261 : 11 : 37 : 54.9 261 : 11 : 38 : 08.2 261 : 11 : 38 : 54.8 : : :	33	Con-crete	220 / 5P5	: :	/ / :	/ / :			No ferry required
72	73	102		KSC /	309 : 11 : 45 : 21.0 309 : 11 : 45 : 35.3 309 : 11 : 46 : 16.7 : : :	33	Con-crete	34 / 5P7	: :	/ / :	/ / :			No ferry required

a
p = peak

Source: JSC/ZS8, NOAA Spaceflight Meteorology Group, and
JSC/ES6, Mechanical Design and Analysis Branch
In-house Mission Reports
JSC/CC2, Aircraft Systems Quality Assurance Branch, Report

LANDING AND FERRY

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Planned/ Actual Landing Site	Landing Time, G.m.t Main Gear Nose Gear Wheels Stop	Runway Day No	Runway Day Type	Winds True Dir Deg./Speed(a.) Alt,ft	Ferry Flight Data Prep. Time d:h:m	Ferry Flight Data Actual Departure Date/Time	Ferry Flight Data Actual Landing Date/Time	Ferry Flight Data Stops Over Night	Ferry Flight Data Stops Fuel	Remarks
73	74	104		KSC /	324 : 17 : 01 : 27.0 324 : 17 : 01 : 37.0 324 : 17 : 02 : 24.7 : : :	33	Con-crete	10 / 7P10	: :	/ / :	/ / :			No ferry required

a
p = peak

Source: JSC/ZS8, NOAA Spaceflight Meteorology Group, and
JSC/ES6, Mechanical Design and Analysis Branch
In-house Mission Reports
JSC/CC2, Aircraft Systems Quality Assurance Branch, Report

SPACE SHUTTLE FLIGHT DURATIONS FOR THE ENTIRE FLEET

b) OV-099 Vehocle

Sequence	Notes	Flight Vehicle total	Flight duration (a) hr:min:sec	On-orbit time (b) hr:min:sec	Total vehicle time hr:min:sec	
					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	c	STS- 51L / 10	0 : 00 : 00	0 : 00 : 00	0 : 00 : 00	0 : 00 : 00

Notes:

(a) The flight duration times are from lift-off to touchdown and do not include the period of rollout after landing.

(b) 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.

(c) Vehicle destroyed at 73 seconds.

SPACE SHUTTLE FLIGHT DURATIONS FOR THE ENTIRE FLEET

a) OV-102 Vehicle

Sequence	Notes	Flight Vehicle total	Flight duration (a) hr:min:sec	On-orbit time (b) hr:min:sec	Total vehicle time hr:min:sec	
					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
58		STS- 58 / 15	336 : 12 : 32	335 : 32 : 32	2935 : 33 : 02	2945 : 33 : 02
61		STS- 62 / 16	335 : 16 : 41	334 : 36 : 41	3270 : 09 : 43	3280 : 49 : 43
63		STS- 65 / 17	353 : 55 : 00	353 : 15 : 00	3623 : 24 : 43	3634 : 44 : 43
72		STS- 73 / 18	381 : 52 : 21	381 : 12 : 21	4004 : 37 : 04	4016 : 37 : 04

Notes:

(a) The flight duration times are from lift-off to touchdown and do not include the period of rollout after landing.

(b) 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 THE ENTIRE FLEET

c) OV-103 Vehicle

Sequence	Notes	Flight Vehicle total	Flight duration (a) hr:min:sec	On-orbit time (b) hr:min:sec	Total vehicle time hr:min:sec	
					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	222 : 08 : 23	221 : 28 : 23	2382 : 11 : 14	2392 : 51 : 14
57		STS- 51 / 17	236 : 11 : 11	235 : 31 : 11	2617 : 42 : 25	2629 : 02 : 25
60		STS- 60 / 18	199 : 09 : 22	198 : 29 : 22	2816 : 11 : 47	2828 : 11 : 47
64		STS- 64 / 19	262 : 49 : 57	262 : 09 : 57	3078 : 21 : 44	3091 : 01 : 44
67		STS- 63 / 20	198 : 28 : 15	197 : 48 : 15	3276 : 09 : 59	3289 : 29 : 59
70		STS- 70 / 21	214 : 20 : 07	213 : 40 : 07	3489 : 50 : 06	3503 : 50 : 06

Notes:

(a) The flight duration times are from lift-off to touchdown and do not include the period of rollout after landing.

(b) 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 THE ENTIRE FLEET

d) OV-104 Vehicle

Sequence	Notes	Flight Vehicle total	Flight duration (a) hr:min:sec	On-orbit time (b) hr:min:sec	Total vehicle time hr:min:sec	
					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
66		STS- 66 / 13	262 : 34 : 02	261 : 54 : 02	1991 : 47 : 11	2000 : 27 : 11
69		STS- 71 / 14	235 : 22 : 17	234 : 42 : 17	2226 : 29 : 28	2235 : 49 : 28
73		STS- 74 / 15	196 : 30 : 46	195 : 50 : 46	2422 : 20 : 14	2432 : 20 : 14

Notes:

(a) The flight duration times are from lift-off to touchdown and do not include the period of rollout after landing.

(b) 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 THE ENTIRE FLEET

e) OV-105 Vehicle

Sequence	Notes	Flight Vehicle total	Flight duration (a) hr:min:sec	On-orbit time (b) hr:min:sec	Total vehicle time hr:min:sec	
					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
56		STS- 57 / 4	239 : 44 : 54	239 : 04 : 54	784 : 31 : 14	787 : 11 : 14
59		STS- 61 / 5	259 : 58 : 37	259 : 18 : 37	1043 : 49 : 51	1047 : 09 : 51
62		STS- 59 / 6	269 : 49 : 30	269 : 09 : 30	1312 : 59 : 21	1316 : 59 : 21
65		STS- 68 / 7	269 : 46 : 08	269 : 06 : 08	1582 : 05 : 29	1586 : 45 : 29
68		STS- 67 / 8	399 : 08 : 48	398 : 28 : 48	1980 : 34 : 17	1985 : 54 : 17
71		STS- 69 / 9	260 : 28 : 56	259 : 48 : 56	2240 : 23 : 13	2246 : 23 : 13

Notes:

(a) The flight duration times are from lift-off to touchdown and do not include the period of rollout after landing.

(b) 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 THE ENTIRE FLEET

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

Vehicle/ Total flights	Vehicle total On-Orbit time (b) hr:min:sec	Total vehicle time time (b) hr:min:sec
OV - 102 / 18	4004 : 36 : 4	4016 : 37 : 4
OV - 099 / 10	1489 : 55 : 9	1495 : 55 : 9
OV - 103 / 21	3489 : 50 : 6	3503 : 50 : 6
0V - 104 / 15	2422 : 20 : 14	2432 : 20 : 14
OV - 105 / 9	2240 : 23 : 13	2246 : 23 : 13
Program total - 005 / 73	13647 : 4 : 46	13695 : 5 : 46

Notes:

(a) The flight duration times are from lift-off to touchdown and do not include the period of rollout after landing.

(b) 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.

This page intentionally left blank

ORBITER MASS PROPERTIES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	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
1	1	102		219,440.7			202,769.9			196,868.7			195,942.7			195,472.7			197,023.0		
				1125.2	0.2	379.7	1108.4	0.1	376.1	1099	0.2	373.1	1096.7	0.2	372.4	1098.1	0.2	369.6	1120.7	0.3	371
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	0.1	372.7
3	3	102		235,556.1			214,949.6			208,790.2			207,349.2			207,072.9			211,200.0		
				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			218,163.6			211,184.0			209,140.5			208,946.8			214,526.0		
				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
5	5	102		247,112.9			209,890.1			203,775.9			202,642.7			202,480.3			205,727.0		
				1116.3	1.1	379.7	1105	1	374.5	1096.6	1	371.6	1094.8	1	371	1096.3	1	368.3	1118.4	1	371.9
6	6	099		256,928.1			197,427.8			191,384.2			190,627.2			190,330.2			191,966.0		
				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	1131.4	0.4	371.9
7	7	099		249,362.7			211,737.0			204,983.4			204,340.4			204,043.4			204,576.0		
				1123.6	-0.2	381.2	1102	-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			205,874.0		
				1124.5	0.2	382	1098.2	-0.1	376.7	1092.5	-0.1	373.8	1090.4	-0.1	373	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			219,910.0		
				1109.7	-0.1	379	1097	0	376.6	1087.3	-0.1	373.7	1085.8	-0.1	373.2	1087.1	-0.1	370.7	1113.4	0	374.1
10	10	099	a	250,482.7			209,746.1			202,966.5			201,528.5			201,238.5					
				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					208,206.4			198,072.8			197,169.8			196,975.8			198,830.0		
				1113.4	0.2	383.4	1117.4	-0.1	376.5	1101.8	-0.1	371.6	1100	-0.1	371	1101.6	-0.1	368.2	1130.9	-0.1	372.4

a = KSC landing
b = NA/DOD = Not Available/Department of Defense Mission
c = Vehicle destroyed at approximately 73 seconds
d = Computations not available

Source: JSC/VF Orbiter Mass Properties Summary, STS-1 and subsequent mission.

ORBITER MASS PROPERTIES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	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		263,477.4			211,075.1			203,382.5			202,316.5			201,674.5			202,366.0		
				1118	0	382.8	1100	-0.1	376.6	1093.4	-0.2	373.5	1090.7	-0.1	372.6	1091.7	-0.2	369.6	1121.8	-0.2	373.8
13	41G	099	a	242,790.8			209,799.7			203,651.1			202,829.1			202,266.1					
				1119	-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			
14	51A	103	a	263,324.6			215,715.3			209,163.7			207,982.7			207,505.7					
				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			
15	51C	103	a,b																		
16	51D	103	a	250,891.6			209,102.8			199,742.2			198,167.2			198,014.2					
				1126.5	-0.1	381.7	1110.6	-0.2	377	1095.8	-0.1	372.5	1092.7	-0.1	371.3	1094.3	-0.1	368.6			
17	51B	099		247,291.3			226,859.0			214,787.4			213,795.4			213,499.4			213,363.0		
				1114.2	-0.2	381.4	1096.7	-0.3	378	1085.7	-0.3	373.4	1084.1	-0.3	372.8	1085.4	-0.3	370.3	1114.8	-0.2	373.8
18	51G	103		256,421.9			213,105.0			205,624.4			204,321.4			204,169.4			204,387.0		
				1109.6	0.2	379.6	1091.5	-0.2	375.2	1084.3	0	372.2	1082.1	0	371.4	1083.7	0	368.8	1114.2	0	372.9
19	51F	099		252,628.9			225,398.0			218,227.4			216,894.4			216,735.4			217,564.7		
				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	1109.5	-0.5	373.9
20	51I	103		262,309.7			207,794.8			197,824.4			196,856.4			196,674.4			197,259.3		
				1121.3	0.5	382.5	1110	0.2	376.7	1094.4	0.2	371.9	1092.4	0.3	371.3	1094.2	0.3	368.5	1124.9	0.3	372.7
21	51J	104	b																191,623.0		
22	61A	099		243,762.5			223,317.8			215,255.4			214,325.4			214,171.4			214,138.3		
				1109	-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	1116.4	-0.3	374.5

a = KSC landing
b = NA/DOD = Not Available/Department of Defense Mission
c = Vehicle destroyed at approximately 73 seconds
d = Computations not available

Source: JSC/VF Orbiter Mass Properties Summary, STS-1 and subsequent mission.

ORBITER MASS PROPERTIES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	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	379.3	1096.9	-0.1	375.3	1085.8	-0.2	372	1084.4	-0.1	371.5	1085.9	-0.1	368.9	1118	-0.1	373.2
24	61C	102		256,003.0			221,485.8			211,194.4			210,325.4			210,161.4			210,430.0		
				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	c	268,829.6																	
				1119.1	-0.2	384															
26	26	103		254,606.5			202,676.3			194,985.3			194,347.3			194,184.3			193,936.0		
				1118.4	0.3	380.6	1104.7	0.1	374.6	1097.9	0.2	371.4	1096.6	0.2	371	1098.3	0.2	368.2	1131.8	-0.1	372
27	27	104	b				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			194,710.0		
				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
29	30	104		261,118.9			201,074.6			193,349.6			192,557.6			192,459.6			193,031.0		
				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	b				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	1120.5	-0.2	370.8
31	34	104		257,569.2			204,439.2			196,784.2			196,112.2			195,954.2			195,804.0		
				1114.2	0.4	380.8	1101.8	0.2	375	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	b				203,006.2			195,185.2			194,463.2			194,282.2			195,242.7		
							1106.2	0	375.1	1094.1	0.1	371.1	1093.2	0.1	370.8	1094.8	0.1	368	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

a = KSC landing
b = NA/DOD = Not Available/Department of Defense Mission
c = Vehicle destroyed at approximately 73 seconds
d = Computations not available

Source: JSC/VF Orbiter Mass Properties Summary, STS-1 and subsequent mission.

ORBITER MASS PROPERTIES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	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
34	36	104	b				193,208.2			188,059.2			187,316.2			187,200.2			187,944.7		
							1105.2	0.1	373.1	1096.2	0.2	370.4	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	376.4	1090	-1	370.5	1087.9	-1	369.7	1089.7	-1	366.6	1125.1	-1	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
37	38	104	a				196,781.2			191,862.2			191,409.2			191,091.2					
							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	375.4	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			201,055.2			191,569.2			190,266.2			190,098.2			190,023.7		
				1116.5	-0.3	381.7	1103	-0.6	375.4	1089.6	-0.6	370.9	1087.4	-0.6	370	1089.2	-0.6	367	1124.2	-0.6	370.6
40	39	103	a	247,373.4			218,919.2			212,806.2			211,673.2			211,512.2					
				1111.1	0	382.5	1091	-0.4	376.8	1082.2	-0.3	374.1	1080.3	-0.4	373.5	1082	-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	1112.9	-0.1	372.2
42	43	104	a	259,374.7			203,898.2			197,472.2			196,353.2			196,088.5					
				1113.9	-0.2	380.4	1099.5	-0.3	374.2	1088.8	-0.3	371	1087.4	-0.3	370.3	1089.7	-0.3	367.3			
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	370.6	1096	-1	370	1097.8	-0.9	367	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	381	1102.6	-0.2	374.4	1092.4	-0.2	370.7	1090.8	-0.2	370	1092.5	-0.2	367	1128.6	-0.1	371.1

a = KSC landing
b = NA/DOD = Not Available/Department of Defense Mission
c = Vehicle destroyed at approximately 73 seconds
d = Computations not available

Source: JSC/VF Orbiter Mass Properties Summary, STS-1 and subsequent mission.

ORBITER MASS PROPERTIES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	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	104	a	233,652.0			215,275.2			206,495.2			205,672.3			205,588.2					
				1113.1	-0.3	377.6	1100.3	-0.5	375.2	1086.3	-0.5	371	1085.4	-0.4	370.5	1087.2	-0.4	367.7			
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	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	a	257,338.6			236,634.2			227,587.2			225,865.2			225,615.2					
				1106	-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			
49	46	104	a	256,026.3			216,581.2			210,995.2			209,851.2								
				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			
50	47	105	a	244,645.2			228,709.2			221,374.2			220,325.2			220,195.2					
				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			
51	52	102	a	250,399.4			223,297.2			217,359.2						215,979.2					
				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			
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	373.9	1090.4	0.1	370.5	1089.5	0	370.2	1091.3	0.1	367.1	1125.3	0.2	370.8
53	54	105	a	259,764.2			205,293.6			198,296.6			197,481.2			197,353.2					
				1115.7	0.3	381.2	1101.4	0.2	375	1093.5	0.2	371.9	1091.6	0.2	371.3	1093.4	0.2	368.4			
54	56	103	a	237,213.0			217,922.2			209,229.2			208,052.2			207,946.2					
				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			
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	-0.6	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

a = KSC landing
b = NA/DOD = Not Available/Department of Defense Mission
c = Vehicle destroyed at approximately 73 seconds
d = Computations not available

Source: JSC/VF Orbiter Mass Properties Summary, STS-1 and subsequent mission.

ORBITER MASS PROPERTIES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	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
56	57	105	a,d	252,710.1						226,573.5			225,019.5			224,906.5					
				1112.6	-0.1	382.9				1083	-0.2	375.2	1080.9	-0.2	374.6	1082.5	-0.2	372			
57	51	103	a,d	261,486.6						208,048.5			207,042.5			206,931.5					
				1116.5	-0.6	381.5				1086.6	-0.8	373.5	1084.7	-0.7	373.1	1086.5	-0.7	370.3			
58	58	102	d	256,097.0						230,447.7			229,480.7			229,368.7			229,953.7		
				1103.4	-0.4	378				1080	-0.5	373	1078.8	-0.5	372.7	1080.4	-0.5	370.2	1107.9	-0.6	373.7
59	61	105	a,d	250,279.1						213,640.5			212,946.5			212,835.5					
				1113.5	-0.1	381.6				1080.2	0	372.2	1078.8	0.1	371.9	1080.5	0.07	369.2			
60	60	103	a,d	245,767.5						217,583.5			216,662.5			216,594.5					
				1104.8	-0.7	380.2				1081.2	-0.9	374.1	1079.6	-0.9	373.7	1081.3	-0.9	371.1			
61	62	102	a,d	256,584.1						229,091.2			228,360.2			228,250.2					
				1107.4	-0.6	379.2				1084	-0.7	373.5	1182.6	-0.6	373.2	1084.1	-0.6	370.6			
62	59	105	d	246,851.0						222,698.0			221,931.0			221,865.0			222,734.0		
				1095.8	-0.5	378.7				1090.9	-0.4	374.7	1079.6	-0.4	374.5	1081.2	-0.4	371.9	1109.1	-0.6	375.5
63	65	102	a	258,585.0			237,613.0			230,624.0			229,410.0			229,307.0					
				1104.2	-0.2	378.8	1087.4	-0.6	375.6	1080.7	-0.6	373	1079	-0.6	373	1080.1	-0.6	370			
64	64	103		240,884.0			221,336.0			213,510.0			212,565.0			212,141.0			212,251.0		
				1105.5	-0.5	379.5	1090.1	-0.7	376.8	1083.7	-0.8	373.5	1082	-0.8	373.1	1083.9	-0.7	370.4	1117.1	-0.5	373.8
65	68	105		247,136.0			228,874.0			222,752.0			221,460.0			221,571.0			221,390.0		
				1099.1	-0.5	378.5	1087.8	-0.4	376.8	1080.1	-0.4	374.3	1078.1	-0.4	373.7	1080.3	-0.4	371.4	1112.2	-0.4	374.6
66	66	104		243,089.0			221,520.0			212,378.0			211,434.0			211,327.0			210,966.0		
				1113	-0.1	379.5	1096.8	-0.1	375.9	1085.9	-0.1	371.9	1084.3	-0.1	371.6	1086	-0.1	368.9	1120.1	0	372.4

a = KSC landing
b = NA/DOD = Not Available/Department of Defense Mission
c = Vehicle destroyed at approximately 73 seconds
d = Computations not available

Source: JSC/VF Orbiter Mass Properties Summary, STS-1 and subsequent mission.

ORBITER MASS PROPERTIES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	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
67	63	103	a	247,555.0			224,130.0			213,717.0			212,772.0			212,646.0					
				1111.1	-0.2	382.2	1095.7	-0.5	378.4	1081.4	-0.6	373.9	1079.7	-0.5	373.5	1079.3	-0.5	373.6			
68	67	105		256,293.0			231,034.0			218,563.0			217,568.0			217,481.0			216,663.0		
				1118	0	381.5	1101.4	0	377.5	1084.1	0	372	1082.5	0	371.6	1083.1	0	371.9	1117.9	0	372.9
69	71	104	a	248,856.8			227,051.7			217,202.0			215,036.6			214,879.4					
				1110.1	-0.3	380.4	1094.1	-0.2	377.1	1081.9	-0.2	372.4	1080.1	0	372.1	1081	-0.2	369.4			
70	70	103	a	258,798.0			205,687.5			198,482.7			196,725.9			196,574.8					
				1120.2	0.1	380.8	1106.6	0.1	375.1	1099	0.1	371.5	1097.6	-0.1	371.2	1099.4	0.1	368.2			
71	69	105	a	256,644.9			229,422.3			220,383.0			219,494.4			219,377.0					
				1112.6	0.2	383.3	1092.9	0.4	378.4	1082.2	0.05	374.7	1080.5	0.4	374.3	1081.3	0.4	371.6			
72	73	102	a	257,017.5			239,035.7			231,578.0			230,621.7			230,469.3					
				1101.3	-0.6	377.2	1089.3	-0.5	375.8	1081.9	-0.5	372.9	1080.5	-0.5	372.6	1082	-0.5	370			
73	74	104	a	274,560.2			215,856.9			204,058.7			203,101.9			202,950.9					
				1113	0.1	381.7	1113.4	0.7	370.4	1080.8	0.2	371.5	1078.8	0.2	371	1080.5	0.2	368.2			

a = KSC landing
b = NA/DOD = Not Available/Department of Defense Mission
c = Vehicle destroyed at approximately 73 seconds
d = Computations not available

Source: JSC/VF Orbiter Mass Properties Summary, STS-1 and subsequent mission.

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
1	1	102	0061	203	1:01:00	1:01:00		0071	207	1:23:00	1:23:00	1.	0061	208	1:23:00	1:23:00		1. Removed - Argon leak in G.G. heater core caused heater to fail.
2	2	102	0071	203	1:27:00	1:27:00	2.	0071	206	1:31:00	1:31:00		0071	208	1:44:00	1:44:00	2.	2. Removed for wax buildup in lube oil filter during prelaunch.
3	3	102	0071	204	1:35:49	1:35:49		0071	206	1:21:32	2:52:32		0071	208	1:25:15	3:09:15		
4	4	102	0071	204	1:28:00	3:03:49		0071	206	1:45:00	4:37:32		0071	208	1:22:00	4:31:15	3.	3. Removed - High lube oil pressure due to wax buildup in filter.
5	5	102	0071	204	1:27:00	4:30:49		0071	206	1:22:00	5:59:32		0071	205	1:40:00	1:40:00		

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
6	6	099	0121	303	1:37:00	1:37:00		0121	301	1:22:00	1:22:00		0121	302	1:17:00	1:17:00		
7	7	099	0121	303	1:35:00	3:12:00		0121	301	1:13:00	2:35:00		0121	302	1:30:00	2:47:00	4.	4. Removed - Underspeed shutdown on-orbit - Valve contamination.
8	8	099	0121	303	1:31:00	4:43:00		0121	301	1:16:00	3:51:00		0131	203	1:24:00	1:24:00		
9	9	102	0071	204	1:21:46	5:52:35	5.	0071	206	1:10:41	7:10:13	5.	0071	205	1:15:15	2:55:15	6.	5. Failed - cracked injector tube - stress corrosion. 6. Removed for failure investigation.
10	41B	099	0131	304	1:23:00	1:23:00	7.	0131	306	1:39:00	1:39:00	7.	0131	305	1:18:00	1:18:00	7.	7. Removed for stem inspection, refer to STS-9 problem.

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
11	41C	099	0161	203	1:44:00	1:44:00		0161	301	1:16:00	1:16:00		0161	208	1:13:00	5:44:15		
12	41D	103	0161	303	1:25:31	1:25:31		0161	304	1:29:03	1:29:03		0161	305	1:48:13	1:48:13		
13	41G	099	0161	203	1:13:38	2:57:38		0161	301	1:29:48	2:45:48		0161	208	1:16:47	7:01:02		
14	51A	103	0161	303	1:23:21	2:48:52		0161	304	1:55:58	3:25:01		0161	305	1:23:18	3:11:31		
15	51C	103	0161	303	1:25:27	4:14:19		0161	304	1:30:52	4:55:53		0161	305	1:53:43	5:05:14		

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
16	51D	103	0161	303	1:19:02	5:33:21		0161	304	1:58:44	6:54:37		0161	305	1:19:03	6:24:17		
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 0:44:25	5:32:03	10. 11.	0181	302	0:06:28 1:21:29	2:50:43	10.	0171	207	0:06:26 1:40:08	3:01:22	10.	10. Launch abort times. 11. APU 1 gear box and outlet pressure high during ascent restricted use.
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		

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
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		Vehicle lost at 73 seconds.

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
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	17:25:20		
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 1:23:45	10:03:36	13.	0201	303	0:06:06 1:16:34	18:24:14	13.	0211	207	0:06:05 1:44:49	9:16:14	13.	13.Launch scrub times.
30	28	102	0201	311	1:42:00	6:23:00		0221	308	1:16:48	5:59:50		0221	304	1:16:48	13:26:41		

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
31	34	104	0201	307	0:33:24	10:37:00	14.	0201	303	1:43:01	20:27:45		0211	207	1:26:11	10:42:25		14. 0:25:58 high speed run time
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	203	0:05:12 1:53:57	18:06:08 11:14:58	15.	0201	312	1:25:41	8:28:32	15.	0201	310	1:20:03	11:50:58	15.	15. APU's ran 0:05:12 during 4-10-90 launch scrub.

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
35	31	103		305	1:53:57	11:14:58	16			::	::				::	::		16. APU S/N 305 was removed following 4-10-90 launch scrub and was replaced with APU S/N 203. 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		0321	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 ran 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		0201	306	1:17:21	7:18:58		
39	37	104	0251	305	1:56:53	22:20:52		0271	208	1:27:49	14:58:12		0311	307	1:33:31	16:07:24		

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
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		
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 WSB 2. As a result, APU 2 was not started until TAEM 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		

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
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	3:00:25		0311	307	1:18:23	20:12:45		
47	49	105	0441	303	1:41:11	3:48:00		0441	401	1:23:37	4:23:47		0441	207	1:17:17	3:27:29		
48	50	102	0441	204	1:07:47	3:15:10	20.	0441	403	1:22:41	4:19:54		0451	402	1:51:07	4:53:29	19.	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	4:21:49		0311	307	1:16:32	21:29:18		

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
50	47	105	0441	303K	1:28:23	5:06:23	21.	0441	401	1:40:09	6:03:56		0441	207K	1:29:05	4:56:34	22.	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	5:53:06		0441	403	1:38:23	5:58:17		0451	402	1:29:51	6:23:20		
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 gear box bearing temperature 2 became erratic.
54	56	103	0451	405	1:26:02	5:44:24	24.	0451	406	1:45:23	5:40:55	24.	0451	404	1:21:43	5:05:06	24.	24. APU's ran for 5:39 during 4/6/93 launch abort.

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
55	55	102	0441	407	1:25:20	7:24:08	25.	0441	403	1:41:50	7:45:49	25.	0451	402	1:20:12	7:49:14	25.	25. APU's ran for 5:42 during 3/22/93 launch abort.
56	57	105	0441	303	1:32:27	8:01:30		0441	401	1:59:22	9:47:33		0441	207	1:27:19	7:58:52		
57	51	103	0451	405	0:05:08 0:05:36 1:17:32	7:12:40	26. 27.	0451	406	0:05:12 0:05:37 1:34:39	7:26:23	26. 27.	0451	404	0:05:15 0:05:37 1:14:38	6:30:36	26. 27. 28.	26. 7/24/93 launch abort run times. 27. 8/12/93 launch abort run times 28. APU 3 gear box temperature failed offscale high (STS-51-V-08)
58	58	102	0451	409	0:10:25 1:28:56	3:13:10	29.	0441	403	0:10:26 1:50:09	9:46:24	29.	0451	408	0:10:26 1:34:53	3:14:34	29.	29. 10/14/93 launch abort run time.
59	61	105	0441	204	1:28:33	6:16:20		0441	311	1:55:41	3:27:09	30.	0451	410	1:24:08	3:30:21	31. 32.	30. APU 2 FP/GG system A heater failed to turn on. (STS-61-V-05) 31. APU 3 x-axis accelerometer data clipped at 0g P-P. (STS-61-V-01)

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
59	61	105			::	::				::	::				::	::		32. APU 3 EGT 1 became erratic. (STS-61-V-09)
60	60	103	0451	405	1:27:17	8:39:57		0451	406	1:45:50	9:12:13		0451	404	1:21:22	7:51:58		
61	62	102	0451	409	1:26:01	4:39:11	33.	0471	308	1:39:36	3:11:56	33.	0451	408	0:37:36	3:52:10	33. 34.	33. V46T0170A, V46T1273A,and V46T1372 measurements erratic (STS-62-V-03) 34. APU 3 fuel pump inlet pressure anomaly (STS-62-V-02)
62	59	105	0441	204	1:22:14	7:38:34		0441	311	1:46:08	5:13:17	35. 36.	0451	410	1:22:44	4:53:05		35. APU 2 shutdown early due to lack of WSB cooling. 36. APU 2 gear box GN2 bottle pressure shift
63	65	102	0451	409	1:33:09	6:12:20		0471	308	1:42:58	4:54:54		0451	408	1:26:04	5:22:28		

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
64	64	103	0501	407	1:22:34	10:20:44		0501	304	1:38:47	3:40:21		0501	306	1:29:00	3:52:39	37.	37. APU 3 EGT 2 measurement (V46T0340A) was erratic during entry
65	68	105	0441	403	1:23:08	12:09:11		0441	311	1:33:16	6:52:26		0451	410	1:19:08	6:18:06		
66	66	104	0441	207	1:09:24	10:59:46	38.	0451	402	1:42:23	10:25:57		0441	303	1:18:14	10:49:53		38. APU 1 supply line temperature (V46T1171A) was erratic during entry
67	63	103	0501	407	1:25:20	11:46:04		0481	204	1:52:23	11:06:01		0501	306	1:32:48	5:25:27		
68	67	105	0501	203	1:25:54	2:58:10		0441	311	1:50:13	8:42:39		0451	410	1:21:56	7:40:02		

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
69	71	104	0501	208	1:31:03	3:02:48		0501	406	1:55:28	14:37:57		0501	310	1:25:45	3:43:22	39	39. APU 3 gearbox pressure transducer erratic: GN2 dumped into gearbox.
70	70	103	0501	407	1:25:21	13:11:25	40	0441	401	1:41:48	12:10:42	41	0501	306	1:18:45	6:44:12	42	40. APU 1 EGT 2 sensor erratic. 41. APU 2 EGT 2 measurement indicated 20 dg F during miss. 42. APU 3 GGVM sys. A t-stat changed set point.
71	69	105	0501	203	1:22:24	4:20:34		0501	308	1:17:37	7:15:28		0501	304	1:46:10	5:33:50	43	43. APU 3 chamber pressure biased +70 psia during entire flight.
72	73	102	0501	402	1:25:27	13:20:32	44	0501	303	1:44:18	14:02:35		0501	403	1:34:49	15:14:27	45	44. APU 1 pump inlet pressure decayed 115 psia over 19 minute period postlanding. 45. APU 3 shutdown 3 minutes early due to lack of cooling.
73	74	104	0501	208	1:27:55	4:30:43		0501	406	1:51:39	16:29:36	46	0501	310	1:40:15	5:23:57		46. APU 2 fuel pump inlet pressure erratically.

a = Cumulative run time include ground operation time for various tests.

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

AUXILIARY POWER UNITS

Miss Seq. No.	STS-No.	Orb. OV-	APU-1 PART No. MC201-001-					APU-2 PART No. MC201-001-					APU-3 PART No. MC201-001-					Note
			Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	Part Dash No.	S/N	Mission S/N h:m:s	Cum. Run time h:m:s	Note	
74	72	105	0501	203	1:22:51	5:43:25		0501	308	1:43:42	1:43:42		0501	304	1:27:14	7:01:04	47	47. APU 3 chamber pressure biased +70 psia entire flight.

a = Cumulative run time include ground operation time for various tests.

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

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	401	402	403	404	405	406	407	408	409	410
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																
11	41C	099	0161					0161	0161																					
12	41D	103									0161	0161	0161																	
13	41G	099	0161					0161	0161																					
14	51A	103									0161	0161	0161																	
15	51C	103									0161	0161	0161																	
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	0201														
22	61A	099			0181		0171			0181																				
23	61B	104												0161	0201	0201														
24	61C	102	0201						0201									0201												
25	51L	099			0181		0171			0181																				
26	26	103											0211					0201		0201										
27	27	104					0211				0201				0201															
28	29	103											0211					0201		0201										
29	30	104					0211				0201				0201															
30	28	102										0221				0221			0201											
31	34	104					0211				0201				0201															
32	33	103											0211					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					0251						0201											
38	35	102												0201		0221		0311												

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	401	402	403	404	405	406	407	408	409	410
39	37	104						0271					0251		0311															
40	39	103	0311						0301			0321																		
41	40	102												0201				0311		0301										
42	43	104						0271					0251		0311															
43	48	103	0311						0301											0301										
44	44	104	0311					0271							0311															
45	42	103							0301									0311		0301										
46	45	104													0311					0301							0431			
47	49	105					0441				0441										0441									
48	50	102		0441																		0451	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				0441			
56	57	105					0441				0441										0441									
57	51	103																						0451	0451	0451				
58	58	102																					0441					0451	0451	
59	61	105		0441															0441											0451
60	60	103																						0451	0451	0451				
61	62	102														0471												0451	0451	
62	59	105		0441															0441											0451
63	65	102														0471												0451	0451	
64	64	103										0501		0501													0501			
65	68	105																	0441				0441							0451
66	66	104					0441				0441											0451								
67	63	103		0481										0501													0501			
68	67	105	0501																0441											0451
69	71	104						0501										0501								0501				
70	70	103												0501							0441						0501			
71	69	105	0501									0501				0501														
72	73	102									0501											0501	0501							
73	74	104						0501										0501								0501				
74	72	105	0501									0501				0501														

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION
(OV-099)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
6	6	099		303	008		OK	301	007		OK	302	006		OK	
7	7	099		303	008		OK	301	007		OK	302	006		265 deg F Undercool (Ascent)	
8	8	099		303	008		OK	301	007		223 deg F Overcool (Ascent)	203	006		201 deg F Overcool (Ascent) 196 deg F Overcool (Entry)	Vent orifice found loose.
10	41B	099		304	008		OK	306	007		OK	305	006		OK	
11	41C	099		203	008		OK	301	007		OK	208	006		OK	

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION
(OV-099)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
I 13	41G	099		203	008		OK	301	007		OK	208	006		OK	
I 17	51B	099		205	008		OK	302	007		OK	207	006		315 deg F Undercool (Ascent)	
19	51F	099		205	008		OK	302	007		OK	207	006		OK	High APU gearbox pressure - sys 1.
I 22	61A	099		205	008		OK	302	007		OK	207	006		208 deg F Overcool (Entry)	High APU gearbox pressure - sys 1.
I 25	51L	099			008				007				006			Vehicle lost at 73 seconds

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

(OV-099)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION
(OV-102)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
I 1	1	102		203	004	4.95	OK	207	003	5.04	OK	208	002	4.95	282 deg F Undercool (Ascent)	All vent orifices = 1.24" dia.
I 2	2	102		203	004	5	OK	206	003	5	OK	208	002	5	325 deg F Undercool (Ascent)	All vent orifices = 1.24" dia. High APU gearbox pressure - sys 1 & 3.
I 3	3	102		204	004	4	OK	206	003	3	OK	208	002	0.001	348 deg F Undercool (Ascent)	All vent orifices = 1.24" dia. APU 3 shutdown prior to MECO
I 4	4	102		204	004	5	OK	206	003	5	OK	208	002	5	276 deg F Undercool (Ascent)	Vent orifices = 1.24" (1,2) & .8" (3). High APU gearbox pressure - sys 3.
I 5	5	102		204	004	5	OK	206	003	5	OK	205	009	5	OK	Vent orifices = 1.24" dia. (1,2) & 0.8 dia. (3).

a = WSB S/N 002 installed following STS-61C, but never flew a missio

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION (OV-102)

	MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
I	9	9	102		204	004	5.02	OK	206	003	5.02	OK	205	009	5.02	288 deg F Undercool (Ascent) 237 deg F Overcool (Entry) 235 deg F Overcool (Entry)	High APU gearbox pressure - sys 2. All vent orifices to 0.8 in. dia.
I	24	61C	102	a	301	004	3.52	140 deg F Overcool (Entry)	203	003	3.52	OK	310	009	3.52	OK	Capacitor failure system 1 - entry
	30	28	102		311	013	3.75	OK	308	003	3.75	OK	304	009	3.75	OK	
I	33	32	102		311	013	3.5	OK	308	003	3.5	OK	304	009	3.83	155 deg F Overcool (Entry)	High APU gearbox pressure - sys 3.
I	38	35	102		310	013	3.61	OK	308	003	3.61	Ascent spraying not required, 244 deg F maximum	306	009	3.61	277 deg F Undercool (Ascent) 240 deg F Overcool (Entry)	High APU gearbox pressure - sys 2. APU GGVM leak testing started.

a = WSB S/N 002 installed following STS-61C, but never flew a missio

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION
(OV-102)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
41	40	102		310	013	3.87	OK	312	003	3.87	OK	306	009	3.87	OK	WSB 2 hot flushed closed loop. APU/WSB 3 hot flushed closed loop.
I 48	50	102		204K	013	3.74	263 deg F Undercool (Ascent) 261 deg F Undercool (Entry)	403	003	3.74	OK	402	009	3.74	OK	WSB 1, 2, 3 hot flushed closed loop.
I 51	52	102		407	013	3.74	240 deg F Overcool (Ascent)	403	003	3.74	OK	402	002	3.74	OK	WSB 3 replaced due to water leakage from a pinhole through the HX core. Replacement WSB failed GN2 pressure decay test and was waived. Partial freeze-up is the suspected cause of WSB-1 overcooling during ascent.
I 55	55	102		407	013	3.75	260 deg F Undercool (Ascent)	403	003	3.75	OK	402	002	3.75	277 deg F Undercool (Ascent) 226 deg F Overcool (Ascent)	System 2 regulator exhibited excessive internal leakage. WSB system 2 regulator was replaced with S/N 22 regulator.
58	58	102		409	013	3.74	OK	403	003	3.74	OK	408	002	3.74	OK	

a = WSB S/N 002 installed following STS-61C, but never flew a missio

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION
(OV-102)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
61	62	102		409	013	3.74	OK	308	003	3.74	OK	408	002	3.74	281 deg F Undercool (Ascent) 228 deg F Overcool (Ascent)	System 3 started very late during entry. (TAEM)
63	65	102		409	013	3.52	OK	308	003	3.74	OK	408	002	3.74	OK	
72	73	102		402	013	3.74	OK	303	010	3.74	OK	403	002	3.74	326 deg F Undercool (Ascent) 273 deg F Undercool (FCS check) 263 deg F Undercool (Entry)	Undercool of 297 deg F on CNTLR A prior to using CNTLR B. Max temperature reached 326 deg F). Near out-of-spec undercool of 273 deg F during FCS checkout.

a = WSB S/N 002 installed following STS-61C, but never flew a missio

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

(OV-103)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	203 deg F Overcool (Ascent)	304	011	3.86	OK	305	012	3.86	OK	

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

(OV-103)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	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	221 deg F Overcool (Entry)	312	011	3.87	OK	310	012	3.87	265 deg F Undercool 265 deg F Undercool (Entry) 220 deg F Overcool	System 1 undercool appears to be from normal HX operation
32	33	103		305	010	3.87	260 deg F Undercool (Ascent)	312	011	3.87	260 deg F Undercool (Entry)	310	012	3.87	239 deg F Overcool (Entry)	
35	31	103		305	010	3.87	OK	312	011	3.87	OK	310	012	3.87	207 deg F Overcool (Entry)	

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

(OV-103)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
I 36	41	103		203	010	3.87	213 deg F Overcool (Entry)	301	011	3.87	OK	304	012	3.87	200 deg F Overcool (Entry)	APU GGVM leak testing started. System 1 overcool coincides with HX operations
I 40	39	103		203	010	3.87	OK	301	011	3.87	OK	304	012	3.87	261 deg F Undercool (Entry)	APU GGVM leak test conducted. APU 2 lube oil (MIS) serviced to a low quantity --> Reduced ASC heatup rate
I 43	48	103		203	010	3.74	OK	301	011	3.74	235 deg F & 237 deg F Overcools (Entry)	312	012	3.74	OK	APU GGVM leak test conducted. APU 3 high NH3 in lube oil.
I 45	42	103		310	010	3.75	OK	301	011	3.75	228 deg F Overcool (Entry)	312	012	3.75	OK	APU/WSB 2 & 3 were hot flushed (3 was for NH3 content in lube oil). APU 3 leaked N2H4 into gearbox during entry. APU was closed loop hot flushed and sent to OV-104.
I 52	53	103		405	020	3.74	261 deg F Undercool (Ascent)	406	011	3.74	Two 233 deg F Overcools (Entry)	404	012	3.74	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.

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

(OV-103)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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		405	020	3.74	267 deg F Undercool (Ascent)	406	011	3.74	233 deg F Overcool (Entry)	404	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.
57	51	103		405	020	3.74	281 deg F Undercool (Ascent)	406	011	3.74	233 deg F Overcool (Entry) 239 deg F Overcool (Entry)	404	012	3.74	OK	
60	60	103		405	020	3.74	OK	406	011	3.74	233 deg F Overcool, 233 deg F Overcool and 233 deg F Overcool (All Entry)	404	012	3.74	OK	
64	64	103		407	020	3.76	OK	304	011	3.76	233 deg F Overcool (Entry) 237 deg F Overcool (Entry)	306	012	3.76	OK	WSB 2 was flown with CNTRL "B" during ascent, and CNTRL "A" during entry. This was done to implicate CNTRL 2B as the cause of the ascent overcools.
67	63	103		407	020	3.74	OK	204	011	3.74	OK	306	012	3.74	OK	WSB 2 was flown with CNTRL "B" during ascent, and CNTRL "A" during entry. This was done to implicate CNTRL 2B as the cause of the ascent overcools.

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

(OV-103)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
70	70	103		407	020	3.74	260 deg F Undercool (Entry)	401	011	3.74	OK	306	012	3.74	OK	WSB 2 was flown with CNTRL "B" during ascent, and CNTRL "A" during entry. This was done to implicate CNTRL 2B as the cause of the ascent overcools.

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION
(OV-104)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
I 23	61B	104		306	013	3.8	OK	307	015	3.78	OK	308	014	3.5	OK	WSB'S replaced following this mission due to corrosion of core which was probably caused by introduction of 'bad' water.
I 27	27	104		307	016	3.5	OK	303	002	3.52	223 deg F Overcool (Ascent)	207	004	3.52	OK	
I 29	30	104		307	016	3.87	196 deg F Overcool (Entry)	303	002	3.87	265 deg F Undercool (Ascent) 221 deg F Overcool (Entry)	207	004	3.87	OK	System 1 overcool coincides with Hx operation
I 31	34	104		307	016	3.75	265 deg F Undercool (Ascent)	303	002	3.87	273 deg F Undercool (Ascent)	207	004	3.87	OK	

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

(OV-104)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
34	36	104		307	016	3.87	OK	303	002	3.87	OK	207	004	3.87		
I 37	38	104		305	016	3.87	OK	208	002	3.87	311 deg F Undercool (Ascent)	311	004	3.87	OK	APU GGVM leak testing started.
I 39	37	104		305	016	3.87	223 deg F Overcool (Entry)	208	018	3.87	281 deg F Undercool (Ascent) 189 deg F Overcool (Entry)	307	004	3.87	231 deg F & 211 deg F Overcools (Entry)	APU GGVM leak test conducted. APU 2, WSB 3, and APU/WSB 1 were hot flushed open loop. High gearbox pressure during APU 3. Filter removed, oil drained and filled. System 1 overcool coincides with Hx operation.
I 42	43	104		305	016	3.74	OK	208	018	3.85	323 deg F Undercool (Ascent) 307 deg F Undercool (FCS) APU start at TAEM	307	004	3.85	OK	APU GGVM leak test conducted. Closed loop hot flushed APU/WSB 3. WSB 2 GN2 regulator removed and replaced. WSB water valves removed and replaced.
I 35	44	104		203	016	3.75	222 deg F Overcool (Ascent)	208	018	3.75	OK	307	004	3.75	OK	APU GGVM leak test conducted. APU/WSB 2 was hot flushed. WSB 2 H2O spray valves were removed and replaced.

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION
(OV-104)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
I 46	45	104		312	016	3.75	177 deg F Overcool (Entry)	407	018	3.75	OK	307	004	3.75	OK	APU GGVM leak test conducted. Closed loop hot flushed APU 1 (from OV-103) and WSB 2 (for IAPU). Fuel/wax in system 1 seal cavity after hot-fire. System 2 - first flight of an IAPU.
49	46	104		312	016	3.74	OK	407	018	3.74	OK	307	004	3.74	OK	APU GGVM leak test conducted. Closed loop hot flushed APU/WSB 1.
I 66	66	104		207	016	3.74	OK	402	018	3.74	OK	303	009	3.74	OK	WSB 3 R&R during OMDP due to cracked ISO Valve outlet stem. WSB 3 required to start spray cooling at MECO during ascent.
I 69	71	104		208	016	3.74	200 deg F Overcool (Ascent) 265 deg F Undercool (Entry)	406	018	3.74	OK	310	009	3.74	289 deg F, Undercool (Ascent) 273 deg F Undercool (Entry) 237 deg F 207 deg F Overcools (Entry)	Postflight checkouts performed due to undercools during entry.
I 73	74	104		208	016	3.74	276 deg F Undercool (Ascent) 231 deg F Overcool (Entry)	406	018	3.74	195 deg F Overcool (Ascent)	310	009	3.74	Three undercools during mission: 279 deg F, 267 deg F, 267 deg F	

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION
(OV-105)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
47	49	105		303K	014	3.74	267 deg F undercool (Ascent)	401	017	3.74	263 deg F undercool (Ascent)	207K	015	3.74	OK	APU GGVM 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	3.74	280 deg F undercool (Ascent)	401	017	3.74	233 deg F overcool (Entry)	207K	015	3.74	311 deg F undercool (Ascent)	Sys 3 checked during extended FCS checkout. Records showed that WSB1 & 3 not hot flushed prior to flight.
53	54	105		303K	014	3.74	OK	401	017	3.74	263 deg F undercool (Ascent)	207K	015	3.74	319 deg F undercool (Ascent) 227 deg F overcool (FCS checkout)	Delta P across WSB's 1 and 3 > ATP delta P's. WSB's 1 and 3 were hot-flushed due to undercool exhibited on STS-47.
56	57	105		303K	014	3.75	OK	401	017	3.74	267 deg F undercool (Ascent)	207K	015	5	279 deg F undercool (Ascent)	WSB 3 was preloaded to 5.0 +/- .1 lb. to reduce ascent freeze-up severity. WSB's 1 and 2 were loaded as usual (3,75 +/- 0.25 lb).
59	61	105		204	014	3.74	OK	311	017	3.74	287 deg F undercool (Ascent) 263 deg F undercool (Entry)	410	015	5	261 deg F undercool (Ascent)	WSB 3 was preloaded to 5.0 +/- .1 lb. to reduce ascent freeze-up severity. WSB's 1 and 2 were loaded as usual (3,75 +/- 0.25 lb).

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION
(OV-105)

MISS SEQ NO.	STS NO.	ORB OV-	Notes	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	
62	59	105		204	014	3.74	237 deg F overcool (Entry)	311	017	3.79	323 deg F undercool (no spray cooling ascent. Nominal FCS checkout.)	410	015	4.99	283 deg F undercool (Ascent)	WSB 3 was preloaded to 5.0 +/- .1 lb. to reduce ascent freeze-up severity. WSB's 1 and 2 were loaded as usual (3,75 +/- 0.25 lb).
65	68	105		403	014	3.74	OK	311	017	3.24	OK	410	015	4.99	231 deg F overcool during ascent	WSB 3 lube oil water valve failed at the inlet. Failure was caused by intergranular corrosion.
68	67	105		203	014	3.74	OK	311	017	3.24	OK	410	019	3.74	OK	WSB S/N 015 was removed and replaced to allow proper analysis of failed water valve. Water valves were torqued to 135 in-lb prior to flight. No additional water preload proposed for WSB 3.
71	69	105		203	014	3.75	OK	308	017	3.25	OK	304	019	3.75	193 deg F overcool (Entry)	First flight with WSB feedline heater installed.

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	FC-1 S/N P760	FC-1 Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	FC-2 S/N P760	FC-2 Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	FC-3 S/N P760	FC-3 Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
1	1	102	0003	106	145 :50 / 214 :05 : / : : / : : / :	0004	107	145 09 / 211 17 / / /	0004	108	144 58 / 208 00 / / /	15.8	857.0	379.0	
2	2	102	0008	101	11 :26 / 110 :42 : / : : / : : / :	0007	102	89 12 / 189 35 / / /	0007	103	88 53 / 104 25 / / /	15.2	813.0	365.0	FC1 failed, aspirator blockage caused cell flooding.
3	3	102	1005	106	224 :59 / 459 :08 : / : : / : : / :	0007	102	223 50 / 417 25 / / /	0007	103	224 12 / 403 43 / / /	15.0	2,865.0	360.0	
4	4	102	1005	106	215 :28 / 674 :36 : / : : / : : / :	0007	102	214 32 / 631 49 / / /	0007	103	214 32 / 618 05 / / /	15.3	2,567.0	367.0	
5	5	102	0008	101	136 :13 / 253 :49 : / : : / : : / :	0007	102	135 54 / 768 16 / / /	0007	103	135 32 / 754 04 / / /	15.4	1,881.0	369.0	
6	6	99	0008	109	158 :00 / 173 :34 : / : : / : : / :	1004	107	156 42 / 385 42 / / /	0007	111	159 00 / 173 03 / / /	13.3	1,599.0	320.0	
7	7	99	0008	109	156 :51 / 330 :43 : / : : / : : / :	1004	107	156 28 / 542 10 / / /	0007	111	157 07 / 330 10 / / /	13.2	1,932.0	317.0	

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
8	8	99	0008	109	177 :07 / 507 :41 : / : : / : : / :	1004	107	176 17 / 718 27 / / /	0007	111	176 08 / 506 18 / / /	14.1	2,053.0	339.0	
9	9	102	3001	104	284 :28 / 298 :24 : / : : / : : / :	3000	115	283 20 / 301 28 / / /	3000	116	283 13 / 295 48 / / /	17.5	4,215.0	408.0	
10	41B	99	3001	114	217 :35 / 255 :17 : / : : / : : / :	3000	112	216 59 / 249 56 / / /	3000	113	216 34 / 241 57 / / /	14.7	2,811.0	353.0	
11	41C	99	3001	114	178 :13 / 433 :30 : / : : / : : / :	3000	112	177 38 / 427 34 / / /	3000	113	177 11 / 419 08 / / /	13.7	2,303.0	330.0	
12	41D	103	3001	101	180 :14 / 230 :04 : / : : / : : / :	3000	102	179 25 / 228 10 / / /	3000	103	179 00 / 226 55 / / /	15.5	2,240.0	371.0	FC-1 performance monitor failed.
13	41G	99	3001	114	214 :42 / 648 :12 : / : : / : : / :	3000	110	214 07 / 214 07 / / /	3000	113	213 42 / 632 50 / / /	14.6	2,882.0	350.0	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	2,700.0	338.0	

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	FC-1 S/N P760	FC-1 Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	FC-2 S/N P760	FC-2 Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	FC-3 S/N P760	FC-3 Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
15	51C	103	3001	101	86 :48 / 557 :17 : / : : / : : / :	3000	102	86 04 / 550 04 / / /	3000	103	85 34 / 551 53 / / /	b	b	b	
16	51D	103	3001	101	181 :05 / 738 :22 : / : : / : : / :	3000	102	180 11 / 734 15 / / /	3000	103	179 31 / 731 24 / / /	15.0	2,515.0	359.0	FC2 S/N 102 replaced postflight with S/N 111 due to leak through 02 purge port.
17	51B	99	3001	114	199 :55 / 848 :07 : / : : / : : / :	3000	110	198 53 / 413 00 / / /	3000	113	198 25 / 831 15 / / /	18.1	3,046.0	435.0	
18	51G	103	3001	101	203 :46 / 942 :08 : / : : / : : / :	3000	108	203 09 / 203 09 / / /	3000	103	202 39 / 934 03 / / /	14.0	2,369.0	335.0	
19	51F	99	3001	114	c 14 :20 / 862 :27 223 :47 / 1086 :14 : / : : / :	3000	112	c 13 48 / 454 55 223 34 / 678 29 / /	3000	113	c 13 16 / 844 31 222 13 / 1066 44 / /	17.0	3,249.0	409.0	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	2,233.0	315.0	
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 / 6 48 127 52 / 134 40 / /	b	b	b	FRF times

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
22	61A	99	3001	109	205 :58 / 205 :58 : / : : / : : / :	3000	112	205 12 / 882 41 / / /	3000	102	204 47 / 952 39 / / /	17.9	3,030.0	431.0	FC1 Flew on STS-8 as 2 stack FC. Rebuilt as 3 stack. TCE instability during prelaunch, replaced postflight.
23	61B	104	3001	106	192 :23 / 334 :41 : / : : / : : / :	3000	111	191 14 / 330 30 / / /	3000	107	190 46 / 325 26 / / /	14.1	2,328.0	339.0	
24	61C	102	3001	104	c 37 :14 / 355 :24 312 :57 / 668 :21 : / : : / :	3000	115	c 36 44 / 364 03 312 21 / 676 24 / /	3000	116	c 36 21 / 350 56 311 41 / 662 37 / /	15.4	2,249.0	370.0	
25	51L	99	3001	101	c 59 :30 / 1281 :42 : / : : / : : / :	3000	112	c 58 46 / 941 27 / / /	3000	102	c 58 12 / 1010 51 / / /	N/A	N/A	N/A	Flight times includes prelaunch runs for 2 launch attempts. Vehicle destroyed after 73 seconds.
26	26	103	3001	104	142 :53 / 1030 :46 : / : : / : : / :	3020	122	141 37 / 348 45 / / /	3000	115	141 11 / 1043 44 / / /	13.6	1,318.0	326.0	
27	27	104	3021	120	187 :47 / 187 :47 : / : : / : : / :	3020	118	186 18 / 193 16 / / /	3020	121	185 59 / 185 59 / / /	b	b	b	
28	29	103	3021	109	172 :51 / 410 :59 : / : : / : : / :	3020	122	170 40 / 519 25 / / /	3020	116	170 58 / 854 05 / / /	13.5	1,613.0	323.7	

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
29	30	104	3021	120	139 :00 / 347 :59 : / : : / : : / :	3020	118	137 37 / 351 20 / / /	3020	121	137 03 / 342 41 / / /	14.1	1,366.0	338.0	Flight times include prelaunch run for 1 launch attempt. Fuel cell 3 provided 296 kWH at 14.8 kW during the launch attempt.
30	28	102	3021	117	159 :59 / 173 :51 : / : : / : : / :	3020	111	158 33 / 158 33 / / /	3020	113	158 11 / 158 11 / / /	14.0	1,694.0	336.1	
31	34	104	3021	120	180 :07 / 528 :06 : / : : / : : / :	3020	118	178 42 / 530 02 / / /	3020	121	178 04 / 520 45 / / /	13.6	1,621.0	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	1,643.0	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	3,565.0	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	1,467.0	331.2	
35	31	103	3021	114	c 17 :26 / 17 :26 173 :17 / 190 :43 : / : : / :	3020	122	c 16 48 / 698 51 173 20 / 872 11 / /	3020	119	c 16 08 / 23 04 173 11 / 195 15 / /	14.4	1,740.0	344.3	Fuel cell 2 high oxygen flow during purge

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
36	41	103	3021	114	143 :51 / 334 :34 : / : : / : : / :	3020	103	143 42 / 143 42 / / /	3020	119	143 19 / 339 34 / / /	15.3	1,495.0	367.2	Fuel cell 1 hydrogen flowmeter indicated low constant flow rate of 0.17 lb/hr.
37	38	104	3021	120	162 :25 / 1004 :23 : / : : / : : / :	3020	118	161 35 / 1001 16 / / /	3020	115	160 46 / 160 46 / / /	13.3	1,570.0	319.2	Fuel cell 3 oxygen flowmeter biased low. Hydrogen pump motor voltage high at launch.
38	35	102	3021	117	c 13 :20 / 520 :14 c 13 :42 / 533 :56 c 15 :13 / 549 :09 256 :47 / 805 :56	3020	111	c 12 37 / 502 46 c 13 00 / 515 46 c 14 34 / 530 20 256 45 / 787 05	3020	113	c 11 49 / 501 06 c 12 18 / 513 24 c 13 53 / 527 17 256 23 / 783 40	16.8	3,606.0	403.2	
39	37	104	3021	120	182 :44 / 1187 :07 : / : : / : : / :	3020	118	181 04 / 1182 20 / / /	3020	115	154 35 / 315 21 / / /	15.1	2,165.0	362.4	FC 3 pH sensor cycling on runway 15 minutes after landing.
40	39	103	3021	114	214 :41 / 559 :37 : / : : / : : / :	3020	103	213 46 / 367 10 / / /	3020	119	212 55 / 561 34 / / /	15.4	3,083.0	369.6	FC 1 RV heater A bias low.
41	40	102	3021	117	c 15 :26 / 821 :22 259 :14 / 1080 :36 : / : : / :	3020	111	c 14 48 / 801 53 259 07 / 1061 / /	3020	113	c 14 03 / 797 43 258 41 / 1056 24 / /	17.0	3,720.0	408.0	FC 1 H2 flowmeter off-scale-high.
42	43	104	3021	120	c 11 :57 / 1199 :04 268 :58 / 1468 :02 : / : : / :	3020	118	c 11 11 / 1193 31 268 00 / 1461 31 / /	3020	107	c 10 25 / 356 43 267 13 / 623 56 / /	14.4	3,062.0	345.0	FC2 product water alternate line temperature crept up to 100-105 degrees F from 70-90 degrees F. Fuel cell 2 and 3 flooded after landing.

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
43	48	103	3021	114	185 :53 / 745 :30 : / : : / : : / :	3020	103	185 43 / 552 53 / / /	3020	119	185 07 / 746 41 / / /	14.7	1,891.0	351.8	
44	44	104	3021	120	c 6 :04 / 1474 :06 215 :51 / 1689 :57 : / : : / :	3020	108	c 5 17 / 521 49 215 51 / 737 41 / /	3020	110	c 4 33 / 17 14 215 34 / 232 48 / /	12.8	2,138.0	307.3	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	3,317.0	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	3,376.2	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	2,877.6	324.0	First run for 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	6,204.7	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	2,987.0	375.0	

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
50	47	105	3031	123	221 :12 / 491 :00 : / : : / : : / :	3030	124	220 35 / 489 31 / / /	3030	125	211 35 / 479 22 / / /	17.1	3,249.7	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	3,514.6	356.0	Fuel cell 1 CPM replaced after landing.
52	53	103	3021	114	240 :44 / 1220 :03 : / : : / : : / :	3020	103	239 09 / 1025 35 / / /	3020	119	238 45 / 1218 37 / / /	13.6	2,383.0	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	2,062.0	344.5	Fuel cell 2 in-flight shutdown; restart (DTO412).
54	56	103	3021	104	303 :26 / 804 :03 : / : : / : : / :	3020	103	302 40 / 1328 15 / / /	3020	119	301 55 / 1520 32 / / /	15.7	3,497.0	377.9	Fuel cell 1 CPM erratic; replaced after landing.
55	55	102	3021	109	c 18 :39 / 284 :47 334 :32 / 619 :19 : / : : / :	3020	121	c 15 56 / 283 19 334 13 / 617 32 / /	3030	122	c 15 20 / 281 54 333 45 / 615 39 / /	17.9	4,296.0	430.0	First launch attempt was aborted at T-3 seconds.
56	57	105	3031	123	294 :12 / 958 :30 : / : : / : : / :	3030	124	293 32 / 946 46 / / /	3030	125	152 50 / 804 01 121 23 / 925 24 / /	14.7	3,518.0	352.0	Fuel cell 3 in-flight Shutdown and restart (DTO 412) aborted

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	S/N P760	Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
57	51	103	3021	106	c 54 :51 / 551 :06 241 :46 / 792 :51 : / : : / :	3020	103	c 52 36 / 1380 51 265 07 / 1645 58 / /	3020	119	c 50 29 / 1571 01 264 29 / 1835 30 / /	13.8	3,249.0	330.0	Three launch aborts Fuel cell 1 In-flight shutdown/restart DTO
58	58	102	3021	109	c 41 :58 / 661 :17 374 :50 / 1036 :07 : / : : / :	3020	121	c 41 18 / 658 50 375 05 / 1033 55 / /	3030	122	c 40 19 / 655 58 374 38 / 1030 36 / /	18.1	6,085.0	434.6	
59	61	105	3031	123	314 :09 / 1272 :39 : / : : / : : / :	3030	124	313 28 / 1260 14 / / /	3030	125	312 49 / 1238 13 / / /	14.1	3,666.0	338.0	
60	60	103	3021	106	223 :45 / 1016 :36 : / : : / : : / :	3030	115	223 17 / 555 46 / / /	3020	113	222 45 / 1656 12 / / /	15.2	3,029.0	365.0	Fuel cell 1 replaced after landing
61	62	102	3021	104	357 :37 / 1253 :51 : / : : / : : / :	3020	121	357 03 / 1390 58 / / /	3030	122	356 30 / 1387 06 / / /	16.1	5,408.0	387.0	Fuel cell 3 carried 40 to 45 percent of load most of mission.
62	59	105	3021	110	320 :03 / 1057 :07 : / : : / : : / :	3030	124	318 50 / 1579 04 / / /	3030	125	318 22 / 1556 35 / / /	15.1	4,069.0	362.0	Fuel cell 1 H2 flow meter erratic. Accomplished 96-hour purge cycle.
63	65	102	3021	104	378 :57 / 1632 :48 : / : : / : : / :	3020	121	378 33 / 1769 31 / / /	3030	122	378 05 / 1765 11 / / /	18.8	6,653.0	451.0	Fuel cells 2 & 3 were removed after landing

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	FC-1 S/N P760	FC-1 Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	FC-2 S/N P760	FC-2 Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	FC-3 S/N P760	FC-3 Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
64	64	103	3031	107	286 :03 / 286 :03 : / : : / : : / :	3030	115	284 56 / 840 42 / / /	3020	113	284 29 / 1940 41 / / /	13.9	3,660.0	334.0	LITE payload caused erroneous FC3 performance degradation
65	68	105	3021	110	c 18 :04 / 1075 :11 293 :20 / 1368 :31 : / : : / :	3030	124	c 17 28 / 1596 32 291 43 / 1888 15 / /	3030	125	c 16 54 / 1573 29 291 24 / 1864 53 / /	15.8	4,260.0	379.0	FC1 H2 flowmeter erratic
66	66	104	3021	117	285 :55 / 1745 :10 : / : : / : : / :	3030	118	284 17 / 284 17 / / /	3030	116	284 00 / 297 27 / / /	15.9	4,164.0	381.0	Erratic FC2 H2 pump motor current sensor readings
67	63	103	3031	107	253 :55 / 539 :58 : / : : / : : / :	3030	115	253 30 / 1094 12 / / /	3020	113	253 00 / 2193 41 / / /	15.8	3,142.0	380.0	FC2 H2 pump motor current sensor spike
68	67	105	3021	110	420 :15 / 1788 :46 : / : : / : : / :	3020	108	418 56 / 1655 53 / / /	3020	103	418 29 / 2071 19 / / /	18.1	7,241.0	435.0	FC2 was replaced after landing, replaced with s/n 118
69	71	104	3021	117	c 43 :27 / 1788 :37 265 :19 / 2053 :56 : / : : / :	3030	123	c 42 47 / 1329 37 264 52 / 1594 29 / /	3030	116	c 42 10 / 339 37 264 32 / 604 09 / /	16.7	3,942.0	401.0	
70	70	103	3031	107	c 236 :54 / 776 :52 : / : : / : : / :	3030	115	236 19 / 1330 31 / / /	3020	113	235 47 / 2429 28 / / /	13.1	2,816.0	315.0	FC3 replaced after flight; had high hours and exceeded end-of-life curve

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

FUEL CELLS

Miss Seq. No.	STS-No.	Orb. OV-	FC-1 MC464-0115-XXXX Mdl. Dash No.	FC-1 S/N P760	FC-1 Run Time Flight/Cum Hr:min a	FC-2 MC464-0115-XXXX Mdl. Dash No.	FC-2 S/N P760	FC-2 Run Time Flight/Cum Hr:min a	FC-3 MC464-0115-XXXX Mdl. Dash No.	FC-3 S/N P760	FC-3 Run Time Flight/Cum Hr:min a	Avg. Elect Power, kW	Total Elect Energy, kWh	Average Da.Elect. Energy, kWh	Remarks
71	69	105	3021	110	c 6:56 / 1795:42 298:56 / 2094:38 : / : : / :	3030 3020	118 111	c 0 52 / 292 00 299 49 / 1738 49 / /	3030	122	c 3 51 / 1775 55 298 24 / 2074 19 / /	14.9	3,884.0	358.0	FC2 replaced after launch scrub.
72	73	102	3021	104	c 9:39 / 1642:27 c 39:56 / 1682:23 c 18:28 / 1700:51 409:22 / 2110:13	3020	121	c 8 57 / 1785 34 c 39 24 / 1824 58 c 17 51 / 1842 49 409 01 / 2251 50	3030	120	c 8 16 / 8 16 c 38 44 / 47 00 c 17 03 / 64 03 408 36 / 472 39	19.5	7,446.0	468.0	FC2 replaced prior to flight. FC3 CPMs latched at 500mv. FC1 removed after landing.
73	74	104	3021	117	244:08 / 2298:04 : / : : / : : / :	3030	123	243 39 / 1838 08 / / /	3030	116	242 51 / 847 00 / / /	15.9	3,120.0	382.0	All channels of FC3 CPM shifted 8mv. FC1 removed after landing.

Note:

a = The cumulative run time includes ground operation time for various tests.

b = Department of Defense Mission - Data not available.

c = Launch attempt / abort run times

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

This page intentionally left blank

FUEL CELL SERIAL NUMBER/PART NUMBER MATRIX (PART 1)

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	SERIAL NUMBERS																					
				101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122
1	1	102							0003	0004	0004														
2	2	102		0008	0007	0007																			
3	3	102			0007	0007			1005																
4	4	102			0007	0007			1005																
5	5	102		0008	0007	0007																			
6	6	99								1004		0008		0007											
7	7	99								1004		0008		0007											
8	8	99								1004		0008		0007											
9	9	102					3001											3000	3000						
10	41B	99													3000	3000	3001								
11	41C	99													3000	3000	3001								
12	41D	103		3001	3000	3000																			
13	41G	99											3000			3000	3001								
14	51A	103		3001	3000	3000																			
15	51C	103		3001	3000	3000																			
16	51D	103		3001	3000	3000																			
17	51B	99											3000			3000	3001								
18	51G	103		3001		3000					3000														
19	51F	99													3000	3000	3001								
20	51I	103		3001		3000					3000														
21	51J	104							3001	3000				3000											
22	61A	99			3000							3001			3000										
23	61B	104							3001	3000				3000											
24	61C	102					3001											3000	3000						
25	51L	99		3001	3000										3000										
26	26	103					3001											3000							3020
27	27	104																			3020		3021	3020	
28	29	103										3021							3020						3020
29	30	104																			3020		3021	3020	
30	28	102												3020		3020				3021					
31	34	104																			3020		3021	3020	
32	33	103										3021							3020						3020
33	32	102												3020		3020				3021					
34	36	104																			3020		3021	3020	
35	31	103															3021					3020			3020
36	41	103				3020											3021					3020			
37	38	104																3020			3020		3021		
38	35	102												3020		3020				3021					
39	37	104																3020			3020		3021		
40	39	103				3020											3021					3020			
41	40	102												3020		3020				3021					
42	43	104								3020											3020		3021		
43	48	103				3020											3021					3020			
44	44	104									3020		3020										3021		

a = Remaining two fuel cell serial number/part numbers shown in part 2 of table.

b = Fuel cell configuration no. 3030 S/N 118 was replaced with S/N 111 following launch scru

FUEL CELL SERIAL NUMBER/PART NUMBER MATRIX (PART 1)

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	SERIAL NUMBERS																					
				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		3020												
48	50	102												3020		3020				3021					
49	46	104					3021				3020		3020												
51	52	102										3021												3020	3030
52	53	103				3020											3021					3020			
54	56	103				3020			3021													3020			
55	55	102										3021												3020	3030
57	51	103				3020			3021													3020			
58	58	102										3021												3020	3030
60	60	103							3021							3020		3030							
61	62	102					3021																	3020	3030
62	59a	105											3021												
63	65	102					3021																	3020	3030
64	64	103								3031						3020		3030							
65	68a	105											3021												
66	66	104																	3030	3021	3030				
67	63	103								3031						3020		3030							
68	67	105				3020					3020		3021												
69	71	104																	3030	3021					
70	70	103								3031						3020		3030							
71	69	105	b										3021	3020							3030				3030
72	73	102					3021																3030	3020	
73	74	104																	3030	3021					

a = Remaining two fuel cell serial number/part numbers shown in part 2 of table.

b = Fuel cell configuration no. 3030 S/N 118 was replaced with S/N 111 following launch scru

FUEL CELL SERIAL NUMBER/PART NUMBER MATRIX (PART 2)

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	SERIAL NUMBERS																					
				123	124	125																			
47	49	105		3031	3030	3030																			
50	47	105		3031	3030	3030																			
53	54	105		3031	3030	3030																			
56	57	105		3031	3030	3030																			
59	61	105		3031	3030	3030																			
62	59	105			3030	3030																			
65	68	105			3030	3030																			
69	71	104		3030																					
73	74	104		3030																					

ORBITER TIRES

Miss. Seq. No.	STS-No.	Orb. OV-	Main Gear Tires - PN (a), Status, and SN				Nose Gear Tires- PN(a), Status, and SN		Remarks
			Left Hand		Right Hand				
			Outboard	Inboard	Outboard	Inboard	Left Hand	Right Hand	
1	1	102	*=3 New 9338AK0836	*=3 New 9332AK0837	*=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 1082A00899	*=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 1082A00899	*=4 Used 1 1075A00040	*=2 New 7007AK0156	*=2 New 7007AK0804	Nominal tire wear.
4	4	102	*=4 New 1079A00874	*=4 New 104200851	*=4 New 1349A01014	*=4 New 1083A00037	*=2 New 7007AK0795	*=2 New 7007AK0131	Nominal tire wear.
5	5	102	*=4 Used 1 1079A00874	*=4 Used 1 1042A00851	*=4 Used 1 1348A00434	*=4 New 1350A00468	*=2 Used 1 7007AK0795	*=2 Used 1 7007AK0131	LH MLG tires had touchdown spot damage. LHIB tire was badly damaged.
6	6	099	*=4 New 1079A00455	*=4 New 1079A00453	*=4 New 1345A00997	*=4 New 1077A00427	*=2 New 7007AK0129	*=2 New 7007AK0508	Nominal tire wear.
7	7	099	*=4 New 2301A00463	*=4 New 2208A00436	*=4 New 2222A00983	*=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 2306A00472	*=4 New 2209A00464	*=2 New 7076AK0650	*=2 New 7076AK0651	Nominal tire wear.
9	9	102	*=4 New 2211A00439	*=4 New 23022A00460	*=4 New 2333A00474	*=4 New 2290A00435	*=2 New 7006AK0035	*=2 New 7006AK1034	Nominal tire wear.
10	41B	099	*=4 New 2187A00444	*=4 New 1348A00899	*=4 Used 1 2306A00472	*=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 2211AA00440	*=4 New 2211A00442	*=2 New 1232A01068	*=2 New 1232A01067	Nominal tire wear.
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 wheel 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.

a = MC194-0007-000*-03481

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

ORBITER TIRES

Miss. Seq. No.	STS-No.	Orb. OV-	Main Gear Tires - PN (a), Status, and SN				Nose Gear Tires- PN(a), Status, and SN		Remarks
			Left Hand		Right Hand				
			Outboard	Inboard	Outboard	Inboard	Left Hand	Right Hand	
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.
22	61A	099	*=4 Used 1 2196A00963	*=4 Used 1 4067A00704	*=4 New 2188A00477	*=4 New 4051A00830	*=2 Used 1 7006AK1408	*=2 Used 1 7006AK0505	Nominal tire wear.
23	61B	104	*=4 New 4089AK1105	*=4 New 4158A00800	*=4 New 4077A00760	*=4 New 4076A00756	*=2 New 5141A00559	*=2 New 5141A00703	Nominal tire wear.
24	61C	102	*=4 Used 1 4158A00665	*=4 Used 1 4054A01123	*=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 4158A00950	*=2 New 5141AK1288	*=2 New 5141A00983	No landing; Vehicle destroyed.
26	26	103	*=4 New 5169AU0526	*=4 New 5164AU0474	*=4 New 5170A00546	*=4 New 5158AU0661	*=2 New 5150A00553	*=2 New 5154A00055	Nominal tire wear.
27	27	104	*=4 New 5142A00539	*=4 New 5136A00649	*=4 New 5165A00670	*=4 New 5135A00434	*=2 New 5149A01068	*=2 New 5149A01069	Nominal tire wear. LHIB wheel/tire assembly had a leak of 1.4 psig/day at 70 degrees F.
28	29	103	*=4 New 5129A00527	*=4 New 5168A00539	*=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 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 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 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 9117N00555	*=2 New 5151A00455	*=2 New 5150A01093	Nominal tire wear. Heavier wear was found on RH MLG tires.
33	32	102	*=4 New 5163A00680	*=4 New 5156A00532	*=4 New 9115N00268	*=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	*=2 New 5141A00981	*=2 New 5151A00456	Nominal tire wear.
35	31	103	*=4 New 9115N00269	*=4 New 9116N00348	*=4 New 9114N00347	*=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	*=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	*=2 New 5141A00982	*=2 New 5141A00984	Nominal tire wear.
38	35	102	*=4 New 9217N00067	*=4 New 9209N00542	*=4 New 9210N00538	*=4 New 9209N00540	*=2 Used 1 5150A00552	*=2 Used 1 7005AK0513	Nominal tire wear.

a = MC194-0007-000*-03481

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

ORBITER TIRES

Miss. Seq. No.	STS-No.	Orb. OV-	Main Gear Tires - PN (a), Status, and SN				Nose Gear Tires- PN(a), Status, and SN		Remarks
			Left Hand		Right Hand				
			Outboard	Inboard	Outboard	Inboard	Left Hand	Right Hand	
39	37	104	*=4 New 9216N00832	*=4 New 9216N00341	*=4 New 9209N00668	*=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	*=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	*=2 New 5150A01096	*=2 New 5141A00701	Nominal tire wear.
42	43	104	*=4 New 9219N00305	*=4 New 9220N00361	*=4 New 9208N00363	*=4 New 9214N00660	*=2 New 5151A00453	*=2 New 5151A00055	Wear through 2 plies on LHIB.
43	48	103	*=4 New 9215N00065	*=4 New 9110N00555	*=4 New 9210N00668	*=4 New 9114N00346	*=6 New 1132N00625	*=6 New 1132N00629	All MLG tires had higher than expected wear, especially the LHIB tire.
44	44	104	*=4 New 9213N00616	*=4 New 9212N00527	*=4 New 9210N00046	*=4 New 9216N00361	*=6 New 1133N00230	*=6 New 1131N00625	Nominal tire wear.
45	42	103	*=4 New 9216N00836	*=4 New 9110N00554	*=4 New 9219N00007	*=4 New 9217N00066	*=6 New 1130N00968	*=6 New 1133N00636	Nominal tire wear.
46	45	104	*=4 New 9217N00366	*=4 New 1274N00373	*=4 New 9212N00063	*=4 New 1274N00374	*=6 Used 1 1132N00629	*=6 Used 1 1132N00625	Nominal tire wear.
47	49	105	*=4 New 1274N00375	*=4 New 9214N00014	*=4 New 1274N00710	*=4 New 9210N00013	*=6 New 1134N00953	*=6 New 1132N00626	Nominal tire wear.
48	50	102	*=5 New 2017N00080	*=5 New 2022N00414	*=5 New 2021N00417	*=5 New 2016N00079	*=6 New 1132N00956	*=6 New 1134N00956	First flight of the new MLG commercial tread tires. Nominal tire wear. (applicable all subsequent flights)
49	46	104	*=5 New 2021N00678	*=5 New 2017N00241	*=5 New 2022N00745	*=5 New 2021N00010	*=6 Used 1 1130N00968	*=6 Used 1 1133N00636	Nominal tire wear.
50	47	105	*=5 New 2016N00404	*=5 New 2016N00081	*=5 New 2016N00676	*=5 New 2022N00070	*=6 New 1133N00969	*=6 New 1135N00964	Nominal tire wear.
51	52	102	*=5 New 2020N00346	*=5 New 2021N00011	*=5 New 2017N00082	*=5 New 2021N00414	*=6 New 1135N00960	*=6 New 1132N00627	Nominal tire wear.
52	53	103	*=5 New 2020N00344	*=5 New 2016N00675	*=5 New 2020N00011	*=5 New 2017N00405	*=6 New 1134N00455	*=6 New 1130N00967	Nominal tire wear.
53	54	105	*=5 New 2143N00399	*=5 New 2143N00731	*=5 New 2022N00415	*=5 New 2143N00730	*=6 New 1133N00967	*=6 New 1130N00631	A 0.3 in. diameter x 2-ply deep half-moon shaped cut was found in the RH1B tire.
54	56	103	*=5 New 2022N00741	*=5 New 2184N00400	*=5 New 2143N00401	*=5 New 2183N00650	*=6 New 1134N00456	*=6 New 1133N00635	Nominal tire wear.
55	55	102	*=5 New 2149N00065	*=5 New 2148N00731	*=5 New 2149N00067	*=5 New 4129N00066	*=6 Used 1 1134N00953	*=6 Used 1 1132N00626	Nominal tire wear.
56	57	105	*=5 New 2146N00732	*=5 New 2183N00737	*=5 New 2184N00734	*=5 New 2184N00066	*=6 Used 1 1133N00969	*=6 Used 1 1135N00964	Nominal tire wear.
57	51	103	*=5 New 2020N00746	*=5 New 2142N00741	*=5 New 2183N00067	*=5 New 2183N00651	*=6 Used 1 1130N00967	*=6 Used 1 1132N00627	Nominal tire wear. RHIB tire had the most scuffing.

a = MC194-0007-000*-03481

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

ORBITER TIRES

Miss. Seq. No.	STS-No.	Orb. OV-	Main Gear Tires - PN (a), Status, and SN				Nose Gear Tires- PN(a), Status, and SN		Remarks
			Left Hand		Right Hand				
			Outboard	Inboard	Outboard	Inboard	Left Hand	Right Hand	
58	58	102	*=5 New 2147N00351	*=5 New 2184N00731	*=5 New 2184N00067	*=5 New 2146N00350	*=6 New 1130N00632	*=6 New 1135N00237	Nominal tire wear.
59	61	105	*=5 New 2146N00731	*=5 New 2142N00739	*=5 New 2183N00738	*=5 New 1331N00727	*=6 New 1133N00968	*=6 New 1133N00972	Nominal tire wear. RHIB tire had the most scuffing.
60	60	103	*=5 New 2184N00401	*=5 New 2183N00739	*=5 New 2142N00401	*=5 New 2148N00733	*=6 New 1133N00231	*=6 New 1133N00232	Nominal tire wear.
61	62	102	*=5 New 2021N00012	*=5 New 2195N00607	*=5 New 2185N00066	*=5 New 2184N00732	*=6 New 1130N00632	*=6 Used 1 1135N00237	Wear on outboard tires possibly due to PIO during nose-up.
62	59	105	*=5 New 2216N00661	*=5 New 2195N00730	*=5 New 2185N00353	*=5 New 2195N00606	*=6 Used 1 1133N00972	*=6 Used 1 1133N00635	Tire wear (Flight Problem STS-59-V-10). Tire wear location within family. Fastest MLG speed on concrete; worst wear at EAFB.
63	65	102	*=5 New 2196N00279	*=5 New 2185N00068	*=5 New 2195N00605	*=5 New 2217N00058	*=6 New 1133N00970	*=6 New 1131N00623	Nominal tire wear.
64	64	103	*=5 New 2185N00067	*=5 New 2217N00461	*=5 New 2216N00394	*=5 New 2217N00060	*=6 New 3015N00666	*=6 New 1131N00624	Nominal tire wear.
65	68	105	*=5 New 2218N00786	*=5 New 2218N00056	*=5 New 2218N00422	*=5 New 2219N00060	*=6 New 3015N00664	*=6 New 3015N00663	Nominal tire wear.
66	66	104	*=5 New 2218N00054	*=5 New 2220N00054	*=5 New 2219N00061	*=5 New 2217N00462	*=6 New 3015N00084	*=6 New 3015N00977	Nominal tire wear.
67	63	103	*=5 New 2287N00739	*=5 New 2287N00070	*=5 New 2287N00072	*=5 New 2287N00071	*=6 Used 1 3015N00666	*=6 Used 1 1131N00624	Nominal tire wear.
68	67	105	*=5 New 2217N00731	*=5 New 2220N00431	*=5 New 2218N00424	*=5 New 2287N00656	*=6 Used 1 3015N00664	*=6 Used 1 3015N00663	Nominal tire wear.
69	71	104	*=5 New 2288N00591	*=5 New 2288N00737	*=5 New 2287N00658	*=5 New 2217N00460	*=6 Used 1 3015N00084	*=6 Used 1 3015N00977	Nominal tire wear.
70	70	103	*=5 New 2289N00069	*=5 New 2289N00071	*=5 New 2289N00070	*=5 New 2289N00071	*=6 New 3018N00529	*=6 New 3018N00528	Nominal tire wear.
71	69	105	*=5 New 2290N00738	*=5 New 2289N00748	*=5 New 2290N00572	*=5 New 2290N00739	*=6 New 3015N00980	*=6 New 3015N00086	Nominal tire wear.
72	73	102	*=5 New 2290N00070	*=5 New 2288N00738	*=5 New 2289N00749	*=5 New 2290N00071	*=6 New 3015N00979	*=6 New 3015N00975	Nominal tire wear.
73	74	104	*=5 New 5074N00606	*=5 New 5075N00056	*=5 New 2290N00072	*=5 New 5075N00339	*=6 New 3019N00665	*=6 New 3015N00978	Nominal tire wear.

a = MC194-0007-000*-03481

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
1	1	102	OMS-1	OMS-2	OMS-3	OMS-4									Deorb	346.0	LV01	102
			2	2	1-LH	1-RH									2	349.0	RV01	101
			87.0	75.0	29.0	33.0									155.0	-		
			164.5	136.7	25.7	29.4									297.6	653.9		
2	2	102	OMS-1	OMS-2	OMS-3A	OMS-3B	OMS-4								Deorb	353.1	LV01	102
			2	2	1-LH	1-LH	1-RH								2	355.8	RV02	101
			77.6	71.0	12.0	24.0	39.0								174.0	-		
			141.5	121.0	12.0	21.0	34.8								313.4	643.7		
3	3	102	OMS-1	OMS-2	OMS-3A	OMS-3B									Deorb	337.8	LV01	102
			2	2	1-LH	1-LH									2	320.4	RV01	101
			86.0	88.0	2.4	15.0									151.3	-		
			152.7	151.7	1.8	12.7									270.8	589.7		
4	4	102	OMS-1	OMS-2	OMS-3	OMS-4	OMS-5								Deorb	444.2	LV01	102
			2	2	2	2	1-LH								2	426.8	RV01	101
			88.0	105.0	32.0	32.0	17.0								173.4	-		
			143.7	177.1	54.4	54.8	15.0								308.8	753.8		
5	5	102	OMS-1	OMS-2	OMS-3	OMS-4A	OMS-4B	OMS-5							Deorb	430.5	LV01	102
			2	2	2	1-LH	1-LH								2	413.2	RV01	101
			137.8	116.8	9.3	2.0	15.5	9.3							142.4	-		
			221.3	191.3	15.5	1.4	13.5	16.2							268.9	728.1		
6	6	99	OMS-1	OMS-2	OMS-3	OMS-4									Deorb	441.0	LP01	106
			2	2	2	2									2	441.0	RP01	105
			135.3	117.0	21.0	21.6									145.2	-		
			218.0	185.2	40.0	42.5									291.9	777.6		
7	7	99	OMS-1	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6							Deorb	450.4	LP01	106
			2	2	2	2	2	2							2	450.4	RP01	105
			139.5	117.5	4.9	5.2	3.4	13.3							169.0	-		
			227.0	193.6	10.0	9.4	6.3	23.3							310.2	779.8		

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
8	8	99	OMS-1	OMS-2	OMS-3	OMS-4	OMS-5								Deorb	495.1	LP01	106
			2	2	2	2	2								2	495.1	RP01	105
			138.1	115.6	6.4	37.4	46.6								150.8	-		
			227.0	196.8	11.0	66.7	83.5								278.5	863.5		
9	9	102	OMS-1	OMS-2											Deorb	320.7	LV01	102
			2	2											2	320.7	RV01	101
			63.8	101.5											156.1	-		
			111.0	163.5											267.0	541.5		
10	41B	99	OMS-1	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6							Deorb	528.4	LP01	106
			2	2	1-RH	1-LH	1-LH	1-LH							2	455.8	RP01	105
			150.2	125.0	13.0	31.2	41.8	12.4							168.2	-		
			247.0	204.0	11.0	27.0	36.5	11.0							316.0	852.5		
11	41C	99	b	OMS-2	NC-1	NPC	NH-1	NSR	NH-2	TI	NC-3A	TI-2			Deorb	513.0	LP03	107
				2	1-RH	1-LH	1-RH	2	1-RH	1-LH	1-RH	1-LH			2	536.0	RP01	105
				95.2	14.3	11.7	15.0	144.0	16.0	13.0	8.6	6.2			243.0	-		
				148.6	11.4	9.4	11.8	231.1	14.3	11.6	7.9	6.2			460.6	912.9		
12	41D	103	OMS-1	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6							Deorb	487.1	LP03	107
			2	2	1-LH	2	1-RH	2							2	485.7	RP03	108
			153.5	126.2	13.6	8.6	12.2	20.6							166.8	-		
			237.3	196.5	11.3	15.1	11.0	37.3							311.1	819.6		
13	41G	99	OMS-1	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6							Deorb	553.4	LP01	106
			2	2	2	2	2	2							2	553.4	RP01	111
			134.5	143.3	50.6	51.3	19.3	16.1							141.9	-		
			224.9	247.2	90.5	91.7	35.0	29.0							269.2	987.5		
14	51A	103	OMS-1	OMS-2	NC-1	CIRC-1	A SEP	S SEP	NSR	NH-1	NC-3-1	TI-1	NC-1-2	TI-2	Deorb	533.1	LP03	107
			2	2	1-LH	1-RH	1-LH	2	2	2	1-RH	1-RH	2	1-LH	2	536.9	RP03	108
			151.0	114.8	11.2	16.2	13.6	8.6	17.8	12.7	13.4	10.7	8.6	11.7	183.4	-		
			235.9	177.3	8.9	12.7	11.0	15.2	31.5	22.6	12.0	9.6	15.3	10.5	333.1	895.6		

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
15	51C	103	a		a											-	LP03 RP03	107 108
16	51D	103	b	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 21.8				Deorb 2 237.8 451.5	453.2 410.6 - 774.3	LP03 RP03	107 108
17	51B	99	OMS-1 2 133.4 225.5	OMS-2 2 145.2 243.3											Deorb 2 265.4 470.4	544.0 544.0 - 939.2	LP01 RP04	106 113
18	51G	103	b	OMS-2 2 177.6 278.7	SEP-1 1-LH 13.4 11.0	SEP-2 1-LH 3.0 11.0	SEP-3 1-LH 12.6 11.0	OMS-6 1-RH 111.8 100.0							Deorb 2 150.4 279.3	367.0 439.8 - 691.0	LP04 RP03	110 108
19	51F	99	ATO 2 106.4	OMS-2 2 119.4 193.7	OMS-3 2 35.0 57.4	OMS-4 2 45.1 75.2	OMS-5 2 15.2 25.6	OMS-6 2 15.6 27.1	OMS-7 2 3.4 5.8						Deorb 2 171.1 301.8	511.2 511.2 - 686.6	LP01 RP04	106 113
20	51I	103	b	OMS-2 2 183.2 279.3	OMS-3 1-LH 13.8 11.0	OMS-4 1-RH 13.2 11.0	OMS-5 2 10.6 15.0	OMS-6 1-RH 40.2 35.7	OMS-7 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		Deorb 2 251.6 476.2	500.6 570.6 - 930.8	LP04 RP03	110 108
21	51J	104	a				a									-	LP03 RP01	107 111

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
22	61A	99	OMS-1 2 121.2 195.7	OMS-2 2 131.6 221.5											Deorb 2 170.4 301.4	423.2 423.2 - 718.6	LP01 RP03	106 108
23	61B	104	b	OMS-2 2 180.4 278.1	OMS-3 RH 13.8 11.0	OMS-4 RH 13.4 11.0	OMS-5 LH 16.0 14.1	OMS-6 RH 49.2 49.5							Deorb 2 169.0 314.0	365.4 425.8 - 677.7	LP03 RP01	107 111
24	61C	102	OMS-1 2 164.2 265.5	OMS-2 2 134.6 217.5	OMS-3 1-LH 16.4 14.1										Deorb 2 232.0 417.8	547.2 530.8 - 914.9	LP04 RP04	110 113
25	51L	99	d													-	LV01 RV01	112 102
26	26	103	b	OMS-2 2 141.6 223.0	OMS-3 2 16.8 30.9										Deorb 2 168.0 325.0	326.4 326.4 - 578.9	LP04 RP03	109 114
27	27	104	a		a											-	LP01 RP01	106 111
28	29	103	b	OMS-2 2 141.6 222.0	OMS-3 2 16.6 31.0										Deorb 2 161.4 313.0	319.6 319.6 - 566.0	LP04 RP03	109 114

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
29	30	104	OMS-1 2 141.8 226.8	OMS-2 2 125.6 197.4	OMS-3 2 16.4 31.0										Deorb 2 165.8 326.4	449.6 449.6 - 781.6	LP01 RP01	106 111
30	28	102	b	OMS-2 2	OMS-3 1-LH	OMS-4 1-RH	OMS-5 2								Deorb 2	-	LP03 RP04	105 108
31	34	104	b	OMS-2 2 140.6 219.0	OMS-3 2 15.3 31.0										Deorb 2 168.0 321.1	323.9 571.1 -	LP01 RP03	106 114
32	33	103	OMS-1 2	OMS-2 2	OMS-3 2	OMS-4 2									Deorb 2	-	LP04 RP01	109 111
33	32	102	b	OMS-2 2 139.5 218.3	OMS-3 1-RH 8.5 6.7	OMS-4 1-LH 21.1 18.0	OMS-5 1-LH 20.9 17.6	OMS-6 1-LH 8.2 6.8	OMS-7 1-RH 10.9 9.2						Deorb 2 299.2 489.5	488.9 458.1 - 766.1	LP03 RP04	105 108
34	36	104	b	a	a											-	LP01 RP03	106 114
35	31	103	b	OMS-2 2 304.4 496.6											Deorb 2 290.5 573.5	594.9 594.9 - 1070.1	LP04 RP01	109 111

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
36	41	103	b	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	325.1 335.7 - 580.8	LP04 RP01	109 111
37	38	104	OMS-1 2	OMS-2 2	OMS-3 2	OMS-4 2	a								Deorbit 2	-	LP01 RP03	105 114
38	35	102	b	OMS-2 2 179.2 279.1											Deorbit 2 230.4 383.2	409.6 409.6 - 662.3	LP03 RP04	105 108
39	37	104	b	OMS-2 2 234.7 372.1	OMS-3 1-LH 9.4 8.7										Deorbit 2 221.0 439.7	465.1 455.7 - 820.5	LP01 RP01	105 108
40	39	103	b	OMS-2 2 129.0 209.5	OMS-3 1-RH 19.8 16.8	OMS-4 1-LH 20.8 16.8	OMS-5 1-RH 19.6 17.0	OMS-6 1-LH 18.6 17.0	OMS-7 1-RH 19.8 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		-	LP04 RP03	105 108
40	39	103	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	382.0 387.0 - 664.6	LP04 RP03	105 108
41	40	102	b	OMS-2 2 124.1 197.3											Deorbit 2 169.5 286.0	293.6 293.6 - 483.3	LP03 RP04	105 108

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
42	43	104	b	OMS-2	OMS-3										Deorbit	317.2	LP01	106
				2	2										2	317.2	RP01	111
				142.7	16.5										158.0	-		
				222.2	31.0										307.0	560.2		
43	48	103	b	OMS-2											Deorbit	531.8	LP04	109
				2											2	531.8	RP03	114
				266.2											265.6	-		
				449.9											516.6	966.5		
44	44	104	b	OMS-2	OMS-3										Deorbit	382.5	LP01	106
				2	2										2	382.5	RP01	111
				183.8	16.4										182.5	-		
				286.1	30.2										355.6	671.9		
45	42	103	OMS-2												Deorbit	337.4	LP04	109
			2												2	337.4	RP03	114
			159.2												178.2	-		
			264.0												310.1	574.1		
46	45	104	OMS-2	OMS-3											Deorbit	380.0	LP01	106
			2	1-LH											2	365.0	RP01	111
			145.6	14.1											220.3	-		
			252.4	12.0											408.2	672.6		
47	49	105	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6	OMS-7	OMS-8	OMS-9					Deorbit	380.2	LP03	105
			2	1-LH	1-RH	2	1-RH	1-LH	1-LH	1-RH					2	386.4	RP04	108
			124.3	16.1	17.4	45.9	12.4	18.2	8.7	19.4					167.0	-		
			193.7	12.4	13.7	72.4	9.7	14.5	7.1	17.8					314.6	655.9		
48	50	102	OMS-2	OMS-3											Deorbit	375.0	LP05	115
			2	2											2	375.0	RP05	116
			141.3	30.4											203.3	-		
			222.0	49.6											341.9	613.5		

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
49	46	104	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6								Deorbit	555.4	LP01	106
			2	2	2	2	2								2	555.4	RP01	111
			222.4	69.6	70.2	33.7	36.3								123.2	-		
			350.6	118.8	120.9	59.7	64.1								224.2	935.3		
50	47	105	OMS-2												Deorbit	311.4	LP03	105
			2												2	311.4	RP04	108
			158.7												152.7	-		
			261.8												262.4	524.2		
51	52	102	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6	OMS-7							Deorbit	467.3	LP05	115
			2	1-RH	1-RH	1-LH	c	1-LH							2	292.7	RP05	116
			137.4	15.4	12.7	30.6	89.6	82.5							127.2	-		
			221.9	12.2	10.4	25.5	73.8	71.3							224.7	639.8		
52	53	103	OMS-2	OMS-3	OMS-4	OMS-5									Deorbit	403.6	LP04	109
			2	1	1	1									2	416.3	RP03	114
			203.8	49.5	51.4	10.8									150.1	-		
			337.9	45.9	49.0	10.0									294.1	736.9		
53	54	105	OMS-2	OMS-3	OMS-4										Deorbit	330.9	LP03	105
			2	1	1										2	323.5	RP04	108
			143.3	33.4	27.0										153.0	-		
			222.0	30.4	24.9										292.9	570.2		
54	56	103	OMS-2	OMS-3											Deorbit	356.1	LP01	106
			2	1											2	364.1	RP03	114
			148.8	8.0											208.1	-		
			253.6	6.8											378.7	639.1		
55	55	102	OMS-2												Deorbit	316.9	LP05	115
			2												2	316.9	RP05	116
			140.2												172.9	-		
			222.2												290.2	512.4		

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
56	57	105	OMS-2 2 198.5 315.6	OMS-3 1 67.7 55.5	OMS-4 2 51.2 81.6										Deorbit 2 253.4 423.4	570.8 503.1 - 876.1	LP03 RP04	105 108
57	51	103	OMS-2 2 145.2 222.0	OMS-3 1 27.7 23.2	OMS-4 1 45.7 39.8	OMS-5 1 6.6 5.9	OMS-6 1 6.5 5.9								Deorbit 2 136.9 251.1	334.4 316.3 - 547.9	LP01 RP03	106 114
58	58	102	OMS-2 2 124.8 197.1	OMS-3 1 18.6 14.8											Deorbit 2 160.1 266.7	284.9 303.5 - 478.6	LP05 RP05	115 116
59	61	105	OMS-2 2 200.9 324.3	OMS-3 1 59.1 98.0	OMS-4 1 30.0 49.8	OMS-5 1 17.1 12.1	OMS-6 1 14.7 12.1								Deorbit 2 295.1 523.4	602.2 599.8 - 1019.7	LP03 RP04	105 108
60	60	103	OMS-2 2 163.5 268.3												Deorbit 2 234.4 407.0	397.9 397.9 - 675.3	LP01 RP03	106 114
61	62	102	OMS-2 2 131.8 208.3	OMS-3 1 41.5 33.6	OMS-4 1 46.5 37.6	OMS-5 2 37.4 61.3									Deorbit 2 127.5 214.2	342.7 337.7 - 555.0	LP05 RP05	115 116
62	59	105	OMS-2 2 99.9 163.0												Deorbit 2 134.9 233.7	234.8 234.8 - 396.7	LP04 RP01	109 101

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
63	65	102	OMS-2	OMS-3	OMS-4										Deorbit	355.3	LP05	115
			2	2	2										2	355.3	RP05	116
			141.2	31.6	30.1										152.4	-		
			221.8	51.0	49.1										255.3	577.2		
64	64	103	OMS-2	OMS-3	OMS-4										Deorbit	324.2	LP01	106
			2	1 (R)	1 (L)										2	324.1	RP03	114
			125.4	17.4	17.5										181.3	-		
			208.7	15.0	15.0										323.6	562.3		
65	68	105	OMS-2												Deorbit	236.3	LP04	109
			2												2	236.3	RP01	101
			98.0												138.3	-		
			160.0												239.2	399.2		
66	66	104	OMS-2	OMS-3	OMS-4										Deorbit	414.9	LP03	105
			2	1 (L)	1 (L)										2	372.7	RP04	108
			159.6	31.5	10.7										213.1	-		
			262.3	28.2	9.6										380.0	680.1		
67	63	103	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6	OMS-7							Deorbit	512.0	LP01	106
			2	1 (R)	1 (L)	1 (L)	1 (L)	1 (L)							2	448.8	RP03	114
			155.6	39.5	24.6	49.3	10.3	18.5							253.7	-		
			252.1	32.1	20.1	40.7	8.5	15.4							450.4	819.3		
68	67	105	OMS-2												Deorbit	476.3	LP04	109
			2												2	476.3	RP01	101
			177.1												299.2	-		
			279.0												520.5	799.5		
69	71	104	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6								Deorbit	465.5	LP03	105
			2	2	1(L)	2	1(L)								2	443.9	RP04	108
			47.7	136.9	12.4	46.0	9.2								213.3	-		
			75.3	220.7	10.1	75.0	7.2								373.0	761.3		

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANUEVERING 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 Del V, ft/sec.	Pod S/N LH/RH	OMS Eng S/N LH/RH
70	70	103	OMS-2	OMS-3	OMS-4										Deorbit	353.9	LP04	109
			2	1 (L)	1 (R)										2	352.0	RP01	101
			143.7	33.6	31.7										176.6	-		
			221.6	30.5	28.9										342.6	623.6		
71	69	105	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6	OMS-7	OMS-8						Deorbit	513.8	LP04	109
			2	1 (L)	1 (R)	1 (L)	1 (R)	1 (L)	1 (R)						2	515.3	RP05	116
			187.7	34.6	29.2	10.8	13.2	63.8	68.3						216.9	-		
			293.9	37.6	23.4	8.5	10.5	52.2	56.1						374.3	856.5		
72	73	102	OMS-2												Deorbit	281.3	LP05	115
			2												2	281.3	RP01	101
			118.4												161.9	-		
			186.2												269.6	455.8		
73	74	104	OMS-2	OMS-3	OMS-4	OMS-5	OMS-6	OMS-7	OMS-8	OMS-9					Deorbit	499.6	LP03	105
			2	1 (R)	2	1 (L)	1 (R)	1 (L)	1 (L)	1 (R)					2	539.8	RP04	108
			131.5	46.2	40.0	38.0	33.0	9.4	47.0	55.4					233.7	-		
			213.0	37.6	65.0	31.3	28.0	8.6	41.7	49.2					434.0	908.4		

a DOD MISSION - DATA NOT AVAILABLE
b No OMS-1 maneuver required after direct insertion to orbit
c Single left engine; right pod crossfeed
d Vehicle lost at 73 seconds

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

ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	Fuel, MMH												Oxidizer, N2O4											
				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
1	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	2	102		3221	3466	6687	19	58	77	485	1010	1495	2717	2398	5115	5306	5711	11017	31	92	123	861	1435	2296	4414	4184	8598
3	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	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	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	6	99		3660	3606	7266	0	93	93	377	359	736	3283	3154	6437	6042	5958	12000	0	150	150	613	504	1117	5429	5304	10733
7	7	99		3935	3935	7870	216	216	432	444	447	891	3275	3272	6547	6488	6488	12976	346	346	692	657	702	1359	5485	5440	10925
8	8	99		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	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	99		4712	4576	9288	575	254	829	294	1029	1323	3843	3293	7136	7743	7519	15262	920	405	1325	451	1570	2021	6372	5544	11916
11	41C	99		4712	4712	9424	598	440	1038	562	526	1088	3552	3746	7298	7743	7743	15486	957	703	1660	584	527	1111	6202	6513	12715
12	41D	103		4485	4485	8970	0	140	140	980	896	1876	3505	3449	6954	7370	7370	14740	0	223	223	1464	1253	2717	5906	5894	11800
13	41G	99		4712	4712	9424	214	217	421	560	529	1089	3938	3976	7914	7743	7743	15486	341	330	671	656	773	1429	6746	6640	13386
14	51A	103		4712	4712	9424	502	475	977	305	433	738	3905	3804	7709	7744	7744	15488	804	759	1563	493	510	1003	6447	6475	12922
15	51C	103	a																								
16	51D	103		4010	4010	8020	0	319	319	730	798	1528	3280	2893	6173	6646	6646	13292	0	511	511	1144	1224	2368	5502	4911	10413
17	51B	99		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	99		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	a																				0	0	0	0	0
22	61A	99		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	99	b	4041	4016	8057	0	0	0	0	0	0	0	0	0	6658	6699	13357	0	0	0	0	0	0	0	0	0
26	26	103		2616	2615	5231	0	0	0	238	246	476	2386	2369	4755	4334	4366	8700	0	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	11595	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	0	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	0	0	0	395	431	826	5450	5432	10882
30	28	102	a	2645	2645	5290				362	348	710				4425	4446	8871				645	701	1346			
31	34	104		2569	2596	5165	0	0	0	308	235	543	2261	2361	4622	4480	4301	8781	0	0	0	513	524	1037	3967	3777	7744
32	33	103	a	4359	4348	8707				416	304	720				7213	7167	14380				479	307	786			
33	32	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	36	104	a	2351	2288	4639				373	291	664				3913	3928	7841				614	600	1214			
35	31	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	41	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

a DOD MISSION - DATA NOT AVAILABLE

b Vehicle lost at 73 seconds

Source: JSC/EP2, Propulsion Branch, In house Mission Repo

ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	Fuel, MMH												Oxidizer, N2O4											
				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
37	38	104	a	2881	2880	5761				356	373	729				4740	4707	9447				479	542	1021			
38	35	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	37	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	39	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	40	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	43	104		2651	2606	5257	75	21	96	263	253	516	2313	2332	4645	4398	4285	8683	123	34	157	375	408	783	3900	3843	7743
43	48	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	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	42	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	45	104		3165	3166	6331	142	245	387	282	271	553	2741	2650	5391	5245	5180	10425	234	403	637	417	427	844	4594	4350	8944
47	49	105		3700	3720	7420	637	632	1269	320	282	602	2749	2806	5549	6170	6171	12341	1052	1043	2095	550	455	1005	4568	4673	9241
48	50	102		3111	3091	6202	117	106	223	218	277	495	2776	2708	5484	5176	5176	10352	192	175	367	474	455	929	4510	4546	9056
49	46	104		4646	4644	9290	240	208	448	386	386	772	4020	4050	8070	7756	7685	15441	396	342	738	585	625	1210	6775	6718	13493
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	2755	2718	5473	5332	5333	10665	298	287	585	474	455	929	4560	4591	9151
52	53	103		3474	3457	6931	160	78	238	382	343	725	2932	3036	5968	5749	5765	11514	263	129	392	585	679	1264	4901	4967	9858
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	2580	2661	5241	5423	5424	10847	666	557	1223	464	502	966	4293	4365	8658
55	55	102		2920	2917	5837	374	365	739	239	308	547	2307	2244	4551	4803	4804	9607	615	600	1215	431	405	836	3757	3799	7568
56	57	105		4718	4728	9446	266	758	1024	398	317	715	4054	3653	7707	7773	7773	15546	438	1247	1685	445	474	919	6890	6052	12942
57	51	103		3151	3117	6268	296	378	674	449	413	862	2406	2326	4732	5175	5147	10322	474	604	1078	679	809	1488	4022	3734	7756
58	58	102		2698	2698	5396	217	60	277	404	486	890	2077	2152	4229	4439	4439	8878	348	96	444	674	668	1342	3417	3675	7092
59	61	105		4718	4707	9425	0	0	0	436	368	804	4282	4339	8621	7705	7705	15410	0	0	0	488	493	961	7217	7212	14429
60	60	103		3512	3500	7012	139	170	309	494	410	904	2879	2920	5799	5440	5440	10880	223	272	495	368	445	813	4849	4723	9572
61	62	102		3122	3130	6252	193	198	391	424	502	926	2505	2430	4935	5145	5148	10291	309	318	627	718	789	1507	4118	4039	8157
62	59	105		2452	2452	4904	482	486	968	248	288	536	1722	1678	3400	4114	4115	8229	772	778	1550	504	467	971	2838	2870	5708
63	65	102		3050	3049	6099	0	0	0	468	503	971	2582	2546	5128	5021	5021	10042	0	0	0	717	733	1450	4304	4288	8592
64	64	103		3162	3155	6317	526	464	990	300	314	614	2336	2377	4713	5236	5082	10318	867	763	1630	498	507	1005	3871	3812	7683
65	68	105		2497	2464	4961	490	468	958	284	288	572	1723	1708	3431	4103	4103	8206	806	769	1575	436	446	882	2861	2888	5749
66	66	104		3863	3883	7746	555	894	1449	343	285	628	2965	2704	5669	6540	6450	12990	913	1470	2383	590	565	1155	5037	4415	9452
67	63	103		4520	4476	8996	406	820	1226	383	349	732	3731	3307	7038	7416	7397	14813	668	1348	2016	630	756	1386	6118	5293	11411
68	67	105		4555	4499	9054	667	725	1392	383	383	766	3505	3391	6896	7467	7478	14945	1098	1193	2291	526	516	1042	5843	5769	11612
69	71	104		4120	4101	8221	439	611	1050	355	271	626	3326	3219	6545	6790	6790	13580	721	1005	1726	450	355	805	5619	5430	11049
70	70	103		2839	2815	5654	0	0	0	300	268	568	2539	2547	5086	4659	4643	9302	0	0	0	383	530	913	4276	4113	8389
71	69	105		4688	4689	9377	674	643	1317	245	325	570	3769	3721	7490	7756	7705	15461	1109	1058	2167	497	460	957	6150	6187	12337
72	73	102		2309	2319	4628	0	0	0	516	516	1032	1793	1803	3596	3911	3878	7789	0	0	0	277	299	576	3634	3579	7213

a DOD MISSION - DATA NOT AVAILABLE

b Vehicle lost at 73 seconds

Source: JSC/EP2, Propulsion Branch, In house Mission Repo

ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	Fuel, MMH												Oxidizer, N2O4											
				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
73	74	104		4743	4728	9471	710	428	1138	416	431	847	3617	3869	7486	7756	7773	15529	1168	704	1872	527	416	943	6061	6653	12714

a DOD MISSION - DATA NOT AVAILABLE

b Vehicle lost at 73 seconds

Source: JSC/EP2, Propulsion Branch, In house Mission Repo

REACTION CONTROL SYSTEM VERNIER THRUSTERS
CONFIGURATION AND USAGE SUMMARY (a)

MSN SEQ NO.	STS NO.	ORB OV-	Notes	Forword vernier thrusters		Left vernier thrusters		Right vernier thrusters		Total burn time, sec	Total cycles	Burn time per cycles, sec	Cycles per hour
				Burn time, sec	Cycles	Burn time, sec	Cycles	Burn time, sec	Cycles				
1	1	102		1561.12	2603	2881.91	3767	2311.16	3828	6754.2	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		8846.3	12990	10875.28	13859	10773.4	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	7285.4	6061	17954.62	17366	1.0339	142
6	6	099		2865.4	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	19860	45455.74	53864	0.8439	194
10	41B	099		5363.4	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		4954.7	5464	7478.36	6664	8197.2	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		4767.8	4421	8797.52	7176	7681.3	6676	21246.62	18273	1.1627	95

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

SHUTTLE FLIGHT HISTORIES
OMS/RCS PODS AND FLIGHT ASSIGNMENT

STS	OV	FLT	NOTES	LV01	LP01	LP03	LP04	LP05	RV01	RP01	RP03	RP04	RP05	FRC2	FRC9	FRC3	FRC4	FRC5
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	099	1		--	1	--	--	--	--	1	--	--	--	--	1	--	--	--
7	099	2		--	2	--	--	--	--	2	--	--	--	--	2	--	--	--
8	099	3		--	3	--	--	--	--	3	--	--	--	--	3	--	--	--
9	102	6		6	--	--	--	--	6	--	--	--	--	6	--	--	--	--
41B	099	4		--	4	--	--	--	--	4	--	--	--	--	4	--	--	--
41C	099	5		--	--	1	--	--	--	5	--	--	--	--	5	--	--	--
41D	103	1		--	--	2	--	--	--	--	1	--	--	--	--	1	--	--
41G	099	6		--	5	--	--	--	--	6	--	--	--	--	6	--	--	--
51A	103	2		--	--	3	--	--	--	--	2	--	--	--	--	2	--	--
51C	103	3		--	--	4	--	--	--	--	3	--	--	--	--	3	--	--
51D	103	4		--	--	5	--	--	--	--	4	--	--	--	--	4	--	--
51B	099	7		--	6	--	--	--	--	--	--	1	--	--	7	--	--	--
51G	103	5		--	--	--	1	--	--	--	5	--	--	--	--	5	--	--
51F	099	8		--	7	--	--	--	--	--	--	2	--	--	8	--	--	--
51I	103	6		--	--	--	2	--	--	--	6	--	--	--	--	6	--	--
51J	104	1		--	--	6	--	--	--	7	--	--	--	--	--	--	1	--
61A	099	9		--	8	--	--	--	--	--	7	--	--	--	9	--	--	--
61B	104	2		--	--	7	--	--	--	8	--	--	--	--	--	--	2	--
61C	102	7		--	--	--	3	--	--	--	--	3	--	7	--	--	--	--
51L	099	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	7		--	13	--	--	--	--	--	12	--	--	--	--	--	7	--
35	102	10		--	--	10	--	--	--	--	--	6	--	10	--	--	--	--
37	104	8		--	14	--	--	--	--	14	--	--	--	--	--	--	8	--
39	103	12		--	--	--	9	--	--	--	13	--	--	--	--	12	--	--

SHUTTLE FLIGHT HISTORIES
OMS/RCS PODS AND FLIGHT ASSIGNMENT

STS	OV	FLT	NOTES	LV01	LP01	LP03	LP04	LP05	RV01	RP01	RP03	RP04	RP05	FRC2	FRC9	FRC3	FRC4	FRC5
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	--	--	--	--
57	105	4		--	--	15	--	--	--	--	--	11	--	--	--	--	--	4
51	103	17		--	20	--	--	--	--	--	18	--	--	--	--	17	--	--
58	102	15		--	--	--	--	4	--	--	--	--	4	15	--	--	--	--
61	105	5		--	--	16	--	--	--	--	--	12	--	--	--	--	--	5
60	103	18		--	21	--	--	--	--	--	19	--	--	--	--	18	--	--
62	102	16		--	--	--	--	5	--	--	--	--	5	16	--	--	--	--
59	105	6		--	--	--	13	--	--	19	--	--	--	--	--	--	--	6
65	102	17		--	--	--	--	6	--	--	--	--	6	17	--	--	--	--
64	103	19		--	22	--	--	--	--	--	20	--	--	--	--	19	--	--
68	105	7		--	--	--	14	--	--	20	--	--	--	--	--	--	--	7
66	104	13		--	--	17	--	--	--	--	--	13	--	--	--	--	13	--
63	103	20		--	23	--	--	--	--	--	21	--	--	--	--	20	--	--
67	105	8		--	--	--	15	--	--	21	--	--	--	--	--	--	--	8
71	104	14			--	18	--	--	--	--	--	14	--	--	--	--	14	--
70	103	21		--	24	--	--	--	--	--	22	--	--	--	--	21	--	--
69	105	9		--	--	--	16	--	--	--	--	--	7	--	--	--	--	9
73	102	18		--	--	--	--	7	--	22	--	--	--	18	--	--	--	--
74	104	15		--	--	19	--	--	--	--	--	15	--	--	--	--	15	--

EXTRAVEHICULAR ACTIVITIES

Mission		Orb. OV-/	Sched	EVA's				Crew Person		EMU No.			PLSS No.			SOP No.			DCM No.			SCU No.		HUT No.	
Seq.	STS	Flt	EVA	Date	Vacuum	Battery	Official	EV1	EV2	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	EV1	EV2
1	1	102 - 1	None					Young	Crippen	1002	1003		1003	1005		1003	1004		1004	1002		1004	1005	1009 (L)	1021 (L)
2	2	102 - 2	None					Engle	Truly	1009	1010		1006	1005		1006	1004		1006	1005		1004	1005	1009 (L)	1021 (L)
3	3	102 - 3	None					Lousma	Fullerton	1012	1013		1006	1005		1005	1004		1004	1005		1004	1005	1017 (XL)	1021 (L)
4	4	102 - 4	None					Mattingly	Hartsfield	1019	1016		1006	1005		1005	1004		1003	1002		1005	1004	1011 (M)	1021 (L)
5	5	102 - 5	One	Not Perfor-med	Not Perfor-med	Not Perfor-med		Lenoir	Allen	1023	1022		1006	1005		1003	1005		1005	1002		1005	1004	1020 (M)	1018 (S)
6	6	099 - 1	One	4/7/83	3:58	4:19		Musgrave	Peterson	1026	1024	1025	1003	1005	1006	1003	1007	1006	1006	1007	1005	1006	1007	1024 (L)	1021 (L)
7	7	099 - 2	One					Thagard	Fabian	1028	1027		1005	1003		1007	1003		1007	1006		1007	1006	1021 (L)	1024 (L)
8	8	099 - 3	None					Gardner	Truly	1031	1032		1005	1006		1007	1006		1007	1002		1006	1007	1021 (L)	1009 (L)
9	9	102 - 6	None					Young	Garriott	1037	1036		1008	1007		1008	1005		1004	1005		1004	1005	1021 (L)	1024 (L)
10	41B	099 - 4	Two	2/7/84 2/9/84	5:35 5:55	6:02 6:17		McCandless	Stewart	1040	1038	1041	1008	1009	1007	1003	1006	1010	1004	1009	1005	1009	1010	1020 (M)	1016 (M)
11	41C	099 - 5	Two	4/8/84 4/11/84	2:59 2:57	7:07 6:18, 6:05		Nelson	Von Hoften	1043	1044	1045	1008	1009	1007	1003	1006	1010	1004	1009	1005	1006	1007	1009 (L)	1017 (XL)
12	41D	103 - 1	None					Mullane	Hawley	1046	1048		1006	1010		1005	1007		1008	1011		1006	1007	1028 (M)	1027 (M)
13	41G	099 - 6	One	10/11/84	3:29	3:29		Leetsma	Sullivan	1049	1050	1053	1003	1008	1005	1003	1008	1011	1007	1004	1006	1009	1010	1023 (M)	1029 (M)
14	51A	103 - 2	Two	11/12/84 11/14/84	6:13 6:01	6:00 5:43		Allen	Gardner	1051	1052	1054	1009	1007	1006	1009	1007	1005	1009	1005	1008	1006	1007	1033 (M)	1030 (L)

EXTRAVEHICULAR ACTIVITIES

Mission		Orb. OV-/	Sched	EVA's				Crew Person		EMU No.			PLSS No.			SOP No.			DCM No.			SCU No.		HUT No.	
Seq.	STS	Flt	EVA	Date	Vacuum	Battery	Official	EV1	EV2	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	EV1	EV2
15	51C	103 - 3	None					Buchli	Shriver	1055	1056		1003	1008		1003	1008		1007	1004		1006	1007	1023 (L)	1017 (XL)
16	51D	103 - 4	One	4/16/85	3:10	3:07		Hoffman	Griggs	1059	1060		1007	1010		1007	1006		1005	1010		1006	1007	1030 (L)	1036 (L)
17	51E	099 - 7	None					Thagard	Gregory	1061	1061		1003	1006		1003	1011		1007	1006		1009	1010	1023 (L)	1031 (L)
18	51G	103 - 5	None					Fabian	Nagel	1063	1062		1005	1009		1005	1009		1008	1009		1006	1007	1026 (L)	1035 (L)
19	51F	099 - 8	None					Musgrave	England	1064	1065		1010	1007		1010	1007		1010	1011		1009	1010	1036 (L)	1030 (L)
20	51I	103 - 6	Two	8/31/85 9/01/85	7:20 4:31	7:07 4:12, 4:28		Von Hoften	Fisher	1067	1066	1068	1006	1003	1009	1008	1003	1009	1006	1007	1009	1006	1007	1019 (XL)	1023 (L)
21	51J	104 - 1	None					Hilmers	Stewart	1072	1072		1005	1008		1005	1006		1008	1004		1011	1013	1026 (L)	1016 (M)
22	61A	099 - 9	None					Buchli	Dunbar	1074	1073		1010	1007		1010	1007		1010	1011		1009	1010	1036 (L)	1037 (M)
23	61B	104 - 2	Two	11/29/85 12/1/85	5:34 6:46	5:32 6:42		Ross	Spring	1077	1070	1079	1006	1011	1008	1005	1009	1012	1006	1002	1004	1011	1013	1035 (L)	1033 (M)
24	61C	102 - 7	None					Nelson	Chang-Diaz	1078	1081		1005	1010		1006	1007		1008	1010		1004	1005	1026 (L)	1036 (L)
25	51L	099 - 10	None					McNair	Onizuka	1080	1075		1007	1012		1005	1012		1011	1009		1009	1010	1037 (M)	1019 (XL)
26	26	103 - 7	None					Nelson	Lounge	1091	1090		1005	1011		1014	1004		2004	2002		1006	1007	1013 (L)	1043 (L)
27	27	104 - 3	None					Ross	Sheperd	1090	1092		1011	1013		1004	1007		2002	2005		1011	1013	1043 (L)	1046 (XL)
28	29	103 - 8	None					Bagian	Springer	1094	1090		1013	1011		1007	1004		2006	2002		1006	1007	1036 (L)	1043 (L)

EXTRAVEHICULAR ACTIVITIES

Mission		Orb. OV-/	Sched	EVA's				Crew Person		EMU No.			PLSS No.			SOP No.			DCM No.			SCU No.		HUT No.	
Seq.	STS	Flt	EVA	Date	Vacuum	Battery	Official	EV1	EV2	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	EV1	EV2
29	30	104 - 4	None					Thagard	Lee	1096	1095		1005	1003		1014	1015		2005	2004		1011	1010	1034 (L)	1047 (XL)
30	28	102 - 8	None					Adamson	Brown	1099	1098		1013	1011		1010	1011		2006	2002		1004	1005	1036 (L)	1046 (L)
31	34	104 - 5	None					Chang-Diaz	Baker	2001	2003		1003	1005		1003	1006		2004	2005		1011	1013	1035 (L)	1034 (S)
32	33	103 - 9	None					Carter	Thorton	2006	2005		1013	1009		1011	1010		2006	2014		1006	1007	1046 (XL)	1018 (S)
33	32	102 - 9	None					Low	Dunbar	2003	2001		1005	1003		1006	1003		2005	2004		1004	1005	1034 (L)	1025 (S)
34	36	104 - 6	None					Hilmers	Thout	2006	2008		1014	1011		1011	1009		2007	2002		1011	1013	1036 (L)	1044 (L)
35	31	103 - 10	None					McCandless	Sullivan	2010	2012	2011	1009	1003	1013	1010	1003	1013	2014	2004	2006	1006	1007	1045 (M)	1038 (M)
36	41	104 - 7	None					Melnick	Akers	2013	2008		1005	1011		1014	1009		2005	2002		1006	1007	1043 (L)	1044 (L)
37	38	104 - 8	None					Springer	Meade	2010	2011		1009	1013		1010	1013		2014	2006		1011	1013	1034 (L)	1033 (M)
38	35	102 - 10	None					Hoffman	Lounge	2007	2009		1014	1006		1011	1006		2007	2003		1004	1005	1036 (L)	1039 (L)
39	37	103 - 11	Two	4/7/91 4/8/91	4:31 5:58	3:40 5:47		Ross	Apt	2009	2011	2014	1006	1013	1008	1006	1013	1015	2003	2006	2004	1011	1013	1039 (L)	1033 (M)
40	39	103 - 12	None					Harbaugh	McMonagale	2008	2013		1011	1005		1009	1014		2002	2005		1006	1007	1044 (L)	1043 (L)
41	40	102 - 11	None					Bagian	Jernigan	2007	2010		1014	1009		1011	1010		2007	2014		1004	1005	1036 (L)	1038 (M)
42	43	104 - 9	None					Adamson	Low	2014	2009		1008	1006		1015	1006		2004	2006		1011	1013	1035 (L)	1039 (L)

EXTRAVEHICULAR ACTIVITIES

Mission		Orb. OV-/	Sched	EVA's				Crew Person		EMU No.			PLSS No.			SOP No.			DCM No.			SCU No.		HUT No.	
Seq.	STS	Flt	EVA	Date	Vacuum	Battery	Official	EV1	EV2	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	EV1	EV2
43	48	103 - 13	None					Buchli	Gemar	2008	2013		1011	1005		1009	1014		2002	2005		1006	1007	1044 (L)	1043 (L)
44	44	104 - 10	None					Runco	Voss	2019	2018		1009	1014		1010	1011		2014	2007		1011	1013	1051 (L)	1034 (L)
45	42	103 - 14	None					Thagard	Readdy	2013	2017		1005	1013		1014	1013		2005	2013		1006	1007	1043 (L)	1048 (XL)
46	45	104 - 11	None					Sullivan	Foale	2022	2018		1009	1014		1010	1011		2014	2007		1011	1013	1029 (M)	1034 (M)
47	49	105 - 1	Four	5/10/92 5/11/92	3:53 5:38	3:41 5:29, 5:37	3:43 5:30	Thout-EV1	Hieb-EV2	2020	2015		1006	1010		1006	1007		2006	2009		1015	1016	1039 (L)	1040 (L)
47	49	105 - 1	Four	5/13/92	8:30	SCU swap	8:29	Thout-EV1	Hieb-EV2	2020	2015		1006	1010		1006	1007		2006	2009		1015	1016	1039 (L)	1040 (L)
47	49	105 - 1	Four	5/13/92 5/14/92	8:30 7:47	7:39, 7:42	8:29 7:45	Thornton-EV3	Akers-EV4	2016	2014		1015	1008		1016	1015		2010	2011		1015	1016	1049 (S)	1036 (L)
48	50	102 - 12	None					Baker	Meade	2013	2017		1005	1013		1014	1013		2005	2013		1012	1017	1043 (L)	1035 (L)
49	46	104 - 12	None					Hoffman	Chang-Diaz	2018	2021		1014	1011		1011	1009		2007	2002		1011	1013	1034 (L)	1044 (L)
50	47	105 - 2	None					Apt	Davis	2022	2016		1009	1015		1010	1016		2014	2012		1015	1016	1029 (M)	1049 (S)
51	52	102 - 13	None					Shepherd	Jernigan	2017	2015		1013	1010		1013	1007		2013	2008		1012	1017	1048 (XL)	1045 (M)
52	53	103 - 15	None					Voss	Clifford	2014	2020		1008	1006		1015	1006		2011	2006		1006	1007	1036 (L)	1039 (L)
53	54	105 - 3	One	1/17/93	4:32:14	4:25:37	4:32:14	Harbaugh	Runco	2018	2015		1014	1010		1011	1007		2007	2008		1015	1016	1034 (L)	1051 (L)
54	56	103 - 16	None					Foale	Cockrell	2014	2022		1008	1009		1015	1010		2011	2014		1006	1007	1036 (L)	1029 (M)

EXTRAVEHICULAR ACTIVITIES

Mission		Orb. OV-/	Sched	EVA's				Crew Person		EMU No.			PLSS No.			SOP No.			DCM No.			SCU No.		HUT No.	
Seq.	STS	Flt	EVA	Date	Vacuum	Battery	Official	EV1	EV2	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	EV1	EV2
55	55	102 - 14	None					Ross	Harris	2016	2013		1015	1005		1016	1014		2012	2005		1012	1017	1035 (L)	1047 (XL)
56	57	105 - 4	One	6/25/93	5:47:06	5:46:00	5:50:00	Low	Wisoff	2018	2020		1014	1006		1008	1006		2007	2006		1015	1016	1034 (L)	1039 (L)
57	51	103 - 17	One	9/16/93	7:08:00	7:03:08	7:05:26	Walz	Newman	2025	2023		1010	1003		1007	1004		2004	2014		1006	1007	1051 (L)	1043 (L)
58	58	102 - 15	None					Lucid	Wolf	2027	2013		1015	1005		1016	1014		2013	2005		1012	1017	1048 (XL)	1047 (XL)
59	61	105 - 5	Five	12/5/93 12/7/93	7:57:14 6:49:25	7:52:06 6:44:28	7:53:58 6:47:21	Hoffman	Musgrave	2014	2026		1008	1013		1015	1013		2010	2011		1015	1016	1039 (L)	1040 (L)
59	61	105 - 5	Five	12/9/93	Fifth EVA7: 23:01	7:19:16	7:21:00	Hoffman	Musgrave	2014	2026		1008	1013		1015	1013		2010	2011		1015	1016	1039 (L)	1040 (L)
59	61	105 - 5	Five	12/6/93 12/8/93	6:37:19 6:58:06	6:33:30 6:47:38	6:35:30 6:50:52	Thornton	Akers	2030	2029		1014	1009		1008	1010		2009	2008		1015	1016	1049 (S)	1036 (L)
60	60	103 - 18	None					Chang-Diaz	Davis	2025	2027		1010	1015		1007	1016		2004	2006		1006	1007	1051 (L)	1052 (S)
61	62	102 - 16	None					Thout	Gemar	2033	2032		1005	1003		1014	1006		2005	2014		1012	1015	1035 (L)	1047 (XL)
62	59	105 - 6	None					Godwin	Jones	2030	2014		1014	1008		1008	1015		2009	2010		1015	1016	1029	1039
63	65	102 - 17	None					Chiao	Thomas	2026	2033		1013	1005		1013	1014		2011	2055		1012	1017	1040 (L)	1035 (L)
64	64	103 - 19	One	9/16/94	6:54:02	6:49	6:51	Lee	Meade	2032	2029		1003	1009		1006	1018		2003	2011		1006	1007	1047	1036
65	68	105 - 7	None					Wisoff	Smith	2025	2030		1010	1014		1007	1008		2004	2009		1015	1016	1051	1043
66	66	104 - 13	None					Parazinski	Tanner	2031	2014		1006	1008		1010	1015		2007	2010		1011	1013	1034	1039

EXTRAVEHICULAR ACTIVITIES

Mission		Orb. OV-/	Sched	EVA's				Crew Person		EMU No.			PLSS No.			SOP No.			DCM No.			SCU No.		HUT No.	
Seq.	STS	Flt	EVA	Date	Vacuum	Battery	Official	EV1	EV2	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	B/U	EV1	EV2	EV1	EV2
67	63	103 - 20	One	2/9/95	6:43	6:36	6:39	Foale	Harris	2029	2032		1009	1003		1018	1006		2011	2003		1006	1007	1036	1047
68	67	105 - 8	None					Jamigan	Grunsfeld	2033	2039		1005	1013		1008	1013		2005	2006		1015	1016	1045	1038
69	71	104 - 14	None					Harbaugh	Baker	2038	2035		1008	1015		1015	1016		2010	2014		1008	1011	1039	1044
70	70	103 - 21	None					Thomas	Weber	2039	2040		1013	1014		1013	1017		2006	2009		1006	1007	1045	1043
71	69	105 - 9	One	9/16/95	6:54	6:43	6:46	Voss	Gernhardt	2042	2041		1009	1010		1018	1008		2011	2004		1016	1015	1040	1051
72	73	102 - 18	None					Lopez-Alegrio	Coleman	2032	2034		1003	1011		1017	1011		2003	2002		1017	1012	1048	1038
73	74	104 - 15	None					Ross	McArthur	2035	2038		1015	1008		1016	1015		2010	2005		1011	1008	1044	1039

REMOTE MANIPULATOR SYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
										TV Surveys					Satellites				
				Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
1	1	102	a																
2	2	102		201	201	201	203	203	202								RMS Checkout		Shoulder yaw joint failed in backup mode.
3	3	102		201	201	201	203	203	202	X					PDP (d,b)			344	RMS wrist camera failed, unable to gapple IECM.
4	4	102		201	201	201	203	203	202						IECM (d,b)			816	End effector flags showed incorrect status due to broken wiring.
5	5	102				201	203	203	202										
6	6	099	a																
7	7	099		201	301	301	301	301	202						SPAS-01 (d,b)	SPAS-01 Retrieved		3,192	

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office

REMOTE MANIPULATOR SYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
										TV Surveys					Satellites				
				Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
8	8	099		201	301	301	301	301	202						PFTA (d,b)			7,350	
9	9	102				201	203	203											
10	41B	099		201	301	301	301	301	202			X		X			Witness plate		Wrist/yaw joint failed, unable to deploy SPAS.
11	41C	099		302	302	301	301	301	202		X			X	LDEF (d)	SMM R&R		21,396 5,000	
12	41D	103		301	201	303	302	302	301	X	X	X					Witness plate		Used to clear ice from supply water dump nozzle.
13	41G	099		302	302	301	301	301	202	X	X				ERBS (d)		Witness plate	4,949	Used to latch SIR-B antenna.
14	51A	103		301	201	303	302	302	301		X	X		X		PALAPA-B2,WESTAR VI Retrieval		1,262 1,119	

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office

REMOTE MANIPULATOR SYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
										TV Surveys					Satellites				
				Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
15	51C	103	b	301	201	303	302	302	301										
16	51D	103		301	201	303	302	302	301	X	X	X							SYNCOM-3 'Flyswatter' operation. Confirm failed solar array deploy on ARABSAT.
17	51B	099				301		301	202										
18	51G	103		301	303	303	302	302	301	X	X	X			SPARTAN-101 (d,b)	SPARTAN - 101 Retrieval		2,217	
19	51F	099		302	304	301	301	301	202	X					PDP (d,b)	PDP Retrieval		628	
20	51I	103		301	303	303	302	302	301		X			X	SYNCOM - IV-3 (d,b)	SYNCOM - IV-3 repair	(R/R)	15,190	Used to open stuck AUSSAT-1 sunshield. Elbow joint primary mode failed.
21	51J	104	a																

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office

REMOTE MANIPULATOR SYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
										TV Surveys					Satellites				
				Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
22	61A	099		302	304	301	301	301	202		X								
23	61B	104		303	301	302	303	303	303	X	X	X		X			Ease/Access Operations. Witness plate.		
24	61C	102	a																
25	51L	099	c	302	304	301 203	301	301	202										Vehicle lost at 73 seconds.
26	26	103	a																
27	27	104	b	201	302	302	303	303	302	X									
28	29	103	a																

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office

REMOTE MANIPULATOR SYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
										TV Surveys					Satellites				
				Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
29	30	104	a																
30	28	102	a																
31	34	104	a																
32	33	103	a																
33	32	102		201	302	201/ 303 spare	203	203	301						LDEF (b)	LDEF Retrieval		21,393	
34	36	104	a																
35	31	103		301	303	201	302	202	303						HST (d)			23,905	

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office

REMOTE MANIPULATOR SYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
										TV Surveys					Satellites				
				Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
36	41	103		301	303	201	302	202	303								ISAC Witness plate Experiment	0	
37	38	104	b																
38	35	102	a																
39	37	104		303	401	302	202	302	301					X	GRO (d)			34,442	
40	39	103		301	303M	201	302	202	302						IBSS (d,b)	IBSS Retrieval	Witness plate	3990	
41	40	102	a																
42	43	104	a																

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office

REMOTE MANIPULATOR SYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
										TV Surveys					Satellites				
				Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
43	48	103		301	402	402	302	202	302						UARS (d)			14,423	
44	44	104	a																
45	42	103	a																
46	45	104	a																
47	49	105		303	401	404	202	303	301						INTELSAT -VI (d, b)	INTELSAT-VI (R&R)	ASEM Demonstration	9,109	
48	50	102	a																
49	46	104		201	303	403	302	302	302		X				EURECA (d)			9,832	Overnight park

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office

REMOTE MANIPULATOR SYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
										TV Surveys					Satellites				
				Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
50	47	105		303	401	404	202	303	301									0	
51	52	102		301	402	406	203	202	303			X			CANEX-2 CTA (d)		MELEO SPIE OGLOW-2 Witness plate	150	
52	53	103	a																
53	54	105				404	202	303	301										
54	56	103		201	403	405/ 407 spare	203	203	303/ MI		X				SPARTAN -201 (d, b)	SPARTAN -201 Retrieval		2,713	Deployed and retrieved
55	55	102	a																
56	57	105		303	401	404/ 402 spare	202	303	301				PLB	PFR	EURECA (b)	EURECA Retrieval	EVA-assisted antenna latching	9,832	SPEE connector installed

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office

REMOTE MANIPULATOR SYSTEM

	Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
											TV Surveys					Satellites				
					Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
I	57	51	103		201	403	405/ 406 spare	203	203	303			X	PLB		ORFEUS-SPAS (d,b)	ORFEUS-SPAS Retrieval	ASE survey	6,620	Spurious WR range counter
	58	58	102	a																
I	59	61	105		303	303	404/ 402 spare	202	301	303		X		PLB	MFR	HST (r) HST (D)			24,065 23,905	Overnight park
I	60	60	103		201	403	405/ 407 spare	203	203	303				PLB		WSF-1 (d, b)		Nose TPS survey	3,785	Wake Shield Facility attached ops only
I	61	62	102		301	302	406/ 402 spare	303	301	302				PLB		DEED (d, b)		EISG survey	442	MAT attached ops only
	62	59	105		303	303	404	202	303	201										Never uncradled
I	63	65	102	a																

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office

REMOTE MANIPULATOR SYSTEM

	Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
											TV Surveys					Satellites				
					Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
I	64	64	103		201	403	405/ 407 spare	203	203	303					PFR	SPAR-TAN 201		SPIFEX	2,173 461	
I	65	68	105		303	303	404	202	303	301										Never uncradled
I	66	66	104		202	401	403/ 406 spare	302	302	401		X				CRISTA-SPAS (d,b)	CRISTA-SPAS Retrieval		7,194	
I	67	63	103		201	403	405/ 402 spare	203	203	303		X		PLB	PFR	SPAR-TAN 204-1	SPARTAN 204-1	PRCS thruster surveys	2,651	
I	68	67	105		303	303	404	202	303	301										Never uncradled
I	69	71	104	a																
I	70	70	103	a																

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

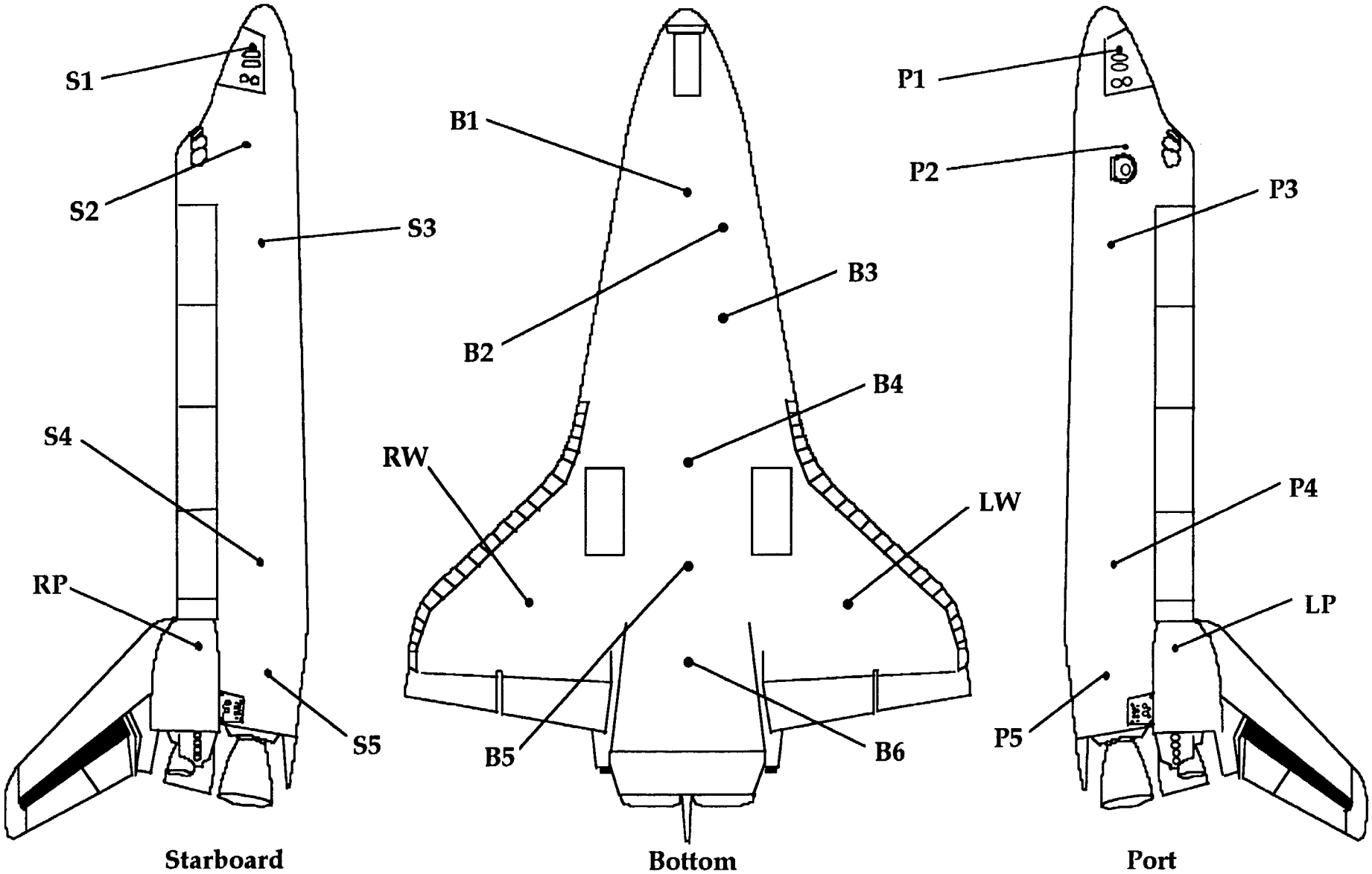
SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office

REMOTE MANIPULATOR SYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Major RMS LRU serial number						RMS major usage matrix							Miscellaneous Activities	Mass handled by RMS, lb	Contingency usage/remarks
										TV Surveys					Satellites				
				Arm	EE	MCIU	Disp Cont PNL	THC	RHC	TPS	H2O dump	SAT PKM burn	Other	MFR	Deploy/ berth	Retrieve repair			
71	69	105		303	303	404/ 403 spare	202	303	301				PLD BAY, IEH	PFR	SPAR-TAN 201 (d,b) WSF-2 (d,b)		EVA Support, WSF CHAWS, DTO-831 (MPD), DTO-700-10 (OSVS)	2,842 (Spartan) 4,364 (WSF)	
72	73	102	a																
73	74	104		301	302	402/ 405 spare	302	302	401				PLD BAY, PASD E		DM (install)		DTO-700-10&11 (OSVS), DTO-829 (PIC)	9,011	EE SPEE replaced by PIC hardware

a = RMS NOT FLOWN
b = DOD MISSION - DATA NOT AVAILABLE
c = MCIU 203 flown as spare

SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/FA4 RMS Operations office



Thermal Protection System - Selected Structure Temperature Sensor Location

THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	ORBITER STRUCTURE MAXIMUM TEMPERATURE DURING ENTRY																			
				Lower Surface						LWR wing		Port side					Starboard side					OMS pods	
				B1	B2	B3	B4	B5	B6	LW	RW	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5	LP	RP
1	1	102	a,b	153	190	177	196	217	191	135	153	158	111	194	101	88	167	--	--	80	99	221	233
2	2	102	a	133	185	177	164	182	164	138	117	177	138	199	80	93	175	--	--	112	120	239	260
3	3	102	a	143	180	173	167	191	175	138	136	157	120	189	83	98	159	--	--	86	100	220	228
4	4	102	a,b	141	166	170	153	180	180	130	112	156	117	183	80	106	153	--	--	65	98	231	233
5	5	102	a	143	182	170	162	175	156	122	112	154	117	177	58	83	159	--	--	57	78	225	228
6	6	99	a	125	178	170	149	163	159	125	130	138	104	172	67	83	163	--	--	86	96	180	217
7	7	99	a,b	127	183	180	169	180	180	120	112	180	138	203	75	104	138	--	--	49	78	239	212
8	8	99	a,b	153	210	220	191	203	193	140	125	148	130	193	73	91	125	101	172	55	78	172	225
9	9	102	a,c	148	206	200	189	206	196	161	153	162	--	207	94	112	197	--	--	148	138	267	281
10	41B	99		122	175	167	146	159	162	109	107	143	101	159	54	86	143	112	169	60	80	183	236
11	41C	99		127	190	180	148	161	165	112	103	143	117	172	47	78	120	99	158	47	73	59	180
12	41D	103	b	133	204	198	170	200	202	130	122	178	109	91	52	62	146	88	86	39	57	70	60
13	41G	99		127	185	177	153	167	167	143	124	143	112	188	73	91	167	140	193	88	101	189	211
14	51A	103		143	193	182	167	178	175	112	120	164	91	96	47	--	165	114	101	50	55	57	65
15	51C	103		117	161	151	128	153	156	110	109	159	104	94	47	--	181	122	94	58	58	65	76
16	51D	103		138	183	171	149	170	178	111	107	170	117	88	46	--	130	97	87	49	65	65	60
17	51B	99		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	--	148	114	96	47	59	70	67
19	51F	99		120	177	171	170	175	167	140	146	138	101	189	86	85	148	122	194	98	101	161	73
20	51I	103		130	169	159	143	162	175	107	112	164	101	80	40	--	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	99		143	200	196	185	191	178	130	143	127	112	191	78	88	175	172	236	124	117	--	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	a	127	196	186	159	188	186	122	112	167	140	127	63	83	125	--	143	47	73	62	55
25	51L	99	d																				
26	26	103		124	167	149	122	164	169	114	114	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	166	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	143	117	96	47	60	78	62
30	28	102	b	125	183	196	186	225	206	138	125	137	112	89	55	78	167	--	112	62	76	83	83
31	34	104		130	175	166	148	172	182	117	120	140	114	91	65	55	130	112	94	52	55	68	68
32	33	103		132	175	148	127	164	167	122	130	154	96	86	39	54	198	130	96	57	62	67	70
33	32	102		149	225	199	186	206	185	135	133	146	123	101	68	88	143	--	120	70	90	83	70
34	36	104		135	170	164	137	161	174	144	149	151	96	85	55	55	143	112	101	47	55	80	80
35	31	103		153	206	180	145	180	183	122	114	140	96	80	32	59	141	101	72	24	44	57	39
36	41	103		130	180	153	125	162	164	117	104	180	122	98	44	68	146	99	78	32	44	76	44
37	38	104		146	190	172	140	162	175	122	125	122	99	83	44	54	125	122	94	47	55	70	67
38	35	102		146	209	191	175	193	185	132	135	151	123	101	73	88	153	--	123	70	86	91	76

a = Not Available

b - High Inclination Orbit entry (Higher Temperatures Expected)

c - High TPS Roughness (Higher Temperatures Expected)

d - Vehicle destroyed at approximately 73 seconds

Source: NASA -JSC - ES3

THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	ORBITER STRUCTURE MAXIMUM TEMPERATURE DURING ENTRY																			
				Lower Surface						LWR wing		Port side					Starboard side					OMS pods	
				B1	B2	B3	B4	B5	B6	LW	RW	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5	LP	RP
39	37	104		153	196	182	148	170	185	120	122	119	91	76	29	47	117	120	96	32	44	65	37
40	39	103	b	151	192	172	144	183	186	130	130	172	104	93	78	75	185	122	96	83	75	73	81
41	40	102		122	185	166	162	185	177	112	117	166	122	91	65	81	175	--	122	60	81	86	81
42	43	104		125	162	154	122	153	172	117	114	125	99	83	49	63	120	104	88	42	60	83	57
43	48	103		156	222	195	159	201	204	138	120	167	117	96	39	68	151	99	78	29	49	73	68
44	44	104		151	201	183	146	164	172	120	117	148	119	93	37	47	132	125	99	47	47	86	55
45	42	103		167	209	185	170	204	190	128	143	164	114	109	57	65	206	175	132	65	75	55	78
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	--	172	164	191	212	130	125	190	167	125	114	117	143	--	--	73	91	91	83
49	46	104		138	177	167	138	162	182	120	122	153	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	--	--	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	--	--	62	83	83	62
56	57	105		156	209	185	159	190	193	119	117	143	122	96	52	62	156	132	101	49	57	99	75
57	51	103		161	214	188	161	193	190	130	127	151	114	93	44	62	146	117	93	39	57	75	73
58	58	102		135	190	180	175	196	190	127	112	153	125	93	68	86	148	--	--	57	86	75	70
59	61	105		156	204	177	161	193	193	132	127	127	109	91	47	55	135	122	99	39	49	80	70
60	60	103		164	214	188	167	193	185	130	130	161	112	96	44	60	172	135	101	44	55	75	73
61	62	102		127	188	175	164	188	182	117	114	156	125	99	68	86	148	--	--	65	83	73	70
62	59	105		140	190	164	146	182	190	112	117	138	112	88	47	57	138	122	96	42	57	68	57
63	65	102		114	180	161	148	175	180	117	112	159	132	101	75	93	140	--	--	57	86	73	62
64	64	103		135	185	159	140	172	180	117	117	159	106	93	42	62	159	130	101	47	65	73	70
65	68	105		138	190	161	148	183	193	117	125	143	114	91	49	93	143	132	104	44	60	70	62
66	66	104		159	201	190	172	190	204	130	143	138	109	101	57	101	161	161	125	70	114	86	88
67	63	103		140	201	172	146	185	185	122	112	167	125	106	42	62	138	104	93	37	55	78	65
68	67	105		135	182	156	138	172	182	114	112	130	106	83	44	55	140	114	86	39	55	60	55
69	71	104		130	177	167	143	169	190	122	127	127	88	83	47	99	132	127	109	55	109	86	75
70	70	103		122	172	148	122	156	164	106	101	156	112	88	42	68	138	104	83	42	60	50	65
71	69	105		138	193	167	143	177	185	122	117	146	114	93	44	62	132	104	88	42	57	68	70
72	73	102	a	138	196	177	222	244	230	125	125	153	132	106	75	91	148	112	112	75	93	75	55
73	74	104		135	172	164	143	167	190	112	122	119	91	80	39	96	135	127	106	42	91	93	83

a = Not Available

b - High Inclination Orbit entry (Higher Temperatures Expected)

c - High TPS Roughness (Higher Temperatures Expected)

d - Vehicle destroyed at approximately 73 seconds

Source: NASA -JSC - ES3

THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	ORBITER STRUCTURE MAXIMUM TEMPERATURE RISE DURING ENTRY																			
				Lower Surface						LWR wing		Port side					Starboard side					OMS pods	
				B1	B2	B3	B4	B5	B6	LW	RW	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5	LP	RP
1	1	102	a,c	116	163	174	178	196	165	118	124	113	106	204	95	74	105			64	80	213	211
2	2	102	a,c	114	164	174	157	170	144	125	121	112	99	196	71	69	125			75	93	228	239
3	3	102	a	106	148	159	148	167	141	119	112	115	96	196	69	75	104			60	71	211	209
4	4	102	a,c	117	147	176	159	180	144	132	116	106	98	198	84	72	103			69	69	218	220
5	5	102	a	111	158	167	151	164	132	121	108	104	95	191	62	67	102			51	62	219	209
6	6	099	a	98	149	157	143	144	125	103	113	98	90	182	69	64	101			64	64	174	193
7	7	099	a	114	175	190	170	172	147	130	132	104	96	190	54	62	120			66	70	202	229
8	8	099	a	111	158	180	162	169	146	129	129	105	88	179	53	62	103	113	178	62	72	172	229
9	9	102	b	114	177	190	160	172	146	124	111	112		209	60	65	114			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	b	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	0	123	111	82	36	41	43	44
15	51C	103		111	137	147	127	142	135	112	111	119	78	80	39	0	124	114	82	31	34	38	47
16	51D	103		99	135	139	130	144	136	113	109	115	78	72	43	0	124	109	85	48	52	44	48
17	51B	099	b	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	154	146	124	121	118	83	84	37	0	119	108	80	38	45	54	43
19	51F	099	b	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	0	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	b	96	155	165	159	160	139	135	122	110	100	197	82	74	105	120	179	66	73	0	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		91	64	65	43	54
25	51L	099	d																				
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	b	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	c	93	157	190	180	211	174	150	130	112	96	94	70	70	104		93	62	70	61	49
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

a = Data Not Available
b = High Inclination Orbit Entry (Higher Temperatures Expected)
c = High TPS Roughness (Higher Temperatures Expected)
d = Vehicle destroyed at approximately 73 seconds.

Source: NASA -JSC - ES3

THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

Miss. Seq. No.	STS-No.	Orb. OV-	Notes	ORBITER STRUCTURE MAXIMUM TEMPERATURE RISE DURING ENTRY																		
				Lower Surface						LWR wing		Port side					Starboard side					OMS pods	
				B1	B2	B3	B4	B5	B6	LW	RW	P1	P2	P3	P4	P5	S1	S2	S3	S4	S5	LP	RP
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	b	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		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
45	42	103		115	162	151	128	162	143	125	114	135	95	85	33	36	123	113	72	18	28	46	41
46	45	104		111	152	151	126	141	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	a	88	0	161	155	175	178	129	137	110	92	88	70	67	119			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	a	88	151	158	147	164	141	114	116	110	93	82	57	62	112			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	a	94	167	177	169	193	164	137	129	110	96	87	59	59	122			71	77	49	43
56	57	105		117	167	156	135	161	151	123	129	104	96	82	33	33	109	116	80	43	43	67	61
57	51	103		106	157	144	127	154	135	119	118	122	90	84	30	36	122	111	79	33	41	54	39
58	58	102	a	93	156	166	159	177	151	129	131	119	101	92	67	62	119			66	70	49	41
59	61	105		119	167	153	137	164	149	129	126	103	95	80	26	26	109	121	80	28	30	66	56
60	60	103		117	162	151	138	161	143	129	129	129	98	90	38	41	130	126	85	41	46	56	39
61	62	102	a	88	154	161	150	169	143	124	123	119	101	93	65	62	116			69	67	52	38
62	59	105		121	171	161	140	171	151	129	131	112	103	85	38	25	117	126	80	28	28	47	56
63	65	102	a	90	159	165	155	172	148	129	129	120	100	90	64	61	121			71	75	54	41
64	64	103		121	171	163	144	166	151	136	129	138	97	90	39	38	140	124	82	33	39	54	38
65	68	105		119	174	163	139	169	154	131	134	114	103	88	38	61	117	118	80	23	28	49	59
66	66	104		110	154	153	130	148	155	119	122	99	88	82	33	75	99	122	81	26	75	60	56
67	63	103		116	169	158	143	166	146	126	129	123	91	85	31	33	132	126	82	26	36	54	41
68	67	105		116	163	153	132	161	150	131	131	109	97	82	38	29	119	123	80	38	36	41	57
69	71	104		111	163	171	137	158	161	134	126	103	92	90	46	85	98	116	83	34	88	72	61
70	70	103		111	151	147	129	153	135	116	118	117	86	79	33	39	122	113	74	33	36	54	41
71	69	105		114	167	153	132	158	148	126	126	107	93	84	30	38	113	116	79	31	38	49	41
72	73	102	a	91	159	158	198	220	193	129	129	119	100	92	64	67	116		78	64	72	54	62
73	74	104		103	153	161	137	156	156	126	124	100	90	84	33	75	96	111	80	41	75	69	57

a = Data Not Available
b = High Inclination Orbit Entry (Higher Temperatures Expected)
c = High TPS Roughness (Higher Temperatures Expected)
d = Vehicle destroyed at approximately 73 seconds.

Source: NASA -JSC - ES3

SHUTTLE FLIGHT HISTORIES
DEBRIS IMPACT DAMAGE TO ORBITER THERMAL PROTECTION SYSTEM

Miss Seq No	STS No	Orb OV-	Vehicle flight no	Notes	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	1	102	1	a														247
2	2	102	2	a														109
3	3	102	3	a														113
4	4	102	4	a														122
5	5	102	5	a														161
6	6	99	1	b	21	89	5	13	8	16	2	2	0	0	0	0	36	120
7	7	99	2	b	41	153	0	0	4	56	0	16	2	18	1	10	48	253
8	8	99	3		3	29	0	4	0	7	0	9	0	3	4	4	7	56
9	9	102	6		9	49	1	5	1	1	0	0	1	1	2	2	14	58
10	41B	99	4		11	19	11	25	2	5	5	7	0	2	5	5	34	63
11	41C	99	5		5	27	3	5	0	0	0	0	0	4	0	0	8	36
12	41D	103	1		10	44	2	5	6	14	0	0	10	40	3	8	31	111
13	41G	99	6		25	69	2	40	2	11	1	10	2	15	4	9	36	154
14	51A	103	2		14	66	1	8	0	1	0	0	4	9	1	3	20	87
15	51C	103	3	b	24	67	0	0	1	5	0	0	2	2	1	7	28	81
16	51D	103	4	b	43	111	0	0	1	7	0	10	1	10	1	14	46	152
17	51B	99	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	99	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	99	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	99	10	b	0	0	0	0	0	0	0	0	0	0	0	0	0	0
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

Notes: a = TILE replaced because of in-flight damage
b = N/A = Not available

Source: KSC/R16 Launch Support Operations

SHUTTLE FLIGHT HISTORIES
DEBRIS IMPACT DAMAGE TO ORBITER THERMAL PROTECTION SYSTEM

Miss Seq No	STS No	Orb OV-	Vehicle flight no	Notes	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.
30	28	102	8		13	60	0	0	2	5	3	1	1	7	1	1	20	74
31	34	104	5		17	51	0	1	0	0	1	1	0	0	0	0	18	53
32	33	103	9		21	107	0	7	0	0	0	0	0	1	0	3	21	118
33	32	102	9		13	111	1	4	0	0	0	4	1	1	0	0	15	120
34	36	104	6		17	61	0	18	1	1	0	0	0	0	1	1	19	81
35	31	103	10		11	33	1	2	0	8	0	5	0	0	0	0	12	48
36	41	103	11		13	64	0	1	1	7	1	3	0	0	1	1	16	76
37	38	104	7		7	70	0	6	0	3	0	0	0	0	1	2	8	81
38	35	102	10		15	132	1	2	0	5	0	5	0	2	1	1	17	147
39	37	104	8		7	91	2	13	1	7	0	2	1	2	0	0	11	115
40	39	103	12		14	217	0	4	2	11	0	5	0	0	0	0	16	237
41	40	102	11		23	153	2	23	0	11	0	6	0	4	0	0	25	197
42	43	104	9		24	122	0	2	0	2	1	5	0	0	0	0	25	131
43	48	103	13		14	100	9	66	0	5	1	6	0	2	1	3	25	182
44	44	104	10		6	74	1	9	0	10	1	4	1	2	0	2	9	101
45	42	103	14		38	159	4	33	0	5	2	8	0	1	0	3	44	209
46	45	104	11		18	122	1	41	0	2	0	0	2	2	1	5	22	172
47	49	105	1		6	55	1	39	1	7	2	6	1	4	0	3	11	114
48	50	102	12		28	141	1	11	10	20	6	11	0	0	0	1	45	184
49	46	104	12		11	186	0	8	0	1	0	1	7	21	4	19	22	236
50	47	105	2		3	48	3	37	2	3	0	3	2	8	1	9	11	108
51	52	102	13		6	152	4	83	3	18	0	15	0	12	3	10	16	290
52	53	103	15		11	145	1	48	0	5	1	11	0	4	10	27	23	240
53	54	105	3		14	80	0	34	0	5	0	0	0	10	0	2	14	131
54	56	103	16		18	94	2	23	0	0	0	0	15	35	1	4	36	156
55	55	102	14		10	128	0	6	1	1	1	3	1	5	0	0	13	143
56	57	105	4		10	75	1	21	0	3	1	2	0	3	0	2	12	106
57	51	103	17		8	100	1	22	1	2	0	4	1	8	7	18	18	154
58	58	102	15		23	78	2	43	1	19	0	3	0	3	0	9	26	155

Notes: a = TILE replaced because of in-flight damage
b = N/A = Not available

Source: KSC/R16 Launch Support Operations

SHUTTLE FLIGHT HISTORIES
DEBRIS IMPACT DAMAGE TO ORBITER THERMAL PROTECTION SYSTEM

Miss Seq No	STS No	Orb OV-	Vehicle flight no	Notes	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.
59	61	105	5		7	59	2	53	0	1	0	2	4	4	0	1	13	120
60	60	103	18		4	48	1	28	0	2	0	4	2	7	8	17	15	106
61	62	102	16		7	36	0	11	3	7	6	36	0	2	0	5	16	97
62	59	105	6		10	47	8	18	0	2	0	0	1	9	0	1	19	77
63	65	102	17		17	123	2	13	0	3	0	3	0	2	2	7	21	151
64	64	103	19		18	116	0	1	1	7	0	2	0	16	0	8	19	150
65	68	105	7		9	59	3	36	1	5	0	1	2	5	0	4	15	110
66	66	104	13		22	111	2	29	1	2	0	0	1	1	2	5	28	148
67	63	103	20		7	84	4	22	0	3	0	3	0	3	3	10	14	125
68	67	105	8		11	47	1	10	0	1	1	2	0	4	0	12	13	76
69	71	104	14		24	149	1	10	0	0	0	0	0	2	0	3	25	164
70	70	103	21		5	81	1	29	0	4	0	2	0	4	3	7	9	127
71	69	105	9		22	175	3	16	0	1	0	0	1	3	1	3	27	198
72	73	102	18		17	102	6	35	0	2	1	4	1	1	1	3	26	147
73	74	104	15		17	78	1	31	0	0	0	0	1	2	2	5	21	116

Notes: a = TILE replaced because of in-flight damage
b = N/A = Not available

Source: KSC/R16 Launch Support Operations

SHUTTLE FLIGHT HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

Miss Seq No	STS No	Orb OV-/ Flt	PROBLEMS	Related Inflight Anomaly
1	1	102 1	Overheating of structure caused by damage to TPS resulted in buckling of right main landing gear door.	STS 1-49
1	1	102 1	1 tile and 3 tile segments missing on OMS pods.	
1	1	102 1	Right OMS pod tile loss and burned FRSI on aft outboard corner of both OMS pods caused structural damage.	STS 1-32
1	1	102 1	Overheating of FRSI caused extensive damage to aft outboard skin panels of OMS pod substructure.	
1	1	102 1	Windows contaminated by RTV outgassing during flight.	None
1	1	102 1	High incidence of debris impact damage.	STS 1-8
1	1	102 1	High incidence of charred filler bars.	None
2	2	102 2	Oxidizer spill on forward fuselage preflight caused replacement of over 200 tiles.	None
2	2	102 2	Wing leading edge structural subsystem overheating caused flow through to interior of RCC panels.	None
2	2	102 2	FRSI overheating on right OMS pod, no structural damage.	None
2	2	102 2	High incidence of debris impact damage.	STS 2-19
2	2	102 2	High incidence of charred filler bars.	None
3	3	102 3	34 tiles missing on upper forward fuselage.	STS 3-16
3	3	102 3	16 tiles missing on upper body flap.	
3	3	102 3	FRSI overheating on OMS pod.	
3	3	102 3	Debris impact damage on OMS pod leading edge caused tile damage and overheating damage to OMS pod substructure face sheet.	
3	3	102 3	High incidence of charred filler bars.	None
3	3	102 3	Tiles slumped adjacent to nose cap lower edge.	

SHUTTLE FLIGHT HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

Miss Seq No	STS No	Orb OV-/ Flt	PROBLEMS	Related Inflight Anomaly
4	4	102 4	Hailstorm 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.	STS 4-1
4	4	102 4	Debris damage to OMS pod lower leading edge tiles resulted in overheating damage to face sheet of OMS pod substructure.	None
4	4	102 4	1 tiles missing on the upper 1307 bulkhead (in front of OMS pod).	None
4	4	104 4	Tiles slumped adjacent to nose cap lower edge.	None
4	4	104 4	High incident of charred filler bar.	None
5	5	102 5	Flow path caused severe overheating damage to substructure adjacent to nose cap lower edge.	None
5	5	102 5	1 tile incidence of charred fillers bars.	
6	6	99 1	Large areas of FI damage on leading edge of both OMS pods caused structural damage.	STS 6-5
7	7	99 2	High incidence of debris impact damages on lower surface.	STS 7-27
8	8	99 3	None	
9	9	102 6	Debris damage to tiles caused delamination to left OMS pod forward substructure (structural damage).	STS 9-32
10	41B	99 4	Ice debris from water dump nozzle caused damage to tiles on left OMS pod leading edge TPS and structural damage.	STS 41B-27
10	41B	99 4	Upper forward fuselage tiles damaged by bird strike during landing.	
11	41C	99 5	None.	
12	41D	103 5	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	99 6	1 tile lost on lower left wing glove/chine area.	STS 41G-25
13	41G	99 6	RTV (screed) degradation found on large areas of vehicle, major rework effort required.	
13	41G	99 6	Loss of FRSI closeout panel on right OMS pod caused delamination of skin panel substructure.	STS 41G-25A

SHUTTLE FLIGHT HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

Miss Seq No	STS No	Orb OV-/ Flt	PROBLEMS	Related Inflight Anomaly
14	51A	103 2	None.	
15	51C	103 3	None.	
16	51D	103 4	Severe TPS damage on left outboard elevon caused carrier panel burn-through and structural damage to elevon leading edge.	STS 51D-14
16	51D	103 4	Damage to thermal barrier interfered with external tank umbilical door closure during flight.	STS 51D-2
16	51D	103 4	Loose lower LESS carrier panel.	None
17	51B	99 7	ROMS Y-web broken carrier panel caused overheating and delamination of OMS pod substructure.	STS 51B-6
18	51G	103 5	High incidence of debris impact damages.	STS 51G-11
18	51G	103 5	Rain exposure during ferry flight damaged 1,000 tiles.	
19	51F	99 7	Slumped tiles adjacent to nosecap. Overall, heating higher than usual.	STS 51F-15
20	51I	103 6	Loose forward RCC arrowhead. Y web carrier panel FI edge debonded on right OMS.	
21	51J	104 1	Lost gap filler on left inboard elevon caused severe damage to 2 tile carrier panels and seal panel.	STS 51J-7
21	51J	104 1	2 tile carrier panels.	
22	61A	99 9	Numerous debris impact gouges.	None
23	61B	104 2	None.	None
24	61C	102 7	Rain exposure during AA and mod ferry flight return caused extensive tile damage on vehicle leading edge areas.	
24	61C	102 7	Loss of diced segment on right payload bay door caused damage to face sheet of door substructure.	None
24	61C	102 7	1 tile missing on star tracker door; no structural damage.	None
24	61C	102 7	High incidence of debris impact damages.	None

SHUTTLE FLIGHT HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

Miss Seq No	STS No	Orb OV-/ Flt	PROBLEMS	Related Inflight Anomaly
25	51L	99 10	N/A	N/A
26	26	103 7	Approximately 6 in. x 18 in. x 1 1/2 in. TPS damage on RT wing lower surface noted postflight. Possible debris during ascent.	STS-26R-13
27	27	104 3	Lower tile on forward chine lost in flight. R OMS carrier panel lost in flight.	STS-27-07
27	27	104 3	Postlanding tile examination revealed approximately 250-300 damaged areas greater than 1 inch. Most impact damage on right side bottom of wing and fuselage.	
28	29	103 8		STS-29-22
29	30	104 4		
30	28	102 8	Early transition from laminar to turbulent flow.	None
31	34	104 5	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 9	None - Total of 118 hits, of which 21 hits were 1 inch or greater. Tile condition better than average.	None
33	32	102 9	None - 11 significant hits. Tile condition was considered good.	None
34	36	104 6	None - 19 significant hits. Tile condition was considered good.	None
35	31	103 10	Loose OMS Y-web carrier panel.	None
35	31	103 10	Oxidizer spill during ferry caused replacement of 54 left OMS tiles.	
36	41	103 11	None - Meteorite impact LH forward RCS overboard dump nozzle and adjacent tiles.	None
36	41	103 11	A 6 inch section of the aft bulkhead payload bay door environmental seal debonded.	
37	38	104 7	None - Loose tile, upper body flap leading edge.	None
38	35	102 10	None	None
39	37	104 8	Forward ET buffet area damage.	None

SHUTTLE FLIGHT HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

Miss Seq No	STS No	Orb OV-/ Flt	PROBLEMS	Related Inflight Anomaly
40	39	103 12	Many debris impacts.	None
40	39	103 12	Two tiles between nose cap and NLGD severely slumped with associated G/F damage.	None
40	39	103 12	Wing RCC T-seal cracks showed up postflight.	
41	40	102 11	Right-hand ET door forward centerline latch fitting and adjacent tile exhibited significant melting/erosion.	STS-40-02 STS-40-11
42	43	104 9	Forward RCS plume shield lost in flight.	None
42	43	104 9	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).	
43	48	103 13	Chin panel damage at attach clevis detected postflight.	None
43	48	103 13	Slumped NGD leading edge tiles - early transition from laminar to turbulent flow.	
44	44	104 10	Large gap between chin panel gap filler to angle seal.	None
44	44	104 10	Cracks in wing RCC T-seals detected postflight.	
45	42	103 14	Discolored (orange) FI blanket on vent door RH 7.	None
46	45	104 11	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.	
46	45	104 11	Two impact damage sites were present on the upper surface of the right wing RCC panel 10.	STS-45-V-08
47	49	105 1	OMS leading edge FI debonded. No structural damage.	
47	49	105 1	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.	
47	49	105 1	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.	STS-49-V-36
48	50	102 12	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.	None.
48	50	102 12	The most significant tile damage measured 9 by 4.5 by .5 inch and was located approximately 3 feet outboard of the LH2 ET/ORB umbilical. The damage spanned 3 tiles.	

SHUTTLE FLIGHT HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

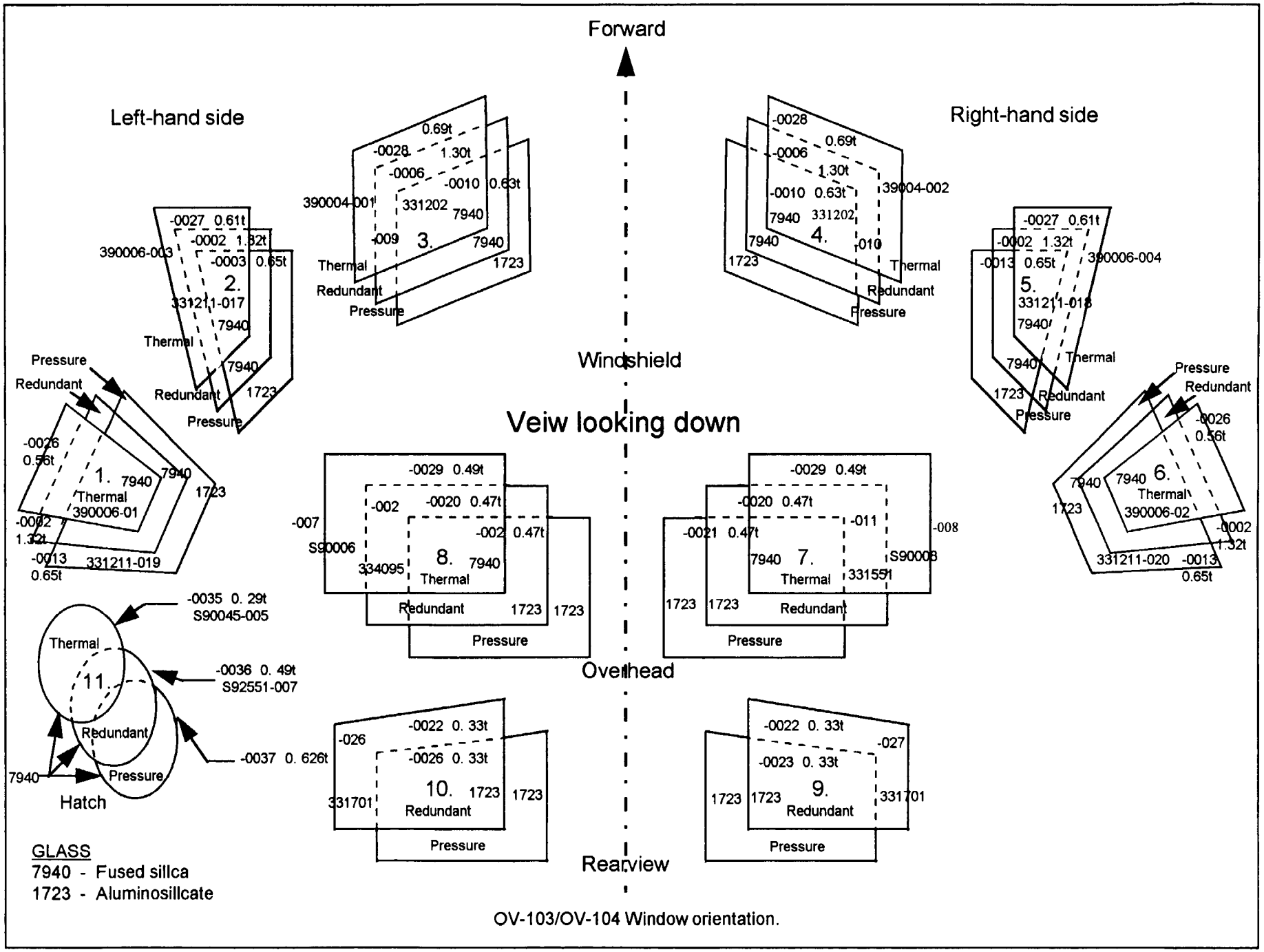
Miss Seq No	STS No	Orb OV-/ Flt	PROBLEMS	Related Inflight Anomaly
49	46	104 12	None - a total of 236 hits of which 22 were 1 inch or greater. The total number of hits was greater than average and the number of hits 1 inch or greater was average.	None.
50	47	105 2	Total of 108 hits of which 11 were 1 in or greater. Both the total number of hits and number of hits 1 inch or greater was much less than average.	
50	47	105 2	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.	STS-47-V-13
50	47	105 2	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.	STS-47-V-26
51	52	102 13	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.	None.
52	53	103 15	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.	None.
52	53	103 15	Lost tile off base heat shield that covered calorimeter.	
53	54	105 3	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.	None.
54	56	103 16	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.	STS-56-V-05
54	56	103 16	Payload bay thermal blanket on the aft bulkhead was partially detached.	
54	56	103 16	RH base heat shield N2O4 spill required 73 tile replacements	
55	55	102 14	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.	STS-55-V-09
55	55	102 14	Loose thermal cover on the tunnel adapter hatch.	
56	57	105 4	Total of 106 hits of which 12 had a major dimension of one inch or greater. Both the total number of hits and the number of hits one inch or greater is less than average.	None.
56	57	105 4	Largest tile damage site measured 3.5 in. by 0.75 in. by 0.375 in. and was located on the RH lower surface outboard of the nose landing gear door.	
57	51	103 17	Total of 154 hits of which 18 had a major dimension of one inch or greater. The total number of hits was slightly greater than normal which the number of hits one inch or larger was less than average.	None.
57	51	103 17	The largest tile damage on the lower surface (RH inboard elevon) measured 3.75 in. by 0.50 in. by 0.25 in.	
58	58	102 15	Total of 155 hits of which 26 had a major dimension of one inch or greater. The total number of hits was average while the number of hits one inch or greater was greater than average.	STS-58-V-09

SHUTTLE FLIGHT HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

Miss Seq No	STS No	Orb OV-/ Flt	PROBLEMS	Related Inflight Anomaly
58	58	102 15	A dome-mounted heatshield (DMHS) closeout blanket panel were completely detached from the 9 o'clock position on SSME 3 exposing the inner blanker layer. The outer layer of DMHS at the 3 o' clock position on SSME 2 was detached on three sides.	
58	58	102 15	RH aft NLGD broken corner tile.	
59	61	105 5	Total of 120 hits of which 13 had a major dimension of 1 inch or greater. The total number of hits and hits greater than 1 inch was less than average.	None.
59	61	105 5	First chin panel reflight. First TUFI test flight. Replaced windows 5, 6, and 8.	
60	60	103 18	Total of 106 hits of which 15 had a major dimension of one inch or greater, both of which were less than average.	None
60	60	103 18	The largest tile damage was located on left inboard elevon and measured 4.0 in. by 1.5 in. by 0.25 in.	
60	60	103 18	Greater than usual number of tile damage sites occurred on leading edges of OMS pods and vertical stabilizer.	
61	62	102 15	Total of 97 hits of which 16 had a major dimension of one inch or greater, both of which were less than average.	
61	62	102 15	Largest tile damage site was located near right main gear wheel well leading edge and measured 10 in. by 2.5 in. by 0.675 in.	
61	62	102 15	Six thermal barriers (total size = 36 in. x 3 in. by 1.5 in.) were missing from nose landing gear doors.	STS-62-V-10
61	62	102 15	Three cracked tiles on vertical tail. Cracked tiles located on side of vertical tail where tile meets SILTS pod.	STS-62-V-12
61	62	102 15	RH aft NLGD broken corner tile.	
62	59	105 6	Total of hits (77) and hits with a major dimension greater than 1 inch (19) were both less than than average.	None
62	59	105 6	Crew hatch outer window sustained an apparent micrometeorite impact, which was 1/4 in. in diameter and was located at the seven o'clock position on the window.	
62	59	105 6	EO-2 umbilical separation ordnance retention device did not close properly. No impact to flight.	
63	65	102 17	Total number of hits (151) was slightly above average and the number of hits greater than 1 inch was average.	None
64	64	103 19	Total number of hits (150) was slightly greater than average and the number of hits greater than 1 inch was less than average.	None
64	64	103 19	During main landing gear door opening, two symmetrically opposite thermal assemblies became separated from their respective base plates on the aft edge of each main gear compartment.	STS-64-V-08

SHUTTLE FLIGHT HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

Miss Seq No	STS No	Orb OV-/ Flt	PROBLEMS	Related Inflight Anomaly
65	68	105 7	Total number of hits (110) and number of hits one inch or greater are slightly below average.	None
65	68	105 7	The densified layer of tile no. V070-390068-59 was all that remained along the inboard aft edge of port overhead window (W8). The SIP contaminated & rigid which allowed ascent loads to be determined from the structure to the tile.	STS-68-V-01
66	66	104 13	Total number of hits and the number of hits one inch or larger were slightly greater than average.	None
66	66	104 13	The inboard straight tile (No. V070-390068-59) along the aft edge of the overhead window (W8) was damaged. The lip of the tile facing the window had a damaged area of approximately 3 1/2 inches long & 3/4 inches deep.	STS-66-V-15
67	63	103 20	Total number of hits was average and the number of hits 1 inch or larger was less than average.	None
68	67	105 8	Total number of hits and the number of hits one inch or larger are both less than average.	None
I 69	71	104 14	Postflight inspection revealed loose RH inboard elevon leading edge carrier panel. Over-temperature observed on LH inboard elevon leading edge of two hinge carrier panels and a polyimide seal on hinge required replacement.	None
I 70	70	103 21	Inboard edge aft corner tile outboard elevon had severe slumping from repair and required removal. After removal, protruding head rivets were found that were not accommodated in design. Review of TPS design concluded 76 tiles were discrepant.	None
I 71	69	105 9	Filler bar missing in cavities of crew hatch carrier panels at T-18 minutes. Acceptable for flight because location thermally benign.	None
I 72	73	102 18	Structural temperatures during entry highest recorded. A major impact approximately 10 feet forward of RH MLG caused damage 10 in. long, 3.7 in. wide, and 0.75 in. deep to three tiles. Ames gap fillers (4) protruding 1.5 inches.	None
I 73	74	104 15	Four Ames gap fillers protruding on lower surface (RH chine, LH midfuselage, RH MLG door, and centerline between MLG doors). No adverse structural temperatures recorded and transition nominal.	None



OV-103/OV-104 Window orientation.

SHUTTLE FLIGHT HISTORIES
Window Data

Mission Seq. No.	STS-No.	Orbiter vehicle	Window Location	Window Dash no	Window Serial no	Anomaly	Pit size dia., inch	Pit size depth, inch	Disposition
5	5	102	R. fwd.	-0028	111	bruise	N/A	N/A	Window removed; currently being used for training at KSC.
5	5	102	L. fwd.	-0028		pit	0.055	0.0068	Window retained.
7	7	099	R. mid.	-0027	112	pit	0.1395	0.0171	Window removed. (paint chip)-destroyed
8	8	099	L. fwd.	-0028	114	hazing			Window removed; in storage at JSC.
8	8	099	R. fwd.	-0028	113	pit/hazing	0.022	0.0009	Window removed. Building 13, high bay
8	8	099	R. fwd.	-0028	113	pit/hazing	0.075	0.0073	Window removed.
9	9	102	L. side	-0026	116	pit	0.0425	0.0035	Window removed.
9	9	102	R. side	-0026	119	pit	0.02	0.0014	Window retained.
10	41B	099	L. fwd.	-0028		pit	0.024	0.0012	Window retained.
11	41C	099	R. fwd.	-0028	104	pit	0.04	0.0048	Window retained.
11	41C	099	L. side	-0026		pit	0.025	0.0009	Window retained. (Late find)
12	41D	103	L. side	-0026	106	pit	0.075	0.008	Window removed. (HIDTT)-destroyed
13	41G	099	L. side	-0026	117	pit	0.0525	0.007	Window removed. (HIDTT)-destroyed
13	41G	099	R. fwd.	-0028	104	pit	0.089	0.0113	Window removed. (HIDTT)-destroyed
14	51A	103	R. o.h.	-0029	107	pit	0.022	0.001	Window retained.
14	51A	103	R. o.h.	-0029	107	pit	0.03	0.0018	Window retained.
15	51C	103	L. mid.	-0027	104	pit	0.04	0.0088	Window removed. (destroyed)
17	51B	099	L. fwd.	-0028	100	pit	0.03	0.0016	Window retained.
17	51B	099	R. fwd.	-0028	101	pit	0.0475	0.0014	Window retained.
18	51G	103	R. mid.	-0027	102	pit	0.0325	0.0038	Window retained.
19	51F	099	R. mid.	-0027	117	pit	0.04	0.0014	Window retained.
20	51I	103	L. fwd.	-0028	109	pit	0.09	0.0083	Window retained.
22	61A	099	L. mid.	-0027	114	pit	0.049	0.0064	Window removed.
22	61A	099	R. fwd.	-0028	101	pit	0.025	0.0006	Window retained.
23	61B	104	L. side	-0026	120	pit	0.02	0.0009	Window removed. (HIDTT)-destroyed
23	61B	104	L. mid.	-0027	105	pit	0.025	0.001	Window retained.
23	61B	104	R. fwd.	-0028	105	pit	0.07	0.0078	Window removed.
24	61C	102	L. side	-0026	122	pit	0.022	0.0008	Window retained.
29	30	104	R. side	-0026	113	pit	0.0968	0.0115	Window removed. (HIDTT)-destroyed
35	31	103	R. side	-0026	103	pit	0.0555	0.01	Window removed. (HIDTT)-destroyed
36	41	103	L. fwd.	-0028	109	pit	0.0287	0.0036	Window retained.
37	38	104	R. fwd.	-0028	116	pit	0.0475	0.0087	Window retained.
37	38	104	L. fwd.	-0028	106	pit	0.0253	0.0052	Window retained.
37	38	104	L. fwd.	-0028	106	pit	0.0444	0.0065	Window retained.
37	38	104	L. fwd.	-0028	106	pit	0.039	0.0073	Window retained.
37	38	104	L. side	-0026	105	pit	0.0525	0.0039	Window removed.
37	38	104	R. side	-0026	124	pit	0.0207	0.0016	Window removed.

SHUTTLE FLIGHT HISTORIES
Window Data

Mission Seq. No.	STS-No.	Orbiter vehicle	Window Location	Window Dash no	Window Serial no	Anomaly	Pit size dia., inch	Pit size depth, inch	Disposition
37	38	104	R. side	-0026	124	pit	0.0282	0.0027	Window removed.
38	35	102	L. side	-0026	122	pit	0.057	0.0109	Window removed. (NASM)-destroyed
41	40	102	R. mid.	-0027	108	pit	0.0666	0.0162	Window removed. (destroyed)
42	43	104	R. mid.	-0027	106	pit	0.0427	0.0077	Window removed.
43	48	103	R. side	-0026	132	pit	0.036	0.0079	Window removed. (destroyed)
43	48	103	R. side	-0026	132	pit	0.0207	0.0027	Window removed. (destroyed)
43	48	103	R. side	-0026	132	pit	0.0445	0.0048	Window removed. (destroyed)
44	44	104	R. fwd.	-0028	116	bruise			Window removed.
44	44	104	L. side	-0026	130	pit	0.0175	0.0028	Window removed.
44	44	104	R. side	-0026	129	pit	0.0535	0.0061	Window removed. (destroyed)
45	42	103	L. fwd.	-0028	109	pit	0.0401	0.0083	Window retained. Restricted to W3 position.
46	45	104	R. side	-0026	137	pit	0.0266	0.0027	Window removed.
47	49	105	L. side	-0026	128	pit	0.04492	0.003897	Window removed.
47	49	105	L. mid.	-0027	122	pit	0.0247	0.00208	Window retained.
47	49	105	L. mid.	-0027	122	pit	0.0272	0.00235	Window retained.
48	50	102	L. o.h.	-0029	106	pit	0.0605	0.00447	Window removed. (hole)
48	50	102	R. side	-0026	131	pit	0.033	0.00286	Window removed. (hole)
48	50	102	L. fwd.	-0028	103	pit	0.0535	0.0054	Window retained.
48	50	102	L. fwd.	-0028	103	pit	0.04	0.0045	Window retained.
48	50	102	L. mid.	-0027	115	pit	0.0735	0.0052	Window retained.
48	50	102	R. fwd.	-0028	118	pit	0.28	0.022	Window removed. (hole) Bldg.14-Rod Robinson x34246
48	50	102	L. o.h.	-0029	109	scratch			Window retained; handling damage on replacement pane.
49	46	104	R. o.h.	-0029	115	pit	0.0267	0.00304	Window removed.
50	47	105	R. side	-0026	135	pit	0.0503	0.00569	Window removed.
50	47	105	R. side	-0026	135	pit	0.0329	0.00439	Window removed.
50	47	105	R. mid.	-0027	121	pit	0.1206	0.00561	Window removed.
50	47	105	R. o.h.	-0029	123	pit	0.043	0.0041	Window removed.
51	52	102	L. fwd.	-0028	103	bruise	0.1		Window removed.
51	52	102	L. side	-0026	125	pit	0.0352	0.003216	Window removed.
53	54	105	R. mid.	-0027	124	pit	0.027	0.0027	Window retained.
53	54	105	R. fwd.	-0028	121	pit	0.023	0.0034	Window retained.
54	56	103	L. mid.	-0027	110	pit	0.0227	0.00428	Window removed.
54	56	103	L. mid.	-0027	110	pit	0.0264	0.00336	Window removed.
54	56	103	L. fwd.	-0028	107	pit	0.101	0.00551	Window retained.
54	56	103	L. fwd.	-0028	107	pit	0.045	0.00397	Window retained.
54	56	103	L. fwd.	-0028	107	pit	0.052	0.00355	Window retained.
54	56	103	L. fwd.	-0028	107	pit	0.106	0.00555	Window retained.

SHUTTLE FLIGHT HISTORIES
Window Data

Mission Seq. No.	STS-No.	Orbiter vehicle	Window Location	Window Dash no	Window Serial no	Anomaly	Pit size dia., inch	Pit size depth, inch	Disposition
54	56	103	R. fwd.	-0028	115	pit	0.045	0.00478	Window retained.
54	56	103	R. fwd.	-0028	115	pit	0.028	0.00187	Window retained.
54	56	103	L. side	-0026	141	pit	0.023	0.0049	Window retained.
54	56	103	R. o.h.	-0029	103	pit	0.0225	0.0026	Window removed.
56	57	105	R. aft	-0022	101	pit	0.03	0.0029	Window retained.
57	51	103	R. side	-0026	134	pit	0.0376	0.00375	Window removed at pad (destroyed).
58	58	102	L. mid.	-0027	115	pit	0.026	0.002	Window retained.
59	61	105	L. fwd.	-0028	120	pit	0.033	0.00365	Window retained.
59	61	105	L. fwd.	-0028	120	pit	0.02	0.003	Window retained.
59	61	105	R. fwd.	-0028	121	pit	0.022	0.00159	Window retained.
59	61	105	R. fwd.	-0028	121	pit	0.026	0.0026	Window retained.
59	61	105	R. fwd.	-0028	121	pit	0.021	0.0011	Window retained.
59	61	105	R. fwd.	-0028	121	pit	0.012	0.0009	Window retained.
59	61	105	R. fwd.	-0028	121	pit	0.016	0.00126	Window retained.
59	61	105	R. fwd.	-0028	121	pit	0.018	0.0018	Window retained.
59	61	105	R. fwd.	-0028	121	pit	0.021	0.0023	Window retained.
59	61	105	R. fwd.	-0028	121	pit	0.03	0.0024	Window retained.
59	61	105	R. fwd.	-0028	121	pit	0.035	0.0044	Window retained.
59	61	105	L. side	-0026	146	pit	0.012	0.0023	Window removed after 2nd inspection.
59	61	105	R. mid.	-0027	124	pit	0.01	0.0012	Window removed.
59	61	105	R. mid.	-0027	124	pit	0.028	0.0047	Window removed.
59	61	105	R. mid.	-0027	124	pit	0.018	0.00174	Window removed.
59	61	105	L. o.h.	-0029	122	pit	0.017	0.0013	Window removed.
59	61	105	L. mid.	-0027	122	pit	0.02	0.0012	Window retained.
59	61	105	L. mid.	-0027	122	pit	0.015	0.0012	Window retained.
60	60	103	L. side	-0026	141	pit	0.024	0.0042	Window removed (destroyed).
60	60	103	L. fwd.	-0028	107	pit	0.034	0.0053	Window retained/restricted to position 3.
60	60	103	L. fwd.	-0028	107	pit	0.033	0.0043	Window retained/restricted to position 3.
60	60	103	R. fwd.	-0028	115	pit	0.02	0.003	Window retained/restricted to position 4.
60	60	103	R. fwd.	-0028	115	pit	0.044	0.006	Window retained/restricted to position 4.
60	60	103	R. fwd.	-0028	115	pit	0.036	0.0015	Window retained/restricted to position 4.
60	60	103	R. mid.	-0027	119	pit	0.021	0.0027	Window retained/restricted to position 5.
60	60	103	R. mid.	-0027	119	pit	0.026	0.0019	Window retained/restricted to position 5.
60	60	103	L. mid.	-0027	105	pit	0.028	0.0045	Window removed.
60	60	103	L. mid.	-0027	105	pit	0.019	0.0022	Window removed.
60	60	103	L. mid.	-0027	105	pit	0.013	0.0013	Window removed.
60	60	103	L. mid.	-0027	105	pit	0.03	0.0033	Window removed.

SHUTTLE FLIGHT HISTORIES
Window Data

Mission Seq. No.	STS-No.	Orbiter vehicle	Window Location	Window Dash no	Window Serial no	Anomaly	Pit size dia., inch	Pit size depth, inch	Disposition
60	60	103	L. mid.	-0027	105	pit	0.023	0.00326	Window removed.
60	60	103	L. mid.	-0027	105	pit	0.013	0.001	Window removed.
60	60	103	L. mid.	-0027	105	pit	0.021	0.0018	Window removed.
60	60	103	L. mid.	-0027	105	scratch	0.082	0.0016	Window removed.
60	60	103	L. mid.	-0027	105	pit	0.018	0.0016	Window removed.
60	60	103	L. mid.	-0027	105	pit	0.03	0.0026	Window removed.
60	60	103	L. mid.	-0027	105	pit	0.011	0.0028	Window removed.
60	60	103	L. mid.	-0027	105	pit	0.016	0.0025	Window removed.
60	60	103	L. mid.	-0027	105	pit	0.045	0.0035	Window removed.
60	60	103	L. o.h.	-0029	124	scratch	0.006	0.0007	Window retained, scratch found at Corning during re-certification.
61	62	102	R. side	-0026	138	pit	0.029	0.0016	Window removed.
61	62	102	R. side	-0026	138	pit	0.029	0.00285	Window removed.
62	59	105	R. side	-0026	147	pit	0.029	0.001992	Window removed.
62	59	105	L. mid.	-0027	122	pit	0.03	0.0032	Window retained.
62	59	105	L. mid.	-0027	122	pit	0.045	0.0042	Window retained.
62	59	105	hatch	-0035	105	pit	0.44	0.027	Window removed.
63	65	102	R. side	-0026	151	pit	0.043	0.003	Window removed.
63	65	102	R. side	-0026	151	pit	0.03	0.0018	Window removed.
63	65	102	L. mid.	-0027	115	pit	0.023	0.0043	Window retained.
63	65	102	R. fwd.	-0028	123	pit	0.0116	0.00129	Window retained.
63	65	102	R. fwd.	-0028	123	pit		0.002351	Window retained, found after OMDP.
63	65	102	R. mid.	-0027	125	pit	0.022	0.0029	Window retained.
63	65	102	R. mid.	-0027	125	pit	0.017	0.002	Window retained.
63	65	102	R. mid.	-0027	125	pit	0.012	0.0013	Window retained.
63	65	102	R. mid.	-0027	125	pit	0.016	0.0013	Window retained.
63	65	102	R. mid.	-0027	125	pit	0.022	0.003	Window retained.
63	65	102	R. mid.	-0027	125	pit	0.021	0.0028	Window retained.
63	65	102	R. mid.	-0027	125	pit	0.024	0.0029	Window retained.
63	65	102	R. mid.	-0027	125	pit	0.014	0.0016	Window retained.
63	65	102	R. mid.	-0027	125	pit	0.021	0.0029	Window retained.
64	64	103	R. mid.	-0027	119	pit	0.1402	0.0128	Window removed.
64	64	103	L. o.h.	-0029	124	pit	0.044	0.0082	Window removed.
64	64	103	R. fwd.	-0028	115	bruise			Window removed, bruise check.
64	64	103	L. fwd.	-0028	107	pit	0.0606	0.0078	Preliminary analysis good, removed for closer inspection, replicast anomaly
64	64	103	L. fwd.	-0028	107	pit	0.034	0.00316	Window retained, replicast anomaly.
64	64	103	L. fwd.	-0028	107	pit	0.066	0.0122	Window retained, replicast anomaly.
64	64	103	L. fwd.	-0028	107	pit	0.027	0.0019	Window retained, replicast anomaly.

SHUTTLE FLIGHT HISTORIES

Window Data

Mission Seq. No.	STS-No.	Orbiter vehicle	Window Location	Window Dash no	Window Serial no	Anomaly	Pit size dia., inch	Pit size depth, inch	Disposition
64	64	103	L. fwd.	-0028	107	pit	0.0267	0.0034	Window retained.
64	64	103	L. fwd.	-0028	107	pit	0.02	0.0032	Window retained.
64	64	103	L. fwd.	-0028	107	pit	0.02	0.00257	Window retained.
64	64	103	L. fwd.	-0028	107	pit	0.0567	0.008	Window retained.
64	64	103	L. fwd.	-0028	107	pit	0.1032	0.008	Window retained.
64	64	103	L. fwd.	-0028	107	pit	0.049	0.00808	Window retained.
64	64	103	L. fwd.	-0028	107	pit	0.036	0.0035	Window retained.
64	64	103	L. fwd.	-0028	107	pit?	0.177	0.0092	Window retained.
64	64	103	L. fwd.	-0028	107	pit	0.02	0.00188	Window retained.
64	64	103	L. side	-0026	153	pit	0.016	0.00099	Window retained.
65	68	105	R. side	-0026	154	pit	0.038	0.0042	Window removed.
65	68	105	R. fwd.	-0028	121	pit	0.022	0.00268	Window retained.
65	68	105	R. fwd.	-0028	121	pit	0.037	0.0042	Window retained.
65	68	105	R. fwd.	-0028	121	pit	0.016	0.00277	Window retained.
65	68	105	R. fwd.	-0028	121	pit	0.026	0.0057	Window retained.
65	68	105	R. fwd.	-0028	121	pit	0.0215	0.0013	Window retained.
65	68	105	R. fwd.	-0028	121	pit	0.014	0.0023	Window retained.
65	68	105	L. mid.	-0027	122	pit	0.016	0.00286	Window retained.
65	68	105	L. mid.	-0027	122	pit	0.017	0.002	Window retained.
65	68	105	L. mid.	-0027	122	pit	0.014	0.002	Window retained.
65	68	105	L. fwd.	-0028	120	pit	0.048	0.007	Window retained.
65	68	105	L. fwd.	-0028	120	pit	0.042	0.0042	Window retained.
66	66	104	L. side	-0026	126	pit	0.009	0.00137	Window removed.
66	66	104	L. side	-0026	126	pit	0.017	0.001	Window removed.
66	66	104	L. mid.	-0027	103	pit	0.02188	0.00379	Window removed.
66	66	104	L. mid.	-0027	103	pit	0.027	0.0033	Window removed.
66	66	104	L. mid.	-0027	103	pit	0.024	0.0031	Window removed.
66	66	104	R. fwd.	-0028	122	pit	0.008	0.0011	Window retained.
66	66	104	R. fwd.	-0028	122	pit	0.019	0.00168	Window retained.
66	66	104	R. mid.	-0027	113	pit	0.014	0.0016	Window retained.
66	66	104	R. mid.	-0027	113	pit	0.019	0.0019	Window retained.
66	66	104	R. mid.	-0027	113	pit	0.028	0.0026	Window retained.
66	66	104	R. mid.	-0027	113	pit	0.014	0.00127	Window retained.
67	63	103	R. side	-0026	155	pit	0.028	0.0028	Window removed.
67	63	103	L. fwd.	-0028	117	pit	0.018	0.00265	Window retained.
68	67	105	L. side	-0026	156	pit	0.043	0.00439	Window removed.
68	67	105	L. side	-0026	156	pit	0.0156	0.00284	Window removed.

SHUTTLE FLIGHT HISTORIES
Window Data

Mission Seq. No.	STS-No.	Orbiter vehicle	Window Location	Window Dash no	Window Serial no	Anomaly	Pit size dia., inch	Pit size depth, inch	Disposition
68	67	105	L. fwd.	-0028	120	pit	0.041	0.0052	removed for visibility, positive margins, restricted to W3 location.
68	67	105	L. fwd.	-0028	120	pit	0.018	0.0029	removed for visibility, positive margins, restricted to W3 location.
68	67	105	L. fwd.	-0028	120	pit	0.054	0.0066	removed for visibility, positive margins, restricted to W3 location.
68	67	105	L. mid.	-0027	122	bruise	0.125		Window removed (Destroyed SWRI-Impacts).
68	67	105	R. fwd.	-0028	121	pit	0.024	0.00313	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.028	0.000967	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.021	0.0022	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.058	0.00297	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.023	0.0051	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.037	0.0071	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.02	0.0031	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.029	0.0032	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.039	0.0043	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.028	0.0063	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.03	0.0069	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.015	0.0018	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.1158	0.00567	Window removed, replicast anomaly.
68	67	105	R. fwd.	-0028	121	pit	0.2595	0.025	Window removed, replicast anomaly.
68	67	105	hatch	-0035	103	bruise			Window removed.
69	71	104	R. mid.	-0027	113	pit	0.05	0.0114	Window removed, measurement with optical micrometer.
69	71	104	R. side	-0026	145	pit	0.05	0.0036	Window removed, measurement with optical micrometer.
69	71	104	R. fwd.	-0028	122	pit	0.025	0.002	Window retained, unrestricted.
70	70	103	R. side	-0026	160	pit	0.11605	0.0081	Window removed, (following OMDP).
70	70	103	L. mid.	-0027	116	pit	0.017	0.00196	Window retained, restricted to position W2 location
71	69	105	R. side	-0026	140	pit	0.055	0.00398	Window removed.
71	69	105	R. side	-0026	140	pit	0.043	0.0021	Window removed.
71	69	105	L. side	-0026	163	pit	0.025	0.00135	Window removed.
71	69	105	L. side	-0026	163	pit	0.0635	0.0033	Window removed.
71	69	105	R. mid.	-0027	123	pit	0.01	0.000776	Window retained
71	69	105	R. mid.	-0027	123	pit	0.015	0.00213	Window retained.
71	69	105	R. mid.	-0027	123	pit	0.022	0.00394	Window retained.
71	69	105	R. mid.	-0027	123	pit	0.087	0.00674	Window retained.
71	69	105	L. mid.	-0027	131	pit	0.018	0.00199	Window retained.
72	73	102	L. mid.	-0027	115	pit	0.068	0.0064	Window removed.
72	73	102	L. mid.	-0027	115	pit	0.0928	0.0055	Window removed.
72	73	102	L. mid.	-0027	115	pit	0.028	0.0021	Window removed.
72	73	102	L. side	-0026	123	pit	0.019	0.00128	Window removed.

SHUTTLE FLIGHT HISTORIES
Window Data

Mission Seq. No.	STS-No.	Orbiter vehicle	Window			Anomaly	Pit size		Disposition
			Location	Dash no	Serial no		dia., inch	depth, inch	
72	73	102	L. side	-0026	123	pit	0.024	0.0017	Window removed.
72	73	102	L. side	-0026	123	pit	0.026	0.0018	Window removed.
72	73	102	R. side	-0026	162	pit	0.024	0.0017	Window removed.
72	73	102	R. mid.	-0027	125	pit	0.025	0.0024	Window retained, restricted to Window 5 location.
73	74	104	L. mid.	-0027	129	pit	0.022	0.0014	Window retained, unrestricted use.
73	74	104	R. mid.	-0027	130	pit	0.038	0.00288	Window retained, restricted to Window 5 location.

SHUTTLE FLIGHT HISTORIES
ACTIVE THERMAL CONTROL SUBSYSTEM
ASCENT, ENTRY AND POSTLANDING EVENTS AND PERFORMANCE DATA

			ASCENT EVENTS PERFORMANCE DATA							ENTRY POST-LANDING EVENTS AND PERFORMANCE DATA								
Miss Seq. No.	STS-No.	Orb. OV-	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., deg F.	MAX FES In Temp., deg F.	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., deg F.	Max FCA Out Temp., deg F.	NH3 Quan At Start, lb	NH3 Quan At GSE Cooling lb
1	1	102	2:16	1:10	1:52	1:56	2:10	94	115	+1	15	-9	15	20	103	64	102	72
2	2	102	2:19	1:17	2:15	2:21	2:25	97	120	-8	36	+9	27	35	98	71	98	80
3	3	102	2:13	1:31	2:38	2:42	2:43	97	117	-11	50	+8	35	39	103	74	98	80
4	4	102	2:16	0:57	2:01	PDOP	2:30	99	118	-10	>140	+12	30	36	97	68	99	85
5	5	102	2:21	1:15	1:34	PDOP	1:59	>100	117	-11	45	+16	28	38	100	66	98	87
6	6	99	2:13	1:14	1:45	NP	2:01	94	104	-11	61	+11	25	40	87	67	95	81
7	7	99	2:10	1:09	1:24	NP	1:51	95	106	-11	52	+12	DNA	DNA	92	68	95	65
8	8	99	2:10	1:10	1:28	2:30	1:40	95	106	-11	78	+14	20	35	89	64	96	91
9	9	102	2:15	1:05	1:29	1:38	1:41	91	108	-11	56	-10	21	34	94	82	98	71
10	41B	99	2:12	1:16	1:30	NP	1:40	88	101	-11	>140	+15	27	66	90	>69	96	86
11	41C	99		1:06	1:28	PDOP	1:40	88	101	-11	30	-8	DNA	DNA	85	54	100	86
12	41D	103		1:12	1:33	NP	1:46	55	99	-11	54	+12	34	DNA	86	>58	98	87
13	41G	99	2:10	1:08	1:18	NP	1:26	83	102	-11	>180	-7	32	54	88	>75	97	72
14	51A	103	2:10	1:07	1:29	NP	1:50	83	103	-11	>156	+12	49	54	93	75	98	50
15	51C	103	a															
16	51D	103	2:08	1:09	1:35	NP	1:50	79	98	-11	107	+10	44	46	86	69	100	0
17	51B	99	2:08	1:15	1:25	1:49	1:36	93	107	-11	89	+12	30	48	94	71	102	87
18	51G	103	2:06	1:12	1:26	NP	1:41	73	100	-11	98	+9	50	61	90	67	100	50
19	51F	99	2:10	1:13	1:34	1:46	1:41	74	108	-11	82	+6	50	51	92	73	100	44
20	51I	103	2:03	1:19	1:34	PDOP	1:48	52	102	-11	71	+23	62	DNA	87	63	100	62
21	51J	104	a															
22	61A	99	2:07	1:11	1:25	PDOP	1:43	69	106	-11	74	+6	42	42	94	78	100	46
23	61B	104	2:09	1:09	1:33	PDOP	1:49	79	101	-11	87	+15	32	36	83	61	98	80
24	61C	102	2:11	1:14	1:30	NP	1:38	79	100	-11	74	+21	38	48	88	60	98	85
25	51L	99	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

Legend:
- PDOP = Performed during orbit period
- NP = Not performed
- DNA = Data not available
- GSE = Ground support equipment
- TD = Touchdown
- a = DOD Mission - Data not available
- 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

SHUTTLE FLIGHT HISTORIES
ACTIVE THERMAL CONTROL SUBSYSTEM
ASCENT, ENTRY AND POSTLANDING EVENTS AND PERFORMANCE DATA

			ASCENT EVENTS PERFORMANCE DATA							ENTRY POST-LANDING EVENTS AND PERFORMANCE DATA								
Miss Seq. No.	STS-No.	Orb. OV-	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., deg F.	MAX FES In Temp., deg F.	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., deg F.	Max FCA Out Temp., deg F.	NH3 Quan At Start, lb	NH3 Quan At GSE Cooling lb
26	26	103	2:35	1:24	1:30	NP	00:53	57	108	-11	79	+17	79	--	94	96	98	39
27	27	104	a															
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	a															
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	a															
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	a															
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	62	99	72
37	38	104	a															
38	35	102	2:15	1:16	1:29	NP	1:41	96	112	-11	>56	10	44	--	91	66	99	49
39	37	104	2:07	1:18	1:30	NP	1:43	84	101	-15	>55	NP	40	---	85	60	98	98
40	39	103	2:13	1:11	1:28	NP	1:46	72	103	-12	>72	+7	60	---	90	70	96	23
41	40	102	2:07	1:19	1:35	NP	1:54	99	115	-11	23	+12	41	---	92	72	98	65
42	43	104	2:13	1:18	1:30	NP	1:44	66	86	-12	>66	+25	54	---	97	78	100	50
43	48	103	2:01	1:17	1:35	NP	1:56	80	88	-12	>52	+12	40	---	92	68	99	69
44	44	104	2:09	1:18	1:35	NP	1:46	84	87	-16	>51	+20	35	---	91	63	99	84
45	42	103	2:09	1:14	1:28	1:43	1:49	92	105	-11	>50	+6	39	---	95	77	99	54
46	45	104	2:09	1:26	1:41	N/A	1:53	83	100	-13	>56	+10	43	---	93	67	99	61
47	49	105	2:22	1:17	1:40	N/A	1:53	83	100	-11	>45	+8	33	---	90	69	99	69
48	50	102	2:07	1:11	1:26	NP	1:51	93	106	-12	>23	+11	51	---	95	76	99	50
49	46	104	2:08	1:23	1:39	NP	1:48	79	99	-12	>24	+12	57	---	87	69	99	43
50	47	105	2:04	1:24	1:36	NP	1:45	81	104	-11	>17	+ 6	53	---	90	78	99	30

Legend:
- PDOP = Performed during orbit period
- NP = Not performed
- DNA = Data not available
- GSE = Ground support equipment
- TD = Touchdown
- a = DOD Mission - Data not available
- 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

SHUTTLE FLIGHT HISTORIES
ACTIVE THERMAL CONTROL SUBSYSTEM
ASCENT, ENTRY AND POSTLANDING EVENTS AND PERFORMANCE DATA

			ASCENT EVENTS PERFORMANCE DATA							ENTRY POST-LANDING EVENTS AND PERFORMANCE DATA								
Miss Seq. No.	STS-No.	Orb. OV-	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., deg F.	MAX FES In Temp., deg F.	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., deg F.	Max FCA Out Temp., deg F.	NH3 Quan At Start, lb	NH3 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
56	57	105	2:07	1:15	1:32	NP	1:47	76	99	-13	>29	+8	+34	---	93	71	99	92
57	51	103	2:06	1:13	1:42	NP	1:55	83	101	-12	>29	+17	+47	---	93	97	99	40
58	58	102	2:06	1:19	1:31	NP	1:54	93	108	-11	>24	+12	+46	---	90	95	99	46
59	61	105	2:09	1:16	1:29	NP	1:39	85	99	-13	>22	+9	+66	---	86	66	100	34
60	60	103	2:07	1:12	1:31	NP	1:37	87	100	-12	>22	+12	+53	---	91	95	99	44
61	62	102	2:08	1:15	1:35	3:12 (p)	1:44	87	101	-10	>22	+14	+48	---	90	92	99	49
62	59	105	2:06	1:17	1:28	NP	1:51	63	96	-11	>38	+27	+38	---	84	73	99	49
63	65	102	2:04	1:18	1:31	NP	1:45	95	109	-13	>25	+12	+53	---	90	73	100	50
64	64	103	2:03	1:11	1:31	NP	1:52	85	103	-12	>25	+11	+52	---	88	65	100	65
65	68	105	2:05	1:20	1:33	NP	1:43	80	99	-12	>28	+16	+36	---	89	70	100	85
66	66	104	2:06	1:18	1:29	NP	1:44	90	101	-11	>60	+6	+40	---	92	74	100	59
67	63	103	2:07	1:33	1:51	24:02	2:03	90	107	-11	>21	+10	+48	---	87	68	100	62
68	67	105	2:06	1:17	1:38	NP	1:53	83	100	-11	16	+16	+45	---	90	93	100	50
69	71	104	2:05	1:19	1:35	NP	1:46	96	99	-11	>15	5	67		89	77	99	3
70	70	102	2:05	1:13	1:29	NP	1:45	94	103	-12	>24	12	43		87	65	99	64
71	69	104	2:03	1:29	1:44	NP	1:54	78	99	-12	>26	14	49		87	64	99	61
72	73	103	2:05	1:22	1:40	NP	1:53	98	108	-11	>16	5	44		96	75	99	49
73	74	105	2:04	1:20	1:27	4:07	1:31	90	98	-11	>22	11	42		88	68	99	87

Legend:
- PDOP = Performed during orbit period
- NP = Not performed
- DNA = Data not available
- GSE = Ground support equipment
- TD = Touchdown
- a = DOD Mission - Data not available
- 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

SHUTTLE FLIGHT HISTORIES
ACTIVE THERMAL CONTROL SUBSYSTEMS
FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA

Miss Seq No	STS No	Orb OV-	Notes	Flash Evaporator Subsystem Water Usage								Radiator Freon Temperature Extremes			
				Topping FES		HI-load FES		Ascent, lb	On-Orbit, lb	De-Orbit, lb	Flight Total, lb	Radiator Inlet		Minimum Rad Outlet	
				A Value, lb	B Value, lb	A Value, lb	B Value, lb					Maximum, deg F.	Minimum, deg F.	FCL 1, deg F.	FCL 2, deg F.
1	1	102		186	0	449	0	152	149	334	635	117	82	-37	-30
2	2	102		155	104	419	26	176	134	394	704	122	78	-24	-45
3	3	102		310	52	647	25	198	507	329	1034	117	64	-75	-82
4	4	102		95	104	118	270	168	52	367	587	120	69	-50	-62
5	5	102		101	108	100	292	142	61	398	601	118	73	-55	-52
6	6	99		184	100	101	273	142	134	382	658	104	74	-22	-19
7	7	99		149	144	82	388	123	108	532	763	103	71	-77	-62
8	8	99		79	99	85	265	122	42	364	528	104	67	-80	-75
9	9	102		1489	84	201	190	117	1585	262	1164	109	84	-70	-75
10	41B	99		883	85	81	229	116	849	313	1278	100	67	-65	-55
11	41C	99		161	137	78	263	108	131	400	639	100	61	-52	-65
12	41D	103		1040	98	88	264	122	1007	361	1490	102	68	-40	-67
13	41G	99		446	571	70	182	98	894	277	1269	101	75	-42	-47
14	51A	103		1676	95	84	184	116	1644	279	2039	105	71	-75	-62
15	51C	103	a												
16	51D	103		1654	98	90	265	124	1620	363	2107	103	68	-57	-55
17	51B	99		241	104	84	194	115	210	298	623	106	76	-67	-52
18	51G	103		914	94	78	181	107	884	275	1266	103	73	-47	-80
19	51F	99		58	97	88	184	122	24	281	427	106	76	-57	-57
20	51I	103		1354	83	88	168	121	1321	250	1692	106	72	-50	-60
21	51J	104	a												
22	61A	99		302	94	84	188	116	270	282	668	104	71	-41	-42
23	61B	104		588	93	84	170	115	557	263	935	100	65	-45	-47
24	61C	102		394	293	70	568	98	841	386	1325	103	71	-52	-47
25	51L	99	b												
26	26	103		329	248	80	185	110	455	277	842	112	80	-50	-30

Legend: a = DOD Mission - Data not available

b = Vehicle lost at approximately 73 seconds

SHUTTLE FLIGHT HISTORIES
ACTIVE THERMAL CONTROL SUBSYSTEMS
FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA

Miss Seq No	STS No	Orb OV-	Notes	Flash Evaporator Subsystem Water Usage								Radiator Freon Temperature Extremes			
				Topping FES		HI-load FES		Ascent, lb	On-Orbit, lb	De-Orbit, lb	Flight Total, lb	Radiator Inlet		Minimum Rad Outlet	
				A Value, lb	B Value, lb	A Value, lb	B Value, lb					Maximum, deg F.	Minimum, deg F.	FCL 1, deg F.	FCL 2, deg F.
27	27	104													
28	29	103	a	710	42	92	192	206	704	226	1136	110	75	-48	-40
29	30	104		434	127	98	255	125	495	294	914	100	78	-57	-60
30	28	102	a												
31	34	104		721	122	146	172	132	743	285	1160	116	72	-46	-37
32	33	103	a	0	0	0	0	0	0	0	0	0	0	0	0
33	32	102		805	129	56	158	58	853	237	1148	108	68	-73	-68
34	36	104	a												
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	a												
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	1094	107	70	-40	-40
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

Legend: a = DOD Mission - Data not available

b = Vehicle lost at approximately 73 seconds

SHUTTLE FLIGHT HISTORIES
ACTIVE THERMAL CONTROL SUBSYSTEMS
FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA

Miss Seq No	STS No	Orb OV-	Notes	Flash Evaporator Subsystem Water Usage								Radiator Freon Temperature Extremes			
				Topping FES		Hi-load FES		Ascent, lb	On-Orbit, lb	De-Orbit, lb	Flight Total, lb	Radiator Inlet		Minimum Rad Outlet	
				A Value, lb	B Value, lb	A Value, lb	B Value, lb					Maximum, deg F.	Minimum, deg F.	FCL 1, deg F.	FCL 2, deg F.
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
56	57	105		2093	327	65	584	88	2492	231	2811	100	64	-82	-80
57	51	103		1870	222	69	329	91	1764	246	2101	102	66	-73	-65
58	58	102		3958	126	75	184	99	3979	265	4343	111	75	-22	-27
59	61	105		1683	123	57	192	83	1687	285	2055	100	69	-55	-52
60	60	103		965	160	59	261	88	987	370	1445	103	70	-55	-47
61	62	102		3077	135	57	179	86	3106	256	3448	103	70	-60	-55
62	59	105		985	268	57	414	85	1327	312	1724	97	69	-30	-40
63	65	102		3845	212	88	410	100	4205	250	4555	110	80	-47	-40
64	64	103		1385	178	84	352	94	1458	447	1999	103	70	-40	-40
65	68	105		1561	113	78	265	92	1686	339	2117	99	70	-25	-30
66	66	104		861	613	258	17	94	1404	251	1749	102	78	-43	-37
67	63	103		2054	103	97	210	124	2060	280	2464	107	78	-76	-75
68	67	105		3792	311	72	193	89	4036	243	4368	101	76	-72	-69
69	71	104		1768	92	110	211	119	1795	267	2181	103	68	-40	-37
70	70	102		1041	199	103	476	115	1356	348	1819	105	71	-60	-50
71	69	104		1368	86	98	204	116	1387	253	1756	99	57	-57	-80
72	73	103		1385	212	112	227	119	1545	272	1935	114	78	-32	-36
73	74	105		977	220	95	208	104	1137	257	1498	99	69	-72	-47

Legend: a = DOD Mission - Data not available
b = Vehicle lost at approximately 73 seconds

SHUTTLE FLIGHT HISTORIES
ATMOSPHERIC REVITALIZATION SUBSYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Cabin Temperature Peaks							Cabin Partial Pressure of CO2 (PPCO2)				Cabin Reduced Pressure Operation						
				Ascent		On-Orbit			Entry						Duration of 10.2 psia Operation			PPO2 During Depress to 10.2		PPO2 During 10.2 Operation	
				HX Air Out deg F	Cabin Air deg F	HX Air Out deg F	Cabin Air Max deg F	Cabin Air Min deg F	HX Air Out deg F	Cabin Air deg F	Crew Persons Hours	PPCO2 Max mmHg	PPCO2 Min mmHg	LIOH Cans. Used	Start MET h:m	End MET h:m	Duration h:m	Max psi	Max psi	Max psi	Max psi
1	1	102		78.5	83	63.1	80.2	75	51.4	79.2	109	5.80	0.40	4	:	:	:				
2	2	102		79.8	83.5	69	82.5	70	71	81.4	108	5.40	0.50	4	:	:	:				
3	3	102		79.7	85.3	67.5	81.5	73	55.3	83	394	8.40	0.40	9	:	:	:				
4	4	102		82.6	81	62.2	82	68	52.2	78.5	338	4.30	0.50	9	:	:	:				
5	5	102		83.5	80	60	80	75	54.6	80.5	489	2.30	0.60	12	:	:	:				
6	6	99		77.4	80.5	61	78	72	58.8	75	482	1.50	0.60	12	:	:	:				
7	7	99	d		78	56	76	69		71	732	5.00	0.70	15	45 : 46	76 : 47	31 : 01	3.5	2.7	2.9	2.6
8	8	99	d		79	58	80	72		74.5	726	6.10	0.90	16	:	:	:				
9	9	102	d		81	64	83	68		86	1487	1.70	0.50	32	:	:	:				
10	41B	99		76.2	80	62	83	70	60.6	81.7	956	3.70	0.40	18	69 : 25	149 : 00	79 : 35	3.2	2.8	3.1	2.5
11	41C	99		75.0	80.5	58	79	68	50.6	78	838	4.80	0.50	16	25 : 42	141 : 27	115 : 45	3.4	2.7	3	2.6
12	41D	103		66.6	80.2	58	78	72	57.4	79.3	870	3.80	0.80	16	105 : 04	128 : 48	23 : 44	3.2	2.8	2.9	2.7
13	41G	99		74.0	74	74	91	73	62	79.1	1382	6.00	1.40	25	121 : 46	153 : 25	31 : 40	3.5	2.8	3	2.7
14	51A	103		75.0	80.3	56	85	73	71	85.6	975	2.80	0.80	19	72 : 43	162 : 45	90 : 02	3.4	2.7	3	2.5
15	51C	103	a												:	:	:				
16	51D	103		68.0	85	58	83	76	64.2	85.3	1170	11.00	0.60	23	76 : 00	126 : 40	50 : 40	3.5	2.8	2.9	2.6
17	51B	99		71.0	84	58	83.5	74	67.4	81.7	1176	5.50	1.00	31	:	:	:				
18	51G	103		64.2	87.8	64	89	80	65	88	1188	6.80	0.90	23	:	:	:				
19	51F	99		64.2	80.2	61	92	76	69	77	1335	6.50	1.20	23	:	:	:				
20	51I	103		65.8	84.6	53	82	72	63	84	851	5.30	0.70	17	72 : 06	140 : 30	68 : 24	3.8	2.6	3.4	2.6
21	51J	104	a												:	:	:				
22	61A	99		70.0	84.4	59	80	73	64	81	1350	5.60	1.00	30	:	:	:				
23	61B	104		69.4	73	58	84	74	63	78	1156	3.00	0.80	23	48 : 14	123 : 06	74 : 52	3.7	2.7	3	2.7
24	61C	102		69.0	81	66	86	80	63	78	1022	7.30	1.00	22	:	:	:				
25	51L	99	e												:	:	:				
26	26	103		61.0	72	76	89	72	73.4	73.8	48.5	3.70	0.70	10	:	:	:				
27	27	104	a												:	:	:				

Hx = Heat Exchanger
a = DOD MISSION - DATA NOT AVAILABL
b = 14.7 psia pressure extravehicular activity
c = Regenerative carbon dioxide removal system. RCRS used in place of LIOH canisters.
d = Data Not Available.
e = Vehicle lost at 73 seconds.

SHUTTLE FLIGHT HISTORIES
ATMOSPHERIC REVITALIZATION SUBSYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Cabin Temperature Peaks							Cabin Partial Pressure of CO2 (PPCO2)				Cabin Reduced Pressure Operation						
				Ascent		On-Orbit			Entry						Duration of 10.2 psia Operation			PPO2 During Depress to 10.2		PPO2 During 10.2 Operation	
				HX Air Out deg F	Cabin Air deg F	HX Air Out deg F	Cabin Air Max deg F	Cabin Air Min deg F	HX Air Out deg F	Cabin Air deg F	Crew Persons Hours	PPCO2 Max mmHg	PPCO2 Min mmHg	LIOH Cans. Used	Start MET h:m	End MET h:m	Duration h:m	Max psi	Max psi	Max psi	Max psi
28	29	103		58.0	81	53	82	71	64	78	598	6.50	1.00	13	:	:	:				
29	30	104		59.0	72	63	84	72	63	76	485	3.20	0.80	10	49 : 02	73 : 00	23 : 58	3.4	2.7	2.96	2.64
30	28	102	a												:	:	:				
31	34	104		71.0	76	76	89	69	59	72	600	2.45	0.70	13	:	:	:				
32	33	103	a												:	:	:				
33	32	102		59.0	70	67	84	70	64	76	1305	3.75	0.64	23	:	:	:				
34	36	104	a												:	:	:				
35	31	103		69.0	75	61	86	71	69	75	620	7.60	0.89	12	4 : 40	76 : 50	72 : 10	3.6	2.7	2.8	2.6
36	41	103		61.0	71	45	87	46	50	67	494.5	3.30	0.60	11	:	:	:				
37	38	104	a												:	:	:				
38	35	102		70.0	72	54	80	73	53	72	1505	8.00	1.30	30	:	:	:				
39	37	104		69.0	72	58	81	70	70	74	715	2.80	0.70	14	21 : 47	91 : 48	70 : 01	3.5	2.7	2.9	2.6
40	39	103		65.0	72	64	82	72	63	78	1407	8.30	1.20	26	:	:	:				
41	40	102		73.0	76	64	82	65	64	72	1540	2.40	0.73	30	:	:	:				
42	43	104		62.0	72	57	81	71.5	55	80	1067.5	3.60	0.68	23	:	:	:				
43	48	103		67.0	69.5	58	71	84	54.5	76	643.75	7.60	0.71	13	23 : 05	54 : 50	31 : 45	3.5	2.8	2.86	2.62
44	44	104		70.0	78.5	58	62	78.5	56	78	1001.2	6.80	0.76	18	:	:	:				
45	42	103		74.5	76	65	84.5	72.5	63.5	78	1359.8	4.35	0.78	28	:	:	:				
46	45	104		65.0	68	65	82	70	65	77	1499.2	7.60	1.05	32	:	:	:				
47	49	105		67.0	69.5	62	83	72.5	63.5	74.5	1491.1	5.40	1.05	30	20 : 21	92 : 11	71 : 50	3.16	2.78	2.88	2.56
48	50	102	c	66.0	73	68	80.5	70.5	61	77	2320.5	7.25	0.65	22	:	:	:				
49	46	104		68.0	70	74	84	70	54	71	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	66	84	76.5	62	76	1333.5	4.70	0.86	27	:	:	:				
51	52	102	c	68.0	74	68	85	72.8	69	80	1422	5.40	1.72	3	:	:	:				
52	53	103		64.0	69	74	80	69.8	60	80	875	7.60	0.78	17	:	:	:				
53	54	105		72.0	75	64.8	80	65	51	74	715	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	68	82.8	69.8	65	71	1110	6.80	0.75	25	:	:	:				

Hx = Heat Exchanger
a = DOD MISSION - DATA NOT AVAILABL
b = 14.7 psia pressure extravehicular activity
c = Regenerative carbon dioxide removal system. RCRS used in place of LIOH canisters.
d = Data Not Available.
e = Vehicle lost at 73 seconds.

SHUTTLE FLIGHT HISTORIES
ATMOSPHERIC REVITALIZATION SUBSYSTEM

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Cabin Temperature Peaks							Cabin Partial Pressure of CO2 (PPCO2)				Cabin Reduced Pressure Operation						
				Ascent		On-Orbit			Entry						Duration of 10.2 psia Operation			PPO2 During Depress to 10.2		PPO2 During 10.2 Operation	
				HX Air Out deg F	Cabin Air deg F	HX Air Out deg F	Cabin Air Max deg F	Cabin Air Min deg F	HX Air Out deg F	Cabin Air deg F	Crew Persons Hours	PPCO2 Max mmHg	PPCO2 Min mmHg	LIOH Cans. Used	Start MET h:m	End MET h:m	Duration h:m	Max psi	Max psi	Max psi	Max psi
55	55	102		72.0	71	75	80.5	70	70	78.5	1676.5	6.00	1.25	12	:	:	:				
56	57	105		72.0	69	64	83	69	72	73.5	1198.7	8.35	0.90	30	:	:	:				
57	51	103		67.0	65	64	80	69	65	62	1181	6.60	0.80	28	48 : 32	116 : 08	67 : 36	3.2	2.62	2.82	2.6
58	58	102		58.0	69	67	81	72	70	73	2353.4	2.88	1.52	34	:	:	:				
59	61	105		72.8	70	57	83	70.6	60	74	1819.7	3.50	0.91	35	18 : 45	213 : 15	194 : 30	3.1	2.75	2.84	2.58
60	60	103		63.0	66	72	79.5	78	53	74	1195	4.40	0.63	29	:	:	:				
61	62	102		73.5	68	72	80.2	71	52	73	1676.3	4.02	1.12	2	:	:	:				
62	59	105		60.0	69	69	83	69	63	72	1618.9	7.60	0.87	34	:	:	:				
63	65	102		76.0	75	69.5	77.8	71.3	55	74	2477	4.60	1.33	25	:	:	:				
64	64	103		66.0	75	64	79	67.2	63	77	1577	7.60	1.82	31	136 : 09	167 : 10	31 : 01	3.18	2.76	2.88	2.62
65	68	105		67.5	70	64.9	83	81.5	65	79	1619	7.80	1.00	34	:	:	:				
66	66	104		65.5	76	72.5	84	68	53	78	1575	8.15	0.80	31	:	:	:				
67	63	103	b	72.0	72	65	88	73.5	55	77.2	1191	4.10	0.73	24	:	:	:				
68	67	105		67.0	72	65.5	81.5	71.9	53	78	2793	5.38	1.12	2	:	:	:				
69	71	104		65.4	75.5	66.1	80.9	71	52.3	73	1647.56	4.59	1.30	33	:	:	:				
70	70	103		64.3	72.2	64	80.3	77.8	53.6	78	1071.75	5.80	0.90	12	:	:	:				
71	69	105		68.7	72.4	61.8	81.2	71.2	52	75.5	1302.3	4.80	1.22	12	168 : 42	216 : 45	48 : 03	3.14	2.76	2.86	2.56
72	73	102		64.6	73.7	69.4	82.2	73.2	51	72.7	2673.06	4.59	1.07	10	:	:	:				
73	74	104		66.8	70.6	63.2	83	71.5	52	72.7	982.5	7.96	1.07	24	17 : 01	44 : 47	27 : 46	3.26	2.78	2.8	2.68

Hx = Heat Exchanger
a = DOD MISSION - DATA NOT AVAILABL
b = 14.7 psia pressure extravehicular activity
c = Regenerative carbon dioxide removal system. RCRS used in place of LIOH canisters.
d = Data Not Available.
e = Vehicle lost at 73 seconds.

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

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

Legend: a = DATA NOT AVAILABLE
b = DOD Mission
c = Vehicle destroyed at approximately 73 seconds

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

Miss SEQ NO.	STS NO.	ORB OV-	Notes	Supply Water Management Subsystem									Waste Management System										Remarks
				Qty at Lift-off, lb	FC Prod lb	FES Use lb	Crew Use lb	Qty Dump-ed, lb	No. of Dumps	Qty at TD lb	On-Orbit Qty Max., lb	On-Orbit Qty Min., lb	No. of Dumps	Total Waste Dump-ed	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	
12	41D	103	a	469	1740	1490	174	248	3	297	591	380	1	11	11	14.7							Ice formed on nozzle, RMS used to remove ice.
13	41G	099		526	2292	1269	395	791	9	363	628	416	4	276	55	14.7	73	14.7	66	14.7	82	14.7	
14	51A	103		509	2183	2039	249	0	0	404	616	425	4	122	38	14.7	26	10.2	29	10.2	29	10.2	
15	51C	103	b																				
16	51D	103		540	2128	2107	272			289	604	437	3	145	40	14.7	47	14.7	58	14.7			
17	58B	099		585	2474	623	238	1820	14	378	631	445	2	111	63	14.7	48	14.7					
18	51G	103		493	1969	1266	386	433	4	377	600	388	3	275	62	14.7	76	14.7	137	14.7			
19	51F	099		543	2629	427	315	2103	16	327	593	388	3	239	73	14.7	80	14.7	86	14.7			
20	51I	103		525	1783	1692	222	21	4	373	571	350	2	197	73	14.7	124	14.7					
21	51J	104	b																				
22	61A	099		523	2444	668	290	1638	12	371	586	408	2	196	83	14.7	113	14.7					

Legend: a = DATA NOT AVAILABLE
b = DOD Mission
c = Vehicle destroyed at approximately 73 seconds

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

Miss SEQ NO.	STS NO.	ORB OV-	Notes	Supply Water Management Subsystem									Waste Management System										Remarks
				Qty at Lift-off, lb	FC Prod lb	FES Use lb	Crew Use lb	Qty Dump-ed, lb	No. of Dumps	Qty at TD lb	On-Orbit Qty		No. of Dumps	Total Waste Dump-ed	Dump 1		Dump 2		Dump 3		Dump 4		
											Max., lb	Min., lb			Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	
23	61B	104		510	1807	935	230	746	11	406	604	420	3	189	50	14.7	63	10.2	76	14.7			
24	61C	102		475	1851	1325	240	433	4	328	617	408	2	201	112	14.7	89	14.7					
25	51L	099	c																				
26	26	103		540	1028	842	161	183	3	382	611	446	1	32	32	14.7							
27	27	104	b																				
28	29	103		551	1234	1036	63	284	3	402	594	437	1	60	60	14.7							
29	30	104		532	1050	914	53	223	3	393	588	439	1	25	25	10.2							
30	28	102	b																				
31	34	104		599	1269	1104	132	271	3	362	578	447	0	0	0	0	0	0	0	0	0	0	
32	33	103	b																				
33	32	102		515	2753	1141	299	1511	14	317	601	377	2	143	39	0	104	0	0	0	0	0	

Legend: a = DATA NOT AVAILABLE
b = DOD Mission
c = Vehicle destroyed at approximately 73 seconds

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

Miss SEQ NO.	STS NO.	ORB OV-	Notes	Supply Water Management Subsystem									Waste Management System										Remarks
				Qty at Lift-off, lb	FC Prod lb	FES Use lb	Crew Use lb	Qty Dump-ed, lb	No. of Dumps	Qty at TD lb	On-Orbit Qty		No. of Dumps	Total Waste Dump-ed	Dump 1		Dump 2		Dump 3		Dump 4		
											Max., lb	Min., lb			Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	
34	36	104	b																				
35	31	103		532	1344	825	152	485	4	414	613	424	1	91	91	0	0	0	0	0	0	0	
36	41	103		579	1142	1128	105	64	1	424.4	622.1	431	1	37	37	14.7	0	0	0	0	0	0	
37	38	104	b																				
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	14.7	Dump 4 to CWC Dump 5 to UAS (31.5 lb)
39	37	104		522	1617	1372	171	166	2	431	616	412	2	114	74	10.2	39	14.7	0	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	14.7	Waste Dump 5: 52 lbs @ 14.7 psia
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	14.7	
42	43	104		518	2375	2099	286	100	2	408	623	410	4	265	60	14.7	64	14.7	64	14.7	102	14.7	
43	48	103		591	1455	1001	167	582	5	296	600	281	1	125	125	14.7	0	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	0	

Legend: a = DATA NOT AVAILABLE
b = DOD Mission
c = Vehicle destroyed at approximately 73 seconds

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

Miss SEQ NO.	STS NO.	ORB OV-	Notes	Supply Water Management Subsystem									Waste Management System										Remarks
				Qty at Lift-off, lb	FC Prod lb	FES Use lb	Crew Use lb	Qty Dump-ed, lb	No. of Dumps	Qty at TD lb	On-Orbit Qty		No. of Dumps	Total Waste Dump-ed	Dump 1		Dump 2		Dump 3		Dump 4		
											Max., lb	Min., lb			Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	
45	42	103		591	2600	2569	241	0	0	382	646	368	2	174	99.7	14.7	74.8	14.7	0	0	0	0	
46	45	104		592	2579	2342	402	0	0	427	624	475	4	409	57	14.7	102	14.7	121	14.7	129	14.7	
47	49	105		494	2185	1701	439	148	2	427	627	423	3	327	84	10.2	124	10.2	119	10.2	0	0	
48	50	102		498	4994	4874	257	0	0	331	641	393	4	182.5	56	14.7	68	14.7	51	14.7	7.5	14.7	
49	46	104		500	2315	1889	355	114	1	112	627	363	3	251	107	0	58	14.7	86	14.7	0	0	Water and waste tank depress to cabin press (DTO 0325).
50	47	105		588	2513	2522	221	0	0	113	640	525	2	204	108	14.7	96	14.7					
51	52	102		542	2686	2416	192	187	1	434	648	433	2	92.5	69	14.7	23.5	14.7					
52	53	103		602	1847	969	256	886	7	339	623	425	2	200	96	14.7	104	14.7					Waste water dump 2 - simultaneous dump
53	54	105		412	1581	1416	212	0	0	366	641	307	1	96	96	14.7							
54	56	103		581	2720	2482	368	35	1	415	646	435	3	300	48.5	14.7	122	14.7	129	14.7			
55	55	102		507	3136	1361	297	1636	12	350	644	398	4	227									Waste water collected/dumped for cwc; therefore quantity is approximate.

Legend: a = DATA NOT AVAILABLE
b = DOD Mission
c = Vehicle destroyed at approximately 73 seconds

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

Miss SEQ NO.	STS NO.	ORB OV-	Notes	Supply Water Management Subsystem									Waste Management System										Remarks
				Qty at Lift-off, lb	FC Prod lb	FES Use lb	Crew Use lb	Qty Dump-ed, lb	No. of Dumps	Qty at TD lb	On-Orbit Qty Max., lb	On-Orbit Qty Min., lb	No. of Dumps	Total Waste Dump-ed	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	
56	57	105		558	2620	2715	286	114	1	164	606	193	3	-171	47	14.7	70	14.7	53	14.7			
57	51	103		252	2520	1821	390	210	1	105	630	234	3	300	114	14.7	110	14.7	76	14.7			
58	58	102		523	4738	3479	781	589	7	85	639	398	7	711	72	14.7	110	14.7	117	14.7	115	14.7	Dump 5-82 lb Dump 6-129 lb Dump 7-86 lb
59	61	105		360	2837	2254	468	125	2	349	613	273	4	375	93	14.7	73	10.2	78	10.2	131	10.2	Waste dump 4 & supply dump 2 performed with tanks ventd to 10.2 psia cabin pressure.
60	60	103		587	2360	1354	256	1009	6	331	638	368	4	255	106	14.7	37	14.7	47	14.7	103	14.7	
61	62	102		529	4211	3458	355	505	4	422	644	279	4	298	73	14.7	73	14.7	81	14.7	70	14.7	
62	59	105		584	3165	2422	570	518	4	239	643	354	6	583	121	14.7	130	14.7	55	14.7	65	14.7	Dump 5= 79 lb Dump 6=132 lb
63	65	102		340	5299	4579	429	332	3	299	639	217	3	429	114	14.7	127	14.7	90	14.7			
64	64	103		602	2817	2005	467	768	6	178	622	382	4	409	69	14.5	111	13.6	118	10.3	111	14.7	
65	68	105		582	3299	2927	429	199	3	326	616	348	4	425	109	14.7	107	14.7	82	14.7	127	14.7	
66	66	104		584	3216	2616	424	402	3	357	633	437	4	377	43	14.7	93	14.7	114	14.7	98	14.7	

Legend: a = DATA NOT AVAILABLE
b = DOD Mission
c = Vehicle destroyed at approximately 73 seconds

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

Miss SEQ NO.	STS NO.	ORB OV-	Notes	Supply Water Management Subsystem									Waste Management System										Remarks
				Qty at Lift-off, lb	FC Prod lb	FES Use lb	Crew Use lb	Qty Dump-ed, lb	No. of Dumps	Qty at TD lb	On-Orbit Qty		No. of Dumps	Total Waste Dump-ed	Dump 1		Dump 2		Dump 3		Dump 4		
											Max., lb	Min., lb			Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	Qty, lb	Pres-sure, psia	
67	63	103		575	2433	2249	304	119	3	337	624	354	3	274	75	14.7	96	14.7	103	14.7			
68	67	105		525	5629	5148	624	0	0	382	632	402	5	558	87	14.7	109	14.7	109	14.7	131	14.7	Dump 5122 lb
69	71	104		566	3066	1800	383	0	0	383	650	380	3	260	52	14.7	84	14.7	125	14.7			Transferred 1067 lb of water to Mir
70	70	103		374	2157	1516	301	485	2	229	637	266	3	278	66	14.7	104	14.7	107	14.7			
71	69	105		489	3018	1528	235	1327	6	417	638	217	4	207	70	14.7	29	10.1	12	14.7	96	14.7	Dump 4 was made into a CWC
72	73	102		378	5832	1899	336	3580	18	395	641	272	3	261	73	14.7	86	14.7	102	14.7			
73	74	104		550	2426	148	331	117	1	395	651	285	4	270	72	14.7	19	14.7	65	15.3	114	14.7	Transferred 993 lb of water to Mir

Legend: a = DATA NOT AVAILABLE
b = DOD Mission
c = Vehicle destroyed at approximately 73 seconds

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
1	c	1014	44	14,870	-	-	0.2	<0.05	-	0.04	-	2.2	0.2	-	Balance
1	b,c	1027	74	44,800	-	-	0.3	<0.02	-	0.02	-	1.1	0.2	-	Balance
1	c	1021	98	82,900	-	-	0.3	<0.6	-	0.3	-	2.4	0.9	-	Balance
1	c	1034	104	93,500	-	-	0.2	<0.5	-	0.2	-	2.6	0.8	-	Balance
1	b,c	1026	114	116,200	-	-	0.7	<2.0	-	0.6	-	3.8	4.6	-	Balance
1	c	1043	114	116,200	-	-	0.5	<2.0	-	0.2	-	1.7	5.5	-	Balance
2	d	1010	74	95.7	0.13	-	0.5	0.05	0.01	<0.03	-	2.8	0.7	-	Balance
2		1020	104	8.3	0.11	-	0.5	0.5	0.15	0.17	-	4.3	5.8	-	Balance
2	b	1028	114	1 atm	0.93	-	-	-	-	-	-	20.5	-	-	Balance
3	b	1031	46	-	0.93	-	-	-	-	-	-	-	-	-	Balance
3		1025	76	-	0.16	-	0.17	-	-	0.02	-	3.53	0.17	-	Balance
3		1038	105	-	0.29	-	0.16	-	-	0.13	-	6.45 air	0.50	-	Balance
3		1035	62	-	0.08	-	0.19	-	-	0.01	-	1.65	0.23	-	Balance
3		1018	76	-	0.16	-	0.18	-	-	0.02	-	3.64	0.83	-	Balance
3		1045	120	-	0.22	-	0.28	-	-	0.20	-	4.7 air	2.56	-	Balance
4		1029	44	363.2	0.04	4.30	0.49	<0.02	<0.02	<0.02	0.90	0.90	0.04	0.04	Balance
4		1044	74	101	0.16	17.35	0.33	0.03	<0.02	<0.02	3.64	3.61	0.13	0.12	Balance
4		1041	101	11.9	0.22	23.50	0.48	0.26	0.06	0.26	4.92	4.87	0.69	0.57	Balance
4		1023	60	222.5	0.06	6.14	0.33	<0.02	<0.02	<0.02	1.29	1.26	0.40	0.40	Balance
4		1032	74	98.1	0.14	15.13	0.43	0.04	<0.02	<0.02	3.16	3.16	0.50	0.50	Balance
4		1037	114	3.7	0.19	20.35	0.51	0.23	0.08	0.04	4.27	4.27	2.55	2.43	Balance
5		1011	59	222	0.15	16.10	0.29	<0.01	<0.01	0.04	3.37	3.31	0.29	0.29	Balance
5	e	1012	74	103	0.16	16.98	0.36	0.88	0.06	0.16	3.56	3.44	0.77	0.66	Balance
5		1017	114	3.8	0.23	24.41	0.86	0.80	0.14	0.05	5.11	5.06	1.58	1.43	Balance
FRF		1023	16	-	0.013	-	1.3	-	-	0.01	-	0.013	-	0.02	Balance
FRF		1039	25.3	-	0.013	-	1.14	-	-	0.01	-	0.024	-	0.03	Balance
FRF		1029	80	-	0.012	-	-	-	-	0.01	-	0.01	-	0.21	Balance
FRF		1032	16	-	0.013	-	0.94	-	-	0.01	-	0.030	-	0.67	Balance
FRF		1033	25.3	-	0.012	-	1.71	-	-	0.01	-	0.060	-	0.49	Balance
FRF		1037	80	-	0.012	-	-	-	-	0.01	-	0.05	-	0.24	Balance
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
6		103	73	115	0.12	12.85	1.04	0.03	< 0.01	0.04	2.69	2.42	0.43	0.42	Balance
6		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
6		106	74	113	0.15	16.06	0.56	0.03	< 0.01	0.02	3.36	2.96	0.14	0.13	Balance
6		105	82	63	0.13	13.92	0.62	0.02	< 0.01	0.02	2.92	2.54	0.26	0.25	Balance

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
6		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
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
7	f	1102	73	104.1	0.11	11.83	0.69	0.06	0.01	0.04	2.48	2.32	0.25	0.22	Balance
7	a	1113	116	3.81	0.18	19.29	0.85	1.10	0.08	0.32	4.04	3.57	2.68	2.16	Balance
7		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
7	f	109	81	57.5	0.11	11.77	0.69	3.22	0.20	0.29	2.47	2.30	1.77	0.29	Balance
7	f	110	103	9.4	0.11	11.78	1.03	0.58	0.05	0.19	2.47	2.20	1.62	1.35	Balance
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
8		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
8		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
8		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
8		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
8		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
9	g	1123	59	189	0.13	13.92	0.22	0.03	<0.01	0.04	2.92	2.64	0.04	0.03	Balance
9	g	1122	73	71	0.18	19.27	0.25	0.21	0.01	0.06	4.03	3.77	0.13	0.03	Balance
9	f,g	1121	116	2.8	0.12	12.85	0.23	0.95	0.14	0.52	2.69	1.81	0.63	0.18	Balance
9	g	1125	74	77	0.15	16.06	0.23	0.13	0.04	0.06	3.36	2.98	0.08	0.02	Balance
9	g	1120	82	781	0.93	100.	0.15	<0.01	<0.01	0.05	20.95	20.95	0	0	Balance
9	g	1013	101	417	0.78	83.51	0.15	0.30	0.06	0.08	17.50	17.00	0.17	0.03	Balance
41B	h	1132	74	764		-	-	-	-	-	-	-	-	-	Balance
41B		1134	82	50	0.16	17.82	0.72	0.17	0.02	0.04	3.74	3.26	0.21	0.13	Balance
41B	f	1135	118	3.8	0.16	16.64	0.84	2.75	0.15	0.07	3.49	2.63	2.26	0.96	Balance
41B		1127	60	217	0.16	16.80	0.48	0.03	<0.01	0.01	3.36	2.92	0.04	0.04	Balance
41B		1136	75	92	0.13	14.21	0.58	0.12	0.01	0.01	2.98	2.54	0.09	0.03	Balance
41B		1130	103	12	0.37	39.81	0.85	0.44	0.04	0.04	8.34	7.15	0.35	0.14	Balance
51D	i	1171	59	Atmos.	0.93	100.	-	-	-	-	-	-	-	-	Balance
51D		1174	73	97.4	0.13	13.92	0.21	0.05	<0.01	0.03	2.92	2.63	0.02	<0.01	Balance
51D	i	1163	116	Atmos.	0.93	100.	-	-	-	-	-	-	-	-	Balance
51D		1166	74	97.9	0.12	12.85	0.24	0.07	<0.01	0.02	2.69	2.51	0.03	<0.01	Balance
51D	i	1173	82	Atmos.	0.93	100.	-	-	-	-	-	-	-	-	Balance
51D		1162	101	11.7	0.40	42.83	0.31	0.26	0.03	0.01	8.97	8.13	0.53	0.41	Balance
51B	j	1168	60	769	0.94	100.	-	-	-	-	-	-	-	-	Balance
51B		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
51B	f	1172	116	4.1	0.08	8.56	0.45	1.56	0.06	1.65	1.79	1.06	3.34	2.60	Balance
51B	j	1169	73	770	0.94	100	-	-	-	-	-	-	-	-	Balance

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
51B		1175	81	56.5	0.13	13.92	0.33	0.14	0.01	0.12	2.92	2.59	0.20	0.13	Balance
51B	f	1176	103	8.4	0.17	18.20	0.55	0.63	0.05	0.60	3.81	3.34	1.36	1.06	Balance
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
51G		1178	82	43.4	0.11	12.19	0.34	0.63	0.02	0.19	2.55	2.31	0.22	-0.08	Balance
51G	f	1185	101	6.7	0.22	23.92	0.54	1.42	0.13	1.01	5.01	4.66	1.01	0.43	Balance
51G		1181	59	190	0.14	15.25	0.21	0.05	<0.01	0.05	3.19	2.90	0.02	0.00	Balance
51G		1184	73	83.9	0.17	17.99	0.28	0.10	<0.01	0.10	3.77	3.39	0.04	-0.01	Balance
51G	f	1179	116	7.6	0.09	9.86	0.11	24.54	0.61	4.15	2.07	1.75	15.10	3.50	Balance
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
51F		1213	82	41.4	0.16	17.13	0.22	0.30	0.01	0.23	3.59	3.37	0.46	0.32	Balance
51F	f	1214	103	8.2	0.23	24.63	0.32	0.63	0.09	0.68	5.16	4.89	2.45	2.15	Balance
51F		1207	60	203	0.12	12.85	0.14	0.06	<0.01	0.11	2.69	2.68	0.45	0.17	Balance
51F		1204	73	88.8	0.16	17.13	0.16	0.60	0.01	0.32	3.59	3.38	0.70	0.42	Balance
51F	f	1211	116	3.31	0.09	9.64	0.26	1.62	0.22	1.66	2.02	1.45	4.46	3.69	Balance
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
51I		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
51I	f	1164	115	2.8	0.06	6.42	0.23	0.04	<0.01	0.05	1.34	0.80	1.77	1.75	Balance
51I		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
51I		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
51I	f	1215	101	6.2	0.25	26.77	0.46	1.10	0.07	1.05	5.61	5.34	0.85	0.33	Balance
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
41C		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
41C	h	1133	116	767	0.93	100	-	-	-	-	21	21	ND	ND	Balance
41C		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
41C	f	1126	82	45.2	0.79	84.58	0.18	0.13	0.01	0.03	17.72	17.45	0.03	<0.01	Balance
41C	f	1128	101	39.3	0.13	13.92	0.51	0.15	0.01	0.02	2.92	2.73	0.12	0.05	Balance
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
41D		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
41D		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
41D	f	1138	74	85.8	0.10	10.85	0.13	0.01	0.01	0.02	2.27	1.88	0.02	0.02	Balance
41D	k	1139	82	774	0.93	99.40	0.36	<0.01	<0.01	0.04	20.60	19.31	<0.01	<0.01	Balance
41D		1142	101	233.0	0.86	92.11	0.07	0.01	0.01	0.04	19.30	18.14	0.01	0.01	Balance
41G	h	1144	59	776	0.90	96.23	3.77	<0.01	<0.01	0.04	20.15	20.15	<0.01	<0.01	Balance
41G	h	1147	73	767	0.93	100	<0.01	<0.01	<0.01	0.04	20.90	20.90	<0.01	<0.01	Balance
41G		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

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
41G	h	1145	74	775	0.92	98.75	1.25	<0.01	<0.01	0.04	20.68	20.68	<0.01	<0.01	Balance
41G	h	1149	82	455	0.89	95.0	0.23	<0.01	<0.01	0.04	19.90	19.70	<0.01	<0.01	Balance
41G		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
51A	m	-		-	-	-	-	-	-	-	-	-	-	-	-
51A		-	-	-	-	-	-	-	-	-	-	-	-	-	-
51A		-	-	-	-	-	-	-	-	-	-	-	-	-	-
51A		-	-	-	-	-	-	-	-	-	-	-	-	-	-
51A		-	-	-	-	-	-	-	-	-	-	-	-	-	-
51A		-	-	-	-	-	-	-	-	-	-	-	-	-	-
51C		1159	60	536.7	0.84	90.11	0.49	<0.01	<0.01	0.03	18.88	14.71	<0.01	<0.01	Balance
51C	f	1165	74	99.1	0.06	6.83	0.27	0.01	<0.01	0.04	1.43	1.53	0.02	0.02	Balance
51C		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
51C	f	1157	74	96.8	0.06	6.76	0.27	0.02	<0.01	0.02	1.41	1.73	0.02	0.02	Balance
51C	l	1161	82	207.3	0.83	88.56	0.67	0.03	<0.01	0.02	18.55	13.89	<0.01	<0.01	Balance
51C	f	1160	105	8.4	0.30	32.14	0.57	0.24	0.04	0.03	6.73	4.71	0.48	0.37	Balance
51J		1191	74	72	0.12	12.85	0.23	0.03	<0.01	0.08	2.69	2.52	0.08	0.06	Balance
51J		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
51J		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
51J		1188	59	88	0.11	12.10	0.18	0.02	<0.01	0.03	2.53	2.50	0.03	0.03	Balance
51J		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
51J	n	1186	116	68	0.93	100	<0.01	<0.01	<0.01	<0.01	20.95	20.95	<0.01	<0.01	Balance
61A	n	1199	59	770	0.93	100	<0.01	<0.01	<0.01	0.05	20.95	20.95	<0.01	<0.01	Balance
61A		1212	73	89.5	0.07	7.49	0.38	0.06	<0.01	0.08	1.57	1.51	0.40	0.36	Balance
61A	f	1219	116	4.3	0.27	28.91	0.46	1.67	0.02	1.51	6.06	6.05	2.05	1.06	Balance
61A		1206	74	88	0.09	9.64	0.39	0.04	<0.01	0.09	2.02	2.00	0.11	0.09	Balance
61A		1216	81	284	0.74	79.23	0.18	0.18	<0.01	0.08	16.50	16.56	0.05	0.04	Balance
61A	f	1200	102	7.8	0.16	17.13	0.52	0.86	0.10	1.00	3.59	3.48	3.03	2.52	Balance
61B		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
61B		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
61B		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
61B		1193	60	193.6	0.15	16.06	0.26	0.03	<0.01	0.05	3.36	3.15	0.02	0.02	Balance
61B		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
61B	f	1222	116	3.95	0.34	36.40	1.14	1.01	0.05	1.28	7.63	7.11	1.35	0.75	Balance
61C		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
61C		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

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
61C		1228	102	12.3	0.32	34.26	0.50	0.27	0.03	0.40	7.18	7.04	0.22	0.06	Balance
61C		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
61C		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
61C		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
51L	o		-	-	-	-	-	-	-	-	-	-	-	-	-
51L		-	-	-	-	-	-	-	-	-	-	-	-	-	-
51L		-	-	-	-	-	-	-	-	-	-	-	-	-	-
51L		-	-	-	-	-	-	-	-	-	-	-	-	-	-
51L		-	-	-	-	-	-	-	-	-	-	-	-	-	-
51L		-	-	-	-	-	-	-	-	-	-	-	-	-	-
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
26	p	1239	74	772	0.93	98.50	1.01	0.01	<0.01	0.05	20.64	21.30	0.02	0.02	Balance
26		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
26	n	1248	75	772	-	-	-	-	-	-	-	-	-	-	-
26	q	1244	-	-	-	-	-	-	-	-	-	-	-	-	-
26	q	1236	-	-	-	-	-	-	-	-	-	-	-	-	-
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
27	p	1250	59	771	0.88	94.2	0.60	0.04	<0.01	0.04	19.74	19.70	0.04	0.02	Balance
27	n	1262	82	771	0.93	99.2	<0.01	0.41	0.01	0.07	20.78	20.78	0.13	<0.01	Balance
27		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
27		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
27		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
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
29		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
29		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
29		1276	82	60.0	0.12	12.85	1.07	0.51	0.01	0.03	2.69	2.76	0.48	0.20	Balance
29		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
29		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
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
30		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
30		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
30		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
30		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
30		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
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

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
28		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
28		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
28		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
28		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
28		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
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
34		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
34		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
34		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
34		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
34		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
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
33		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
33		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
33		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
33		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
33		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
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
32		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
32	f	1313	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
32	r	1309	1 LEFT	-	-	-	-	-	-	-	-	-	-	-	N/A
32	r	1321	2 LEFT	-	-	-	-	-	-	-	-	-	-	-	N/A
32	r	1317	3 LEFT	-	-	-	-	-	-	-	-	-	-	-	N/A
36	s	1329	1 LEFT	778.0	0.93	99.10	0.84	<0.01	<0.01	0.04	20.90	20.90	0.02	0.02	N/A
36	s	1307	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
36	s	1308	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
36	s,t	1330	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
36	s	1323	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
36	s	1316	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
31		1325	1 LEFT	368.3 mm	0.92	98.5	0.43	0.04	<0.01	0.05	20.64	20.60	0.17	0.15	N/A
31		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
31		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
31		1335	2 RIGHT	253.0 mm	0.65	69.6	0.56	0.03	<0.01	0.04	14.58	14.55	0.16	0.14	N/A
31		1319	3 LEFT	9.6 mm	0.17	18.2	1.41	0.80	0.03	0.71	3.81	3.80	3.34	2.91	N/A
31		1320	3 RIGHT	230.8 mm	0.92	98.5	0.29	0.05	<0.01	0.06	20.64	20.63	0.14	0.11	N/A

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
41		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
41		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
41	u	1326	2 RIGHT	-	-	-	-	-	-	-	-	-	-	-	-
41		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
41	u	1332	3 LEFT	-	0.934	100.	-	-	-	-	-	-	-	-	-
41		1305	4 RIGHT	3.44	0.19	20.34	5.66	1.68	0.03	1.03	4.26	4.31	6.21	5.30	N/A
38		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
38		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
38		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
38		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
38		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
38		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
35		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
35		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
35		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
35		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
35		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
35		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
37		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
37		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
37		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
37		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
37		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
37		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
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
39		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
39		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
39		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
39		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
39		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
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
40		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
40	v	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
40		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
40		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

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
40	v	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
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
43		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
43		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
43		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
43		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
43		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
48		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
48		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
48		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
48		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
48		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
48		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
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
44		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
44		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
44		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
44		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
44		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
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
42		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
42		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
42		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
42	p	1377	2 RIGHT	-	-	-	-	-	-	-	-	-	-	-	-
42	p	1360	3 RIGHT	-	-	-	-	-	-	-	-	-	-	-	-
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
45		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
45		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
45	w	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
45		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
45	w	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
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
49		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
49		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
49		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

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
49		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
49		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
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
50	u	1391	1 LEFT	770.00	0.93	99.90	-	-	-	-	-	-	-	-	N/A
50		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
50		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
50		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
50		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
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
46		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
46		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
46		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
46		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
46		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
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
47		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
47		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
47		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
47		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
47		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
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
52		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
52		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
52		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
52		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
52		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
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
53		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
53		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
53		1409	2 LEFT	49.60	0.14	14.99	0.80	0.13	<0.01	0.05	3.14	3.06	0.14	0.07	N/A
53		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
53		1406	3 RIGHT	3.30	0.14	14.99	2.03	1.44	0.08	1.00	3.14	3.12	0.86	0.08	N/A
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
54		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
54		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

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
54		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
54		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
54		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
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
56		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
56		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
56		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
56		1421	3 LEFT	212.90	0.91	97.43	2.15	0.14	<0.01	0.06	20.41	20.48	0.07	0.00	N/A
56		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
55		1419	1 RIGHT	304.20	0.45	48.18	0.61	0.08	<0.01	0.03	10.00	9.90	0.09	0.05	N/A
55		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
55		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
55		1418	2 LEFT	119.50	0.57	61.03	0.98	0.06	<0.01	0.04	12.78	12.84	0.14	0.11	N/A
55		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
55		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
57		1431	1 RIGHT	212.10	0.06	6.42	0.11	0.04	<0.01	0.03	1.35	1.23	0.11	0.09	N/A
57		1422	1 LEFT	96.80	0.14	14.99	1.56	0.08	<0.01	0.03	3.14	3.06	0.08	0.04	N/A
57		1430	2 RIGHT	110.20	0.40	42.83	2.68	0.09	<0.01	0.04	8.97	8.95	0.10	0.05	N/A
57		1428	2 LEFT	58.00	0.16	17.13	1.42	0.15	<0.01	0.04	3.59	3.53	0.14	0.06	N/A
57		5032	3 LEFT	14.4	0.16	17.13	1.81	0.52	<0.01	0.24	3.59	3.63	0.30	0.02	N/A
57		1434	3 RIGHT	4.67	0.11	11.78	1.52	1.31	0.06	0.74	2.57	2.41	0.70	0.00	N/A
51		1438	1 RIGHT	205.20	0.12	12.85	0.50	0.05	<0.01	0.02	2.69	2.60	0.05	0.02	N/A
51	h	1446	1 LEFT	770.00	0.93	100.00	-	-	-	-	-	-	-	-	N/A
51		1443	2 RIGHT	87.00	0.12	12.85	0.87	0.08	<0.01	0.03	2.69	2.66	0.15	0.11	N/A
51		1439	2 LEFT	330.00	0.91	97.47	1.82	<0.01	<0.01	0.05	20.45	20.51	<0.01	<0.01	N/A
51		1444	3 LEFT	16.50	0.47	50.31	3.08	2.00	0.03	0.22	10.50	10.50	1.17	0.09	N/A
51		1442	3 RIGHT	712.10	0.92	98.50	1.29	<0.01	<0.01	0.04	20.60	20.58	<0.01	<0.01	N/A
58		1440	1 RIGHT	204.70	0.20	21.41	0.59	0.06	<0.01	0.02	4.49	4.34	0.09	0.06	N/A
58		1441	1 LEFT	775.30	0.93	99.57	1.09	<0.01	<0.01	0.05	20.86	20.64	0.03	0.03	N/A
58		1448	2 RIGHT	773.50	0.93	99.57	0.25	<0.01	<0.01	0.05	20.86	20.87	<0.01	<0.01	N/A
58		1449	2 LEFT	49.50	0.20	21.41	0.75	0.21	0.01	0.06	4.49	4.37	0.17	0.06	N/A
58		1447	3 LEFT	818.00	0.93	99.57	<0.01	<0.01	<0.01	0.06	20.86	20.92	<0.01	<0.01	N/A
58		1451	3 RIGHT	760.80	0.93	99.57	0.47	0.12	<0.01	0.05	20.86	20.50	0.06	<0.01	N/A
61		1454	1 RIGHT	209.20	0.05	5.35	0.87	0.04	<0.01	0.03	1.12	1.00	0.09	0.07	N/A
61	h	1450	1 LEFT	808.00	0.93	100.00	-	-	-	-	-	-	-	-	N/A

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
61		1455	2 RIGHT	96.20	0.17	18.20	0.59	0.10	<0.01	0.03	3.81	3.60	0.11	0.06	N/A
61		1456	2 LEFT	61.60	0.24	25.70	2.36	0.32	0.01	0.06	5.38	5.31	0.29	0.12	N/A
61		1460	3 LEFT	46.00	0.69	73.88	3.76	0.80	0.02	0.13	15.48	15.51	0.61	0.18	N/A
61	h	1458	3 RIGHT	806.00	0.92	98.50	-	-	-	-	-	-		-	N/A
60		1463	No 1 Right	207.2	0.09	9.64	0.83	<0.01	<0.01	<0.01	2.02	2.02	0.09	0.09	N/A
60		1462	No 1 Left	126.8	0.18	19.27	1.18	11.38	0.07	0.37	4.04	3.94	6.36	0.22	N/A
60		1453	No 2 Right	99.7	0.23	24.63	0.72	<0.01	<0.01	0.04	5.16	4.95	0.16	0.16	N/A
60	x	1464	No 2 Left	768.0	0.93	99.80	-	-	-	-	-	-	-	-	-
60		1459	No 3 Left	10.1	0.17	18.20	2.18	0.49	<0.01	0.19	3.81	3.79	0.59	0.33	N/A
60		1457	No 3 Right	167.5	0.86	92.08	2.09	0.24	<0.01	0.07	19.29	19.04	0.20	0.07	N/A
62		1469	No 1 Right	606.4	0.89	95.29	0.64	<0.01	<0.01	0.05	19.96	19.96	0.01	0.01	N/A
62		1468	No 1 Left	300.0	0.80	85.65	1.32	<0.01	<0.01	0.01	17.94	18.00	0.01	0.01	N/A
62		1465	No 2 Right	771.0	0.91	97.43	1.76	<0.01	<0.01	0.04	20.41	20.31	0.02	0.02	N/A
62		1476	No 2 Left	59.10	0.35	37.47	1.30	0.14	<0.01	0.03	7.85	7.82	0.12	0.04	N/A
62		1470	No 3 Left	105.44	0.80	85.65	3.47	0.12	<0.01	0.06	17.94	17.88	0.10	0.04	N/A
62		1466	No 3 Right	524.17	0.87	93.15	0.25	1.55	0.01	0.14	19.51	19.38	0.10	0.00	N/A
59		1477	No 1 Right	768.11	0.92	98.5	0.79	<0.01	<0.01	0.04	20.69	20.60	<0.01	<0.01	N/A
59		1471	No 1 Left	765.97	0.91	97.45	0.58	<0.01	<0.01	0.04	20.41	20.60	0.01	0.01	N/A
59		1473	No 2 Right	736.92	0.86	92.10	0.43	<0.01	<0.01	0.04	19.30	19.10	0.01	0.01	N/A
59		1478	No 2 Left	134.67	0.62	66.40	0.96	0.06	<0.01	0.04	13.91	13.70	0.07	0.04	N/A
59		1479	No 3 Left	557.49	0.90	96.40	0.20	<0.01	<0.01	0.04	20.19	20.27	<0.01	<0.01	N/A
59		1461	No 3 Right	17.78	0.65	69.65	0.94	0.43	0.01	0.14	14.58	14.64	0.29	0.06	N/A
65		1482	No 1 Right	186.3	0.10	10.71	0.59	0.04	<0.01	0.03	2.24	2.28	0.05	0.03	N/A
65		1484	No 1 Left	80.8	0.14	14.99	0.63	0.11	<0.01	0.05	3.14	3.21	0.09	0.03	N/A
65		1480	No 2 Right	82.7	0.19	20.34	0.82	0.11	<0.01	0.05	4.26	4.23	0.10	0.04	N/A
65		1483	No 2 Left	44.3	0.20	21.41	0.46	0.15	<0.01	0.09	4.49	4.51	0.13	0.05	N/A
65		1472	No 3 Left	10.16	0.16	17.13	0.96	6.05	0.11	0.42	3.59	3.60	3.77	0.50	N/A
65		1475	No 3 Right	4.76	0.36	38.54	2.57	2.38	0.07	0.73	8.07	7.96	1.98	0.70	N/A
64		1520	No 1 Right	606.4	0.81	86.72	0.81	0.04	<0.01	0.05	18.17	18.11	0.02	<0.01	N/A
64		1487	No 1 Left	82.88	0.14	14.99	0.66	0.11	<0.01	0.04	3.14	3.23	0.17	0.11	N/A
64		1503	No 2 Right	252.85	0.74	79.23	0.49	0.06	<0.01	0.06	16.60	16.46	0.05	0.02	N/A
64		1497	No 2 Left	748.30	0.92	98.50	0.76	0.03	<0.01	0.05	20.64	20.62	0.01	<0.01	N/A
64		1506	No 3 Left	226.97	0.92	98.50	0.60	0.05	<0.01	0.06	20.64	20.54	0.03	<0.01	N/A
64		1489	No 3 Right	16.30	0.74	79.23	0.74	0.44	0.02	0.13	16.60	16.61	0.44	0.20	N/A
68		1508	No 1 Right	191.20	0.08	8.56	0.54	0.06	<0.01	0.03	1.79	1.66	0.06	0.03	N/A

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
68	n	1492	No 1 Left	-	0.93	-	-	-	-	-	-	-	-	-	-
68		1512	No 2 Right	753.62	0.91	97.43	0.83	0.03	<0.01	0.05	20.41	20.55	0.01	<0.01	N/A
68		1500	No 2 Left	44.42	0.11	11.78	0.57	0.17	<0.01	0.08	2.47	2.45	0.13	0.04	N/A
68		1498	No 3 Left	747.46	0.92	98.50	0.55	0.03	<0.01	0.05	20.64	20.53	0.01	<0.01	N/A
68		1499	No 3 Right	95.13	0.90	96.36	0.87	0.17	<0.01	0.10	20.19	20.26	0.11	0.02	N/A
66		1517	No 1 Right	336.89	0.59	63.17	0.51	0.03	<0.01	0.04	13.23	13.27	0.04	0.02	N/A
66		1516	No 1 Left	276.14	0.73	78.16	0.67	0.11	<0.01	0.05	16.37	16.48	0.07	0.01	N/A
66		1507	No 2 Right	742.03	0.91	97.43	0.55	<0.01	<0.01	0.04	20.41	20.46	0.01	0.01	N/A
66		1519	No 2 Left	56.76	0.32	34.26	0.46	0.22	<0.01	0.08	7.18	7.09	0.15	0.03	N/A
66		1511	No 3 Left	45.34	0.75	80.30	1.32	0.25	<0.01	0.12	16.82	17.01	0.16	0.02	N/A
66		1513	No 3 Right	443.32	0.93	99.57	0.49	0.04	<0.01	0.05	20.86	20.58	0.02	<0.01	N/A
63		1509	No 1 Right	259.39	0.52	55.37	1.00	0.05	<0.01	0.06	11.60	11.41	0.05	0.02	N/A
63		1501	No 1 Left	90.46	0.23	24.20	1.03	0.02	<0.01	0.05	5.07	4.97	0.06	0.05	N/A
63		1518	No 2 Right	84.64	0.13	13.88	0.89	0.15	<0.01	0.07	2.91	2.77	0.17	0.09	N/A
63		1522	No 2 Left	200.23	0.51	54.99	1.24	21.67	0.39	0.67	11.52	11.39	11.90	0.20	N/A
63		1504	No 3 Left	14.96	0.54	58.19	1.79	0.66	0.01	0.22	12.19	12.04	0.43	0.08	N/A
63		1513	No 3 Right	30.61	0.86	91.63	2.95	0.88	0.01	0.18	19.20	19.11	0.56	0.09	N/A
67		1515	No 1 Right	192.13	0.07	7.49	0.62	0.02	<0.01	0.02	1.57	1.40	0.09	0.08	N/A
67		1521	No 1 Left	200.61	0.66	70.66	0.65	0.07	<0.01	0.06	14.80	14.63	0.06	0.02	N/A
67		1523	No 2 Right	178.92	0.60	64.24	0.44	0.09	<0.01	0.06	13.46	13.30	0.07	0.02	N/A
67		1526	No 2 Left	334.61	0.84	89.94	0.37	0.21	<0.01	0.06	18.84	19.04	0.08	<0.01	N/A
67		1527	No 3 Left	27.59	0.58	62.10	0.63	5.86	0.16	0.34	13.01	13.10	4.01	0.85	N/A
67		1525	No 3 Right	595.90	0.92	98.50	0.36	0.09	<0.01	0.06	20.64	20.84	0.01	<0.01	N/A
71		1013	No 1 Right	177.6	0.09	9.64	0.63	<0.01	<0.01	0.02	2.02	1.89	<0.01	<0.01	N/A
71		1010	No 1 Left	78.82	0.15	16.06	0.49	<0.01	<0.01	0.02	3.36	3.20	<0.01	<0.01	N/A
71		1014	No 2 Right	78.31	0.15	16.06	0.49	<0.01	<0.01	0.02	3.36	3.16	<0.01	<0.01	N/A
71		1011	No 2 Left	43.41	0.16	17.13	0.65	<0.01	<0.01	0.01	3.59	3.59	0.06	0.06	N/A
71		1012	No 3 Left	9.02	0.25	26.77	1.03	0.12	0.06	0.03	5.61	5.56	0.28	0.22	N/A
71		1015	No 3 Right	3.57	0.25	26.77	1.87	0.07	0.01	0.02	5.61	4.52	0.36	0.32	N/A
70		1019	No 1 Right	185.98	0.10	11.31	0.69	<0.01	<0.01	<0.01	2.37	2.37	0.07	0.07	N/A
70		1016	No 1 Left	80.36	0.15	16.09	0.85	<0.01	<0.01	0.01	3.37	2.94	0.10	0.10	N/A
70		1020	No 2 Right	73.70	0.09	9.74	1.19	<0.01	<0.01	<0.01	2.04	1.84	0.12	0.12	N/A
70		1017	No 2 Left	41.90	0.11	12.22	0.98	<0.01	<0.01	0.01	2.56	2.45	0.21	0.21	N/A
70		1018	No 3 Left	8.68	0.12	13.32	1.31	<0.01	0.01	0.01	2.79	2.62	0.40	0.40	N/A
70		1021	No 3 Right	3.18	0.06	6.78	7.87	<0.01	<0.01	0.02	1.42	1.42	1.20	1.20	N/A

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			
69		1025	No 1 Right	182.99	0.08	7.49	0.60	<0.01	<0.01	<0.01	1.57	1.48	0.06	0.06	N/A
69		1022	No 1 Left	76.92	0.09	9.64	0.65	<0.01	<0.01	<0.01	2.02	1.99	0.09	0.09	N/A
69		1026	No 2 Right	765.7	0.93	99.5	0.67	<0.01	<0.01	<0.04	20.86	20.88	<0.01	<0.01	N/A
69		1023	No 2 Left	42.82	0.13	13.92	0.74	<0.01	<0.01	<0.01	2.92	2.41	0.15	0.15	N/A
69		1024	No 3 Left	8.73	0.07	7.49	1.49	<0.01	<0.01	0.01	1.57	1.46	0.71	0.71	N/A
69		1027	No 3 Right	766.9	0.93	99.6	0.36	<0.01	<0.01	0.04	20.86	20.79	<0.01	<0.01	N/A
73		1031	No 1 Right	677.3	0.90	96.36	0.78	<0.01	<0.01	0.04	20.19	20.16	<0.01	<0.01	N/A
73		1028	No 1 Left	770	0.91	97.43	0.82	<0.01	<0.01	0.04	20.41	20.25	<0.01	<0.01	N/A
73		1032	No 2 Right	770	0.92	98.50	0.95	<0.01	<0.01	0.04	20.64	20.80	<0.01	<0.01	N/A
73		1029	No 2 Left	770	0.93	99.57	0.95	<0.01	<0.01	0.05	20.86	20.86	<0.01	<0.01	N/A
73		1030	No 3 Left	770	0.93	99.57	0.01	<0.01	<0.01	0.06	20.86	20.89	<0.01	<0.01	N/A
73		1033	No 3 Right	556.3	0.89	95.29	0.57	<0.01	<0.01	0.04	19.96	19.97	<0.01	<0.01	N/A
74		1045	No 1 Right	185.06	0.12	12.85	0.42	<0.01	<0.01	0.01	2.69	2.66	0.03	0.03	N/A
74		1042	No 1 Left	76.92	0.14	14.99	0.35	<0.01	<0.01	0.01	3.14	3.14	0.05	0.05	N/A
74		1046	No 2 right	79.44	0.19	20.34	0.23	<0.01	<0.01	0.01	4.26	4.26	0.03	0.03	N/A
74		1043	No 2 Left	43.39	0.20	21.41	0.38	<0.01	<0.01	0.01	4.49	4.43	0.08	0.08	N/A
74		1044	No 3 Left	9.70	0.19	20.34	0.87	<0.01	<0.01	0.02	4.26	4.21	0.17	0.17	N/A
74		1047	No 3 Right	3.40	0.12	12.85	3.00	<0.01	<0.01	0.02	2.69	2.66	0.29	0.29	N/A
72		1054	No 1 Right	195.05	0.07	7.49	0.54	<0.01	<0.01	0.01	1.57	1.47	0.06	0.06	N/A
72		1048	No 1 Left	81.62	0.10	10.71	0.54	<0.01	<0.01	0.01	2.24	2.18	0.05	0.05	N/A
72		1056	No 2 Right	83.92	0.18	19.27	0.18	<0.01	<0.01	0.01	4.04	3.86	0.06	0.06	N/A
72		1049	No 2 Left	45.12	0.11	11.77	0.74	<0.01	<0.01	0.01	2.47	2.47	0.10	0.10	N/A
72		1052	No 3 Left	8.98	0.08	8.57	1.52	<0.01	<0.01	0.01	1.79	1.82	0.22	0.22	N/A
72		1057	No 3 Right	3.32	0.04	4.28	2.43	<0.01	<0.01	0.01	0.90	0.79	0.92	0.92	N/A

See last page for notes.

AFT FUSELAGE GAS SAMPLE ANALYSIS

STS-No.	Notes	Sample bottle serial no	Time of sample, seconds	Constituents, percent							Oxygen from air		H2	Corrected H2 a	N2
				Pressure, torr	Argon	Air From Argon	He	CO	CH4	CO2	Expected	Measured			

a = Corrected for pyrotechnic ingestion.
b = Sample bottles leaked between time sampled at KSC and sampling at JSC.
c = Altitude in feet.
d = Pyrotechnic trigger device failure caused the loss of three samples.
e = Flew one assembly only.
f = Traces of Benzene and Toluene.
g = Ammonia = < 0.01 percent in all bottles.
h = Bottle leaked through valve, not closed.
i = Pyrotechnic valve in open position.
j = Leak at thermocouple gauge
k = Broken thermocouple base pressure tested - leaked through thermocouple.
l = 1,1,1 Trichlorethane and Xylene contaminate found. Approximate concentration = 0.01 percent.
m = Data not available.
n = Spool valve open to atmosphere.
o = Vehicle lost at 73 seconds.
p = The helium and hydrogen levels indicate a small leak to atmospheric pressure between landing and analysis.
q = Pyrotechnics did not ignite.
r = assembly failed to operate during ascent.
s = Laboratory thinks bottles had slow leak after landing.
t = No. 2 right bottle was best.
u = Leak through spool valve. - not completely closed
v = Leaked Sample
w = Partial Leakers
x = Spool valve leaded through sample intake

See last page for notes.

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days In Proc. HB 1	Moved to OPF Cal. Days In Proc. HB 2	Moved to VAB Cal. Days In Proc. HB 1	Moved to VAB Cal. Days In Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
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	102		04/29/81 103			08/10/81 21	08/26/81			08/31/81 74		11/12/81		2,755
3	3	102		11/26/81 70			02/03/82 14	02/12/82			02/16/82 34		03/22/82		1,814
4	4	102		04/07/82 42			05/18/82 7	05/25/82			05/26/82 33		06/27/82		1,318
5	5	102		07/16/82 57			09/09/82 11	09/17/82			09/21/82 52		11/11/82		1,647

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days In Proc. HB 1	Moved to OPF Cal. Days In Proc. HB 2	Moved to VAB Cal. Days In Proc. HB 1	Moved to VAB Cal. Days In Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
6	6	099			07/06/82 141		11/22/82 7		11/29/82		11/30/82 126		04/04/83		4,556
7	7	099		04/17/83 34			05/21/83 5	05/26/83			05/26/83 24		06/18/83		1,143
8	8	099		06/30/83 27			07/27/83 6		07/30/83		08/02/83 29		08/30/83		998
9	9	102			07/02/83 81		09/23/83 5	09/28/83			09/28/83 18			Recycled due to SRB nozzle problem.	3,116
9	9	102			10/19/83 14		11/03/83 3	11/07/83			11/08/83 21		11/28/83	Powered down period: 6 mos. *	

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days In Proc. HB 1	Moved to OPF Cal. Days In Proc. HB 2	Moved to VAB Cal. Days In Proc. HB 1	Moved to VAB Cal. Days In Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
10	41B	099		09/11/83 67			01/06/84 6		01/12/84		01/12/84 22		02/03/84	Power down period: 9 mos. *	1,439
11	41C	099			02/11/84 32		03/14/84 4	03/18/84			03/18/84 19		04/06/84		1,001
12	41D	103		01/10/84 124 07/17/84 56	11/10/83 29	12/09/83a 32	05/12/84 6 07/14/84 3		05/12/84		05/19/84 56			Stored in VAB HB2 12/19/83 to 1/10/84. First launch attempt 6/26 was aborted. Orbiter moved back to VAB for destack.	2,330
12	41D	103		07/17/84 16			08/01/84 7		08/01/84		08/09/84 20		08/30/84	Orbiter destack and returned to OPF HB1 for remanifesting of payloads.	
13	41G	099	*		04/18/84 69	09/08/84 5		09/08/84			09/13/84 23		10/05/84	Power down period: 10 weeks	1,440

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days In Proc. HB 1	Moved to OPF Cal. Days In Proc. HB 2	Moved to VAB Cal. Days In Proc. HB 1	Moved to VAB Cal. Days In Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
14	51A	103			09/11/84 37		10/18/84 5		10/19/84		10/23/84 17		11/08/84		1,042
15	51C	103			11/16/84 35	12/21/84 14		12/21/84			01/05/85 20		01/24/85		999
16	51D	103			01/27/85 46		03/23/85 13	03/23/85			03/28/85 16		04/12/85	Remanifested 03/04/85 for Syncom/Telesat. LDEF retrieval mission was deleted. Manifest changes resulted from TDRSS-D problems.	990
17	51E	099		STS 51-E 10/12/84 120		STS 51-E 02/10/85 5 03/05/85 9			STS 51-E 02/10/85		STS 51-E 02/15/85 17		No launch	STS 51-E cancelled 03/03/85 due to problems with payload, TDRSS-D. Payloads removed from Orbiter on 3/04/85, Shuttle returned to VAB for destacking	2.532
17	51B	099		STS 51-B 03/14/85 33		STS 51-B 04/10/85 5			STS 51-B 04/10/85		STS 51-B 04/15/85 15		STS 51-B 04/29/85	Remanifested as STS 51-B, Spacelab 3 primary payload.	

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days in Proc. HB 1	Moved to OPF Cal. Days in Proc. HB 2	Moved to VAB Cal. Days in Proc. HB 1	Moved to VAB Cal. Days in Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
18	51G	103			04/19/85 38	05/28/85 7		05/29/85			06/04/85 14		06/17/85		927
19	51F	099		05/11/85 43			06/24/85 5		06/24/85		06/29/85 31		07/29/85	First launch attempt on 07/12/85 was aborted.	1,482
20	51I	103			06/29/85 30	07/30/85 7		07/30/85			08/06/85 22		08/27/85	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 35		10/03/85	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 OPF HB2, (storage), 5/30 to 8/12 OPF HB1.	2,590
22	61A	099		08/11/85 40		10/12/85 4		10/12/85			10/16/85 15		10/30/85		1,092

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days In Proc. HB 1	Moved to OPF Cal. Days In Proc. HB 2	Moved to VAB Cal. Days In Proc. HB 1	Moved to VAB Cal. Days In Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days In Proc A	Moved to PAD Cal. days In Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
23	61B	104		10/12/85 27			11/08/85 4		11/08/85		11/12/85 15		11/26/85		854
24	61C	102			07/18/85 Note 1 09/26/85 108	11/22/85 10		11/22/85			12/02/85 42		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 35			12/17/85 5		12/17/85			12/22/85 38	01/28/86		1,213
26	26	103	a b c	9/8/85 —— 9/8/87 —— 10/2/87 263		—— —— —— —— 06/21/88 13			—— —— —— —— 06/21/88			—— —— —— —— 07/04/88 88	—— —— —— —— 09/29/88	—— —— —— —— Successful launch on 09/29/88 at 273:15:37:00 G.m.t.	5,900
27	27	104			02/22/86 243		10/22/88 10	10/24/88				11/02/88 31	12/02/88	Successful launch on 12/2/88 at 337:14:30:34 G.m.t.	1,853

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days in Proc. HB 1	Moved to OPF Cal. Days in Proc. HB 2	Moved to VAB Cal. Days in Proc. HB 1	Moved to VAB Cal. Days in Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
28	29	103		10/12/88 106		01/20/89 11			01/29/89			02/04/89 39	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 11	03/11/89				03/22/89 44	05/04/89	Successful launch on May 4, 1989 at 124:18:46:59 G.m.t.	1,725
30	28	102	d		09/08/88 208	07/03/89 12			07/04/89			07/15/89 25	08/08/89	Successful launch on August 8,1989, at 220:12:37:00 G.m.t.	
31	34	104	d		05/16/89 97	08/21/89 8		08/22/89				08/29/89 51	10/18/89	Successful launch on October 18, 1989 at 291:16:53:40 G.m.t.	
32	33	103	d	03/25/89 134			10/05/89 21		10/06/89			10/27/89 27	11/22/89	Successful launch on 11/22/89, at 327:00:23:30 G.m.t.	

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days in Proc. HB 1	Moved to OPF Cal. Days in Proc. HB 2	Moved to VAB Cal. Days in Proc. HB 1	Moved to VAB Cal. Days in Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
33	32	102	d	08/22/89 87		11/16/89 11				11/17/89	11/28/89 43		01/09/90	Successful launch on January 9, 1990 at 009:12:35:00 G.m.t.	
34	36	104	d	10/30/89 81		01/19/90 6		01/19/90			01/25/90 35		02/28/90	Successful launch on February 28, 1990 at 059:07:50:22 G.m.t.	
35	31	103	d		12/05/89 88	03/05/90 11			03/05/90			03/16/90 40	04/24/90	Successful launch on April 24, 1990 at 114:12:33:51 G.m.t.	
36	41	103	d	05/08/90 111			08/27/90 9		08/27/90			09/04/90 32	10/06/90	Successful launch on October 6, 1990, at 279:11:47:15 G.m.t. (7:47 a.m. e.d.t.)	
37	38	104	d e		03/14/90 87 08/14/90 49	06/08/90 9 10/13/90 7		—— —— 10/14/90	06/08/90		06/17/90 52 10/23/90 34		—— —— 11/15/90	Successful launch on Nov. 15, 1990, at 319:23:48:15 G.m.t. (6:48 p.m. e.s.t.)	

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days in Proc. HB 1	Moved to OPF Cal. Days in Proc. HB 2	Moved to VAB Cal. Days in Proc. HB 1	Moved to VAB Cal. Days in Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
38	35	102	d,e f	01/27/90 79	------ ------ 06/15/90 48		04/16/90 6 08/02/90 3 10/09/90 7			04/16/90 ------ 08/09/90 ------ 10/14/90		04/22/90 60 08/16/90 50	------ ------ ------ ------ 12/02/90	Successful launch on Dec. 2, 1990, at 336:06:49:00 G.m.t. (1:49 a.m. e.s.t.)	
39	37	104			11/20/90 108		03/08/91 6	03/08/91				03/14/91 22	04/05/91	Successful launch on April 5, 1991 at 095:14:22:45 (09:22 e.s.t.)	1238
40	39	103	g	---------- 10/17/90	---------- 03/14/91 193	02/09/91 03/07/91 03/25/91 18			---------- 02/09/91 03/26/91		---------- 02/15/91 48		------ 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	h	02/09/91 75			04/26/91 6			04/26/91		05/01/91 35	06/05/91	Successful launch on June 5, 1991 at 156:13:24:52 (09:24:52 e.d.t.)	2053:26
42	43	104			04/19/91 61	06/19/91 6		06/19/91			06/25/91 39		08/02/91	Successful launch on August 2, 1991, at 214:15:02 G.m.t. (11:02 e.d.t.)	1442

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days in Proc. HB 1	Moved to OPF Cal. Days in Proc. HB 2	Moved to VAB Cal. Days in Proc. HB 1	Moved to VAB Cal. Days in Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
43	48	103		05/07/91 80		07/25/91 11				08/02/91	08/12/91 32		09/12/91	Successful launch on September 12, 1991 255:23:11:04 G.m.t. (1911 c.d.t.)	1502
44	44	104			08/11/91 68	10/18/91 5		10/19/91			10/23/91 32		11/24/91	Successful launch on November 24, 1991, at 328:23:44 G.m.t.	1609
45	42	103		Bay 3 09/27/91 77		12/12/91 5				12/12/91	12/19/91 23		01/22/92	Successful launch on January 22, 1992, at 22:14:52:33 G.m.t.	1232
46	45	104	i		12/09/91 55		02/13/92 7	02/13/92			02/19/92 34		03/24/92	Successful launch on March 24, 1992, at 84:13:13:39.991 G.m.t.	1316
47	49	105	j	07/25/91 225		03/07/92			03/07/92			03/13/92 56	05/07/92	Successful launch on May 7, 1992, at 128:23:40:00.019 G.m.t.	2940

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days in Proc. HB 1	Moved to OPF Cal. Days in Proc. HB 2	Moved to VAB Cal. Days in Proc. HB 1	Moved to VAB Cal. Days in Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
48	50	102		Bay 3 02/10/92 109			05/29/92 7			05/29/92	06/03/92 23		06/25/92	Successful launch June 25, 1992, at 177:16:12:22 G.m.t.	1897
49	46	104		04/02/92 63		06/04/92 6		06/05/92				06/11/92 51	07/31/92	Successful launch July 31, 1992, at 213:13:56:48 G.m.t.	1279
50	47	105		Bay 3 05/31/92 78			08/17/92 8		08/20/92			08/25/92 19	09/12/92	Successful launch Sept. 12, 1992, at 256:14:23:00 G.m.t.	1136
51	52	102		07/09/92 73		09/20/92 5				09/20/92		09/26/92 27	10/22/92	Successful launch Oct. 22, 1992, at 296:17:09:39 G.m.t.	1058
52	53	103	d	Bay 3 02/17/92 251		08/08/92 8	11/03/92 5	11/03/92			11/08/92 25		12/02/92	Successful launch on December 2, 1992, at 337:13:23:59.993 G.m.t.	

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days in Proc. HB 1	Moved to OPF Cal. Days in Proc. HB 2	Moved to VAB Cal. Days in Proc. HB 1	Moved to VAB Cal. Days in Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
53	54	105	d	09/20/92 63		11/23/92 10		11/23/92				12/03/92 42	01/13/93	Successful launch on January 13, 1993, at 013:13:59:29.989 G.m.t.	
54	56	103		Bay 3 12/19/92 74			03/02/93 12	03/03/93				03/15/93 24	04/08/93	Successful launch on April 8, 1993, at 098:05:28:59.986 G.m.t.	1258
55	55	102	d	11/01/92 93			02/02/93 5			02/02/93	02/07/93 44 03/23/93 35		04/26/93	On-Pad Abort on March 22, 1993. Successful launch on April 26, 1993, at 116:14:50:00.017 G.m.t.	2079
56	57	105	d	01/20/93 63		03/24/93 34			03/25/93			04/28/93 55	06/21/93	Launch on 06/20/93 scrubbed (weather). Successful launch on 06/21/93 at 172:13:07:21.989 G.m.t.	
57	51	103		Bay 3 04/17/93 61		06/18/93 8				06/18/93		06/26/93 79	09/12/93	Launch on 07/17/93 scrubbed. Launch on 07/24/93 scrubbed. Launch of 08/12/93 aborted. Successful launch on 09/12/93 at 255:11:49:55 G.m.t.	1869

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days In Proc. HB 1	Moved to OPF Cal. Days In Proc. HB 2	Moved to VAB Cal. Days In Proc. HB 1	Moved to VAB Cal. Days In Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days In Proc A	Moved to PAD Cal. days In Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
58	58	102			05/14/93 89		08/12/93 36	08/12/93				09/17/93 32	10/18/93	Launch on 10/14/93 scrubbed (Range safety problem). Launch on 10/15/93 scrubbed (S-band). Successful launch on 10/18/93 at 291:14:53:10.009 G.m.t.	1504
59	61	105		07/01/93 111		10/21/93 7			10/21/93			10/28/93 36	12/02/93	Launch on 12/01/93 scrubbed (Weather) Successful launch on 12/02/93 at 336:09:26:59.983 G.m.t.	1610
60	60	103		Bay 3 09/22/93 105			01/05/94			01/05/94 5	01/10/94 25		02/03/94	Successful launch on 02/03/94 at 034:12:10:00.000 G.m.t.	Bus A 1282 Bus B 1307 Bus C 1306
61	62	102			11/09/93 86	02/03/94		02/03/94			02/10/94 23		03/04/94	Launch delay of 24 hours on 03/03/94. Successful launch on 03/04/94 at 063:13:53:00.009 G.m.t.	1097
62	59	105		12/13/93 91			03/14/94		03/14/94 5		03/19/94 22		04/09/94	Launch on 04/08/94 scrubbed (Weather) Launch on 04/09/94 at 099:11:05:00.020 G.m.t.	1143

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days In Proc. HB 1	Moved to OPF Cal. Days In Proc. HB 2	Moved to VAB Cal. Days In Proc. HB 1	Moved to VAB Cal. Days In Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days In Proc A	Moved to PAD Cal. days In Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
63	65	102			03/18/94 82	06/08/94				06/08/94 6	06/14/94 24		07/08/94	Launch on 07/08/94 at 189:16:43:00.013 G.m.t.	1030
64	64	103		Bay 3 02/11/94 103	06/08/94 63	08/11/94			08/11/94 8			08/18/94 22	09/09/94	Launch delay of 1 hr 52 min 55 sec. Launch 09/09/94 at 252:22:22:54.982 G.m.t.	1617
65	68	105		05/03/94 79		08/24/94 20	07/21/94	07/21/94 6			07/27/94 23 08/24/94 18		09/30/94	Launch scrubbed at 230:10:53:58.157 G.m.t. on 08/18/94. Launch on 09/30/94 at 273:11:16:00.011 G.m.t.	1489
66	66	104		Bay 3 05/30/94 126			10/04/94			10/04/94 6	10/10/94 25		11/03/94	Launch on 11/03/94 at 307:16:59:43.004 G.m.t. after 3 min 43 sec hold . Landing at DFRC.	2290
67	63	103			09/28/94 99	01/04/95			01/05/95 5			01/10/95 25	02/03/95	Launch delayed 24 hrs because of IMU failure. Launch on 02/03/95 at 034:05:22:03.994 G.m.t.	1237

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

	Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days in Proc. HB 1	Moved to OPF Cal. Days in Proc. HB 2	Moved to VAB Cal. Days in Proc. HB 1	Moved to VAB Cal. Days in Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
I	68	67	105		10/21/94 108			02/03/95	02/03/95 5			02/08/95 23		03/02/95	Launch on 03/02/95 at 061:06:38:12.989 G.m.t. after a delay of 1 min 13 sec to resolve FES heater condition. First 16-day mission.	1171
I	69	71	104		OPF 3 11/23/94 148		4/19/95				04/20/95 6	04/26/95 63		06/27/95	Launch on 06/27/95 at 178:19:32:18.988 G.m.t. on the third launch attempt. First Shuttle/Mir docking mission.	3888
I	70	70	103			02/11/95 80		05/03/95 06/08/95 11			05/03/95 8		05/11/95 06/19/95 28	07/13/95	Launch on 07/13/95 at 194:13:41:55.020 G.m.t. after a delay of 55 seconds at T-31 seconds prior to launch.	1426
I	71	69	105	k	03/28/95 92		6/27/95 08/02/95 6				06/28/95 8	07/06/95 26 08/08/95 31		09/07/95	SRB repair changed launch from 08/03/95 to 08/31/95. Fuel cell 2 replacement slipped launch one week to 09/07/95. Launch on 09/07/95 at 250:15:08:59/995 G.m.t.	1633
I	72	73	102	k	Bay 3 04/21/95 121		08/21/95				08/21/95 7		08/28/95 54	10/20/95	Launch on 10/20.95 at 293:13:53:00.013 G.m.t. after 8 launch attempts, scrubs, or reschedulings of the launch.	1883

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
I = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

KSC FACILITIES AND PROCESSING DATES

Miss Seq. No.	STS-No.	Orb. OV-	Notes	Moved to OPF Cal. Days in Proc. HB 1	Moved to OPF Cal. Days in Proc. HB 2	Moved to VAB Cal. Days in Proc. HB 1	Moved to VAB Cal. Days in Proc. HB 3	Stacked on MLP 1	Stacked on MLP 2	Stacked on MLP 3	Moved to PAD Cal. days in Proc A	Moved to PAD Cal. days in Proc B	Actual launch date	Remarks	Orb. on gnd pwr, hrs.
73	74	104	k	07/07/95 86		10/03/95			10/03/95 9		10/12/95 32		11/12/95	Launch on 11/12/95 at 316:12:30:43.013 G.m.t. after 1 weather scrub.	1274

* = Power down period not included in calendar days.
a = Storage after STS 51-L
b = First Power Up
c = Cut Off Start
d = Orbiter ground power-on time not available for these missions.
e = Recycle due to hydrogen leaks
f = Recycle due to weather
g = Returned to OPF to replace ET door hinges (cracks)
h = Pre-Palmdale work (67 working days plus 1 holiday) not included in total.
i = Best OPF flow for 1991 since STS-51L.
j = First flight of OV-105.
k = Hurricane delay - 2 days

SOLID ROCKET BOOSTERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	SRB S/N	SRB Position Nomen	Ignition Weight, lb	Seperation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb(a)	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
1	1	102		A07 A08	1ALH 1ARH	1295940 1298160	182022 182738	1105970 1107563	2813700 2803200	131.826 131.828	STD STD	STD STD	
2	2	102		A09 A10	2ALH 2ARH	1296747 1296782	181590 181814	1107967 1107951	2831300 2812200	130.047 130.046	STD STD	STD STD	
3	3	102		A11 A12	3ALH 3ARH	1296697 1296915	182537 182225	1106118 1106600	2889400 2887000	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 4ARH	1298213 1298253	182937 182651	1107102 1108784	2824000 2820000	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 5ARH	1298013 1298506	183299 183906	1106744 1107663	2876700 2873300	129.206 129.207	STD STD	STD STD	
6	6	099		A17 A18	L6ALH L6ARH	1295519 1296328	179315 179621	1108215 1108727	2872600 2836440	129.486 129.487	STD STD	LTWT LTWT	
7	7	099		A51 A52	L7ALH L7BRH	1295752 1294403	178177 177930	1109552 1108527	2900300 2900800	126.323 126.323	STD STD	LTWT LTWT	
8	8	099		A53 A54	8ALH 8BRH	1297016 1297509	179183 179050	1110544 1111248	3102600 3091100	124.41 124.41	HPM HPM	STD STD	
9	9	102		A55 A60	9ALH 9BRH	1298366 1297983	182763 182365	1107609 1107621	3037030 3062000	126.326 126.326	HPM HPM	STD STD	
10	41B	099		A57 A58	M10ALH M10BRH	1295569 1296187	180675 180729	1107385 1107483	3054700 3074600	128.01 128.01	HPM HPM	MWC MWC	Each SRB impacted water with one chute out, velocities at impact of 105 to 110 fps.

a = At 60 deg F

b = Vehicle destroyed at approximately 73 seconds

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

SOLID ROCKET BOOSTERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	SRB S/N	SRB Position Nomen	Ignition Weight, lb	Seperation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb(a)	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
11	41C	099		BI-012 BI-012	M11ALH M11BRH	1295903 1296386	179723 179600	1108408 1108831	3108200 3108200	125.56 125.56	HPM HPM	MWC MWC	One main chute on RH SRB failed to inflate.
12	41D	103		BI-013 BI-013	L13ALH L13BRH	1296101 1296244	178516 180678	1110396 1110178	3096400 3082600	124.59 124.59	HPM HPM	LWC LWC	
13	41G	099		A63 A64	L12ALH L12BRH	1296572 1296481	178688 179182	1110046 1109342	3154000 3112000	124.2 124.144	HPM HPM	LWC LWC	Small main chutes on both SRB's. 100 gallons water in LH fwd skirt after recovery.
14	51A	103		A65 A66	L14 ALH L14 BRH	1299609 1299631	181984 181506	1109692 1110640	3092000 3110000	125.769 125.769	HPM HPM	LWC LWC	Large main chutes on both SRBs.
15	51C	103		BI-015 BI-015	L15ALH L15BRH	1294714 1295660	179014 178574	1108850 1109157	3088000 3084000	127.85 127.85	HPM HPM	LWC LWC	Small chutes on both SRBs.
16	51D	103		BI-018 BI-018	L17ALH L17BRH	1297460 1296665	179079 179720	1109976 1109194	3048000 3068000	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 BI-016	L16ALH L16BRH	1296246 1296969	179890 179979	1108525 1109242	3094000 3077000	127.403 127.403	HPM HPM	LWC LWC	
18	51G	103		BI-019 BI-019	M18ALH M18BRH	1297968 1298704	182237 182379	1108553 1109897	3054000 3068000	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 BI-017	M19ALH M19BRH	1300211 1300031	182568 182521	1109705 1109573	3102000 3090000	125.1 125.1	HPM HPM	MWC MWC	Large main chutes, 136 in dia., one RHSRB chute failed to deploy.
20	51I	103		BI-020 BI-020	L20ALH L20BRH	1297697 1298536	180146 180136	1109802 1110451	3172000 3158000	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.

a = At 60 deg F
b = Vehicle destroyed at approximately 73 seconds

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

SOLID ROCKET BOOSTERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	SRB S/N	SRB Position Nomen	Ignition Weight, lb	Seperation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb(a)	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
21	51J	104		BI-021 BI-021	L21LH L21RH	1298230 1299053	180647 180761	1109788 1110152	3185000 3144000	124.6 124.6	HPM HPM	LWC LWC	
22	61A	099		BI-022 BI-022	L22ALH L22BRH	1298021 1297886	180712 180698	1109426 1109226	3110000 3100000	124.9 124.9	HP HP	LWC LWC	Damage to main chutes was light. Impact velocity estimated at 75 fps.
23	61B	104		BI-023 BI-023	L23ALH L23BRH	1296806 1296018	180172 180584	1108582 1107516	3129000 3146000	123.6 123.6	HP HP	LWC LWC	Damage to main chutes was light. Recovery operations were not started until daylight the next day.
24	61C	102		BI-024 BI-024	L24ALH L24BRH	1295611 1295702	180243 180300	1107463 1107565	3058000 3037000	128.397 128.397	HP HP	LWC LWC	
25	51L	099	b	BI-026 BI-026	L25ALH L25BRH	1297828 1297849					HP HP	LWC LWC	
26	26	103		BI-029 BI-029	360L001A 360L001B	1301513.3 1301427.9	188342.7 188407.1	1106197 1106045	3060000 3060000	124.806 124.846	RSRM RSRM	LWC Redesign	Ribbon Tbar in RH SRB Main Parachute #3 From Ribbon 131 to Ribbon 148. (IFA # STS-26-B-7)
27	27	104		BI-030 BI-030	360L002A 360L002B	1302581 1301489.9	188905.1 188596.9	1106653 1105920	3060000 3060000	126.3 126.3	RSRM RSRM	LWC Redesign	IFA STS-27-B-2, Right SRB nose cap MSA-1 material/debris associated with damage to Orbiter tiles.
28	29	103		BI-031 BI-031	360L003A 360L003B	1300253.6 1300916.8	189207.4 189029.6	1104157 1104804	3040000 3050000	126.04 126.08	RSRM RSRM	LWC Redesign	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 BI-027	360Q004A 360H004B	1300246.9 1300880.5	187239.9 188167.9	1106021 1105784	3060000 3070000	125.12 125.16	RSRM RSRM	LWC Redesign	No. 2 left SRB main parachute (Ser. No. 8045) collapsed shortly after inflation. (IFA STS-30-B-1)
30	28	102		BI-028 BI-028	360H005A 360H005B	1301088.4 1300644	187739.4 187872.8	1106380 1105771	3090000 3060000	124.28 124.32	RSRM RSRM	LWC Redesign	IFA STS-28-B-1 - During recovery operations, retrieval ship personnel reported that an aeroheat shield door was missing from one BSM (located in the lower right position of the BSM cluster) on the left SRB frustum.

a = At 60 deg F

b = Vehicle destroyed at approximately 73 seconds

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

SOLID ROCKET BOOSTERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	SRB S/N	SRB Position Nomen	Ignition Weight, lb	Seperation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb(a)	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
31	34	104		BI-032	360L006A	1300612.6	186802	1108943	3060000	124.88	RSRM	LWC	IFA STS-34-B-3 - The reefing line cutter (located at gore 60) on the left SRB drogue parachute failed to actuate.
				BI-032	360L006B	1300164.6	187440.7	1105654	3070000	124.92	RSRM	Redesign	
32	33	103		BI-034	360L007A	1299924.3	187836.8	1105634	3030000	126.75	RSRM	LWC	
				BI-034	360L007B	1299918.9	188802.9	1105629	3050000	126.79	RSRM	Redesign	
33	32	102		BI-035	360L008A	1299175	187026	1105393	3090000	125.12	RSRM	LWC	
				BI-035	360L008B	1299405.4	187300.5	1105355	3100000	125.16	RSRM	Redesign	
34	36	104		BI-036	360L009A	1299250.5	187304.2	1105247	3070000	125.8	RSRM	LWC	IFA 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).
				BI-036	360L009B	1299094.6	187502.8	1104854	3060000	125.84	RSRM	Redesign	
35	31	103		BI-037	360Q010A	1300240.5	187649.3	1105792	3070000	125.76	RSRM	LWC	
				BI-037	360W010A	1300213.9	188019.9	1105479	3070000	125.8	RSRM	Redesign	
36	41	103		BI-040	360Q013A	1301371.5	188361.8	1106358	3060000	124.12	RSRM	LWC	
				BI-040	360Q013B	1301388	188407.8	1106404	3060000	124.16	RSRM	Redesign	
37	38	104		BI-039	360W012A	1301957.3	188148.9	1107535	3100000	123.84	RSRM	LWC	
				BI-039	360W012B	1301065.5	188044.2	1106533	3060000	123.84	RSRM	Redesign	
38	35	102		BI-038	360W011A	1300088.1	187519.8	1106120	3050000	125.76	RSRM	LWC	
				BI-038	360W011B	1300123.8	187616.7	1106020	3060000	125.76	RSRM	Redesign	
39	37	104		BI-042	360L014A	1300130.4	187532.5	1106148	3070000	125.04	RSRM	LWC	
				BI-042	360L014B	1299254.1	187020.6	1105628	3060000	125.04	RSRM	Redesign	
40	39	103		BI-043	360L015A	1299733.3	187310.3	1105906	3090000	124.72	RSRM	LWC	
				BI-043	360L015B	1301484.6	187425.7	1107422	3090000	124.72	RSRM	Redesign	

a = At 60 deg F

b = Vehicle destroyed at approximately 73 seconds

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

SOLID ROCKET BOOSTERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	SRB S/N	SRB Position Nomen	Ignition Weight, lb	Seperation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb(a)	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
41	40	102		BI-044	360W016A	1301303	188417.1	1106653	3010000	124.84	RSRM	LWC	
				BI-044	360W016B	1301722.5	187698	1106785	3030000	124.84	RSRM	Redesign	
42	43	104		BI-045	360L017A	1299661.1	187674.2	1105687	3030000	125.56	RSRM	LWC	Left SRB parachute 1 was entangled, and during retrieval was cut loose and sank.
				BI-045	360L017B	1299219.5	188188.2	1105064	3010000	125.56	RSRM	Redesign	
43	48	103		BI-046	360L018A	1298958.6	188010.5	1104717	3060000	125.48	RSRM	LWC	
				BI-046	360L018B	1298580.3	187914.7	1104372	3070000	125.48	RSRM	Redesign	
44	44	104		BI-047	360L019A	1298355.8	187448.7	1104705	3030000	126.56	RSRM	LWC	
				BI-047	360W019B	1300085.9	188305.5	1105506	3010000	126.56	RSRM	Redesign	
45	42	103		BI-048	360L020A	1299483.5	188158.7	1105779	3020000	127.84	RSRM	LWC	
				BI-048	360Q020B	1298658.3	188234.6	1104672	3020000	127.84	RSRM	Redesign	
46	45	104		BI-049	360L021A	1298567.1	187440.9	1104893	2990000	128.12	RSRM	LWC	
				BI-049	360W021B	1298967	187791.3	1105018	2980000	128.12	RSRM	Redesign	
47	49	105		BI-050	360L022A	1299194.5	187572.1	1105396	3010000	127.24	RSRM	LWC	
				BI-050	360L022B	1298790	187154.2	1105364	3010000	127.24	RSRM	Redesign	
48	50	102		BI-051	360L024A	1298412.6	187826.3	1103799	3010000	126.32	RSRM	LWC	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.
				BI-051	360M024B	1299050.4	188868.3	1103835	3030000	126.32	RSRM	Redesign	
49	46	104		BI-052	360W025A	1297746.4	187984.8	1103370	3050000	125.48	RSRM	LWC	
				BI-052	360L025B	1298292.1	187547.5	1104470	3040000	125.48	RSRM	Redesign	
50	47	105		BI-053	360L026A	1298225.4	187635.2	1104207	3070000	124.12	RSRM	LWC	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.
				BI-053	360W026B	1299291.2	188124.9	1104912	3070000	124.12	RSRM	Redesign	

a = At 60 deg F

b = Vehicle destroyed at approximately 73 seconds

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

SOLID ROCKET BOOSTERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	SRB S/N	SRB Position Nomen	Ignition Weight, lb	Seperation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb(a)	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
51	52	102		BI-054 BI-054	360L027A 360Q027B	1299187.8 1300395.9	187815.5 189026.3	1105037 1105115	3110000 3100000	123.12 123.12	RSRM RSRM	LWC Redesign	The right SRB drogue parachute severely tipped during main parachute deployment.
52	53	103		BI-055 BI-055	360L028A 360L028B	1299174.1 1298532.1	188012.7 187839.7	1104863 1104434	3040000 3030000	126.36 126.36	RSRM RSRM	LWC Redesign	
53	54	105		BI-056 BI-056	360L029A 360L029B	1299818.3 1299186.7	187796.2 187782.1	1105869 1105225	3040000 3050000	125.96 125.96	RSRM RSRM	LWC Redesign	
54	56	103		BI-058 BI-058	360L031A 360L031B	1299765 1300513.5	187990.8 187558.7	1105515 1106723	3060000 3070000	125.88 125.88	RSRM RSRM	LWC Redesign	
55	55	102		BI-057 BI-057	360L030A 360L030B	1298514.4 1300560.6	187524.3 188337.7	1104746 1105941	3050000 3060000	125.48 125.48	RSRM RSRM	LWC Redesign	Main parachute 3 on the right SRB sustained heavy ribbon damage in two gores.
56	57	105		BI-059 BI-059	360L032A 360W032B	1300547 1300963	187659 188795	1108672 1105973	3040000 3040000	124.76 124.76	RSRM RSRM	LWC Redesign	
57	51	103		BI-060 BI-060	360W033A 360L033B	1298328 1298670	188343 188413	1104376 1104651	3050000 3040000	124.68 124.68	RSRM RSRM	LWC Redesign	
58	58	102		BI-061 BI-061	360L034A 360W034B	1298197 1298503	187672 188397	1104316 1103797	3050000 3070000	123.64 123.64	RSRM RSRM	LWC Redesign	
59	61	105		BI-063 BI-063	360L023A 360L023B	1298560 1298435	187757 187742	1104316 1104442	3010000 3030000	126.68 126.68	RSRM RSRM	LWC Redesign	
60	60	103		BI-062 BI-062	360L035A 360Q035B	1298776 1299783	187973 188075	1104531 1105413	3090000 3100000	125.08 125.08	RSRM RSRM	LWC Redesign	

a = At 60 deg F
b = Vehicle destroyed at approximately 73 seconds

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

SOLID ROCKET BOOSTERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	SRB S/N	SRB Position Nomen	Ignition Weight, lb	Seperation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb(a)	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
61	62	102		BI-064 BI-064	360L036A 360W036B	1299668 1299184	188010 188085	1105414 1104783	3070000 3060000	126.24 126.24	RSRM RSRM	LWC Redesign	
62	59	105		BI-065 BI-065	360W037A 360H037B	1300061 1300299	188268 188593	1105551 1105452	3080000 3080000	126.12 126.12	RSRM RSRM	LWC Redesign	
63	65	102		BI-066 BI-066	360P939A 360W039B	1299578 1300094	189271 188764	1104118 1105009	3060000 3070000	123.48 123.48	RSRM RSRM	LWC Redesign	
64	64	103		BI-068 BI-068	360L041A 360L041B	1298944 1299118	188348 188603	1104375 1104301	3090000 3090000	122.48 122.48	RSRM RSRM	LWC Redesign	
65	68	105		BI-067 BI-067	360W040A 360W040B	1299293 1299523	188278 188598	1104738 1104657	3060000 3060000	123.96 123.96	RSRM RSRM	LWC Redesign	
66	66	104		BI-069 BI-069	360L038A 360W038B	1299860 1300230	188147 188573	1105521 1105412	3050000 3050000	124.72 124.72	RSRM RSRM	LWC Redesign	
67	63	103		BI-070 BI-070	360Q042A 360L042B	1299711 1300127	188588 188177	1105002 1105683	3120000 3100000	125 125	RSRM RSRM	LWC Redesign	
68	67	105		BI-071 BI-071	360W043A 360L043B	1299857 1299392	188545 187696	1105059 1105424	3100000 3080000	125.04 125.04	RSRM RSRM	LWC Redesign	
69	71	104		BI-072 BI-072	360T045A 360T045B	1299083 1298854	187089 187524	1105811 1105138	3060000 3070000	122.5 122.5	RSRM RSRM	LWC Redesign	
70	70	103		BI-073 BI-073	360L044A 360L044B	1299219 1299339	187499 187672	1105492 1105472	3100000 3090000	122.77 122.77	RSRM RSRM	LWC Redesign	

a = At 60 deg F
b = Vehicle destroyed at approximately 73 seconds

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

SOLID ROCKET BOOSTERS

Miss Seq. No.	STS-No.	Orb. OV-	Notes	SRB S/N	SRB Position Nomen	Ignition Weight, lb	Seperation Weight, lb	Usable Propellant, lb	Maximum Sea-level Thrust, lb(a)	Burn Time, sec	Motor Type	Case Type	Recovery System Remarks
71	69	105		BI-074	360L048A	1299384	187291	1105836	3090000	122.47	RSRM	LWC	
				BI-074	360L048B	1299175	187549	1105327	3100000	122.47	RSRM	Redesign	
72	73	102		BI-075	360T050A	1299553	187895	1105653	3070000	122.6	RSRM	LWC	
				BI-075	360T050B	1300509	188139	1106099	3070000	122.6	RSRM	Redesign	
73	74	104		BI-076	360T051A	1299872	187704	1105959	3100000	122	RSRM	LWC	
				BI-076	360T051B	1299878	187612	1106113	3090000	122	RSRM	Redesign	

a = At 60 deg F
b = Vehicle destroyed at approximately 73 seconds

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

EXTERNAL TANK

Miss Seq NO.	STS NO.	Orb OV-	Notes	Ext. Tank Type Wt.	Ext. Tank Model No.	Liquid Oxygen Quantity, lb Loaded Eng. Start Command	Liquid Oxygen Quantity, lb At T-0	Liquid Oxygen Quantity, lb AT MECO	Liquid Oxygen Quantity, lb Residual Total Liquid	Liquid Hydrogen Quantity, lb Loaded Eng. Start Command	Liquid Hydrogen Quantity, lb At T-0	Liquid Hydrogen Quantity, lb AT MECO	Liquid Hydrogen Quantity, lb Residual Total Liquid	Entry Impact Best Est Traj., Lat./long	Entry Impact Position From Prediction
1	1	102		Std.		1356020	1346260	18335	16879	227348	225528	5914	5222	30.95 deg S 93.18 deg E	1 nmi. Downrange
2	2	102		Std.		1356914	1347238	17267	15968	228424	226617	4969	4277	31.67 deg S 95.66 deg E	200 nmi. Downrange
3	3	102		Std.	SWT -3	1352359	1342796	12254	10791	228741	226747	4988	4248	31.2 deg S 94.4 deg E	150 nmi. Downrange
4	4	102		Std.	SWT -4	1355660	1346256	9874	8459	228385	226656	4268	3507	28.41 deg S 83.07 deg E	60 nmi. Downrange
5	5	102		Std.	SWT -5	1356698	1347091	7200	5739	227980	226301	3980	3210	28.30 deg S 82.44 deg E	170 nmi. Downrange
6	6	99		Lt.	LWT -1	1359741	1350244	10534	9283	229077	227358	3824	3145	28.34 deg S 82.99 deg E	150 nmi. Downrange
7	7	99		Std.	SWT -6	1366400	1345936	10000	8606	229068	227191	4300	3580	28.39 deg S 83.73 deg E	75 nmi. Downrange
8	8	99		Lt.	LWT -2	1373679	1364099	22800	21347	231009	229253	5500	4769	28.35 deg S 81.49 deg E	127 nmi. Uprange
9	9	102		Lt.	LWT -4	1378418	1368926	7800	6460	231341	229608	3600	2885	56.96 deg S 149.90 deg E	300 nmi. Downrange
10	41B	99		Lt.	LWT -3	1378612	1365168	14000	12607	231168	229458	5200	4480	28.29 deg S 80.63 deg E	120 nmi. Uprange
11	41C	99		Lt.	LWT -5	1378350	1368776	5000	3596	231692	229956	4280	3552	18.94 deg N 149.91 deg W	22 nmi. UpRange
12	41D	103		Lt.	LWT -6	1377535	1367999	6400	5050	231439	229691	3976	3264	28.25 deg S 80.02 deg E	86 nmi. UpRange
13	41G	99		Lt.	LWT -8	1378090	1368487	10300	9014	231121	229379	4100	3400	57.06 deg S 150.04 deg E	70 nmi. UpRange
14	51A	103		Lt.	LWT -9	1377918	1368282	8300	6800	230856	229108	4000	3230	27.69 deg S 81.99 deg E	146 nmi. Downrange
15	51C	103		Lt.	LWT -7	1378474	1368669	6000	4568	231455	229652	4600	3879	28.10 deg S 78.30 deg E	90 nmi. Downrange
16	51D	103		Lt.	LWT -11	1378156	1368544	9200	7801	231040	229290	2700	1972	20.24 deg N 149.37 deg W	48 nmi. Downrange
17	51B	99		Lt.	LWT -10	1378626	1369045	10760	9341	231520	229772	3500	2772	57.09 deg S 150.83 deg E	153 nmi. Downrange
18	51G	103		Lt.	LWT -13	1378428	1368830	6400	5016	231411	229668	3400	2677	14.89 deg N 159.50 deg W	58 nmi. Downrange

a = Vehicle destroyed at 73 seconds

EXTERNAL TANK

Miss Seq NO.	STS NO.	Orb OV-	Notes	Ext. Tank Type Wt.	Ext. Tank Model No.	Liquid Oxygen Quantity, lb Loaded Eng. Start Command	Liquid Oxygen Quantity, lb At T-0	Liquid Oxygen Quantity, lb AT MECO	Liquid Oxygen Quantity, lb Residual Total Liquid	Liquid Hydrogen Quantity, lb Loaded Eng. Start Command	Liquid Hydrogen Quantity, lb At T-0	Liquid Hydrogen Quantity, lb AT MECO	Liquid Hydrogen Quantity, lb Residual Total Liquid	Entry Impact Best Est Traj., Lat/long	Entry Impact Position From Prediction
19	51F	99		Lt.	LWT -12	1378020	1368475	4259	3111	231686	229924	2430	1868	48.90 deg S 159.00 deg E	40 nmi. UpRange
20	51I	103		Lt.	LWT -14	1377882	1368249	6800	5401	231295	229532	3600	2855	11.5 deg N 157.6 deg W	50 nmi. Downrange
21	51J	104		Lt.	LWT -18	1382233	1372639	9325	8022	231267	229510	2530	1827	20.63 deg N 148.26 deg W	194 nmi. Downrange
22	61A	99		Lt.	LWT -17	1382740	1373141	13000	11512	232030	230302	4500	3776	56.97 deg S 147.96 deg E	50 nmi. Downrange
23	61B	104		Lt.	LWT -15	1377926	1368562	9995	8686	231424	229709	3028	2312	17.31 deg N 156.69 deg W	68 nmi. Downrange
24	61C	102		Lt.	LWT -23	1381446	1371963	17693	16310	231760	230052	5170	4435	28.3 deg S 81.3 deg E	10 nmi. Downrange
25	51L	99	a	Lt.	LWT -19	1381361	1372007	0	0	231671	229962	0	0		
26	26	103		Lt.	LWT -21	1387981	1372690	8435	7114	231993	230146	4155	3433	12.578 deg N 164.037 deg W	17 nmi. UpRange
27	27	104		Lt.	LWT -16	1387161	1370430	7248	6052	231779	229855	4184	3477	2.855 deg S 123.479 deg W	DOD Classified
28	29	103		Lt.	LWT -29	1388645	1373305	10063	8695	231944	230060	4542	3807	13.26 deg N 162.65 deg W	83 nmi. Downrange
29	30	104		Lt.	LWT -22	1381861	1372358	9767	8419	231745	229996	3497	3437	28.85 deg S 86.89 deg E	137 mi. Uprange
30	28	102		Lt.	LWT -24	1382851	1373393	7629	6195	231820	230082	3703	2971	38.643 deg S 149.651 deg W	Classified
31	34	104		Lt.	LWT -20	1381656	1372219	7383	6009	231784	230044	4084	3345	3.4 deg N 147.6 deg W	7 nmi from predicted point.
32	33	103		Lt. ET-38	LWT -31	1382286	1372813	8057	6704	231814	230074	3180	2438	28.565 deg S 86.421 deg E	Classified
33	32	102		Lt.	LWT -25	1382321	1372817	8348	7094	231741	229975	3902	3186	10.435 deg N 157.216 deg W	31 nmi. Uprange
34	36	104		Lt.	LWT -26	1381385	1311896	8252	6974	231657	229925	4277	3560	61.464 deg S 145.114 deg E	Classified
35	31	103		Lt.	LWT -27	1378556	1369038	8616	7260	231568	229625	4091	3352	19.946 deg N 150.007 deg W	85 nmi. uprange
36	41	103		Lt.	LWT -32	1380562	1371063	7322	6028	231659	229913	3710	2984	12.52 deg N 164.127 deg W	52 nmi. uprange

a = Vehicle destroyed at 73 seconds

EXTERNAL TANK

Miss Seq NO.	STS NO.	Orb OV-	Notes	Ext. Tank Type Wt.	Ext. Tank Model No.	Liquid Oxygen Quantity, lb Loaded Eng. Start Command	Liquid Oxygen Quantity, lb At T-0	Liquid Oxygen Quantity, lb AT MECO	Liquid Oxygen Quantity, lb Residual Total Liquid	Liquid Hydrogen Quantity, lb Loaded Eng. Start Command	Liquid Hydrogen Quantity, lb At T-0	Liquid Hydrogen Quantity, lb AT MECO	Liquid Hydrogen Quantity, lb Residual Total Liquid	Entry Impact Best Est Traj., Lat./long	Entry Impact Position From Prediction
37	38	104		Lt.	LWT -33	1381562	1372056	7861	6421	231689	229962	4007	3253	28.52 deg S 84.91 deg W	Classified
38	35	102		Lt.	LWT -28	1381403	1371917	10725	9336	231664	229900	3669	2923	15.09 deg N 159.01 deg W	63 nmi. uprange
39	37	104		Lt.	ET-37 LWT 30	1381727	1372232	7906	6554	231688	229950	3857	3116	20.23 deg N 149.32 deg W	64 nmi. uprange
40	39	103		Lt.	ET-46 LWT 39	1382470	1372994	9828	8493	231829	230070	3465	2718	43.819 deg S 156.294 deg W	81 nmi. uprange
41	40	102		Lt.	ET-41 LWT 34	1383242	1373758	11130	9859	231869	230116	4252	3523	1.05 deg N 146.06 deg W	77 nmi. uprange
42	43	104		Lt.	ET-47 LWT-40	1381725	1372239	9734	8295	231778	230011	3380	3070	13.466 deg N 162.244 deg W	16 nmi. downrange
43	48	103		Lt.	ET-42 LWT-35	1383048	1373542	7034	5618	231828	230097	3640	2887	0.264 deg N 121.93 deg W	65 nmi. uprange
44	44	104		Lt.	ET-53 LWT-46	1380419	1370955	8124	6778	231758	229993	3461	2717	17.01 deg N 154.05 deg W	72 nmi. uprange
45	42	103		Lt.	ET-52 LWT-45	1381971	1372471	9563	8224	231724	229980	4243	3502	44.7 deg S 157.92 deg W	88 nmi. uprange
46	45	104		Lt.	ET-44 LWT-37	1382579	1373082	16465	15111	231764	229995	5253	4507	42.74 deg S 154.99 deg W	115 nmi. uprange
47	49	105		Lt.	ET-43 LWT-36	1382912	1373400	10265	9053	231838	230074	3557	2829	12.173 deg S 163.623 deg W	130 nmi. uprange
48	50	102		Lt.	ET-50 LWT-43	1382444	1372955	10326	9043	231811	230041	3848	3104	13.278 deg N 162.638 deg W	1 nmi. uprange
49	46	104		Lt.	ET-48 LWT-41	1382117	1372638	9183	7898	237753	230016	3991	3248	17.855 deg N 153.043 deg W	55 nmi. uprange
50	47	105		Lt.	ET-45 LWT-38	1381187	1371677	9992	8667	231753	229992	3818	3051	43.991 deg S 156.841 deg W	17 nmi. uprange
51	52	102		Lt.	ET-55 LWT-48	1382616	1373115	15925	14595	231663	229903	4786	4042	12.896 deg S 163.386 deg W	103 nmi. uprange
52	53	103		Lt.	ET-49	1383320	1373842	9323	7997	231834	230073	3444	2685	40.95 deg S 152.60 deg W	17 nmi. uprange
53	54	105		Lt.	ET-51	1382560	1373067	9818	8439	231739	229956	3731	2965	12.92 deg N 163.34 deg W	32 nmi. uprange
54	56	103		Lt.	ET-54	1382800	1373260	16077	14790	231780	230003	4562	3822	42.41 deg N 154.36 deg W	74 nmi. uprange

a = Vehicle destroyed at 73 seconds

EXTERNAL TANK

Miss Seq NO.	STS NO.	Orb OV-	Notes	Ext. Tank Type Wt.	Ext. Tank Model No.	Liquid Oxygen Quantity, lb Loaded Eng. Start Command	Liquid Oxygen Quantity, lb At T-0	Liquid Oxygen Quantity, lb AT MECO	Liquid Oxygen Quantity, lb Residual Total Liquid	Liquid Hydrogen Quantity, lb Loaded Eng. Start Command	Liquid Hydrogen Quantity, lb At T-0	Liquid Hydrogen Quantity, lb AT MECO	Liquid Hydrogen Quantity, lb Residual Total Liquid	Entry Impact Best Est Traj., Lat/long	Entry Impact Position From Prediction
55	55	102		Lt.	ET-56	1382324	1372836	13366	12046	231762	230000	4054	3305	12.75 deg N 163.68 deg W	83 nmi. uprange
56	57	105		Lt.	ET-58	1381214	1371694	8738	7405	231745	229969	3741	2962	16.09 deg N 142.98 deg W	16 nmi. downrange
57	51	103		Lt.	ET-59	1382560	1373033	7976	6696	231746	229992	3734	2997	12.89 deg N 163.41 deg W	47 nmi. uprange
58	58	102		Lt.	ET-57	1382386	1372904	7836	6405	231787	230006	3550	2788	3.92 deg N 137.78 deg W	19 nmi. downrange
59	61	105		Lt.	ET-60	1381727	1372162	7400	6068	231689	229920	3731	3060	16.44 deg N 142.15 deg W	74 nmi. uprange
60	60	103		Lt.	ET-61	1382073	1372521	7188	5876	231635	229874	3997	3330	2.69 deg N 123.15 deg W	58 nmi. uprange
61	62	102		Lt.	ET-62	1382569	1373068	8293	6962	231758	230004	3910	3245	8.13 deg N 132.93 deg W	81 nmi. uprange
62	59	105		Lt.	ET-63	1381864	1372315	8412	7097	231697	229926	4717	4005	45.02 deg N 158.08 deg W	111 nmi. uprange
63	65	102		Lt.	ET-64	1381891	1372383	9955	8822	231687	229930	4166	3525	13.63 deg S 163.26 deg W	38 nmi. uprange
64	64	103		Lt.	ET-66	1382565	1373131	15189	13858	231777	230012	4007	3336	43.31 deg S 155.54 deg W	98 nmi. uprange
65	68	105		Lt.	ET-65	1382548	1372994	6701	7389	231782	230032	3730	3058	43.91 deg S 156.35 deg W	17 nmi. uprange
66	66	104		Lt.	ET-67	1381794	1372301	9456	8145	231705	229926	3813	3152	44.18 deg S 156.94 deg W	45 nmi. uprange
67	63	103		Lt.	ET-68	1382490	1372970	9734	8427	231757	229959	3339	2681	0.04 deg S 125.61 deg W	63 nmi. uprange
68	67	105		Lt.	ET-69	1382268	1372760	12539	11211	231773	229999	3848	3161	15.50 deg N 159.45 deg W	78 nmi. uprange
69	71	104		Lt.	ET-70	1382416	1372882	7952	6620	231737	229971	3433	2753	0.08 deg S 125.38 deg W	2 nmi. downrange
70	70	103		Lt.	ET-71	1381477	1371966	11298	9973	231685	229899	3769	3090	13.75 deg N 162.99 deg W	12 nmi.uprange
71	69	105		Lt.	ET-72	1382585	1373066	13584	12274	231795	230038	3833	3181	18.82 deg N 151.91 deg W	62 nmi. uprange
72	73	102		Lt.	ET-73	1382857	1373333	10955	9601	231788	229992	3231	2544	2.84 deg N 138.97 deg W	44 nmi. uprange

a = Vehicle destroyed at 73 seconds

EXTERNAL TANK

Miss Seq NO.	STS NO.	Orb OV-	Notes	Ext. Tank		Liquid Oxygen Quantity, lb				Liquid Hydrogen Quantity, lb				Entry Impact	
				Type Wt.	Model No.	Loaded Eng. Start Command	At T-0	AT MECO	Residual Total Liquid	Loaded Eng. Start Command	At T-0	AT MECO	Residual Total Liquid	Best Est Traj., Lat./long	Position From Prediction
73	74	104		Lt.	ET-74	1381943	1372410	9916	8591	231718	229957	3325	2653	0.31 deg S 125.58 deg W	18 nmi. uprange

a = Vehicle destroyed at 73 seconds

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
1	1	102	2007	2009	2007	2006	0007	2006	9006	2007	F6	100 4.20 a	65 55.00 a	100 73.00 a	65 513.00 a	470574 a	454.38 a	
2	2	102	2007	2009	2007	2006	0007	2006	9006	2007	F6	100 4.20 a	68 58.00 a	100 70.00 a	65 516.00 a	471004	454.52	
3	3	102	2007	2009	2007	2006	0007R1	2006	9006R1	2007	F6	100 4.20 a	68 42.00 a	100 62.00 a	65 514.00 a	471192	454.49	
4	4	102	2007	2009	2007	2006	0007R1	2006	2009	2007	F6	100 4.20 a	65 46.30 a	100 60.80 a	65 513.40 a	469313 a	454.47 a	
5	5	102	2007	0009	2007	2007	9009R3	2006	2009	2007	F6	100 4.25 a	85 42.90 a	100 62.30 a	65 511.25	470183	452.51	
6	6	099	2017	4001	2019	2018	7010	9106	9110	2018	F10	104 14.40 a	81 39.30 a	104 71.60 a	65 500.30 a	488259	453.67	Replaced Eng. 2011

N See last page for Notes

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
7	7	099	2017	4001	2018	2211	9010	9106	2315	2018	F10	104 11.50	75 37.20 a	104 70.60	65 501.00	488303	453.65	
8	8	099	2017	4001	2018	2211	9010	9106	2315	2018	F10	100 4.20 a	69 34.10 a	100 70.90 a	65 522.00 a	469661	453.49	
9	9	102	2011	2020	4002	9005	2018	2115	2017R1	2016	F11	104 10.50 a	78 37.40 a	104 68.80 a	65 510.20 a	490340	453.34	
10	41B	099	2109	2018	4004	2018	2020	2117	5101R1	2109	F10	100 4.54 a	73 38.50 a	100 69.80 a	65 522.10 a	470155	453.59	
11	41C	099	2109	2018	4004	2018	2020	2117	5101R1	2109	F10	104 10.77	67 36.01	104 67.69	65 511.27	488511	453.85	
12	41D	103	2109	2018	4004	2018	2020	2117	2020R1	2109	F10	104 11.00	84 27.45 65 38.26	104 77.88	65 515.66	488821	453.24	First 2-step main engine throttle. ME2109 replaced 2021 due to debonded shield.

Note: See last page for Notes

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
13	41G	099	2023	4003	4003	2015	2019R1	2026	2515R1	4001	F24	100 4.32	92 25.51 65 36.03	100 68.83	65 531.17	467340	453.67	ME2023 replaced ME2109.
14	51A	103	2109	2018	4004	2018	2020	2117	2020R1	2109	F10	100 4.24	89 22.11 67 36.95	104 77.19	65 513.77	488000	453.39	
15	51C	103	2109	2018	4004	2018	2020	2117	4202	2109	F10	100 4.24	92 22.63 65 38.46	104 71.31	65 511.37	489497	453.15	HPFTP 2020R1 replaced by 4202.
16	51D	103	2109	2018	4004	2018	2115	2117	4202	2109	F10	100 4.33	90 22.51 65 38.07	100 78.27	65 532.73	469632	453.2	HPOTP 2020 replaced by 2115.
17	51B	099	2023	4003	4003	2015	2019R1	4002R1	2515R1	4001	F24	100 4.33	94 25.79 65 36.71	104 70.83	65 515.65	487717	453.79	LPFTP 2026 replaced by 4002R1.
18	51G	103	2109	2018	4004	2018	2115	2117	2121	2109	F10	104 10.60	83 27.52 65 38.40	104 78.44	65 516.14	488300	453.33	HPFTP 4202 replaced by 2121.

Note: See last page for Notes

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
19	51F	099	2023	4003	4003	2015	2019R2	4002R1	2515R1	4001	F20	104 10.91	97 26.71 65 39.47	104 66.23	g	487254	454.89	High HPFTP discharge temperature measurement caused shutdown at T+350 seconds. Controller F24 replaced by F20.
20	51I	103	2109	2018	2018	2018	2115	2117	2121R1	2019	F10	104 10.31	70 35.07 67 37.55	104 64.63	65 508.09	488628	453.35	Nozzle 4004 replaced by 2018.
21	51J	104	2011	2020	4002	9005	2022R2	2115	5301	2016	F11	104 10.43	68 35.39 65 37.51	104 65.11	65 512.53	489924	453.46	
22	61A	099	2023	4003	4003	2015	2019R2	4002R1	2515R1	4001	F20	100 4.32	89 25.85 65 35.77	104 70.09	65 515.63	487481	453.82	
23	61B	104	2011	2020	4002	9005	2022R2	2115	2413R2	2016	F23	104 10.49	65 37.37	104 69.37	65 511.63	490280	453.41	F11 replaced by F23. HPFTP 5301 replaced by 2413R2.
24	61C	102	2015	2015	2015	4101R1	2018R2	2116	4003R1	2015	F27	104 11.03	85 41.79 69 64.55	104 72.67	67 502.25	488085	453.3	

Note: See last page for Notes

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
25	51L	099	2023	4003	4003	2015	2019R2	4002R1	2515R1	4001	F20	104 10.64	94 26.16	104 58.16				Vehicle lost 73 seconds after liftoff
26	26	103	2019	4001	2025	2025R1	4106R1	2025R1	2026	2020	F4	104 10.20	102 24.12 65 34.04	104 65.40	65 512.24	487550	453.27	
27	27	104	2027	2024	2024	2124	2124R2	4005	6102	4004	F23	104 10.12	96 26.28 65 34.76	104 64.20	65 513.68	489036	454.5	
28	29	103	2031	4007	4016	4105	9209R1	2022R1	2125	2028	F21	104 10.40	66 34.28	104 63.84	65 508.92	489571	453.72	
29	30	104	2027	2024	2024h	2124	6302R1i	4005	6102	4004	F23	104 12.64	102 26.56 65 36.64	104 62.24	65 514.20	488299	454.54	
30	28	102	2019	2023	4006	2025R1b	2126R4b	2025R1	2125b	2020	F4	104 10.08	97 27.04 65 33.60	104 65.60	65 515.52	487331	453.06	

Note: See last page for Notes

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	powHd	Cntlr	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	Remarks
31	34	104	2027	2024	2024	2124	2225R1b	4005	4008b	4044	F23	104 10.24	100 26.08 65 34.08	104 64.96	65 511.68	489178	454.49	
32	33	103	2011	4005	4016	2126	4205R1	8207	4012R1	2016	F24	104 10.48	97 26.48 65 40.72	104 55.92	65 505.48	489493	452.01	
33	32	102	2024	2013	4006	2029	4107R1	2131	6007	2026	F5	104 10.36	65 34.20 102 24.28	104 65.08	65 511.96	487131	452.88	
34	36	104	2019	2023	2024	2025R1	4406R3	2022R1	6008	2020	F4	104 10.30	98 27.44 75 35.12	104 59.44	65 509.68	487223	453.05	
35	31	103	2011	4005	4016	2126	2027R1	2030	5203R1	2016	F24	104 10.24	97 24.32 67 34.40	104 65.44	65 510.56	489314	452.02	
36	41	103	2011	4005	4016	2126	2027R2	2030	S203R1	2016	F24	104 10.40	100 24.16 67 34.08	104 64.96	65 509.56	489117	452.03	

Note: See last page for Notes

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
37	38	104	2019	2023	2024	2025R1	2323R4	2022R1	6008	2020	F4	104 10.24	72 32.48	104 68.48	65 509.24	486872	453.05	
38	35	102	2024	2013	4006	2106R1	4205R3	2131	4008	2026	F5	104 10.24	71 32.96	104 69.44	65 511.20	487938	452.85	
39	37	104	2019	2023	2024	2025(1)	9309R2	2022R1	6008	2020	F4	104 10.20	87 24.44 67 34.84	104 65.40	65 512.44	487399	453.02	
40	39	103	2026	2104	4014	2224	2226R3	2025R2	4012R2	2030	F19	100 4.37	94 25.76 70 32.16	104 63.68	67 514.40	487940	451.64	
41	40	102	2015	2029	4001	4401	4010R3	2216	4013R1	2107	F15	104 10.04	98 26.72 71 36.00	104 66.72	67 509.76	488236	453.28	
42	43	104	2024	2013	4006	2028c	4009R3c	2131	6102R3c	2026	F5	104 10.24	84 30.56 67 58.20	104 65.40	67 507.48	487762	452.85	

Note: See last page for Notes

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
43	48	103	2019	2023	2024	2025R1d	2424F4d	2022R1	5203R4d	2020	F4	100 4.21	89 27.40 67 34.44	104 66.12	67 516.36	487511	453.02	
44	44	104	2015	2029	4001	4401	4010R4	2216	4013R1	2107	F15	104 10.44	73 33.32	104 62.76	67 509.70	488162	452.89	
45	42	103	2026	2014	4014	2224	2425R2e	4008e	4012R2	2030	F19	100 4.26	75 33.52	104 65.20	67 510.12	487783	452.33	
46	45	104	2024	2013	4006	4205	4305R2	2131	2323R2	2026	F5	100 10.88	89 28.32 74 35.84	104 69.28	67 510.68	489866	452.51	
47	49	105	2030	2026	4013	4008	4506R3	2027	4011R2	2015	F36	104 10.42	89 25.14 73 36.02	104 61.70	67 509.14	488501	452.76	
48	50	102	2019	2023	2024	2126	9409	2022R1	4110R1	2020	F43	104 10.38	74 38.06	104 65.58	67 506.99	489382	452.52	

Note: See last page for Notes

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
49	46	104	2032	2027	2030	2035	6007R1	2033	2028	2029	F38	104 10.32	82 30.16 67 57.84	104 65.20	67 509.37	487908	452.66	
50	47	105	2026	2104	4014	2224	4109	4008	4012R2	2030	F53	100 4.23	67 34.20	104 66.36	67 513.73	489322	452.56	
51	52	102	2030	2026	4013	4008	4111R3f	2124f	2326f	2015	F36	100 4.16	95 25.86 67 31.30	104 68.10	67 511.79	489255	452.58	
52	53	103	2024	2013	4006	4205	4108R1	2131	6108	2026	F48	100 4.07	73 28.07	104 61.19	67 507.11	489180	452.53	
53	54	105	2019	2023	2024	2126	9409	2125	4110R1	2020	F43	104 4.04	72 28.92	104 56.52	67 503.53	488350	452.44	
54	56	103	2024	2013	4006	4205	4111R4	2131	6108R1	2026	F48	100 4.06	89 21.22 69 28.42	104 62.02	67 508.26	487153	452.51	

Note: See last page for Notes

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
55	55	102	2031	2019	5001	2120	2423R1	2120R1	4140	2028	F39	100 4.01	72 27.05	104 56.65	67 503.70	489442	453.26	Main engine 2031 replaced main engine 2030 after an on-pad abort. (IFA STS-55-E-1)
56	57	105	2019	2023	2024	2126	2426R2	2125	2033	2020	F43	100 3.92	72 29.04	104 59.60	67 505.85	488799	452.53	
57	51	103	2031	2019	5001	2125R2	2423R2	4110	2225	2028	F39	104 4.01	69 28.49	104 53.77	67 503.22	491474	452.27	
58	58	102	2024	2013	4006	4205	2030R2	2131	4014	2026	F48	100 3.92	67 26.00	104 61.04	67 509.20	485866	452.57	
59	61	105	2019	2023	2024	4302	2032R3	2125	2033	2020	F43	100 4.42	73 27.26	104 56.86	67 505.19	489296	452	
60	60	103	2012	2020	4013	2213	2033R4	4006	4213R2	2025	F55	104 4.26	70 25.70	104 57.22	67 505.87	491604	452.31	

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
61	62	102	2031	2019	5001	2125	4109R2	4110	6107R1	2028	F63	104 4.31	67 31.03	104 57.73	67 504.16	490276	452.5	
62	59	105	2028	2018	2029	2027R1	2131R1	2228	4309	4005	F49	100 3.89	67 27.41	104 60.85	67 506.78	490612	452.1	
63	65	102	2019	2023	2024	4205	2032R4	2125	4014	2020	F43	104 4.09	67 26.49	104 60.73	67 504.28	489589	451.78	
64	64	103	2031	2019	5001	2125	2227R1	4110	6109R2	2028	F63	100 3.72	67 26.12	104 61.64	67 508.37	487806	452.57	
65	68	105	2028	2028	2029	4408	2131R2	2228	4309R1	4005	F49	100 3.79	67 27.31	104 60.43	67 507.00	489986	451.94	
66	66	104	2030	2026	4006	4008	2035R2	5001	4112R2	2015	F36	100 3.87	69 26.91	104 62.43	67 507.72	489113	451.77	

See last page for Notes

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
67	63	103	2035	4005	4001	2034	2130R1	2128	2133	4008	F41	104 4.00	94 18.08 69 30.88	104 53.28	69 505.13	487625	452.35	
68	67	105	2012	2020	4013	2213	2131R3	4105	2132	2025	F55	104 4.37	67 31.41	104 56.37	67 500.70	490170	452.01	
69	71	104	2028	2018	2029	2129	2036R1	2228	2136	4005	F49	104 3.85	68 28.98	104 54.74	68 504.31	487899	452.27	
70	70	103	2036	7001	4024	4209	8014	2036	4018	6008	F61	104 3.86	67 28.18	104 60.98	67 504.15	488308	452.16	
71	69	105	2035	4005	4001	2034	2130R2	2126	2133	4008	F41	104 3.69	67 29.93	104 60.17	67 503.54	488129	452.62	
72	73	102	2037	4016	2031	2136	8013R2	2029	2035R1	6006	F60	104 3.88	67 32.20	104 60.52	67 503.09	490866	453.09	

MAIN ENGINE POSITION 1

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 1 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	powHd	Cntlr	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	Remarks
73	74	104	2012	2020	4013	4008	61077R1	4105	2132	2025	F55	104 3.91	67 25.67	104 59.27	67 506.32	489137	452.63	

Note: All engines times are referenced to Engine Start Command (ESC).
a = Indicates revised or additional data provided by MSFC post-publication of referenced source.
b = Changed since last hot fire/STS-29
c = Hardware changed since final acceptance, flow recirculation inhibitor (FRI) installed
d = Replaced prior to STS-48
e = Replaced prior to STS-42
f = Change since last flight/FRF
g = Premature Engine Cutoff
h = New nozzle/MCC seal
i = Change since STS-27

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

See last page for Notes

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
1	1	102	2006	2006	2005	0008	2004	2007	0006	2006	F4	100 4.20 a	65 55.00 a	100 73.00 a	65 513.00 a	408610 a	454.63 a	
2	2	102	2006	2006	2005	0008	2004	0007	0006	2006	F4	100 4.20 a	68 58.00 a	100 70.00 a	65 516.00 a	470795	454.45	
3	3	102	2006	2004	2005	0008	2404	2007	0306R1	2006	F5	100 4.20 a	68 42.00 a	100 62.00 a	65 514.00 a	470972	454.44	
4	4	102	2006	2006	2005	2009	2004	2007	0306R2	2006	F4	100 4.20 a	65 46.30 a	100 60.80	65 513.40	470520 a	454.48	
5	5	102	2006	2006	2005	2009	2004	2007	0306R2	2006	F4	100 4.25 a	85 42.90 a	100 62.30 a	65 511.30 a	470831	452.76	
6	6	099	2015	2014	2015	2113	2015	2211	2315	2015	F11	104 14.40 a	81 39.30 a	104 71.60 a	65 500.30 a	488967	453.26	

Note: See last page for Note

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
7	7	099	2015	2014	2015	2113	2015	2211	9211	2015	F11	104 11.50	75 37.20	104 70.60 a	65 501.00	488668	453.68	
8	8	099	2015	2014	2015	2113	2015	2211	9211	2015	F11	100 4.20 a	69 34.10 a	100 70.90	65 522.00 a	470728	453.41	
9	9	102	2018	4002	4001	2016	9211	4001R1	2213R1	2019	F4	100 10.50 a	78 37.40 a	104 68.80	65 510.20 a	487804	453.46	
10	41B	099	2015	2014	2015	2113	2015	2211	9211	2015	F5	100 4.54 a	73 38.51 a	100 69.80 a	65 522.10 a	471002	453.31	
11	41C	099	2020	4004	2020	0208	2021	2019	2018	2021	F5	104 10.91	67 36.11	104 67.69	65 511.35	488495	453.33	
12	41D	103	2018	4002	4001	2020	9211	4001R1	2017R2	2019	F4	104 11.80	84 27.57 65 38.38	104 77.96	65 515.79	487572	453.52	First 2-step main engine throttle.

Note: See last page for Note

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
13	41G	099	2020	4004	2020	0208	2021	2019	93111R1	2021	F5	100 4.36	92 25.63 65 36.15	100 69.15	65 531.29	468816	453.23	HPFTP 9311R1 replaced 2018.
14	51A	103	2018	4002	4001	2020	9211	4001R1	2017R2	2019	F9	100 4.23	89 22.25 67 37.09	104 77.33	65 513.99	489000	453.36	
15	51C	103	2018	4002	4001	2020	2018R1	4001R1	2017R2	2019	F9	100 4.24	92 22.73 65 38.57	104 71.45	65 511.51	489208	453.29	HPOTP 9211 replaced by 2018R1.
16	51D	103	2018	4002	4001	2020	2018R1	4001R1	2017R2	2019	F22	100 4.52	90 22.61 65 38.21	100 78.41	65 532.83	469405	453.45	Controller F9 replaced by F22.
17	51B	099	2020	4004	2020	0208	2021	2019	93111R1	2021	F5	100 4.52	94 25.89 65 36.85	104 70.93	65 515.79	488270	453.4	
18	51G	103	2018	4002	4001	2020	2016R3	4001R1	4201	2019	F22	104 10.72	83 27.64 65 38.52	104 78.56	65 516.26	489900	453.32	HPOTP 2018R1 replaced by 2016R3. HPFTP 2017R2 replaced by 4201.

Note: See last page for Note

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
19	51F	099	2020	4004	2020	0208	4003R1	2019	4202R1	2021	F27	104 11.01	97 26.85 65 39.57	104 66.37	91 583.27	488159	453.4	Controller F27 replaced F26 after launch abort. HPOTP 2021 replaced by 4003R1. HPFTP 9311R1 replaced by 4202R1.
20	51I	103	2018	4002	4001	2020	2016R2	4001R1	4201	2019	F22	104 10.43	70 35.19 67 37.67	104 64.35	65 508.21	489224	453.52	HPOTP 2016R3 replaced by 2016R2.
21	51J	104	2019	2019	2017	2017	9211R2	2022	2120	2020	F19	104 10.55	68 35.51 65 37.63	104 65.23	65 512.65	489420	453.38	
22	61A	099	2020	4004	4005	0208	4003R2	2019	4202R1	2021	F27	100 4.29	89 25.97 65 35.89	104 70.21	65 514.75	488202	453.45	
23	61B	104	2019	2019	2017	2017	9211R2	2022	2120	2020	F19	104 10.59	65 37.47	104 69.47	65 511.77	489651	453.4	
24	61C	102	2018	4002	4001	2020	2504	4001R1	4201	2019	F22	104 11.15	85 41.91 69 64.67	104 72.79	67 502.37	590277	453.32	

Note: See last page for Note

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
25	51L	099	2020	4004	4005	0208	4003R2	2019	4202R1	2021	F28	104 10.76	94 26.28 65 41.80	104 58.28	N/A	N/A	N/A	Vehicle lost at 73 seconds
26	26	103	2022	2022	4002	2104R1	2025R1	2024R1	5203	2022	F5	104 10.32	102 24.24 65 34.16	104 65.52	65 512.40	488590	452.96	
27	27	104	2030	2026	4013	2216	2122R1	2027	2323	2107	F16	104 10.24	96 26.40 65 34.88	104 64.32	65 513.80	488238	454.64	
28	29	103	2022	2022	4002	2104R1	2222R1	2024	5203	2022	F5	104 10.52	66 35.00	104 63.96	65 509.08	488380	452.96	
29	30	104	2030	2026	4013	2216	2223R1	2027	2323	2107	F19	104 12.64	102 26.68 65 36.76	104 62.36	65 514.28	488022	454.67	
30	28	102	2022	2022	4002	2104R1	4406R1	2024	5203	2022	F15	104 10.24	97 27.20 65 33.76	104 65.76	65 515.64	487742	453	

Note: See last page for Note

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
31	34	104	2030	2026	4013	2216	23211R1	2027	2323	2107	F17	104 10.40	100 26.24 65 34.24	104 65.12	65 511.84	488247	453.66	
32	33	103	2031	2019	4017	2120	64022R1	21201R1	61021R1	2028	F27	104 10.60	97 26.60 65 40.84	104 56.04	65 506.64	489478	453.55	
33	32	102	2022	2022	4002	21041R1	23051R1	2024	40102R2	2022	F15	104 10.44	65 34.28 102 24.36	104 65.16	65 512.04	488775	452.93	
34	36	104	2030	2026	4013	2216	23245R5	2027	6003	2107	F17	104 10.44	98 27.56 75 35.24	104 59.56	65 509.76	488126	454.74	
35	31	103	2031	2019	4017	2120	40081R1	21201R1	61021R1	2028	F27	104 10.40	97 24.48 67 34.56	104 65.60	65 510.72	489599	453.56	
36	41	103	2031	2019	4017	2120	25211R1	21201R1	4010	2028	F27	104 10.52	100 24.28 67 34.20	104 65.08	65 509.72	489355	453.56	

Note: See last page for Note

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
37	38	104	2022	4006	2023	2104R1	4107R3	2024	6007R1	2022	P7	104 10.36	72 32.60	104 68.60	65 509.40	489242	450.95	
38	35	102	2012	2020	4002	4306	6003R3	4006	4007R3	2025	F16	104 10.36	71 33.08	104 69.56	65 511.32	489032	452.55	
39	37	104	2031	2019	4017	2120	2027R3	2120R1	4010R3	2028	F29	104 10.32	87 24.56 67 34.96	104 65.52	65 512.52	489766	453.53	
40	39	103	2030	2026	4013	2030	4506R1	2027	4011R2	2015	F17	100 4.26	94 25.88 70 32.28	104 63.80	67 514.48	488528	452.37	
41	40	102	2022	4006	2023	2104R1	4502R2	8207R1	6007R1	2022	P7	104 10.48	98 26.80 71 36.08	104 66.80	67 509.84	488499	450.53	
42	43	104	2012	2020	4002	2213b	2425R1b	4006	4007R3	2025	F16	104 10.32	84 30.64 67 58.32	104 65.52	67 507.60	489470	452.54	

Note: See last page for Note

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
43	48	103	2031	2019	4017	2120	2226R4c	2120R1	2323R2c	2028	F29	100 4.34	89 27.56 67 34.60	104 66.28	67 516.48	488867	453.57	
44	44	104	2030	2026	4013	2030	4506R2	2027	4011R2	2015	F17	104 10.52	73 33.40	104 62.84	67 509.88	485958	452.57	
45	42	103	2022	4006	2023	2129d	4502R3	8220 7R1	6007R1	2022	P7	100 4.40	75 33.64 N/A	104 65.32	67 510.28	489211	451.04	
46	45	104	2012	2020	4002	2213	4207	4006	4108	2025	F16	100 11.00	89 28.44 74 35.96	104 69.40	67 510.80	489003	452.69	
47	49	105	2015	2029	4001	4401	2030	2216	4015	2107	F50	104 10.54	89 25.26 73 36.14	104 61.58	67 509.30	489693	452.46	
48	50	102	2031	2019	4017	2120	2423	2120R1	4014	2028	F39	104 10.48	74 38.16	104 65.68	67 507.12	490121	452.51	

Note: See last page for Note

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	powHd	Cntlr	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	Remarks
49	46	104	2033	2028	4021	2032	92 10	2215R1	2029	2031	F44	104 10.44	82 30.28 67 57.96	104 65.32	67 509.49	487637	452.66	
50	47	105	2022	4006	2023	2129	4012	8220R1	2033R1	2022	F52	100 4.25	67 34.32	104 66.48	67 513.84	488966	452.69	
51	52	102	2015	2029	4001	4401	2030	2216	4107R1e	2107	F50	100 4.17	95 25.98 67 31.42	104 68.22	67 511.90	489275	452.49	
52	53	103	2012	2020	4002	2213	2621	4006	4108	2025	F55	100 4.09	73 28.09	104 61.21	67 507.14	489474	452.53	
53	54	105	2033	2028	4021	2032	9210	2215R1	2029	2031	F42	104 4.01	72 26.89	104 56.49	67 503.54	487646	452.44	
54	56	103	2033	2028	4021	2032	6109R2	2215R1	6107	2031	F42	100 4.06	89 21.18 69 28.38	104 61.98	67 508.23	487410	452.51	

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
55	55	102	2109	5001	5004	2031	2525R1	2035	6103R1	4007	F56	100 4.02	72 27.06	104 56.66	67 503.71	486621	453.26	Main engine 2109 replaced main engine 2034 after an on-pad abort. (IFA STS-55-E-1)
56	57	105	2034	2030	5002	2033	9210R1	2032R1	2030	4006	F34	100 3.93	72 29.05	104 59.61	67 505.86	487513	452.53	
57	51	103	2034	2030	5002	2033	2034R1	2032R1	4309	4006	F34	104 4.01	69 28.49	104 53.77	67 503.22	487015	452.27	
58	58	102	2109	5001	5004	2031	2525R2	2035	2028	4007	F56	100 3.94	67 26.02	104 61.06	67 509.22	484574	452.57	
59	61	105	2033	2028	4021	2032	4606R2	2215R1	6109R1	2031	F58	100 4.40	73 27.28	104 56.88	67 505.21	488464	452	
60	60	103	2034	2030	5002	2033	2034R2	2032R1	4108R1	4006	F34	104 4.25	70 25.69	104 57.21	67 505.86	488055	452.31	

Not(ıst page for Notes

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
61	62	102	2109	5001	5004	2306	2426R3	2035	6103R2	4007	F56	104 4.34	67 31.06	104 57.46	67 504.19	487556	452.5	
62	59	105	2033	2028	4021	2032	4606R2	2215R1	6208	2031	F58	100 3.88	67 27.40	104 60.84	67 506.77	489716	452.1	
63	65	102	2030	2026	4006	4008	2023R1	5001	4112R2	2015	F36	104 4.09	67 26.49	104 60.73	67 504.26	490480	451.78	
64	64	103	2109	5001	5004	2306	2426R4	2035	6103R3	4007	F56	100 3.71	67 26.11	104 61.63	67 508.36	487586	452.57	
65	68	105	2033	2028	4021	2032	4208R1	2215R1	6208	2031	F58	100 3.81	67 27.34	104 60.46	67 507.02	490504	451.94	
66	66	104	2034	2030	5002	2033	2034R4	2032R1	6107R1	4006	F34	100 3.90	69 26.94	104 62.46	67 507.75	490263	451.77	

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
67	63	103	2109	5001	5004	2308	6203R2	2035	6103R3	4007	F56	104 4.01	94 18.08 69 30.88	104 53.28	69 505.13	488569	452.35	
68	67	105	2033	2028	4021	2221	4206R2	2215R1	6208	2031	F68	104 4.35	67 31.39	104 56.35	67 500.68	490109	452.01	
69	71	104	2034	2030	5002	2033	2033R5	2032R1	2128	4006	F34	104 3.86	68 28.98	104 54.74	68 504.35	489920	452.27	
70	70	103	2019	2023	4006	4502	2625R1	2125	4014R1	2020	F43	104 3.84	67 28.16	104 60.96	67 504.16	489522	452.16	
71	69	105	2109	5001	5004	2306	4015R2	2035	6103R3	4007	F56	104 3.69	67 29.93	104 60.17	67 503.54	488782	452.62	
72	73	102	2031	2019	5001	4406	4014R1	4110	6208	2028	F63	104 3.87	67 32.19	104 60.51	67 503.08	486915	453.09	

Note (ıst page for Notes

MAIN ENGINE POSITION 2

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 2 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
73	74	104	2026	2104	4021	2128	4209R1	4011	6109R2	2030	F53	104 3.93	67 25.69	104 59.29	67 506.34	490095	452.63	

Note: All engines times are referenced to Engine Start Command (ESC).
a = Indicates revised or additional data provided by MSFC post-publication of referenced source.
b = Hardware changed since final acceptance, flow recirculation inhibitor (FRI) installed
c = Replaced prior to STS-48
d = Replaced prior to STS-42
e = Change since last flight/FRF

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

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
1	1	102	2005	2005	2006	2004	2005	0007	0009	2005	P7	100 4.20 a	65 55.00 a	100 73.00 a	65 513.00 a	471411 a	454.14 a	
2	2	102	2005	2005	2006	2004	2005	0007	0009	2005	P7	100 4.20 a	68 58.00 a	100 70.00 a	65 516.00 a	472029	454.17	
3	3	102	2005	2005	2006	2004	2105R1	0007	0009R1	2005	P7	100 4.20 a	68 42.00 a	100 62.00 a	65 514.00 a	472816	454.15	
4	4	102	2005	2005	2006	2004	2005R1	0007	0009R1	2005	P7	100 4.20 a	65 46.30 a	100 60.80 a	65 513.40 a	471911 a	454.17 a	
5	5	102	2005	2005	2006	2004	2005R1	0007	9006R2	2005	P7	100 4.25 a	85 42.90 a	100 62.30 a	65 511.30 a	471786	452.09	
6	6	099	2012	2017	2016	2012	2016	2016	2213R1	2014	F12	104 14.40 a	81 39.30 a	104 71.60 a	65 500.30 a	488819	453.76	

Note: last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
7	7	099	2012	2017	2016	2012	2016	2216	2213R1	2014	F12	104 11.50	75 37.20	104 70.60 a	65 501.00	488942	453.37	
8	8	099	2012	2017	2016	2012	2016	2016	2116R2	2014	F12	100 4.20 a	69 34.10 a	100 70.90 a	65 522.00 a	469900	453.33	
9	9	102	2019	2019	2017	2017	2019	2118	9210	2020	F6	104 10.50 a	78 37.40 a	104 68.80 a	65 510.20 a	488961	453.41	
10	41B	099	2012	2017	2016	2012	2016	2016	2116R2	2014	F12	100 4.54 a	73 38.50 a	100 69.80 a	65 522.10 a	469828	453.26	
11	41C	099	2012	2017	2016	2012	2016	2016	2116R2	2014	F12	104 11.03	67 36.23	104 67.91	65 511.50	489464	453.32	
12	41D	103	2017	2105	2021	2019	4001	9105R1	4001R1	2023	F16	104 11.24	84 27.70 65 38.51	104 78.12	65 515.92	487516	453.55	First 2-step main engine throttle. ME2021 replaced ME2017 after abort.

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
13	41G	099	2021	2015	2021	2019	4001	2021R1	4001R1	2023	F16	100 4.32	92 25.75 65 36.27	100 69.07	65 531.41	468167	453.43	ME2021 replaced ME2012.
14	51A	103	2012	2017	2016	2012	9110	9206	2118	2014	F12	100 4.28	89 22.35 67 37.23	104 77.43	65 514.01	489000	453.35	ME2012 replaced ME2021.
15	51C	103	2012	2017	2016	2012	9110	9206	4003	2014	P7	100 4.20	92 22.87 65 38.67	104 71.55	65 511.61	489840	453.22	HPFTP 2118 replaced by 4003. Controller F12 replaced by P7.
16	51D	103	2012	2017	2016	2012	9110	9206	4003	2014	P7	100 4.38	90 22.75 65 38.31	100 78.51	65 532.97	472205	453.24	
17	51B	099	2021	2105	2021	2019	4001	2021R1	2216	2023	F6	100 4.38	94 26.01 65 36.97	104 71.09	65 515.87	487038	453.68	Controller F16 replaced by F6, HPFTP 4001R1 replaced by 2216.
18	51G	103	2012	2017	2016	2012	9110	9206	4003	2014	P7	104 10.84	83 27.76 65 38.64	104 78.68	65 516.38	490400	453.42	

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
19	51F	099	2021	2105	2021	2019	4001	2021R1	2216	2023	F6	104 11.15	97 26.95 65 39.71	104 66.47	91 583.41	486783	453.7	
20	51I	103	2012	2017	2016	2012	2018R3	9206	4003R1	2014	P7	104 10.55	70 35.71 67 37.79	104 64.87	65 508.33	491227	453.31	HPOTP 9110 replaced by 2018R3.
21	51J	104	2017	4001	2018	2211	4102R1	2020	2218R1	2018	F15	104 10.67	68 35.63 65 37.75	104 65.35	65 512.77	488707	453.63	
22	61A	099	2021	2105	2021	2019	2020R3	2021R1	2216	2023	F6	100 4.26	89 26.07 65 36.03	104 70.31	65 515.89	486916	453.66	
23	61B	104	2017	4001	2018	2211	4102R1	2020	2218R1	2018	F21	104 10.33	65 37.61	104 69.61	65 511.87	489297	453.75	F15 replaced by F21.
24	61C	102	2109	2018	4004	2018	2115	2117	2121R1	2109	F16	104 11.25	85 42.05 69 64.77	104 72.93	67 502.51	489391	453.29	

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
25	51L	099	2021	2105	2021	2019	2020R3	2021R1	2216	2023	F6	104 10.88	94 26.40 65 41.92	104 58.40				Vehicle lost at T+73 seconds
26	26	103	2028	2018	4012	2027R1	2121R1	2026R2	4007	4005	P7	104 10.42	102 24.34 65 34.26	104 65.62	104 512.50	488013	453.27	
27	27	104	2029	4006	2023	2106R1	9109R1	2029	2122R2	2015	F18	104 10.36	96 26.52 65 35.00	104 64.44	104 513.92	489719	453.22	MSFC IFA STS-27-E-3, HPOTP inner raceway cracked at bearing 3, and wire particle found. Crack 0.005 to 0.010 in.
28	29	103	2028	2018	4012	2027R1	4105R1	2026R2	4007	4005	P7	104 10.60	66 35.08	104 64.04	65 509.08	487848	453.29	
29	30	104	2029	4006	2023	2106R1	4302R1	2029	6003	2015	F22	104 12.64	102 26.76 65 36.84	104 62.44	65 514.40	490509	453.21	
30	28	102	2028	2018	4012	2027R1	2324R2	2026R2	4007	4005	F21	104 10.32	97 27.28 65 33.84	104 65.84	65 515.76	488743	453.24	

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
31	34	104	2029	4006	2023	2106R1	6003R1	2029	6003	2015	F22	104 10.52	100 26.34 65 34.36	104 65.24	65 511.91	489660	453.24	
32	33	103	2107	4002	4019	4105	2422R1	2117R1	4011R1	2014	F11	104 10.68	97 26.68 65 40.92	104 56.12	65 505.72	489728	452.92	
33	32	102	2028	2018	4012	2027R1	2323R1	2026R2	2126	4005	F21	104 10.60	65 34.44 102 24.52	104 65.32	65 512.16	488361	453.27	
34	36	104	2027	2024	2027	4302	2225R3	4005	4010R2	4004	F23	104 10.56	98 27.68 75 35.36	104 59.68	65 509.92	487175	454.42	
35	31	103	2107	4002	4019	4105	2226R1	4007	4011R1	2014	F25	104 10.48	97 24.56 67 34.64	104 65.68	65 510.60	489733	452.92	
36	41	103	2107	4002	4019	2216	2305R1	4007	6003R1	2014	F25	104 10.60	100 24.36 67 34.28	104 65.16	65 509.80	490220	452.89	

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
37	38	104	2027	2024	2027	4302	9309R1	4005	4109R1	4004	F23	104 10.44	72 32.68	104 68.68	65 509.48	487512	454.39	
38	35	102	2028	2018	4012	2027R1	4502R1	2026R2	6009	4005	F21	104 10.52	71 33.24	104 69.72	65 511.44	487814	453.28	
39	37	104	2107	4002	4019	2216	2521R2	4007	6003R1	2014	F25	104 10.40	87 24.64 67 35.04	104 65.60	65 512.64	489616	452.92	
40	39	103	2029	4012	4015	2121	4008R3	2029	2126	2027	F22	100 4.30	94 26.00 70 32.40	104 63.92	67 514.64	486397	453.81	
41	40	102	2027	2024	2027	4302	6008R1	4005	4109R1	4004	F23	104 10.64	98 26.96 71 36.24	104 66.96	67 510.00	488907	454.31	
42	43	104	2028	2018	4012	2027R1	2405R1b	2228b	6009	4005	F18c	104 10.48	84 30.80 67 58.48	104 65.68	67 507.72	487751	453.29	

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
43	48	103	2107	4002	4016d	2216	4305R1d	4007	6003R1	2014	F25	100 4.20	89 27.68 67 34.72	104 66.40	67 516.60	490077	452.89	
44	44	104	2029	4012	4015	2121	6103R1e	2029	2322e	2027	F22	104 10.68	73 33.56	104 63.00	67 510.00	486288	454.18	
45	42	103	2027	2024	2027	4302	6008R2	2026R2f	2225e	4004	F23	100 4.19	75 33.72	104 65.42	67 510.36	487398	453.41	
46	45	104	2028	2018	4012	2027R1	2405R2	2228	6009	4005	F18	100 11.08	89 28.52 74 36.04	104 69.48	67 510.92	489433	452.61	
47	49	105	2017	4002	4023	4009	2031	4009	2032	2018	F51	104 10.68	89 25.40 73 36.28	104 61.72	67 509.40	488541	452.75	
48	50	102	2011	2017	4016	4406	2127	2030	4016	2016	F37	104 10.62	74 38.30 0 0.00	104 65.82	67 507.27	488243	452.77	

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
49	46	104	2027	2024	2027	4302	6008R3	4007	2225	4004	F46	104 10.54	82 30.38 67 58.06	104 65.42	67 509.59	489037	452.33	
50	47	105	2029	4012	4015	2121	6103R2	2029	2322	2027	F45	100 4.34	67 34.44	104 66.60	67 513.97	489010	452.51	
51	52	102	2034	2030	5002	2033	4207R1	2032R1	2030	4006	F34	100 4.37	95 26.12 67 31.56	104 68.36	67 512.05	488992	452.56	
52	53	103	2017	4002	4023	4009	2031	4009	2032	2018	F51	100 4.11	73 28.11	104 61.23	67 507.16	488709	452.53	
53	54	105	2018	4014	2028	2130	4602	4105	2035	4009	F57	104 4.12	72 27.00	104 56.60	67 503.61	487408	452.44	
54	56	103	2018	4014	2028	2130	4602R1	4105	2035	4009	F57	100 4.06	89 21.18 69 28.38	104 61.98	67 508.23	487505	452.51	

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	Powhd	Cntlr	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	Remarks
55	55	102	2029	4012	4015	2121	4405R1	2029	4015	2027	F45	100 4.02	72 27.26	104 56.66	67 503.67	487688	453.26	Main engine 2029 replaced main engine 2011 after an on-pad abort. (IFA STS-55-E-1)
56	57	105	2017	4002	4023	4109R1	4009	2029	2018	2018	F51	100 3.92	72 29.04	104 59.60	67 505.85	488234	452.53	
57	51	103	2029	4012	4015	2224	4111R5	4008	4108	2027	F45	104 4.01	69 28.49	104 53.77	67 503.21	488357	452.27	
58	58	102	2016	4014	2028	2130	4110R1	4105	2035	4009	F57	100 3.92	67 26.00	104 61.04	67 509.21	493383	452.57	
59	61	105	2017	4002	4023	4007	4012R1	4009	4207	2018	F51	100 4.42	72 27.30	104 56.90	67 505.19	489428	452	
60	60	103	2032	2027	4016	2035	6007R3	2033	2036	2029	F38	104 4.25	70 25.69	104 57.21	67 505.85	488247	452.31	

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
61	62	102	2029	4012	4015	2224	92 10 R2	4008	4017	2027	F45	104 4.31	67 31.03	104 57.43	67 504.16	489377	452.5	
62	59	105	2018	4014	2028	2130	41 10 R2	4105	2035	4009	F57	100 3.87	67 27.39	104 60.83	67 506.75	490606	452.1	
63	65	102	2017	4002	4023	4007	21 28 R1	4009	40 16 R1	2118	F51	104 4.07	67 26.47	104 60.71	67 504.23	490071	451.78	
64	64	103	2029	4012	4015	2224	41 13 R1	4008	4017	2027	F45	100 3.71	67 26.11	104 61.63	67 508.36	488802	452.57	
65	68	105	2026	2104	2028	2128	40 15 R1	4011	2035 R1	2030	F53	100 3.81	67 27.33	104 60.45	67 507.02	490675	451.94	
66	66	104	2017	4002	4023	4007	21 26 R2	4009	40 16 R1	2018	F59	100 3.87	69 26.91	104 62.43	67 507.72	489556	451.77	

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
67	63	103	2029	4012	4015	2224	41132	4008	4017	2027	F45	104 4.00	94 18.09 69 30.89	104 53.29	69 505.14	489213	452.35	
68	67	105	2031	2019	5001	4406	22272	4110	61093	2028	F63	104 4.35	67 31.40	104 56.36	67 500.69	489277	452.01	
69	71	104	2032	2017	4016	2035	41121	2033	43091	2029	F37	104 3.84	68 28.96	104 54.72	68 504.31	489423	452.27	
70	70	103	2017	4002	4023	4007	21283	4009	40161	2018	F59	104 3.84	67 28.16	104 60.96	67 504.17	488689	452.16	
71	69	105	2029	4012	4015	2130	41132	4008	4017	2027	F45	104 3.69	67 29.93	104 60.17	67 503.54	488241	452.62	
72	73	102	2038	4017	2032	2220	80122	2030	4208	6007	F57	104 3.87	67 32.19	104 60.51	67 502.07	492234	453.09	

Note: See last page for Note

MAIN ENGINE POSITION 3

Miss Seq. No.	STS-No.	Orb. OV-	Main Engine Pos 3 Comp.									Main Engine Position Performance Summary						
			Eng	MCC	Nzl	LPOTP	HPOTP	LPFTP	HPFTP	PowHd	Cntlr	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	Remarks
73	74	104	2032	2017	4016	2035	4112R1	2033	4309R1	2029	F37	104 3.93	67 25.69	104 59.28	67 506.31	489885	452.63	

NNote: All engines times are referenced to Engine Start Command (ESC) .
a = Indicates revised or additional data provided by MSFC
STS-1
post-publication of referenced source.
4.0
b = Hardware changed since final acceptance, flow recirculation inhibitor (FRI) installed
c = Failure of unit FRI caused 7/24/91 launch scrub;
F21 was removed and replaced by F18
d = Replaced prior to STS-48
e = Replaced prior to STS-44
f = Replaced prior to STS-42

Source: MSFC, Final Flight Evaluation Reports,
and subsequent missions. Section

Note: See last page for Note

MAIN ENGINE SERIAL NUMBER/MAIN PROPULSION SYSTEM ENGINE LOCATION

Part I

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	2029	2030	2027	2107	2026	2032	2033	2034	2025	2035
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	99					3	2	1																				
7	7	99					3	2	1																				
8	8	99					3	2	1																				
9	9	102				1				2	3																		
10	41B	99					3	2									1												
11	41C	99					3					2					1												
12	41D	103							3	2							1												
13	41G	99										2	3		1														
14	51A	103					3			2							1												
15	51C	103					3			2							1												
16	51D	103					3			2							1												
17	51B	99										2	3		1														
18	51G	103					3			2							1												
19	51F	99										2	3		1														
20	51I	103					3			2							1												
21	51J	104				1			3		2																		
22	61A	99										2	3		1														
23	61B	104				1			3		2																		
24	61C	102						1		2							3												
25	51L	99										2	3		1														
26	26	103									1			2				3											
27	27	104																		3	2	1							
28	29	103												2				3	1										
29	30	104																		3	2	1							
30	28	102									1			2				3											
31	34	104																		3	2	1							
32	33	103				1													2				3						
33	32	102												2		1		3											
34	36	104									1										2	3							
35	31	103				1													2				3						
36	41	103				1													2				3						
37	38	104									1			2								3							
38	35	102					2									1		3											
39	37	104									1								2				3						
40	39	103																		3	2			1					
41	40	102						1						2								3							

MAIN ENGINE SERIAL NUMBER/MAIN PROPULSION SYSTEM ENGINE LOCATION

Part I

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	2029	2030	2027	2107	2026	2032	2033	2034	2025	2035
42	43	104					2									1		3											
43	48	103									1								2				3						
44	44	104						1												3	2								
45	42	103												2								3		1					
46	45	104					2									1		3											
47	49	105						2	3												1								
48	50	102				3					1								2										
49	46	104																				3			1	2			
50	47	105												2						3				1					
51	52	102						2													1						3		
52	53	103					2		3							1													
53	54	105								3	1															2			
54	56	103								8						1										2			
55	55	102															2		1	3									
56	57	105							3		1																2		
57	51	103																	1	3							2		
58	58	102								3						1	2												
59	61	105							3		1															2			
60	60	103					1																		3		2		
61	52	102															2		1	3									
62	59	105								3								1								2			
63	65	102							3		1										2								
64	64	103															2		1	3									
65	68	105																1								2		3	
66	66	104							3												1						2		
67	63	103															2			3									1
68	67	105					1												3							2			
69	71	104																1							3		2		
71	69	105															2			3									1
73	74	104					1																	2	3				

MAIN ENGINE SERIAL NUMBER/MAIN PROPULSION SYSTEM ENGINE LOCATION

Part II

Miss Seq. No.	STS-No.	Orb. OV-	Serial Number																										
			2019	2036	2017	2037	2031	2038																					
70	70	103	2	1	3																								
72	73	102				1	2	3																					

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
1	1	102	PD	BFS (backup flight software) failed to synchronize with PASS (primary avionics software system).	Two-day launch slip required to analyze problem and reconfigure for launch. April 10, 1981, launch plan - April 12, 1981, actual date.	See problem STS 1-2
1	1	102	PD	SRB ignition caused over-pressurization of Orbiter during lift-off.	Significant launch pad modifications were required.	Effectiveness of modifications has been verified on subsequent flights. See integration problem STS - 1-6 and problem STS 1-56.
1	1	102	PD	TPS damage was experienced.	Design improvements were required to reduce problem impact.	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.
1	1	102	PD	WCS problems were encountered.	Design improvements are required.	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.
1	1	102	PD	N204 spill in forward RCS module occurred during servicing for STS-2.	This required extensive cleaning of the forward RCS module and some component and tile replacement. Significant turnaround impact resulted.	
2	2	102	PD	Hold was required at T-31 seconds for APU oil system flush.	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.	See problem STS 2-1.
2	2	102	PD	MDM OF3 failed during countdown due to contamination within a semiconductor die.	Liftoff delayed 2 hours 40 minutes. MDM was replaced with spare which also failed. MDM from OV-099 was then installed.	See problem STS 2-2.
2	2	102	D	Second launch countdown delayed for 10 minutes to review systems status.	None	

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
2	2	102	D	APU 3 shutdown 2 minutes before other APU's due to lube oil overtemperature.	Extensive test and analysis resulted in water preload charge.	See problem STS 2-4. Problem repeated on STS-3, see STS 3-4.
2	2	102	S	Fuel cell 1 failed.	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 GN2 purge heater temperature sensor failed in GSE.	Launch delayed 1 hour.	
3	3	102	D	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.
3	3	102	D	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.
3	3	102	E	Bad weather was encountered at White Sands landing site.	The mission was extended for one day.	
3	3	102	E	Orbiter landed at White Sands.	Dust storm caused extensive contamination. Vehicle cleaning and maintenance caused significant turnaround impact.	
3	3	102	E	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.

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
4	4	102	E	Prelaunch rainstorms resulted in excessive moisture being absorbed by the tiles.	Tile bakeout on-orbit required considerable mission replanning. Tile waterproofing was improved and tile witness panel was implemented.	See problem STS 4-1.
4	4	102	E	Both SRB's were lost after water impact.	Extensive recovery operations and problem analysis effort resulted.	
4	4	102	E	Port payload bay door actuator stalled.	Thermal conditioning required to close doors had mission planning impact.	Cold-case closure will require thermal conditioning. See problem STS 4-13.
4	4	102	E	Vernier thruster coating degradation was noted.	Vernier thruster replacement was required. Testing and improvement of thrust nozzle coating was initiated.	See problem STS 4-33
5	5	102	S	EMU (extravehicular maneuvering unit) failed.	EVA was cancelled. Extensive analysis and tests were conducted.	Problems were corrected and EMU's were successfully flown on subsequent flights. See problems. STS 5-12 and 5-14.
5	5	102	S	OMS nozzle cracks were found postflight.	Intensified inspection procedures will be used until design changes can be implemented.	See problem STS 5-23.
6	6	099	PD	SSME 1 H2 leak into aft compartment was detected during FRF. Cracks in SSME No.1 detected by second FRF post-firing inspection.	All SSME's were removed and replaced. Extensive failure analysis, testing, and fixes caused launch delay of 2 months and 10 days.	See problem MSFC FRF-3, and MSFC Delta FRF-3.
6	6	099	PD	IUS failed to place TDRS in geosynchronous orbit.	Extensive TDRS maneuvering to achieve proper orbit was required. Failure analysis and fixes delayed other IUS-boosted payloads and Spacelab launch.	

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
6	6	099	PD	Humidity separator B circuit breaker tripped due to burned wire bundle.	Extensive review was made of wire routing and protection from abrasion.	See problem STS 6-8.
7	7	099	E	Weather at KSC was unacceptable for landing.	Orbiter landed two revolutions later at Edwards AFB. Landing occurred on revolution 98 instead of the planned revolution 96.	
8	8	099	PD	On-orbit TDRS testing required.	Launch was delayed 10 days.	Test of TDRSS required to assure operation of system in preparation for first Spacelab mission.
8	8	099	D	Bad weather at KSC.	Launch was delayed 17 minutes.	
8	8	099	PD	SRB nozzle erosion was found after recovery.	Rollback and vehicle destack 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.
9	9	102	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.
9	9	102	E	APU 1 and 2 underspeed shutdown occurred after landing.	All 3 APU's 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

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
9	9	102	E	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.
10	41B	099	PD	RMS wrist joint failed.	SPAS could not be deployed. EVA replanned and executed. RMS was removed postflight.	See problem STS 41B-18.
10	41B	099	PD	WESTAR and PALAPA PAM burns failed.	PALAPA deployment was delayed one day. Rescheduling of PAM-boosted payloads resulted.	
10	41B	099	PD	Ice formed on dump nozzles and caused damage to lefthand 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.
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 LDEF.	Launch was delayed 2 days.	See problem STS 41C-8
11	41C	099	E	TPAD (trunnion pin attachment device) failed to grapple with the SMM (Solar Maximum Mission) spacecraft.	One-day mission extension was required for replanning direct grapple of SMM with RMS.	
11	41C	099	E	Weather as KSC was unacceptable for landing.	Landing occurred at Edwards AFB. Mission was extended one revolution.	

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
12	41D	103	D	Debonded engine shield found after FRF required SSME 1 replacement.	Launch delayed 3 days.	
12	41D	103	PD	GPC5 failed.	Launch delayed 24 hours for problem analysis.	See problem STS 41D-2.
12	41D	103	PD	SSME 3 Main Fuel Valve actuator channel A miscompare at L0-6 seconds.	Launch delayed for 65 days for extensive analysis and testing. Vehicle returned to OPF and payloads remanifested with minimum impact to payload schedules.	See problem STS 41D-5, -6.
12	41D	103	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	PD	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.
13	41G	099	PD	Tile screed 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.	
15	51E	099	D	Tile replacement caused by deteriorated screed.	Launch rescheduled to 2/27/85 from 2/20/85.	See problem STS 41G-25.

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
15	51E	099	PD	Hydrogen umbilical leak.	Launch rescheduled to 3/3/85.	
15	51E	099	PD	TDRS payload had problem with communication system.	Mission 51E was cancelled on 3/7/85. Orbiter destacked and payloads remanifested.	
15	51C	103	PD	Weather at KSC was unacceptable for launch.	Launch delayed one day.	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-I).	Launch rescheduled to 3/28/85 from 3/19/85.	
16	51D	103	D	Facility access platform in OPF dropped and damaged the payload bay door.	Launch delayed 15 days, rescheduled to 4/12/85.	
16	51D	103	D	Ship in SRB impact area. Extensive brake damage and blown tire at landing.	Launch delayed 55 minutes. Future flights to land at Edwards AFB 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

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
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.	Launch delayed 17 days.	The CCV, CCV actuator, CCV wiring harness, and controller on ME 2 were replaced.
19	51F	099	D	Uplink TMBU incorrect address.	Launch delayed 1 hour 37 minutes.	See STS 51F-5
19	51F	099	E	Abort to Orbit required considerable mission replanning.	Mission extended for 17 revolutions for extended payload activities.	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.
20	51I	103	PD	GPC 5 failed.	Launch delayed 2 days from 8/25/85 to 8/27/85.	See problem STS 51I-1.
20	51I	103	D	Weather delay awaiting clearing in clouds cover, and ship in SRB recovery area.	Lift-off delayed 3 minutes 1 second.	None.
20	51I	103	S	AUSSAT sunshield hung-up on RMS camera.	Mission shortened 1 day due to early deployment of AUSSAT.	Procedural error in camera operation.
21	51J	104	PD	DOD FLIGHT		

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
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 AFB runway 22.	None
24	61C	102	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.
24	61C	102	PD	Launch scrubbed at T-14 seconds due to an indication that the right SRB HPU 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 a false indication and HPU had not exceeded redline speed limits. Earliest launch date possible was January 4, 1986, but revised to January 6, 1986, to provide additional flight crew training time over the holiday period.
24	61C	102	PD	Launch scrubbed at T-3 seconds due to accidental draining of 14,000 LB of LOX from ET. Colder, denser LOX from the ET tank caused the LOX temperature redline to be exceeded at engine interface.	Launch delayed 24 hours. Rescheduled for January 7, 1986.	None.
24	61C	102	PD	Recovery extended beyond the launch window for the SATCOM KU-1 satellite.		
24	61C	102	PD	Bad weather at both TAL 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.
24	61C	102	PD	A launch pad LO2 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.

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
24			PD	Bad weather at KSC.	Launch delayed 48 hours. Rescheduled for January 12, 1986.	None
24	61C	102	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
24	61C	102	E	Bad weather at KSC prohibited landing on originally scheduled landing date (January 17).	Landing was delayed 24 hours, rescheduled for January 18, 1986.	None
24	61C	102	E	Bad weather prohibited landing at KSC on January 18, 1986.	Mission extended one revolution and then landed at EAFB on January 18, 1986.	None
25	51L	099	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.
25	51L	099	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.
25	51L	099	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.
25	51L	099	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.

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
25	51L	099	PD	GSE hatch-closing fixture could not be removed from hatch, fixture had to be sawed off and attaching bolt drilled out before closeout could be complete. Launch was delayed and crosswinds 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.
25	51L	099	D	A Hardware Interface Module (HIM) in the Launch Processing System (LPS), which monitored the fire detection system failed during ET LH2 tanking.	LH2 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.
25	51L	099	S	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.	
27	27	104	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 - count-down 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

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
29	30	104	D	Range safety system computer hold.	Countdown held at T-9 minutes for additional 5 minutes for range safety system (RSS) computer.	4-28-89
29	30	104	D	Main engine 1 main component failure light.	Countdown held at T-31 seconds for SSME 1 main component failure light. Engine 1 LH2 recirculation pump had stopped. Launch scrubbed and recycled to 5/4/89.	4-28-89
29	30	104	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.
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.	a) Launch rescheduled from 10-12-89, 12:29 c.d.t., to 10-17-89, 11:57 c.d.t.	Originally scheduled:10-12-89, 12:29 c.d.t. Rescheduled: 10-17-89, 11:57 c.d.t.
31	34	104	D	b) T-5 minute hold for RTLS weather.	b) 24 hr reschedule.	Actual: 10-18-89, 11:53 c.d.t.
31	34	104	D	c) T-5 minute hold for RTLS and TAL weather.	c) Resumed count and launched at 11:53 c.d.t.	
32	33	103		DOD Mission	DOD Mission	Successful launch on 11-22-89, at 6:23:30 c.s.t.

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
33	32	102	PD	a) Launch pad configuration problems.	a) Launch rescheduled from 12-18-89 to 1-8-90.	
33	32	102	D	b) T-9 minute hold lengthened because of unsatisfactory weather in RTLS landing area.	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.	a) Launch rescheduled for 4-24-90 at 7:31 a.m. c.d.t.	
35	31	103	PD	b) Unscheduled hold at T-31 seconds for fill and drain valve failure to close automatically. Valve closed manually.	b) Countdown was held for 2 minutes 52 seconds to close valve.	Vehicle launch at 7:33:50.99 a.m. c.d.t.
36	41	103	D	a) Unscheduled hold at T-9 minutes of 10 minutes 43 seconds for rain showers.	a) Resumed countdown	
36	41	103	D	b) Unscheduled hold at T-5 minutes of 10 seconds to mask WSB 2 'OK' indication.	b) Resumed countdown	
36	41	103	D	c) Unscheduled hold at T-31 seconds of 1 minute 22 seconds for interface purge pressure oscillations.	c) Resumed countdown	Vehicle launch occurred at 0747 EDT on 10-06-90

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
37	38	104	D	DOD Mission	DOD Mission	
38	35	102	PD	a) Excessive hydrogen leakage.	a) Launch rescheduled from 5/29/90	
38	35	102	PD	b) Loss of payload telemetry	b) Launch rescheduled from 8/9/90	
38	35	102	PD	c) Excessive hydrogen leakage	c) Launch rescheduled from 9/5/90 and 9/17/90	
38	35	102	D	d) Countdown held for 21 minutes to verify minimums for optical coverage and radar acquisition	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	Launch at 095:14:22:45 G.m.t.
39	37	104	E	Deorbit maneuver delay because of high winds at Edwards AFB	One day delay in landing	
39	37	104	E	First landing opportunity waived; unacceptable weather conditions	One orbit delay in landing and landing site changed to Edwards AFB	

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
40	39	103	D	Transducer failure on HPOTP of main engine 3	Launch scrubbed. Five day delay of launch of STS-39.	
40	39	103	D	Unexpected operation of OPS 2 recorder	Launch delayed 32 minutes, 14 seconds	No LCC violation; condition satisfactory for launch
40	39	103	E	Deorbit maneuver delayed 3 minutes 50 seconds	Landing site changed from Edwards AFB to KSC because of high winds at Edwards AFB	Landing delay of 3 minutes 50 seconds
41	40	102	D	Cracking of temperature probe in MPS. Failure of MDM FA2; failure of GPC4.	Nine-day delay in planned launch	
41	40	102	D	IMU 2 bias shift exceeded OMRSD criteria	Four day delay in planned launch	
41	40	102	D	Weather conditions at launch pad	One hour 25 minute delay of launch	
42	43	104	D	Space Shuttle main engine controller 3 went to halt.	7 day delay in planned launch;	7-24-91 launch rescheduled to 8-1-91.
42	43	104	D	Loss of cabin vent valve closed indication, and then scrubbed for weather.	1 day delay in planned launch	8-1-91 launch rescheduled to 8-2-91.

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
43	48	103				Launched as scheduled on 9-12-91.
44	44	104	D	Redundant inertial measurement unit failure in inertial upper stage (IUS).	5 day delay in planned launch.	11-19-91 launch rescheduled to 11-24-91.
44	44	104	S	IMU 2 fail	Shortened mission by 3 days	7 day mission instead of 10 day mission.
45	42	103	D	Evaluate KSC field mill indicators	1 hr delay in planned launch	8-day mission instead of 7-day mission.
45	42	103	E	Additional science data	Extended mission 1 day	
46	45	104	D	LCC exceedance of LH2 and LO2 concentration in aft compartment	24 hr delay in planned launch	3-23-92 launch rescheduled to 3-24-92.
46	45	104	D	RTLS weather	13 minute 40 second hold	
47	49	105	None	RTLS/TAL weather	34 minute 00 second hold	Launched as scheduled on 5-7-92.

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
48	50	102	D,E	RTLS weather	5 minute 23 second hold	24-hour wave-off of landing
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.	1 hour 25 minutes delay in planned launch	
52	53	103	E	Unacceptable weather at KSC SLF.	1 orbit delay in landing	Landed at Edwards AFB instead of Shuttle Landing facility at KSC.
53	54	105	D	LSEAT violation	7 min. 30 sec. delay in planned launch	
54	56	103	D	Hydrogen high point bleed Valve close indication not on when polled at T-11 seconds.	48 hour delay in planned launch	Launched on 4-8-93, instead of 4-6-93.

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
54	56	103	E	Unacceptable weather at KSC SLF	24-hour delay in landing	Landed at SLF 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.
55	55	102	D	IMU BITE indication.	2 day delay to replace one IMU.	
55	55	102	E	Consumables budget excellent; MMT decision to extend misson.	Mission extended 24 hours to obtain additional scientific data.	
55	55	102	D	Unacceptable weather at SLF.	Landing delayed one orbit and landing site changed to Edwards AFB.	Landed on 5-6-93.
56	57	105	D	Unsactisfactory weather at RTLS sites and SLF	Launch delayed from June 20 to June 21, 1993.	
56	57	105	D	Aircraft in Range.	Launch delayed 22 seconds.	Outer hatch seal replaced during countdown; Successful launch on 6-21-93.
56	57	105	E	MMT decision to extend mission 1 day.	Additional scientific data obtained.	

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
56	57	105	E	Unacceptable weather at SLF.	Landing delayed 24 hours 6-30-93.	
56	57	105	E	Unacceptable weather at SLF.	Landing delayed 24 hours 7-1-93.	Landing at SLF on 7-1-93.
57	51	103	PD	MLP anomaly with PICs being armed without command.	Seven-day delay in launch to 7-24-93.	
57	51	103	D	Underspeed condition on RH SRB HPU.	Violation of LCC; rescheduled for 8-2-93.	
57	51	103	D	Comet Swift-Tuttle passing.	Rescheduled for 8-12-93.	
57	51	103	D	On-pad abort on 8-12-93.	Remove and replace three SSME's rescheduled for 9-12-93.	Successful launch at 255:11:45:00.006 G.m.t.
57	51	103	E	Unacceptable weather at SLF.	24-hour delay in landing.	Landed at SLF on 9-22-93.
58	58	102	D	Unacceptable weather at launch site.	24-hour delay in launch to 10-15-93.	

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
58	58	102	D	S-band transponder 2 failed.	72-hour delay in launch to 10-18-93.	
58	58	102	D	Intruder aircraft in Range area.	10-second delay in launch.	Successful launch at 291:14:53:10.009 G.m.t.
59	61	105	D	Excessive crosswinds (LCC violation) at SLF.	24-hour delay in launch to 12-2-93.	Successful launch at 336:09:26:59.983 G.m.t.
60	60	103	E	Unacceptable weather at SLF.	1 orbit delay in landing.	Landed at SLF at 042:19:19:22 G.m.t.
61	62	102	D	Unacceptable weather predicted at launch time.	24-hour delay in launch to 3-4-94.	Successful launch at 063:13:53:00 G.m.t.
62	59	105	D	Unacceptable weather at launch site and unacceptable winds at SLF.	24-hour delay in launch to 4-9-94	Successful launch at 099:11:05:00.020 G.m.t.
62	59	105	E	MMT extended mission 1 day.	Additional scientific data obtained.	
62	59	105	E	Unacceptable weather at SLF on 4-19-94.	Landing delayed 24 hours to 4-20-94.	

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
62	59	105	E	Unacceptable weather at SLF.	Landing retargeted for Edwards AFB.	Landed at EAFB on 4-20-94.
63	65	102	E	Unacceptable weather at the SLF.	Landing delayed 24 hours to 7-23-94.	Landed SLF at 204:10:38:00 G.m.t.
64	64	103	D	Unacceptable weather at RTLS landing area.	Launch was delayed 1 hour 52 minutes 55 seconds.	Weather improved to acceptable conditions at RTLS.
64	64	103	E	Unacceptable weather at SLF for both landing opportunities on the planned landing day. Both Landing opportunities at SLF and the first opportunity for EAFB were waived for second planned landing day.	Landing was targeted for the second EAFB landing opportunity on the first contingency day (~ 25 hour delay)	Landed at EAFB at 263:21:12:52 G.m.t. (9-20-94).
65	68	105	D	SSMEs shutdown at 230:10:53:58.157 G.m.t. (1.8 seconds prior to SRB ignition) because LCC redline was violated.	Launch was delayed 43 days to return vehicle to VAB and replace all three SSMEs,	Launch on 9-30-94 was completed on-time with no unplanned holds.
65	68	105	E	Weather conditions too dynamic at SLF for the planned landing. All landing opportunities at SLF waived for the planned landing day.	Landing was targeted for EAFB on the planned landing day.	Landing was completed at 284:17:02:08 G.m.t. on 10-11-94.
66	66	104	D	Weather conditions at the TAL site caused discussions which were not completed in time to pick up the countdown at the preplanned time.	Launch was delayed 3 minutes 43 seconds at T-5 minutes to complete discussions on weather conditions at the TAL site.	Launch was completed at 307:16:59:43.004 G.m.t. on 11-3-94.
66	66	104	E	Tropical storm was causing weather conditions to worsen at the SLF. Both SLF landing opportunities on planned landing day waived.	Landing was targeted for EAFB.	Landing was completed at 318:15:33:45 G.m.t. on the planned landing day.

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
67	63	103	D	IMU no. 2 failed during countdown.	Launch was delayed 24 hours (2-2-95 to 2-3-95) to allow time to replace IMU 2 and perform its checkout.	Launch was successfully completed on 2/3/95 at 034:05:22:03.994 G.m.t.
68	67	105	D	FES heater configuration changed (system 2 to 1) late in the countdown.	Launch was delayed 1 minute 13 seconds to verify proper FES heater operation prior to liftoff.	Launch was completed on 061:06:38:12:989 G.m.t. on 3-2-95.
68	67	105	E	Unacceptable weather at SLF on the planned landing day and first contingency day.	Landing was delayed approximately 24 hours and targeted for EAFB.	Landing was completed at 077:21:47:01 G.m.t. on the first contingency day.
69	71	104	D	ET propellant loading could not be completed because of lightning.	Launch delayed 24 hours to June 24, 1995.	
69	71	104	D	Unacceptable weather that was not predicted to clear.	Launch delayed 72 hours to June 27, 1995, because of forecast for continued unacceptable weather.	Launch was completed on-time at 178:19:32:18.988 G.m.t. on June 27, 1995.
70	70	104	D	Hold at T-31 seconds to verify Range Safety System receiver signal strength.	Launch was delayed 55 seconds.	Launch was completed at 194:13:41:55.020 G.m.t., on July 13, 1995.
71	69	105	PD	SRB nozzle required removal of RTV down to inflection point, and partial backfill and closeout.	Launch was delayed from August 3, 1995, to August 31, 1995.	
71	69	105	D	Fuel cell 2 condenser exit temperature increased above set point during startup. Fuel cell 2 replaced.	Launch delayed to September 7, 1995.	Launch was completed on time at 250:15:08:59.995 G.m.t. (September 7, 1995).

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT INPACT TO SHUTTLE FLIGHT PROGRAM

Miss Seq No	STS No	Orb OV-	Mission Changes (a)	Event	Impact	Remark
72	73	102	D	Hydrogen leak through SSME1 main fuel valve.	Launch scrubbed and rescheduled from September 28, 1995, to October 5, 1995.	
72	73	102	PD	Hurricane Opal weather effects.	Launch rescheduled to October 6, 1995 during L-1 briefing.	
72	73	102	D	Hydraulic fluid inadvertently drained from hydraulic system 1 during SSME 1 main fuel valve replacement.	Launch scrubbed prior to ET loading and rescheduled for October 7, 1995.	
72	73	102	D	Master Events Controller 1 BITE indicated MEC 1 core B critical drivers not enabled. MEC 1 replaced.	Launch scrubbed and rescheduled for October 14, 1995.	
72	73	102	PD	Inspection of SSME oxidizer ducts for cracks.	Launch rescheduled for October 15, 1995.	
72	73	102	D	Unacceptable weather initially delayed launch 1 hour, but weather did not improve.	Launch tentatively rescheduled for October 19, 1995, based on Atlas launch on October 18, 1995.	
72	73	102	PD	Atlas launch delayed.	Shuttle launch rescheduled for October 20, 1995.	Launch was completed on-time on October 20, 1995, at 293:13:53:00:013 G.m.t.
73	74	104	D	Unacceptable weather at TAL abort site.	Launch rescheduled from November 11, 1995, to November 12, 1995.	Launch was completed on-time at 316:12:30:43:013 G.m.t., on November 12, 1995.

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

Source: JSC/FA Program Mission Reports, STS-1 and subsequent mission.
JSC/FA22 Flight Problems Closures, STS-1 and subsequent mission.

SPECIFICATIONS FOR AVIONICS INCLUDING DPS, GNC, AND COMMUNICATIONS AND 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 (OV-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 INTERROGATER S-BAND
PLINTX	ME452-0152	0001	PAYLOAD INTERROGATER 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 AND 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

ORBITER AVIONICS

The configuration data for the Orbiter Avionics subsystem found in this document was reformatted beginning with the STS-41 (thirty-sixth) Shuttle flight, and was maintained on a computer under the control of Avionics personnel. The update of this computer was no longer continued after the STS-55 (fifty-fourth) Shuttle flight because of funding shortages. As a result, these data are no longer being updated.

AVIONICS
DATA PROCESSING (DPS) SUBSYSTEM

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	GENERAL PURPOSE COMPUTER												MASS MEMORY UNIT		MULTI-FUNCTION CRT DISPLAY SYSTEM										
				CENTRAL PROCESSING UNIT						INPUT-OUTPUT PROCESSOR								DEU				DU				KU		
				1	2	3	4	5	SP	1	2	3	4	5	SP	1	2	1	2	3	4	1	2	3	4	1	2	3
1	1	102		28	34	29	31	27	24	24	25	30	29	31	12	12	15	27	17	28	15	24	25	26	23	19	21	22
2	2	102		28	34	29	31	27	33	24	25	28	29	31	12	12	15	27	17	28	15	24	25	26	28	19	21	22
2	a	102		28	34	29	31	27	33	24	25	28	29	31	12	12	15	27	17	28	15	28	25	26	24	19	21	22
3	3	102		24	34	29	31	27	33	22	25	28	29	31	12	14	10	27	17	28	15	23	24	26	21	19	21	22
4	4	102		24	34	29	31	27	33	22	25	28	29	31	12	14	10	20	17	28	15	23	24	26	21	19	21	22
5	5	102		24	34	29	31	27	–	32	25	28	29	31	–	14	10	20	26	28	15	23	24	26	21	11	21	22
6	6	99		28	32	9	12	33	–	23	34	7	12	33	–	11	12	25	22	19	12	17	25	22	20	13	18	12
7	7	99		28	25	9	12	33	–	23	10	7	12	33	–	11	12	25	22	19	12	17	25	22	20	13	18	12
8	8	99		28	25	9	12	33	–	23	10	7	12	33	–	11	12	25	22	19	12	17	7	27	20	13	18	12
9	9	102		11	34	29	31	27	–	32	25	28	29	31	–	14	10	20	24	28	15	28	12	4	25	11	21	22
10	41B	99		33	31	29	9	27	24	7	29	33	24	28	10	11	12	25	22	7	12	17	7	27	20	13	18	12
11	41C	99		11	35	29	9	27	–	12	35	33	24	28	–	11	12	25	22	7	3	17	7	11	20	13	18	12
12	41D	103		12	22	33	31	35	–	25	1	32	10	35	–	8	13	27	13	19	26	16	18	13	14	1	6	17
12	a	103		12	22	33	31	35	–	25	1	32	10	35	–	8	13	27	13	19	26	16	14	13	18	1	6	17
13	41G	99		11	19	29	9	27	–	12	17	33	24	28	–	11	15	28	22	7	3	22	7	11	20	13	18	12
14	51A	103		12	22	33	31	35	–	25	1	32	10	35	–	8	5	27	13	19	26	16	18	13	3	1	6	17
15	51C	103		12	36	33	31	35	34	25	36	32	10	35	7	8	3	27	13	19	26	16	18	33	27	1	6	17
16	51D	103		12	36	33	31	35	34	25	36	32	10	35	7	8	3	27	13	19	26	16	18	33	27	1	6	17
17	51B	99		11	19	26	9	27	34	12	17	33	2	28	7	11	15	28	31	17	3	22	17	11	20	13	24	12
18	51G	103		12	6	33	31	35	34	25	21	27	10	35	7	8	5	27	13	7	26	14	19	33	27	1	6	17
19	51F	99		11	19	26	9	27	34	12	9	33	2	8	7	11	15	28	31	17	3	18	17	16	7	13	24	12
20	51I	103		12	6	33	31	15	34	25	21	27	10	30	7	8	5	27	13	7	26	14	19	33	27	1	6	17
21	51J	104		37	5	1	17	23	–	8	1	26	37	20	–	4	6	21	29	30	22	20	7	22	3	4	10	5
22	61A	99		11	19	26	9	27	–	12	9	33	2	28	–	11	15	28	31	16	3	18	17	34	23	13	24	12
23	61B	104		17	5	24	22	23	–	37	2	17	15	20	–	4	6	21	29	30	22	24	7	22	3	4	10	5
24	61C	102		15	29	1	36	34	24	22	29	1	36	7	17	12	2	19	24	9	15	26	35	27	19	11	21	22
25	51L	99		11	19	26	9	27	12	12	9	33	2	28	27	11	15	28	31	16	3	18	17	34	23	13	24	12
26	26	103		5	20	24	38	22	21	1	38	8	30	36	37	8	5	7	34	21	25	28	14	10	4	1	6	17
27	27	104		29	10	3	36	15	33	1	10	35	24	15	25	4	6	1	29	26	12	21	36	3	22	4	10	5
28	29	103		5	20	24	34	22	31	1	38	8	30	36	23	8	5	7	27	21	25	28	14	10	4	1	6	17
29	30	104		29	10	35	36	15	7	29	10	35	24	15	26	4	6	13	29	26	12	21	36	16	22	4	10	5
29	a	104		29	10	35	37	15	7	29	10	35	26	15	26	4	6	13	29	26	12	21	36	16	22	4	10	5
30	28	102		21	6	33	17	28	25	31	32	25	37	22	20	13	7	15	32	9	33	26	35	27	19	19	15	25
31	34	104		29	10	35	7	15	37	29	10	23	26	15	7	4	6	20	29	26	12	21	36	16	22	4	10	5
32	33	103		5	20	24	34	22	23	1	38	8	30	20	21	8	5	7	22	21	25	25	14	10	4	1	6	17

a = IN STS NO. INFLIGHT COMPONENT SWAP PERFORMED BY CREW

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	GENERAL PURPOSE COMPUTER												MASS MEMORY UNIT		MULTI-FUNCTION CRT DISPLAY SYSTEM										
				CENTRAL PROCESSING UNIT						INPUT-OUTPUT PROCESSOR								DEU				DU				KU		
				1	2	3	4	5	SP	1	2	3	4	5	SP	1	2	1	2	3	4	1	2	3	4	1	2	3
33	32	102		21	6	33	17	28	1	31	32	25	37	21	36	10	7	24	32	9	33	26	35	27	19	19	15	25
31	36	104		29	10	35	7	15	37	29	10	23	26	15	7	4	6	20	29	26	12	21	36	16	22	4	10	5
35	31	103		31	20	24	34	22	23	1	38	8	30	20	21	8	5	7	22	21	25	25	14	10	4	1	6	17

a = IN STS NO. INFLIGHT COMPONENT SWAP PERFORMED BY CREW

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	MULTIPLEXER - DEMULTIPLEXER																			ENGINE INTF UNIT		
				FF				FA				LF/LA		PL		OF				OA					
				1	2	3	4	1	2	3	4	1	2	1	2	1	2	3	4	1	2	3	1	2	3
1	1	102		58	59	60	30	65	63	62	64	69	68	76	27	67	66	70	71	72	73	74	9	11	12
2	2	102		58	59	60	30	65	63	62	64	69	68	76	27	67	66	93	71	72	73	74	9	11	12
2	***	102		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3	3	102		58	59	60	30	65	63	62	64	69	57	76	27	67	66	93	71	72	73	74	9	11	12
4	4	102		58	59	60	30	65	63	69	64	69	57	76	27	67	66	93	71	72	73	74	9	11	12
5	5	102		58	59	60	30	65	63	69	62	69	57	76	27	67	66	93	71	72	73	74	9	11	12
6	6	99		94	95	97	96	102	100	103	101	108	107	98	75	34	91	92	90	104	105	106	12	5	9
7	7	99		94	95	97	96	102	100	103	101	108	107	98	75	34	91	92	90	104	105	106	12	11	9
8	8	99		94	95	97	96	102	100	103	101	108	107	98	75	34	91	92	90	104	105	106	12	11	9
9	9	102		61	59	60	30	65	63	43	62	57	68	76	2	67	66	93	71	18	126	136	19	13	20
10	41B	99		94	95	22	96	102	100	103	101	69	107	98	75	34	70	92	90	104	105	106	14	16	18
11	41C	99		109	95	22	96	102	100	103	101	69	107	98	75	34	70	92	90	104	105	106	14	16	18
12	***	103		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
12	41D	103		58	112	97	110	121	123	122	64	113	114	99	120	117	116	115	118	72	73	125	15	21	17
13	41G	99		109	95	22	96	102	100	103	101	69	107	98	75	34	70	92	90	104	105	106	14	16	18
14	51A	103		58	112	97	110	121	123	122	64	113	114	99	120	117	116	115	118	72	73	125	15	21	17
15	51C	103		58	112	97	110	121	123	122	64	113	114	99	120	117	116	115	118	72	73	125	15	21	17
16	51D	103		58	112	97	110	121	123	122	64	113	114	99	120	117	116	115	118	72	73	125	15	21	17
17	51B	99		109	95	22	96	102	100	103	101	69	107	98	75	92	70	144	90	104	105	106	14	16	18
18	51G	103		58	94	97	110	121	123	122	64	113	114	99	120	117	116	115	118	72	73	125	15	21	17
19	51F	99		109	95	22	96	102	100	103	101	69	107	98	75	92	70	144	90	104	105	106	14	16	18
20	51I	103		58	94	97	112	121	123	9	64	113	114	99	120	117	116	115	118	72	73	125	15	21	17
21	51J	104		59	60	30	61	65	124	134	135	108	138	119	27	145	93	67	71	136	127	74	22	12	11
22	61A	99		142	95	22	96	102	100	103	101	69	107	147	75	92	70	34	90	104	105	106	14	16	18
23	61B	104		110	60	30	61	121	124	134	123	108	138	119	27	145	93	67	71	136	127	74	22	12	11
24	61C	102		109	112	97	111	132	63	43	62	57	68	152	2	149	144	115	146	18	126	137	19	13	20
25	51L	99		142	95	22	96	102	100	103	101	69	107	147	75	92	70	34	90	104	105	106	14	16	18
26	26	103		143	153	140	59	122	124	155	65	113	114	99	98	145	116	66	118	55	73	125	15	21	17
27	27	104		110	97	94	61	121	64	43	123	108	157	310	309	52	93	67	71	18	127	74	22	12	11
28	29	103		143	153	140	59	122	124	155	65	113	114	99	98	145	116	66	118	55	73	151	15	21	17
29	30	104		110	97	141	61	121	64	43	123	108	157	119	27	52	93	67	71	136	127	74	22	12	9
30	28	102		109	112	60	154	132	63	135	156	139	68	152	120	144	91	115	146	150	126	137	19	20	13
31	34	104		110	97	141	94	133	64	43	123	108	157	119	27	52	93	67	71	136	127	74	22	12	9
32	33	103		162	153	140	59	122	124	155	65	113	114	99	76	145	116	66	118	55	73	125	10	17	15
33	32	102		109	112	60	154	132	63	135	156	139	68	152	120	144	91	115	146	150	126	137	23	11	21

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	MULTIPLEXER - DEMULTIPLEXER																			ENGINE INTF UNIT		
				FF				FA				LF/LA		PL		OF				OA					
				1	2	3	4	1	2	3	4	1	2	1	2	1	2	3	4	1	2	3	1	2	3
34	36	104		110	97	141	94	133	64	43	123	108	157	119	27	52	93	67	71	136	127	74	22	12	9
35	31	103		162	153	140	59	122	124	155	65	113	114	99	76	145	116	66	118	55	73	125	10	17	15

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
49	STS-46	OV104	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR013	1	F
49	STS-46	OV104	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR007	2	F
49	STS-46	OV104	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR015	3	F
50	STS-47	OV105	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR017	1	F
50	STS-47	OV105	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR016	2	F
50	STS-47	OV105	DPS	BACKUP FLGIHT CONTROLLER	MC615-0023	-0004	0000TJR018	3	F
51	STS-52	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR014	1	F
51	STS-52	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR003	2	F
51	STS-52	OV102	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR002	3	F
53	STS-54	OV105	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR017	1	F
53	STS-54	OV105	DPS	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR016	2	F
53	STS-54	OV105	DPS	BACKUP FLGIHT CONTROLLER	MC615-0023	-0004	0000TJR018	3	F
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
36	STS-41	OV103	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000031	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	0000000038	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
38	STS-35	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		F/SP
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000021	1	F
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000006	2	F
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000033	3	F
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000001	4	F
41	STS-40	OV102	DPS	CENTRAL PROCESSING UNIT	MC615-0001	-0210	0000000038	5	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-38	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000017	1	F
37	STS-38	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000020	2	F
38	STS-35	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000009	1	F
38	STS-35	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000008	2	F
39	STS-37	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000017	1	F
39	STS-37	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000020	2	F
40	STS-39	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000018	1	F
40	STS-39	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	SLOT	STAT
44	STS-44	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000020	2	F
45	STS-42	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000018	1	F
45	STS-42	OV103	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000001	2	F
46	STS-45	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000017	1	F
46	STS-45	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000020	2	F
47	STS-49	OV105	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000010		F
47	STS-49	OV105	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000025	2	F
48	STS-50	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000009	1	F
48	STS-50	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000008	2	F
49	STS-46	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000017	1	F
49	STS-46	OV104	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000020	2	F
50	STS-47	OV105	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000010		F
50	STS-47	OV105	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000025	2	F
51	STS-52	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000009	1	F
51	STS-52	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000008	2	F
53	STS-54	OV105	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000010		F
53	STS-54	OV105	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000025	2	F
54	STS-55	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000009	1	F
54	STS-55	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000008	2	F
36	STS-41	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000007	1	F
36	STS-41	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000022	2	F
36	STS-41	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000021	3	F
36	STS-41	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000025	4	F
37	STS-38	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000020	1	F
37	STS-38	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000029	2	F
37	STS-38	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000026	3	F
37	STS-38	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000012	4	F
38	STS-35	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000024	1	F
38	STS-35	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000032	2	F
38	STS-35	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000018	3	F
38	STS-35	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000033	4	F
39	STS-37	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000020	1	F
39	STS-37	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000029	2	F
39	STS-37	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000026	3	F
39	STS-37	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000012	4	F
40	STS-39	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000007	1	F
40	STS-39	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000022	2	F
40	STS-39	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000021	3	F
40	STS-39	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000025	4	F
41	STS-40	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000035	1	F
41	STS-40	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000017	2	F
41	STS-40	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000030	3	F
41	STS-40	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000033	4	F
42	STS-43	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000034	1	F
42	STS-43	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000029	2	F
42	STS-43	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000026	3	F
42	STS-43	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000012	4	F
43	STS-48	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000027	1	F
43	STS-48	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000022	2	F
43	STS-48	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000021	3	F
43	STS-48	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000025	4	F
44	STS-44	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000009	1	F
44	STS-44	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000029	2	F
44	STS-44	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000026	3	F
44	STS-44	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000012	4	F
45	STS-42	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000027	1	F
45	STS-42	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000022	2	F
45	STS-42	OV103	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000021	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0000000009	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	-0108	0000000012	4	F
47	STS-49	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000037	1	F
47	STS-49	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000007	2	F
47	STS-49	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000036	3	F
47	STS-49	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000015	4	F
48	STS-50	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000039	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	0000000030	3	F
48	STS-50	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000033	4	F
49	STS-46	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000009	1	F
49	STS-46	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000029	2	F
49	STS-46	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000026	3	F
49	STS-46	OV104	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0108	0000000012	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
50	STS-47	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000015	4	F
51	STS-52	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000039	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
51	STS-52	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000033	4	F
53	STS-54	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000018	1	F
53	STS-54	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000007	2	F
53	STS-54	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000036	3	F
53	STS-54	OV105	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0110	0000000015	4	F
54	STS-55	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000039	1	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		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	0000000022	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		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	SLOT	STAT
42	STS-43	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000011	2	F
42	STS-43	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000022	3	F
42	STS-43	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000036	4	F
43	STS-48	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000026	1	F
43	STS-48	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000037	2	F
43	STS-48	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000010	3	F
43	STS-48	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000004	4	F
44	STS-44	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000020	1	F
44	STS-44	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000011	2	F
44	STS-44	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000022	3	F
44	STS-44	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000036	4	F
45	STS-42	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000026	1	F
45	STS-42	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000037	2	F
45	STS-42	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000024	3	F
45	STS-42	OV103	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000004	4	F
46	STS-45	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000020	1	F
46	STS-45	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000011	2	F
46	STS-45	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000022	3	F
46	STS-45	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000036	4	F
47	STS-49	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000035	1	F
47	STS-49	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000039	2	F
47	STS-49	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000016	3	F/SP
47	STS-49	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000038	4	F
48	STS-50	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000019	1	F
48	STS-50	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000027	2	F
48	STS-50	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000003	3	F
48	STS-50	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000007	4	F
49	STS-46	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000020	1	F
49	STS-46	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000011	2	F
49	STS-46	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000022	3	F
49	STS-46	OV104	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000036	4	F
50	STS-47	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000035	1	F
50	STS-47	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000039	2	F
50	STS-47	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000016	3	F/SP
50	STS-47	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000038	4	F
51	STS-52	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000019	1	F
51	STS-52	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000027	2	F
51	STS-52	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000003	3	F
51	STS-52	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000007	4	F
53	STS-54	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000035	1	F
53	STS-54	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000039	2	F
53	STS-54	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000016	3	F/SP
53	STS-54	OV105	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000038	4	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000019	1	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000027	2	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000003	3	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000007	4	F
36	STS-41	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000010	1	F
36	STS-41	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000017	2	F
36	STS-41	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000015	3	F
37	STS-38	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000020	1	F
37	STS-38	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000013	2	F
37	STS-38	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000019	3	F
38	STS-35	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000022	1	F
38	STS-35	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000011	2	F
38	STS-35	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000021	3	F
39	STS-37	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000020	1	F
39	STS-37	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000013	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
39	STS-37	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000019	3	F
40	STS-39	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000010	1	F
40	STS-39	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000017	2	F
40	STS-39	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000015	3	F
41	STS-40	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000022	1	F
41	STS-40	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000011	2	F
41	STS-40	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000021	3	F
42	STS-43	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000020	1	F
42	STS-43	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000013	2	F
42	STS-43	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000019	3	F
43	STS-48	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000010	1	F
43	STS-48	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000017	2	F
43	STS-48	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000015	3	F
44	STS-44	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000011	1	F
44	STS-44	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000013	2	F
44	STS-44	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000019	3	F
45	STS-42	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000010	1	F
45	STS-42	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000017	2	F
45	STS-42	OV103	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000015	3	F
46	STS-45	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000011	1	F
46	STS-45	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000013	2	F
46	STS-45	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000019	3	F
47	STS-49	OV105	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000010	1	F
47	STS-49	OV105	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000026	2	F
47	STS-49	OV105	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000009	3	F
48	STS-50	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000017	1	F
48	STS-50	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000025	2	F
48	STS-50	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000021	3	F
49	STS-46	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000011	1	F
49	STS-46	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000013	2	F
49	STS-46	OV104	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000019	3	F
50	STS-47	OV105	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000010	1	F
50	STS-47	OV105	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000026	2	F
50	STS-47	OV105	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000009	3	F
51	STS-52	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000017	1	F
51	STS-52	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000025	2	F
51	STS-52	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000021	3	F
53	STS-54	OV105	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000010	1	F
53	STS-54	OV105	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000026	2	F
53	STS-54	OV105	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000009	3	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000017	1	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000025	2	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000021	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		F/SP
42	STS-43	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000521	1	F
42	STS-43	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000518	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
42	STS-43	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000514	3	F
42	STS-43	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000524	4	F
42	STS-43	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000525	5	F
43	STS-48	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000505		F/SP
43	STS-48	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000504	1	F
43	STS-48	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000526	2	F
43	STS-48	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000508	3	F
43	STS-48	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000501	4	F
43	STS-48	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000519	5	F
44	STS-44	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000521	1	F
44	STS-44	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000518	2	F
44	STS-44	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000514	3	F
44	STS-44	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000524	4	F
44	STS-44	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000525	5	F
44	STS-44	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000517	6	F/SP
45	STS-42	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000504	1	F
45	STS-42	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000526	2	F
45	STS-42	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000508	3	F
45	STS-42	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000501	4	F
45	STS-42	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000519	5	F
45	STS-42	OV103	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000528	6	F/SP
46	STS-45	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000521	1	F
46	STS-45	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000518	2	F
46	STS-45	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000514	3	F
46	STS-45	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000524	4	F
46	STS-45	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000525	5	F
47	STS-49	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000523	1	F
47	STS-49	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000516	2	F
47	STS-49	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000522	3	F
47	STS-49	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000510	4	F
47	STS-49	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000520	5	F
47	STS-49	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000512	6	F/SP
48	STS-50	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000530	1	F
48	STS-50	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000527	2	F
48	STS-50	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000511	3	F
48	STS-50	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000532	4	F
48	STS-50	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000533	5	F
48	STS-50	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000534	6	F
49	STS-46	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000521	1	F
49	STS-46	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000518	2	F
49	STS-46	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000514	3	F
49	STS-46	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000524	4	F
49	STS-46	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000525	5	F
49	STS-46	OV104	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000509	6	F
50	STS-47	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000523	1	F
50	STS-47	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000516	2	F
50	STS-47	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000522	3	F
50	STS-47	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000510	4	F
50	STS-47	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000520	5	F
50	STS-47	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000505	6	F/SP
51	STS-52	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000530	1	F
51	STS-52	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0202	0000000527	2	F
51	STS-52	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000511	3	F
51	STS-52	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000532	4	F
51	STS-52	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000533	5	F
51	STS-52	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000503	6	F/SP
51	STS-52	WHSE-K	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000534		F
53	STS-54	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000523	1	F
53	STS-54	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000516	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
53	STS-54	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000522	3	F
53	STS-54	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000510	4	F
53	STS-54	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000520	5	F
53	STS-54	OV105	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000536	6	F/SP
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000530	1	F
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	OV103	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
36	STS-41	OV103	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000020	5	F
37	STS-38	OV104	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000017		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		F/SP
41	STS-40	OV102	DPS	INPUT/OUTPUT PROCESSING UNIT	MC615-0001	-0314	0000000031	1	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
39	STS-37	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000004	1	F
39	STS-37	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000010	2	F
39	STS-37	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000005	3	F
40	STS-39	OV103	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	0000000001	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	STAT
44	STS-44	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000005	3	F
45	STS-42	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000001	1	F
45	STS-42	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000006	2	F
45	STS-42	OV103	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000017	3	F
46	STS-45	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000004	1	F
46	STS-45	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000010	2	F
46	STS-45	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000005	3	F
47	STS-49	OV105	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000201	1	F
47	STS-49	OV105	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000203	2	F
47	STS-49	OV105	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000202	3	F
48	STS-50	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000019	1	F
48	STS-50	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000015	2	F
48	STS-50	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000025	3	F
49	STS-46	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000004	1	F
49	STS-46	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000010	2	F
49	STS-46	OV104	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000005	3	F
50	STS-47	OV105	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000201	1	F
50	STS-47	OV105	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000203	2	F
50	STS-47	OV105	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000202	3	F
51	STS-52	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000019	1	F
51	STS-52	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000015	2	F
51	STS-52	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000025	3	F
53	STS-54	OV105	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000201	1	F
53	STS-54	OV105	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000203	2	F
53	STS-54	OV105	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000202	3	F
54	STS-55	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000019	1	F
54	STS-55	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000015	2	F
54	STS-55	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000025	3	F
36	STS-41	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000122	1	F
36	STS-41	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000124	2	F
36	STS-41	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000155	3	F
36	STS-41	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000065	4	F
37	STS-38	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000134	1	F
37	STS-38	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000064	2	F
37	STS-38	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000043	3	F
37	STS-38	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000123	4	F
38	STS-35	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000132	1	F
38	STS-35	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000063	2	F
38	STS-35	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000135	3	F
38	STS-35	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000156	4	F
39	STS-37	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000134	1	F
39	STS-37	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000064	2	F
39	STS-37	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000043	3	F
39	STS-37	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000123	4	F
40	STS-39	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000122	1	F
40	STS-39	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000124	2	F
40	STS-39	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000155	3	F
40	STS-39	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000009	4	F
41	STS-40	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000132	1	F
41	STS-40	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000121	2	F
41	STS-40	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000135	3	F
41	STS-40	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000156	4	F
42	STS-43	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000134	1	F
42	STS-43	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000064	2	F
42	STS-43	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000043	3	F
42	STS-43	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000123	4	F
43	STS-48	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000122	1	F
43	STS-48	OV103	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000124	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	-5210	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	-5210	0000000064	2	F
44	STS-44	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	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	0000000124	2	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	-5210	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	-5210	0000000064	2	F
46	STS-45	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000065	3	F
46	STS-45	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	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	FLIGHE 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	-5210	0000000064	2	F
49	STS-46	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-5210	0000000065	3	F
49	STS-46	OV104	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000123	4	F
50	STS-47	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000215	1	F
50	STS-47	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000216	2	F
50	STS-47	OV105	DPS	FLIGHE AFT MULT./DEMULT.	MC615-0004	-7200	0000000224	3	F
50	STS-47	OV105	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-7200	0000000218	4	F
51	STS-52	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000132	1	F
51	STS-52	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000121	2	F
51	STS-52	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000135	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	FLIGHE 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	0000000132	1	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000121	2	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000135	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	-5110	0000000030	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	-5110	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	-5110	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	STAT
40	STS-39	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-5110	0000000030	1	F
40	STS-39	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000153	2	F
40	STS-39	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000140	3	F
40	STS-39	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-5110	0000000059	4	F
41	STS-40	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000109	1	F
41	STS-40	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000112	2	F
41	STS-40	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-5110	0000000060	3	F
41	STS-40	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000154	4	F
42	STS-43	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000110	1	F
42	STS-43	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000097	2	F
42	STS-43	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000141	3	F
42	STS-43	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000094	4	F
43	STS-48	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000143	1	F
43	STS-48	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000153	2	F
43	STS-48	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000140	3	F
43	STS-48	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-5110	0000000059	4	F
44	STS-44	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000110	1	F
44	STS-44	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000097	2	F
44	STS-44	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000141	3	F
44	STS-44	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000094	4	F
45	STS-42	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000143	1	F
45	STS-42	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000153	2	F
45	STS-42	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000140	3	F
45	STS-42	OV103	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-5110	0000000059	4	F
46	STS-45	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000222	1	F/SP
46	STS-45	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000097	2	F
46	STS-45	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000141	3	F
46	STS-45	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000094	4	F
47	STS-49	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000208	1	F
47	STS-49	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000221	2	F
47	STS-49	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000209	3	F
47	STS-49	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000211	4	F
48	STS-50	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000109	1	F
48	STS-50	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000112	2	F
48	STS-50	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-5110	0000000060	3	F
48	STS-50	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000154	4	F
49	STS-46	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000222	1	F/SP
49	STS-46	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000097	2	F
49	STS-46	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000141	3	F
49	STS-46	OV104	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000094	4	F
50	STS-47	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000210	1	F
50	STS-47	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000221	2	F
50	STS-47	OV105	DPS	FLIGHT FWD MULT./DEMULT	MC615-0004	-7100	0000000209	3	F
50	STS-47	OV105	DPS	FLIGHT FWD MULT./DEMULT	MC615-0004	-7100	0000000211	4	F
51	STS-52	OV102	DPS	FLIGHT FWD MULT./DEMULT	MC615-0004	-6110	0000000154	1	F
51	STS-52	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000112	2	F
51	STS-52	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-5110	0000000060	3	F
51	STS-52	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000109	4	F
53	STS-54	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000210	1	F
53	STS-54	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000221	2	F
53	STS-54	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000209	3	F
53	STS-54	OV105	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-7100	0000000211	4	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000154	1	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000112	2	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-5110	0000000060	3	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000109	4	F
36	STS-41	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000113	1	F
36	STS-41	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000114	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
37	STS-38	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F
37	STS-38	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F
38	STS-35	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000139	1	F
38	STS-35	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-5600	0000000068	2	F
39	STS-37	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F
39	STS-37	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F
40	STS-39	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000113	1	F
40	STS-39	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000114	2	F
41	STS-40	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000139	1	F
41	STS-40	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-5600	0000000068	2	F
42	STS-43	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F
42	STS-43	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F
43	STS-48	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000113	1	F
43	STS-48	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000114	2	F
44	STS-44	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F
44	STS-44	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F
45	STS-42	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000113	1	F
45	STS-42	OV103	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000114	2	F
46	STS-45	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F
46	STS-45	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F
47	STS-49	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000212	1	F
47	STS-49	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000223	2	F
48	STS-50	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000213	LM1	F/SP
48	STS-50	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000138	1	F/SP
48	STS-50	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-5600	0000000068	2	F
49	STS-46	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000108	1	F
49	STS-46	OV104	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000157	2	F
50	STS-47	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000212	1	F
50	STS-47	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000223	2	F
51	STS-52	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000213	LM1	F/SP
51	STS-52	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000138	1	F/SP
51	STS-52	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-5600	0000000068	2	F
53	STS-54	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000212	1	F
53	STS-54	OV105	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000223	2	F
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000213	LM1	F/SP
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000138		F/SP
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-5600	0000000068		F
36	STS-41	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000099	1	F
36	STS-41	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-5710	0000000076	2	F
37	STS-38	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F
37	STS-38	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-5710	0000000002	2	F
38	STS-35	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000152	1	F
38	STS-35	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000120	2	F
39	STS-37	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F
39	STS-37	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-5710	0000000002	2	F
40	STS-39	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000099	1	F
40	STS-39	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-5710	0000000076	2	F
41	STS-40	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000152	1	F
41	STS-40	OV102	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000120	2	F
42	STS-43	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F
42	STS-43	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-5710	0000000002	2	F
43	STS-48	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000099	1	F
43	STS-48	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000098	2	F
44	STS-44	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F
44	STS-44	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-5710	0000000002	2	F
45	STS-42	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000099	1	F
45	STS-42	OV103	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-5710	0000000027	2	F
46	STS-45	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-6710	0000000119	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
46	STS-45	OV104	DPS	PAYLOAD MULT./DEMULT.	MC615-0004	-5710	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	-5710	0000000076	2	F/SP
50	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	000000PD08	1	F
36	STS-41	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD03	2	F
37	STS-38	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD05	1	F
37	STS-38	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD06	2	F
38	STS-35	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0201	000000PD10	1	F
38	STS-35	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD07	2	F
39	STS-37	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD05	1	F
39	STS-37	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD06	2	F
40	STS-39	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD08	1	F
40	STS-39	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD03	2	F
41	STS-40	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0201	000000PD10	1	F
41	STS-40	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD07	2	F
42	STS-43	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD05	1	F
42	STS-43	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD06	2	F
43	STS-48	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD08	1	F
43	STS-48	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD03	2	F
44	STS-44	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0300	000000PD01	1	F
44	STS-44	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD06	2	F
45	STS-42	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD08	1	F
45	STS-42	OV103	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD03	2	F
46	STS-45	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0300	000000PD01	1	F
46	STS-45	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD06	2	F
47	STS-49	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0300	000000PD12	1	F
47	STS-49	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD13	2	F
48	STS-50	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD02	1	F
48	STS-50	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0300	000000PD04	2	F
49	STS-46	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0300	000000PD01	1	F
49	STS-46	OV104	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD06	2	F
50	STS-47	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0300	000000PD12	1	F
50	STS-47	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD13	2	F
51	STS-52	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD02	1	F
51	STS-52	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0300	000000PD04	2	F
53	STS-54	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0300	000000PD12	1	F
53	STS-54	OV105	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD13	2	F
54	STS-55	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD02	1	F
54	STS-55	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0300	000000PD04	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0000000009	1	F
54	STS-55	OV102	DPS	DATA BUS ISOLATION AMP.	MC409-0019	-0002	0000000008	2	F
54	STS-55	OV102	DPS	DISPLAY ELECTRONICS UNIT	MC615-0008	-0109	0000000039	1	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
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000019	1	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000027	2	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000003	3	F
54	STS-55	OV102	DPS	DISPLAY UNIT	MC615-0006	-0112	0000000007	4	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000017	1	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000025	2	F
54	STS-55	OV102	DPS	ENGINE INTERFACE UNIT	MC409-0009	-0012	0000000021	3	F
54	STS-55	OV102	DPS	GENERAL PURPOSE COMPUTER	MC615-0025	-0203	0000000530	1	F
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
54	STS-55	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000019	1	F
54	STS-55	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000015	2	F
54	STS-55	OV102	DPS	KEYBOARD UNIT	MC615-0007	-0104	0000000025	3	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000132	1	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000121	2	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000135	3	F
54	STS-55	OV102	DPS	FLIGHT AFT MULT./DEMULT.	MC615-0004	-6210	0000000156	4	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000154	1	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000112	2	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-5110	0000000060	3	F
54	STS-55	OV102	DPS	FLIGHT FWD MULT./DEMULT.	MC615-0004	-6110	0000000109	4	F
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-7600	0000000213	LM1	F/SP
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-6610	0000000138	1	F/SP
54	STS-55	OV102	DPS	COMMAND DECODER MULT./DEMULT.	MC615-0004	-5600	0000000068	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
54	STS-55	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0202	000000PD02	1	F
54	STS-55	OV102	DPS	MASS MEMORY UNIT	MC615-0005	-0300	000000PD04	2	F

AVIONICS
GUIDANCE NAVIGATION AND CONTROL (GNC) SUBSYSTEM

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	IMU			ST		TACAN			MLS RF			MLS DEC			RALT	
				1	2	3	-Z	-Y	1	2	3	1	2	3	1	2	3	1	2
1	1	102		18	11	21	5	3	65	60	64	12	6	19	17	18	19	--	--
2	2	102		18	11	12	5	3	65	34	64	12	6	19	17	18	19	--	--
3	3	102		18	11	12	5	3	65	34	64	12	6	19	8	20	21	--	--
4	4	102		18	11	16	5	3	65	34	64	12	6	19	8	20	21	--	--
5	5	102		18	11	21	5	3	65	60	64	12	6	19	8	20	13	--	--
6	6	99		7	13	19	7	2	70	69	34	28	9	12	20	24	21	16	17
7	7	99		4	13	1	7	2	70	69	34	28	9	12	20	24	21	16	11
8	8	99		4	13	1	7	2	70	69	34	28	9	12	20	24	21	18	17
9	9	102		18	11	21	5	3	65	72	35	18	20	19	18	17	10	14	15
10	41B	99		9	11	1	7	2	70	69	34	28	9	12	20	24	21	18	17
11	41C	99		9	11	1	7	2	70	69	34	28	9	12	20	24	21	18	17
12	41D	103		7	5	4	9	11	63	64	66	23	22	21	28	27	22	13	4
13	41G	99		9	11	1	7	2	70	69	34	28	9	12	20	24	21	18	17
14	51A	103		7	5	4	9	11	63	64	66	23	22	21	28	27	22	13	4
15	51C	103		7	5	4	9	11	63	64	66	23	22	20	28	27	22	13	12
16	51D	103		7	5	4	9	11	63	64	60	23	22	20	28	27	22	11	13
17	51B	99		9	11	1	7	10	70	69	34	28	9	18	20	24	21	18	17
18	51G	103		7	5	4	9	11	63	64	66	23	22	20	28	8	22	11	13
19	51F	99		13	11	1	7	10	70	69	34	28	9	18	20	24	13	18	17
20	51I	103		7	5	4	9	11	63	64	72	23	22	20	28	8	22	11	13
21	51J	104		14	21	12	12	8	75	62	73	24	25	26	19	26	23	6	7
22	61A	99		13	11	1	7	10	70	74	34	28	9	18	20	2	13	18	17
23	61B	104		14	21	12	12	8	58	62	73	24	26	25	19	26	23	6	7
24	61C	102		24	23	10	5	3	48	71	35	21	20	19	18	17	10	14	15
25	51L	99		13	11	1	7	10	70	74	34	28	9	18	20	2	13	18	17
26	26	103		7	5	20	9	13	64	69	72	6	29	27	28	8	22	20	19
27	27	104		14	18	12	11	8	62	68	73	24	26	25	19	26	23	21	22
28	29	103		7	5	20	9	13	64	69	72	6	29	27	28	8	22	20	19
29	30	104		14	18	12	11	8	70	65	60	19	26	25	19	26	23	21	22
30	28	102		24	23	10	6	3	48	71	63	23	12	20	18	17	10	23	25
31	34	104		14	9	12	11	8	70	62	60	19	26	29	19	26	23	21	22
32	33	103		7	5	20	9	13	64	65	72	6	20	27	28	8	22	20	19
33	32	102		24	23	10	6	3	48	71	63	23	12	22	18	17	10	23	25
34	36	104		14	9	12	11	8	73	62	67	19	26	29	19	26	23	21	22
35	31	103		7	5	20	9	13	64	65	72	6	20	27	28	8	22	20	19

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	ADTA				AA				RGA				LSRB RGA			RSRB RGA		
				1	2	**3	**4	1	2	3	4	1	2	3	4	1	2	3	1	2	3
1	1	102		611	614	612	610	11	6	8	7	14	15	16	17	36	37	38	24	25	26
2	2	102		611	614	612	610	11	6	8	7	14	15	16	17	39	27	16	44	20	28
3	3	102		611	614	612	610	9	12	13	14	14	15	16	17	22	42	38	48	47	46
4	4	102		611	614	612	610	9	12	13	14	14	15	16	17	33	35	41	24	25	45
5	5	102		611	614	612	610	9	12	13	14	14	15	16	17	31	36	40	12	10	14
6	6	99		303	610	301	304	15	16	17	18	21	18	20	19	11	13	15	23	29	34
7	7	99		303	610	301	304	15	16	17	18	21	18	20	19	39	27	38	43	28	46
8	8	99		303	610	301	304	15	16	17	18	21	18	20	19	42	37	44	20	22	30
9	9	102		309	312	605	314	23	6	24	7	14	15	16	17	12	36	14	43	28	39
10	41B	99		303	610	301	304	15	16	17	18	21	18	20	19	11	13	29	17	34	48
11	41C	99		303	302	301	304	15	16	17	18	21	18	20	19	42	30	22	46	44	37
12	41D	103		308	307	305	306	19	20	22	21	26	25	24	22	38	18	21	32	40	10
13	41G	99		303	302	301	304	15	16	17	18	21	18	20	19	43	28	16	31	15	23
14	51A	103		308	307	305	306	19	20	22	21	26	25	24	22	19	27	50	20	29	34
15	51C	103		308	307	305	306	19	20	22	21	26	25	24	22	37	44	46	11	26	39
16	51D	103		308	307	305	306	19	20	22	21	26	25	24	22	32	48	51	21	38	40
17	51B	99		303	302	301	304	15	16	17	18	21	18	20	19	13	14	36	12	17	49
18	51G	103		308	307	305	306	19	20	22	21	26	25	24	22	10	18	52	22	53	56
19	51F	99		303	302	301	304	15	16	17	18	21	18	20	19	42	55	57	23	30	31
20	51I	103		308	307	305	306	19	20	22	21	26	25	24	22	60	44	46	54	61	62
21	51J	104		410	412	411	404	9	13	25	12	27	30	29	28	50	58	63	51	64	65
22	61A	99		303	302	301	304	15	16	17	18	21	18	20	19	21	32	66	13	14	16
23	61B	104		410	412	411	404	9	13	25	12	27	30	29	28	15	28	36	18	40	67
24	61C	102		309	312	310	405	23	6	24	7	14	15	16	17	47	52	69	43	56	76
25	51L	99		303	302	301	304	15	16	17	18	21	18	20	19	42	55	70	23	30	31
26	26	103		308	307	305	306	19	20	22	21	23	31	24	22	–	86	87	–	85	90
27	27	104		410	412	411	404	9	13	25	12	27	30	29	26	–	81	89	–	83	84
28	29	103		9	12	5	6	19	20	22	21	23	31	24	22	–	86	87	–	85	90
29	30	104		410	412	411	404	9	13	25	12	27	32	29	28	–	81	89	–	61	84
30	28	102		414	8	11	405	23	6	24	7	14	15	16	17	9	79	80	–	91	92
31	34	104		410	412	411	404	9	13	25	12	27	32	29	28	–	93	95	–	94	96
32	33	103		9	12	7	6	19	20	22	21	23	31	24	22	–	97	99	–	98	100
33	32	102		414	8	11	405	23	6	24	7	14	15	16	17	–	88	114	–	113	115
34	36	104		410	412	411	404	9	13	25	12	27	32	29	28	–	105	107	–	106	108
35	31	103		9	12	7	6	19	20	22	21	23	31	24	22	–	109	111	–	110	112

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	NOTES	DDU			HSI		AI	SPI	AMI		AME		AVVI		AVVE		ASA				RHC		
				CDR	PLT	AFT	CDR	PLT			CDR	PLT	CDR	PLT	CDR	PLT	CDR	PLT	1	2	3	4	CDR	PLT	AFT
1	1	102		8	9	10	8	9	4	6	9	10	9	10	9	10	10	10	11	12	14	16	9	10	8
2	2	102		8	9	10	8	6	4	6	9	10	9	10	9	10	10	10	11	12	14	16	9	10	8
3	3	102		8	9	10	8	6	4	6	9	10	9	10	9	10	10	10	11	12	14	16	9	2	8
4	4	102		8	9	10	8	6	4	6	9	10	9	10	9	10	10	10	11	12	14	16	9	2	8
5	5	102		8	9	10	8	6	4	6	9	10	9	10	9	10	10	10	11	12	14	16	9	2	8
6	6	99		11	12	13	11	12	1	7	12	11	12	11	13	14	14	11	23	26	25	24	13	12	15
7	7	99		11	12	13	11	9	1	7	12	11	12	11	13	14	14	11	23	26	25	24	13	12	15
8	8	99		11	14	13	11	9	1	7	12	11	12	11	13	14	14	11	23	26	25	24	13	12	15
9	9	102		8	10	9	6	8	4	6	9	10	9	10	9	10	10	10	20	21	22	30	9	2	11
10	41B	99		11	14	13	11	9	1	7	12	11	12	11	13	14	14	11	23	26	25	24	13	12	15
11	41C	99		11	14	13	11	9	1	7	12	11	12	11	13	14	14	11	23	26	25	24	13	12	15
12	41D	103		12	16	17	14	13	2	8	14	13	14	13	16	13	13	13	29	27	28	19	17	10	16
13	41G	99		11	14	13	11	9	1	7	12	11	12	11	13	14	14	11	23	26	25	24	19	20	8
14	51A	103		12	16	17	14	13	2	8	14	13	14	13	16	13	13	13	29	27	28	19	17	10	16
15	51C	103		12	16	17	14	13	2	8	14	17	14	17	16	11	11	13	29	27	28	19	17	10	16
16	51D	103		12	16	17	14	13	2	8	14	17	14	17	16	11	11	13	29	27	28	19	17	10	16
17	51B	99		11	14	13	11	9	1	7	12	11	12	11	13	14	14	11	23	26	25	24	19	20	8
18	51G	103		7	16	17	14	13	2	8	14	17	14	17	16	11	11	13	29	27	28	19	17	10	16
19	51F	99		11	14	13	11	9	1	7	12	11	12	11	13	14	14	11	23	26	25	24	19	20	8
20	51I	103		7	16	17	14	13	2	9	14	17	14	17	16	11	11	13	29	27	28	19	11	10	16
21	51J	104		18	20	–	16	15	6	–	15	13	15	13	15	17	17	17	16	11	12	14	2	21	12
22	61A	99		11	14	13	11	9	1	7	12	11	12	11	13	14	14	11	23	26	25	24	19	20	8
23	61B	104		18	20	19	16	15	6	10	10	13	10	13	15	17	17	17	16	11	12	14	2	21	12
24	61C	102		8	10	9	6	8	4	6	16	10	16	10	9	10	10	10	20	21	22	30	13	18	14
25	51L	99		11	14	13	11	12	1	7	12	11	12	11	13	14	14	11	23	26	25	24	19	20	8
26	26	103		17	9	15	14	9	2E	6	14	17	14	17	16	11	11	13	29	27	28	19	11	9	15
27	27	104		12	19	7	16	15	6E	9	7	13	7	13	14	17	17	17	16	11	12	14	2	21	12
28	29	103		17	9	15	14	9	5E	6	14	17	14	17	16	11	11	13	29	27	28	19	11	9	15
29	30	104		12	19	7	13	15	6E	5	3	13	3	13	12	15	15	17	31	11	12	14	2	21	12
30	28	102		8	20	18	6	8	4E	8	16	9	16	9	10	9	9	10	20	21	22	30	18	13	14
31	34	104		12	19	7	13	15	6E	5	3	13	3	13	12	15	15	17	31	11	12	14	2	21	12
32	33	103		17	9	15	14	9	5E	6	14	17	14	17	16	11	11	13	29	27	28	19	11	9	15
33	32	102		8	20	18	6	8	4E	8	16	9	16	9	17	9	9	10	20	21	22	30	18	13	14
34	36	104		10	19	7	13	10	6E	10	10	13	10	13	12	15	15	17	31	11	12	14	2	21	12
35	31	103		17	9	15	14	9	5E	6	14	17	14	17	16	11	11	13	29	27	28	19	11	9	15

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	THC		SBTC		RPTA		ADI			RJDF		RJDA		PDU		ATVC			
				FWD	AFT	CDR	PLT	CDR	PLT	CDR	PLT	AFT	1	2	1	2	RS	BF	1	2	3	4
1	1	102		2	3	4	5	4	5	9	8	10	4	13	2	7	401	401	11	8	9	10
2	2	102		2	3	4	5	4	5	9	8	10	4	13	2	7	401	401	11	8	9	10
3	3	102		2	3	4	5	4	5	9	8	10	4	13	2	7	401	401	11	8	9	10
4	4	102		2	3	4	5	4	5	9	8	10	4	13	2	7	401	401	11	8	9	10
5	5	102		2	3	4	5	4	5	9	8	10	19	21	18	20	–	–	11	8	9	10
6	6	99		5	6	6	7	6	7	12	4	14	17	16	14	15	403	403	16	15	18	14
7	7	99		5	6	6	7	6	7	12	4	14	17	16	14	15	403	403	16	15	18	14
8	8	99		5	6	6	7	6	7	12	4	14	17	16	14	15	403	403	16	15	18	14
9	9	102		2	3	4	5	4	5	9	8	10	19	24	18	20	401	401	11	8	9	10
10	41B	99		5	6	6	7	6	7	12	4	14	17	16	14	15	403	403	16	15	18	14
11	41C	99		5	6	6	7	6	7	12	4	14	17	16	14	15	403	403	16	15	18	22
12	41D	103		4	8	9	10	8	2	11	15	13	10	25	6	22	404	505	19	21	20	23
13	41G	99		5	6	6	7	6	7	12	4	14	17	16	14	15	403	403	16	15	18	22
14	51A	103		4	8	9	10	8	2	11	15	13	10	25	6	22	404	505	19	21	20	23
15	51C	103		4	8	9	10	8	2	11	15	13	10	21	6	22	404	505	19	21	20	23
16	51D	103		4	8	9	10	8	2	11	15	13	10	21	6	22	404	505	19	21	20	23
17	51B	99		5	6	6	7	6	7	12	4	14	17	16	14	23	403	403	16	15	18	22
18	51G	103		8	4	10	9	8	2	11	15	13	10	21	6	22	404	505	19	21	20	23
19	51F	99		5	6	6	7	6	7	12	4	14	17	16	14	23	403	404	16	15	18	22
20	51I	103		8	4	10	9	8	2	11	15	13	10	21	6	22	404	505	19	21	20	23
21	51J	104		9	10	1	11	10	11	17	18	16	13	4	2	7	405	403	27	25	26	17
22	61A	99		5	6	6	7	6	7	12	4	14	17	16	14	23	403	404	16	15	18	22
23	61B	104		9	10	1	11	10	11	17	18	16	13	4	2	7	405	403	27	25	26	17
24	61C	102		2	3	5	4	5	4	9	8	10	19	24	18	20	401	406	11	8	9	10
25	51L	99		5	6	6	7	6	7	12	4	14	17	16	14	26	403	404	16	15	18	22
26	26	103		8	4	10	9	8	2	11	15	13	10	21	6	22	404	505	19	21	20	23
27	27	104		9	10	1	11	10	11	17	18	16	13	4	2	7	405	403	27	25	26	17
28	29	103		8	4	10	9	8	2	11	15	13	10	21	6	22	404	505	19	20	21	23
29	30	104		9	10	1	11	10	11	17	18	16	13	4	2	7	405	403	27	25	14	17
30	28	102		2	7	4	12	4	5	9	8	10	19	24	18	20	406	405	11	8	9	10
31	34	104		9	10	1	11	10	11	17	18	16	13	4	2	7	403	406	27	25	14	17
32	33	103		8	4	10	9	8	2	11	15	13	10	21	6	22	405	403	19	21	20	23
33	32	102		2	7	4	12	4	5	9	8	10	19	24	18	20	406	405	11	8	9	10
34	36	104		9	10	1	11	10	11	17	18	16	13	4	2	7	403	406	27	25	14	17
35	31	103		8	4	10	9	8	2	11	15	13	10	21	6	22	405	403	19	21	20	23

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	OMS PODS		OMS CONTROLLER				OMS ACTUATOR			
						LH		RH		LH		RH	
				LH	RH	PRI	SEC	PRI	SEC	PIT	SEC	PIT	LSEC
1	1	102		LV01	RV01	110	109	106	107	1104	3109	1103	3108
2	2	102		LV01	RV01	110	109	106	107	1104	3109	1112	3108
3	3	102		LV01	RV01	110	109	106	107	1104	3109	1114	3108
4	4	102		LV01	RV01	110	109	106	107	1104	3109	1114	3108
5	5	102		LV01	RV01	110	109	106	107	1104	3109	1114	3108
6	6	99		LP01	RP01	111	117	122	114	1111	3120	1113	3119
7	7	99		LP01	RP01	111	124	122	114	1111	3120	1113	3119
8	8	99		LP01	RP01	111	124	122	114	1111	3120	1113	3119
9	9	102		LV01	RV01	110	109	106	107	1112	3125	1114	3118
10	41B	99		LP01	RP01	111	124	122	114	1111	3120	1113	3119
11	41C	99		LP03	RP01	120	119	122	114	1116	3122	1113	3119
12	41D	103		LP03	RP03	120	119	116	113	1113	3122	1115	3121
13	41G	99		LP01	RP01	111	124	122	114	1111	3120	1104	3119
14	51A	103		LP03	RP03	120	119	116	113	1113	3122	1115	3121
15	51C	103		LP03	RP03	120	119	116	113	1113	3122	1115	3121
16	51D	103		LP03	RP03	120	119	116	113	1113	3122	1115	3121
17	51B	99		LP01	RP04	111	124	112	121	1111	3120	1123	3117
18	51G	103		LP04	RP03	115	118	116	113	1125	3129	1115	3121
19	51F	99		LP01	RP04	111	124	112	121	1111	3120	1123	3117
20	51I	103		LP04	RP03	115	118	116	113	1125	3129	1115	3121
21	51J	104		LP03	RP01	120	119	122	117	1113	3122	1104	3119
22	61A	99		LP01	RP03	111	124	116	113	1111	3120	1115	3121
23	61B	104		LP03	RP01	120	119	122	117	1113	3122	1104	3119
24	61C	102		LP04	RP04	115	118	123	121	1125	3129	1123	3117
25	51L	99		LP01	RP01	113	106	109	114	1112	3108	1126	3128
26	26	103		LP04	RP03	107	118	116	115	125	129	115	121
27	27	104		LP01	RP01	126	111	110	117	111	120	114	119
28	29	103		LP04	RP03	107	118	116	115	125	129	115	121
29	30	104		LP01	RP01	126	111	110	117	111	120	114	119
30	28	102		LP04	RP04	115	118	123	121	1125	3129	1123	3117
31	34	104		LP01	RP01	126	111	110	117	111	120	114	119

LV01 = E112; ORIGINALLY DELIVERED WITH OV102
LP01 = E111; ORIGINALLY DELIVERED WITH OV099
LP03 = E113; ORIGINALLY DELIVERED WITH OV103
LP04 = E114; ORIGINALLY DELIVERED WITH OV104
LP05 = E115; TO BE DELIVERED WITH OV105

RV01 = E122; ORIGINALLY DELIVERED WITH OV102
RP01 = E121; ORIGINALLY DELIVERED WITH OV099
RP03 = E123; ORIGINALLY DELIVERED WITH OV103
RP04 = E124; ORIGINALLY DELIVERED WITH OV104
RP05 = E125; TO BE DELIVERED WITH OV105

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	OMS PODS		OMS CONTROLLER				OMS ACTUATOR			
						LH		RH		LH		RH	
				LH	RH	PRI	SEC	PRI	SEC	PIT	SEC	PIT	LSEC
32	33	103		LP04	RP03	107	118	116	115	125	129	115	121
33	32	102		LP04	RP04	115	118	123	121	1125	3129	1123	3117
34	36	104		LP01	RP01	126	111	110	117	111	120	114	119
35	31	103		LP04	RP03	107	118	116	115	125	129	115	121

LV01 = E112; ORIGINALLY DELIVERED WITH OV102
LP01 = E111; ORIGINALLY DELIVERED WITH OV099
LP03 = E113; ORIGINALLY DELIVERED WITH OV103
LP04 = E114; ORIGINALLY DELIVERED WITH OV104
LP05 = E115; TO BE DELIVERED WITH OV105

RV01 = E122; ORIGINALLY DELIVERED WITH OV102
RP01 = E121; ORIGINALLY DELIVERED WITH OV099
RP03 = E123; ORIGINALLY DELIVERED WITH OV103
RP04 = E124; ORIGINALLY DELIVERED WITH OV104
RP05 = E125; TO BE DELIVERED WITH OV105

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	NOTES	MPS ACTUATORS						ELEVON SERVO ACTUATORS			
				ME1		ME2		ME3					
				PIT	YAW	PIT	YAW	PIT	YAW	LI	LO	RI	RO
1	1	102		2602	2803	2701	2801	2709	2810	1702	1802	1703	1901
2	2	102		2602	2803	2701	2801	2709	2810	1702	1802	1703	1901
3	3	102		2602	2803	2701	2801	2709	2810	1702	1802	1703	1901
4	4	102		2602	2803	2701	2801	2709	2810	1702	1802	1703	1901
5	5	102		2602	2803	2701	2801	2709	2810	1702	1802	1703	1901
6	6	99		1703	1906	1804	1905	1803	1907	1707	1803	1706	1904
7	7	99		1703	1906	1804	1905	1803	1907	1707	1803	1706	1904
8	8	99		1703	1906	1804	1905	1803	1907	1707	1803	1706	1904
9	9	102		2602	2803	2701	2801	2709	2810	1702	1802	1703	1901
10	41B	99		1703	1906	1804	1905	1803	1907	1707	1803	1706	1904
11	41C	99		1703	1906	1804	1905	1803	1907	1707	1803	1706	1904
12	41D	103		2604	2808	2705	2809	2706	2802	1709	1804	1712	1905
13	41G	99		1703	1906	1804	1905	1803	1907	1709	1804	1712	1905
14	51A	103		2604	2808	2705	2809	2706	2802	1707	1803	1706	1904
15	51C	103		2604	2808	2705	2809	2706	2802	1709	1804	1708	1905
16	51D	103		2604	2808	2705	2809	2706	2802	1709	1804	1712	1905
17	51B	99		1703	1906	1804	1905	1803	1907	1707	1803	1706	1904
18	51G	103		2604	2808	2705	2809	2706	2802	1709	1804	1712	1905
19	51F	99		1703	1906	1804	1905	1803	1907	1707	1803	1706	1904
20	51I	103		2604	2808	2705	2809	2706	2802	1709	1804	1712	1905
21	51J	104		2605	2814	2708	2812	2707	2811	1710	1805	1711	1906
22	61A	99		1703	1906	1804	1905	2702	1907	1707	1803	1706	1904
23	61B	104		2605	2814	2708	2812	2707	2811	1710	1805	1711	1906
24	61C	102		2602	2803	2701	2801	2709	2810	1702	1802	1703	1901
25	51L	99		1703	1906	1804	1905	2702	1907	1707	1803	1706	1904
26	26	103		2604	2808	2703	2809	2706	2802	1709	1804	1712	1907
27	27	104		2605	2814	2708	2812	2707	2811	1710	1802	1711	1906
28	29	103		2604	2808	2703	2813	2706	2802	1709	1804	1712	1907
29	30	104		2605	2814	2708	2812	2707	2811	1710	1802	1711	1906
30	28	102		2602	2803	2701	2801	2709	2810	1702	1802	1703	1901
31	34	104		2605	2814	2708	2812	2707	2811	1710	1802	1711	1906
32	33	103		2604	2808	2703	2813	2706	2802	1709	1804	1712	1907
33	32	102		2602	2803	2703	2801	2707	2810	1702	1802	1703	1901
34	36	104		2605	2814	2708	2812	2707	2811	1710	1802	1711	1906
35	31	103		2604	2808	2703	2813	2706	2802	1709	1804	1712	1907

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
36	STS-41	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000019	1	F
36	STS-41	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000020	2	F
36	STS-41	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000022	3	F
36	STS-41	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000021	4	F
37	STS-38	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000009	1	F
37	STS-38	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000013	2	F
37	STS-38	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000025	3	F
37	STS-38	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000012	4	F
38	STS-35	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000023	1	F
38	STS-35	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000006	2	F
38	STS-35	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000011	3	F
38	STS-35	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000007	4	F
39	STS-37	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000009	1	F
39	STS-37	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000013	2	F
39	STS-37	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000025	3	F
39	STS-37	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000012	4	F
40	STS-39	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000019	1	F
40	STS-39	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000020	2	F
40	STS-39	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000022	3	F
40	STS-39	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000021	4	F
41	STS-40	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000023	1	F
41	STS-40	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000006	2	F
41	STS-40	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000011	3	F
41	STS-40	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000007	4	F
42	STS-43	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000009	1	F
42	STS-43	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000013	2	F
42	STS-43	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000025	3	F
42	STS-43	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000012	4	F
43	STS-48	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000019	1	F
43	STS-48	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000020	2	F
43	STS-48	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000022	3	F
43	STS-48	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000021	4	F
44	STS-44	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000009	1	F
44	STS-44	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000013	2	F
44	STS-44	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000025	3	F
44	STS-44	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000012	4	F
45	STS-42	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000019	1	F
45	STS-42	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000020	2	F
45	STS-42	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000022	3	F
45	STS-42	OV103	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000021	4	F
46	STS-45	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000009	1	F
46	STS-45	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000013	2	F
46	STS-45	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000025	3	F
46	STS-45	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000012	4	F
47	STS-49	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000029	1	F
47	STS-49	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000028	2	F
47	STS-49	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000026	3	F
47	STS-49	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000027	4	F
48	STS-50	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000023	1	F
48	STS-50	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000006	2	F
48	STS-50	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000011	3	F
48	STS-50	OV102	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000007	4	F
49	STS-46	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000009	1	F
49	STS-46	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000013	2	F
49	STS-46	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000025	3	F
49	STS-46	OV104	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000012	4	F
50	STS-47	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	-2043	0000000029	1	F
50	STS-47	OV105	GNC	ACCELEROMETER ASSEMBLY	MC621-0043	2043	0000000028	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
40	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	0004274626	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
36	STS-41	OV103	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	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
37	STS-38	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067404	4	F
38	STS-35	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067411	1	F
38	STS-35	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318008	2	F
38	STS-35	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318011	3	F
38	STS-35	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067405	4	F
39	STS-37	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318009	1	F
39	STS-37	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067412	2	F
39	STS-37	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000631	3	F
39	STS-37	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067404	4	F
40	STS-39	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318006	1	F
40	STS-39	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318012	2	F
40	STS-39	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067410	3	F
40	STS-39	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067414	4	F
41	STS-40	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067411	1	F
41	STS-40	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318011	2	F
41	STS-40	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318005	3	F
41	STS-40	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067405	4	F
42	STS-43	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318009	1	F
42	STS-43	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067412	2	F
42	STS-43	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000631	3	F
42	STS-43	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067404	4	F
43	STS-48	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318006	1	F
43	STS-48	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318012	2	F
43	STS-48	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067410	3	F
43	STS-48	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067414	4	F
44	STS-44	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318009	1	F
44	STS-44	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067412	2	F
44	STS-44	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000631	3	F
44	STS-44	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067404	4	F
45	STS-42	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318006	1	F
45	STS-42	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318012	2	F
45	STS-42	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067410	3	F
45	STS-42	OV103	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067414	4	F
46	STS-45	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318009	1	F
46	STS-45	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067412	2	F
46	STS-45	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000747	3	F
46	STS-45	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067404	4	F
47	STS-49	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318008	1	F
47	STS-49	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000755	2	F
47	STS-49	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000739	3	F
47	STS-49	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000763	4	F
48	STS-50	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067411	1	F
48	STS-50	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318011	2	F
48	STS-50	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318005	3	F
48	STS-50	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067405	4	F
49	STS-46	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318009	1	F
49	STS-46	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067412	2	F
49	STS-46	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000747	3	F
49	STS-46	OV104	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067404	4	F
50	STS-47	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318008	1	F
50	STS-47	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000755	2	F
50	STS-47	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000739	3	F
50	STS-47	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000763	4	F
51	STS-52	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067411	1	F
51	STS-52	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318011	2	F
51	STS-52	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318005	3	F
51	STS-52	OV102	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000067405	4	F
53	STS-54	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000318008	1	F
53	STS-54	OV105	GNC	AIR DATA TRANSDUCER ASSEMBLY	MC409-0011	-0006	0000000755	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	[illegible]	1	F
38	STS-35	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	2	F
38	STS-35	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	3	F
38	STS-35	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	4	F
39	STS-37	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	1	F
39	STS-37	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	2	F
39	STS-37	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	3	F
39	STS-37	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	4	F
40	STS-39	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	1	F
40	STS-39	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000018	2	F
40	STS-39	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000028	3	F
40	STS-39	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	4	F
41	STS-40	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	1	F
41	STS-40	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	2	F
41	STS-40	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000022	3	F
41	STS-40	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	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	0000000029	1	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
43	STS-48	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000019	4	F
44	STS-44	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000038	1	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
45	STS-42	OV103	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000019	4	F
46	STS-45	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000038	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	[illegible]	1	F
47	STS-49	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	2	F
47	STS-49	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	3	F
47	STS-49	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	[illegible]	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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
49	STS-46	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000038	1	F
49	STS-46	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000011	2	F
49	STS-46	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000012	3	F
49	STS-46	OV104	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000014	4	F
50	STS-47	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000035	1	F
50	STS-47	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000037	2	F
50	STS-47	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000034	3	F
50	STS-47	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000036	4	F
51	STS-52	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000020	1	F
51	STS-52	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000021	2	F
51	STS-52	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000022	3	F
51	STS-52	OV102	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000027	4	F
53	STS-54	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000035	1	F
53	STS-54	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000037	2	F
53	STS-54	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000034	3	F
53	STS-54	OV105	GNC	AERO SURFACE SERVO AMP	MC621-0043	-6046	0000000036	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
36	STS-41	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000019	1	F
36	STS-41	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000021	2	F
36	STS-41	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000020	3	F
36	STS-41	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000023	4	F
37	STS-38	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000027	1	F
37	STS-38	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000025	2	F
37	STS-38	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000014	3	F
37	STS-38	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000017	4	F
38	STS-35	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000011	1	F
38	STS-35	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000008	2	F
38	STS-35	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000009	3	F
38	STS-35	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000010	4	F
39	STS-37	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000027	1	F
39	STS-37	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000025	2	F
39	STS-37	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000014	3	F
39	STS-37	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000017	4	F
40	STS-39	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000019	1	F
40	STS-39	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000021	2	F
40	STS-39	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000020	3	F
40	STS-39	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000023	4	F
41	STS-40	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000011	1	F
41	STS-40	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000008	2	F
41	STS-40	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000009	3	F
41	STS-40	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000010	4	F
42	STS-43	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000027	1	F
42	STS-43	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000025	2	F
42	STS-43	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000014	3	F
42	STS-43	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000017	4	F
43	STS-48	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	[illegible]	1	F
43	STS-48	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	[illegible]	2	F
43	STS-48	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	[illegible]	3	F
43	STS-48	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	[illegible]	4	F
44	STS-44	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	[illegible]	1	F
44	STS-44	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000025	2	F
44	STS-44	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000014	3	F
44	STS-44	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000017	4	F
45	STS-42	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000019	1	F
45	STS-42	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000021	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
45	STS-42	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000020	3	F
45	STS-42	OV103	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000023	4	F
46	STS-45	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000027	1	F
46	STS-45	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000025	2	F
46	STS-45	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000014	3	F
46	STS-45	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000017	4	F
47	STS-49	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000034	1	F
47	STS-49	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000033	2	F
47	STS-49	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000031	3	F
47	STS-49	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000032	4	F
48	STS-50	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000011	1	F
48	STS-50	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000008	2	F
48	STS-50	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000009	3	F
48	STS-50	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000010	4	F
49	STS-46	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000027	1	F
49	STS-46	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000025	2	F
49	STS-46	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000014	3	F
49	STS-46	OV104	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000017	4	F
50	STS-47	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000034	1	F
50	STS-47	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000033	2	F
50	STS-47	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000031	3	F
50	STS-47	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000032	4	F
51	STS-52	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000011	1	F
51	STS-52	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000008	2	F
51	STS-52	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000009	3	F
51	STS-52	OV102	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000010	4	F
53	STS-54	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000034	1	F
53	STS-54	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000033	2	F
53	STS-54	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000031	3	F
53	STS-54	OV105	GNC	ASCENT THRUST VECTOR CONTROL	MC621-0043	-6541	0000000032	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
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	LIB	F
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000407	LOB	F
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000403	RIB	F
36	STS-41	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000408	ROB	F
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000308		F
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	LIB	F
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000402	LOB	F
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000404	RIB	F
37	STS-38	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000409	ROB	F
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	-0083	[illegible]		F
38	STS-35	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	[illegible]	LIB	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
38	STS-35	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000410	LOB	F
38	STS-35	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0011	0000000401	RIB	F
38	STS-35	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000404	ROB	F
39	STS-37	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000308		F
39	STS-37	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000308		F
39	STS-37	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000315		F
39	STS-37	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000316		F
39	STS-37	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000406		F
39	STS-37	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000303	LIB	F
39	STS-37	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000402	LOB	F
39	STS-37	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000404	RIB	F
39	STS-37	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000409	ROB	F
40	STS-39	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000306		F
40	STS-39	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000306		F
40	STS-39	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000313		F
40	STS-39	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000314		F
40	STS-39	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000403		F
40	STS-39	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000402	LIB	F
40	STS-39	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000407	LOB	F
40	STS-39	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000403	RIB	F
40	STS-39	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000408	ROB	F
41	STS-40	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000307		F
41	STS-40	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000307		F
41	STS-40	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000311		F
41	STS-40	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000312		F
41	STS-40	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000401		F
41	STS-40	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000403	LIB	F
41	STS-40	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000410	LOB	F
41	STS-40	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0011	0000000401	RIB	F
41	STS-40	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000404	ROB	F
42	STS-43	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000308		F
42	STS-43	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000308		F
42	STS-43	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000315		F
42	STS-43	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000316		F
42	STS-43	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000406		F
42	STS-43	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000303	LIB	F
42	STS-43	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000402	LOB	F
42	STS-43	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000404	RIB	F
42	STS-43	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000409	ROB	F
43	STS-48	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000306		F
43	STS-48	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000306		F
43	STS-48	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000313		F
43	STS-48	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000314		F
43	STS-48	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000403		F
43	STS-48	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000402	LIB	F
43	STS-48	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000407	LOB	F
43	STS-48	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000403	RIB	F
43	STS-48	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000408	ROB	F
44	STS-44	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000308		F
44	STS-44	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000308		F
44	STS-44	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000315		F
44	STS-44	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0017	0000000316		F
44	STS-44	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0073	0000000406		F
44	STS-44	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000303	LIB	F
44	STS-44	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000402	LOB	F
44	STS-44	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000404	RIB	F
44	STS-44	OV104	GNC	BODY FLAP ACTUATION	MC621-0056	-0022	0000000409	ROB	F
45	STS-42	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000306		F
45	STS-42	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000306		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	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		F
45	STS-42	OV103	GNC	BODY FLAP ACTUATION	MC621-0056	-0024	0000000402	LIB	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	0000000403	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
48	STS-50	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0016	0000000307		F
48	STS-50	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0019	0000000307		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	0000000401	RIB	F
48	STS-50	OV102	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	0000000403	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	0000000404	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	0000000411	LOB	F
50	STS-47	OV105	GNC	BODY FLAP ACTUATION	MC621-0056	-0021	0000000406	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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
51	STS-52	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0011	0000000401	RIB	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	-0019	0000000309		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	LIB	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	RIB	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	-0019	0000000307		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	LIB	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	RIB	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	LIB	F
36	STS-41	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000004	LOB	F
36	STS-41	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000012	RIB	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	LIB	F
37	STS-38	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000002	LOB	F
37	STS-38	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000008	RIB	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	LIB	F
38	STS-35	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000006	LOB	F
38	STS-35	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000003	RIB	F
38	STS-35	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000001	ROB	F
39	STS-37	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000010	LIB	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	RIB	F
39	STS-37	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000006	ROB	F
40	STS-39	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000009	LIB	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	RIB	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	LIB	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	RIB	F
41	STS-40	OV102	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000001	ROB	F
42	STS-43	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	[illegible]	LIB	F
42	STS-43	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0018	[illegible]	LOB	F
42	STS-43	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0017	[illegible]	RIB	F
42	STS-43	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0019	[illegible]	ROB	F
43	STS-48	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	[illegible]	LIB	F
43	STS-48	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0018	[illegible]	LOB	F
43	STS-48	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	[illegible]	RIB	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	LIB	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	RIB	F
44	STS-44	OV104	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000006	ROB	F
45	STS-42	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000009	LIB	F
45	STS-42	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000004	LOB	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
45	STS-42	OV103	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000012	RIB	F
45	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	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000011	LIB	F
47	STS-49	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0018	0000000007	LOB	F
47	STS-49	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0017	0000000014	RIB	F
47	STS-49	OV105	GNC	ELEVON ACTUATORS	MC621-0014	-0019	0000000005	ROB	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-50	OV102	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
50	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	0000000017	2	F
41	STS-40	OV102	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	SLOT	STAT
44	STS-44	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000014	1	F
44	STS-44	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000009	2	F
44	STS-44	OV104	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	0000000200	3	F
45	STS-42	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000010	1	F
45	STS-42	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000005	2	F
45	STS-42	OV103	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000020	3	F
46	STS-45	OV104	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000014	1	F
46	STS-45	OV104	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	0000000203	2	F
46	STS-45	OV104	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	0000000200	3	F
47	STS-49	OV105	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000019	2	F
47	STS-49	OV105	GNC	INERTIAL MEASUREMENT UNIT	MC409-0004	-0010	0000000012	3	F
47	STS-49	OV105	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	0000000208	1	F
48	STS-50	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000025	1	F
48	STS-50	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000017	2	F
48	STS-50	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000016	3	F
49	STS-46	OV104	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000014	1	F
49	STS-46	OV104	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	0000000203	2	F
49	STS-46	OV104	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	0000000200	3	F
50	STS-47	OV105	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000019	2	F
50	STS-47	OV105	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000012	3	F
50	STS-47	OV105	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	0000000208	1	F
51	STS-52	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000025	1	F
51	STS-52	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000017	2	F
51	STS-52	OV102	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000016	3	F
53	STS-54	OV105	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000019	2	F
53	STS-54	OV105	GNC	INERTIAL MEASUREMENT UNIT (KT-70)	MC409-0004	-0010	0000000012	3	F
53	STS-54	OV105	GNC	INERTIAL MEASUREMENT UNIT (HAINS)	MC409-0126	-1004	0000000208	1	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
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000004	1P	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000008	1Y	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000003	2P	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000013	2Y	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000006	3P	F
36	STS-41	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000002	3Y	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000005	1P	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000014	1Y	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATROS	MC621-0015	-0027	0000000008	2P	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000012	2Y	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000007	3P	F
37	STS-38	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000011	3Y	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000002	1P	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000003	1Y	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000001	2P	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000001	2Y	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000009	3P	F
38	STS-35	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000010	3Y	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000005	1P	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000014	1Y	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATROS	MC621-0015	-0027	0000000008	2P	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000012	2Y	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000007	3P	F
39	STS-37	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000011	3Y	F
40	STS-39	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000004	1P	F
40	STS-39	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000008	1Y	F
40	STS-39	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000003	2P	F
40	STS-39	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000013	2Y	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	3Y	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	1Y	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	2Y	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	3Y	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	1Y	F
42	STS-43	OV104	GNC	MAIN ENGINE ACTUATROS	MC621-0015	-0027	0000000008	2P	F
42	STS-43	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000012	2Y	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	3Y	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	1Y	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	2Y	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	3Y	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	1Y	F
44	STS-44	OV104	GNC	MAIN ENGINE ACTUATROS	MC621-0015	-0027	0000000008	2P	F
44	STS-44	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000012	2Y	F
44	STS-44	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000007	3P	F
44	STS-44	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000011	3Y	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	1Y	F
45	STS-42	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000003	2P	F
45	STS-42	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000013	2Y	F
45	STS-42	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000006	3P	F
45	STS-42	OV103	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000002	3Y	F
46	STS-45	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0026	0000000005	1P	F
46	STS-45	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000014	1Y	F
46	STS-45	OV104	GNC	MAIN ENGINE ACTUATROS	MC621-0015	-0027	0000000008	2P	F
46	STS-45	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000012	2Y	F
46	STS-45	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000007	3P	F
46	STS-45	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000011	3Y	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	1Y	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	2Y	F
47	STS-49	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000010	3P	F
47	STS-49	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000017	3Y	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	1Y	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	2Y	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	3Y	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	1Y	F
49	STS-46	OV104	GNC	MAIN ENGINE ACTUATROS	MC621-0015	-0027	0000000008	2P	F
49	STS-46	OV104	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000012	2Y	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	3Y	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	1Y	F
50	STS-47	OV105	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0027	0000000011	2P	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	3Y	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	1Y	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	1Y	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	3Y	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	1Y	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	9643000006		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
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	SLOT	STAT
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
45	STS-42	OV103	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000003		F
46	STS-45	OV104	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0015	9643000006		F
47	STS-49	OV105	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0020	9643000004		F
48	STS-50	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	OV105	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	OV105	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
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	OV105	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2161	0000000113		F
53	STS-54	OV105	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2163	0000000117		F
53	STS-54	OV105	GNC	OMS THRUST VECTOR CONTROL ACTUATOR	MC621-0009	-2163	0000000122		F
53	STS-54	OV105	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	OV105	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000107		F
53	STS-54	OV105	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	[illegible]		F
53	STS-54	OV105	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-0125	[illegible]		F
53	STS-54	OV105	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	[illegible]		F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	[illegible]		F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	[illegible]		F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	[illegible]		F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	[illegible]		F
36	STS-41	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	[illegible]	1	F
36	STS-41	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	[illegible]	2	F
36	STS-41	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000024	3	F
36	STS-41	OV103	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
37	STS-38	OV104	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
38	STS-35	OV102	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
39	STS-37	OV104	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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	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	OV102	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	0000000029	3	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	0000000032	2	F
44	STS-44	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000029	3	F
44	STS-44	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000028	4	F
45	STS-42	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000023	1	F
45	STS-42	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000031	2	F
45	STS-42	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000024	3	F
45	STS-42	OV103	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000022	4	F
46	STS-45	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000027	1	F
46	STS-45	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000032	2	F
46	STS-45	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000029	3	F
46	STS-45	OV104	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000028	4	F
47	STS-49	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000034		F
47	STS-49	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000035		F
47	STS-49	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000036		F
47	STS-49	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	0000000037		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	[illegible]	1	F
53	STS-54	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	[illegible]	2	F
53	STS-54	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	[illegible]	3	F
53	STS-54	OV105	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0011	[illegible]	4	F
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	[illegible]	1	F
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	[illegible]	2	F
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	[illegible]	3	F
54	STS-55	OV102	GNC	RATE GYRO ASSY-ORBITER	MC493-0015	-0010	[illegible]	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	0000000057	3	F
36	STS-41	OV103	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000083	4	F
37	STS-38	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000116	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
37	STS-38	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000123	2	F
37	STS-38	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000118	3	F
37	STS-38	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000119	4	F
38	STS-35	OV102	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000088	1	F
38	STS-35	OV102	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000113	2	F
38	STS-35	OV102	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000114	3	F
38	STS-35	OV102	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000115	4	F
39	STS-37	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000017	1	F
39	STS-37	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000077	2	F
39	STS-37	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000068	3	F
39	STS-37	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000061	4	F
40	STS-39	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000065	1	F
40	STS-39	OV103	GNC	RATE GYRO ASSY	MC493-0015	0105	0000000066	2	F
40	STS-39	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000057	3	F
40	STS-39	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000083	4	F
41	STS-40	OV102	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000078	1	F
41	STS-40	OV102	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000081	2	F
41	STS-40	OV102	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000086	3	F
41	STS-40	OV102	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000089	4	F
42	STS-43	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000017	1	F
42	STS-43	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000077	2	F
42	STS-43	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000068	3	F
42	STS-43	OV104	GNC	RATE GYRO ASSY SRB	MC493-0015	-0105	0000000061	4	F
43	STS-48	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000065	1	F
43	STS-48	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000066	2	F
43	STS-48	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000057	3	F
43	STS-48	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000083	4	F
44	STS-44	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000106	1	F
44	STS-44	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000102	2	F
44	STS-44	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000109	3	F
44	STS-44	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000101	4	F
45	STS-42	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000112	1	F
45	STS-42	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000103	2	F
45	STS-42	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000110	3	F
45	STS-42	OV103	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000117	4	F
46	STS-45	DELETE	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000123	1	F
46	STS-45	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000019	1	F
46	STS-45	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000091	2	F
46	STS-45	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000099	3	F
46	STS-45	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000100	4	F
47	STS-49	OV105	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	1	F
47	STS-49	OV105	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	2	F
47	STS-49	OV105	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	3	F
47	STS-49	OV105	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	4	F
48	STS-50	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	1	F
48	STS-50	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	2	F
48	STS-50	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	3	F
48	STS-50	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	4	F
49	STS-46	OV104	GNC	RATE GYRO ASSY	MC493-0015	0105	[illegible]	1	F
49	STS-46	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	2	F
49	STS-46	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	3	F
49	STS-46	OV104	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	4	F
50	STS-47	OV105	GNC	RATE GYRO ASSY	MC493-0015	-0105	[illegible]	1	F
50	STS-47	OV105	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000075	2	F
50	STS-47	OV105	GNC	RATE GRYO ASSY	MC493-0015	-0105	0000000076	3	F
50	STS-47	OV105	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000077	4	F
51	STS-52	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000123	1	F
51	STS-52	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000120	2	F
51	STS-52	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000073	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
51	STS-52	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000068	4	F
53	STS-54	OV105	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000107	1	F
53	STS-54	OV105	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000092	2	F
53	STS-54	OV105	GNC	RATE GRYO ASSY	MC493-0015	-0105	0000000085	3	F
53	STS-54	OV105	GNC	RATE GYRO ASSY	MC493-0015	-0105	0000000080	4	F
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000123	1	F
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000120	2	F
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000073	3	F
54	STS-55	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-35	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000018	1	F
38	STS-35	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000013	2	F
38	STS-35	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	0000000013	2	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	[illegible]	3	F
46	STS-45	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	[illegible]	1	F
46	STS-45	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	[illegible]	2	F
46	STS-45	OV104	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	[illegible]	3	F
47	STS-49	OV105	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	[illegible]	1	F
47	STS-49	OV105	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	[illegible]	2	F
47	STS-49	OV105	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	[illegible]	3	F
48	STS-50	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	[illegible]	1	F
48	STS-50	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	[illegible]	2	F
48	STS-50	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	[illegible]	3	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	OV105	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000023	1	F
50	STS-47	OV105	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000025	2	F
50	STS-47	OV105	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	0000000014	3	F
53	STS-54	OV105	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000023	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
53	STS-54	OV105	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000025	2	F
53	STS-54	OV105	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000024	3	F
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000018	1	F
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000013	2	F
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000014	3	F
36	STS-41	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000006	1	F
36	STS-41	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000022	2	F
37	STS-38	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000002	1	F
37	STS-38	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000007	2	F
38	STS-35	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000018	1	F
38	STS-35	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000020	2	F
39	STS-37	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000002	1	F
39	STS-37	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000007	2	F
40	STS-39	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000006	1	F
40	STS-39	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000022	2	F
41	STS-40	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000018	1	F
41	STS-40	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000020	2	F
42	STS-43	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000002	1	F
42	STS-43	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000007	2	F
43	STS-48	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000006	1	F
43	STS-48	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000022	2	F
44	STS-44	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000002	1	F
44	STS-44	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000007	2	F
45	STS-42	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000006	1	F
45	STS-42	OV103	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000022	2	F
46	STS-45	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000002	1	F
46	STS-45	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000007	2	F
47	STS-49	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000031	1	F
47	STS-49	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000030	2	F
48	STS-50	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000018	1	F
48	STS-50	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000020	2	F
49	STS-46	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000002	1	F
49	STS-46	OV104	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000007	2	F
50	STS-47	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000031	1	F
50	STS-47	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000030	2	F
51	STS-52	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000018	1	F
51	STS-52	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000020	2	F
53	STS-54	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000031	1	F
53	STS-54	OV105	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000030	2	F
54	STS-55	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000018	1	F
54	STS-55	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000020	2	F
36	STS-41	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000010	1	F
36	STS-41	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000021	2	F
37	STS-38	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000013	1	F
37	STS-38	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000004	2	F
38	STS-35	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000019	1	F
38	STS-35	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000024	2	F
39	STS-37	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000013	1	F
39	STS-37	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000004	2	F
40	STS-39	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000010	1	F
40	STS-39	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	[illegible]	2	F
41	STS-40	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000019	1	F
41	STS-40	OV102	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000024	2	F
42	STS-43	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000013	1	F
42	STS-43	OV104	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000004	2	F
43	STS-48	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000010	1	F
43	STS-48	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000021	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
45	STS-42	OV103	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000010	1	F
45	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	0000000033	1	F
47	STS-49	OV105	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000025	2	F
48	STS-50	OV102	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
49	STS-46	OV104	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	0000000033	1	F
50	STS-47	OV105	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000025	2	F
51	STS-52	OV102	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
53	STS-54	OV105	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000033	1	F
53	STS-54	OV105	GNC	FWD REACTION JET DRIVER	MC621-0043	-6244	0000000025	2	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		F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000305		F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000305		F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000305		F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000306		F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000306		F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000307		F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000310		F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000311		F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000405		F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000403	1	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000403	2	F
36	STS-41	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000403	3	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000403	4	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000305		F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000306		F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000306		F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000307		F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000308		F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000308		F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000309		S
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000312		F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000313		F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	[illegible]		F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	[illegible]		F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	[illegible]	1	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	[illegible]	2	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	[illegible]	3	F
37	STS-38	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	[illegible]	4	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	[illegible]		F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	[illegible]		F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000302		F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	[illegible]		F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	[illegible]		F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	[illegible]		F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000303		F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000303		F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000304		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000307		F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000406		F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0051	0000000401	1	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0052	0000000401	2	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0055	0000000401	3	F
38	STS-35	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0056	0000000401	4	F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	[illegible]		F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	[illegible]	1	F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	[illegible]	2	F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	[illegible]	3	F
39	STS-37	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	[illegible]	4	F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	[illegible]		F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	[illegible]		F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	[illegible]		F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	[illegible]		F
40	STS-39	OV103	GNC	RUBBER SPEEDBRAKE ACTUATION	MC621-0053	-0007	[illegible]		F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	[illegible]		F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	[illegible]		F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	[illegible]		F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	[illegible]		F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	[illegible]		F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	[illegible]		F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	[illegible]	1	F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	[illegible]	2	F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	[illegible]	3	F
40	STS-39	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	[illegible]	4	F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	[illegible]		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	[illegible]		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	[illegible]		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	[illegible]		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000302		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000302		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000303		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000303		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000304		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000307		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000406		F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0051	0000000401	1	F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0052	0000000401	2	F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0055	0000000401	3	F
41	STS-40	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0056	0000000401	4	F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000305		F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000306		F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000306		F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000307		F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	[illegible]		F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	[illegible]		F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000309		F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	[illegible]		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000313		F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000403		F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000404		F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000404	1	F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000404	2	F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000404	3	F
42	STS-43	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000404	4	F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000303		F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000305		F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000305		F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000305		F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000306		F
43	STS-48	OV103	GNC	RUBBER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000306		F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000306		F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000307		F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000310		F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000311		F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000405		F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000403	1	F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000403	2	F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000403	3	F
43	STS-48	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000403	4	F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000305		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000306		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000306		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000307		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000308		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000308		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000309		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000312		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000313		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000403		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000404		F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000404	1	F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000404	2	F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000404	3	F
44	STS-44	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000404	4	F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000303		F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000305		F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000305		F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000305		F
45	STS-42	OV103	GNC	RUBBER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000306		F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	0000000306		F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000306		F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000307		F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000310		F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0010	0000000311		F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	0000000405		F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000403	1	F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000403	2	F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000403	3	F
45	STS-42	OV103	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000403	4	F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000305		F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000306		F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000306		F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000307		F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000308		F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000308		F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000309		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	-0006	0000000404		F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0049	0000000404	1	F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000404	2	F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000404	3	F
46	STS-45	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000404	4	F
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000307		F
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	0000000308		F
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	-0005	0000000312		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	1	F
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000406	2	F
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000406	3	F
47	STS-49	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000406	4	F
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000301		F
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000301		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	0000000307		F
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	[illegible]		F
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0051	[illegible]	1	F
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0052	[illegible]	2	F
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0055	[illegible]	3	F
48	STS-50	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0056	[illegible]	4	F
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	[illegible]		F
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	[illegible]		F
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	[illegible]		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	-0068	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	1	F
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000404	2	F
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000404	3	F
49	STS-46	OV104	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000404	4	F
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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0017	0000000319		F
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	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	1	F
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000406	2	F
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000406	3	F
50	STS-47	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	0000000406	4	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	[illegible]		F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	[illegible]		F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	[illegible]		F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	[illegible]		F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0051	[illegible]	1	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0052	0000000401	2	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0055	0000000401	3	F
51	STS-52	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0056	0000000401	4	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	0000000306		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	0000000312		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	1	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0040	0000000406	2	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0041	0000000406	3	F
53	STS-54	OV105	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0042	[illegible]	4	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	[illegible]		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	[illegible]		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	[illegible]		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	[illegible]		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0006	[illegible]		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	[illegible]		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000303		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0013	[illegible]		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	[illegible]		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0016	[illegible]		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0068	[illegible]		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0051	[illegible]	1	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0052	0000000401	2	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0055	0000000401	3	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0056	0000000401	4	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	OV102	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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
43	STS-48	OV103	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000007		F
44	STS-44	OV104	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000006		F
45	STS-42	OV103	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000007		F
46	STS-45	OV104	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000006		F
47	STS-49	OV105	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000010		F
48	STS-50	OV102	GNC	STEERING POSITION AMPLIFIER	MC621-0043	3641	0000000005		F
49	STS-46	OV104	GNC	STEERING POSITION AMPLIFIER	MC621-0043	3641	0000000006		F
50	STS-47	OV105	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000010		F
51	STS-52	OV102	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000005		F
53	STS-54	OV105	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000010		F
54	STS-55	OV102	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000005		F
36	STS-41	OV103	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000006		F
37	STS-38	OV104	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000005		F
38	STS-35	OV102	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000002		F
39	STS-37	OV104	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000005		F
40	STS-39	OV103	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000006		F
41	STS-40	OV102	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000002		F
42	STS-43	OV104	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000005		F
43	STS-48	OV103	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000006		F
44	STS-44	OV104	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000005		F
45	STS-42	OV103	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000006		F
46	STS-45	OV104	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000005		F
47	STS-49	OV105	GNC	STEERING POSITION TRANDUCER	MC621-0043	-3740	0000000010		F
48	STS-50	OV102	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000002		F
49	STS-46	OV104	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000005		F
50	STS-47	OV105	GNC	STEERING POSITION TRANDUCER	MC621-0043	-3740	0000000010		F
51	STS-52	OV102	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000002		F
53	STS-54	OV105	GNC	STEERING POSITION TRANDUCER	MC621-0043	-3740	0000000010		F
54	STS-55	OV102	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000002		F
36	STS-41	OV103	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000013	Y	F
36	STS-41	OV103	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000009	Z	F
37	STS-38	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000008	Y	F
37	STS-38	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000011	Z	F
38	STS-35	OV102	GNC	STAR TRACKER UNIT	MC431-0128	-0012	0000000002	Y	F
38	STS-35	OV102	GNC	STAR TRACKER UNIT	MC431-0128	-0012	0000000006	Z	F
39	STS-37	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000008	Y	F
39	STS-37	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000011	Z	F
40	STS-39	OV103	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000013	Y	F
40	STS-39	OV103	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000009	Z	F
41	STS-40	OV102	GNC	STAR TRACKER UNIT	MC431-0128	-0012	0000000002	Y	F
41	STS-40	OV102	GNC	STAR TRACKER UNIT	MC431-0128	-0012	0000000006	Z	F
42	STS-43	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000008	Y	F
42	STS-43	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0012	0000000005	Z	F
43	STS-48	OV103	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000013	Y	F
43	STS-48	OV103	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000009	Z	F
44	STS-44	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000008	Y	F
44	STS-44	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0012	0000000005	Z	F
45	STS-42	OV103	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000013	Y	F
45	STS-42	OV103	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000009	Z	F
46	STS-45	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0013	0000000008	Y	F
46	STS-45	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0012	[illegible]	Z	F
47	STS-49	OV105	GNC	STAR TRACKER UNIT	MC431-0128	-1002	[illegible]	Y	F
47	STS-49	OV105	GNC	STAR TRACKER UNIT	MC431-0128	-0011	[illegible]	Z	F
48	STS-50	OV102	GNC	STAR TRACKER UNIT	MC431-0128	-1002	[illegible]	Y	F
48	STS-50	OV102	GNC	STAR TRACKER UNIT	MC431-0128	-0012	[illegible]	Z	F
49	STS-46	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0013	[illegible]	Y	F
49	STS-46	OV104	GNC	STAR TRACKER UNIT	MC431-0128	-0012	[illegible]	Z	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	Y	F
53	STS-54	OV105	GNC	STAR TRACKER UNIT	MC431-0128	-0011	0000000003	Z	F
54	STS-55	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 LIGHT SHADE	MC431-0128	-0007	0000000007	Y	F
36	STS-41	OV103	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0104	0000000006	Z	F
37	STS-38	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0007	0000000006	Y	F
37	STS-38	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0204	0000000005	Z	F
38	STS-35	OV102	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0107	0000000005	Y	F
38	STS-35	OV102	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0204	0000000004	Z	F
39	STS-37	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0007	0000000006	Y	F
39	STS-37	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0204	0000000005	Z	F
40	STS-39	OV103	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0007	0000000007	Y	F
40	STS-39	OV103	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0104	0000000006	Z	F
41	STS-40	OV102	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0107	0000000005	Y	F
41	STS-40	OV102	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0204	0000000004	Z	F
42	STS-43	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0007	0000000006	Y	F
42	STS-43	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0204	0000000005	Z	F
43	STS-48	OV103	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	0007	0000000007	Y	F
43	STS-48	OV103	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	0104	0000000006	Z	F
44	STS-44	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0007	0000000006	Y	F
44	STS-44	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0204	0000000005	Z	F
45	STS-42	OV103	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0007	0000000007	Y	F
45	STS-42	OV103	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0104	0000000006	Z	F
46	STS-45	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0007	0000000006	Y	F
46	STS-45	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0104	0000000005	Z	F
47	STS-49	OV105	GNC	STAR TRACKER UNIT LS	MC431-0128	-0207	0000000108	Y	F
47	STS-49	OV105	GNC	STAR TRACKER UNIT LS	MC431-0128	-0204	0000000107	Z	F
48	STS-50	OV102	GNC	STAR TRACKER UNIT LS	MC431-0128	-0207	0000000002	Y	F
48	STS-50	OV102	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0104	0000000004	Z	F
49	STS-46	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0007	0000000006	Y	F
49	STS-46	OV104	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0104	0000000005	Z	F
50	STS-47	OV105	GNC	STAR TRACKER UNIT LS	MC431-0128	-0207	0000000108	Y	F
50	STS-47	OV105	GNC	STAR TRACKER UNIT LS	MC431-0128	-0204	0000000107	Z	F
51	STS-52	OV102	GNC	STAR TRACKER UNIT LS	MC431-0128	-0207	[illegible]	Y	F
51	STS-52	OV102	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0104	[illegible]	Z	F
53	STS-54	OV105	GNC	STAR TRACKER UNIT LS	MC431-0128	-0207	[illegible]	[illegible]	F
53	STS-54	OV105	GNC	STAR TRACKER UNIT LS	MC431-0128	-0204	[illegible]	Z	F
54	STS-55	OV102	GNC	STAR TRACKER UNIT LS	MC431-0128	-0207	[illegible]	Y	F
54	STS-55	OV102	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0104	[illegible]	Z	F
36	STS-41	OV103	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F
36	STS-41	OV103	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Z	F
37	STS-38	OV104	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F
37	STS-38	OV104	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Z	F
38	STS-35	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F
38	STS-35	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Z	F
39	STS-37	OV104	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F
39	STS-37	OV104	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	0000000002	Z	F
40	STS-39	OV103	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	0000000005	Y	F
40	STS-39	OV103	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	0000000009	Z	F
41	STS-40	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	0000000006	Y	F
41	STS-40	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	0000000008	Z	F
42	STS-43	OV104	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	[illegible]	Y	F
47	STS-49	OV105	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Z	F
48	STS-50	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F
48	STS-50	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Z	F
49	STS-46	OV104	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F
49	STS-46	OV104	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Z	F
50	STS-47	OV105	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F
50	STS-47	OV105	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Z	F
51	STS-52	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F
51	STS-52	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Z	F
53	STS-54	OV105	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F
53	STS-54	OV105	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Z	F
54	STS-55	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Y	F
54	STS-55	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	[illegible]	Z	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0000000307		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	LIB	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	RIB	F
54	STS-55	OV102	GNC	BODY FLAP ACTUATION	MC621-0056	-0012	0000000404	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
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	0000000002	1P	F
54	STS-55	OV102	GNC	MAIN ENGINE ACTUATORS	MC621-0015	-0028	0000000003	1Y	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
54	STS-55	OV102	GNC	NOSEWHEEL STEERING ASSY-ACTUATOR	MC621-0058	-0019	9643000008		F
54	STS-55	OV102	GNC	NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX	MC621-0058	-0020	9643000006		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
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000127		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000128		F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000129		F
54	STS-55	OV102	GNC	OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER	MC621-0009	-2125	0000000130		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
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000123	1	F
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000120	2	F
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000073	3	F
54	STS-55	OV102	GNC	RATE GYRO ASSY	MC493-0015	-0015	0000000068	4	F
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000018	1	F
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000013	2	F
54	STS-55	OV102	GNC	ROTATION HAND CONTROL	MC621-0043	-3047	0000000014	3	F
54	STS-55	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000018	1	F
54	STS-55	OV102	GNC	AFT REACTION JET DRIVER	MC621-0043	-6344	0000000020	2	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
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0014	0000000301		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000301		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0005	0000000302		F
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
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0003	0000000302		F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0007	0000000303		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	0000000304		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	1	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0052	0000000401	2	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0055	0000000401	3	F
54	STS-55	OV102	GNC	RUDDER SPEEDBRAKE ACTUATION	MC621-0053	-0056	0000000401	4	F
54	STS-55	OV102	GNC	STEERING POSITION AMPLIFIER	MC621-0043	-3641	0000000005		F
54	STS-55	OV102	GNC	STEERING POSITION TRANSDUCER	MC621-0043	-3740	0000000002		F
54	STS-55	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
54	STS-55	OV102	GNC	STAR TRACKER UNIT LS	MC431-0128	-0207	0000000002	Y	F
54	STS-55	OV102	GNC	STAR TRACKER UNIT LIGHT SHADE	MC431-0128	-0104	0000000004	Z	F
54	STS-55	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	0000000010	Y	F
54	STS-55	OV102	GNC	STAR TRACKER UNIT PROTECTIVE WINDOW ASSY	MC431-0128	-0008	0000000008	Z	F

AVIONICS
COMMUNICATIONS AND TRACKING (CT) SUBSYSTEM

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	S-BAND																					
				PL INT			PL SP		FMS	XPOND		SBCA	ANSA	PRE	PWR	FM	XM	SWITCH BEAM ANT				HEMI ANT		PAY-LOAD ANT.
				X	1	2	X	1		1	2					1	2	LL DAY	LR DAY	UL DBT	UR DBU	UPR DBM	LWR DBM	
1	1	102																						
2	2	102																						
3	3	102																						
4	4	102																						
5	5	102																						
6	6	99		9	303	305	304	307	304	305	302	7	304	304	304									
7	7	99		9	303	305	304	307	304	305	302	7	304	304	304									
8	8	99		9	303	305	304	307	304	305	302	7	304	304	304			0002	0002	0002	0003			
9	9	102			302	306	305	308	303	301	304		303	303	303	302	303	0001	0001	0001	0002			
10	41B	99		9	303	305	304	307	304	305	302	7	304	304	304			0004	0004	0004	0005			
11	41C	99		9	303	305	304	307	304	305	302	7	304	304	304			0004	0002	0004	0003			
12	41D	103		3	304	307	303	302	302	307	306	6	305	305	305	310	309	0003	0003	0003	0004			
13	41G	99		9	303	305	304	307	304	305	302	7	304	304	304			0002	0004	0002	0005			
14	51A	103		3	304	307	303	302	302	307	306	6	305	305	305	310	309	0003	0001	0001	0002			
15	51C	103		3	304	307	303	302	302	307	306	6	305	305	305	310	309	0003	0001	0001	0002			
16	51D	103		3	304	307	303	302	302	307	306	6	305	305	305	310	309	0003	0001	0001	0002	0004	0004	02005
17	51B	99		9	303	305	304	307	304	305	302	7	304	304	304			0002	0004	0002	0005	0002	0003	02003
18	51G	103		3	304	307	303	302	302	307	306	6	305	305	305	310	309	0003	0001	0001	0002	0004	0004	02005
19	51F	99		9	303	305	304	307	304	305	302	7	304	304	304			0002	0004	0002	0005	0002	0003	02003
20	51I	103		3	304	307	303	302	302	307	306	6	305	305	305	310	309	0003	0001	0001	0002	0004	0004	02005
21	51J	104			309	310	310	309		309	308	9	302	301		307	308	0004	0002	0004	0003	0003	0002	
22	61A	99		9	303	305	304	307	304	305	302	7	304	304	304			0002	0004	0002	0005	0002	0003	02003
23	61B	104			309	310	310	309		309	308	9	302	301		307	308	0004	0002	0004	0003	0003	0002	
24	61C	102			302	306	305	308	303	301	304		303	303	303	302	303							
25	51L	99		9	303	305	304	307	304	305	302	7	304	304	304			0002	0004	0002	0005	0002	0001	02003
26	26	103		3	304	307	306	303	302	307	306	11	305	305	303	310	309	0003	0003	0001	0004	0003	0003	03006
27	27	104			309	310	310	309	306	310	308	9	302	301	306	307	308	0004	0002	0004	0003	0004	0004	TBS
28	29	103		3	304	307	306	303	302	307	306	11	305	305	307	310	309	0003	0003	0001	0004	0003	0003	G0006
29	30	104			309	310	310	309	306	310	308	9	302	301	306	307	308	0004	0002	0004	0003	0003	0002	G0007
30	28	102		2	308	302	305	308	303	304	301	10	304	303	301	304	303	0005	0005	0005	0002	0001	0005	G0002
31	34	104		13	310	309	310	309	306	310	309	9	302	301	306	307	308	0004	0002	0004	0003	0003	0002	G0007
32	33	103		10	304	307	303	306	302	307	306	11	305	305	307	310	309	0003	0003	0001	0006	0004	0004	G0006
33	32	102		2	308	302	305	308	303	304	301	10	304	303	305	304	303	0005	0001	0005	0002	0001	0005	G0002
34	36	104		13	310	309	310	309	306	310	309	8	302		306	307	308	0004	0002	0003	0004	0003	0002	G0007
35	31	103		10	304	307	303	306	302	307	306	11	305	305	307	310	309	0003	0003	0001	0006	0004	0004	G0006

ORBITER AVIONICS DATA PROCESSING SYSTEM
COMPONENT S/N - LOCATION MATRIX

MSN SEQ NO.	STS NO.	ORB OV-	Notes	KU-BAND								
				DA	EL AS		SPA	ACCU	NSP		EVAX	GCIL
					1	2			1	2		
1	1	102		--	--	--	--	--	--	--	1004	--
2	2	102		--	--	--	--	--	--	--	1004	--
3	3	102		--	--	--	--	--	--	--	1004	--
4	4	102		--	--	--	--	--	--	--	1004	--
5	5	102		--	--	--	--	--	--	--	1004	--
6	6	99		--	--	--	--	5	306	305	1006	7
7	7	99		102	102	102	102	5	306	305	1006	7
8	8	99		102	102	102	102	5	306	305	1008	7
9	9	102		104	104	104	104	--	301	304	1009	8
10	41B	99		103	103	103	103	5	306	305	1008	7
11	41C	99		103	103	103	103	5	306	305	1008	7
12	41D	103		102	104	104	104	--	--	--	1007	--
13	41G	99		103	105	103	103	5	306	305	1008	10
14	51A	103		102	104	104	104	7	308	--	1007	--
15	51C	103		102	104	104	104	7	308	--	1007	--
16	51D	103		102	104	104	104	7	308	--	1007	--
17	51B	99		104	102	103	103	5	306	305	1008	10
18	51G	103		103	105	104	104	7	308	--	1007	4
19	51F	99		104	102	103	103	5	306	305	1008	7
20	51I	103		103	105	104	104	7	308	302	1007	4
21	51J	104		--	--	--	--	--	310	309	1004	5
22	61A	99		104	102	103	103	5	306	305	1008	7
23	61B	104		--	--	--	--	--	--	--	1004	--
24	61C	102		102	103	102	102	2	301	304	1009	--
25	51L	99		104	102	103	103	5	306	305	1008	7
26	26	103		105	105	104	104	7	302	308	1007	4
27	27	104		103	104	105	105	4	307	309	1004	10
28	29	103		102	106	104	104	7	302	308	1007	4
29	30	104		103	104	105	105	4	307	309	1004	10
30	28	102		105	103	102	102	2	301	304	1009	9
31	34	104		103	104	105	105	4	307	309	1004	10
32	33	103		106	106	104	104	7	302	308	1007	4
33	32	102		105	103	102	102	2	301	304	1009	9
34	36	104		103	104	105	105	4	307	309	1004	10
35	31	103		102	106	104	104	7	302	308	1007	4

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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
39	STS-37	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000038		F
39	STS-37	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000039		F
39	STS-37	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000040		F
39	STS-37	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000041		F
39	STS-37	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000042		F
40	STS-39	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000019		F
40	STS-39	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000025		F
40	STS-39	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000026		F
40	STS-39	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000027		F
40	STS-39	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000028		F
40	STS-39	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000030		F
41	STS-40	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000001		F
41	STS-40	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000008		F
41	STS-40	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000010		F
41	STS-40	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000013		F
41	STS-40	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000014		F
41	STS-40	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000015		F
41	STS-40	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000016		F
41	STS-40	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000018		F
42	STS-43	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000037		F
42	STS-43	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000038		F
42	STS-43	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000039		F
42	STS-43	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000040		F
42	STS-43	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000041		F
42	STS-43	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000042		F
43	STS-48	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000019		F
43	STS-48	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000025		F
43	STS-48	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000026		F
43	STS-48	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000027		F
43	STS-48	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000028		F
43	STS-48	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000030		F
44	STS-44	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000037		F
44	STS-44	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000038		F
44	STS-44	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000039		F
44	STS-44	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000040		F
44	STS-44	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000041		F
44	STS-44	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000042		F
45	STS-42	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000019		F
45	STS-42	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000025		F
45	STS-42	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000026		F
45	STS-42	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000027		F
45	STS-42	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000028		F
45	STS-42	OV103	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000030		F
46	STS-45	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000037		F
46	STS-45	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000038		F
46	STS-45	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000039		F
46	STS-45	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000040		F
46	STS-45	OV104	CT	AUDIO TERM UNITS	MC409-0005	0012	0000000041		F
46	STS-45	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000042		F
47	STS-49	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000012		F
48	STS-50	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000001		F
48	STS-50	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000008		F
48	STS-50	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000010		F
48	STS-50	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000013		F
48	STS-50	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000014		F
48	STS-50	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000015		F
48	STS-50	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000016		F
48	STS-50	OV102	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000018		F
49	STS-46	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000037		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
49	STS-46	OV104	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000042		F
50	STS-47	OV105	CT	AUDIO TERM UNITS	MC409-0005	-0012	0000000012		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	0000000047		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
51	STS-52	OV102	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	1	F
36	STS-41	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000016	2	F
36	STS-41	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000009	3	F
37	STS-38	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000004	1	F
37	STS-38	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000003	2	F
37	STS-38	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000001	3	F
38	STS-35	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000010	1	F
38	STS-35	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000012	2	F
38	STS-35	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000007	3	F
39	STS-37	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000004	1	F
39	STS-37	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000003	2	F
39	STS-37	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000001	3	F
40	STS-39	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000013	1	F
40	STS-39	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000016	2	F
40	STS-39	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000009	3	F
41	STS-40	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000010	1	F
41	STS-40	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000012	2	F
41	STS-40	OV102	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000007	3	F
42	STS-43	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000004	1	F
42	STS-43	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000003	2	F
42	STS-43	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000001	3	F
43	STS-48	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000013	1	F
43	STS-48	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000016	2	F
43	STS-48	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1	0000000009	3	F
44	STS-44	OV104	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000004	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	MOD1/3	0000000016	2	F
45	STS-42	OV103	CT	COMMUNICATION SECURITY	KGX-60	MOD1	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	OV105	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000008	1	F
47	STS-49	OV105	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	OV105	CT	COMMUNICATION SECURITY	KGX-60	MOD1/3	0000000008	1	F
50	STS-47	OV105	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-38	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-45	OV104	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000107		F
47	STS-49	OV105	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000104		F
48	STS-50	OV102	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000108		F/SP
49	STS-46	OV104	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000102		F/SP
50	STS-47	OV105	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000106		F/SP
51	STS-52	OV102	CT	DEPLOYED ELEC ASSY	MC409-0025	-DEA	0000000108		F
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
36	STS-41	OV103	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000302		F
37	STS-38	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-45	OV104	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000306		F
47	STS-49	OV105	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000307		F
48	STS-50	OV102	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000303		F
49	STS-46	OV104	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000306		F
50	STS-47	OV105	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000307		F
51	STS-52	OV102	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000303		F
53	STS-54	OV105	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	STAT
54	STS-55	OV102	CT	S-BAND FM SIGNAL PROC.	MC478-0106	-3501	0000000303		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
40	STS-39	OV103	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000309	2	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
45	STS-42	OV103	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
46	STS-45	OV104	CT	S-BAND FM TRANSMITTER	MC478-0106	-3001	0000000308	2	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	-3001	0000000303	2	F
36	STS-41	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0004	L	F
36	STS-41	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0004	U	F
37	STS-38	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0002	L	F
37	STS-38	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0003	U	F
38	STS-35	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0005	L	F
38	STS-35	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0001	U	F
39	STS-37	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0002	L	F
39	STS-37	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0003	U	F
40	STS-39	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0004	L	F
40	STS-39	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0004	U	F
41	STS-40	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0005	L	F
41	STS-40	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0001	U	F
42	STS-43	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0002	L	F
42	STS-43	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0003	U	F
43	STS-48	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0004	L	F
43	STS-48	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0004	U	F
44	STS-44	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0002	L	F
44	STS-44	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0003	U	F
45	STS-42	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0004	L	F
45	STS-42	OV103	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0004	U	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
46	STS-45	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0002	L	F
46	STS-45	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0003	U	F
47	STS-49	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0005	000DBN0008	L	F
47	STS-49	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0006	000DBM0007	U	F
48	STS-50	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0005	L	F
48	STS-50	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0001	U	F
49	STS-46	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0002	L	F
49	STS-46	OV104	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0003	U	F
50	STS-47	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0005	000DBN0008	L	F
50	STS-47	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0006	000DBM0007	U	F
51	STS-52	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0003	000DBN0005	L	F
51	STS-52	OV102	CT	ANTENNA, HEMI/GPS	MC481-0090	-0004	000DBM0001	U	F
53	STS-54	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0005	000DBN0008	L	F
53	STS-54	OV105	CT	ANTENNA, HEMI/GPS	MC481-0090	-0006	000DBM0007	U	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
37	STS-38	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000004		F
37	STS-38	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000018		F
37	STS-38	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000020		F
39	STS-37	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000004		F
39	STS-37	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000018		F
39	STS-37	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000020		F
42	STS-43	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000004		F
42	STS-43	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000018		F
42	STS-43	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000020		F
44	STS-44	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000004		F
44	STS-44	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000018		F
44	STS-44	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000020		F
46	STS-45	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000004		F
46	STS-45	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000018		F
46	STS-45	OV104	CT	HDST I/F UNIT III	MC409-0005	-0045	0000000020		F
36	STS-41	OV103	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000105		F
37	STS-38	OV104	CT	DEPLOYED ASSY	MC409-0025	-3006	0000000103		F
38	STS-35	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000106		F
39	STS-37	OV104	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000107		F
40	STS-39	OV103	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000105		F
41	STS-40	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000106		F
42	STS-43	OV104	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000107		F
43	STS-48	OV103	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000105		F
44	STS-44	OV104	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000107		F
45	STS-42	OV103	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000105		F
46	STS-45	OV104	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000107		F
47	STS-49	OV105	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000103		F
48	STS-50	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000108		F/SP
49	STS-46	OV104	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000102		F
50	STS-47	OV105	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000106		F
51	STS-52	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000108		F
53	STS-54	OV105	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000106		F
54	STS-55	OV102	CT	DEPLOYED ASSY	MC409-0025	-3008	0000000108		F
36	STS-41	OV103	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000106		F
37	STS-38	OV104	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000104		F
38	STS-35	OV102	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000103		F
39	STS-37	OV104	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000104		F
40	STS-39	OV103	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000106		F
41	STS-40	OV102	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000103		F
42	STS-43	OV104	CT	KU-BAND ELEC. ASSY-1 EA-1	MC409-0025	-1005	0000000104		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0000000104		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	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
36	STS-41	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000013	3	F
37	STS-38	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000019	1	F
37	STS-38	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000026	2	F
37	STS-38	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0006	0000000023	3	F
38	STS-35	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000018	1	F
38	STS-35	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000017	2	F
38	STS-35	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000010	3	F
39	STS-37	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000019	1	F
39	STS-37	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000026	2	F
39	STS-37	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0006	0000000023	3	F
40	STS-39	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000028	1	F
40	STS-39	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000008	2	F
40	STS-39	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000013	3	F
41	STS-40	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000018	1	F
41	STS-40	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000017	2	F
41	STS-40	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000010	3	F
42	STS-43	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000019	1	F
42	STS-43	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000026	2	F
42	STS-43	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0006	0000000023	3	F
43	STS-48	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000028	1	F
43	STS-48	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000008	2	F
43	STS-48	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000013	3	F
44	STS-44	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000019	1	F
44	STS-44	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0006	0000000025	2	F
44	STS-44	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0006	0000000023	3	F
45	STS-42	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000028	1	F
45	STS-42	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000008	2	F
45	STS-42	OV103	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000013	3	F
46	STS-45	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000019	1	F
46	STS-45	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0006	0000000025	2	F
46	STS-45	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0006	0000000023	3	F
47	STS-49	OV105	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000002	1	F
47	STS-49	OV105	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000005	2	F
47	STS-49	OV105	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000001	3	F
48	STS-50	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000018	1	F
48	STS-50	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000017	2	F
48	STS-50	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000010	3	F
49	STS-46	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000019	1	F
49	STS-46	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0006	0000000025	2	F
49	STS-46	OV104	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0006	0000000023	3	F
50	STS-47	OV105	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000002	1	F
50	STS-47	OV105	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000005	2	F
50	STS-47	OV105	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000001	3	F
51	STS-52	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000018	1	F
51	STS-52	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000017	2	F
51	STS-52	OV102	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000010	3	F
53	STS-54	OV105	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000002	1	F
53	STS-54	OV105	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000005	2	F
53	STS-54	OV105	CT	MICROWAVE SCANNING BEAM DECODER ASSY	MC409-0017	-0008	0000000001	3	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
36	STS-41	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000047	1	F
36	STS-41	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000033	2	F
36	STS-41	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000032	3	F
37	STS-38	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000031	1	F
37	STS-38	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000038	2	F
37	STS-38	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000035	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
38	STS-35	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000013	1	F
38	STS-35	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000019	2	F
38	STS-35	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000012	3	F
39	STS-37	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000031	1	F
39	STS-37	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000038	2	F
39	STS-37	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000035	3	F
40	STS-39	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000047	1	F
40	STS-39	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000033	2	F
40	STS-39	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000032	3	F
41	STS-40	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000013	1	F
41	STS-40	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000019	2	F
41	STS-40	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000012	3	F
42	STS-43	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000031	1	F
42	STS-43	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000038	2	F
42	STS-43	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000035	3	F
43	STS-48	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000047	1	F
43	STS-48	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000033	2	F
43	STS-48	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000032	3	F
44	STS-44	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000031	1	F
44	STS-44	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000038	2	F
44	STS-44	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000035	3	F
45	STS-42	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000047	1	F
45	STS-42	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000033	2	F
45	STS-42	OV103	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000032	3	F
46	STS-45	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000031	1	F
46	STS-45	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000038	2	F
46	STS-45	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000035	3	F
47	STS-49	OV105	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000017	1	F
47	STS-49	OV105	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000050	2	F
47	STS-49	OV105	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000051	3	F
48	STS-50	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000013	1	F
48	STS-50	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000019	2	F
48	STS-50	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000012	3	F
49	STS-46	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000031	1	F
49	STS-46	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000038	2	F
49	STS-46	OV104	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000035	3	F
50	STS-47	OV105	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000017	1	F
50	STS-47	OV105	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000050	2	F
50	STS-47	OV105	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000051	3	F
51	STS-52	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000013	1	F
51	STS-52	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000019	2	F
51	STS-52	OV102	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000012	3	F
53	STS-54	OV105	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000017	1	F
53	STS-54	OV105	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000050	2	F
53	STS-54	OV105	CT	MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA	MC481-0067	-0001	0000000051	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
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	0000000027	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	STAT
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	0000000006	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	-0007	0000000019	1	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
42	STS-43	OV104	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	STAT
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	0000000307	1	F
49	STS-46	OV104	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000309	2	F
50	STS-47	OV105	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000312	1	F
50	STS-47	OV105	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000313	2	F
51	STS-52	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000301	1	F
51	STS-52	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000304	2	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		F
37	STS-38	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0007		F
38	STS-35	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0002		F
39	STS-37	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0007		F
40	STS-39	OV103	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006		F
41	STS-40	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0002		F
42	STS-43	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006		F
43	STS-48	OV103	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0005		F
44	STS-44	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006		F
45	STS-42	OV103	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0005		F
46	STS-45	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006		F
47	STS-49	OV105	CT	ANTENNA, PAYLOAD	MC481-0071	-0003	000DAG0008		F
48	STS-50	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0003		F
49	STS-46	OV104	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0006		F
50	STS-47	OV105	CT	ANTENNA, PAYLOAD	MC481-0071	-0003	000DAG0008		F
51	STS-52	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0003		F
53	STS-54	OV105	CT	ANTENNA, PAYLOAD	MC481-0071	-0003	000DAG0008		F
54	STS-55	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0003		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	-0001	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
40	STS-39	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000307	2	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-48	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000304	1	F
43	STS-48	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000307	2	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	STAT
44	STS-44	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000309	2	F
45	STS-42	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000304	1	F
45	STS-42	OV103	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000307	2	F
46	STS-45	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000310	1	F
46	STS-45	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000309	2	F
47	STS-49	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000316	1	F
47	STS-49	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000317	2	F
48	STS-50	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000315	1	F
48	STS-50	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000302	2	F
49	STS-46	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000310	1	F
49	STS-46	OV104	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000309	2	F
50	STS-47	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000316	1	F
50	STS-47	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000317	2	F
51	STS-52	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000315	1	F
51	STS-52	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000302	2	F
53	STS-54	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000316	1	F
53	STS-54	OV105	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000317	2	F
54	STS-55	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000315	1	F
54	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		F
37	STS-38	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301		F
38	STS-35	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000303		F
39	STS-37	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301		F
40	STS-39	OV103	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000305		F
41	STS-40	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000303		F
42	STS-43	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301		F
43	STS-48	OV103	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000305		F
44	STS-44	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301		F
45	STS-42	OV103	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000305		F
46	STS-45	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301		F
47	STS-49	OV105	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000308		F
48	STS-50	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000303		F
49	STS-46	OV104	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000301		F
50	STS-47	OV105	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000308		F
51	STS-52	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000303		F
53	STS-54	OV105	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000308		F
54	STS-55	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000303		F
36	STS-41	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000303	1	F
36	STS-41	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000306	2	F
37	STS-38	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
37	STS-38	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
38	STS-35	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000305	1	F
38	STS-35	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000308	2	F
39	STS-37	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
39	STS-37	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
40	STS-39	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000303	1	F
40	STS-39	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000306	2	F
41	STS-40	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000305	1	F
41	STS-40	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000308	2	F
42	STS-43	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
42	STS-43	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
43	STS-48	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000303	1	F
43	STS-48	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000306	2	F
44	STS-44	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
44	STS-44	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
45	STS-42	OV103	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000303	1	F
45	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	STAT
46	STS-45	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
46	STS-45	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
47	STS-49	OV105	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000316	1	F
47	STS-49	OV105	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000317	2	F
48	STS-50	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000305	1	F
48	STS-50	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000308	2	F
49	STS-46	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000310	1	F
49	STS-46	OV104	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000309	2	F
50	STS-47	OV105	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000316	1	F
50	STS-47	OV105	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000317	2	F
51	STS-52	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000305	1	F
51	STS-52	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000308	2	F
53	STS-54	OV105	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000316	1	F
53	STS-54	OV105	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000317	2	F
54	STS-55	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000305	1	F
54	STS-55	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000308	2	F
36	STS-41	OV103	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000307		F
37	STS-38	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000306		F
38	STS-35	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305		F
39	STS-37	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000306		F
40	STS-39	OV103	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000307		F
41	STS-40	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305		F
42	STS-43	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000306		F
43	STS-48	OV103	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000303		F
43	STS-48	OV103	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000307		F
44	STS-44	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000303		F
45	STS-42	OV103	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000307		F
46	STS-45	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000303		F
47	STS-49	OV105	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000308		F
48	STS-50	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305		F
49	STS-46	OV104	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000303		F
50	STS-47	OV105	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000308		F
51	STS-52	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305		F
53	STS-54	OV105	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000308		F
54	STS-55	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305		F
36	STS-41	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000020	1	F
36	STS-41	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000019	2	F
37	STS-38	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
37	STS-38	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F
38	STS-35	OV102	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000023	1	F
38	STS-35	OV102	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000025	2	F
39	STS-37	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
39	STS-37	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F
40	STS-39	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000020	1	F
40	STS-39	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000019	2	F
41	STS-40	OV102	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000023	1	F
41	STS-40	OV102	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000025	2	F
42	STS-43	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
42	STS-43	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F
43	STS-48	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000020	1	F
43	STS-48	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000019	2	F
44	STS-44	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
44	STS-44	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F
45	STS-42	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000020	1	F
45	STS-42	OV103	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000019	2	F
46	STS-45	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
46	STS-45	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
47	STS-49	OV105	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000029	1	F
47	STS-49	OV105	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000030	2	F
48	STS-50	OV102	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000023	1	F
48	STS-50	OV102	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000025	2	F
49	STS-46	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000021	1	F
49	STS-46	OV104	CT	RADAR ALTIMETER	MC409-0015	-0005	0000000022	2	F
50	STS-47	OV105	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000029	1	F
50	STS-47	OV105	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000030	2	F
51	STS-52	OV102	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000023	1	F
51	STS-52	OV102	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000025	2	F
53	STS-54	OV105	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000029	1	F
53	STS-54	OV105	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000030	2	F
54	STS-55	OV102	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000023	1	F
54	STS-55	OV102	CT	RADAR ALTIMETER	MC409-0015	-0006	0000000025	2	F
36	STS-41	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000010	1	F
36	STS-41	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000011	1	F
36	STS-41	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000008	2	F
36	STS-41	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000012	2	F
37	STS-38	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000012	1	F
37	STS-38	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000013	1	F
37	STS-38	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000013	2	F
37	STS-38	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000014	2	F
38	STS-35	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0003	0000000004	1	F
38	STS-35	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0003	0000000007	1	F
38	STS-35	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0004	0000000006	2	F
38	STS-35	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0004	0000000007	2	F
39	STS-37	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000012	1	F
39	STS-37	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000013	1	F
39	STS-37	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000013	2	F
39	STS-37	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000014	2	F
40	STS-39	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000010	1	F
40	STS-39	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000011	1	F
40	STS-39	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000008	2	F
40	STS-39	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000012	2	F
41	STS-40	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0003	0000000004	1	F
41	STS-40	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0003	0000000007	1	F
41	STS-40	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0004	0000000006	2	F
41	STS-40	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0004	0000000007	2	F
42	STS-43	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000012	1	F
42	STS-43	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000013	1	F
42	STS-43	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000013	2	F
42	STS-43	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000014	2	F
43	STS-48	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000010	1	F
43	STS-48	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000011	1	F
43	STS-48	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000008	2	F
43	STS-48	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000012	2	F
44	STS-44	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000012	1	F
44	STS-44	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000013	1	F
44	STS-44	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000013	2	F
44	STS-44	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000014	2	F
45	STS-42	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000010	1	F
45	STS-42	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000011	1	F
45	STS-42	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000008	2	F
45	STS-42	OV103	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000012	2	F
46	STS-45	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000012	1	F
46	STS-45	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0005	0000000013	1	F
46	STS-45	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000013	2	F
46	STS-45	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-0006	0000000014	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
47	STS-49	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000001	1	F
47	STS-49	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000003	1	F
47	STS-49	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000003	2	F
47	STS-49	OV105	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0002	0000000004	2	F
48	STS-50	OV102	CT	RADAR ANTENNAS, ALTIMETER	MC481-0116	-0001	0000000005	1	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
49	STS-46	OV104	CT	RADAR ANTENNAS, ALTIMETER	MC481-0072	-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	0000000001	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
48	STS-50	OV102	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	SLOT	STAT
47	STS-49	OV105	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000012		F
48	STS-50	OV102	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000010		F
49	STS-46	OV104	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000008		F
50	STS-47	OV105	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000012		F
51	STS-52	OV102	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000010		F
53	STS-54	OV105	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000012		F
54	STS-55	OV102	CT	S-BAND SWITCH BEAM CONTROL ASSY	MC450-0064	-0001	0000000010		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	000DAY0003	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
48	STS-50	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	000DBT0004	UL	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
48	STS-50	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0044	000DBU0002	UR	F
49	STS-46	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0041	000DAX0004	LL	F
49	STS-46	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0042	000DAY0002	LR	F
49	STS-46	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0043	000DBT0003	UL	F
49	STS-46	OV104	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0004	UR	F
50	STS-47	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	000DAX0006	LL	F
50	STS-47	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	000DAY0006	LR	F
50	STS-47	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	000DBT0006	UL	F
50	STS-47	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0007	UR	F
51	STS-52	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	000DAX0001	LL	F
51	STS-52	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	000DAY0005	LR	F
51	STS-52	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	000DBT0004	UL	F
51	STS-52	OV102	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0044	000DBU0002	UR	F
53	STS-54	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0051	000DAX0006	LL	F
53	STS-54	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0052	000DAY0006	LR	F
53	STS-54	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0053	000DBT0006	UL	F
53	STS-54	OV105	CT	S-BD ANTENNAS, QUAD	MC481-0088	-0054	000DBU0007	UR	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
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
49	STS-46	OV104	CT	S-BD SWITCH ASSY	MC478-0106	-4004	0000000302		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	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	SLOT	STAT
45	STS-42	OV103	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000010		F
45	STS-42	OV103	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000011		F
46	STS-45	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000012		F
46	STS-45	OV104	CT	SPKR MIC UNIT	MC409-0005	-0024	0000000013		F
36	STS-41	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015064	1	F
36	STS-41	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015065	2	F
36	STS-41	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015072	3	F
37	STS-38	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015073	1	F
37	STS-38	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015062	2	F
37	STS-38	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015067	3	F
38	STS-35	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015048	1	F
38	STS-35	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015071	2	F
38	STS-35	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015063	3	F
39	STS-37	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015073	1	F
39	STS-37	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015062	2	F
39	STS-37	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015067	3	F
40	STS-39	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015064	1	F
40	STS-39	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015065	2	F
40	STS-39	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015072	3	F
41	STS-40	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015035	1	F
41	STS-40	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015071	2	F
41	STS-40	OV102	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015063	3	F
42	STS-43	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015073	1	F
42	STS-43	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015062	2	F
42	STS-43	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015067	3	F
43	STS-48	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015068	1	F
43	STS-48	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015060	2	F
43	STS-48	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015071	3	F
44	STS-44	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015073	1	F
44	STS-44	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015062	2	F
44	STS-44	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015067	3	F
45	STS-42	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015068	1	F
45	STS-42	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015060	2	F
45	STS-42	OV103	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015071	3	F
46	STS-45	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015073	1	F
46	STS-45	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015062	2	F
46	STS-45	OV104	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015072	3	F
47	STS-49	OV105	CT	TACTICAL AIR NAVIGATION	MC409-0014	-0006	0000015064	1	F
47	STS-49	OV105	CT	TACTICAL AIR NAVIGATION	MC409-0184	-0001	0000000002	2	F
47	STS-49	OV105	CT	TACTICAL AIR NAVIGATION	MC409-0184	-0001	0000000003	3	F
53	STS-54	OV105	CT	TACTICAL AIR NAVIGATION (COLLINS)	MC409-0184	-0001	0000000003	2	F
53	STS-54	OV105	CT	TACTICAL AIR NAVIGATION (COLLINS)	MC409-0184	-0001	0000000002	3	F
48	STS-50	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015058	1	F
48	STS-50	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015065	2	F
48	STS-50	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015063	3	F
49	STS-46	OV104	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015073	1	F
49	STS-46	OV104	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015062	2	F
49	STS-46	OV104	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015072	3	F
50	STS-47	OV105	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015064	1	F
51	STS-52	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015072	1	F
51	STS-52	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015065	2	F
51	STS-52	OV102	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015073	3	F
53	STS-54	OV105	CT	TACTICAL AIR NAVIGATION (GOULD)	MC409-0014	-0006	0000015064	1	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
36	STS-41	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001027	1L	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
36	STS-41	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001033	1U	F
36	STS-41	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001030	2L	F
36	STS-41	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001032	2U	F
36	STS-41	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001024	3L	F
36	STS-41	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001028	3U	F
37	STS-38	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001031	1L	F
37	STS-38	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001034	1U	F
37	STS-38	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001038	2L	F
37	STS-38	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001021	2U	F
37	STS-38	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001036	3L	F
37	STS-38	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001037	3U	F
38	STS-35	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001012	1L	F
38	STS-35	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001015	1U	F
38	STS-35	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001013	2L	F
38	STS-35	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001016	2U	F
38	STS-35	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001018	3L	F
38	STS-35	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001014	3U	F
39	STS-37	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001031	1L	F
39	STS-37	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001034	1U	F
39	STS-37	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001038	2L	F
39	STS-37	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001021	2U	F
39	STS-37	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001036	3L	F
39	STS-37	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001037	3U	F
40	STS-39	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001027	1L	F
40	STS-39	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001033	1U	F
40	STS-39	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001030	2L	F
40	STS-39	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001032	2U	F
40	STS-39	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001024	3L	F
40	STS-39	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001028	3U	F
41	STS-40	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001012	1L	F
41	STS-40	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001015	1U	F
41	STS-40	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001013	2L	F
41	STS-40	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001016	2U	F
41	STS-40	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001018	3L	F
41	STS-40	OV102	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001014	3U	F
42	STS-43	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001031	1L	F
42	STS-43	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001034	1U	F
42	STS-43	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001038	2L	F
42	STS-43	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001021	2U	F
42	STS-43	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001036	3L	F
42	STS-43	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001037	3U	F
43	STS-48	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001027	1L	F
43	STS-48	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001033	1U	F
43	STS-48	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001030	2L	F
43	STS-48	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001032	2U	F
43	STS-48	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001024	3L	F
43	STS-48	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001028	3U	F
44	STS-44	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001031	1L	F
44	STS-44	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001034	1U	F
44	STS-44	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001038	2L	F
44	STS-44	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001021	2U	F
44	STS-44	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001036	3L	F
44	STS-44	OV104	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001037	3U	F
45	STS-42	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001027	1L	F
45	STS-42	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001033	1U	F
45	STS-42	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001030	2L	F
45	STS-42	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001032	2U	F
45	STS-42	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001024	3L	F
45	STS-42	OV103	CT	ANTENNAS, TACAN	MC481-0068	-0002	0000001028	3U	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
47	STS-49	OV105	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
48	STS-50	OV102	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
49	STS-46	OV104	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
50	STS-47	OV105	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
51	STS-52	OV102	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
53	STS-54	OV105	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
54	STS-55	OV102	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
					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	SLOT	STAT
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 TRANSPONDER	MC478-0106	-1001	0000000307	1	F
36	STS-41	OV103	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000306	2	F
37	STS-38	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000310	1	F
37	STS-38	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000308	2	F
38	STS-35	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000304	1	F
38	STS-35	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000301	2	F
39	STS-37	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000310	1	F
39	STS-37	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000308	2	F
40	STS-39	OV103	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000307	1	F
40	STS-39	OV103	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000306	2	F
41	STS-40	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000304	1	F
41	STS-40	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000301	2	F
42	STS-43	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000310	1	F
42	STS-43	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000308	2	F
43	STS-48	OV103	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000307	1	F
43	STS-48	OV103	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000306	2	F
44	STS-44	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000310	1	F
44	STS-44	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000308	2	F
45	STS-42	OV103	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000307	1	F
45	STS-42	OV103	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000306	2	F
46	STS-45	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000310	1	F
46	STS-45	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000308	2	F
47	STS-49	OV105	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000312	1	F
47	STS-49	OV105	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000313	2	F
48	STS-50	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000304	1	F
48	STS-50	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000301	2	F
49	STS-46	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000310	1	F
49	STS-46	OV104	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000308	2	F
50	STS-47	OV105	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000312	1	F
50	STS-47	OV105	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000313	2	F
51	STS-52	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000304	1	F
51	STS-52	OV102	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000301	2	F
53	STS-54	OV105	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000312	1	F
53	STS-54	OV105	CT	S-BAND TRANSPONDER	MC478-0106	-1001	0000000313	2	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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0000000301	1	F
54	STS-55	OV102	CT	NETWORK SIGNAL PROCESSOR	MC476-0137	-0004	0000000304	2	F
54	STS-55	OV102	CT	ANTENNA, PAYLOAD	MC481-0071	-0002	000DAG0003		F
54	STS-55	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000315	1	F
54	STS-55	OV102	CT	PAYLOAD INTERROGRATOR	MC478-0105	-0001	0000000302	2	F
54	STS-55	OV102	CT	S-BD PREAMPLIFIER ASSY	MC478-0106	-2001	0000000304		F
54	STS-55	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000305	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
54	STS-55	OV102	CT	PAYLOAD SIGNAL PROCESSOR ASSY	MC476-0138	-0004	0000000308	2	F
54	STS-55	OV102	CT	S-BD PWR-AMP	MC478-0106	-2501	0000000305		F
54	STS-55	OV102	CT	RADAR ALTIMETER	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	0000000304		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	SLOT	STAT
36	STS-41	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623087811	1	F
36	STS-41	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623087810	2	F
36	STS-41	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108018	3	F
36	STS-41	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048123	4	F
36	STS-41	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048126	5	F
37	STS-38	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623057809	1	F
37	STS-38	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048124	2	F
37	STS-38	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623058334	3	F
37	STS-38	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	4530077805	4	F
37	STS-38	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623068129	5	F
38	STS-35	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
38	STS-35	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108020	2	F
38	STS-35	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048121	3	F
38	STS-35	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098232	4	F
38	STS-35	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623036225	5	F
39	STS-37	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623067809	1	F
39	STS-37	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048124	2	F
39	STS-37	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623058334	3	F
39	STS-37	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	4530077805	4	F
39	STS-37	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623068129	5	F
40	STS-39	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623087811	1	F
40	STS-39	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623087810	2	F
40	STS-39	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108018	3	F
40	STS-39	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048123	4	F
40	STS-39	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048126	5	F
41	STS-40	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
41	STS-40	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108020	2	F
41	STS-40	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048121	3	F
41	STS-40	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098232	4	F
41	STS-40	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000387036	5	F
42	STS-43	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623067809	1	F
42	STS-43	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048124	2	F
42	STS-43	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623058334	3	F
42	STS-43	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	4530077805	4	F
42	STS-43	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623068129	5	F
43	STS-48	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623087811	1	F
43	STS-48	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623087810	2	F
43	STS-48	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108018	3	F
43	STS-48	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048123	4	F
43	STS-48	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048126	5	F
44	STS-44	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623067809	1	F
44	STS-44	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048124	2	F
44	STS-44	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623058334	3	F
44	STS-44	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	4530077805	4	F
44	STS-44	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623068129	5	F
45	STS-42	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623087811	1	F
45	STS-42	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623087810	2	F
45	STS-42	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108018	3	F
45	STS-42	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048123	4	F
45	STS-42	OV103	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048126	5	F
46	STS-45	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623067809	1	F
46	STS-45	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048124	2	F
46	STS-45	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623058334	3	F
46	STS-45	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	4530077805	4	F
46	STS-45	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623068129	5	F
47	STS-49	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390038		F
47	STS-49	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390039		F
47	STS-49	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390040		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
47	STS-49	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	6230057907		F
47	STS-49	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623057806		F
48	STS-50	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
48	STS-50	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108020	2	F
48	STS-50	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048121	3	F
48	STS-50	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098232	4	F
48	STS-50	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000387036	5	F
49	STS-46	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623067809	1	F
49	STS-46	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048124	2	F
49	STS-46	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623058334	3	F
49	STS-46	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	4530077805	4	F
49	STS-46	OV104	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623068129	5	F
50	STS-47	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	6230057907	1	F
50	STS-47	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390038	2	F
50	STS-47	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623057806	3	F
50	STS-47	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390040	4	F
50	STS-47	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390039	5	F
51	STS-52	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
51	STS-52	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108020	2	F
51	STS-52	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048121	3	F
51	STS-52	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098232	4	F
51	STS-52	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000387036	5	F
53	STS-54	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	6230057907	1	F
53	STS-54	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390038	2	F
53	STS-54	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623057806	3	F
53	STS-54	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390040	4	F
53	STS-54	OV105	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000390039	5	F
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108020	2	F
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048121	3	F
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098232	4	F
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000387036	5	F
36	STS-41	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000011	1	F
36	STS-41	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000015	2	F
36	STS-41	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000013	3	F
37	STS-38	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000017	1	F
37	STS-38	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	2	F
37	STS-38	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000016	3	F
38	STS-35	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000009	1	F
38	STS-35	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000008	2	F
38	STS-35	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000010	3	F
39	STS-37	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000017	1	F
39	STS-37	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	2	F
39	STS-37	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000016	3	F
40	STS-39	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000011	1	F
40	STS-39	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000019	2	F
40	STS-39	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000013	3	F
41	STS-40	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000009	1	F
41	STS-40	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000008	2	F
41	STS-40	OV102	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000010	3	F
42	STS-43	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000017	1	F
42	STS-43	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	2	F
42	STS-43	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000016	3	F
43	STS-48	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000011	1	F
43	STS-48	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000019	2	F
43	STS-48	OV103	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000013	3	F
44	STS-44	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000017	1	F
44	STS-44	OV104	DC	ATTITUDE DIRECTOR INDICATOR	MC432-0235	-0002	5351000018	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
50	STS-47	OV105	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
51	STS-52	OV102	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
53	STS-54	OV105	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
54	STS-55	OV102	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	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623108209		F
37	STS-38	OV104	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623098208		F
38	STS-35	OV102	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623067802		F
39	STS-37	OV104	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623098208		F
40	STS-39	OV103	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623108209		F
41	STS-40	OV102	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623067802		F
42	STS-43	OV104	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623098208		F
43	STS-48	OV103	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623108209		F
44	STS-44	OV104	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623098208		F
45	STS-42	OV103	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623108209		F
46	STS-45	OV104	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623098208		F
47	STS-49	OV105	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	0000989009		F
48	STS-50	OV102	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623067802		F
49	STS-46	OV104	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623098208		F
50	STS-47	OV105	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	0000989009		F
51	STS-52	OV102	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623067802		F
53	STS-54	OV105	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	0000989009		F
54	STS-55	OV102	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623067802		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
39	STS-37	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603007	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	SLOT	STAT
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
42	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
43	STS-48	OV103	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008302017	2	F
44	STS-44	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603007	1	F
44	STS-44	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201013	2	F
45	STS-42	OV103	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201014	1	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	0007603007	1	F
46	STS-45	OV104	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008201013	2	F
47	STS-49	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905017		F
47	STS-49	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905018		F
48	STS-50	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007803010	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		F
50	STS-47	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905018		F
51	STS-52	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007803010	1	F
51	STS-52	OV102	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0007603009	2	F
53	STS-54	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905017		F
53	STS-54	OV105	DC	ALPHA-MACH ELECTRONICS	MC432-0224	-0022	0008905018		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	0008201013	1	F
46	STS-45	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803010	2	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	0008302016	1	F
48	STS-50	OV102	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803009	2	F
49	STS-46	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0008201013	1	F
49	STS-46	OV104	DC	ALPHA-MACH INDICATORS	MC432-0224	-0011	0007803010	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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0000127703		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	0000127703		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	0000038002		F
48	STS-50	OV102	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000038305		F
49	STS-46	OV104	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0001288020		F
50	STS-47	OV105	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000118004		F
51	STS-52	OV102	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000038305		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	MC434-0073	-0011	0001288020		F
36	STS-41	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC434-0073	-0011	0000118004		F
37	STS-38	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302016	1	F
37	STS-38	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201013	2	F
38	STS-35	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
38	STS-35	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
39	STS-37	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803009	1	F
39	STS-37	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803010	2	F
40	STS-39	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
40	STS-39	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
41	STS-40	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302016	1	F
41	STS-40	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201013	2	F
42	STS-43	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803009	1	F
42	STS-43	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803010	2	F
43	STS-48	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
43	STS-48	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
44	STS-44	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302016	1	F
44	STS-44	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201013	2	F
45	STS-42	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
45	STS-42	OV103	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
46	STS-45	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302016	1	F
46	STS-45	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201013	2	F
47	STS-49	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
47	STS-49	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
48	STS-50	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905017		F
48	STS-50	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905018		F
49	STS-46	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803009	1	F
49	STS-46	OV104	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803010	2	F
50	STS-47	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3158201014	1	F
50	STS-47	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	9728302017	2	F
51	STS-52	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905017		F
51	STS-52	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905018		F
53	STS-54	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803009	1	F
53	STS-54	OV105	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	3157803010	2	F
54	STS-55	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905017		F
54	STS-55	OV102	DC	ALTITUDE VERTICAL VELOCITY ELECTRONICS	MC432-0226	-0022	0008905018		F
					MC432-0226	-0022	3157803009	1	F
					MC432-0226	-0022	3157803010	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
39	STS-37	OV104	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
40	STS-39	OV103	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
41	STS-40	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3157803009	2	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
50	STS-47	OV105	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
51	STS-52	OV102	DC	ALTITUDE VERTICAL VELOCITY INDICATOR	MC432-0226	-0011	3157803009	2	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	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623058012		F
37	STS-38	OV104	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623078313		F
38	STS-35	OV102	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623283014		F
39	STS-37	OV104	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623078313		F
40	STS-39	OV103	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623058012		F
41	STS-40	OV102	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623283014		F
42	STS-43	OV104	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623078313		F
43	STS-48	OV103	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623058012		F
44	STS-44	OV104	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623078313		F
45	STS-42	OV103	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623058012		F
46	STS-45	OV104	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623078313		F
47	STS-49	OV105	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	0000789016		F
48	STS-50	OV102	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623283014		F
49	STS-46	OV104	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623078313		F
50	STS-47	OV105	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	0000789016		F
51	STS-52	OV102	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623283014		F
53	STS-54	OV105	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	0000789016		F
54	STS-55	OV102	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623283014		F
36	STS-41	OV103	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	0002030051		F
37	STS-38	OV104	DC	CROSSPOINTER	MC432-0233	-0001	0002060071		F

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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	-0123	0000000007		F
50	STS-47	OV105	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000011		F
51	STS-52	OV102	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000014		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	0000000004		F
42	STS-43	OV104	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000001		F
43	STS-48	OV103	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000006		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	0000000004		F
49	STS-46	OV104	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000001		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	0000000004		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	-0004	0000000014	2	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
41	STS-40	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000018	3	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	SLOT	STAT
44	STS-44	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000014	2	F
44	STS-44	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000007	3	F
45	STS-42	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000009	1	F
45	STS-42	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000023	2	F
45	STS-42	OV103	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000012	3	F
46	STS-45	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000022	1	F
46	STS-45	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000010	2	F
46	STS-45	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000007	3	F
47	STS-49	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000019	1	F
47	STS-49	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000024	2	F
47	STS-49	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000021	3	F
48	STS-50	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000008	1	F
48	STS-50	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000020	2	F
48	STS-50	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000018	3	F
49	STS-46	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000022	1	F
49	STS-46	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000015	2	F
49	STS-46	OV104	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000012	3	F
50	STS-47	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000019	1	F
50	STS-47	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000024	2	F
50	STS-47	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000021	3	F
51	STS-52	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000008	1	F
51	STS-52	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000020	2	F
51	STS-52	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000018	3	F
53	STS-54	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000019	1	F
53	STS-54	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000024	2	F
53	STS-54	OV105	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000021	3	F
54	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000008	1	F
54	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000020	2	F
54	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000018	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	0000000245		F
38	STS-35	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000460		F
39	STS-37	OV104	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000245		F
40	STS-39	OV103	DC	LITE EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000596		F
41	STS-40	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000460		F
42	STS-43	OV104	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000459		F
43	STS-48	OV103	DC	LITE EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000596		F
44	STS-44	OV104	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000459		F
45	STS-42	OV103	DC	LITE EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000596		F
46	STS-45	OV104	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000459		F
47	STS-49	OV105	DC	LIT-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000597		F
48	STS-50	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000460		F
49	STS-46	OV104	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000459		F
50	STS-47	OV105	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000245		F
51	STS-52	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000460		F
53	STS-54	OV105	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000245		F
54	STS-55	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000460		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	0000000218		F
38	STS-35	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000592		F
39	STS-37	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000218		F
40	STS-39	OV103	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000402		F
41	STS-40	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000592		F
42	STS-43	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000218		F
43	STS-48	OV103	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000402		F
44	STS-44	OV104	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000218		F
45	STS-42	OV103	DC	LITE-EXTERIOR ELECTRONICS NBR 1	MC434-0062	-0011	0000000402		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	OV105	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	0000000591		F
46	STS-45	OV104	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000219		F
47	STS-49	OV105	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000591		F
48	STS-50	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000219		F
49	STS-46	OV104	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000670		F
50	STS-47	OV105	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000603		F
51	STS-52	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000219		F
53	STS-54	OV105	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000670		F
54	STS-55	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000603		F
36	STS-41	OV103	DC	LITE-EXTERIOR ELECTRONICS 2	MC434-0062	-0035	0000000670		F
36	STS-41	OV103	DC	LITE-EXTERIOR ELECTRONICS NBR 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		F
38	STS-35	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000453	4	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
41	STS-40	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0022	0000000451	5	F
					MC434-0062	-0032	0000000460		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
41	STS-40	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000580		F
41	STS-40	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000582		F
41	STS-40	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000583		F
41	STS-40	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000240	5	F
41	STS-40	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000243	6	F
42	STS-43	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000578	1	F
42	STS-43	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000456	2	F
42	STS-43	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000237	3	F
42	STS-43	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000455	4	F
42	STS-43	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000454	5	F
42	STS-43	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000581	6	F
43	STS-48	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000449		F
43	STS-48	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000450		F
43	STS-48	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000577		F
43	STS-48	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000447	1	F
43	STS-48	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000457	2	F
43	STS-48	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000242	3	F
44	STS-44	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000578	1	F
44	STS-44	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000456	2	F
44	STS-44	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000237	3	F
44	STS-44	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000453	4	F
44	STS-44	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000454	5	F
44	STS-44	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000581	6	F
45	STS-42	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000449		F
45	STS-42	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000450		F
45	STS-42	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000577		F
45	STS-42	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000447	1	F
45	STS-42	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000457	2	F
45	STS-42	OV103	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000242	3	F
46	STS-45	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000578	1	F
46	STS-45	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000456	2	F
46	STS-45	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000237	3	F
46	STS-45	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000453	4	F
46	STS-45	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000454	5	F
46	STS-45	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000581	6	F
47	STS-49	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000666	1	F
47	STS-49	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000667	2	F
47	STS-49	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	0032	0000000664	3	F
47	STS-49	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000665	4	F
47	STS-49	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000668	5	F
47	STS-49	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000669	6	F
48	STS-50	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000447		F
48	STS-50	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000449		F
48	STS-50	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000450		F
48	STS-50	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000580		F
48	STS-50	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000582		F
48	STS-50	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000583		F
49	STS-46	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000578	1	F
49	STS-46	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000456	2	F
49	STS-46	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000452	3	F
49	STS-46	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000453	4	F
49	STS-46	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000454	5	F
49	STS-46	OV104	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000581	6	F
50	STS-47	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000231	1	F
50	STS-47	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000458	2	F
50	STS-47	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000664	3	F
50	STS-47	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000665	4	F
50	STS-47	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000669	5	F
50	STS-47	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000448	6	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
51	STS-52	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000449		F
51	STS-52	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000580		F
51	STS-52	OV102	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000583		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
53	STS-54	OV105	DC	LITE-EXTERIOR PAYLOAD	MC434-0062	-0032	0000000452	6	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/SP
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	[illegible]		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0000088307		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	-0005	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	000000005E		F
37	STS-38	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000006E		F
38	STS-35	OV102	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000004E		F
39	STS-37	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000006E		F
40	STS-39	OV103	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000005E		F
41	STS-40	OV102	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000004E		F
42	STS-43	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000006E		F
43	STS-48	OV103	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000005E		F
44	STS-44	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000006E		F
45	STS-42	OV103	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000005E		F
46	STS-45	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000006E		F
47	STS-49	OV105	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	251902007E		F
48	STS-50	OV102	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000004E		F
49	STS-46	OV104	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000006E		F
50	STS-47	OV105	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	251902007E		F
51	STS-52	OV102	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000004E		F
53	STS-54	OV105	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	251902007E		F
54	STS-55	OV102	DC	ACCELEROMETER INDICATOR	MC432-0219	-0002	000000004E		F
36	STS-41	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000014	1	F
36	STS-41	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000009	2	F
37	STS-38	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000016	1	F
37	STS-38	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000015	2	F
38	STS-35	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000006	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
38	STS-35	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000008	2	F
39	STS-37	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000016	1	F
39	STS-37	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000015	2	F
40	STS-39	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000014	1	F
40	STS-39	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000009	2	F
41	STS-40	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000006	1	F
41	STS-40	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000008	2	F
42	STS-43	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000010	1	F
42	STS-43	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000015	2	F
43	STS-48	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000014	1	F
43	STS-48	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000009	2	F
44	STS-44	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000010	1	F
44	STS-44	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000015	2	F
45	STS-42	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000014	1	F
45	STS-42	OV103	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000009	2	F
46	STS-45	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000010	1	F
46	STS-45	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000017	2	F
47	STS-49	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000013	1	F
47	STS-49	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000018	2	F
48	STS-50	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000006	1	F
48	STS-50	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000008	2	F
49	STS-46	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000010	1	F
49	STS-46	OV104	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000017	2	F
50	STS-47	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000013	1	F
50	STS-47	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000018	2	F
51	STS-52	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000006	1	F
51	STS-52	OV102	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000008	2	F
53	STS-54	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0003	0000000013	1	F
53	STS-54	OV105	DC	HORIZONTAL SITUATION INDICATOR	MC432-0218	-0004	0000000018	2	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
36	STS-41	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000114	1	F
36	STS-41	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000118	2	F
37	STS-38	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000110	1	F
37	STS-38	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000115	2	F
38	STS-35	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000102	1	F
38	STS-35	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000117	2	F
39	STS-37	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000110	1	F
39	STS-37	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000115	2	F
40	STS-39	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000114	1	F
40	STS-39	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000118	2	F
41	STS-40	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000102	1	F
41	STS-40	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000117	2	F
42	STS-43	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000110	1	F
42	STS-43	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000115	2	F
43	STS-48	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000112		F/SP
43	STS-48	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000114	1	F
43	STS-48	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000118	2	F
44	STS-44	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000110	1	F
44	STS-44	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000115	2	F
45	STS-42	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000114	1	F
45	STS-42	OV103	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000118	2	F
46	STS-45	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000110	1	F
46	STS-45	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000115	2	F
47	STS-49	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000120	1	F
47	STS-49	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000121	2	F
48	STS-50	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000102	1	F
48	STS-50	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000117	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
49	STS-46	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000110	1	F
49	STS-46	OV104	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000115	2	F
50	STS-47	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000120	1	F
50	STS-47	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000121	2	F
51	STS-52	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000102	1	F
51	STS-52	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000117	2	F
53	STS-54	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000120	1	F
53	STS-54	OV105	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000121	2	F
54	STS-55	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000102	1	F
54	STS-55	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000117	2	F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0011	0000000135		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000300		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000306		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000308		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000312		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000316		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000317		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000318		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000323		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000325		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0009	0000000328		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0009	0000000336		F
36	STS-41	OV103	DC	LITE-INTERIOR	MC434-0068	-0022	0000000363		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0015	0000000252		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0015	0000000253		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0016	0000000263		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0016	0000000264		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000303		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000305		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000307		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000309		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000310		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000314		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000315		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000321		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000322		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000333		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000334		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	0000000456		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0022	0000000462		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0011	0000000369		F
37	STS-38	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	0000000425		F
38	STS-35	OV102	DC	LITE-INTERIOR	MC434-0068	-0016	0000000105		F
38	STS-35	OV102	DC	LITE-INTERIOR	MC434-0068	-0018	0000000111		F
38	STS-35	OV102	DC	LITE-INTERIOR	MC434-0068	-0011	0000000137		F
38	STS-35	OV102	DC	LITE-INTERIOR	MC434-0068	-0015	0000000594		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0015	0000000252		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0016	0000000263		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000303		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000305		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000307		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000309		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000310		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000314		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000315		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000321		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000322		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000333		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000334		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	0000000356		F
39	STS-37	OV104	DC	LITE-INTERIOR	MC434-0068	-0022	0000000362		F
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	-0015	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	0000000306		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	0000000330		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
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0022	0000000635		F
41	STS-40	OV102	DC	LITE-INTERIOR	MC434-0068	-0016	0000000105		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
					MC434-0068	-0014	0000000308		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000312		F
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000316		F
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000317		F
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000318		F
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000323		F
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000325		F
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0009	0000000328		F
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0009	0000000336		F
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0021	0000000425		F
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0027	0000000428		F
43	STS-48	OV103	DC	LITE-INTERIOR	MC434-0068	-0022	0000000635		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0015	0000000252		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0016	0000000263		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000303		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000305		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000307		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000309		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000310		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000314		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000315		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000321		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000322		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000333		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000334		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	0000000356		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0022	0000000362		F
44	STS-44	OV104	DC	LITE-INTERIOR	MC434-0068	-0011	0000000369		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0011	0000000135		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0015	0000000253		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0016	0000000264		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000300		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000306		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000308		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000312		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000316		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000317		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000318		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000323		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0014	0000000325		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0009	0000000328		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0009	0000000336		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0021	0000000425		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0027	0000000428		F
45	STS-42	OV103	DC	LITE-INTERIOR	MC434-0068	-0022	0000000635		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0015	0000000252		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0016	0000000263		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000303		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000305		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000307		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000309		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000310		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000314		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000315		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000321		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0014	0000000322		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000333		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000334		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	0000000356		F
46	STS-45	OV104	DC	LITE-INTERIOR	MC434-0068	-0022	0000000362		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	-0115	0000000673		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
47	STS-49	OV105	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	STAT
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0009	0000000334		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0021	0000000356		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0022	0000000362		F
49	STS-46	OV104	DC	LITE-INTERIOR	MC434-0068	-0011	0000000369		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0030	0000000605		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0129	0000000615		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0030	0000000642		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0119	0000000651		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0119	0000000652		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0120	0000000653		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0120	0000000654		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0115	0000000673		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0116	0000000674		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0122	0000000675		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000677		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000678		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000679		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000680		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000681		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0111	0000000683		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000684		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000685		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000686		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000687		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000688		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000689		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000690		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000691		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000692		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0109	0000000693		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0109	0000000694		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0127	0000000696		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0127	0000000697		F
50	STS-47	OV105	DC	LITE-INTERIOR	MC434-0068	-0128	0000000698		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0016	0000000105		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0018	0000000111		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000123		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000126		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0011	0000000137		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000429		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000474		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0028	0000000475		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0029	0000000484		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000486		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000488		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0015	0000000594		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000629		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000632		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000633		F
51	STS-52	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000634		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0030	0000000605		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0129	0000000615		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0030	0000000642		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0119	0000000651		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0119	0000000652		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0120	0000000653		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0120	0000000654		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0115	0000000673		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0116	0000000674		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0122	0000000675		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000677		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000678		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000679		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000680		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0121	0000000681		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0111	0000000683		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000684		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000685		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000686		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000688		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000689		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000690		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000691		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0114	0000000692		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0109	0000000693		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0109	0000000694		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0127	0000000696		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0127	0000000697		F
53	STS-54	OV105	DC	LITE-INTERIOR	MC434-0068	-0128	0000000698		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0016	0000000105		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0018	0000000111		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000123		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000126		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0011	0000000137		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0014	0000000144		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000429		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000474		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0028	0000000475		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0029	0000000484		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000486		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000488		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0015	0000000594		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0014	0000000621		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000629		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000632		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000633		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000634		F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000118049	X	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000108157	Y	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000108158	Z	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068033	1	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068035	2	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068036	3	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068037	4	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068038	5	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068039	6	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068040	7	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000068041	8	F
36	STS-41	OV103	DC	LIGHT DIMMER	MC459-0004	-0001	0000118048	9	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018265	X	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018266	Y	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018267	Z	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000027808	1	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000068043	2	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108046	3	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108156	4	F
37	STS-38	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108159	5	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0001286071	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
39	STS-37	OV104	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	0000108046	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	0000108159	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	0000068033	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	0000108044	X	F
41	STS-40	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108052	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	0000027808	1	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000068043	2	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108046	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	STAT
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108159	5	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018260	6	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018261	7	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018262	8	F
42	STS-43	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018264	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	0000018265	X	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018266	Y	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018267	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	0000018260	6	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018261	7	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018262	8	F
44	STS-44	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018264	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
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000118048	9	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018265	X	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018266	Y	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018267	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	0000018260	6	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018261	7	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018262	8	F
46	STS-45	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018264	9	F
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089082	X	
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089084	Y	
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089077	Z	
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089074	1	
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089076	2	
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089073	3	

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089075	4	
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089078	5	
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089079	6	
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089081	7	
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089080	8	
47	STS-49	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089083	9	
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108044	X	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108052	Y	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0001286071	Z	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027804	1	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027809	2	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027810	3	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027811	4	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027812	5	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027813	6	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027802	7	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027805	8	F
48	STS-50	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000037830	9	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018265	X	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018266	Y	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018267	Z	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000027808	1	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000068043	2	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108046	3	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108156	4	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000108159	5	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018260	6	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018261	7	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018262	8	F
49	STS-46	OV104	DC	LIGHT DIMMER	MC459-0004	-0001	0000018264	9	F
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089082	X	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089084	Y	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089077	Z	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089074	1	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089076	2	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089073	3	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089075	4	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089078	5	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089079	6	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089081	7	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089080	8	
50	STS-47	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089083	9	
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108044	X	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000108052	Y	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0001286071	Z	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027804	1	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027809	2	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027810	3	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027811	4	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027812	5	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027813	6	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027802	7	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000027805	8	F
51	STS-52	OV102	DC	LIGHT DIMMER	MC459-0004	-0001	0000037830	9	F
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089082	X	
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089084	Y	
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089077	Z	
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089074	1	
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089076	2	

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089073	3	
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089075	4	
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089078	5	
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089079	6	
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089081	7	
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089080	8	
53	STS-54	OV105	DC	LIGHT DIMMER	MC459-0004	-0001	0000089083	9	
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	0000000012	1	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
38	STS-35	OV102	DC	MISSION TIMER	MC456-0054	-0002	0000000004	2	F
39	STS-37	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000012	1	F
39	STS-37	OV104	DC	MISSION TIMER	MC456-0054	-0002	0000000010	2	F
40	STS-39	OV103	DC	MISSION TIMER	MC456-0054	-0002	0000000011	1	F
40	STS-39	OV103	DC	MISSION TIMER	MC456-0054	-0002	0000000013	2	F
41	STS-40	OV102	DC	MISSION TIMER	MC456-0054	-0001	0000000003	1	F
41	STS-40	OV102	DC	MISSION TIMER	MC456-0054	-0002	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		F
47	STS-49	OV105	DC	MISSION TIMER	MC456-0054	-0002	0000000017		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		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		F
51	STS-52	OV102	DC	MISSION TIMER	MC456-0054	-0002	0000000004	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		F
36	STS-41	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000118		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	1	F
38	STS-35	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	2	F
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	0000000116		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	1	F
41	STS-40	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	2	F
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	-0031	0000000114		F/SP
43	STS-48	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0021	0000000116		F
43	STS-48	OV103	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000118		F
44	STS-44	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000112		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	0000000124		F
47	STS-49	OV105	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000125		F
48	STS-50	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000109	1	F
48	STS-50	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	2	F
49	STS-46	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000112		F
49	STS-46	OV104	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000115		F
50	STS-47	OV105	DC	PILOT DISPLAY UNIT	MC409-0096	-0041	0000000124		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	1	F
51	STS-52	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	2	F
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	1	F
54	STS-55	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	2	F
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	0003046106		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	0000000011		
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	0000000011		
51	STS-52	OV102	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0003048106		F
53	STS-54	OV105	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0000000011		
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	STAT
37	STS-38	OV104	DC	METER-ROUND ELEC	MC432-0237	-0006	2200006108		F
37	STS-38	OV104	DC	METER-ROUND ELEC	MC432-0237	-0007	2200007106		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	2200004106		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	2200007106		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	2200007106		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	2200007106		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	2200007103		F
50	STS-47	OV105	DC	METER-ROUND ELEC	MC432-0237	-0004	0000004107		F/SP
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
53	STS-54	OV105	DC	METER-ROUND ELEC	MC432-0237	-0004	0000004107		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
54	STS-55	OV102	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	SLOT	STAT
40	STS-39	OV103	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000008	1	F
40	STS-39	OV103	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000002	2	F
41	STS-40	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000004	1	F
41	STS-40	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000005	2	F
42	STS-43	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000010	1	F
42	STS-43	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000011	2	F
43	STS-48	OV103	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000008	1	F
43	STS-48	OV103	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000002	2	F
44	STS-44	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000010	1	F
44	STS-44	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000011	2	F
45	STS-42	OV103	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000008	1	F
45	STS-42	OV103	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000002	2	F
46	STS-45	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000010	1	F
46	STS-45	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000011	2	F
47	STS-49	OV105	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000014	1	F
47	STS-49	OV105	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000015	2	F
48	STS-50	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000004	1	F
48	STS-50	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000005	2	F
49	STS-46	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000010	1	F
49	STS-46	OV104	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000011	2	F
50	STS-47	OV105	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000014	1	F
50	STS-47	OV105	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000015	2	F
51	STS-52	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000004	1	F
51	STS-52	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000005	2	F
53	STS-54	OV105	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000014	1	F
53	STS-54	OV105	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000015	2	F
54	STS-55	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000004	1	F
54	STS-55	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000005	2	F
36	STS-41	OV103	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000000206		F
37	STS-38	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000000104		F
38	STS-35	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203		F
39	STS-37	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000000104		F
40	STS-39	OV103	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000000206		F
41	STS-40	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203		F
42	STS-43	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000000104		F
43	STS-48	OV103	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000000206		F
44	STS-44	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000000104		F
45	STS-42	OV103	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000000206		F
46	STS-45	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000000104		F
47	STS-49	OV105	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000089010		F
48	STS-50	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203		F
49	STS-46	OV104	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000000104		F
50	STS-47	OV105	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000089010		F
51	STS-52	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203		F
53	STS-54	OV105	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000006009		F
54	STS-55	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203		F
36	STS-41	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000010	1	F
36	STS-41	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000009	2	F
37	STS-38	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000011	1	F
37	STS-38	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000001	2	F
38	STS-35	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000004	1	F
38	STS-35	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000012	2	F
39	STS-37	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000011	1	F
39	STS-37	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000001	2	F
40	STS-39	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000010	1	F
40	STS-39	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000009	2	F
41	STS-40	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000004	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
41	STS-40	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000012	2	F
42	STS-43	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000011	1	F
42	STS-43	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000001	2	F
43	STS-48	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000010	1	F
43	STS-48	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000009	2	F
44	STS-44	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000011	1	F
44	STS-44	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000001	2	F
45	STS-42	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000010	1	F
45	STS-42	OV103	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000009	2	F
46	STS-45	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000011	1	F
46	STS-45	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000001	2	F
47	STS-49	OV105	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000013	1	F
47	STS-49	OV105	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000014	2	F
48	STS-50	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000004	1	F
48	STS-50	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000012	2	F
49	STS-46	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000011	1	F
49	STS-46	OV104	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000001	2	F
50	STS-47	OV105	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000013	1	F
50	STS-47	OV105	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000014	2	F
51	STS-52	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000004	1	F
51	STS-52	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000012	2	F
53	STS-54	OV105	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000013	1	F
53	STS-54	OV105	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000014	2	F
54	STS-55	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000004	1	F
54	STS-55	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000012	2	F
36	STS-41	OV103	DC	SURFACE POSITION INDICATOR	MC432-0221	-0011	0007803006		F
37	STS-38	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010		F
38	STS-35	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008201008		F
39	STS-37	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010		F
40	STS-39	OV103	DC	SURFACE POSITION INDICATOR	MC432-0221	-0011	0007803006		F
41	STS-40	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008201008		F
42	STS-43	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010		F
43	STS-48	OV103	DC	SURFACE POSITION INDICATOR	MC432-0221	-0011	0007803006		F
44	STS-44	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010		F
45	STS-42	OV103	DC	SURFACE POSITION INDICATOR	MC432-0221	-0011	0007803006		F
46	STS-45	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010		F
47	STS-49	OV105	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008903001		F
48	STS-50	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008201008		F
49	STS-46	OV104	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008303010		F
50	STS-47	OV105	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008903001		F
51	STS-52	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008201008		F
53	STS-54	OV105	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0008903001		F
54	STS-55	OV102	DC	SURFACE POSITION INDICATOR	MC432-0221	-0031	0007605005		F
36	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0017	0000000004		F
36	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0012	0000000004		F
36	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0008	0000000005		F
36	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0009	000000006A		F
36	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0015	000000006A		F
36	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0018	000000006A		F
36	STS-41	OV103	DC	METER-TAPE	MC432-0232	-0010	000000007A		F
37	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0017	000000005A		F
37	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0009	000000005A		F
37	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0015	000000005A		F
37	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0018	000000005A		F
37	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0012	000000006A		F
37	STS-38	OV104	DC	METER-TAPE	MC432-0232	-0008	000000007A		F

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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	000000008A		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	1	F
36	STS-41	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000004	3	F
37	STS-38	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000009	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
38	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-37	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000010	3	F
40	STS-39	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000008	1	F
40	STS-39	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000004	3	F
41	STS-40	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000002	1	F
41	STS-40	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000007	3	F
42	STS-43	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000009	1	F
42	STS-43	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000010	3	F
43	STS-48	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000008	1	F
43	STS-48	OV103	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000004	3	F
44	STS-44	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000009	1	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
48	STS-50	OV102	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000007	3	F
49	STS-46	OV104	DC	TRANSLATION HAND CONTROLLER	MC621-0043	-3140	0000000009	1	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
36	STS-41	OV103	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	SLOT	STAT
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028102		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007106		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008106		F
37	STS-38	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019105		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0000010103		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009101		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011101		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012101		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014102		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014103		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014107		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016101		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017101		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024101		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028105		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007101		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008102		F
38	STS-35	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019101		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0000011106		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009106		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010106		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012106		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014114		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014115		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014116		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016106		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017106		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024106		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028102		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007106		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008106		F
39	STS-37	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019105		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009105		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010105		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011105		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012105		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014111		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014112		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014113		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016105		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017105		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024105		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026101		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028101		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007105		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008105		F
40	STS-39	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019104		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0000010103		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009101		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011101		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012101		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014102		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014103		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014107		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016101		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017101		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024101		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028105		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007101		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008102		F
41	STS-40	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019101		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0000011106		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009106		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010106		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012106		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014114		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014115		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014116		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016106		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017106		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024106		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028102		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007106		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008106		F
42	STS-43	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019105		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009105		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010105		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011105		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012105		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014111		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014112		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014113		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016105		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017105		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024105		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026101		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028101		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007105		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008105		F
43	STS-48	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019104		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0000011106		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009106		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010106		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012106		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014114		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014115		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014116		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016106		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017106		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024106		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028102		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007106		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008106		F
44	STS-44	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019105		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009105		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010105		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011105		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012105		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014111		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014112		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014113		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016105		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017105		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024105		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026101		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028101		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007105		F
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008105		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
45	STS-42	OV103	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019104		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0000011106		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009106		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010106		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012106		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014114		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014115		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014116		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016106		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017106		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024106		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0025	0380025107		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026106		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028102		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007106		F
46	STS-45	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008106		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019105		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0380007107		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0380008108		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009108		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010108		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011108		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012108		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014118		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014119		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014120		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016108		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017108		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0380019107		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024108		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0025	0380025109		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026108		F
47	STS-49	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028108		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0000010103		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009101		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011101		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012101		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014102		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014103		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014107		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016101		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017101		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024101		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0025	0380025103		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026102		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028105		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007101		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008102		F
48	STS-50	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019101		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0000011106		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009106		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010106		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012106		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014114		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014115		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014116		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016106		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017106		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024106		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0025	0380025107		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026106		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028102		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007106		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008106		F
49	STS-46	OV104	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019105		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0380007107		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0380008108		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009108		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010108		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011108		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012108		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014118		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014119		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014120		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016108		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017108		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0380019107		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024108		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0025	0380025109		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026108		F
50	STS-47	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028108		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0000010103		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009101		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011101		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012101		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014102		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014103		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014107		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016101		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017101		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024101		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0025	0380025103		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026102		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028105		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0790007101		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0790008102		F
51	STS-52	OV102	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0790019101		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0007	0380007107		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0008	0380008108		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0009	0380009108		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0010	0380010108		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0011	0380011108		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0012	0380012108		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014118		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014119		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0014	0380014120		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0016	0380016108		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0017	0380017108		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0019	0380019107		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0024	0380024108		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0025	0380025109		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0026	0380026108		F
53	STS-54	OV105	DC	METER-VERTICAL SCALE	MC432-0238	-0028	0380028108		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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098231	1	F
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623108020	2	F
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623048121	3	F
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	9623098232	4	F
54	STS-55	OV102	DC	ANNUNCIATOR CONTROL ASSEMBLY	MC434-0283	-0003	0000387036	5	F
54	STS-55	OV102	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
54	STS-55	OV102	DC	ANNUNICATOR DISPLAY UNIT	MC434-0080	-0012	9623067802		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
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
54	STS-55	OV102	DC	FIRE WARNING ANNUNCIATOR	MC434-0073	-0011	0000118004		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
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
54	STS-55	OV102	DC	COMPUTER I/F COND. UNIT	MC434-0080	-0001	9623283014		F
54	STS-55	OV102	DC	CROSSPOINTER INDICATOR	MC432-0233	-0001	000206006E		F
54	STS-55	OV102	DC	CAUTION/WARNING ANNUNCIATOR	MC434-0069	-0012	9623127805		F
54	STS-55	OV102	DC	CAUTION AND WARNING ELECTRONICS	MC409-0012	-0031	0000000005		F
54	STS-55	OV102	DC	CAUTION AND WARNING LIMIT MODULE	MC409-0012	-0113	0000000011		F
54	STS-55	OV102	DC	CAUTION WARNING STATUS	MC409-0012	-0002	0000000004		F
54	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0002	0000000008	1	F
54	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000020	2	F
54	STS-55	OV102	DC	DISPLAY DRIVER UNIT	MC409-0023	-0004	0000000018	3	F
54	STS-55	OV102	DC	LITE-EXTERIOR BULKHEAD FLOODLIGHT	MC434-0062	-0033	0000000460		F
54	STS-55	OV102	DC	LITE-EXTERIOR ELECTRONICS 1	MC434-0062	-0011	0000000592		F
54	STS-55	OV102	DC	LITE-EXTERIOR ELECTRONICS NBR 2	MC434-0062	-0035	0000000603		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
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
54	STS-55	OV102	DC	FLOOD LITE	MC434-0078	-0005	0000067895		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
54	STS-55	OV102	DC	FLOOD LITE	MC434-0078	-0006	0000067809		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	0000000102	1	F
54	STS-55	OV102	DC	HEAD UP DISPLAY ELECTRONICS	MC409-0096	-0012	0000000117	2	F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0016	0000000105		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0018	0000000111		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000123		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0009	0000000126		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0011	0000000137		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0014	0000000144		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000429		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0027	0000000474		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0028	0000000475		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0029	0000000484		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000486		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0030	0000000488		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0015	0000000594		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0014	0000000621		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000629		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000632		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000633		F
54	STS-55	OV102	DC	LITE-INTERIOR	MC434-0068	-0021	0000000634		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	0000000109	1	F
54	STS-55	OV102	DC	PILOT DISPLAY UNIT	MC409-0096	-0031	0000000110	2	F
54	STS-55	OV102	DC	METER, PROPELLANT QUANTITY	MC432-0229	-0021	0003048106		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	2200006102		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	0000000004	1	F
54	STS-55	OV102	DC	RUDDER PEDAL TRANSDUCER ASSY	MC621-0043	-3440	0000000005	2	F
54	STS-55	OV102	DC	RENDEZVOUS RADAR INDICATOR	MC432-0255	-0002	0000098203		F
54	STS-55	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000004	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
54	STS-55	OV102	DC	SPEED BRAKE THRUST CONTROLLER	MC621-0043	-3240	0000000012	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

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
36	STS-41	OV103	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000AD9162	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-35	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
39	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	0000ER8112	1	F
47	STS-49	OV105	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000ER8113	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	0000ER8112	1	F
50	STS-47	OV105	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000ER8113	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	0000ER8112	1	F
53	STS-54	OV105	EPDC	FLIGHT CONTROL ACTUATOR POWER ASSEMBLY	V070-764350	-004	0000ER8113	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	756MYD0004	1	F
37	STS-38	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD0003	1	F
38	STS-35	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD0006	1	F
39	STS-37	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD0003	1	F
40	STS-39	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD0004	1	F
41	STS-40	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD0006	1	F
42	STS-43	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD0003	1	F
43	STS-48	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD0004	1	F
44	STS-44	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD[illegible]	1	F
45	STS-42	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MYD[illegible]4	1	F
46	STS-45	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756M[illegible]003	1	F
47	STS-49	OV105	EPDC	AFT HYBIRD LOAD CONTROLLER NBR 1	MC450-0057	-0001	756M[illegible]007	1	F
48	STS-50	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MY[illegible]	1	F
49	STS-46	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756M[illegible]	1	F
50	STS-47	OV105	EPDC	AFT HYBIRD LOAD CONTROLLER NBR 1	MC450-0057	-0001	756M[illegible]007	1	F
51	STS-52	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756M[illegible]	1	F
53	STS-54	OV105	EPDC	AFT HYBIRD LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MY[illegible]007	1	F
54	STS-55	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 1	MC450-0057	-0001	756MY[illegible]	1	F
36	STS-41	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MY[illegible]004	2	F
37	STS-38	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MY[illegible]003	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
38	STS-35	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
39	STS-37	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0005		F
40	STS-39	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0004	2	F
41	STS-40	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
42	STS-43	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0005	2	F
43	STS-48	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-42	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0006	2	F
46	STS-45	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0005	2	F
47	STS-49	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0001	2	F
48	STS-50	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
49	STS-46	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0005	2	F
50	STS-47	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0001	2	F
51	STS-52	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
53	STS-54	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0001	2	F
54	STS-55	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 2	MC450-0058	-0001	756MYF0002	2	F
36	STS-41	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756M[illegible]	3	F
37	STS-38	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756M[illegible]	3	F
38	STS-35	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756M[illegible]	3	F
39	STS-37	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756M[illegible]	3	F
40	STS-39	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756M[illegible]	3	F
41	STS-40	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR	MC450-0059	-0001	756M[illegible]	3	F
42	STS-43	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756M[illegible]	3	F
43	STS-48	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756M[illegible]	3	F
44	STS-44	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756M[illegible]	3	F
45	STS-42	OV103	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756M[illegible]	3	F
46	STS-45	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0004	3	F
47	STS-49	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0006	3	F
48	STS-50	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0002	3	F
49	STS-46	OV104	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0004	3	F
50	STS-47	OV105	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0006	3	F
51	STS-52	OV102	EPDC	AFT HYBRID LOAD CONTROLLER NBR 3	MC450-0059	-0001	756MYH0002	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	0000AM6518		F
37	STS-38	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F71020		F
38	STS-35	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765630	-004	0000601094	1	F
39	STS-37	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F[illegible]		F
40	STS-39	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000AM6518	1	F
41	STS-40	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765630	-004	0000[illegible]	1	F
42	STS-43	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F[illegible]	1	F
43	STS-48	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000A[illegible]	1	F
44	STS-44	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F[illegible]	1	F
45	STS-42	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000AM6518	1	F
46	STS-45	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F[illegible]	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	-003	0000601094	1	F
49	STS-46	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 1	V070-765410	-002	0000F[illegible]	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	0000601094	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	V070-765630	-003	0000601094	1	F
36	STS-41	OV103	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000F71036	2	F
37	STS-38	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000AM6266	2	F
38	STS-35	OV102	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000N19382	2	F
39	STS-37	OV104	EPDC	AFT MOTOR CONTROL ASSY NBR 2	V070-765420	-001	0000AM6266	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0000601276	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	-004	0000EN4406	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	-004	0000EN4406	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	-004	0000EN4406	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	0000F66222	2	F
37	STS-38	OV104	EPDC	AFT POWER CONTROL ASSY NBR 2	V070-765320	-007	0000C39315		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	0000C39315		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	V070-765220	-010	0000155728	2	F

	MISS SEQ	STS	ORB	SUBSYSTEM	PART	LRU NOMENCLATURE	DASH	SERIAL	SLOT	STAT	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
CONTROL	A42Y	STS-43	OV104	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765320	-007	0000C39315	2	F
CONTROL	A43Y	STS-48	OV103	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765320	-003	0000AM6521	2	F
CONTROL	A44Y	STS-44	OV104	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765320	-007	0000C39315	2	F
CONTROL	A45Y	STS-42	OV103	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765320	-003	0000AM6521	2	F
CONTROL	A46Y	STS-45	OV104	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765320	-007	0000C39315	2	F
CONTROL	A47Y	STS-49	OV105	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765320	-004	0000EN4407	2	F
CONTROL	A48Y	STS-50	OV102	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765220	-011	0000155728	2	F
CONTROL	A49Y	STS-46	OV104	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765320	-007	0000C39315	2	F
CONTROL	A50Y	STS-47	OV105	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765320	-004	0000EN4407	2	F
CONTROL	A51Y	STS-52	OV102	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765220	-011	0000155728	2	F
CONTROL	A52Y	STS-54	OV105	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765320	-004	0000EN4407	2	F
CONTROL	A54Y	STS-55	OV102	EPDC	V070	AFT POWER CONTROL ASSY	NBR		2	F	V070-765220	-011	0000155728	2	F
CONTROL	A36Y	STS-41	OV103	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-008	0000J43296	3	F
CONTROL	A37Y	STS-38	OV104	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-009	0000AM6519	3	F
CONTROL	A38Y	STS-35	OV102	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765240	-011	0000265334	3	F
CONTROL	A39Y	STS-37	OV104	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-009	0000AM6519	3	F
CONTROL	A40Y	STS-39	OV103	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-008	0000J43296	3	F
CONTROL	A41Y	STS-40	OV102	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765240	-011	0000265334	3	F
CONTROL	A42Y	STS-43	OV104	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-009	0000AM6519	3	F
CONTROL	A43Y	STS-48	OV103	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-008	0000J43296	3	F
CONTROL	A44Y	STS-44	OV104	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-009	0000AM6519	3	F
CONTROL	A45Y	STS-42	OV103	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-008	0000J43296	3	F
CONTROL	A46Y	STS-45	OV104	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-009	0000AM6519	3	F
CONTROL	A47Y	STS-49	OV105	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-004	0000EK9813	3	F
CONTROL	A48Y	STS-50	OV102	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765240	-011	0000265334	3	F
CONTROL	A49Y	STS-46	OV104	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-009	0000AM6519	3	F
CONTROL	A50Y	STS-47	OV105	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-004	0000EK9813	3	F
CONTROL	A51Y	STS-52	OV102	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765240	-011	0000265334	3	F
CONTROL	A52Y	STS-54	OV105	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-004	0000EK9813	3	F
CONTROL	A54Y	STS-55	OV102	EPDC	V070	AFT POWER CONTROL ASSY	NBR		3	F	V070-765330	-011	0000B88853	3	F
CONTROL	A36Y	STS-41	OV103	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		4	F	V070-765280	-026	0000155796	4	F
CONTROL	A36Y	STS-41	OV103	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		5	F	V070-765280	-026	0000155797	5	F
CONTROL	A36Y	STS-41	OV103	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		6	F	V070-765280	-028	0000E71704	6	F
CONTROL	A37Y	STS-38	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		4	F	V070-765280	-027	0000J53758	4	F
CONTROL	A37Y	STS-38	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		5	F	V070-765280	-027	0000J53760	5	F
CONTROL	A37Y	STS-38	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		6	F	V070-765280	-026	0000155798	6	F
CONTROL	A38Y	STS-35	OV102	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		4	F	V070-765280	-027	0000F58293	4	F
CONTROL	A38Y	STS-35	OV102	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		5	F	V070-765280	-027	0000J53759	5	F
CONTROL	A38Y	STS-35	OV102	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		6	F	V070-765280	-028	0000E71705	6	F
CONTROL	A39Y	STS-37	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		4	F	V070-765280	-027	0000J53758	4	F
CONTROL	A39Y	STS-37	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		5	F	V070-765280	-027	0000J53760	5	F
CONTROL	A39Y	STS-37	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		6	F	V070-765280	-026	0000155798	6	F
CONTROL	A40Y	STS-39	OV103	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		4	F	V070-765280	-026	0000155796	4	F
CONTROL	A40Y	STS-39	OV103	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		5	F	V070-765280	-026	0000155797	5	F
CONTROL	A40Y	STS-39	OV103	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		6	F	V070-765280	-028	0000E71704	6	F
CONTROL	A41Y	STS-40	OV102	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		4	F	V070-765280	-027	0000F58293	4	F
CONTROL	A41Y	STS-40	OV102	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		5	F	V070-765280	-027	0000J53759	5	F
CONTROL	A41Y	STS-40	OV102	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		6	F	V070-765280	-028	0000E71705	6	F
CONTROL	A42Y	STS-43	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		4	F	V070-765280	-027	0000J53758	4	F
CONTROL	A42Y	STS-43	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		5	F	V070-765280	-027	0000J53760	5	F
CONTROL	A42Y	STS-43	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		6	F	V070-765280	-026	0000155798	6	F
CONTROL	A43Y	STS-48	OV103	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		4	F	V070-765280	-026	0000155796	4	F
CONTROL	A43Y	STS-48	OV103	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		5	F	V070-765280	-026	0000155797	5	F
CONTROL	A43Y	STS-48	OV103	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		6	F	V070-765280	-028	0000E71704	6	F
CONTROL	A44Y	STS-44	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		4	F	V070-765280	-027	0000J53758	4	F
CONTROL	A44Y	STS-44	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		5	F	V070-765280	-027	0000J53760	5	F
CONTROL	A44Y	STS-44	OV104	EPDC	V070	AFT POWER CONTROL ASSY	4,5,6		6	F	V070-765280	-026	0000155798	6	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
45	STS-42	OV103	EPDC	AFT POWER CONTROL ASSY 4,5,6	V070-765280	-028	0000S02368	4	F
45	STS-42	OV103	EPDC	AFT POWER CONTROL ASSY 4,5,6	V070-765280	-026	0000155797	5	F
45	STS-42	OV103	EPDC	AFT POWER CONTROL ASSY 4,5,6	V070-765280	-028	0000E71704	6	F
46	STS-45	OV104	EPDC	AFT POWER CONTROL ASSY 4,5,6	V070-765280	-027	0000J53758	4	F
46	STS-45	OV104	EPDC	AFT POWER CONTROL ASSY 4,5,6	V070-765280	-027	0000J53760	5	F
46	STS-45	OV104	EPDC	AFT POWER CONTROL ASSY 4,5,6	V070-765280	-026	0000155798	6	F
47	STS-49	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	0000J53759	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	0000J53759	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	0000J53759	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
42	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	SLOT	STAT
46	STS-45	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR007	2	F
46	STS-45	OV104	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR015	3	F
47	STS-49	OV105	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR017	1	F
47	STS-49	OV105	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR016	2	F
47	STS-49	OV105	EPDC	BACKUP FLGIHT CONTROLLER	MC615-0023	-0004	0000TJR018	3	F
48	STS-50	OV102	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR014	1	F
48	STS-50	OV102	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR003	2	F
48	STS-50	OV102	EPDC	BACKUP FLIGHT CONTROLLER	MC615-0023	-0004	0000TJR002	3	F
36	STS-41	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000N18891	1	F
36	STS-41	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J75615	2	F
36	STS-41	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AC6147	3	F
36	STS-41	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AC6146	4	F
37	STS-38	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J47318	1	F
37	STS-38	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J47317	2	F
37	STS-38	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AU4326	3	F
38	STS-35	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	0000280093	1	F
38	STS-35	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	0000280092	2	F
38	STS-35	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AU4327	3	F
38	STS-35	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	0000B04570	4	F
39	STS-37	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J47318	1	F
39	STS-37	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J47317	2	F
39	STS-37	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AU4326	3	F
40	STS-39	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	[illegible]	1	F
40	STS-39	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	[illegible]	2	F
40	STS-39	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AC6147	3	F
40	STS-39	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	[illegible]	4	F
41	STS-40	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	[illegible]	1	F
41	STS-40	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	[illegible]	2	F
41	STS-40	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	[illegible]	3	F
41	STS-40	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	[illegible]	4	F
42	STS-43	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	[illegible]	1	F
42	STS-43	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	[illegible]	2	F
42	STS-43	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	[illegible]	3	F
42	STS-43	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	[illegible]	4	F
43	STS-48	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	[illegible]	1	F
43	STS-48	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J75615	2	F
43	STS-48	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	[illegible]	3	F
43	STS-48	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AC6146	4	F
44	STS-44	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	[illegible]	1	F
44	STS-44	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	[illegible]	2	F
44	STS-44	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AU4326	3	F
44	STS-44	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	0000B04569	4	F
45	STS-42	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000N18891	1	F
45	STS-42	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	[illegible]	2	F
45	STS-42	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AC6147	3	F
45	STS-42	OV103	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	[illegible]	4	F
46	STS-45	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	0000J47318	1	F
46	STS-45	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-018	[illegible]	2	F
46	STS-45	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	[illegible]	3	F
46	STS-45	OV104	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	[illegible]	4	F
47	STS-49	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-016	[illegible]	1	F
47	STS-49	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-016	[illegible]	2	F
47	STS-49	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-017	[illegible]	3	F
47	STS-49	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-017	[illegible]	4	F
47	STS-49	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-017	[illegible]	5	F
48	STS-50	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	[illegible]	1	F
48	STS-50	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-020	[illegible]	2	F
48	STS-50	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	[illegible]	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
50	STS-47	OV105	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-017	0000G16327	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
51	STS-52	OV102	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	0000GT6327	5	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	0000ER2879	2	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000AU43[illegible]	3	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	0000B04[illegible]	4	F
47	STS-49	OV105	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000E[illegible]	[illegible]	F
47	STS-49	OV105	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000EL[illegible]	[illegible]	F
48	STS-50	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK[illegible]	1	F
48	STS-50	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK[illegible]	2	F
50	STS-47	OV105	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000EL8899	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	0000EL8899	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	0000[illegible]4641		F
43	STS-48	OV103	EPDC	DFI POWER DISTRIBUTION ASSY	V070-783560	-001	0000[illegible]4641		F
45	STS-42	OV103	EPDC	DFI POWER DISTRIBUTION ASSY	V070-783560	-001	0000[illegible]		F
36	STS-41	OV103	EPDC	DIODE BOX ASSY	V070-765380	-001	0000J[illegible]	1	F
36	STS-41	OV103	EPDC	DIODE BOX ASSY	V07[illegible]-765380	-001	00[illegible]	2	F
36	STS-41	OV103	EPDC	DIODE BOX ASSY	V07[illegible]-765380	-001	[illegible]	3	F
37	STS-38	OV104	EPDC	DIODE BOX ASSY	V07[illegible]-765380	-001	[illegible]	1	F
37	STS-38	OV104	EPDC	DIODE BOX ASSY	V07[illegible]-765380	-001	[illegible]	2	F
37	STS-38	OV104	EPDC	DIODE BOX ASSY	V07[illegible]-765380	-001	[illegible]	3	F
38	STS-35	OV102	EPDC	DIODE BOX ASSY	V07[illegible]-765380	-001	[illegible]	1	F
38	STS-35	OV102	EPDC	DIODE BOX ASSY	V07[illegible]-765380	-001	0000AM[illegible]63	2	F
38	STS-35	OV102	EPDC	DIODE BOX ASSY	V07[illegible]-765380	-001	0000AM0864	3	F
39	STS-37	OV104	EPDC	DIODE BOX ASSY	V07[illegible]-765380	-001	0000AM5621	1	F
39	STS-37	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5622	2	F
39	STS-37	OV104	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM5623	3	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	0000AM0863	2	F
41	STS-40	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0864	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0000J43481	3	F
46	STS-45	OV104	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	DIOD BOX ASSY	V070-765370	-001	0000GR1290	AP	F
47	STS-49	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000EK9182	1	F
47	STS-49	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000EK9183	2	F
47	STS-49	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000EK9184	3	F
48	STS-50	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	1	F
48	STS-50	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0863	2	F
48	STS-50	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0864	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	DIOD BOX ASSY	V070-765370	-001	0000GR1290	AP	F
50	STS-47	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000EK9182	1	F
50	STS-47	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000EK9183	2	F
50	STS-47	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000EK9184	3	F
51	STS-52	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	1	F
51	STS-52	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0863	2	F
51	STS-52	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0864	3	F
53	STS-54	OV105	EPDC	DIOD BOX ASSY	V070-765370	-001	0000GR1290	AP	F
53	STS-54	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000EK9182	1	F
53	STS-54	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000EK9183	2	F
53	STS-54	OV105	EPDC	DIODE BOX ASSY	V070-765380	-001	0000EK9184	3	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	1	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0863	2	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0864	3	F
36	STS-41	OV103	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0000078207		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	0000078207		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	0001082009		F
43	STS-48	OV103	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0000078207		F
44	STS-44	OV104	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0001082009		F
45	STS-42	OV103	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0000078207		F
46	STS-45	OV104	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0001082009		F
47	STS-49	OV105	EPDC	EMU PWR SUPP/BATTERY CHARGER	MC461-0032	-0003	0001189011		F
48	STS-50	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0000982008		F
49	STS-46	OV104	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0001082009		F
50	STS-47	OV105	EPDC	EMU PWR SUPP/BATTERY CHARGER	MC461-0032	-0003	0001189011		F
51	STS-52	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0000982008		F
53	STS-54	OV105	EPDC	EMU PWR SUPP/BATTERY CHARGER	MC461-0032	-0003	0001189011		F
54	STS-55	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0000982008		F
36	STS-41	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0001	756M[illegible]	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
37	STS-38	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0001	756MXR0003	1	F
38	STS-35	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0001	756MXR0004		F
39	STS-37	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0001	756MXR0003	1	F
40	STS-39	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0005	1	F
41	STS-40	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0004	1	F
42	STS-43	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0003	1	F
43	STS-48	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0005	1	F
44	STS-44	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0003	1	F
45	STS-42	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0005	1	F
46	STS-45	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 1	MC450-0054	-0002	756MXR0003	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	756MXR0003	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	756MXX0003	3	F
37	STS-38	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX0004	3	F
38	STS-35	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXX[illegible]	3	F
39	STS-37	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX[illegible]4	3	F
40	STS-39	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX[illegible]	3	F
41	STS-40	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXX[illegible]	3	F
42	STS-43	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX[illegible]4	3	F
43	STS-48	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX[illegible]	3	F
44	STS-44	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX[illegible]4	3	F
45	STS-42	OV103	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX[illegible]	3	F
46	STS-45	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX0004	3	F
47	STS-49	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX[illegible]		F
48	STS-50	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXX[illegible]6	3	F
49	STS-46	OV104	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX[illegible]4	3	F
50	STS-47	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX0005	3	F
51	STS-52	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXX0006	3	F
53	STS-54	OV105	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0002	756MXX0005	3	F
54	STS-55	OV102	EPDC	FWD HYBRID LOAD CONTROLLER NBR 3	MC450-0056	-0001	756MXX0006	3	F
36	STS-41	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000[illegible]217	1	F
37	STS-38	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000A[illegible]5492	1	F
38	STS-35	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-001	000[illegible]64	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
39	STS-37	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
40	STS-39	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000J85217	1	F
41	STS-40	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-001	0000608384	1	F
42	STS-43	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
43	STS-48	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000J85217	1	F
44	STS-44	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
45	STS-42	OV103	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000J85217	1	F
46	STS-45	OV104	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000AN5492	1	F
47	STS-49	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000ER6042	1	F
48	STS-50	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-001	0000608384	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	0000608384	1	F
53	STS-54	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 1	V070-763600	-002	0000ER6042	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
53	STS-54	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 2	V070-763620	-004	0000ER3269	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	0000608385	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	0000EJ7791	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	0000EJ7791	3	F
51	STS-52	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000J25040	3	F
53	STS-54	OV105	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000EJ7791	3	F
54	STS-55	OV102	EPDC	FWD MOTOR CONTROL ASSY NBR 3	V070-763630	-003	0000J25040	3	F
36	STS-41	OV103	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-022	0000AX2619	1	F
37	STS-38	OV104	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-025	0000266775		F
38	STS-35	OV102	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-024	0000B35293	1	F
39	STS-37	OV104	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-025	0000266775		F
40	STS-39	OV103	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-022	0000AX[illegible]	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
41	STS-40	OV102	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-024	0000B35293	1	F
42	STS-43	OV104	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-025	0000266775		F
43	STS-48	OV103	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-022	0000AX2619	1	F
44	STS-44	OV104	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-025	0000266775		F
45	STS-42	OV103	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-022	0000AX2619	1	F
46	STS-45	OV104	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-025	0000266775		F
47	STS-49	OV105	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-015	0000ER5079	1	F
48	STS-50	OV102	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-028	0000B35293	1	F
49	STS-46	OV104	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-025	0000266775		F
50	STS-47	OV105	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-015	0000ER5079	1	F
51	STS-52	OV102	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-023	0000F66117		F
53	STS-54	OV105	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-028	0000B35293	1	F
54	STS-55	OV102	EPDC	FWD POWER CONTROL ASSY NBR 1	V070-763320	-023	0000F66117		F
36	STS-41	OV103	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-007	0000J12867	2	F
37	STS-38	OV104	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-009	0000620303	2	F
38	STS-35	OV102	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-010	0000F66179	2	F
39	STS-37	OV104	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-009	0000620303	2	F
40	STS-39	OV103	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-007	0000J12867	2	F
41	STS-40	OV102	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-011	0000AF5427	2	F
42	STS-43	OV104	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-009	0000620303	2	F
43	STS-48	OV103	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-010	0000J12867	2	F
44	STS-44	OV104	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-009	0000620303	2	F
45	STS-42	OV103	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-010	0000J12867	2	F
46	STS-45	OV104	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-009	0000620303	2	F
47	STS-49	OV105	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-006	0000ER3011	2	F
48	STS-50	OV102	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-014	0000AF5427	2	F
49	STS-46	OV104	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-009	0000620303	2	F
50	STS-47	OV105	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-006	0000ER3011	2	F
51	STS-52	OV102	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-014	0000AF5427	2	F
53	STS-54	OV105	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-006	0000ER3011	2	F
54	STS-55	OV102	EPDC	FWD POWER CONTROL ASSY NBR 2	V070-763340	-014	0000AF5427	2	F
36	STS-41	OV103	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-020	0000620749	3	F
37	STS-38	OV104	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-021	0000J12866	3	F
38	STS-35	OV102	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-022	0000AX2618	3	F
39	STS-37	OV104	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-021	0000J12866	3	F
40	STS-39	OV103	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-020	0000620749	3	F
41	STS-40	OV102	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-022	0000AX2618	3	F
42	STS-43	OV104	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-021	0000J12866	3	F
43	STS-48	OV103	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-020	0000620749	3	F
44	STS-44	OV104	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-021	0000J12866	3	F
45	STS-42	OV103	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-020	0000620749	3	F
46	STS-45	OV104	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-021	0000J12866	3	F
47	STS-49	OV105	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-019	0000EJ3166	3	F
48	STS-50	OV102	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-022	0000AX2618	3	F
49	STS-46	OV104	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-021	0000J12866	3	F
50	STS-47	OV105	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-019	0000EJ3166	3	F
51	STS-52	OV102	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-022	0000AX2618	3	F
53	STS-54	OV105	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-021	0000F66180	3	F
54	STS-55	OV102	EPDC	FWD POWER CONTROL ASSY NBR 3	V070-763360	-022	0000AX2618	3	F
36	STS-41	OV103	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000004		F
37	STS-38	OV104	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000010		F
38	STS-35	OV102	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000009		F
39	STS-37	OV104	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000010		F
40	STS-39	OV103	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000004		F
41	STS-40	OV102	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000009		F
42	STS-43	OV104	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000010		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
53	STS-54	OV105	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000005		F
54	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
36	STS-41	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58660	2	F
36	STS-41	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58659	3	F
37	STS-38	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	1	F
37	STS-38	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
37	STS-38	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48226	3	F
38	STS-35	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
38	STS-35	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
38	STS-35	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F
39	STS-37	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	1	F
39	STS-37	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
39	STS-37	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48226	3	F
40	STS-39	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58661	1	F
40	STS-39	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58660	2	F
40	STS-39	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000F58659	3	F
41	STS-40	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
41	STS-40	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
41	STS-40	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F
42	STS-43	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	1	F
42	STS-43	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
42	STS-43	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48226	3	F
43	STS-48	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	1	F
43	STS-48	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	2	F
43	STS-48	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	3	F
44	STS-44	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	1	F
44	STS-44	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	2	F
44	STS-44	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	1	F
45	STS-42	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	1	F
45	STS-42	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	2	F
45	STS-42	OV103	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	3	F
46	STS-45	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48225	1	F
46	STS-45	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48224	2	F
46	STS-45	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000J48226	3	F
47	STS-49	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7796	1	F
47	STS-49	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7795	2	F
47	STS-49	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	0000EJ7792	3	F
48	STS-50	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	0000F58231	1	F
48	STS-50	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151635	2	F
48	STS-50	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	0000151634	3	F
49	STS-46	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	1	F
49	STS-46	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	2	F
49	STS-46	OV104	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	3	F
50	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	1	F
50	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	2	F
50	STS-47	OV105	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-005	[illegible]	3	F
51	STS-52	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-006	[illegible]	1	F
51	STS-52	OV102	EPDC	INVERTER DISTRIBUTION AND CONTROL ASSY	V070-763380	-004	[illegible]	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	OV105	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	0000000056	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	INVENTER	MC495-0012	-0004	000000ND50	2A	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	0000000056	2B	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	[illegible]	2C	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	[illegible]	3A	F
40	STS-39	OV103	EPDC	INVERTER	MC495-0012	-0004	[illegible]	3B	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	[illegible]	3C	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	[illegible]	1A	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	[illegible]	1B	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	[illegible]	1C	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	[illegible]	2A	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	[illegible]	2B	F
					MC495-0012	-0004	[illegible]	2C	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	000000MZ37	3A	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000041	3B	F
41	STS-40	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000047	3C	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	000000SE58	1A	F
42	STS-43	OV104	EPDC	INVERTER	MC495-0012	-0004	000000TE62	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	000000SX33	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	INVENTER	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	000000SE58	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	OV104	EPDC	INVERTER	MC495-0012	-0004	000000XD54	3A	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	[illegible]	3B	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	[illegible]	3C	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	[illegible]	1A	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	[illegible]	1B	F
44	STS-44	OV104	EPDC	INVERTER	MC495-0012	-0004	[illegible]	1C	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	[illegible]	2A	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	[illegible]	2B	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	[illegible]	2C	F
45	STS-42	OV103	EPDC	INVENTER	MC495-0012	-0004	[illegible]	3A	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	000000UD53	3B	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	000000UD57	3C	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	000000SE58	1A	F
45	STS-42	OV103	EPDC	INVERTER	MC495-0012	-0004	000000TE62	1B	F
45	STS-42	OV103	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	000000SX33	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
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	000000ZC49	1A	F
46	STS-45	OV104	EPDC	INVERTER	MC495-0012	-0004	0000000073	1B	F
46	STS-45	OV104	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	000000PD52	2C	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000065	3A	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000063	3B	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000067	3C	F
47	STS-49	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000036	1A	F
48	STS-50	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000738	1B	F
48	STS-50	OV102	EPDC	INVERTER					

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	000000MZ37	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	0000000042	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	000000ZS54	3A	F
49	STS-46	OV104	EPDC	INVERTER	MC495-0012	-0004	000000RD51	3B	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	000000GF61	3C	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	000000ZC49	1A	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000073	1B	F
50	STS-47	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000072	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
51	STS-52	OV102	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	0000000Z38	1B	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000035	1C	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000068	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	000000MZ37	3A	F
51	STS-52	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000041	3B	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	0000000047	3C	F
53	STS-54	OV105	EPDC	INVERTER	MC495-0012	-0004	000000ZC49	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
54	STS-55	OV102	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	0000000Z38	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	000000MZ37	3A	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000041	3B	F
					MC495-0012	-0004	0000000047	3C	F
36	STS-41	OV103	EPDC	MADS CONTROL ASSY'S	V408-763220	-002	0000N12307		F
37	STS-38	OV104	EPDC	MADS CONTROL ASSY'S	V408-763220	-002	0000BH2726		F
37	STS-38	OV104	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BW1972		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	V408-763220	-002	0000BH2726		F
39	STS-37	OV104	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BW1972		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
42	STS-43	OV104	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BW1972		F
43	STS-48	OV103	EPDC	MADS CONTROL ASSY'S	V408-763220	-002	0000N12307		F
44	STS-44	OV104	EPDC	MADS CONTROL ASSY'S	V408-763220	-002	0000BH2726		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 CONTROL ASSY'S	V408-763220	-002	0000BH2726		F
46	STS-45	OV104	EPDC	MADS POWER DISTRIBUTION ASSY'S	V408-764590	-001	0000BW1972		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-46	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	0000GT0389		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	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 1	V070-764200	-002	0000AU4313	1	F
38	STS-35	OV102	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	0000A07834	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	0000AF0715	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	0000AF0715	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	0000AF0715	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	0000AF0715	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	0000AF0715	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	0000AF0715	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	[illegible]	3	F
37	STS-38	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	005	[illegible]	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
38	STS-35	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-007	0000665319	3	F
39	STS-37	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AX3420	3	F
40	STS-39	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000J71912	3	F
41	STS-40	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-007	0000665319	3	F
42	STS-43	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AX3420	3	F
43	STS-48	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000J71912	3	F
44	STS-44	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AX3420	3	F
45	STS-42	OV103	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000J71912	3	F
46	STS-45	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AX3420	3	F
47	STS-49	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000GD8004	3	F
48	STS-50	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-007	0000665319	3	F
49	STS-46	OV104	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000AX3420	3	F
50	STS-47	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000GD8004	3	F
51	STS-52	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-007	0000665319	3	F
53	STS-54	OV105	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-005	0000GD8004	3	F
54	STS-55	OV102	EPDC	MAIN POWER DISTRIBUTION ASSEMBLY NBR 3	V070-764230	-007	0000665319	3	F
36	STS-41	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV009	1	F
36	STS-41	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV002	2	F
37	STS-38	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV005	1	F
37	STS-38	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV004	2	F
38	STS-35	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV001	1	F
38	STS-35	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV008	2	F
39	STS-37	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV005	1	F
39	STS-37	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV004	2	F
40	STS-39	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV009	1	F
40	STS-39	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV002	2	F
41	STS-40	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV001	1	F
41	STS-40	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV008	2	F
42	STS-43	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV005	1	F
42	STS-43	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV004	2	F
43	STS-48	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV009	1	F
43	STS-48	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV001	2	F
44	STS-44	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV005	1	F
44	STS-44	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV004	2	F
45	STS-42	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV009	1	F
45	STS-42	OV103	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV001	2	F
46	STS-45	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV005	1	F
46	STS-45	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV004	2	F
47	STS-49	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	0006	0000LMV012	1	F
47	STS-49	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV011	2	F
48	STS-50	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0007	000073P002	1	F
48	STS-50	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV002	2	F
49	STS-46	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV005	1	F
49	STS-46	OV104	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV004	2	F
50	STS-47	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV012	1	F
50	STS-47	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0007	000073P003	2	F
51	STS-52	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0007	000073P002	1	F
51	STS-52	OV102	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV002	2	F
53	STS-54	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0006	0000LMV012	1	F
53	STS-54	OV105	EPDC	MASTER EVENTS CONTROLLER	MC450-0016	-0007	000073P003	2	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
36	STS-41	OV103	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000AU1175		F
37	STS-38	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000BF0745		F
38	STS-35	OV102	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-001	0000A78557		F
39	STS-37	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000BF0745		F
40	STS-39	OV103	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	[illegible]	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	0000BF0745	1	F
43	STS-48	OV103	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000AU1175	1	F
44	STS-44	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000BF0745	1	F
45	STS-42	OV103	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000AU1175	1	F
46	STS-45	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000BF0745	1	F
47	STS-49	OV105	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000CH4746	1	F
48	STS-50	OV102	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-001	0000A78557	1	F
49	STS-46	OV104	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000BF0745	1	F
50	STS-47	OV105	EPDC	MIDBODY JETTISON CONTROL ASSY	V082-764360	-003	0000CH4746	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	0000CH4746	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	0000J53761	1	F
44	STS-44	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000F71033	1	F
45	STS-42	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764610	-004	0000J53761	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-50	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 1	V070-764520	-005	0000A01625	1	F
49	STS-46	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	0000B9[illegible]	2	F
37	STS-38	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000A[illegible]	2	F
38	STS-35	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764530	-005	0000[illegible]	2	F
39	STS-37	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000[illegible]	2	F
40	STS-39	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-006	0000[illegible]	2	F
41	STS-40	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764530	-005	0000[illegible]	2	F
42	STS-43	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-005	0000A[illegible]	2	F
43	STS-48	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764620	-006	0000B9[illegible]24	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	0000B95124	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-50	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 2	V070-764530	-005	0000640859	2	F
49	STS-46	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	0000640859	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	0000640859	2	F
36	STS-41	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000F71030		F
37	STS-38	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000AU[illegible]764	3	F
38	STS-35	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764550	-005	0000A[illegible]452	3	F
39	STS-37	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000A[illegible]704	3	F
40	STS-39	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000[illegible]	3	F
41	STS-40	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764550	-005	0000A[illegible]452	3	F
42	STS-43	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000[illegible]704	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
43	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
45	STS-42	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000F71030	3	F
46	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	0000ER8169	3	F
48	STS-50	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764550	-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	0000ER8169	3	F
51	STS-52	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764550	-005	0000A26452	3	F
53	STS-54	OV105	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764630	-004	0000ER8169	3	F
54	STS-55	OV102	EPDC	MID MOTOR CONTROL ASSY NBR 3	V070-764550	-005	0000A26452	3	F
36	STS-41	OV103	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764500	-006	0000A01551		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	0000A01551		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	0000AU4139	4	F
49	STS-46	OV104	EPDC	MID MOTOR CONTROL ASSY NBR 4	V070-764640	-005	0000F71028	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	0000AU3690	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	0000ER1634	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	-019	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	0000AW2439	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	0000F71099		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	0000AW2439	2	F
41	STS-40	OV102	EPDC	MID POWER CONTROL ASSY NBR 2	V070-764430	-015	0000F71099	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	0000AW2439	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	STAT
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	0000A25809	3	F
37	STS-38	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	0000A07720	3	F
38	STS-35	OV102	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-015	0000F71123	3	F
39	STS-37	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	0000A07720	3	F
40	STS-39	OV103	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-014	0000A25809	3	F
41	STS-40	OV102	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-015	[illegible]	3	F
42	STS-43	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	[illegible]	3	F
43	STS-48	OV103	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-014	[illegible]	3	F
44	STS-44	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	[illegible]	3	F
45	STS-42	OV103	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-014	[illegible]	3	F
46	STS-45	OV104	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-016	[illegible]	3	F
47	STS-49	OV105	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-007	[illegible]	3	3
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	0000A07720	3	F
50	STS-47	OV105	EPDC	MID POWER CONTROL ASSY NBR 3	V070-764450	-007	0000ER5651	3	3
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	0000ER5651	3	3
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-43	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
36	STS-41	OV103	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748090314		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	8748000003	1	F
44	STS-44	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000006	2	F
45	STS-42	OV103	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000014	1	F
45	STS-42	OV103	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000015	2	F
46	STS-45	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000003	1	F
46	STS-45	OV104	EPDC	PROXIMITY SWITCH ELECTRONICS	MC452-0124	-0009	8748000006	2	F
47	STS-49	OV105	EPDC	PROXIMININITY 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	PROXIMININITY 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	PROXIMININITY 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	SLOT	STAT
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	756MYD0006	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	0000B88853	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	0000ER2879	2	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-019	0000A04327	3	F
54	STS-55	OV102	EPDC	CRYO HEATER CONTROL ASSY	V070-764470	-021	0000BC4569	4	F
54	STS-55	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GK[illegible]	1	F
54	STS-55	OV102	EPDC	DRAG CHUTE CONTROLLER ASSEMBLY	V070-765440	-001	0000GF[illegible]	2	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0862	1	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0863	2	F
54	STS-55	OV102	EPDC	DIODE BOX ASSY	V070-765380	-001	0000AM0864	3	F
54	STS-55	OV102	EPDC	EMU PWR SUP/BATTERY CHARGER	MC461-0032	-0003	0000982008		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	0000608384	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	0000AX2618	3	F
54	STS-55	OV102	EPDC	GROUND CONTROL INTERFACE LOGIC	MC450-0051	-0002	0000000009		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	-0004	0000000036	1A	F
54	STS-55	OV102	EPDC	INVERTER	MC495-0012	-0004	0000000Z38	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	000000MZ37	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	0000A07834	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	MIDBODY 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	0000677143	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	0000L73023	3	F
54	STS-55	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V565-763200	-003	0000B76480		F
54	STS-55	OV102	EPDC	PAYLOAD POWER EQUIPMENT	V773-714901	-004	0000P06784		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 AUXILARY DATA (MADS) SUBSYSTEM

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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
39	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	AVS0577016	2	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	AVS0577014	2	F
42	STS-43	OV104	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS1277018	1	F
42	STS-43	OV104	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
43	STS-48	OV103	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	AVS0876009	2	F
45	STS-42	OV103	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0876007	1	F
45	STS-42	OV103	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0777015	2	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	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	0000000030	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
50	STS-47	OV105	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	AVS0576010	1	F
50	STS-47	OV105	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
51	STS-52	OV102	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
53	STS-54	OV105	MADS	MADS FREQUENCY DIVISION MULTIPLEXER	MC409-0010	-0003	0000000030	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	0000000309	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
38	STS-35	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000301	3	F
39	STS-37	OV104	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	1	F
40	STS-39	OV103	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
41	STS-40	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000301	3	F
42	STS-43	OV104	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	1	F
43	STS-48	OV103	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000309	1	F
44	STS-44	OV104	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	1	F
45	STS-42	OV103	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000309	1	F
46	STS-45	OV104	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000307	1	F
47	STS-49	OV105	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000305		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	0000000306	2	F
48	STS-50	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000301	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		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
51	STS-52	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000304	1	F
51	STS-52	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000306	2	F
51	STS-52	OV102	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000301	3	F
53	STS-54	OV105	MADS	MADS PULSE CODE MODULATION	MC476-0251	-0004	0000000305		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
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-48	OV103	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001006		F
44	STS-44	OV104	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001005		F
45	STS-42	OV103	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001006		F
46	STS-45	OV104	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001001		F
47	STS-49	OV105	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001004		F
48	STS-50	OV102	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001002		F
49	STS-46	OV104	MADS	RECORDERS/DAM	ME435-0055	-0101	0000001001		F
50	STS-47	OV105	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	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
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	SLOT	STAT
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	0000000125	3	F
37	STS-38	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000136	1	F
37	STS-38	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000127	2	F
37	STS-38	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000074	3	F
38	STS-35	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000018		F
38	STS-35	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000126	2	F
38	STS-35	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000137	3	F
39	STS-37	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000136	1	F
39	STS-37	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000127	2	F
39	STS-37	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000074	3	F
40	STS-39	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000055	1	F
40	STS-39	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000073	2	F
40	STS-39	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000125	3	F
41	STS-40	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000018	1	F
41	STS-40	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000126	2	F
41	STS-40	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000137	3	F
42	STS-43	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000136	1	F
42	STS-43	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000127	2	F
42	STS-43	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000074	3	F
43	STS-48	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	0000000205	1	F
43	STS-48	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000073	2	F
43	STS-48	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000125	3	F
44	STS-44	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000136	1	F
44	STS-44	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000127	2	F
44	STS-44	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000074	3	F
45	STS-42	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	0000000205	1	F
45	STS-42	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000073	2	F
45	STS-42	OV103	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000125	3	F
46	STS-45	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000136	1	F
46	STS-45	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000127	2	F
46	STS-45	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000150	3	F/SP
47	STS-49	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	0000000206	1	F
47	STS-49	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	0000000228	2	F
47	STS-49	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	0000000207	3	F
48	STS-50	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000018	1	F
48	STS-50	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000072	2	F
48	STS-50	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000137	3	F
49	STS-46	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	[illegible]	1	F
49	STS-46	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	[illegible]	2	F
49	STS-46	OV104	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	[illegible]	3	F/SP
50	STS-47	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	[illegible]	1	F
50	STS-47	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	[illegible]	2	F
50	STS-47	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	[illegible]	3	F
51	STS-52	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	[illegible]	1	F
51	STS-52	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	[illegible]	2	F
51	STS-52	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	[illegible]	3	F
53	STS-54	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	[illegible]	1	F
53	STS-54	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	[illegible]	2	F
53	STS-54	OV105	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-7400	[illegible]	3	F
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000018	1	F
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000055	2	F
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000137	3	F
36	STS-41	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000145	1	F
36	STS-41	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000116	2	F
36	STS-41	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000066	3	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
36	STS-41	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000118	4	F
37	STS-38	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000052	1	F
37	STS-38	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
37	STS-38	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
37	STS-38	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000158	4	F
38	STS-35	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000144	1	F
38	STS-35	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	[illegible]	2	F
38	STS-35	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F
38	STS-35	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	[illegible]	4	F
39	STS-37	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	[illegible]	1	F
39	STS-37	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
39	STS-37	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
39	STS-37	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	[illegible]	4	F
40	STS-39	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	[illegible]	1	F
40	STS-39	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	[illegible]	2	F
40	STS-39	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	[illegible]	3	F
40	STS-39	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000118	4	F
41	STS-40	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000144	1	F
41	STS-40	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000091	2	F
41	STS-40	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F
41	STS-40	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000146	4	F
42	STS-43	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000052	1	F
42	STS-43	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
42	STS-43	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
42	STS-43	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000158	4	F
43	STS-48	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000145	1	F
43	STS-48	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000116	2	F
43	STS-48	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000066	3	F
43	STS-48	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000118	4	F
44	STS-44	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000052	1	F
44	STS-44	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
44	STS-44	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
44	STS-44	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000158	4	F
45	STS-42	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000145	1	F
45	STS-42	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000116	2	F
45	STS-42	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000066	3	F
45	STS-42	OV103	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000118	4	F
46	STS-45	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000052	1	F
46	STS-45	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	[illegible]	2	F
46	STS-45	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	[illegible]	3	F
46	STS-45	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	[illegible]	4	F
47	STS-49	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	[illegible]	1	F
47	STS-49	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	[illegible]	2	F
47	STS-49	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	[illegible]	3	F
47	STS-49	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7500	[illegible]	4	F
48	STS-50	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	[illegible]	1	F
48	STS-50	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	[illegible]	2	F
48	STS-50	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F
48	STS-50	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000146	4	F
49	STS-46	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5310	0000000052	1	F
49	STS-46	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000148	2	F
49	STS-46	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-5300	0000000067	3	F
49	STS-46	OV104	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000158	4	F
50	STS-47	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000203	1	F
50	STS-47	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000202	2	F
50	STS-47	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000204	3	F
50	STS-47	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7500	0000000214	4	F
51	STS-52	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000144	1	F
51	STS-52	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000091	2	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
51	STS-52	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F
51	STS-52	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000146	4	F
53	STS-54	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000203	1	F
53	STS-54	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000202	2	F
53	STS-54	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7300	0000000204	3	F
53	STS-54	OV105	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-7500	0000000214	4	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000144	1	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000091	2	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000146	4	F
36	STS-41	OV103	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000005		F
37	STS-38	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F
38	STS-35	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0001	0000000002		F
39	STS-37	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F
40	STS-39	OV103	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000005		F
41	STS-40	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0001	0000000002		F
42	STS-43	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F
43	STS-48	OV103	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000004		F
44	STS-44	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F
45	STS-42	OV103	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000005		F
46	STS-45	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F
47	STS-49	OV105	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000008		F
48	STS-50	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0001	0000000002		F
49	STS-46	OV104	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000007		F
50	STS-47	OV105	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000008		F
51	STS-52	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000006		F
53	STS-54	OV105	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000004		F
54	STS-55	OV102	OI	MASTER TIMING UNIT	MC456-0051	-0005	0000000006		F
36	STS-41	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000012	1	F
36	STS-41	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	0000000010	2	F
37	STS-38	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000006	1	F
37	STS-38	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000011	2	F
38	STS-35	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000003	1	F
38	STS-35	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000002	2	F
39	STS-37	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000006	1	F
39	STS-37	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000011	2	F
40	STS-39	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	1	F
40	STS-39	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	2	F
41	STS-40	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	1	F
41	STS-40	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	2	F
42	STS-43	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	1	F
42	STS-43	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	2	F
43	STS-48	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	1	F
43	STS-48	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	2	F
44	STS-44	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	1	F
44	STS-44	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	2	F
45	STS-42	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	1	F
45	STS-42	OV103	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	2	F
46	STS-45	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	1	F
46	STS-45	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	2	F
47	STS-49	OV105	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	1	F
47	STS-49	OV105	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	2	F
48	STS-50	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	1	F
48	STS-50	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	[illegible]	2	F
49	STS-46	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000006	1	F
49	STS-46	OV104	OI	PULSE CODE MOD	MC476-0130	-0709	0000000011	2	F
50	STS-47	OV105	OI	PULSE CODE MOD	MC476-0130	-0709	0000000016	1	F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
50	STS-47	OV105	OI	PULSE CODE MOD	MC476-0130	-0709	0000000017	2	F
51	STS-52	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000003	1	F
51	STS-52	OV102	OI	PULSE CODE MOD	MC476-0130	-0709	0000000002	2	F
53	STS-54	OV105	OI	PULSE CODE MOD	MC476-0130	-0709	0000000007	1	F
53	STS-54	OV105	OI	PULSE CODE MOD	MC476-0130	-0709	0000000017	2	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
36	STS-41	OV103	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000005		F
37	STS-38	OV104	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000007		F
38	STS-35	OV102	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000004		F
39	STS-37	OV104	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000007		F
40	STS-39	OV103	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000005		F
41	STS-40	OV102	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000004		F
42	STS-43	OV104	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000007		F
43	STS-48	OV103	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000005		F
43	STS-48	OV103	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000009		F/SP
44	STS-44	OV104	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000002		F
45	STS-42	OV103	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	0000000005		F
46	STS-45	OV104	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	[illegible]		F
47	STS-49	OV105	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	[illegible]		F
48	STS-50	OV102	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	[illegible]		F
49	STS-46	OV104	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	[illegible]		F
50	STS-47	OV105	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	[illegible]		F
51	STS-52	OV102	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	[illegible]		F
53	STS-54	OV105	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	[illegible]		F
54	STS-55	OV102	OI	PAYLOAD DATA INTERLEAVER	MC476-0136	-0005	[illegible]		F
36	STS-41	OV103	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
36	STS-41	OV103	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
37	STS-38	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
37	STS-38	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
38	STS-35	OV102	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
38	STS-35	OV102	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
39	STS-37	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
39	STS-37	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
40	STS-39	OV103	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
40	STS-39	OV103	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
41	STS-40	OV102	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
41	STS-40	OV102	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
42	STS-43	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
42	STS-43	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
43	STS-48	OV103	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000009		F
43	STS-48	OV103	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
44	STS-44	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
44	STS-44	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
45	STS-42	OV103	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
45	STS-42	OV103	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000011		F
46	STS-45	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
46	STS-45	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000012		F
47	STS-49	OV105	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
47	STS-49	OV105	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
48	STS-50	OV102	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
48	STS-50	OV102	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
49	STS-46	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
49	STS-46	OV104	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
50	STS-47	OV105	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000024		F
50	STS-47	OV105	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F
51	STS-52	OV102	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	[illegible]		F

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
51	STS-52	OV102	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000008		F
53	STS-54	OV105	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000024		F
53	STS-54	OV105	OI	PLB/ORB TIMING BUFFER	MC456-0060	-0003	0000000025		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 ***

MISS SEQ	STS	ORB	SUBSYSTEM	LRU NOMENCLATURE	PART NUMBER	DASH NUMBER	SERIAL NUMBER	SLOT	STAT
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000018	1	F
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-5410	0000000055	2	F
54	STS-55	OV102	OI	OPER. INST. AFT MULT./DEMULT.	MC615-0004	-6410	0000000137	3	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000144	1	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000091	2	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6310	0000000115	3	F
54	STS-55	OV102	OI	OPER. INST. FWD MULT./DEMULT.	MC615-0004	-6510	0000000146	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-XXXX | RCS FORWARD THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	PRIMARY														VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
			F1F	F2F	F3F	F1U	F2U	F3U	F2R	F4R	F2D	F4D	F1L	F3L	F1D	F3D	F5R	F5L	
1	1	102	0112 102	0132 103	0122 101	0115 109	0135 110	0125 108	0134 114	0144 113	0136 106	0146 107	0113 112	0123 111	0116 104	0126 105	0158 106	0157 105	
2	2	102	0112 102	0132 103	0122 101	0115 109	0135 110	0125 108	0134 114	0144 113	0136 106	0146 107	0113 112	0123 111	0116 104	0126 105	0158 106	0157 105	
3	3	102	0112 102*	0132 103	0122 101	0115 109*	0135 110*	0125 108*	0134 114*	0144 113	0136 106	0146 107	0113 112*	0123 111	0116 104	0126 105	0158 106	0157 105	Gypsum contamination
4	4	102	1112 202	0132 103	0122 101	2115 209	2135 210	1125 208	1134 214	0144 113	0136 106	0146 107	1113 212*	0123 111	0116 104	0126 105	0158 106*	0157 105*	F1L oxidizer valve leak; vernier coating problem
5	5	102	1112 202	0132 103	0122 101	2115 209	2135 210	1125 208	1134 214	0144 113*	0136 106	0146 107*	0413 112	0123 111	0116 104	0126 105	3158 204	3157 203	F4R low Pc; F4D oxidizer valve fail
6	6	99	3112 302	1132 203	1122 201	4115 309	4135 310	3125 308	4134 314	1144 213	1136 206	1146 207	4113 312	1123 211	1116 204	1126 205	3158 304	3157 303	
7	7	99	3112 302	1132 203	1122 201	4115 309	4135 310	3125 308	4134 314	1144 213	1136 206	1146 207	4113 312	1123 211	1116 204	1126 205	3158 304	3157 303	
8	8	99	3112 302	1132 203	1122 201	4115 309	4135 310	3125 308	4134 314	1144 213	1136 206	1146 207	4113 312	1123 211	1116 204	1126 205*	3158 304	3157 303	Oxidizer valve leak
9	9	102	1112 202	0132 103	0122 101	2115 209	2135 210	2125 208	1134 214	0444 113	0136 106	4146 407	0413 112	0123 111	0116 104	0126 105	3158 204	3157 203	
10	41B	99	3112 302	1132 203	1122 201	4115 309	4135 310	3125 308	4134 314	1144 213	1136 206	1146 207	4113 312	1123 211	1116 204	4126 405	3158 304	3157 303	
11	41C	99	3112 302	1132 203	1122 201	4115 309	4135 310	3125 308	4134 314	1144 213	1136 206	1146 207	4113 312	1123 211	1116 204	4126 405	3158 304	3157 303	
12	41D	103	0412 102	4132 303	4122 301	0415 109	0435 110	0425 108	0434 114	4144 313	4136 306	4146 307	2113 212	4123 311	4116 304	4126 305	3158 404	3157 403	
13	41G	99	3112 302	1132 203	1122 201	4115 309	4135 310	3125 308	4134 314	1144 213	1136 206	1146 207	4113 312	1123 211	1116 204	4126 405	3158 304	3157 303	
14	51A	103	0412 102	4132 303	4122 301	0415 109	0435 110	0425 108	0434 114	4144 313	4136 306	4146 307	2113 212	4123 311	4116 304	4126 305	3158 404	3157 403	
15	51C	103	0412 102	4132 303	4122 301	0415 109	0435 110	0425 108	0434 114	4144 313	4136 306	4146 307	2113 212	4123 311	4116 304	4126 305	3158 404	3157 403	
16	51D	103	0412 102	4132 303	4122 301	0415 109	0435 110	0425 108	0434 114	4144 313	4136 306	4146 307	2113 212	4123 311	4116 304	4126 305	3158 404	3157 403	
17	51B	99	3112 302	1132 203	1122 201	4115 309	4135 310	3125 308	4134 314	1144 213	1136 206	1146 207	4113 312	1123 211	1116 204	4126 405	3158 304	3157 303	
18	51G	103	0412 102	4132 303	4122 301	0415 109	0435 110	0425 108	0434 114	4144 313	4136 306	4146 307	2113 212	4123 311	4116 304	4126 305	3158 404	3157 403	
19	51F	99	3112 302	1132 203	1122 201	4115 309	4135 310	3125 308	4134 314	1144 213	1136 206	1146 207	4113 312	1123 211	1116 204	4126 405	3158 304	3157 303	
20	51I	103	0412 102	4132 303	4122 301	0415 109	0435 110	0425 108	0434 114	4144 313	4136 306	4146 307	2113 212	4123 311	4116 304	4126 305	3158 404	3157 403	Repaired Pc Tube reinstalled.
21	51J	104	4112 402	4132 403	4122 401	4115 409	4135 410	4125 408	4134 414	4144 413	4136 406	0146 107	4113 412	4123 411	4116 404	4126 455	4158 453	3157 452	

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX | RCS FORWARD THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	PRIMARY														VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
			F1F	F2F	F3F	F1U	F2U	F3U	F2R	F4R	F2D	F4D	F1L	F3L	F1D	F3D	F5R	F5L	
22	61A	99	3112	1132	1122	4115	4135	3125	4134	1144	1136	1146	4113	1123	1116	4126	3158	3157	
			302	203	201	309	310	308	314	213	206	207	312	211	204	405	304	303	
23	61B	104	4112	4132	4122	4115	4135	4125	4134	4144	4136	0146	4113	4123	4116	4126	4158	3157	
			402	403	401	409	410	408	414	413	406	107	412	411	404	455	453	452	
24	61C	102	4112	4132	4122	4115	4135	4125	4134	4144	0136	4146	0413	0123	0116	0126	3158	4157	
			452	453	451	459	460	458	464	463	106	407	112	111	104	105	204	463	
25	51L	99	3112	1132	1122	4115	4135	3125	4134	1144	1136	1146	4113	1123	1116	4126	3158	3157	
			302	203	201	309	310	308	314	213	206	207	312	211	204	405	304	303	
26	26	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	3158	3157	
			202	453	101	109	460	488	464	113	456	457	462	311	454	205	404	452	
27	27	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157	
			452	403	301	459	210	108	414	313	106	407	112	461	304	455	453	105	
28	29	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	3158	3157	
			202	453	101	109	460	488	464	113	456	457	462	311	454	205	404	452	
29	30	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157	
			452	403	301	459	210	108	414	313	106	407	112	461	304	455	453	105	
30	28	102	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	3158	4157	F5R removed due to oxidizer leak; F5L
			402	103	451	409	110	408	214	463	406	107	212	411	404	305	204*	463*	removed to repair heater
31	34	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157	
			452	403	301	459	210	108	414	313	106	407	112	461	304	455	453	105	
32	33	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	3158	3157	
			202	453	101	109	460	488	464	113	456	457	462	311	454	205	404	452	
33	32	102	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	3157	
			402	103	451	409	110	408	214	463	406	107	212	411	404	305	464	203	
34	36	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157	
			452	403	301	459	210	108	414	313	106	407	112	461	304	455	453	105	
35	31	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	3158	3157	
			202	453	101	109	460	488	464	113	456	457	462	311	454	205	404	452	
36	41	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	3158	3157	
			202	453	101	109	460	488	464	113	456	457	462	311	484	205	404	452	
37	38	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157	
			452	403	301	459	210	108	414	313	106	407	112	461	304	455	453	105	
38	35	102	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	3157	
			402	103	451	409	110	408	214	463	406	107	212	411	404	305	464	203	
39	37	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157	*Leakage
			452	403	301	459	210*	108*	414	313	106	407	112	461	304	455	453	105	
40	39	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	3158	3157	
			202	453	101	109	460	488	464	113	456	457	462	311	484	205	404	452	
41	40	102	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	3157	
			402	103	451	409	110	408	214	463	406	107	212	411	404	305	464	203	
42	43	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	

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX | RCS FORWARD THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	PRIMARY														VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
			F1F	F2F	F3F	F1U	F2U	F3U	F2R	F4R	F2D	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	484	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	*Oxidizer valve leak; **Corrosion
			202	453*	101*	109*	460*	488	464*	113	456	457	462*	311*	484	205	404**	452	
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; ** Oxidizer valve leak
			402	103*	451	409	408	408	214**	463	406	107	212	411	404	305	464	203	
49	46	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	7157	*OMDP Structural inspection
			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	*Oxidizer valve 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	*Oxidizer valve 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	462	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	
56	57	105	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	7157	*Oxidizer valve leak
			602	603	601	609	610	571	614	613	606	607	612	611	604	605	604	603	
57	51	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	3157	*Coating chips
			202	483	481	489	490	108	114	113	456	457	462	491	484	205	204	452*	
58	58	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	
59	61	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	
60	60	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	462	491	484	205	204	463	
61	62	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	
62	59	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	
63	65	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 | RCS FORWARD THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	PRIMARY														VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
			F1F	F2F	F3F	F1U	F2U	F3U	F2R	F4R	F2D	F4D	F1L	F3L	F1D	F3D	F5R	F5L	
64	64	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	3157	*Slow Pc Rise
			202	483	481	489	490	106	114	113	456	457*	462	491	484	205	204	463	
65	68	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	
66	66	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	7157	
			102	103	101	109	210	488	214	493	306	307	412	411	104	105	106	105	
67	63	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	3157	
			202	483	481	489	490	106	114	113	456	487	462	491	484	205	204	463	
68	67	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	
69	71	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	7157	
			102	103	101	109	210	488	214	493	306	307	412	411	104	105	106	105	
70	70	103	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	3157	*Preventative
			202*	483*	481*	489*	490*	106*	114*	113*	456*	487*	462*	491*	484*	205*	204	463	
71	69	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	
72	73	102	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	4158	3157	*Fail Off **Preventative
			402*	303	451	409**	110	406	494	463	406	107	212**	311	404**	305	464	203	
73	74	104	5112	5132	5122	5115	5135	5125	5134	5144	5136	5146	5113	5123	5116	5126	7158	7157	
			102	103	101	109	210	488	214	493	306	307	412	411	104	105	106	105	

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX LEFT HAND POD RCS THRUSTERS PN/SN VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	POD S/N LH	PRIMARY												VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
				L1L	L2L	L3L	L4L	L1U	L2U	L4U	L2D	L3D	L4D	L1A	L3A	L5L	L5D	
1	1	102	L102	0200	0200	0200	0200	0001	0001	0001	0001	0001	0001	0300	0300	0200	0001	
				135	138	137	136	141	125	128	126	129	127	155	118	108	102	
2	2	102	L102	0200	0200	0200	0200	0001	0001	0001	0001	0001	0001	0300	0300	0200	0001	
				135	138	137	136	141	125	128	126	129	127	155	118	108	102	
3	3	102	L102	0200	0200	0200	0200	0001	0001	0001	0001	0001	0001	0300	0300	0200	0001	L3L faulty heater; Gypsum contamination
				135	138	137*	136	141*	125*	128 *	126	129	127	155	118	108	102	
4	4	102	L102	0200	0200	3200	0200	3001	3001	3001	0001	0001	0001	0300	0300	0200	0001	Vernier coating problem
				135	138	333	136	319	320	321	126	129	127	155	118	108 *	102*	
5	5	102	L102	0200	0200	3200	0200	3001	3001	3001	0001	0001	0001	0300	0300	3200	3001	
				135	138	333	136	319	320	321	126	129	127	155	118	206	301	
6	6	99	L099	2200	2201	2200	2200	2001	2001	2001	2001	2001	2001	2300	2300	3200	3001	Fuel valve leak
				231	134	236	238	224	226	227	221*	228	229	216	218	306	302	
7	7	99	L099	2200	2201	2200	2200	2001	2001	2001	3001	2001	2001	2300	2300	3200	3001	
				231	134	236	238	224	226	227	421	228	229	216	218	306	302	
8	8	99	L099	2200	2201	2200	2200	2001	2001	2001	3001	2001	2001	2300	2300	3200	3001	Fuel valve leak
				231	134	236	238	224	226	227	421	228*	229	216	218	306	302	
9	9	102	L102	0200	0200	3200	0200	3001	3001	3001	0001	0001	0001	0300	0300	3200	3001	
				135	138	333	136	319	320	321	126	129	127	155	118	206	301	
10	41B	99	L099	2200	2201	2200	2200	2001	2001	2001	3001	3001	2001	2300	2300	3200	3001	Oxidizer valve leak; STS-41-C preflight
				231	134	236	238	224	226	227	421	429	229	216	218	306	302*	
11	41C	99	L103	2202	3200	3200	3200	0401	0401	0401	0401	0401	0401	3300	3300	3200	4001	
				137	337	336	338	141	124	120	128	125	119	317	318	405	461	
12	41D	103	L103	2202	3200	3200	3200	0401	0401	0401	0401	0401	0401	3300	3300	4200	4001	
				137	337	336	338	141	124	120	128	125	119	317	318	456	461	
13	41G	99	L099	2200	2201	2200	2200	2001	2001	2001	3001	3001	2001	2300	2300	3200	3001	
				231	134	236	238	224	226	227	421	429	229	216	218	306	302	
14	51A	103	L103	2202	3200	3200	3200	0401	0401	0401	0401	0401	0401	3300	3300	4200	4001	
				137	337	336	338	141	124	120	128	125	119	317	318	456	461	
15	51C	103	L103	2202	3200	3200	3200	0401	0401	0401	0401	0401	0401	3300	3300	4200	4001	
				137	337	336	338	141	124	120	128	125	119	317	318	456	461	
16	51D	103	L103	2202	3200	3200	3200	0401	0401	0401	0401	0401	0401	3300	3300	4200	4001	
				137	337	336	338	141	124	120	128	125	119	317	318	456	461	
17	51B	99	L099	2200	2201	2200	2200	2001	2001	2001	3001	3001	2001	2300	2300	3200	3001	
				231	134	236	238	224	226	227	421	429	229	216	218	306	302	
18	51G	103	L104	3200	3200	3200	3200	2001	3001	3001	3001	3001	3001	3300	3300	4200	4001	
				467	437	433	436	221	430	427	428	466	426	418	415	465	462	
19	51F	99	L099	2200	2201	2200	2200	2001	2001	2001	3001	3001	2001	2300	2300	3200	3001	
				231	134	236	238	224	226	227	421	429	229	216	218	306	302	
20	51I	103	L104	3200	3200	3200	3200	2001	3001	3001	3001	3001	3001	3300	3300	4200	4001	
				467	437	433	436	221	430	427	428	466	426	418	415	465	462	
21	51J	104	L103	2202	3200	3200	3200	0401	0401	0401	0401	0401	0401	3300	3300	4200	4001	
				137	337	336	338	141	124	120	128	125	119	317	318	456	461	

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX | LEFT HAND POD RCS THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	POD S/N LH	PRIMARY												VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
				L1L	L2L	L3L	L4L	L1U	L2U	L4U	L2D	L3D	L4D	L1A	L3A	L5L	L5D	
22	61A	99	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	99	L102	0200 135	0200 138	3200 333	0200 136	3001 319	3001 320	3001 321	3001 473	0001 129	0001 127	0300 155	0300 118	3200 206	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 465	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 465	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 dynatube
30	28	102	LP03	5200 334	5200 436	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 - 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 436	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**	*Oxidizer valve leakage **Fuel valve 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 436	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 238	5001 330	5001 419	5001 141	5001 328	5001 228	5001 423	5300 215	5300 418	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	*Oxidizer valve leakage **High temperature indicated crossover fuel
41	40	102	LP03	5200 334	5200 436	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 238	5001 330	5001 419	5001 141	5001 328	5001 228	5001 423	5300 215	5300 418	3200 306*	3001 302**	*Chipped coating ** Leakage

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX | LEFT HAND POD RCS THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	POD S/N LH	PRIMARY												VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
				L1L	L2L	L3L	L4L	L1U	L2U	L4U	L2D	L3D	L4D	L1A	L3A	L5L	L5D	
43	48	103	LP04	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	4200	4001	
				233	235	133	134	427	428	122	219	325	422	217	116	465	451	
44	44	104	LP01	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	
				432	331	337	238	330	419	141	328	228	423	215	418	108	402	
45	42	103	LP04	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	4200	4001	
				233	235	133	134	427	428	122	219	325	422	217	116	465	451	
46	45	104	LP01	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	
				432	331	337	238	330	419	141	328	228	423	215	418	108	402	
47	49	105	LP03	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	4001	
				334	438	434	237	326	420	227	229	120	230	316	318	305	461	
48	50	102	LP05	5200	5200	5200	5001	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	*Failed heater
				636	637	638	635	625*	626	630	627	629	628	617	618	606	611	
49	46	104	LP01	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	
				432	331	337	238	330	419	141	328	228	423	215	418	108	402	
50	47	105	LP03	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	4001	*Failed off **Low PC
				334	438	434	237	326	420	227	229	120	230	316	318*	305	461**	
51	52	102	LP05	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	
				636	637	638	635	575	626	630	627	629	628	617	618	606	611	
52	53	103	LP04*	5200	5200	5200	5001	5001	5001	5001	5001	5001	5001	5300	5300	4200	4001	*Pod changed out because of leak
				437	235	133	134	424	119	122	126	325	422	574	573	456	451	
53	54	105	LP03	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	
				334	438	434	237	326	420	227	229	120	230	316	315	305	455	
54	56	103	LP01	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	*Heater failure. Fixed at KSC
				432	331	337	238	330	419	141	328	228	423	215	418	108	402*	
55	55	102	LP05	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	*Heater failure
				636	637	638	635	575	626	630	627	629	628*	617	618	606	611	
56	57	105	LP03	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	
				334	438	434	237	326	420	227	229	120	230	316	315	305	455	
57	51	103	LP01	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	*Failed-off **Ground leakage
				432	331	337*	238	330	419	141	328	228	423	215	418**	108	402	
58	58	102	LP05	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	
				636	637	638	635	575	629	630	627	629	427	617	618	606	611	
59	61	105	LP03	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	*OMDP Structural inspection
				334*	438*	434	237	326*	420*	227	229*	120	230	316*	315	305	455	
60	60	103	LP01	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	
				432	331	137	238	330	419	141	328	228	423	215	116	108	402	
61	62	102	LP05	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	4001	
				636	637	638	635	575	626	630	627	629	427	617	618	606	611	
62	59	105	LP04	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	7001	Coating chips
				437	235	133	134	424	119	122	126	325	422	574	573	456	451	
63	65	102	LP05	5200	5200	5200	5200	5001	5001	5001	5001	5001	5001	5300	5300	7200	4001	
				636	637	638	635	575	626	630	627	629	427	617	618	606	611	

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX | LEFT HAND POD RCS THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	POD S/N LH	PRIMARY												VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
				L1L	L2L	L3L	L4L	L1U	L2U	L4U	L2D	L3D	L4D	L1A	L3A	L5L	L5D	
64	64	103	LP01	5200 432**	5200 331	5200 137	5200 238	5001 330**	5001 419	5001 141	5001 328	5001 228	5001 423	5300 215*	5300 116	7200 108	7001 402	*Failed off **Preventative
65	68	105	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	7200 456	7001 102**	*Failed off **Erratic temperature
66	66	104	LP03	5200 576	5200 334	5200 434	5200 237	5001 229	5001 222	5001 227	5001 125	5001 120	5001 230	5300 216*	5300 315	7200 305	7001 455	*Failed off
67	63	103	LP01	5200 231	5200 331**	5200 137	5200 238	5001 221	5001 419	5001 141	5001 328*	5001 228	5001 423	5300 316	5300 116	7200 108	7001 402	*Failed off **Ground oxidizer leak
68	67	105	LP04	5200 437	5200 235	5200 133	5200 134	5001 424	5001 119	5001 122	5001 126	5001 430	5001 422	5300 574	5300 573	7200 456	7001 461	
69	71	104	LP03	5200 576	5200 334	5200 434	5200 237	5001 229	5001 222	5001 227	5001 125	5001 120	5001 230	5300 316	5300 315	7200 305	7001 455	
70	70	103	LP01	5200 231*	5200 432*	5200 137*	5200 238*	5001 221*	5001 419*	5001 141*	5001 654*	5001 228*	5001 423*	5300 316*	5300 116*	7200 108	7001 402	*Preventative
71	69	105	LP04	5200 437	5200 235	5200 133	5200 134	5001 424	5001 119	5001 122	5001 126	5001 430	5001 422	5300 574	5300 573	7200 456	7001 461	
72	73	102	LP05	5200 636	5200 637	5200 638	5200 635	5001 575	5001 626	5001 630	5001 627	5001 629	5001 427	5300 617	5300 618	7200 606	4001 611	
73	74	104	LP03	5200 576	5200 334	5200 434	5200 237	5001 229	5001 222	5001 227	5001 125	5001 120	5001 230	5300 316	5300 315	7200 305	7001 455	

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX | RIGHT HAND POD RCS THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	POD S/N RH	PRIMARY												VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
				R1R	R2R	R3R	R4R	R1U	R2U	R4U	R2D	R3D	R4D	R1A	R3A	R5R	R5D	
1	1	102	R102	0200 131	0200 133	0200 134*	0200 142	0001 119	0001 120	0001 124	0001 122	0001 121	0001 123	0300 115	0300 116	0200 109	0001 101	Oxidizer valve leak.
2	2	102	R102	0200 131	0200 133	1200 232	0200 142	0001 119	0001 120	0001 124	0001 122	0001 121	0001 123	0300 115	0300 116	0200 109	0001 101	
3	3	102	R102	0200 131	0200 133	1200 232	0200 142	0001 119*	0001 120*	0001 124*	0001 122	0001 121	0001 123	0300 115	0300 116	0200 109	0001 101	Gypsum contamination
4	4	102	R102	0200 131	0200 133	1200 232	0200 142	3001 322	3001 323	3001 324	0001 122	0001 121	0001 123	0300 115	0300 116	0200 109*	0001 101*	Vernier coating problem
5	5	102	R102	0200 131	0200 133	1200 232	0200 142	3001 322	3001 323	3001 324	0001 122	0001 121	0001 123*	0300 115	0300 116	3200 205	3001 202	Heater/controller failed
6	6	99	R099	1200 234	1200 235	1200 233	2200 237	1001 225	1001 219	1001 220	1001 223	2001 230	1001 222	1300 215	2300 217	3200 108	3001 102	
7	7	99	R099	1200 234	1200 235	1200 233	2200 237	1001 225	1001 219	1001 220	1001 223	2001 230	1001 222	1300 215	2300 217	3200 108	3001 102	
8	8	99	R099	1200 234	1200 235	1200 233	2200 237	1001 225	1001 219	1001 220	1001 223	2001 230	1001 222	1300 215	2300 217	3200 108	3001 102	
9	9	102	R102	0200 131	0200 133	1200 232	0200 142	3001 322	3001 323	3001 324	0001 122	0001 121	0401 123	0300 115	0300 116	3200 205	3001 202	
10	41B	99	R099	1200 234	1200 235	1200 233	2200 237	1001 225	1001 219	1001 220	1001 223	2001 230	1001 222	1300 215	2300 217	3200 108	3001 102*	Coating defect.
11	41C	99	R099	1200 234	1200 235	1200 233	2200 237	1001 225	1001 219	1001 220	1001 223	2001 230	1001 222	1300 215	2300 217	3200 108*	4001 451	Coating damage
12	41D	103	R103	3200 335	3200 334	3200 331	3200 332	3001 329	3001 325	3001 330	3001 327	3001 328	3001 326	3300 315	3300 316	3200 406	3001 402	
13	41G	99	R099	1200 234	1200 235	1200 233*	2200 237	1001 225	1001 219	1001 220	1001 223	2001 230	1001 222	1300 215	2300 217	4200 468	4001 451	Oxidizer valve failed open
14	51A	103	R103	3200 335	3200 334	3200 331	3200 332	3001 329	3001 325	3001 330	3001 327	3001 328	3001 326	3300 315	3300 316	3200 406	3001 402	
15	51C	103	R103	3200 335	3200 334	3200 331	3200 332	3001 329	3001 325	3001 330	3001 327	3001 328	3001 326	3300 315	3300 316	3200 406	3001 402	
16	51D	103	R103	3200 335	3200 334	3200 331	3200 332	3001 329	3001 325	3001 330	3001 327	3001 328	3001 326	3300 315	3300 316	3200 406	3001 402	

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX | RIGHT HAND POD RCS THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	POD S/N RH	PRIMARY												VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
				R1R	R2R	R3R	R4R	R1U	R2U	R4U	R2D	R3D	R4D	R1A	R3A	R5R	R5D	
17	51B	99	R104	3200 435	3200 434	3200 431	3200 432	3001 423	3001 425	3001 420	3001 422	3001 424	3001 419	3300 465	3300 417	4200 454	4001 455	
18	51G	103	R103	3200 335	3200 334	3200 331	3200 332	3001 329	3001 228	3001 330	3001 327	3001 328	3001 326	3300 315	3300 316	3200 406	3001 402	
19	51F	99	R104	3200 435	3200 434	3200 431	3200 432	3001 423	3001 425	3001 420	3001 422	3001 424	3001 419	3300 465	3300 417	4200 454	4001 455	
20	51I	103	R103	3200 335	3200 334	3200 331	3200 332	3001 329	3001 228	3001 330	3001 327	3001 328	3001 326	3300 315	3300 316	3200 406	3001 402	
21	51J	104	R099	1200 234	1200 235	3200 438	2200 237	1001 225	1001 219	1001 220	1001 223	2001 230	1001 222	1300 215	2300 217	4200 466	4001 451	
22	61A	99	RP03	3200 335	3200 334	3200 331	3200 332	3001 329	3001 228	3001 330	3001 327	3001 328	3001 326	3300 315	3300 316	4200 406	4001 402	
23	61B	104	R099	1200 234	1200 235	3200 438	2200 237	1001 225	1001 219	1001 220	1001 223	2001 230	1001 222	1300 215	2300 217	4200 466	4001 451	
24	61C	102	R104	3200 435	3200 434	3200 431	3200 432	3001 423	3001 425	3001 420	3001 422	3001 424	3001 419	3300 465	3300 417	4200 454	4001 455	
25	51L	99	R102	0200 131	3200 475	1200 232	0200 142	3001 322	3001 323	3001 324	3001 474	0001 121	0401 123	3300 416	3300 472	3200 205	3001 202	
26	26	103	RP03	5200 467	5200 476	5200 335	5200 235	5001 220	5001 221	5001 429	5001 466	5001 228	5001 226	5300 116	5300 218	3200 405	3001 401	
27	27	104	RP01	5200 436	5200 332	5200 338	5200 236	5001 419	5001 224	5001 124	5001 428	5001 327	5001 225	5300 415	5300 315	4200 466	7001 101	
28	29	103	RP03	5200 467	5200 476	5200 335	5200 235	5001 220*	5001 221	5001 429	5001 466	5001 228	5001 226	5300 417	5300 218	3200 405	3001 401	* Oxidizer valve failed to open
29	30	104	RP01	5200 436	5200 332	5200 338	5200 236	5001 419*	5001 224	5001 124	5001 428	5001 327	5001 225	5300 415	5300 315	4200 466	7001 101	* Oxidizer valve failed to open
30	28	102	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	4200 454	7001 201	
31	34	104	RP03	5200 467	5200 476	5200 335	5200 235	5001 497	5001 221	5001 429	5001 466	5001 228	5001 226	5300 417	5300 218	3200 405	3001 401	
32	33	103	RP01	5200 436	5200 332	5200 338	5200 236	5001 424	5001 224	5001 124	5001 428	5001 327	5001 225	5300 415	5300 315	4200 466	7001 101	

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX | RIGHT HAND POD RCS THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	POD S/N RH	PRIMARY												VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
				R1R	R2R	R3R	R4R	R1U	R2U	R4U	R2D	R3D	R4D	R1A	R3A	R5R	R5D	
33	32	102	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	4200 454	7001 201	
34	36	104	RP03	5200 467	5200 476	5200 335	5200 235*	5001 497	5001 221	5001 429	5001 466	5001 228*	5001 226**	5300 417	5300 218	3200 405	3001 401	* Oxidizer valves failed to open ** Oxidizer valve leaking
35	31	103	RP01	5200 436	5200 332	5200 338	5200 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	5200 332	5200 338	5200 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	5200 476	5200 335	5200 433	5001 497	5001 221	5001 429	5001 466	5001 220	5001 496	5300 417	5300 218*	3200 405	3001 401	* Suspect weldD
38	35	102	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	4200 454	7001 201	
39	37	104	RP01	5200 436	5200 332	5200 338	5200 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	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	
41	40	102	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	4200 456*	7001 201	* Fuel leakage
42	43	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	
43	48	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	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	42	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	45	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	49	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	50	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	

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX | RIGHT HAND POD RCS THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	POD S/N RH	PRIMARY												VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
				R1R	R2R	R3R	R4R	R1U	R2U	R4U	R2D	R3D	R4D	R1A	R3A	R5R	R5D	
49	46	104	RP01	5200 436b	5200 332b	5200 338c	5200 236	5001 222b	5001 224c	5001 124b	5001 425	5001 327c	5001 225b	5300 495b	5300 415	4200 468a	7001 101a	a-fuel leak; b-oxidizer; c-valve not open
50	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	
51	52	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	53	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	54	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	* Fall off
54	56	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	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	
56	57	105	RP04	5200 576	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*	* Heater failure
57	51	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	* Pc tube burnthrough
58	58	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	
59	61	105	RP04	5200 576*	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*	*OMDP Structural inspection
60	60	103	RP03	5200 233	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	* Grouond vapor leakage
61	62	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	
62	59	105	RP01	5200 435	5200 337	5200 476	5200 236	5001 628	5001 219	5001 429	5001 425	5001 466	5001 625	5300 318	5300 415	4200 454	4001 462	
63	65	102	RP05	5200 632	5200 633	5200 631	5200 634	5001 619	5001 620	5001 623	5001 621	5001 624a	5001 622	5300 615	5300 616	7200 605	7001 602b	a-heater capacitor; b-coating chips
64	64	103	RP03	5200 233	5200 498	5200 438	5200 433	5001 497	5001 426	5001 226	5001 428	5001 220	5001 496	5300 417	5300 216	3200 405	3001 401	

ORBITER PROPULSION SYSTEMS - COMPONENT S/N - LOCATION MATRIX

PRIMARY SPEC: MC 467-0028-XXXX | RIGHT HAND POD RCS THRUSTERS PN/SN | VERNIER SPEC: MC 467-0029-XXXX

Miss Seq. No.	STS-No.	Orb. OV-	POD S/N RH	PRIMARY												VERNIER		* CAUSE OF POSTFLIGHT REPLACEMENT
				R1R	R2R	R3R	R4R	R1U	R2U	R4U	R2D	R3D	R4D	R1A	R3A	R5R	R5D	
65	68	105	RP01	5200 435	5200 337	5200 476	5200 236	5001 628	5001 219	5001 429	5001 425	5001 466	5001 625	5300 318	5300 415	4200 454	4001 462*	*Toggling Pc
66	66	104	RP04	5200 332	5200 436	5200 336*	5200 234	5001 124	5001 224	5001 329	5001 225	5001 421	5001 223	5300 217	5300 317	3200 109	3001 302	*Erratic temperature
67	63	103	RP03	5200 233	5200 498	5200 438	5200 433	5001 497*	5001 426	5001 226	5001 428	5001 220	5001 496	5300 417	5300 216	3200 405	3001 401	*Fail off & leak
68	67	105	RP01	5200 435d	5200 337	5200 476f	5200 236*a	5001 628d	5001 219	5001 429b	5001 425	5001 466a	5001 625b	5300 318c	5300 415f	4200 454g	7001 101	a-Flt. oxidizer leak; b-Air intrusion; c-Fail off; d-Moist.intrusion; e-Gnd Leakage; f-Symp. leakage; g-Bent pin.
69	71	104	RP04	5200 332	5200 436**	5200 338	5200 234	5001 124	5001 224*	5001 329	5001 225**	5001 421	5001 223	5300 217	5300 317	3200 109	3001 302	*Fail off **Preventative
70	70	103	RP03	5200 233*	5200 498*	5200 438*	5200 433*	5001 330*	5001 426*	5001 226*	5001 428*	5001 220*	5001 496*	5300 417*	5300 216*	3200 405	3001 401	*Preventative
71	69	105	RP05	5200 632	5200 633	5200 631	5200 634	5001 619	5001 620	5001 623	5001 621	5001 327	5001 622	5300 615	5300 616	7200 605	4001 462	
72	73	102	RP01	5200 438	5200 337	5200 336	5200 431	5001 325	5001 219	5001 624	5001 425	5001 326	5001 421	5300 495	5300 215	4200 306	4001 101	
73	74	104	RP04	5200 332	5200 328	5200 338	5200 234	5001 124	5001 497	5001 329	5001 331	5001 421	5001 223	5300 217	5300 317	3200 109	3001 302	

QUAD CHECK VALVE FLIGHT SUMMARY

MSN Seq. No.	STS-No.	Orb. OV-	FORWARD REACTION CONTROL			LEFT-HAND POD					RIGHT-HAND POD				
			MOD	CV101	CV102	POD	CV201	CV202	CV401	CV402	POD	CV301	CV302	CV501	CV502
1	1	102	FRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
2	2	102	FRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
3	3	102	FRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
4	4	102	FRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
5	5	102	FRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
6	6	99	FRC9	4914102	4103969	LP01	4914100	4914107	4914099	4914106	RP01	4105726	4914105	4911247	4914103
7	7	99	FRC9	4914102	4103969	LP01	4914100	4914107	4914099	4914106	RP01	4105726	4914105	4911247	4914103
8	8	99	FRC9	4914102	4103969	LP01	4914100	4914107	4914099	4914106	RP01	4105726	4914105	4911247	4914103
9	9	102	FRC2	4911233	4911229	LV01	4103918	4911251	4911234	4911227	RV01	4911232	4911228	4911231	4911254
10	41B	99	FRC9	4914102	4103969	LP01	4914100	4914107	4914099	4914106	RP01	4105726	4914105	4911247	4914103
11	41C	99	FRC9	4914102	4103969	LP03	4917560	4917559	4103990	4107155	RP01	4105726	4914105	4911247	4914103
12	41D	103	FRC3	4914634	4911250	LP03	4917560	4917559	4103990	4107155	RP03	4914101	4914630	4105757	4105727
13	41G	99	FRC9	4914102	4103969	LP01	4914100	4914107	4914099	4914106	RP01	4105726	4914105	4911248a	4914103
14	51A	103	FRC3	4914634	4911250	LP03	4917560	4917559	4103990	4107155	RP03	4914101	4914630	4105757	4105727
15	51C	103	FRC3	4914634	4911250	LP03	4917560	4917559	4103990	4107155	RP03	4914101	4914630	4105757	4105727
16	51D	103	FRC3	4914634	4911250	LP03	4917560	4917559	4103990	4107155	RP03	4914101	4914630	4105757	4105727
17	51B	99	FRC9	4914102	4103969	LP01	4914100	4914107	4914099	4914106	RP04	4105777	4917557	4105776	4107158
18	51G	103	FRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP03	4914101	4914630	4105757	4105727
19	51F	99	FRC9	4914102	4103969	LP01	4914100	4914107	4914099	4914106	RP04	4105777	4917557	4105776	4107158
20	51I	103	FRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP03	4914101	4914630	4105757	4105727
21	51J	104	FRC4	4911235	4917555	LP03	4917560	4917559	4103990	4107155	RP01	4105726	4914105	4911248	4914103
22	61A	99	FRC9	4914102	4103969	LP01	4914100	4914107	4914099	4914106	RP03	4914101	4914630	4105757	4105727
23	61B	104	FRC4	4911235	4917555	LP03	4917560	4917559	4103990	4107155	RP01	4105726	4914105	4911248	4914103
24	61C	102	FRC2	4911233	4911229	LP04	4917552	4914632	4917553	4917556	RP04	4105777	4917557	4105776	4107158
25	51L	99	FRC9	4914102b	4103969b	LV01	4103918b	4911251b	4103920c	4911227b	RV01	4911232b	4911228b	4911231b	4911254b
26	26	103	FRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP03	4911247d	4914630	4105757	4103968e
27	27	104	FRC4	4911235	4917555	LP01	4911234f	4914104g	4914099	4914106	RP01	4105726	4914105	4911248	4914103
28	29	103	FRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP03	4911247	4914630	4105757	4103968
29	30	104	FRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP01	4105726	4914105	4911248	4914103
30	28	102	FRC2	4911233	4911229	LP03	4917560	4105727h	4914098i	4107155	RP04	4106777	4917557	4105776	4107158
31	34	104	FRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP03	4911247	4914630	4105757	4103968
32	33	103	FRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP01	4105726	4914105	4911248	4914103
33	32	102	FRC2	4911233	4911229	LP03	4917560	4105727	4914098	4107155	RP04	4106777	4917557	4105776	4107158
34	36	104	FRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP03	4911247	4914630	4105757	4103968
35	31	103	FRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917556	RP01	4105726	4914105	4911248	4914103
36	41	103	FRC3	4914634	4911250	LP04	4917552	4914632	4917556	4917558	RP01	4105726	4914107	4911248	4914103
37	38	104	FRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP03	4911247	4914630	4105757	4103968
38	35	102	FRC2	4911233	4911229	LP03	4917560	4105727	4914098	4107155	RP04	4105777	4917557	4105776	4107158
39	37	104	FRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP01	4105726	4914107	4911248	4914103
40	39	103	FRC3	4914634	4911250	LP04	4917552	4914632	4917556	4917558	RP03	4911247	4914630	4105757	4103968
41	40	102	FRC2	4911233	4911229	LP03	4917560	4105727	4914098	4107155	RP04	4105777	4917557	4105776	4107158
42	43	104	FRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP01	4105726	4914107	4911248	4914103
43	48	103	FRC3	4914634	4911250	LP04	4917552	4914632	4917553	4917558	RP03	4911247	4914630	4105757	4103968
44	44	104	FRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP01	4105726	4914107	4911248	4914103
45	42	103	FRC3	4914634	4911250	LP04	4917652	4914632	4917553	4917556	RP03	4911247	4914630	4105757	4103968
46	45	104	FRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP01	4105726	4914107	4911248	4104103

QUAD CHECK VALVE FLIGHT SUMMARY

MSN			FORWARD REACTION CONTROL			LEFT-HAND POD					RIGHT-HAND POD				
Seq. No.	STS-No.	Orb. OV-	MOD	CV101	CV102	POD	CV201	CV202	CV401	CV402	POD	CV301	CV302	CV501	CV502
47	49	105	FRC5	2083044	2572004	LP03	4914100	4917559	4914636	4107155	RP04	4105777	4917557	4105776	4107158
48	50	102	FRC2	4911223	4911229	LP05	2083047	2083042	4105778	4914631	RP05	2803045	4911237	4914101	4105756
49	46	104	FRC4	4911235	4917555	LP01	4911234	4914104	4914099	4914106	RP01	4105726	4914107	4911248	4104103
50	47	105	FRC5	2083044	2572004	LP03	4914100	4917559	4914636	4107155	RP04	4105777	4917557	4105776	4107158
51	52	102	FRC2	4911233	4911229	LP05	2083047	2083042	4105778	4914631	RP05	2083045	4911237	4914101	4105756
52	53	103	FRC3	4914634	4911250	LP04	4917552	4914632	2187401o	4917556	RP03	4911247	2083043m	4105757n	4103988
53	54	105	FRC5	2083044	2572004	LP03	4914100	4917559	4914636	4107155	RP04	4105777	4917557	4105776	4107158
54	56	103	FRC3	4914634	4911250	LP01	4911234	4914104	4914099	4914106	RP03	4911247	2083043	4105757	4103988
55	55	102	FRC2	4911233	4911229	LP05	2083047	2083042	4105778	4914631	RP05	2083045	4911237	4914101	4105756
56	57	105	FRC5	2083044	2572004	LP03	4914100	4917559	4914636	4107155	RP04	4105777	4917557	4105776	4107158
57	51	103	FRC3	4914634	4911250	LP01	4911234	2191513p	4914099	4914106	RP03	4911247	2083043	2182101	4103988
58	58	102	FRC2	4911233	4911229	LP05	2083047	2083042	4105778	4914631	RP05	2083045	4911237	4914101	4105756
59	61	105	FRC5	2083044	2572004	LP03	4914100	4917559	4914636	4107155	RP04	4105777	4917557	4105776	4107158
60	60	103	FRC3	4914634	4911250	LP01	4911234	2191513	4914099	4914106	RP03	4911247	2083043	2182101	4103988
61	62	102	FRC2	4911233	4911229	LP05	2083047	2083042	4105778	4914631	RP05	2083045	4911237	4914101	4105756
62	59	105	FRC5	4914634	4911250	LP04	4917560r	4914105q	2187401	4917556	RP01	4105726	4914107	4911248	4104103
63	65	102	FRC2	4911233	4911229	LP05	2083047	2083042	4105778	4914631	RP05	2083045	4911237	4914101	4105756
64	64	103	FRC3	4914634	4911250	LP01	4911234	2191513	4914099	4914106	RP03	4911247	2083043	2182101	4103988
65	68	105	FRC5	4911233	4911229	LP04	4917560	4914105	2187401	4917556	RP01	4105726	4914107	4911248	4104103
66	66	104	FRC4	4911235	4917555	LP03	4914100	4105727s	4914636	4107155	RP04	4105777	4914630t	4105776	4107158
67	63	103	FRC3	4914634	4911250	LP01	4911234	2191513	4914099	4914106	RP03	4911247	2083043	2182101	4103988
68	67	105	FRC5	4914634	4911250	LP04	4917560	4914105	2187401	4917556	RP01	4105726	4914107	4911248	4104103
69	71	104	FRC4	4911235	4917555	LP03	4914100	4105727	4914636	4107155	RP04	4105777	4914630	4105776	4107158
70	70	103	FRC3	4914634	4911250	LP01	4911234	2191513	4914099	4914106	RP03	4911247	2083043	2182101	4103988
71	69	105	FRC5	4914634	4911250	LP04	4917560	4914105	2187401	4917556	RP05	2083045	4911237	4914101	4105756
72	73	102	FRC2	4911233	4911229	LP05	2083047	2083042	4105778	4914631	RP01	4105726	4914107	4911248	4104103
73	74	104	FRC4	4911235	4917555	LP03	4914100	4105727	4914636	4107155	RP04	4105777	4914630	4105776	4107158

LV01 = E112; Originally delivered with OV102
RV01 = E122; Originally delivered with OV102
LP01 = E111; Originally delivered with OV099
RP01 = E121; Originally delivered with OV099
LP03 = E113; Originally delivered with OV103
RP03 = E123; Originally delivered with OV103
LP04 = E114; Originally delivered with OV104
RP04 = E124; Originally delivered with OV104
LP05 = E115; Delivered with OV105
RP05 = E125; Delivered with OV105

CV101 = FRCS fuel quad check valve
CV102 = FRCS oxid quad check valve
CV201 = LRCS fuel quad check valve
CV202 = LRCS oxid quad check valve
CV301 = RRCS fuel quad check valve
CV302 = RRCS oxid quad check valve
CV401 = LOMS fuel quad check valve
CV402 = LOMS oxid quad check valve
CV501 = ROMS fuel quad check valve
CV502 = ROMS oxid quad check valve

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

a S\N 4911247 replaced with S/N 4911248 in 1984 (excessive reverse leakage). (Ref CAR# AC8256)
b Destroyed 51-L 1/28/86
c Destroyed 51-L 1/28/86. S/N 4911234 replaced with S/N 4100920 in 1985 (excessive reverse leakage). (Ref CAR# AD0380)
d S/N 4914101 replaced with S/N 4911247 in 1986 (excessive reverse leakage). (Ref CAR# AD0858)
e S/N 4105727 replaced with S/N 4100988 in 1986 (excessive reverse leakage). (Ref CAR# AD0920)
f S/N 4914100 replaced with S/N 4911234 in 1988 (high cracking pressure). (Ref CAR# AD1956)
g S/N 4914107 replaced with S/N 4914104 in 1988 (excessive reverse leakage). (Ref CAR# KB0182)
h S/N 4917559 replaced with S/N 4105727 in 1988 (excessive reverse leakage). (Ref CAR# KB0390)
i S/N 4103990 replaced with S/N 4914098 in 1989 (excessive reverse leakage). (Ref CAR# KB0XXX)
j S/N 4917560 replaced with S/N 4914100 in 1991 (excessive reverse leakage). (Ref PR LP03-A0018)
k S/N 4105727 replaced with S/N 49171559 in 1991 (low cracking pressure). (Ref PR LP03-12-0316)
l S/N 4914098 replaced with S/N 4914636 in 1991 (excessive reverse leakage). (Ref PR LP03-12-0318)
m S/N 4914630 replaced with S/N 2063043 in 1992. (Ref PR RP03-16-0523)
n S/N 4105757 replaced with S/N 2182101 in 1992. (Ref PR RP03-A0033)
o S/N 4917553 replaced with S/N 2187401 in 1992. (Ref PR LP04-12-0385)
p S/N 4914104 replaced with S/N 2191513 in 1993. (Ref PR LP01-19-0572)
q S/N 4914632 replaced with S/N 4914105 in 1993. (Ref PR LP04-13-0496)
r S/N 4917552 replaced with S/N 4917560 in 1993. (Ref PR LP04-13-0512)
s S/N 4917559 replaced with S/N 4105727 in 1994. (Ref PR LP03-17-0406)
t S/N 4917557 replaced with S/N 4914630 in 1994. (Ref PR RP04-A0024)

OMRSD FILE IX REQUIREMENT HISTORY

Flight STS-	Vehicle OV-	Number of requirements	Failed in-flight checkout	Ground checkout by in-flight anomaly	Ground checkout by request	Ground checkout waived	LRU Retest	Once/ OMDP Interval
26	103	109	7	4	0	3	0	0
27	104	112	9	6	0	3	0	0
29	103	111	7	2	1	4	0	0
30	104	111	5	2	0	3	0	0
28	102	109	5	2	0	3	0	0
34	104	166	12	6	2	4	0	0
33	103	169	10	2	2	6	0	0
32	102	171	14	8	0	6	0	0
36	104	169	8	3	3	2	0	0
31	103	177	15	1	2	12	0	0
41	103	173	9	1	2	6	0	0
38	104	173	12	3	0	9	0	0
35	102	173	13	5	2	6	0	0
37	104	221	19	4	4	11	0	0
39	103	217	16	1	3	12	0	0
40	102	210	9	3	2	4	0	0
43	104	233	21	10	2	9	0	0
48	103	241	12	1	1	3	0	7
44	104	213	18	1	6	1	0	10
42	103	213	21	1	7	2	5	6
45	104	212	18	3	4	8	2	8
49	105	212	18	8	1	1	0	8
50	102	212	11	4	1	0	5	1
46	104	212	11	2	2	1	6	0
47	105	212	21	1	5	0	12	3
52	102	215	10	1	0	0	8	1
53	102	215	11	2	0	0	0	7
54	105	215	15	4	0	1	0	10
56	103	215	7	0	0	0	0	7
55	102	215	18	10	0	0	0	8
57	105	214	15	3	1	6	0	5
51	103	209	13	0	1	4	2	6
58	102	209	9	2	0	3	0	4
61	105	209	13	2	2	3	0	6
60	103	209	13	0	0	6	0	7
62	102	209	16	5	2	3	0	6
59	105	209	15	3	0	4	0	8
65	102	205	13	3	5	5	0	0
64	103	205	16	0	4	4	0	8
68	105	205	13	3	1	1	0	8
66	104	202	18	7	1	2	0	8
63	103	202	13	0	0	2	1	10
67	105	202	19	1	7	2	0	9
71	104	202	14	4	2	0	0	8
70	103	203	14	3	7	3	1	0
69	105	210	19	3	0	7	0	9
73	102	211	24	5	1	11	0	7
74	104	211	19	2	3	4	0	10

Data provided by Rockwell-Houston

DATA SOURCES

NASA/JSC

Program Mission Reports, STS-1 and subsequent missions -
Flight Engineering and Vehicle Management Office/FA22

Flight Requirements Documents, STS-1 and subsequent missions -
Customer and Flight Integration Office/MT

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 -
DF63/Propulsion System Section/RSOC

Problem Tracking Lists and Flight Problem Closeouts -
Flight Engineering and Vehicle Management Office/FA22

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

Landing Performance Chart, Landing Deceleration Data, Calculated Brake Energies/Pressures and Brake Part/Serial Number Data, Landing and Ferry Data, and Orbiter Tire Data.
Rockwell-Houston

NASA/MSFC

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

Rockwell International Corporation, Downey, CA./Houston, TX

Postflight Summaries, STS-1 and subsequent missions

STS Press Information Book with Mission Supplements

Tire/Wheel and Brake Serial Number Data

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-71 and 73 and 74.

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 Engineering and Vehicle Management Office, FA22, 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

b) OV-099 Vehicle - Challenger

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

ORBITER IN-FLIGHT ANOMALIES FOR THE FLEET

a) OV-102 Vehicle - Columbia

Flight Sequence	Mission/ Flights per vehicle	Notes	In-flight anomally total
1	1 / 1		61
2	2 / 2		51
3	3 / 3		47
4	4 / 4		34
5	5 / 5		25
9	9 / 6		34
24	61C / 7		14
30	28 / 8		31
33	32 / 9		29
38	35 / 10		23
41	40 / 11		16
48	50 / 12		28
51	52 / 13		19
55	55 / 14		17
58	58 / 15		10
61	62 / 16		12
63	65 / 17		10
72	73 / 18		9

ORBITER IN-FLIGHT ANOMALIES FOR THE FLEET

c) OV-103 Vehicle - Discovery

Flight Sequence	Mission/ Flights per vehicle	Notes	In-flight anomally total
12	41D / 1		30
14	51A / 2		29
15	51C / 3		15
16	51D / 4		17
18	51G / 5		14
21	51I / 6		19
26	26 / 7		20
28	29 / 8		30
32	33 / 9		18
35	31 / 10		18
36	41 / 11		12
40	39 / 12		14
43	48 / 13		9
45	42 / 14		10
52	53 / 15		12
54	56 / 16		11
57	51 / 17		12
60	60 / 18		6
64	64 / 19		9
67	63 / 20		8
70	70 / 21		1

ORBITER IN-FLIGHT ANOMALIES FOR THE FLEET

d) OV-104 Vehicle - Atlantis

Flight Sequence	Mission/ Flights per vehicle	Notes	In-flight anomally total
21	51J / 1		11
23	61B / 2		12
27	27 / 3		24
29	30 / 4		23
31	34 / 5		21
34	36 / 6		20
37	38 / 7		9
39	37 / 8		20
42	43 / 9		16
45	44 / 10		18
46	45 / 11		13
49	46 / 12		12
66	66 / 13		17
69	71 / 14		10
73	74 / 15		6

ORBITER IN-FLIGHT ANOMALIES FOR THE FLEET

e) OV-105 Vehicle - Endeavour

Flight Sequence	Mission/ Flights per vehicle	Notes	In-flight anomally total
47	49 / 1		36
50	47 / 2		26
54	54 / 3		15
56	57 / 4		21
59	61 / 5		14
62	59 / 6		11
65	68 / 7		12
68	67 / 8		7
71	69 / 9		6

ORBITER IN-FLIGHT ANOMALIES FOR THE FLEET

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

Flight Sequence	Mission/ Flights per vehicle
OV-102/17	470
OV-099/10	263
OV-103/20	314
OV-104/13	232
OV-105/8	148
Projects total	1427

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
MSFC	40-16	102		40RF13	LH2 UMBILICAL GUIDE PIN BUSHING DISLOGED
V00GEN	8-29	099		NONE	CABIN DEBRIS AND DUST
V00GEN	55-16	102		NONE	SPOC PGSC DATA INPUT PROBLEM
V00GEN	61A-13	099		NONE	STREAM OF PARTICULATE MATTER STRUCK THE ORBITER
V00GEN	41D-06	103		NONE	WATER & FIRE DAMAGE AFTER SSME ABORT SHUTDOWN
V00GEN	9-20	102		NONE	NOISES AND OSCILLATIONS REPORTED BY CREW
V00GEN	8-28	099		NONE	PAYLOAD BAY DEBRIS AFTER PAYLOAD DEPLOY
V00GEN	6-34	099		NONE	ODOR IN CABIN NEAR MLR
V00GEN	6-20	099		NONE	T-ZERO UMBILICAL DAMAGE
V00GEN	4-19	102		NONE	ORB TORQUING PRODUCED ATTITUDE EXCURSIONS
V00GEN	3-41	102		NONE	HIGH WINDS ALOFT ON "WAVE OFF" DAY
V00GEN	2-49	102		NONE	ODOR IN THE CREW CABIN FROM WET TRASH
V00GEN	2-33	102		NONE	ORB TOUCHDOWN 3300 FEET SHORT
V00GEN	1-53	102		NONE	ORB LATERAL OSCILLATION AT 1.6 MACH
V00GEN	1-37	102		NONE	ORB TOUCHDOWN 3200 FEET LONG
V00GEN	1-35	102		NONE	ORB FIRST ROLL OVERSHOOT POORLY DAMPED AT 12 PSF
V00GEN	41B-28	099		NONE	TM FORMAT LOAD 161 HDR PROCESSING ERROR
V00PAY	41G-21	099		NONE	SIR-B ANTENNA OUTER LEAF DIVERGENT OSCILLATION
V00PAY	7-03	099		NONE	ANIK SUNSHIELD HUNG-UP DURING CLOSURE
V00PAY	7-17	099		NONE	VIBRATION DURING PALAPA SPIN-UP
V00PAY	7-35	099		AC5725	SPAS ELECTRICAL DISCONNECT STOWED TALKBACK
V00PAY	41B-08	099		NONE	INTEGRATED RENDEZVOUS TARGET (BALLOON) FAILED
V00PAY	41C-17	099		NONE	FSS KEEL RETENTION LATCH DRIVE MOTOR LOST PHASE
V01GAS	4-09	102		04F015	GET AWAY SPECIAL ACTIVATION UNSUCCESSFUL
V01GAS	5-06	102		NONE	GET AWAY SPECIAL ENCODER ON WRONG PANEL
V01OEX	2-25	102		HED0019	OEX RECORDER BELT MIS-TRACKED
V01OEX	2-42	102		HED0020	AFT FUSELAGE GAS SAMPLER BOTTLES
V01OEX	41G-24	099		HEN0047	ACIP FAILED PRELAUNCH
V01OEX	51B-25	099		HEN0049	ACIP X-AXIS ANGULAR ACCELEROMETER FAILED HI
V01TDR	29-05	103		29RF05	PI CH 1 ERRONEOUS READING
V05AFO	30-24	104		NONE	ELECTRICAL DISCONNECT PURGE PORT PROTECTIVE TAPE NOT REMOVED
V05AOO	38-06	104		38RF06	RH VENT DOOR 1 & 2 PURGE FAILURE
V05ARO	31-14	103		KB1231	AFT COMPARTMENT HELIUM CONCENTRATION HIGH
V05NBK	2-45	102		NONE	LH WING VENT RELIEF DOOR OPENED
V05NBR	1-51	102		01F031	RH WING VENT DUCT STRUCTURAL FAILURE
V05NBU	1-51	102		01F031	LH WING VENT DUCT STRUCTURAL FAILURE
V05NCC	2-45	102		NONE	RH WING VENT RELIEF DOOR OPENED
V05OOO	31-17	103		GFE	5 OF 6 GAS SAMPLER BOTTLES LEAKED
V05OOO	37-V-14	104		37RF13	ABNORMAL O2 CONCENTRATION AFT FUSELAGE
V06AOO	40-V-02B	102		40RF02	1307 BULKHEAD THERMAL BLANKET LOOSE
V06AOO	30-20	104		30RF27	1307 BULKHEAD BLANKET DAMAGE
V06AOO	55-V-09	103		55RF11	LOOSE THERM. COVER ON TUNNEL ADAPTOR HATCH
V06AOO	29-25	103		29RF24	AFT (1307) BULKHEAD THERMAL BLANKETS LOOSE
V06FOO	51A-23	103		NONE	PAYLOAD BAY BLANKETS AND METAL DISCOLORED
V06OOO	58-09	102		NONE	SSME 1 & 2 DOME-MTD HT SHLD BLKT DAMAGE
V06OOO	50-V-27	102		50RF16	PROTRUDING PLBD DOGBONE SEAL
V06OOO	47-V-13	105		NONE	RUDDER SPEED BRAKE TPS DISPLACED
V06OOO	47-V-28	105		NONE	CHIN PANEL THERMAL EFFECTS
V06R	2-43	102		NONE	STAR TRACKER CAVITY THERMAL BLANKETS DISCOLORED
V09BOO	26-13	103		26RF13	RT WING "6 X 18" TPS LOST DURING/ASCENT
V09OOO	45-V-08	104		45RF05	DAMAGE RT RCC PANEL #10
V09OOO	28-31	102		28RF33	LOOSE FOAM ON ET, LO2 UMBILICAL
V09OOO	28-26	102		NONE	POSSIBLE ORBITER STRUCTURAL HEAT DAMAGE
V09TPS	51F-15	099		NONE	TPS DAMAGE DURING ASCENT
V09TPS	61B-07	104		NONE	TPS BLANKET LIFTED ON UPPER LEFT WING
V09TPS	51J-07	104		23F009	TPS DAMAGE ON LH INBD ELEVON AND NOSE CAP
V09TPS	51G-11	103		NONE	TPS DAMAGED BY DEBRIS
V09TPS	51C-10	103		NONE	TPS HAD A LONG GOUGE UNDER THE LEFT WING
V09TPS	51B-26	099		NONE	LH OUTBD ELEVON TILE SLUMPED & GAP FILLER BREACHED
V09TPS	51B-06	099		24F001	RIGHT OMS POD TPS PROTRUSION
V09TPS	41G-25	099		17F015	MISSING TILE IN THE LH WING GLOVE AREA
V09TPS	41G-05	099		17F010	THERMAL PROTECTION SYSTEM DAMAGED ON OMS PODS
V09TPS	41B-27	099		NONE	TPS DAMAGE TO LH OMS POD AND NOSE AREA
V09TPS	8-27	099		NONE	TPS DAMAGE TO TILE, SSME INSULATION & ARCS AFRSI

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V09TPS	7-27	099		NONE	TPS DAMAGE TO LOWER SURFACE, FRSI, AFRSI, AND TILES
V09TPS	6-05	099		NONE	TPS DAMAGE TO OMS PODS AND NEAR WINDOWS & NOSECAP
V09TPS	4-29	102		04F026	HRSI TILE ON BODY FLAP DEGRADED BY AFT VRCS
V09TPS	4-01	102		NONE	ORBITER SURFACE TPS HAIL STORM DAMAGE
V09TPS	3-16	102		NONE	TILES LOST FROM FWD FUSELAGE & UPPER BODY FLAP
V09TPS	2-19	102		02F022	TPS DAMAGE DURING ASCENT, ENTRY AND LANDING
V09TPS	2-19	102		02F031	TPS DAMAGE DURING ASCENT, ENTRY AND LANDING
V09TPS	2-19	102		02F024	TPS DAMAGE DURING ASCENT, ENTRY AND LANDING
V09TPS	1-32	102		01F015	OMS POD SKIN STRUCTURE DELAMINATED
V09TPS	1-09	102		NONE	TILE FAILURE ON OMS POD
V09TPS	9-32	102		NONE	LH OMS POD TPS DAMAGE
V09TPS	51I-13	103		NONE	RH OMS POD AFRSI STRIP LOOSE
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
V19KAC	64-08	103		NONE	RT & LT MLGD THERM. BARR. ASSEM. FELL OUT
V19WAA	1-49	102		NONE	RIGHT-HAND MAIN LANDING GEAR DOOR BUCKLED
V22B	3-46	102		AC3037	VERTICAL TAIL GRAPHITE SEAL TABS BROKEN
V23A	7-37	099		NONE	RUDDER SPEEDBRAKE SEALS DAMAGED
V29OOO	62-12	102		62RF17	CRACKED TPS TILES ON THE VERTICAL TAIL
V31AAA	2-39	102		NONE	LH FORWARD WINDOWS DEGRADED BY SALT SPRAY
V31OOO	49-V-36	105		NONE	WINDOW 1 CHIPPED ON-ORBIT
V32AOO	62-10	102		62RF12	NLGD THERMAL BARRIER DEBOND
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 PARTICLES
V33ADB	66-15	104		66RF18	DMGD TILE ALONG AFT EDGE WINDOW 8
V33ADB	68-01	105		68RF08	MISSING TILE ALONG AFT EDGE OF PT OVHD WDW
V33ADC	51A-19	103		NONE	RH OVERHEAD WINDOW (W7) TOOK 1/32-IN. DIAMETER HIT
V33AOO	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
V33XXX	51D-16B	103		NONE	LOCKER MA16N DID NOT CLOSE PROPERLY
V33XXX	61B-11A	104		NONE	PANEL FOR ACCESS TO IMU FILTERS MISALIGNED
V33XXX	51D-16A	103		NONE	AV ACCESS PANEL R17 FASTENERS FAILED
V33XXX	41G-22A	099		09F025	VOL. "G", "H" AND WCS DOOR PROBLEMS
V33XXX	41B-15	099		11F012	STORAGE MD23R WCS & IMU FILTER DOOR DIFFICULTIES
V33XXX	9-31	102		09F025	WCS DOOR OPENED DURING ENTRY
V33XXX	9-04	102		NONE	CABIN/SPACELAB HATCH D LEAKED
V33XXX	61B-11B	104		11F012	VOLUME "H" LOCKER (MD23R) HAD TO BE PRIED OPEN
V33XXX	27-18A	104		NONE	CREW COULD NOT RE-ENGAGE 4 OR 5 VOLUME H DOOR FASTENERS
V33XXX	51D-16E	103		NONE	CREW INTRFC. EQUIP. PROB.: E. PERSONAL HYGIENE DOOR CLOSURE
V33XXX	63-08	103		IPR-70V-0006	SPACEHAB PRESS DECAY DURING EVA
V33XXX	51D-16D	103		NONE	CREW INTRFC. EQUIP. PROB.: D. FORGN OBJECTS BEHIND IMU ACCESS PANEL
V33XXX	27-18B	104		NONE	WET TRASH DOOR & ACCESS HATCH CLOSING
V34SAC	9-38	102		NONE	MID FUSELAGE BONDLINE TEMP (V34T1108A) ERRATIC
V35OOO	47-V-22	105		NONE	ORBITER PULLED LEFT AT DRAG CHUTE DISREEF
V35OOO	30-21	104		NONE	AFT FUSELAGE TEMP LOW PRELAUNCH
V36OOO	41-12	103		41RF09	LOST 6-INCH SECTION OF PLBD AFT SEAL
V36OOO	35-16	102		NONE	PLBD ENVIRONMENTAL SEAL BECAME DEBONDED
V36OOO	40-V-09	102		40RF08	LOOSE TUNNEL HATCH THERMAL COVER
V36OOO	56-V-05	103		56RF02	AFT BULKHEAD THERMAL BLANKET LOOSE
V37	1-45	102		NONE	PAYLOAD BAY DOOR CLOSURE OVERLAP
V37000	66-02	104		66RF02	STBD PLBD AFT RTL 3 AND CLOSE 2 IND. FAILED ON
V37500	63-05	103		63RF05	PORT RAD LTCH 1-6 ACT. LTCH A IND. TOGGLE
V37AGA	3-09	102		03F007	LH PLBD AFT BULKHEAD ACTUATOR STALLED
V37AGA	4-13	102		04F005	LH PLBD AFT BULKHEAD ACTUATOR STALLED
V37AOO	61-14	105		KB2912	BROKEN DOGBONE RETAINING ANGLE
V37B	51I-17	103		27F010	STARBOARD PAYLOAD BAY DOOR CLOSED SLOW

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
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
V37DOO	29-09	103		29RF07	PLBD PORT B CLOSE INDICATION FAILED
V37DOO	27-16	104			RH PLBD LATCH "B" INDICATOR
V37DOO	26-11	103		26RF05	STARBD PLB FWD READY-TO-LATCH INDICATOR FAILED
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
V37GOO	57-14	105		NONE	PLBD LATCH MICROSWITCH FAILURES
V37OOO	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
V38OOO	34-19	104		34RF17	RH VENT DOOR 3 MOTOR 1 OPNS ON 2 PHASES
V38OOO	47-V-01	105		NONE	AFT H2 CONCENTRATION EXCEEDED LCC
V39AAA	1-44	102		NONE	NLG DOOR THERMAL BARRIER FELL OFF
V39OOO	33-11	103		33RF13	-Y STAR TRACKER BLANKET DETACHED
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 OVERHEATED
V41A	41D-05	103		NONE	SSME 3 SERVO ACTR MISCOMPARE ON MAIN FUEL VLV CH A
V41A	2-32	102		NONE	MOISTURE IN SSME'S DURING ENTRY
V41CAA	51I-15	103		27F013	SSME 1 LH2 PUMP 1 CIRCUIT BREAKER TRIPPED
V41CAA	51I-04B	103		27F006	SSME 2 LH2 PUMP SPEED (V41R1215A) FAILED
V41CAA	30-03	104		30RF01	SSME 1 LH2 RECIRC PUMP FAILURE
V41CAA	41D-03C	103		AC8374F	SSME 2 LH2 PUMP SPEED SENSOR (V41R1215A) FAILED
V41CAE	4-02	102		AC3363	MPS LO2 OVERBOARD BLEED VLV CLOSE B INDICATOR FAIL
V41CHA	7-01	099		07F003	MPS LH2 HIGH-POINT BLEED DISCONNECT LEAKED
V41D	49-V-13	105		49RF11	ENGINE 1 & 2 PREVLV EXCESSIVE PRESS DROP
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
V41DLD	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 55RF05	LH2 4-INCH ORB/ET DISCONNECT SLOW CLOSURE
V41DOO	55-V-01B	102		KB2654 55RF05	LH2 4-INCH ORB/ET DISCONNECT - MECO
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		AD0421	MPS 3 LH2 PREVALVE FAULTY INDICATIONS
V41EHA	1-30	102		01F067	LH2 T-ZERO UMBILICAL GND FILL DISCONNECT SEAL LEAK
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
V41EOO	27-03	104		27RF03	LH2 TOPPING VALVE SHOWED SIMULTANEOUS OPEN/CLOSED
V41EOO	29-28	103		29RF29	LH2 OTBD FI&DR VLV SLO CLOSE AT DUMP TERMINATION
V41EOO	32-25	102		IM32RF26	MPS LH2 FILL AND DRAIN RELIEF VALVE LEAK
V41ETC	43-V-16	104		43RF14	RT. MAIN ENG. LO2 INLET REPRESSED TO 33 PSIA DURING ENTRY
V41ETC	3-39	102		03F035	MPS 3 LO2 BLEED SYS CK VLV FOR POGO RECIRC FAILED
V41G	7-36	099		NONE	MPS HELIUM PNEUMATIC SYSTEM LEAKAGE
V41G	51C-02	103		NONE	HELIUM LEAK IN MID-BODY
V41G	41G-23	099		NONE	MPS HELIUM PNEUMATIC SYS PRESSURE DECAYED
V41G	6-26	099		NONE	MPS 3 LEG A HELIUM REG OUT PRESSURE RISE
V41G	51B-21	099		NONE	MPS HE SYS DECAY RATE HI DURING ENTRY REPRESS
V41GCM	27-26	104		KB0578	MPS HELIUM CHECK VALVE STUCK OPEN
V41GCP	65-09	102		NONE	HI MPS HE USE DURING ENTRY
V41GCW	30-12	104		30RF19	MPS SSME REG OUTLET "B" C/V LEAK
V41GJA	58-04	102		58RF02	SSME 1 GH2 FLOW CONTROL VALVE SLUGGISH
V41GJB	6-17	099		06F008	MPS 1 GH2 FLOW CONTROL VALVE (LV56) HUNG UP
V41GJB	9-07	102		09F002	MPS 1 GH2 FLOW CONTROL VLV FAILED TO RSPD TO CMDS

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V41GJB	28-28	102		28RF29	MPS GH2 FLOW CONTROL VALVE E1 SLUGGISH
V41GJD	62-01	102		62RF01	SSME 3 GN2 FLOW CONTROL VALVE SLUGGISH
V41GJD	46-V-01	104		46RF01	ME-3 H2 FLOW CONT PRESS ANOMALY
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 G02 FLOW CONTROL VALVE (LV55) PARTIAL FAILURE
V41GOO	30-02D	104		NONE	SSME 3 GH2 PRESS SYS TEMP
V41GOO	30-02E	104		30RF08	CENTER ENGINE LH2 INLET PRESS XDUCER FAILED
V41GOO	30-02H	104		30RF12	LEFT ENGINE LH2 INLET PRESS XDUCER BIASED LOW
V41GOO	30-22	104		NONE	GO2 ENTRY PRESS LAGGED MPS LO2 REPRESS
V41GOO	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
V41GUD	71-V-04	104		71RF03	MN ENG 3 GH2 FCV SLUGGISH
V41GVZ	56-V-01	103		56RF01	LH2 HI-PT. BLEED VLV FAILED TO IND. CLOSED
V41HOO	65-08	102		NONE	LH2 MFLD PRESS FOLLOWING VAC. INERT
V41JCF	41B-30	099		NONE	SSME 3 ATVC YAW CHANNEL 4 BYPASSED
V41JOO	29-23	103		29RF23	HYDRAULICS LEAK IN AFT COMPARTMENT
V41KAD	1-31	102		NONE	MPS H2 TOPPING VALVE SLOW CLOSURE
V41KAP	71-V-03	104		71RF02	SLOW CLOSURE OF MPS E1 LH2 RECIRC VALVE
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
V41KEJ	27-24	104		27RF05	SLOW LH2 FILL/DRAIN VALVE CLOSURE
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
V41L	41C-03A	099		13F006	ET LH2 100% FILL SENSOR (T41X1718E) INTERMITTENT
V41L	8-06F	099		08F015	ET LH2 ULL PRESS 1(T41P1700C) & 3(T41P1701C) STICKY
V41L	8-06D	099		NONE	TEMP 2 SENSOR (E41T1154A) SSME 1 MFV FAILED
V41L	7-02F	099		07F031	ET LH2 ULLAGE PRESS (V41P1700C) STICKY
V41L	6-01J	099		06F036	ET LO2 100% LEVEL SENSOR (T41X1768E) FAILED WET
V41L	5-05B	102		NONE	TEMP SENSOR (T41T1705A) ET LH2 ULLAGE FAILED HIGH
V41LBC	51A-02	103		NONE	MPS 3 HELIUM REG A OUT PRESSURE (V41P1354A) READ LO
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
V41LEA	66-08	104		66RF09	SSME 1 H2 INLET PRESS RESPONSE
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	41G-03A	099		17F001	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED HI
V41LGB	51I-04A	103		24F002	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED
V41LGB	51G-01A	103		NONE	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED
V41LGB	51B-03A	099		24F002	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED
V41LGB	41C-03C	099		13F003	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED HI
V41LGB	41B-02A	099		11F001	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED HI
V41LGB	8-06A	099		08F002	PRESS TRNSDR MPS 2 GH2 OUTLET(V41P1260A)FAILED HIGH
V41LGB	7-02C	099		07F006	PRESS TRNSDR MPS 2 GH2 OUTLET(V41P1260A)FAILED HIGH
V41LGB	6-01B	099		06F004	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A) FAILED
V41LGB	2-06	102		02F008	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A)FAILED HIG
V41LGB	1-06	102		01F037	PRESS TRNSDR MPS 2 GH2 OUTLET (V41P1260A)FAILED LOW
V41LGB	51F-03A	099		26F002	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	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	3-10A	102		03F028	TEMP SENS MPS 2 GH2 PRESS OUT (V41T1261A) FLD HIGH
V41LKE	61C-04A	102		32F001	TEMP SENS MPS 2 GH2 PRESS OUT (V41T1261A) FAILED

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V41LKE	51C-03B	103		20F003	TEMP SENS MPS 2 GH2 PRESS OUT (V41T1261A) FAILED
V41LKE	1-06	102		01F046	TEMP SENS MPS 2 GH2 PRESS OUT(V41T1261A) FLD HIGH
V41LKG	41D-09A	103		14F001	TEMP SENS MPS 3 GH2 PRESS OUT (V41T1361A) FAILED HI
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
V41LOO	26-04H	103		NONE	ET LH2 98 PERCENT LIQ LEV SENSOR FLASHING
V41NOO	27R-13	104			MPS LH2 MANIFOLD PRESS BELOW REG SET POINT
V41OOO	32-06	102		IM32RF07	GOX FLOW CONTROL VLV 2 SLUGGISH
V41OOO	52-V-02	102		52RF02	ENG 2 LOX INLET TEMP SENSOR FAIL
V41OOO	47-V-04	105		47RF02	ME1 LH2 INLET PRESS XDUCER FAIL
V41OOO	43-V-13	104		43RF11	MPS LH2 4 IN. DISC. PORTION OF SEAL STUCK IN FLAPPER
V41OOO	28-29	102		28RF30	GOX PRESS MANIFOLD SLOW TO PRESS
V41OOO	46-V-05	104		46RF06	GO2 MANIFOLD DELAY
V41XXX	45-V-02	104		IPR-45V-0139	GND LO2 LK - AFT O2 HIGH
V41XXX	45-V-01	104		IPR-45V-0138	GND LH2 LK - AFT H2 HIGH
V41XXX	41B-31	099		11F019	SSME 3 HE PANEL A ISOLATION VALVE LEAKED (LV5)
V42AOO	28-03	102		28RF03	VERNIER THRUSTER F5R ANNUNCIATED LEAK
V42AOO	28-07	102		28RF08	FWD RCS F5L HTR FAILED ON
V42AOO	48-V-06	103		NONE	FRCS MANIFOLD VALVE 2 PHASE C FAILURE
V42AOO	52-V-01	102		52RF01	F3L FAIL OFF AND LEAK
V42AOO	52-V-13	102		52RF08	FRCS FU MAN 3 MICROSWITCH CLOSED FAIL INDICATION
V42AWC	1-01E	102		01F048	FRCS FUEL FWD PNL HTR STAYED ON WITH NO TEMP RESP
V42AWD	1-01F	102		NONE	FRCS OXIDIZER FWD PANEL HEATER THERMOSTAT INACTIVE
V42AWL	41G-16	099		17F016	RH OMS OXIDIZER DRAIN LINE TEMP ERRATIC
V42B	1-17	102		NONE	FRCS THRUSTER FUEL INJ TEMPS LOWER THAN PREDICTED
V42BLS	2-30	102		02F011	FRCS B LEG OX REG PRESS LOCKUP HIGH
V42BLS	27-08	104			RCS OXID B HE REG SLOW RESPONSE
V42BOO	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
V42BQH	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) FAILED
V42BQL	51A-15	103		14F009	STS-41D CARRYOVER ITEM: B. FRCS FUEL ISO VLV 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 SLOW
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 DEFORMED
V42FUA	51I-10	103		27F004	PRIMARY THRUSTER-F1F CHAMBER FAILED OFF
V42FUA	73-V-03	102		73RF03	PRIMARY RCS THRUSTER F1F FAILED OFF
V42FUA	63-03	103		63RF03	PRCS THRUSTER F1F FAILED LEAK
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	41B-14	099		11F013	FRCS F3D HEATER THERMOSTAT SET POINT SHIFTED
V42FUH	4-22	102		AC3446	PRIMARY THRUSTER-F3D WATER INTRUSION
V42FUH	8-15	099		08F005	PRIMARY THRUSTER-F3D OX LEAK
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 HEATER FAILED ON
V42GAB	68-02	105		68RF01	RCS VERN. THRUSTER L5D OX TEMP ERRATIC
V42GAB	67-01	105		NONE	RCS VERN. THRUSTER L5D OX. TEMP. ERRATIC
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
V42GAG	68-03	105		68RF02	PRCS THRUSTER L3D FAILED OFF

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V42GAH	51-05	103		51RF05	AFT RCS THRUSTER L3L FAIL-OFF
V42GAJ	61-03	105		61RF03	RCS THRUSTER L2U FAILED OFF
V42GAK	6-15	099		06F009	PRIMARY THRUSTER-L2D FUEL LEAK
V42GAK	51D-03B	103		23F010	LH RCS THRUSTER L2D CHAMBER PRESS READ LOW
V42GAK	63-02	103		63RF02	PRCS THRUSTER L2D FAILED OFF
V42GAL	61A-10	099		30F007	PRIMARY THRUSTER - L2L INJECTOR HEATER FAILED
V42GAM	64-03	103		64RF02	PRCS THRUSTER L1A FAILED OFF/LOW PC
V42GAM	66-01	104		66RF01	ARCS THRUSTER L1A FAILED OFF
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	LRCS 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-O6	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
V42NAA	65-05	102		NONE	RCS VERN. THRUSTER R5D FAILED OFF
V42NAB	57-13	105		57RF09	R5D HEATER FAILED ON
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
V42NAD	67-02	105		67RF01	PRCS THRUSTER R4R FAIL LEAK
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
V42NAJ	71-V-07	104		71RF05	RCS THRUSTER R2U FAILED OFF
V42NAM	67-05	105		67RF03	PRCS THRUSTER R1A FAIL OFF
V42NAM	63-01	103		63RF01	PRCS THRUSTER R1U FAIL OFF/FAIL LEAK
V42NAN	29-01	103		NONE	THRUSTER R1U FAILED OFF DURING MATED COAST
V42NAP	51F-06	099		26F003	PRIMARY THRUSTER - R1R INJECTOR HEATER FAILED
V42NAP	54-V-05	105		54RF03	RCS R1R FAILED OFF
V42NAP	51-04	103		51RF04	AFT RCS THRSTR R1R PRESS XDUCER ABNORMAL
V42NAP	30-05	104		30RF14	RCS JET R1U FAILED OFF POST SEP
V42OOO	35-04	102		35RF02	LEFT RCS PANEL HEATER A FAILURE
V42OOO	47-V-09	105		47RF03	L5D LOW CHAMBER PRESS
V42OOO	50-V-01	102		50RF01	RCS JET L1U HTR FAILED ON
V42OOO	46-V-11	104		NONE	MANIFOLD 5 LRCS VALVES FAILED TO CYCLE
V42OOO	40-V-07	102		40RF06	L5L FAILED OFF
V42OOO	39-V-03	103		39RF03	F5R FUEL INJECTOR TEMP LOW
V42OOO	37-V-01	104		37RF01	JET R1U FAILED OFF
V42OOO	35-20	102		NONE	RCS VERNIER THRUSTER R5D FAILED OFF
V42OOO	38-07	104		38RF08	THRUSTERS R1U, R3D, R4U, F3L TRANSIENT LOW CH. PRESS
V42OOO	36-12	104		36RF14	THRUSTER R4R FAILED OFF
V42OOO	36-04	104		IM36RF07	RCS THRUSTER R3D FAILED OFF
V42OOO	36-06a	104		IM36RF09	R RCS MANIFOLD 1 OX ISO VALVE POSITION INTERMITTENT
V42OOO	36-06c	104		IM36RF09	L RCS OX XFD VALVE POSITION INTERMITTENT
V42OOO	36-06b	104		IM36RF09	L RCS OX TK ISO VALVE POSITION INTERMITTENT
V42OOO	31-03b	103		31RF06	RCS JET L3A OXIDIZER LEAK
V42OOO	31-03a	103		31RF03	RCS JET L3A FAILED OFF-OXIDIZER
V42OOO	47-V-03	105		47RF01	RCS JET L3A FAILED OFF
V42OOO	37-V-08	104		37RF07	LOW Pc, JETS L1U & L1L DURING INTERCONNECT
V42PFF	6-01F	099		NONE	RH ARCS AFT HOUSING THERMAL SW TEMP (V42T3304A) LOW
V42QB-	59-08	105		59RF14	R RCS FU MAN 4 ISO VLV FAIL TO IND CLOSE
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 MISCOMPARE
V42QBF	1-21	102		01F033	RH ARCS FUEL MTR ISO VLV POS MICROSWITCH FAILED
V42QBT	51G-04A	103		13F001	RH ARCS FUEL 3/4/5 CROSSFEED VLV OPEN IND FAILED

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V42QBT	51A-04	103		13F001	RH ARCS 3/4/5 FUEL CROSSFEED VLV DID NOT IND CLOSE
V42QBT	41D-18	103		13F011	RH ARCS FUEL 3/4/5 CROSSFEED VLV DID NOT IND OPEN
V42QBV	51A-04	103		13F001	RH ARCS 3/4/5 OX CROSSFEED VLV DID NOT IND CLOSE
V42QBV	66-11	104		66RF14	LFT RCS 3/4/5 XFEED FUEL VLV OPS.
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		AD0419	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		AD0419	R RCS HELIUM REG LEG B FAILED CLOSED
V42QCK	9-17	102		NONE	RH ARCS OXIDIZER PRI REG B INTERNAL LEAK
V42UAM	64-09	103		64RF09	SLOW PRESS RISE ON PRCS THRUSTER F4D
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 FLD
V43AFK	51G-1C	103		NONE	LH OMS FEED LINE TEMP (V43T4216A) INCREASED
V43AOO	27-11	104			LEFT OMS GN2 ISOL VALVE COIL FAILED
V43AOO	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-O7	099		NONE	LH OMS POD OX TANK AFT & TOTAL QUANTITIES FAILED
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
V43EBC	61-04	105		61RF06	LOMS TOTAL FUEL QUANTITY INCORRECT
V43EBC	51A-15E	103		NONE	STS-41D CARRYOVER ITEM: E. R OMS FUEL QTY FAIL
V43EBC	51C-04A	103		NONE	STS-51A CARRYOVER ITEM: A. L OMS FUEL QTY FAIL
V43EBC	51C-04B	103		NONE	STS-51A CARRYOVER ITEM: B. R OMS FUEL QTY FAIL
V43EBC	51A-15A	103		14F005	STS-41D CARRYOVER ITEM: A. L OMS FUEL QTY FAIL
V43EOO	29-18	103		29RF18	LH OMS FUEL GAGE UNGAGEABLE QUANTITY
V43GAA	58-03	102		NONE	LOME PRESS XDUCER FAILED OFF-SCALE LOW
V43GAD	51I-18	103		NONE	LH OMS YAW PRIMARY ACTUATOR STOPPED MOVING
V43GAD	9-01	102		09F001	LH OMS SEC PTCH ACTUATOR DID NOT RESPOND TO PROFILE
V43GAD	26-1	103		26RF16	LEFT SECONDARY TVL, RPC NO. 1 GIMBAL DID NOT DRIVE
V43GAF	6-04	099		06F029	LH OMS ACT CONTR DRIVER OUTPUT TRANSISTOR SHORTED
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 FAILED
V43H	41D-21	103		07F026	RH OMS OX LOW PT DRAIN LINE HTR B THERMOSTAT FAILED
V43H	51B-12	099		24F017	RH OMS OX LOW POINT DRAIN LINE HTR SET PT DRIFTED
V43HFL	8-06B	099		NONE	TEMP SENSOR, RH OMS FUEL TANK (V43T5315A) ERRATIC
V43HFL	7-02E	099		NONE	TEMP SENSOR RH OMS FUEL TANK (V43T5315A) READ LOW
V43HFN	61-02	105		61RF04	ROMS He TK PRESS INDICAITON FAILED LOW
V43HGG	51L-04	099		NONE	R5D OX INLET LINE TEMP (V42T3560A) FAILED
V43HOO	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
V43JBD	51A-15	103		NONE	STS-41D CARRYOVER ITEM: C. R OMS FUEL TANK ISO VLV FAIL
V43JBH	41C-07	099		13F001	RH OMS FUEL TANK ISO VLV SYS A POS IND MISCOMPARE
V43JBH	51F-14	099		13F001	RH OMS CROSSFEED LEG "A" FUEL MICROSWITCH FAILED
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 FAILED
V43JBL	41D-24	103		13F001	RH OMS CROSSFEED B OX, FU NO OPEN OR CLOSE IND
V43JBL	51A-15	103		NONE	STS-41D CARRYOVER ITEM: F. R OMS FUEL & OX FAIL
V43JCF	51F-16	099		26F008	RH OMS ULLAGE PRESSURE HIGH
V43JOO	33-04D	103		33RF10	R OMS QNTY OFF-SCALE HIGH
V43MBC	30-08	104		30RF16	RT OMS FUEL TOTAL QUANTITY GAGE FAILED
V43MBC	28-17	102		28RF21	R OMS FUEL QUANTITY GAUGE HIGH
V43MBC	51J-06	104		28F010	RH OMS FUEL TOTAL QUANTITY READING OFFSET
V43MBC	51C-12	103		20F006	RH OMS FUEL AND OX QUANTITY GAGES WENT TO ZERO
V43MBC	7-18	099		07F012	RH OMS TOTALIZER FUEL AND OX FAILED
V43MBC	6-01C	099		06F024	RH OMS QUANTITY SENSOR OX TOTAL (V43Q5231C) STUCK

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V43MBC	5-05D	102		NONE	RH OMS QNTY SENS OX LEVEL (V43X5233X) FAILED LOW
V43MBC	1-07	102		01F096	RH OMS QUAN TOTALIZER FUEL AND OX STICKING
V43MBC	50-V-19	102		NONE	RT OMS FUEL TOTAL QTY BIAS HIGH
V43MBC	2-05	102		02F010	RH OMS QUAN TOTALIZER OX READ HIGH
V43MBC	51A-15G	103		NONE	STS-41D CARRYOVER ITEM: G. R OMS OX SCALE
V43MBC	51C-04C	103		NONE	STS-51A CARRYOVER ITEM: C. R OMS OX QTY BIASED
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		AD0448	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
V43OOO	46-V-09	104		46RF05	ROMS GN2 PRESS VALVE INDICATES OPEN
V43OOO	50-V-14	102		50RF07	OMS FU HIGH POINT BLEEDLINE TEMP HI ON A HEATERS
V43OOO	52-V-07	102		52RF06	ROMS GN2 LOW PRESS SYSTEM LEAK
V43VOO	40-V-04	102		40RF05	OMS XFEED HTR 'A' FAIL OFF
V43XJB	61B-03	104		NONE	OMS OX CROSSFEED LINE SYS A HEATER FAILED
V45A	9-13	102		09F016	EXCESSIVE GH2 IN THE FUEL CELL WATER
V45AAA	51I-04C	103		AC9809	FUEL CELL 1 HYDROGEN FLOW METER (V45R0170A) ERRATIC
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
V45AAA	61A-01	099		30F004	FUEL CELL 1 TCE UNSTABLE
V45AAA	51J-03A	104		NONE	FUEL CELL 1 HYDROGEN FLOW (V45R0170A) LOW
V45AAA	6-29	099		06F017	FUEL CELL 1 COOLANT PUMP DELTA P SWITCH FAILED ON
V45AAA	4-03	102		04F003	FUEL CELL 1 CONDENSER EXIT TEMP READ LOW
V45AAA	2-18	102		02F042	FUEL CELL 1 HYDROGEN FLOW METER READ LOW
V45AAA	2-08	102		02F001	FUEL CELL 1 FAILURE
V45AAA	41D-12	103		14F007	FUEL CELL 1 PERFORMANCE MONITOR FAILED
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 02 FLOW SENSOR FAILED OFF-SCALE LOW
V45ACA	2-12	102		02F002	FUEL CELL 3 OX FLOW METER (V45R0360A) ERRATIC
V45ACA	57-06	105		57RF03	FC3 H2 REACTANT VLV FAILED TO CLOSE
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
V45ACA	74--V-02	104		74RF04	FC3 CELL PERF. MONITOR SHIFT
V45AOO	37-V-11	104		37RF10	FUEL CELL 3 PH HIGH POSTLANDING
V45AOO	42-V-01	103		42RF01	FUEL CELL 2 H2 PUMP MOTOR FAIL
V45AOO	45-V-04	104		45RF02	FUEL CELL 3 PERFORMANCE MONITOR FAILED
V45AOO	47-V-08	105		NONE	FUEL CELL H2O RELIEF LINE TEMP ERRATIC
V45BAO	56-V-02	103		48RF03	FC1 02 REACT VLV FALSE CLOSE INDICATION
V45CAJ	29-16	103		29RF-16	FUEL CELL 1 H20 RELIEF VALVE TEMP OVERSHOOT
V45CAR	4-30	102		NONE	FUEL CELL 2 H20 RELIEF VLV HEATER B FAILED
V45DAA	66-03	104		66RF04	FC 2 ALT H2O LINE CHECK VLV LEAKAGE
V45DAH	1-23	102		NONE	WATER RELIEF NOZZLE TEMP HIGH
V45DAO	27-12	104			FUEL CELL 2 ALT H20 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
V45JBA	59-03	105		59RF09	B) H2 TK 2 CHECK VALVE STICKY
V45JOO	28-05C	102		28RF06	FUEL CELL 1 H2 FLOW ERRATIC
V45JOO	37-V-03	104		37RF03	PRSD O2 MAN. VLV 2 FAILED TO CLOSE
V45JOO	40-V-08	102		40RF07	H2 TANK 3 HTR 'A' FAIL OFF

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V45JOO	49-V-02	105		49RF02	PRSD O2 MANIFOLD 1 ISOL VLV FAILED OPEN
V45JOO	52-V-04	102		50RF18	PRSD O2 TK 2 HTR A2 ERRATIC
V45JXX	62-04	102		62RF04	PRSD H2 TANK 6 A HEATER FAILED
V45JXX	59-03	105		59RF05	A) H2 TK 5 CHECK VALVE FAILED TO SEAT
V45JXX	71-V-10	104		IPR-74V-0009	PRSD O2 TK5 HTR ASSY1 TEMP MEAS. EXCUR.
V45MAO	43-V-09	104		43RF07	PRSD H2 MANIFOLD VALVE 1 FAILED OPEN
V45MAO	71-V-05	104		71RF04	PRSD H2 MNFLD VALVE FALSE CLOSED IND.
V45MAO	71-V-02	104		71RF01	PRSD H2 MNFLD 1 ISO VALVE DID NOT CLOSE
V45MAO	73-V-08	102		73RF07	H2 MNFLD 1 ISO VLV FAILED OPEN
V45PAA	4-07	102		04F025	H2 TANK 4 HEATER A FAILED
V45PAA	3-01	102		NONE	H2 CRYO CONTROL BOX 1 RPC 2 FAILED ON
V45PAB	51D-01	103		23F012	CRYO O2 TANK 1 CONTROLLER AUTO MODE FAILED
V45PAJ	61A-02	099		30F005	H2 TANK 1 CONTROL PRESSURE FAILED
V45PAO	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
V45QAA	57-03	105		57RF05	PRSD 02 MANIFOLD 1 ISO VALVE FAILED
V45QAA	59-03	105		59RF10	C) O2 TK 1 CHECK VALVE STICKY
V45QAA	74-V-03	104		74RF05	PRSD 02 MNFLD 1 ISO VALVE FAILED TO CLOSE
V45QAO	50-V-12	102		50RF06	O2 TANK 7 CK VALVE STUCK OPEN
V45QAO	50-V-20	102		50RF19	O2 TANK 3 QTY XDUCER ERRATIC
V45QAO	47-V-06	105		47RF05	O2 TANK 4 HEATER CONT PRESS OFF-SCALE LOW
V45QAO	50-V-05	102		50RF18	O2 TANK 2 HTR A2 ERRATIC
V45QAO	34-12	104		34RF12	CRYO O2 MANIFOLD 2 ISO VLV DID NOT CLOSE
V45QAO	33-08	103		33RF09	CRYO O2 TANK 1 CHECK VALVE STICKY
V45QAO	50-V-08	102		50RF17 50RF08	O2 TANK 2 LEAK
V45QBA	60-04	103		60RF03	O2 TANK 2 QUANTITY SENSOR ERRATIC
V45QXX	62-06	102		62RF08	PRSD O2 TK 7 QUANT FAIL OFF-SCALE HIGH
V45TAO	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 MOMENTARILY
V46A	1-59	102		01F099	HIGH APU VIBRATION
V46AAA	41-03	103		41RF01	APU 1 GG/FP HEATER SYSTEM FAILED ON
V46AAA	31-01	103		31RF01	APU 1 TURBINE OVERSPEED
V46AAA	47-V-16	105		47RF06	APU 1 DRAIN LINE TEMP 2 LOW
V46AAA	36-03b	104		36RF04	APU 1 EGT 1 FAILED
V46AAA	36-03c	104		36RF05	APU 1 GGVM TEMP HIGH
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	31-11	103		31RF12	APU 1 FUEL PUMP/GGVM HTR SYS A THERMOSTAT SETPOINT CHANGE
V46AAA	50-V-22	102		50RF13	APU 1 GEARBOX N2 PRESS LOW DURING ENTRY
V46AAA	51J-03C	104		NONE	APU 1 GGVM TEMP (V46T0171A) FAILED
V46AAA	61-09	105		61RF09	APU 3 EGT 1 (V46T0342A) ERRATIC
V46AAA	43-V-12	104		43RF10	APU 1 ANOMALOUS CHAMBER PRESSURE DURING ENTRY
V46AAA	2-01	102		AC0878	APU 1 LUBE OIL OUTLET PRESS HIGH FILTER PLUGGED
V46AAA	61C-03	102		26F007	APU 1 GEARBOX GN2 PRESSURE HIGH
V46AAA	1-42	102		NONE	APU 1 LOW CHAMBER PRESS DURING ON ORBIT START
V46AAA	34-04	104		34RF05	APU 1 FAULT TO HIGH SPEED
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 HIGH
V46AAA	41B-02B	099		11F010	APU 1 GAS GEN INJ TEMP (V46T0174A) 600 DEG F LOW
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 HIGH
V46AAA	61A-04	099		26F007	APU 1 GEARBOX GN2 PRESSURE HIGH
V46AAA	73-V-09	102			APU1 FUEL PUMP INLET PRESS DECAY
V46AAB	61-05	105		61RF07	APU 2 FUEL PUMP/GGVM SYS A HEATER FAIL
V46AAB	44-V-11	104		NONE	APU 2 DRAIN LINE TEMPERATURE ROSE DURING ENTRY
V46AAB	44-V-10	104		44RF03	APU 2 DRAIN LINE PRESSURE DROP
V46AAB	59-09	105		59RF15	UNEXPLAINED APU 2 GRBOX GN2 BOTTLE PRESSURE CHANGES

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V46AAB	32-03d	102		IM32RF10	APU 2 GGT/INJ TEMP MISCOMPARE
V46AAB	27-04	104			APU 2 GG HEATER SYSTEM FAILED
V46AAB	9-26	102		09F013	APU 2 UNDERSPEED SHUTDOWN
V46AAB	7-02G	099		NONE	TEMP SENSOR (V46T0262A) APU 2 BEARING TEMP FAILED
V46AAB	1-59	102		01F099	APU 2 VIBRATION LEVELS HIGH
V46AAB	41G-03C	099		AC8752	APU 2 BEARING 1 TEMP (V46T0261A) FAILED
V46AAB	41B-26	099		11F018	APU 2 GG/FUEL PUMP HEATER SYS A FAILED OFF
V46AAB	74-V-01	104		74RF03	APU2 FUEL PUMP INLET PRESSURE ERRATIC
V46AAC	32-02	102		IM32RF02	APU 3 OIL OUTLET PRESSURE HIGH
V46AAC	62-02	102		62RF03	APU 3 PUMP INLET PRESS HIGH (V46P0310A)
V46AAC	61-13	105		61RF12	APU 3 HI LOAD DURING POSTLDG SHUTDOWN
V46AAC	61-01	105		61RF05	APU 3 X-AXIS ACCELROMETER DATA CLIPPED
V46AAC	51-08	103		51RF08	APU 3 BEARING TEMP 2 FAILED OFF-SCALE HI
V46AAC	54-V-10	105		54RF12	APU 3 BEARING TEMPERATURE ERRATIC
V46AAC	47-V-02	105		47RF04	APU 3 FU TEST LINE TEMP LOW
V46AAC	34-08	104		34RF09	APU 3 SEAL LEAK INTO DRAIN BOTTLE
V46AAC	31-08	103		31RF08	APU 3 PUMP BYPASS HTR A FAILED ON
V46AAC	51D-07	103		23F014	APU 3 SHUTDOWN LOAD ABNORMAL
V46AAC	41B-02C	099		11F007	APU 3 GAS GENERATOR PRESS (V46P0320A) 100 PSIA HIGH
V46AAC	7-20	099		07F010	APU 3 UNDERSPEED SHUTDOWN DURING ON ORBIT CHECKOUT
V46AAC	4-05	102		04F013	APU 3 LUBE OIL PRESS HIGH FILTER PLUGGED
V46AAC	4-05	102		04F010	APU 3 LUBE OIL PRESS HIGH FILTER PLUGGED
V46AAC	1-59	102		01F099	APU 3 VIBRATION LEVEL HIGH
V46AAC	1-42	102		01F056	APU 3 CHAMBER PRESS DURING ON ORBIT START
V46AAC	50-V-09	102		50RF05	APU 3 TEST LINE TEMPS LOW
V46AAC	71-V-09	104		71RF07	APU3 EXCESSIVE PRESSURIZATION
V46ADB	34-03A	104		34RF19	APU 2 EGT 1 FAILED
V46ADB	30-02G	104		30RF11	APU 1 EGT 2 FAILED
V46ADC	33-04C	103		33RF07	APU 3 EGT 2 FAILED DURING ENTRY
V46ADC	33-04B	103		33RF06	APU 1 EGT 2 FAILED DURING ENTRY
V46ADC	34-03C	104		34RF18	APU 3 EGT 2 FAILED LOW
V46ADC	34-03B	104		34RF04	APU 3 EGT 1 FAILED LOW
V46AEA	33-01	103		33RF01	APU 1 LUBE OIL OUT PRESS HIGH
V46AOO	26-12	103		26RF04	APU 3 LOW CHAMBER PRESS/HI FUEL USAGE
V46AOO	30-06	104		30RF15	APU 2 GG FUEL PUMP "A" HEATERS INOP
V46AOO	34-10	104		34RF11	APU 2 FUEL PUMP HEATER B CYCLING HIGH
V46AOO	34-03A	104		34RF03	APU 3 INJ TEMP BIAS LOW
V46AOO	62-03	102		62RF13	ANOMALOUS APU TEMPERATURE MEASUREMENTS
V46AOO	1-19	102		NONE	APU GG HEATER INJ & BED TEMPS TRIGGERED FDA ALARM
V46AOO	66-12	104		66RF15	APU 1 SUPPLY LINE TEMP. DECREASE
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
V46BLA	6-13	099		AC5531	APU 1 SEAL CAVITY DRAIN LEAK
V46BLB	51A-01	103		NONE	APU 2 WATER SPRAY VALVE SYSTEM A FAILED
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
V46BLC	7-09	099		AC5531	APU 3 SEAL CAVITY DRAIN LEAK
V46BLC	6-13	099		AC5531	APU 3 RELIEF VALVE LEAK
V46BLC	4-15	102		04F008	APU 3 RELIEF VALVE 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	36-03e	104		IM36RF20	APU 3 EGT 2 FAILED

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V46CDB	32-03b	102		IM32RF04	APU 3 EGT 2 FAILED
V46CDB	31-02c	103		IM31RF11	APU 3 EGT 2 FAILED
V46CDB	64-04	103		64RF03	APU 3 EGT 2 FAILED
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
V46DCO	33-16	103		NONE	APU 1 AND APU 3 BYPASS LINE "A" TEMPS ERRATIC
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 H20 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
V46OOO	39-V-11	103		39RF09	APU 2 LUBE OIL OUTLET PRESSURE LOW
V46OOO	49-V-33	105		PR APU-5-0047	APU 3 FUEL LINE TEMP CYCLED LOW
V46OOO	49-V-26	105		IPR-47V-0016	APU 1 INJ TEMP ER
V46OOO	49-V-25	105		49RF20	APU 3 GEARBOX GN2 PRESS LOW
V46OOO	45-V-11	104		IPR 46V-0006	APU 2 N2 PRESS LOW
V46OOO	45-V-03	104		45RF01	APU 3 Z AXIS VIBRATION SENSOR FAILED
V46OOO	39-V-02	103		39RF02	APU 2 FUEL PUMP/GGVM COOLANT VALVE FAILED TO OPERATE
V46OOO	45-V-05	104		45RF03	APU 1 BED HEATER ERRATIC
V46XXX	2-03	102		NONE	THERMOSTATS (10) HEATER SYSTEMS EXHIBITED DITHER
V47PVO	49-V-34	105		NONE	RADAR ALT 1 OUT-OF-TOLERANCE
V50OOO	49-V-22	105		49RF13	PORT AFT BULKHEAD PLBD LATCH INDICATOR FAIL
V50OOO	51-02	103		51RF02	PORT PSA SLIDING DOOR FAILURE TO CLOSE
V50OOO	49-V-17	105		IPR 47V-0017	PRLA 4 LATCH/UNLATCH INDICATOR 'B' FAILED
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 DUMP VALVE LEAKED AFTER LANDING
V51BAA	61B-12	104		NONE	NOSE LANDING GEAR STRUT LOW
V51BAD	59-01	105		59RF03	LMG DOOR UPLOCK INDCTN TEMPORARILY LOST
V51BCB	28-04	102		28RF04	NLG WEIGHT ON WHEELS SENSOR FAILED
V51BOO	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	41G-18	099		NONE	LH OTBD MLG TIRE HAD A FLAT SPOT
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	67-03	105		67RF02	LH MLG OTBD TIRE PRESS 1 OSL
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
V51CDB	59-10	105		59RF16	LH AND RH INBOARD TIRE DAMAGE
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 UPLOCK 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
V51OOO	47-V-12	105		47RF04	LHOB TIRE PRESS BIAS HIGH
V51SJA	51A-28	103		NONE	RH MLG DOOR BENT
V52AAA	43-V-14	104		NONE	RHOB BRAKE PRESSURE BIAS
V52AAA	41C-21	099		13F007	LH MLG OUTBD BRAKE DAMAGED

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V52AAA	41G-17	099		08F011	LH MLG OUTBD BRAKE ROTOR 3 CRACKED
V52AAA	51B-20	099		08F011	LH MLG OUTBD BRAKE DAMAGED
V52AAB	51B-20	099		08F011	LH MLG INBD BRAKE DAMAGED
V52AAB	41C-21	099		13F007	LH MLG INBD BRAKE DAMAGED
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
V52AAC	41B-29	099		11F006	RH MLG OUTBD BRAKE DAMAGED
V52AAC	51D-13	103		08F011	RH MLG OUTBD BRAKE DAMAGED
V52AAC	41G-17	099		08F011	RH MLG OUTBD BRAKE ROTOR 4 CRACKED
V52AAC	41D-27	103		14F019	OSCILLATING LINEAR ACCELERATION DURING LT BRAKING
V52AAC	41C-21	099		13F007	RH MLG OUTBD BRAKE DAMAGED
V52AAC	9-27	102		09F011	RH MLG OUTBD BRAKE DAMAGED
V52AAC	8-22	099		08F011	RH MLG OUTBD BRAKE RETAINER WASHERS BROKEN
V52AAC	7-24	099		07F013	RH MLG OUTBD BRAKE RETAINER WASHERS BROKEN
V52AAC	3-43	102		03F037	RH MLG OUTBD BRAKE ROTOR CRACKED
V52AAC	29-30	103		NONE	RH OUTBD BRAKE ROTOR CRACK
V52AAD	61C-14	102		08F011	RH MLG INBD BRAKE DAMAGED
V52AAD	1-27	102		01F076	RH MLG INBD BRAKE OVERPRESSURE COMMANDED
V52AAD	44-V-18	104		44RF10	HAIRLINE CRACKS ON RIGHT INBOARD BRAKE ROTOR
V52AAD	51D-13	103		08F011	RH MLG INBD BRAKE DAMAGED
V52AAD	41G-17	099		08F011	RH MLG INBD BRAKE ROTOR 4 CRACKED
V52AAD	8-22	099		08F011	RH MLG INBD BRAKE RETAINER WASHERS BROKEN
V52AAD	7-24	099		07F013	RH MLG INBD BRAKE ROTORS 3&4 BROKEN
V52AAD	41C-21	099		13F007	RH MLG INBD BRAKE DAMAGED
V52AAD	4-31	102		NONE	RH MLG INBD BRAKE ROTORS 3&4 DAMAGED
V52AAD	6-38	099		06F012	RH MLG INBD BRAKE STATORS CRACKED
V52AOO	52-V-16	102		52RF10	RHIB ROTOR 2 RIVET BUSHING DAMAGE
V52AOO	52-V-18	102		NONE	LEFT MAIN GEAR OUTBOARDD HEATER OVERTEMP
V52AOO	27-25	104		NONE	UNCOMMANDED BRAKE PRESSURE AFTER MAIN GEAR TOUCHDOWN
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
V52OOO	50-V-26	102		NONE	ROB BRAKE PRESS LAG
V52OOO	37-V-17	104		NONE	RH OTB BRAKE PRESS. LOW
V53AAO	71-V-06	104			LOW VESTIBULE DEPRESS RATE
V54AAA	60-05	103		60RF04	A) WSF LATCH 2 SW INDICATES RELEASE
V54AOO	8-33	099		NONE	BARREL NUTS LOOSE ON MID FUSELAGE FRAMES IN PAYLOAD BAY
V54BA	41C-20	099		NONE	RMS WRIST ROLL JOINT MOVED WHEN ARM IN PITCH MODE
V54BA	2-16	102		RMS1010	RMS SHOULDER YAW JOINT BACKUP MODE CABLE BROKEN
V54BA	41B-18	099		RMS1317	RMS WRIST JOINT FAILED
V54BC	3-22	102		NONE	RMS WRIST PITCH ENCODER CHECK GAVE FALSE ALARMS
V54BC	51I-05	103		RMS1319	RMS ELBOW JOINT FAILED TO RESPOND TO COMMANDS
V54BC	4-10	102		RMS1011	RMS END EFFECTOR STAT FLAGS INCORRECT, WIRES BROKEN
V54BC	3-30	102		NONE	RMS WRIST YAW SERVO PA COMMUTATOR BITE ALARM
V54BCO	57-11	105		NONE	RMS TO PAYLOAD PWR TRANSFER FAILURE
V54BCO	32-20	102		GFE	RMS 'BRAKE SLIP' MESSAGE
V54BCO	32-12	102		GFE	RMS MASTER ALARM - UNKNOWN
V54BCO	32-13	102		GFE	RMS 'CONT ERROR' MESSAGE
V54BCO	41G-19B	099		NONE	RMS: B. FOUR WARNING LIGHTS POPPED OUT DURING ASCENT
V54BCO	49-V-06	105		NONE	RMS FALSE ALARMS
V54BOC	PYLDS	103		60RF04	B) LOSS OF P/L SYS 2 LATCH INDICATION (XFER TO PAYLOADS)
V54C	8-04	099		08F017	RMS MPM FWD PEDESTAL DEPLOY SWITCH A RIG IMPROPER
V54CBX	3-12	102		03F008	RMS MPM AFT PDSTL 1 READY-FOR-LATCH IND SWCH FAILED
V54CBX	51A-07	103		19F007	RMS AFT MRL SYS 1 READY TO LATCH IND LOST
V54DOO	31-18	103		PR-RMS-3-11-0016	RMS END EFFECTOR SNARE WIRES APPROX 1/2" OUT OF GROOVES
V54FAA	41C-10	099		13F004	RMS DEPLOY SW FOR SHOULDER MPM PED WENT TO ZERO
V54FAA	61A-12	099		30F003	RMS DEPLOY SW FOR SHOULDER MPM PED WENT TO ZERO
V54OOO	41G-19A	099		NONE	RMS: A. WRIST ROLL ENCODER CHECK ALARM OCCURRED DURING POWER UP
V55FAJ	1-38	102		EP0046F	NASA STANDARD DETONATOR NOT FIRED, TIMING SKEW
V55FAR	51J-02	104		NONE	PORT MPM PYRO INITIATOR CKT FAILED SELF TEST
V55KBA	8-23	099		EE0055F	NOSE STRUT THRUSTER PISTON FOUND ON RUNWAY
V55OOO	45-V-12	104		PR PYR 4-12-0150	EO3 HOLE PLUGGER JAMMED
V55OOO	42-V-10	103		FIAR BFCE 028-F006	GAS BOTTLE PYROS DIDN'T FIRE

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V55RSS	2-48	102		NONE	RANGE SAFETY SYSTEM COMMAND RESPONSE PULSE MISSED
V56AAA	34-21	104		34RF22	R.H. STOP BOLT BENT ON CENTERING RING OF FWD SEP.
V56AAA	7-34	099		07F022	ET FWD ATTACH SHEAR BOLT OUTSIDE MOLD LINE
V56AOO	35-21	102		NONE	RH AFT SEPARATION HOLE PLUGGER FAILURE
V56AOO	41-07	103		41RF04	DEBRIS PLUNGER FAILURE
V56AOO	33-10	103		33RF12	FWD ATTACH PTS SYS A AND B CONNECTORS BROKEN
V56AOO	32-26	102		32RF27	FWD ET SEP ASSY CT MECH BOLT COMPRESSED
V56BAN	57-17	105		57RF08	FOAM ADHERED TO 17" LH2 UMBILICAL PLATE
V56BOO	44-V-14	104		44RF06	LOSS OF HARDWARE - ET LH2 UMBILICAL ATTACHMENT
V56DOO	27-02	104		27RF02	LEFT ET UMB DOOR READY TO LATCH OFF; S/B ON
V56E	51D-02	103		NONE	RH ET DOOR LATCHES A & B INDICATED OFF
V56E	51B-02	099		24F009	RIGHT ET DOOR MOTOR B INOPERATIVE
V56EAF	57-17A	105		57RF08/1B	FOAM LODGED IN 17" LO2 DOOR
V56EOO	40-V-11	102		40RF10	RH ET DOOR THERMAL DAMAGE
V56EOO	58-10	102		NONE	LO2 UMBILICAL LIGHTNING STRIP DETACHED
V56FOO	48-V-02	103		48RF02	ET DOOR CENTERLINE LATCH 1 MOTOR 2 FAILED
V56JBB	1-43	102		01F056	UMBILICAL RELEASE BLAST CONTAINERS CRACKED
V56JBO	29-19	103		29RF19	AFT SEP HOLE PLUGGER DID NOT MOVE FULL STROKE
V56JOO	34-20	104		34RF21	ET/ORB LOX AFT SEP HOLE PLUGGER FAILED
V56OOO	28-22	102		NONE	UMBILICAL WELL CAMERA INOP.
V56OOO	29-06	103		29RF06	EXCESS VAPOR AT H2 ET/ORB UMBILICAL
V56OOO	29-13	103		29RF12	LH2 4 INCH DISCONNECT SLOW TO CLOSE
V56OOO	37-V-13	104		37RF12	LH2 ET UMB. FWD. LIGHTNING STRIP DEBOND
V56OOO	30-18	104		30RF25	ET LO2 UMB YOKE AND DETONATORS
V56OOO	29-12	103		29RF11	17 INCH DISCONNECT LEAK
V56OOO	35-22	102		NONE	RH STOP BOLT FORWARD ET ATTACHMENT BENT
V56QAD	57-17C	105		KB2763	CRACK IN 17" LH2 CURTAIN ATTACH PLATE
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 FIGHT
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
V57OOO	35-24	102		NONE	POSTLANDING ICE ON RUDDER/SPEEDBRAKE PANELS
V57OOO	28-24	102		28RF27	BODY FLAP EXCESSIVE DEFLECTION
V57OOO	28-30	102		28RF31	EARLY TRANSITION
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 DEPLOY
V58AAD	9-03G	102		NONE	HYD RES PRESSURE 1 XDUCER (V58P0131A) FAILED
V58AAP	41G-01	099		17F003	HYDRAULIC ACCUMULATOR 1 PRESSURE DROPPED
V58AAP	41D-16	103		14F016	HYDRAULIC SYSTEM 1 UNLOADER VALVE MALFUNCTIONED
V58AAP	8-08	099		08F021	HYD SYS 1 ACCUMULATOR PRESS DROP
V58AAQ	57-21	105		NONE	HYDRAULIC SYS 1 PRIORITY VALVE SLUGGISH
V58AAQ	44-V-13	104		44RF05	HYDRAULIC SYSTEM 1 PRIORITY VALVE SLUGGISH
V58ABB	1-48	102		01F047	HYD PUMP SUCTION FLEX HOSE FITTING LEAKED
V58ACA	5-05A	102		05F004	WSB REG OUT PRESS FAILED
V58ACA	26-09	103		26RF12	WSB SYS 1 GN2 PRESS DECAY
V58ACA	29-11	103		29RF10	WSB 1 LEAK
V58ACA	26-19	103		26RF12	WSB SYS 1 GN2 TANK LEAK
V58ACA	34-03E	104		34RF20	WSB 3 REG OUT PRESS FAILED
V58ACA	51A-06	103		NONE	WSB 1 GN2 REG OUT PRESSURE DROPPED
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
V58ACA	35-19	102		NONE	WSB 2 WAX BUILDUP
V58ACA	8-17	099		NONE	WSB 1 GN2 PRESS REG RELIEF VLV LEAKED
V58ACC	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

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V58AOO	36-20	104		36RF23	HYD 1 RESERVOIR PRESS XDUCER STUCK
V58AOO	36-17	104		36RF19	HYD SYSTEM 1 PRESS LOW
V58AOO	36-08	104		36RF11	HYD SYS 1 LEAK
V58BAM	7-06	099		AC5702	HYD SYS 2 ACCUMULATOR PRESS DECAY
V58BAM	6-28	099		06F001	HYDRAULIC ACCUMULATOR SEAL GAS LEAK
V58BAM	27-14	104			HYD SYSTEM 2 ACCOM LOW
V58BAO	48-V-05	103		48RF05	HYDRAULIC SYSTEM 2 UNLOADER VALVE LEAK
V58BAQ	41-10	103		41RF07	HYDRAULIC SYSTEM 2 PRIORITY VALVE SLUGGISH
V58BBL	51B-03B	099		NONE	HYD SYS 2 MAIN PUMP PRESSURE B (V58P0215C) BIASD LO
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	9-03E	102		NONE	TEMP (V58T1650A) BODY FLAP DRAIN LINE READING LOW
V58BBS	6-01G	099		06F019	HYD RTN LINE TEMPS CROSSWIRED
V58BBS	6-01D	099		06F019	HYD RTN LINE TEMPS CROSSWIRED
V58BCA	37-V-02A	104		37RF02	WATER SPRAY BOILER 2A SPRAY BAR FREEZE
V58BCA	59-06	105		59RF01	WSB 2 FAILED TO COOL
V58BCA	47-V-10	105		NONE	WSB 2 REG OUTLET PRESS ERRATIC
V58BCA	37-V-02B	104		37RF15	WSB 2A LUBE OIL OVERCOOL
V58BCA	31-05	103		31RF05	WSB 2 VENT HTR A FAILED OFF
V58BCA	51J-04	104		28F009	WSB 2 REG PRESSURE DECAY
V58BCA	43-V-02	104		43RF02	NO COOLING ON WSB 2 ON ASCENT
V58BCC	38-01	104		38RF01	WSB 2 NOT COOLING ON CONTROLLER A
V58BCG	68-06	105		68RF03	WSB 1 GN2 REG PRESS DECAY
V58BCH	33-17	103		NONE	WATER SPRAY BOILER GN2 TANK PRESSURE DECAY
V58BCN	50-V-10	102		50RF09	CIRC PUMP 2 PRESS SENSOR DROPOUT
V58BCN	8-01	099		08F003	HYDRAULIC CIRC. PUMP 2 FAILED TO START
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
V58BOO	28-23	102		28RF26	HYD SYS 2 UNLOADER VLV OUT-OF-SPEC
V58BOO	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
V58CAN	68-07	105		68RF04	WSB 1 GN2 REG PRESS DECAY
V58CAO	68-10	105		68RF06	WSB SYS 3 LEAK
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	55-V-07	102		55RF10	ANOMALOUS HYD SYS 3 MN PUMP CASE DRN TEMP
V58CBA	54-V-08	105		54RF09	HYD SYS 3 PUMP OUT PRESS HI - POST ASCENT
V58CBA	69-V-06	105		IPR-72V-0008	HYD SYS 3 MAIN PUMP LOW PRESSURE
V58CCA	29-10	103		29RF09	WSB 3 LOW RELIEF VALVE RESEAT PRESS
V58CCA	3-04	102		03F002	WSB 3 FROZE - APU SHUTDOWN
V58CCA	2-04	102		NONE	WSB 3 FROZE DURING ASCENT
V58CCA	30-10	104		30RF18	WSB 3 NITROGEN PRESS DELAY
V58CCA	60-06	103		60RF06	INTERNAL LEAK THRU WSB 3 GN2 REGULATOR
V58CCA	54-V-01	105		54RF01	WSB 3 - NO COOLING
V58CCA	37-V-12	104		37RF11	WSB 3A OVERCOOL ON ENTRY
V58CCA	35-17	102		NONE	WSB 3A OPERATIONS ABNORMAL
V58CCA	32-23	102		32RF24	WSB 3 CONTROLLER A OVERCOOLING
V58CCA	61B-05	104		28F009	WSB 3 GN2 REG OUTLET PRESSURE DECAYED
V58CCA	9-06	102		NONE	WSB 3 LUBE OIL RET TEMP OVERSHOOT
V58CCA	7-22	099		07F014	WSB 3 WATER DEPLETED DURING ENTRY
V58CCA	74-V-06	104		74RF07	WSB 3 GN2 REG. OUTLET PRESS ERRATIC
V58CCA	73--V-02	102		73RF02	WSB 3 FAILED TO COOL
V58CCA	66-04	104		66RF05	WSB 3 GN2 REG OTLT PRESS DECAY
V58CCC	51B-01	099		24F013	WSB 3 CONTROLLER A INOPERATIVE
V58CCC	8-14	099		08F020	WSB 3-CONTROLLER EXTRA PULSES
V58CCC	61C-11	102		32F004	WSB-3 SYS A HEATER OPERATION ERRATIC
V58CEO	26-04E	103		26RF19	HYD 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

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V58KAA	4-06E	102		NONE	TEMP (V58T1143) FALSE RESPONSE TO CRYO
V58KAA	3-10	102		03F030	TEMP SENSOR (V58T1143) HYD SYS RTN BIASED LOW
V58OOO	29-26	103		NONE	HYD SYS 1 AND 2 ACCUM ASC PRESS LOCKED UP LOW
V58OOO	32-17	102		IM32RF17	WSB 2 AND 3 EXCESS REG PRESS DECAY
V58OOO	33-07	103		33RF08	HYD SYS 1 AND 2 ACCUM PRESS LOCKUP LOW
V58OOO	32-16	102		IM32RF16	HYD SYS 1 AND 2 CIRC PUMP UNLOADER VALVES LEAK
V59EAO	62-09	102		62RF11	FAILED OFF LEFT VENT DOOR 5 OPEN 2 IND
V59HAA	7-23	099		07F019	LH AIR DATA PROBE TEMPORARY HANG-UP
V59X	8-26	099		NONE	RH ET ATTACH BOLT HOLE PLUGGER HUNG UP-DEBRIS
V59X	1-29	102		NONE	RH ET DOOR STRIKE PLATE DISCOLORED
V60OOO	28-21	102		28RF25	CREW EXPERIENCED SNEEZING
V60OOO	50-V-02	102		50RF02	RCRS SHUTDOWN
V60OOO	27-09	104			CABIN TEMP CONTROLLER 2 CNTRL FROZEN
V60OOO	31-04	103		IM31RF04	SUPPLY WATER TANK BELLOWS STUCK
V60OOO	44-V-05	104		NONE	HUMIDITY SEPARATOR B WATER CARRYOVER
V60OOO	44-V-06	104		44RF02	SUPPLY WATER DUMP VALVE LEAK
V60OOO	40-V-03	102		40RF04	LIOH DOOR LATCH STUCK OPEN
V61AAA	1-28	102		01F036	02/N2 CONTROL PANEL-CROSSOVER VALVE LEAK
V61AAA	6-11	099		06F006	O2/N2 CONTROL PANEL-HIGH O2 & N2 FLOW
V61AAA	5-20	102		05F011	O2/N2 CONTROL PANEL-HIGH O2 FLOW
V61AAA	51B-17	099		NONE	HIGH O2 FLOW ON PRESSURE CONTROL SYSTEM 2
V61AAA	41C-18	099		NONE	ECLSS GN2 SYS 2 REGULATOR LOCKUP PRESSURE HIGH
V61AAA	7-04	099		06F006	O2/N2 CONTROL PANEL-HIGH O2 FLOW
V61AAA	6-30	099		06F034	O2/N2 CONTROL PANEL-O2 REGS LEAKING
V61AAA	1-14	102		NONE	02/N2 CONTROL PANEL-VALVE LEAK
V61AAA	67-06	105		IPR-69V-0015	PCS W2 HI-FLOW TRANSIENTS AFTER SW FROM O2 TO N2
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 CRYO
V61COO	49-V-04	105		49RF04	PCS O2 SYS 2 FLOWMETER FAILED
V61COO	49-V-24	105		IPR 47V-0023	PCS 1 N2 FLOWMETER OFF NOMINAL
V61COO	43-V-01	104		43RF01	CABIN VENT VALVE CLOSED INDICATION FAILED
V61COO	30-01	104		NONE	CABIN PRESSURE TRANSDUCER FAILED
V61COO	63-06	103		63RF06	CABIN PRESS SENSOR SHIFTED LOW
V61DAH	51L-03	099		NONE	PP02 SENSOR "A" FAILED
V61DAH	53-V-10	103		53RF04	PP02 SENSOR ERRATIC
V61DAL	8-30	099		08F016	LIOH CARTRIDGES-CREW IRRITATION
V61DAM	4-25	102		04F007	PP02 SENSORS RESPOND TO TRANSIENTS
V61DAN	49-V-16	105		49RF14	CABIN DP/DT SENSOR SLOW RESPONSE
V61DAN	1-54	102		NONE	CABIN DP/DT ALARM - ASCENT
V61EAE	43-V-11	104		43RF09	PPO2 SENSOR C FAILED
V61EAE	52-02	105		NONE	PP02 SENSOR B BIASED LOW
V61EAF	49-V-20	105		49RF17	CABIN HUMIDITY SENSOR FAILURE
V61EAJ	27-01	104		NONE	OI FAILURES: C. O2 FLOW XDUCER BIASED HIGH
V61GOO	60-01	103		60RF01	UNABLE TO PLACE DIFFUSER CAP INTO TUNNEL ADAPTER FLOOR FITTING
V61JAA	5-10	102		05F018	HUMIDITY SEPARATOR - RESTRICTED
V61JAA	32-07b	102		IM32RF15	HUM SEP A WATER LEAKAGE
V61JAA	51-03	103		51RF03	HUMIDITY SEPARATOR B WATER CARRYOVER
V61JAA	32-07a	102		IM32RF08	HUM SEP B WATER LEAKAGE
V61JAA	36-11	104		36RF13	FREE WATER NEAR HUMIDITY SEP A
V61JAA	27-05	104		27RF01	HUMIDITY SEPERATOR "B" FLOODED
V61JAA	6-39	099		NONE	HUMIDITY SEPARATOR - RESTRICTED
V61JOO	29-14b	103		29RF13	FES PRIMARY B OUTLET OSCILLATION
V61LAA	1-13	102		NONE	CABIN TEMP VARIATIONS
V61OOO	61C-10	102		32F003	O2 PRESS CONTROL SYS 2 FLOW SENSOR READ LOW
V61QAB	62-05	102		62RF05	WTR COOL LOOP 1 ACCUM QUANT XDUCER DRIFT
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
V61QOO	56-V-08	103		NONE	WATER BYPASS VALVE CONTROLLER SLOW
V61SOO	49-V-08	105		IPR 47V-0011	AV BAY 3 DELTA P HIGH
V62AAA	2-27	102		02F007	GAS IN WATER
V62ABA	30-23	104		NONE	HIGH IODINE CONCENTRATION IN DRINKING WATER
V62AEA	8-18	099		NONE	WATER TANK B UNSUCCESSFUL DUMP, ICE IN NOZZLE

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V62AEA	1-16	102		NONE	POTABLE WATER TANK QTY X'DUCER STUCK
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 DUMP
V62AJE	65-02	102		65RF02	SUPPLY H2O DUMP NOZZLE ICING
V62AJE	66-10	104		66RF10	ICE FORMATION DURING SUPPLY WTR DUMP
V62AOO	26-09	103		NONE	WSB 1 RELIEF VALVE LEAK
V62AOO	32-03f	102		32RF19	SUPPLY WATER TK B QTY DROPOUTS
V62AOO	28-20	102		28RF24	IODINE IN DRINKING WATER
V62AOO	35-05	102		35RF03	WASTE WATER DUMP DEGRADED AND FINALLY STOPPED
V62AOO	28-13	102		28RF15	SUPPLY H2O DUMPLINE T-STAT IMPROPER OPS.
V62AOO	28-05E	102		28RF18	SUPPLY WATER TANK B QUANTITY ERRATIC
V62AOO	39-V-08	103		39RF07	SUPPLY WATER DUMP NOZZLE TEMP DROP
V62AUD	53-V-05	103		53RF09	SUPPLY WATER DUMP VALVE LEAKAGE
V62AUD	60-02	103		48RF04	SUPPLY WATER DUMP VALVE "BURPS"
V62AUE	53-V-03	103		53RF08	SUPPLY WATER NOZZLE TEMPERATURE 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	4-24	102		04F020	WCS WMS PROBLEMS
V62EAA	61-12	105		NONE	SMALL CABIN AIR LEAKAGE THROUGH WCS
V62EAA	3-19	102		03F014	WCS VACUUM VENT VLV KNOB FAILED
V62EAA	3-14	102		03F010	WCS SLINGER MOTOR STOPPED
V62EAA	1-33	102		01F014	WASTE COLLECTOR-LOW URINE FLOW & AIR FLOW
V62EAA	27-18C	104		NONE	FOOTREST ON WCS DIFFICULT TO DEPLOY & STOW
V62EAG	51G-03	103		NONE	WCS FAN SEP 1 MOTOR CURRENT HIGH
V62EAG	51C-06	103		NONE	WCS FAN SEP 1 AC1 PHASES A&B LOW CURRENT TRANSIENTS
V62EAG	6-40	099		06F035	WMS FAN NOISY
V62EAG	7-25	099		07F018	WMS SLINGER STOPPED
V62EAG	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 SPEED
V62EAG	51A-16	103		NONE	WCS FAN SEP 1 AC 1 PH A CURRENT LOW
V62EAG	61A-14	099		AD0506	WCS FAN SEPARATOR 1 DID NOT START
V62EAG	41C-09	099		13F008	WCS FAN SEP 2 FAILED AND FAN SEP 1 DEGRADED
V62EAJ	54-V-03	105		54RF02	EDO WCS COMMODE FAULT LIGHT ON
V62EAJ	33-02	103		33RF02	WCS LEAK
V62EAJ	65-03	102		65RF10	WCS PROBLEM:
V62EAJ	65-03c	102		65RF10	FAN SEP 1 STALL & LIQ BACK FLOW
V62EAJ	65-03b	102		65RF10	COMMODE FILTER ANOM. AND ODORS
V62EAJ	65-03a	102		65RF10	COMMODE FAULT DURING COMPACTION
V62EAO	46-V-06	104		46RF04	FAN SEP 1 STALLED
V62EAO	26-10	103		26RF06	WCS FAN FLOODED
V62ECA	55-V-04	102		55RF02	WASTE WATER TANK GN2 LEAK
V62ECV	65-06	102		65RF05	LOW WASTE WATER DUMP FLOW
V62ECV	69-V-04	105		69RF05	WASTE DUMP BLOCKAGE
V62ECW	41D-14	103		14F023	WASTE WATER DUMP NOZZLE ICED
V62EED	6-41	099		06F020	H2O TK D VALVE CRACKED
V62EOO	32-21	102		IM32RF21	WASTE WATER DUMP NOZZLE BLOCKED
V62EOO	56-V-16	102		NONE	WASTE WATER DUMP DEGRADED
V62EOO	42-V-03	103		42RF02	WCS COMMODE LINKAGE BROKE
V62EOO	49-V-21	105		49RF18	WCS FAN SEP 1 FAIL
V62EOO	50-V-16	102		NONE	WASTE WATER DUMP DEGRADED
V62EOO	52-V-17	102		NONE	WCS FAN SEP 1 SHUTDOWN
V62EOO	42-V-08	103		42RF05	DEGRADED WASTE DUMP FLOWRATE
V62FAH	8-24	099		NONE	THERMOSTAT B SHIFTED ON POTABLE WATER DUMPLINE
V62H2O	6-42	099		NONE	GAS IN POTABLE WATER
V62JAA	48-V-01	103		48RF01	SMOKE DETECTOR B AVIONIC BAY 1 FALSE ALARMS
V62JAA	65-10	102		NONE	LFT FL. DK SMOKE DET. TRANSIENTS
V62JAB	8-09	099		08F001	SMOKE DETECTOR-FALSE ALARM
V62JAB	1-36	102		01F022	SMOKE DETECTOR-FAILED SELF TEST
V62JAC	3-33	102		03F024	SMOKE DETECTOR-2A CONTINUOUS FALSE ALARM
V62JAC	46-V-04	104		46RF03	AV BAY 2A SMOKE DETECTOR EXCURSIONS
V62JAC	28-14	102		28RF16	AV BAY 2A SMOKE CONCENTRATION BIAS LOW

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V62JAC	51B-09	099		24F004	SMOKE DETECTOR IN AVIONICS BAY 2A FAILED SELF TEST
V62JAC	66-16	104		66RF19	AV BAY 2 SM. DET A NEG. EXCURS.
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
V62JOO	32-19	102		32RF20	SMOKE DETECTOR 3A TRANSIENT ALARM
V62JOO	38-09	104		NONE	SMOKE DETECTOR TRANSIENTS
V62XXX	58-05	102		58RF03	FLUID FOUND ON WCS ODOR/BCTRIA FILT. LID
V62XXX	62-11	102		62RF16	RCRS CONTLLR 2 BED PRESS B SENS DRFT LOW
V62XXX	62-08	102		62RF10	WCS FAN SEPARATOR 1 FAILURE
V63A	51J-03D	104		NONE	FREON COOLANT LOOP TEMPERATURES UNUSUAL
V63AOO	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 AFT 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
V63JOO	57-15	105		NONE	ABS A & B FAILURE TO COOL
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
V63LAA	6-01H	099		06F031	FES HILOAD FEEDLINE TEMP SNSR MISLOCATED
V63LAA	3-31	102		03F023	FLASH EVAPORATOR CONTROL SENSOR RESPONSE LOW
V63LAA	2-11	102		02F006	FLASH EVAPORATOR SYS "A" BROKE-TEMP SENSOR DRIFT
V63LAA	66-05	104		66RF06	FES OUTLET TEMP. SENS. RESPONSE LAG
V63LAC	7-02A	099		07F027	FLASH EVAP FLOWMETER FAILED
V63LBA	41D-01	103		AC8418F	FES DUCT HEATERS IN SYSTEMS A & B FAILED
V63LBA	51A-15D	103		NONE	STS-41D CARRYOVER ITEM: D. FES TOP DUCT HTR FAIL
V63LDC	34-07	104		34RF08	FES HI LOAD INBOARD DUCT TEMP LOW
V63LDC	4-17	102		04F006	FES HIGH LOAD DUCT HTR FAILED
V63LHP	73--V-04	102		73RF04	FAIL OF FES FEEDLINE A MID 2 HEATER SYS
V63LHR	59-04	105		59RF08	FES SUPPLY A ACCUM/HI LOAD LINE SYS 1 HEATER FAILED
V63LJC	6-18	099		06F028	RH FEEDLINE THERMOSTAT FAILED
V63LOO	55-V-08	102		NONE	FES SHUTDOWNS
V63LOO	52-V-12	102		NONE	FES FEEDLINE A HTR SYS 2 FAIL
V63LOO	47-V-21	105		NONE	FES TEMP OSCILLATIONS
V63LOO	49-V-10	105		49RF06	FES TEMP OSCILLATIONS
V63LOO	49-V-03	105		49RF03	FES ACCUM HI LOAD LINE B HTR 1 FAILED ON
V63LOO	36-14	104		IM36RF16	FES PRIMARY CONTROLLER A SHUTDOWN
V63LOO	26-05A	103		26RF11	ASCENT HI LOAD EVAP FROZE
V63LOO	26-05B	103		26RF11	FES SHUTDOWN ON ENTRY
V63LOO	67-07	105		IPR-69V-0084	FES SUPP B ACCUM/HI-LOAD LINE SYSTEM 2 HTR PERF DURING PRELAUNCH
V63LOO	66-06	104		66RF07	FES PRI A OSCILLATIONS AT LOW HEAT LOADS
V63LOO	66-13	104		66RF16	FES PRI B SHUTDOWN ISOLATION
V63LPQ	64-02	103		64RF01	FES SUPP H2O ACCUM. TEMP CYCLING LOW
V63LPR	68-05	105		68RF10	FES ACCUM/HI-LOAD FD LINE A HEATER 2 ERRATIC
V63LSG	32-14	102		IM32RF12	FES TOP DUCT HTR B FAILED
V63LSN	26-04G	103		26RF21	FREON LOOP 2 EVAP OUT TEMP DEBONDED SENSOR
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
V64AAJ	9-10	102		09F005	AIRLOCK HATCH A DIFFICULT TO OPEN
V64AAJ	51F-19	099		26F009	AIRLOCK HATCH A DIFFICULT TO LATCH FOR ENTRY
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-16C	103		NONE	AIRLOCK DEPRESS VLV COVER HARD TO REMOVE
V64EAA	54-V-11	105		54RF10	EMU BATTERY CHARGER NOISY
V64EAA	51A-13	103		19F003	A/L EMU BATTERY CHARGER/PWR SUPPLY 1 VOLTAGE HIGH
V65	51F-22	099		11F012	MISC. CREW EQUIPMENT
V65A	1-41	102		AB9518	EJECTION SEAT HANDLE CLIP INSTL. PROBLEM
V65AAA	57-20	105		NONE	CDR SEAT BACK HARD TO ADJUST

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V65AAA	28-19	102		28RF23	GROMMET ON WET TRASH CAME LOOSE
V65ABA	35-23	102		35RF15	PILOT SEAT DOWN LIMIT SWITCH FAILURE
V65ABA	57-20	105		NONE	PLT SEAT BACK HARD TO ADJUST
V65ABA	28-02	102		28RF02	PILOT'S SEAT MOVED AFT DURING ASCENT
V65ACA	30-04A	104		30RF13	MSI 1 RH SHOULDER BELT ADJUSTER "C" CUP MISSING
V65AEA	57-20	105		NONE	MS2 SEAT BACK HARD TO ADJUST
V65AFA	44-V-17	104		44RF09	MISSION SPECIALIST 2 SHOULDER HARNESS PIN LOST
V65BOO	57-04		GFE	NONE	EVA WAIST TETHER HOOK FAILURE
V65C	61A-08	099		30F002	SLEEP STATION SLIDING PANEL COULD NOT BE REMOVED
V65HAA	59-11	105		59RF18	WET TRASH (VOLUME F) GROMMET FAILURE
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
V65HOO	36-05a	104		IM36RF08	VOLUME H DOOR AND LATCH BINDING
V65HOO	36-05b	104		IM36RF21	LIOH STOWAGE VOLUME COULD NOT BE REMOVED
V65OOO	74-V-05	104			UNABLE TO REMOVE ODS STOWAGE BAG
V65OOO	58-02	102		NONE	AIR INGESTION INTO GALLEY (XFER TO GFE)
V65XXX	55-V-16	102		NONE	SPOC PGSC DATA INPUT PROBLEM
V66BAA	29-15	103		211F001	PLUS X COAS CALIBRATION DISCREPANCIES
V66BAA	26-08	103		26RF02	COAS WOULD NOT MOUNT AT FWD STATION
V66BOO	31-13	103		IM31RF16	PLUS X COAS MISALIGNMENT
V66E	31-07	103		GFE	EMU2 POWER RESTART MESSAGES (GFE)
V66EAA	41C-14	099		EE0582	EVA COMMUNICATIONS LOST FOR EV-2 ON MODE A
V66EAA	41C-15	099		EE0582	EVA VHF COMMUNICATIONS DEGRADED
V66EAA	51D-09	103		EE607F	EV-2 COMM FROM GROUND ONLY 25% UNDERSTOOD
V66F	41C-26	099		NONE	ET SEP CAMERA FAILED TO OPERATE
V66F	3-45	102		NONE	CAMERA END OF FILM LIGHTS INOPERATIVE
V66F	3-42	102		NONE	EARLY SHUTDOWN, DEBRIS CAMERA
V66F	3-18	102		NONE	PDRS DAC (16MM CAMERAS) COLD START FAILURE
V66F	2-50	102		NONE	PDRS CAMERAS - 2 RAN AT WRONG SPEED
V66F	2-21	102		NONE	DATA ACQUISITION CAMERA DRIVE JAMMED
V66F	51A-14D	103		NONE	ARRIFLEX 16MM CAMERA FAILED
V66G	41B-05	099		NONE	WCCU B CAUSED INTERCOM VOICE LOOP NOISE
V66G	61A-15B	099		NONE	VLWHS FOR PILOT & MS-1 SIDE TONE REDUCED OR LOST
V66G	61A-15A	099		EE0617F	WCCU "C" VOX OPERATED IN PTT
V66G	1-20	102		NONE	CREW HEADSETS HAD SQUEAL
V66G	51B-24	099		NONE	WCCU LEG UNIT A PTT BUTTON STUCK
V66G	51A-14A	103		EE0594F	WCCU "A" HAD A HOT MIKE
V66G	7-13	099		EE0561/	WCCU'S FAILED
V66G	6-23	099		EE0557F	WCCU'S A & B
V66G	3-25	102		NONE	WCCU UNIT A FAILED - BROKEN WIRE
V66G	4-27	102		NONE	WCCU "B" INTERMITTENT
V66G	5-11	102		EE0549F	WCCU'S A & B FAILED
V66G	8-02	099		NONE	WCCU'S "A" FAILED, MANY NOISY
V66H	5-25	102		H0040F	EMU BATTERIES DISCHARGED BY CONDITIONER
V66H	51A-10	103		ILC71&7	BOTH LEFT SIDE EMU HELMET LIGHTS INOPERATIVE
V66H	41C-22	099		1364C-1	EMU SUBLIMATOR "P HIGH" MESSAGES
V66H	41B-O9	099		NONE	EMU 2 LIGHT PROTECTIVE LENS CRACKED
V66H	6-14	099		H0044F	EMU LIGHT BATTERIES FAILED
V66H	5-14	102		NONE	EMU PRESS REG BIASED
V66H	5-12	102		NONE	EMU FAN MOTOR FAILED
V66H	41B-21	099		EMU1364	EMU SUBLIMATOR "P HIGH" MESSAGES
V66J	41C-23	099		13F012	PORT SLIDE WIRE BRAIDED COVERING FRAYED
V66J	41G-22D	099		NONE	SLIDE WIRE SAFETY TETHER TENSION TOO HIGH
V66J	51A-14	103		NONE	EVA ANCILLARY EQUIPMENT FAILURES
V66J	41C-08	099		NONE	TPAD FAILED TO CAPTURE SOLAR MAX SATELLITE
V66J	41B-22	099		NONE	EVA ANCILLARY EQUIPMENT PROBLEMS
V66J	41G-22C	099		NONE	EVA SLIDE WIRE CUSHION STRAP DIFFICULT TO SECURE
V66J	41G-22B	099		H0070F	EVA FLASHLIGHT FAILED
V66K	51G-14	103		SP5041F	GALLEY WATER DISPENSER ERRATIC
V66K	51I-12	103		HEN0050	GALLEY WATER FLOW DID NOT SHUT OFF
V66K	51B-07	099		HEN0050	GALLEY DID NOT DISPENSE WATER
V66K	41G-13	099		NONE	GALLEY DOORS DID NOT STAY OPEN

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V66K	41C-25	099		NONE	GALLEY WATER DISPENSER DID NOT SHUT OFF FLOW
V66K	5-16	102		SE2011	POTABLE H20 DISPENSER NEEDLE PLUGGED
V66000	26-17D	103		NONE	ORB AFT FUS GAS SAMPLING SYS FAILED
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	26-17E	103		NONE	DOSIMETER READS HIGH
V66000	2-47	102		NONE	THEODOLITE LOOSE IN MOUNT
V66000	40-V-14B	102		GFE	35MM ET UMB CAMERA FILM BROKE
V66000	49-V-29	105		NONE	EMU BATT BAD
V66000	49-V-27	105		NONE	EV3 "PWR RESTART" MESSAGE FROZEN
V66000	52-V-08b	102		NONE	TAGS FALSE JAM INDICATIONS
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	ORBITER GAS SAMPLER SYS MALFUNCTION
V66000	42-V-07c	103		FIAR BFCE 029-F046	WIRELESS COMM - LOW BATTERY LIFE
V66000	42-V-07a	103		FIAR BFCE 029-F045	WIRELESS COMM - 2 CRUs BAD
V66000	38-04A	104		GFE	VACUUM CLEANER SHORT CIRCUIT
V66000	44-V-15	104		FIAR	VIDEO TAPE RECORDER DOOR JAMMED
V66000	44-V-12	104		FIAR	DDU FILTER CLEANING TOOL BROKE
V66000	32-09a	102		GFE	MS3 LIGHT DAMAGED - CREW INGRESS
V66000	46-V-08	104		NONE	WCCS CRU LOW BEEP TONE
V66000	49-V-28	105		BEMU-300-F002	EV2 LOSS OF DCM DISPLAY
V66000	40-V-14A	102		GFE	16MM ET UMB CAMERA FILM BROKE
V66000	35-06	102		GFE	FOUR HEADSETS FAILED
V66000	47-V-24	105		NONE	GALLEY PACKAGE IN PLACE SWITCH
V66000	47-V-25	105		NONE	MS3 LES O2 HOSE
V66000	52-V-05	102		NONE	MULTIMETER INTERMITTENT DISPLAY
V66000	40-V-05	102		GFE	VIDEO INTERFACE UNIT (VIU-C) - CAMCORDER CABLE-SIGNAL LOSS
V66000	52-V-19	102		NONE	CAMCORDER V1U ANOMALY
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	39-V-09	103		GFE	TREADMILL EXCESSIVE RESISTANCE
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	44-V-03	104		GFE	TREADMILL BEEL LOCKUP
V66000	41G-22E	099		NONE	OUTER HATCH EQUALIZATION VALVE COVER BROKE LOOSE
V66000	26-18A	103		NONE	FWD PORT FLOODLIGHT FAILED
V66000	26-3	103		EC0380*	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	HASSELBLAD 70 MM CAMERA FAILED
V66000	30-04E	104		NONE	CCTV CAMERA A - SPOTS ON IMAGE
V66000	26-17C	103		NONE	SEAT BACK WOULD NOT FOLD WITH PARACHUTES
V66000	49-V-32f	105		NONE	MINI-WORKSTATION MECHANISM PROBLEMS
V66000	30-13	104		NONE	MS-3 COMM CAP HEADSET FAILED
V66000	49-V-07	105		NONE	EV2 "SET POWER SCU" MSG
V66000	41G-13	099		NONE	TWO BRACKETS ATTACHED TO GALLEY DEBONDED
V66000	49-V-31	105		NONE	EMU DIFFICULT TO MOUNT ON AIRLOCK WALL
V66000	51A-14F	103		19F019	MULTI-USE BRACKETS BROKE AT ELBOW
V66000	49-V-32c	105		NONE	PORTABLE FOOT RESTRAINT FAIL
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-F004	70MM HASSELBLAD CAMERA FAILED
V66000	49-V-32d	105		NONE	SAFETY TETHER REEL LOCK FAIL
V66000	34-16A	104		NONE	DARK ARC ACROSS CCTV CAMERA C
V66000	36-10	104		FAIR-BFCE 026F001	PRESS CONTROL SYSTEM O2 BLEED ORIFICE LEAK
V66000	48-V-08	103		FIAR	GALLEY VALVE MV-2 LEAK
V66000	49-V-32e	105		NONE	POWER TOOL NOISE CAUSE EVA COMM FAIL
V66000	49-V-32a	105		NONE	RETRACTABLE TETHER REEL FAIL

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V66OOO	41C-24	099		NONE	PHOTO AND GALLEY BRACKETS DEBONDED
V66OOO	31-16	103		GFE	GALLEY WATER UNDERDISPENSE
V66OOO	49-V-32b	105		NONE	POWER TOOL TETHER FAIL
V66OOO	27-18E	104		NONE	GALLEY WATER DISPENSER
V66OOO	27-19	104		NONE	MISSION SPECIALIST 2 SENSED TINGLE IN LEFT EAR OF HEADSET
V66OOO	30-04G	104		NONE	GAS BUBBLES IN DRINKING WATER
V66OOO	27-18D	104		NONE	SHUTTLE PORTABLE ONBOARD COMPUTER STOPPED WORKING
V66OOO	27-18E	104		NONE	PACKAGE IN PLACE MICROFISH FAILURE
V66XXX	27-06	104		NONE	UPLINK TAGS HARDCOPIER JAM; SPONT. TAGS STATUS CHANGE
V67	51D-08	103		NONE	EV-2 BIOMED DATA INOPERABLE DURING EVA
V70OOO	32-08	102		IM32RF09	FWD DAP B SEL SW A CONTACT FAIL
V70OOO	48-V-09	103		NONE	EXTRANEOUS BODY FLAP MOTION
V70OOO	29-24	103		29RF25	INTERMITTENT AFT AUTO DAP LIGHT
V70OOO	49-V-14	105		NONE	ORBIT TARGET Ti COMPUTATION FAILED
V71AAA	32-15	102		32RF13	IMU 1 REDUNDANCY MANAGEMENT FAILED
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	41-04	103		41RF02	IMU 1 REDUNDANACY MANAGEMENT FAIL
V71AAA	65-04	102		65RF14	IMU 1 REDUNDANT RATE BITE
V71AAB	44-V-07	104		44RF01	IMU 2 Z-AXIS ACCELEROMETER FAILED
V71AAB	55-V-02	102		55RF01	IMU 2 PLATFORM FAIL BITE INDICATION
V71AAB	40-V-01	102		40RF01	IMU 2 ACCEL SHIFT
V71AAB	8-20	099		NONE	IMU 2 WENT TO STDBY THEN OK
V71AAC	6-37	099		06F022	IMU 3 VELOCITY LIMIT FLAG SET
V71AAC	3-11	102		03F034	IMU 3 ACCEL BIAS SHIFT
V71AOO	45-V-09	104		45RF06	IMU 2 Z-AXIS ACCEL. BIAS SHIFT
V71BAA	51C-08	103		AC9409	STAR TRACKER -Y SHUTTER LATCHUPS
V71BAA	61-06	105		61RF11	-Y STAR TRACKER NOT ACQUIRING STARS
V71BAA	1-18	102		01F059	STAR TRACKER NO. 1 SHUTTER PROBLEM
V71BAA	51A-21	103		NONE	STAR TRACKER +Z SHUTTER LATCHUP
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
V71BOO	28-10	102		28RF12	STAR TRACKER -Y PRESS FAILED
V71BOO	35-10	102		35RF04	-Z STAR TRACKER FAILED SELF-TEST
V71BOO	47-V-17	105		47RF08	-Z STAR TRACKER SELF TEST FAIL
V71BOO	37-V-16	104		37RF16	-Z STAR TRACKER FAILED SELF TEST
V71COO	46-V-12	104		NONE	ADTA TEMP DELTA DURING FCS C/O
V71COO	44-V-09	104		NONE	LEFT AIR DATA PROBE SINGLE MOTOR DEPLOY
V71COO	31-12	103		IM31RF14	ADTA CIRCUIT BREAKER CONTAMINATION
V72AAA	55-V-10	102		55RF08	MMU 1 SM CHECKPOINT FAIL
V72AAA	28-01	102		28RF01	MMU-1 I/O ERROR AT OPS-1 TRANSITION
V72AAA	66-09	104		NONE	GPC 4/MMU 1 INTERFACE PROBLEM
V72ACA	9-23	102		09F007	GPC 1 FAILED REDUNDANT SET
V72ACA	41B-24	099		11F005	GPC 1 CONSISTENTLY DETECTED AN MSC TIMEOUT ON BCE 7
V72ACA	8-19	099		08F009	GPC 1 AND 2 SPLIT, H'WARE BIT ERROR
V72ACA	9-23	102		09F008	GPC 1 FAILED REDUNDANT SET
V72AEA	5-02	102		NONE	MDM FF1 - INTERNAL BITE ERROR
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	30-11	104		30RF2&3	GPC 4 FAILED TO SYNC
V72CCA	6-24	099		06F011	GPC 2 FAILED INDICATION
V72CCA	6-24	099		06F025	TRANSIENT FAILURE IN CPU
V72CCA	9-25	102		09F010	GPC 2 FAILED AND MEMORY ALTERED
V72CCA	9-25	102		09F009	GPC 2 FAILED AND MEMORY ALTERED
V72CCA	5-03	102		NONE	GPC 2 FAIL TO SYNC (PRELAUNCH)
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 1/0 ERROR
V72CEC	51-07	103		51RF07	MDM PF2 INPUT/OUTPUT FAILURE
V72EDA	9-33	102		NONE	INVALID U/L CMDS FROM ORBITER TO SPACELAB
V72GEA	34-05	104		34RF06	MDM FA-1 FAILED
V72GEB	73-V-05	102		73RF05	TRANSIENT THRUSTER CMD PATH FAILURE

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V72JEA	51-01	103		51RF09	SSME 2 LH2 INLET PRESSURE FAILURE FA2 MDM ANALOG INPUT BITE
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
V72LEA	66-17	104		NONE	BIT FAIL ON MDM FA3 CARD 3
V72NAA	2-20	102		02F004	CRT DISPLAY NO. 1 SHORTED PWR TRANSISTOR
V72NAA	69-V-02	105		69RF03	CRT 1 DIM DISPLAY
V72NAB	41D-10	103		14F004	CRT DISPLAY NO. 2 WENT BLANK
V72NAB	73-V-07	102		73RF06	CRT 2 FAIL
V72NAC	7-12	099		07F009	CRT DISPLAY NO. 3 PWR SUPPLY FAILURE
V72NAD	55-V-11	102		55RF07	CRT 4 FAILURE
V72NAD	51A-05	103		19F006	CRT 4 FAILED
V72NAD	63-04	103		63RF04	RECURR. LOSS OF CRT 4 DISPLAY
V72NAD	64-06	103		NONE	BIG X ON BFS DISPLAY WHEN TRANSITIONING FROM HALT
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
V72OOO	49-V-05	105		49RF21	MEC 2 BITE FAILURE
V72OOO	49-V-19	105		49RF16	CRT 1 BITE - GPC 1 & 2
V72OOO	45-V-13	104			SM ALERT TONE AUDIBLE ALARM INTERMITTENT
V72OOO	49-V-23	105		49RF21	GPC AP101S MICROCODE ERROR
V72OOO	64-07	103		IPR-63V-0010	PD1/LITE DECOMM 4 BITE DISCREP.
V72XXX	26-2	103		26RF17	PROB CONTAM NSP FWD LINK DATA RELAY X'PNDR 2
V73ABA	51B-04	099		NONE	ABORT LIGHT MALFUNCTIONED & LENS CRACKED
V73AKA	41D-04	103		AC8688	02 SYSTEM 1 SUPPLY VALVE TALKBACK FAILED CLOSED
V73AOO	28-06	102		28RF07	ABORT LIGHT "B" DID NOT ILLUMINATE
V73AOO	34-01	104		34RF01	DDU 1 CHANGE OUT (AMI BIASED)
V73AOO	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
V73AWC	41G-04	099		NONE	RH OMS ON-BOARD HELIUM PRESSURE GAGE FAILED
V73AWD	33-05	103		33RF04	CDR AMI VEL. IND OUT OF SPEC
V73AWH	30-19	104		30RF26	CMDR AWI READ HIGH DURING FCS CHECKOUT
V73AWP	6-33	099		NONE	HEADS UP DISPLAY - DECELERATION POINTER PEGGED
V73AWP	61A-16	099		30F013	HUD FOR PILOT HAD FORMAT DISCREPANCY
V73AWQ	1-15	102		01F029	CMDRS HORIZONTAL SITUATION IND COMPASS CARD STUCK
V73AWS	51G-12	103		NONE	G METER READ 1 G THROUGHOUT FLIGHT
V73AWW	41-06	103		41RF03	LEFT ADI RATE/SCALE SWITCH FAILURE
V73AWW	26-20	103		26RF22	CDR ADI OPS 8 CHECKOUT DISCREPANCIES
V73AWZ	57-10	105		57RF12	SPI SPEED BRAKE COMMAND BIAS
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 FAILED
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 C3A6)
V73CEB	41D-29	103		NONE	FWD DAP PANEL PBI LIGHT INTERMITTENT
V73CGA	51J-11	104		28F011	LEFT DDU DATA GOOD BIT TOGGLED
V73CGA	51D-04	103		23F011	CDR's ADI P&Y ERROR NEEDLES ERRATIC
V73CGB	7-21	099		07F017	DDU NO. 2 BITE FAIL
V73CGB	36-19	104		IM36RF22	RIGHT DDU INTERMITTENT BITE
V73CGB	51F-21	099		26F010	PILOT'S DDU BITE FAIL
V73EAS	41G-12	099		17F014	MET LOST ONE HORIZONTAL SEGEMENT ON LEFT DIGIT
V73ECD	51I-07	103		NONE	ANNUNCIATOR DISPLAY UNIT STATUS LIGHT INTERMITTENT
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
V73EPC	51-11	103		NONE	CNTR ENG GHe REG PRESS METR OFF FLAG SET
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
V73HNA	51G-08	103		NONE	UTILITY POWER AC3 PH B SPIKES ON PANEL A15

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V73LFE	4-18	102		04F019	PLBD TALKBACK PANEL 13 INCORRECT INDICATION
V73OOO	40-V-15	102		40RF12	GCIL/PD1 SWITCH SCAN CHANGED STA
V73OOO	39-V-10	103		39RF08	LH BODY FLAP PUSH BUTTON STICKY
V73OOO	42-V-09	103		42RF06	LH2 TOPPING VALVE "OPEN" MISSING
V73OOO	49-V-35	105		NONE	PANEL F9 DC AMPS SIG STRENGTH STICKY
V73OOO	47-V-11	105		47RF07	KU-BAND RANGE RATE/AZIMUTH DISPLAY FAIL
V73OOO	47-V-15	105		47RF17	HUMIDITY SENSOR FAILURE
V73OOO	52-V-09	102		NONE	PANEL A11 DC OUTLET FAIL
V73OOO	52-V-14	102		52RF09	SURFACE POSITION IND FAILED ON
V73OOO	41-08	103		41RF05	LEFT RHC TRIM INHIBIT SWITCH FAILURE
V73OOO	51-12	103		NONE	FC1 H2 REACTANT VLV TALKBACK SLUGGISH
V73OOO	61-08	105		61RF08	KU-BAND RNG RTE/AZMTH IND UNIT DIGIT FAIL
V73OOO	59-07	105		59RF12	KU-BAND RANGE/ELEV INDICATOR FAILED
V73OOO	57-12	105		NONE	LRCS XFEED 3/4/5 SWITCH TALKBACK FAILURE
V73OOO	68-09	105		68RF05	KU-BAND RANGE RT/AZI DISPLAY TENS DIGIT FAILED
V73RDA	2-10	102		02F019	CB16 ON PANEL MA73C-OPEN
V73RDA	3-02	102		AC1739	INOPERATIVE MCA AC3 PWR CB11 ON PANEL MA73C
V73VAA	51A-17	103		19F017	AFT PLB FLOODLIGHTS FAILED
V73VAA	57-07C	105		57RF11	MID PORT PAYLOAD BAY FLOODLIGHT FAILURE
V73VAA	49-V-11a	105		49RF07	PLB FWD PORT FLOODLIGHT FAILED
V73VAA	43-V-10	104		43RF08	MID-STARBOARD FLOODLIGHT FAILURE
V73VAA	36-15c	104		IM36RF17	AFT STBD PLB FLOODLIGHT FLICKERED
V73VAA	36-15b	104		IM36RF17	AFT PORT PLB FLOODLIGHT FAILED
V73VAA	36-15a	104		IM36RF17	MID PORT PLB FLOODLIGHT FAILED
V73VAA	49-V-11c	105		49RF09	PLB AFT STBD FLOODLIGHT FAILED
V73VAA	61-11	105		61RF10	AFT STARBOARD FLOODLIGHT FAILED
V73VAA	51-06	103		51RF06	MIDSTBD PAYLOAD BAY FLOODLIGHT FAILURE
V73VAA	49-V-11b	105		49RF08	PLB FWD STBD FLOODLIGHT FAILED
V73VAA	57-07B	105		57RF10	AFT STBD PAYLOAD BAY FLOODLIGHT FAILURE
V73VAA	57-07	105		57RF04	PAYLOAD BAY FLOODLIGHT FAILURES
V73VAA	50-V-21	102		50RF12	STBD FWD PLB LIGHT FAIL OFF
V73VAA	32-10	102		IM32RF11	FWD BULKHEAD FLOODLIGHT INOP
V73VAA	51F-18	099		NONE	PLB FWD BULKHEAD FLOODLIGHT FAULTY START
V73VAA	51G-07	103		25F014	PAYLOAD BAY FLOODLIGHTS FAILED
V73VAA	5-17	102		05F007	PLB FLOODLIGHT FAILED
V73VAA	5-17	102		05F006	PLB FLOODLIGHT FAILED
V73VAA	4-11	102		04F016	PLB FLOODLIGHT FAILED
V73VAA	1-57	102		NONE	PLB FLOODLIGHT FAILED
V73VAA	44-V-16	104		44RF07 44RF08	PAYLOAD BAY FLOODLIGHTS FAILED
V73VAA	31-09	103		IM31RF09	MID-STARBOARD PLB FLOODLIGHT OUT
V73VAA	54-V-09C	105		54RF08	FLOODLIGHT FAILURE - MID PORT
V73VAA	54-V-09B	105		54RF07	FLOODLIGHT FAILURE - MID STARBOARD
V73VAA	54-V-09A	105		54RF06	FLOODLIGHT FAILURE - FORWARD STARBOARD
V73VAA	26R-18B	103		NONE	FORWARD BULKHEAD FLOODLIGHT FAILED "FLICKERING"
V73VAA	37-05	104		37RF05	FORWARD BULKHEAD FLOODLIGHT FAILED
V73VAA	37-05	104		37RF06	MIDPORT PAYLOAD BAY FLOODLIGHT FLICKERED
V73VAC	4-11	102		04F014	FLOODLIGHT ELECTRONIC ASSY NO. 1 CORONA
V73VOO	52-V-03	102		52RF04	MIDDECK FLOODLIGHTS FAILED
V73VOO	49-V-11d	105		49RF10	PLB FWD BLKHD FLOODLIGHT FAILED
V73X	5-09	102		NONE	CB4 PANEL R15 FOUND OPEN
V73X	6-36	099		NONE	C&W MATRIX BLANKED BY READ SWITCHES
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
V74AAA	51A-24	103		19F016	S-BAND LOWER LEFT ANT PERFORMANCE BELOW NORMAL
V74AAB	61C-08	102		32F009	S-BAND LR ANTENNA PERFORMANCE ERRATIC
V74AAB	9-15	102		09F030	S-BAND LWR RH QUAD ANT ACQUISITION INTERMITTENT
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	58-01	102		58RF01	S-BAND TRANDUCER 2 UPLINK FAILURE
V74ABE	3-21	102		03F032	S-BAND X'PONDER NO. 2 CONTAMINATED RELAYS

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V74ABE	71-V-08	104		71RF06	S-BAND XPONDER 2 FRAME SYNCH DROPOUTS
V74ABF	69-V-03	105		IPR72-V-0013	LOW SIGNAL STRENGTH ON S-BAND PREAMP
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
V74ABJ	58-08	102		NONE	S-BAND FM SYS 1 PWR OUTPUT DEGRADED
V74AC	6-43	099		NONE	PAYLOAD INTERROGATER LOST LOCK - SPAS OPNS
V74AC	7-32	099		NONE	P/L INTERROGATOR RF LINK SYS 1
V74ACD	73-V-06	102		IPR 75V-0011	S-BAND LWR RT ANTENNA FWD LINK DROPOUT
V74AJA	28-25	102		28RF28	NSP FRAME SYNC ERRORS
V74AOO	56-V-03	103		56RF04	LOW FREQUENCY UPLINK COMMAND CAPABILITY
V74AOO	32-18	102		32RF18	MULTIPLE S-BANK DROPOUTS
V74AOO	35-13	102		35RF06	UPPER LEFT S-BAND ANTENNA PERFORMANCE POOR
V74AOO	39-V-13	103		39RF11	S-BAND LOS ON ENTRY
V74AOO	40-V-10	102		40RF09	S-BAND ANTENNA - COMM ERRATIC
V74AOO	52-V-11	102		NONE	S-BAND PM LOW FREQ LOSS OF LOCK
V74AOO	57-05	105		57RF02	S-BAND INTERMTNT LOSS FWD AND RTN LINK
V74AOO	52-V-10	102		52RF07	S-BAND XMITTER 1 OUTPUT ERRATIC
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	5-13	102		EE0547F	UHF TRANSCEIVER NOT KEYED BY AUDIO
V74JCA	4-34	102		NONE	UHF COMM NOISY DURING EVA DEMO
V74JCA	6-21	099		EE0559F	UHF COMM ECHO DURING EVA
V74LBA	56-V-10	103		56RF03	CDR'S HEADSET INTERFACE UNIT FAILED
V74LBB	60-03	103		60RF02	PILOT HIU FAILURE
V74LBC	57-01	105		57RF01	MS1 & MS2 INTERCOM XMIT LEVELS LOW
V74LBC	55-V-13	103		DRBH 330154	MS2 WCCS LEG UNIT PROBLEM
V74LBX	7-14	099		NONE	AUDIO TERMINAL UNIT-CONSTANT KEY ON AIR TO AIR
V74LJE	51G-09	103		NONE	SPEAKER MICROPHONE UNIT INTERMITTENT
V74LOO	46-V-07a	104		FIAR BFCE-029-F062	A1U-C CHANNEL 1 FAIL
V74LOO	58-06	102		NONE	WCCS AIU-D TONE PROBLEM (BEEPING) (XFER TO GFE OFFICE)
V74LOO	46-V-07b	104		NONE	AIU-D PERFORMANCE INTERMITTENT
V74LOO	6-09	099		06F021	TV CAMERA ZOOM CONTROL INTERMITTENT
V74LOO	37-V-18	104		GFE	AFT FLT DECK SPEAKER BAD
V74LOO	40-V-13A	102		GFE	LOSS OF COMM - AUDIO INTERFACE UNIT
V74LOO	40-V-13B	102		GFE	LOSS OF COMM - AUDIO INTERFACE UNIT-E
V74LOO	42-V-07b	103		FIAR BFCE 029-F046	WIRELESS COMM - WALL UNITS A & C DEGRADED
V74LOO	46-V-03	104		FIAR JSC EE-0670F	FLIGHT DECK SPEAKER INOPERABLE
V74LOO	67-04	105		IPR-69V-0009	LOSS OF MDK AUDIO, ICOM & A/G COMM
V74OOO	47-V-23	105		NONE	AG1/AG2 CROSSTALK
V74OOO	57-19		GFE	NONE	WIRELESS COMMUNICATIONS ANOMALY
V74OOO	35-15	102		NONE	NOISE ON AIR-TO-GROUND LOOP 2
V74OOO	39-V-06	103		39RF06	RR LOSS OF LOCK
V74PCO	33-09	103		33RF11	MSBLS 3 BITE (AGC)
V74PH	51B-13	099		24F008	KU-BAND RADAR MODE FAILED SELF TEST
V74PHA	41G-06	099		17F005	KU-BAND ANTENNA GIMBAL CONTROL LOST
V74PHA	41D-15	103		14F006	KU-BAND ANTENNA UNDAMPED OSCILLATION
V74PHA	69-V-05	105		69RF06	KU-BAND EA-1 FAILURE
V74PHB	41B-33	099		11F021	KU-BAND RENDEZVOUS RADAR DID NOT LOCK ON FIRST EVA
V74PHB	41C-06	099		13F010	KU-BAND RENDEZVOUS RADAR FAILED SELF/TEST LOST LOCK
V74PHC	51D-05	103		23F008	KU-BAND ANTENNA MOTION ERRATIC
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	8-13	099		08F008	KU-BAND ANTENNA-HUNG-UP THEN CLEARED

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V74PHD	69-V-01	105		69RF02	KY-BAND BCE BYPASS
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
V74PHO	26-06	103		26RF01	KU-BAND ANTENNA FAILED SELF TEST
V74PHO	66-07	104		66RF08	NSP 2/KU-BAND INTERFACE
V74PHO	64-05	103		NONE	KU-BAND RDR FAILED TO ACQ AT LOW RANGE
V74POO	32-24	102		IM32RF25	KU-BAND ANT FEED HEATER ERRATIC
V74POO	37-V-04	104		37RF04	KU ANTENNA ERRATIC IN AUTO
V74POO	49-V-15	105		49RF12	KU-BAND ANT. POINTING
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
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	7-29	099		07F028	RADAR ALTIMETER NO. 1 FALSE LOCK ON GEAR
V74PVA	5-21	102		NONE	RADAR ALTIMETER NO. 1 INTMT LOCK ABOVE 1000 FT
V74PVA	1-34	102		NONE	RADAR ALTIMETER NO. 1 FALSE LOCK
V74PWA	51C-11	103		20F005	RADAR ALTIMETER 2 ERRATIC AT HIGH ALTITUDE
V74PWA	51A-25	103		19F018	RADAR ALTIMETER 2 SHIFTED DURING LANDING
V74PWA	1-34	102		NONE	RADAR ALTIMETER NO. 2 FALSE LOCK GEAR
V74QB	41B-23	099		EE0578F	VIDEO TAPE RECORDER CREASING TAPES
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	61B-08	104		EE618F	VIDEO TAPE RECORDER 3 FAILED
V74QB	4-12	102		EE0532F	VIDEO TAPE RECORDER FAILED TO REWIND
V74QHO	27-20C	104		NONE	CLOSED CIRCUIT TV RMS WRIST CAMERA
V74QN	51B-23	099		NONE	PLB B&W TV CAMERA "A" DID NOT RSPND TO ALC PBI CMDS
V74QN	51F-04	099		EE610F	PLB B&W CAMERA "A" FAR FIELD FOCUS FAILED
V74QNO	44-V-02	104		GFE	VIDEO INTERFACE UNIT LOW POWER
V74QNO	27-20A	104		NONE	CLOSED CIRCUIT TV MONITOR 1 FAILED TO DISPLAY VIDEO INPUTS
V74QNO	27-20B	104		NONE	CLOSED CIRCUIT TV CAMERA A UNABLE TO FOCUS
V74QOO	4-08	102		EE0533F	VTR MONITOR INPACT CIRCUIT FAILURE
V74QOO	8-12	099		EE0567F	RMS ELBOW TV CAMERA LENS - LOOSE RING
V74QOO	41-02B	103		GFE	CAMERA D INCORRECT COLOR PHASING
V74QOO	34-16B	104		NONE	CCTV CAMERA B HAD SPOT ON SCREEN
V74QOO	43-V-05	104		FIAR	CCTV CAMERA D INOPERATIVE
V74QOO	8-10	099		EE0570F	TV CAMERAS-ZOOM & FOCUS "A" & "C" - "D" FAILED
V74QOO	7-31	099		NONE	CCTV'S, "B" BLOOMING, "C" CABLE HANG UP
V74QOO	6-32	099		NONE	TV MONITORS FUZZY
V74QOO	4-26	102		04F022	MID-DECK TV CAMERA
V74QOO	2-15	102		EE0505F	PLB CCTV'S - CONTAMINATED LENSES
V74QOO	3-20	102		EE0521F	CCTV CAMERA "B" OVERHEATED
V74QOO	3-15	102		EE0519F	CCTV CAMERA "C" FAILED PWR SUPPLY
V74QOO	38-04C	104		GFE	CAMERA C - FAILURE TO FOCUS
V74QOO	3-08	102		EE0520F	RMS WRIST TV CAMERA FAILED PWR SUPPLY
V74QOO	38-04B	104		GFE	CCTV MONITOR 2 FAULT LIGHT
V74QOO	2-13	102		EE0506F	CCTV "B" OVERHEATED
V74QOO	2-14	102		EE0504F	TV CAMERA CIRCUIT BREAKER-FAILED PWR SUPPLY
V74QOO	5-24	102		EE0537F	VTR PLAYBACK OUT OF SYNC
V74QOO	32-11c	102		GFE	CCTV C - POOR PICTURE
V74QOO	32-11a	102		GFE	CCTV A - SPOT ON PICTURE
V74QOO	44-V-08	104		FIAR	CCTV CAMERA B DEGRADED
V74QOO	42-02A	103		GFE	CAMERA C IMAGE BURN
V74QOO	32-11b	102		GFE	RMS ELBOW CAMERA COLOR WHEEL FAILED
V74QOO	48-V-07	103		FIAR	CCTV CAMERA D LINE ON SCREEN

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V74QOO	42-V-02	103		FIAR BFCE 029-F044	CCTV CAM D DEGRADATION
V74QOO	32-11d	102		GFE	CCTV D - SPOT ON PICTURE
V74QOO	38-04D	104		GFE	CAMERA D - NO POWER
V74QOO	42-V-02b	103		FIAR BFCE 029-F047	CCTV CAM A COLOR WHEEL STUCK
V74QOO	42-V-02c	103		FIAR BFCE 029-F048	CCTV CAM C DEGRADATION
V74QOO	54-V-02D	105		FIAR-BFCE 029F067	CCTV CAMERA C - HIGH GAIN ANOMALY
V74QOO	54-V-02B	105		FIAR-BFCE 029F064	CCTV CAMERA B PROBLEM - SPLIT SCREEN OPS
V74QOO	54-V-02A	105		FIAR-BFCE 029F066	CCTV CAMERA D - NO IMAGE
V74QOO	51-09	103		NONE	LINES & WEAK IMAGE ON CCTV MONITOR 1 & 2
V74QOO	53-V-07	103		DRBH 230412	CCTV CAMERA C FAILED
V74QOO	49-V-12b	105		FIAR BFCE 029-F053	EV2 EMU HELMET CAMERA FAILED
V74QOO	54-V-02C	105		FIAR-BFCE 029F065	CCTV CAMERA A - MOMENTARY RED & GREEN LINES
V74QOO	45-V-06a	104		FIAR BFCE 029-F049	CCTV CAM A PICTURE FUZZY (INTERMITTENT)
V74QOO	41G-14	099		EE0592	COLOR TV CAMERA ON RMS ELBOW LOST COLOR WHEEL SYNC
V74QOO	51A-11	103		EE0595F	PLB TV CAMERAS A & D HAD SPOTS & DIFFICULT TO FOCUS
V74QOO	51F-09	099		EE612F	CCTV MONITORS 1 AND 2 PICTURE QUALITY POOR
V74QOO	51F-10	099		EE611F	PLB COLOR TV CAMERA "D" LOSS SYNC
V74QOO	51J-09	104		EE615F	PLB CAMERA B DIFFICULT TO FOCUS
V74QOO	50-V-11	102		GFE	CAMERA D HEATER FAILED OFF
V74QOO	61C-09	102		EE0619	PLB COLOR TV CAMERA "D" FLICKERED
V74QOO	47-V-18	105		NONE	CCTV D "JITTER"
V74QOO	45-V-06b	104		FIAR BFCE 029-F050	CCTV CAM C NOISY VIDEO
V74QOO	45-V-06c	104			CCTV CAM D POOR PERFORMANCE
V74QOO	49-V-12a	105		FIAR BFCE 029-F052	CCTV CAMERA D FAILED
V74QOO	50-V-03	102		GFE	CAMERA A ERRATIC
V74QOO	51-10	103		NONE	ORB PROCED DEGRED COLOR FROM SPAS EMU R/F VIDEO IG.
V74QOO	50-V-13	102		GFE	CAMCORDER MARK II FAILED
V74QOO	50-V-17	102		GFE	CAMERA C FAILED
V74QOO	51J-09	104		EE616F	CAMERA C AZIMUTH & ELEVATION FAILED
V74QOO	41B-20	099		NONE	RMS ELBOW TV FAILED
V74QOO	41C-13	099		EE0584	PAYLOAD BAY TV CAMERA D BLURRED
V74QOO	41B-03	099		NONE	PLB TV CAMERA D DID NOT TILT & SLOW TO PAN
V74QOO	41B-19	099		EE0576F	EMU TV FAILED
V74QOO	41D-30	103		NONE	COLOR TV CAMERA ON RMS ELBOW SHOWED A HORIZ LINE
V74QOO	41C-12	099		EE0583	PLB TV CAMERA'S B & C LASER RANGEFINDERS FAILED
V74XXX	27R-06	104	GFE		TAGS PAPER JAM
V74XXX	29-07	103		DREE649	TAGS DEVELOPER OVERHEAT
V74XXX	40-V-06A	102		GFE	TAGS FALSE JAM LITE
V74XXX	40-V-06B	102		GFE	TAGS JAM
V74XXX	53-V-08	103		FIAR EE-0679F	TAGS JAM
V74XXX	30-07	104		NONE	TAGS JAM
V74XXX	35-02	102		GFE	TAGS PAPER JAM
V74XXX	35-03	102		GFE	TAGS UNJAMMING TOOL BROKE
V74XXX	50-V-04	102		GFE	TAGS FAILURE
V74XXX	39-V-07	103		GFE	CCTV INTERMITTENT VIDEO LOSS
V74XXX	52-V-08a	102		NONE	TAGS DEVELOPER MOTOR FAIL
V74XXX	30-04F	104		NONE	TELEPRINTER MESSAGES ILLEGIBLE
V74XXX	33-03	103		NONE	TAGS JAM INDICATIONS
V74XXX	36-18	104		GFE	TAGS PAPER FOLDING
V74XXX	32-05	102		GFE	TAGS PAPER JAMMED
V74XXX	31-10	103		GFE	TAGS NOT RESPONDING TO PAPER ADVANCE COMMANDS
V74XXX	56-V-11	103		FIAR EE-0684F	TAGS JAM
V74XXX	42-V-04	103		JSC-EE-668	TAGS, TLM, & VERNIER IMAGING PROBLEMS
V74XXX	34-13	104		NONE	TAGS OVERTEMP INDICATION
V74XXX	6-25	099		EE0556F	TELEPRINTER REMAINED IN HIGH POWER MODE
V74XXX	7-15	099		NAC0015	TEXT AND GRAPHICS PAPER JAM
V74XXX	59-05		GFE	NONE	GPS STATUS BIT NOT CHANGING STATE
V74XXX	8-11	099		EE0569F	TEXT AND GRAPHICS VIDEO CIRCUIT FAILED
V75AAA	68-04	105		68RF09	MTU ACCUM. 3 ELEMENT BYPASS
V75AOO	29-02C	103		NONE	SSME 3 POWER SUPPLY TEMP ERRATIC
V75AOO	33-04A	103		33RF03	RCS FIU PRESS X'DUCER FAILED
V75AOO	46-V-02b	104		NONE	RMG BRAKE RETURN LINE TEMP OFF-SCALE LOW
V75AX	7-05	099		NONE	MEASUREMENT V58H0955A ROB ELEVON, TRANSIENT
V75BAE	61-07	105		61RF13	AFT MISSION TIMER CIRCUIT BREAKER POPPED

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V75COO	35-08	102		GFE	OPERATIONS RECORDER 2 TRACK 5 FAILURE
V75COO	39-V-04	103		FIAR BFCE 029-F035	OPS 2 RCDR UNCMDED RECONFIGURATION
V75COO	35-09	102		GFE	PAYLOAD RECORDER TANK 5 FAILURE
V75COO	35-01	102		GFE	OPERATIONS RECORDER 1 TRACK 2 FAILURE TO RECORD
V75COO	52-V-15	102		NONE	OEX RCDR TAPE INDICATOR FAIL
V75COO	44-V-04	104		FIAR	OPERATIONS RECORDER 2 TRACK 1 DUMP POOR QUALITY
V75COO	62-07	102		62RF09	POOR QUALITY DMP FRM OPS RECORDER 2
V75COO	58-07	102		NONE	PAYLOAD RECRDR TAPE BROKE (XFER TO GFE)
V75COO	59-02	105		59RF04	NO TAPE MOTION ON MADS RECORDER
V75COO	70-V-01	103		70RF91	OPS RECORDER 2 TRACK 3 DEGRADED
V75COO	27-22	104		NONE	TEMP LOSS OF OPS 2 TLM RCDR TRACK 2
V75COO	61-10	105		NONE	MADS BITE FAIL S/B GOOD
V75COO	26-15	103		FAIR*	OPS 2 RCDR MODULATED IN REWIND
V75COO	74-V-04	104		74RF06	OPS RECORDER 1 TRACK 8 DATA DEGRADIATION
V75COO	29-20	103		29RF20	UNABLE TO DUMP OX-1 RECORDER, TRACK 2
V75DAX	6-01K	099		NONE	TEMP SENSOR (V45T0422) FC2 H2O RELIEF VLV TEMP
V75EBM	51A-03B	103		19F005	APU 1 EXHAUST GAS TEMPERATURE 2 (V46T0140A) FAILED
V75EBM	51C-03A	103		20F004	APU 1 EXHAUST GAS TEMPERATURE 2 (V46T0140A) FAILED
V75EBM	41D-09D	103		14F011	APU 1 EXHAUST GAS TEMP (V46T0140A) ERRATIC
V75EBM	29-02B	103		29RF14	APU 1 EGT 1 (V46T0142A)
V75EBM	29-02A	103		29RF03	APU 3 EGT 2 (V46T0340A) FAILED
V75EBM	26-04C	103		26RF08	APU 1 EGT TRANSDUCER FAILED
V75EBM	61B-02B	104		31F010	APU 1 EXHAUST GAS TEMP (V46T0142A) INTERMITTENT
V75EBN	51D-03A	103		AC7837	APU 1 EXHAUST GAS TEMPERATURE (V46T0142A) FAILED
V75EBP	7-02D	099		07F008	TEMPERATURE SENSOR
V75EBP	51I-04D	103		AC7837	APU 1 EXHAUST GAS TEMPERATURE (V46T0142A) FAILED
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 OPERATION
V75MAA	9-08	102		NONE	PCMMU FORMAT 103 SM DATA LOST
V75MAB	61A-11	099		HEN056F	PAYLOAD RECORDER TRACK 5 NOT RECOVERABLE
V75MAC	51F-01	099		26F006	PAYLOAD DATA INTERLEAVER DYNAMIC WRAP TEST FAILURE
V75MAD	7-11	099		EE0565F	OPS 1 RECORDER NOISE ON DUMP WHEN REWINDING
V75MAD	6-06	099		ODET167	OPS 1 RECORDER TAPE BROKEN BY LOOSE SCREW
V75MAE	29-08	103		DR-BH93	OPS-2 RCDR TRACK 4 INOPERATIVE
V75MAE	8-21	099		NONE	OPS 2 RECORDER NOISE ON DUMP WHEN REWINDING
V75MAE	51J-05	104		HEN0055	OPS RECORDER 2 TRACKS 7, 8 & 9 INTERMITTENT
V75MAE	51F-13	099		HEN0053	OPS RECORDER 2 TRACK 6 MALFUNCTION
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-0F2 DATA OUTPUT INVALID
V75NAC	2-02	102		NONE	MDM-0F3 - HYBRID FAILURE
V75NAD	9-05	102		09F031	LRCS 3/4/5A TANK ISO VLVS POS INDICATOR FAILED
V75OOO	68-08	105		NONE	DEGRADED TRKS ON PAYLOAD RECORDER
V75OOO	38-08	104		NONE	CONTINUOUS TIRE PRESSURE FDA AFTER LANDING
V75OOO	65-07	102		65RF06	POOR DUMP QUAL. OPS RCDR 2 TRK 2
V75OOO	65-01	102		65RF01	OEX SYST. CONT. MODULE STOPPED EXECUTING COMMANDS
V75OOO	68-12	105		68RF11	OPS RCDR 2 TRK 8 FAILED TO DUMP
V75OOO	38-03B	104		38RF04	APU 3 X-AXIS ACCELEROMETER ERRATIC
V75OOO	57-16	105		NONE	MADS RECORDER FAILURE
V75OOO	43-V-03	104		NONE	PDI DECOMMUTATOR DROPOUTS
V75OOO	37-V-10A	104		37RF08	BODY FLAP LWR SKIN TEMP INSERT FAILED
V75OOO	38-03A	104		38RF03	PRSD HYDROGEN TANK 3 QUANTITY FAILURE
V75OOO	38-05	104		38RF05	APU INSTRUMENTATION ERRATIC
V75OOO	38-03C	104		38RF07	MAIN A MPC 1 AMPERES TRANSDUCER FAILURE

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V75OOO	29-22	103		29RF22	RH MAIN LANDING GEAR STRAIN GAGE HARNESS SEPARATION
V75OOO	37-V-10B	104		37RF09	APU 2 INJ TUBE TEMP
V75OOO	28-05F	102		28RF19	OI MEASUREMENTS MISWIRED
V75PAA	41C-03D	099		NONE	LH OMS POD SKIN TEMP (V09T1030A) READ LOW
V75PAC	1-11	102		01F032	CURRENT SENSOR INDICATED OPEN
V75QOO	35-07A	102		GFE	CCTV CAMERA B FAILED
V75QOO	35-07B	102		GFE	CAMERA C COLOR WHEEL STUCK
V75QOO	35-07C	102		GFE	CAMERA D INTERMITTENT POWER
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 OPEN
V76ECF	55-V-03	102		55RF06	FMCA 2 OPS STAT 2 DID NOT INVERT
V76ECF	51B-15	099		24F015	MID MCA 2 OPS STATUS 5 (V76X2225E) IND ZERO
V76ECF	8-25	099		AC6684	MOTOR CONTROL ASSY 2 - RELAY HANG-UP
V76ECG	64-01	103		64RF04	AFT MCA STATUS 4 WENT TO ZERO
V76ECG	57-08	105		57RF13	MCA PWR AC3 MID 4 CIRCUIT BREAKER FAIL
V76EDA	61C-02	102		AD0733	FUEL CELL 1 POWER TO ESS BUS 1BC ERRATIC
V76EEO	73-V-01	102		73RF01	MEC1 PREFLIGHT BITE WORD INDICATED FAILED
V76EEO	73-V--01	102		73RF01	MEC 1 PREFLT BITE WORD IND. FAILED
V76EJE	66-14	104		66RF17	RCS THRUSTER R3R FU INJ. TEMP FAILED OFF SCALE HIGH
V76EJE	1-01A	102		NONE	AFT LOAD CONTROLLER 2
V76EJE	41B-17	099		11F011	RCS JETS R5R & R5D FAILED OFF; AFT LCA 2 FAILED
V76JAB	5-19	102		05F017	AC 1 PHASE B INVERTER DISCONNECTED FROM BUS
V76JAE	36-01	104		36RF01	AC 2 PHASE A INVERTER FAILED
V76OOO	28-11	102		FAIR BFCE 29F012	MAIN C UTILITY OUTLET 1 SHORT CIRCUIT
V78C	1-08	102		EE0457F	DFI/PCM RECORDER TAPE MECH JAMMED
V78C	1-47	102		NONE	DFI WIDEBAND AND PCM RECORDERS SMALL DATA DROPOUT
V78C	3-27	102		03F020	DFI W/B RECORDER TAPE TENSION LAMP FAILURE
V78C	4-28	102		0DET142	DFI PCM RECORDER DATA ERASED DURING DUMP
V78DFI	1-52	102		NONE	DFI MEASUREMENTS
V78DFI	2-44	102		NONE	DFI MEASUREMENTS
V78DFI	2-41	102		NONE	DFI MEASUREMENTS
V78DFI	1-46	102		NONE	DFI SENSOR MOUNTING ASSY
V78MAD	61A-06	099		30F008	MADS PCM MASTER BITE (V78X9611E) FAILED
V78MAD	51A-29	103		19F022	MADS DATA NOISY & SNAPSHOT MALFUNCTION
V78OOO	50-V-24	102		50RF15	OEX SYS CONT MODULE FAIL
V78OOO	46-V-02a	104		46RF02	BODY FLAP SKIN TEMP ERRATIC
V78OOO	53-V-01	103		53RF01	MADS DID NOT START WHEN COMMANDED
V78OOO	50-V-23	102		50RF14	MADS FDM MUX 1 BITE FAIL
V78OOO	56-V-14	103		56RF09	MADS DID NOT RECORD WHEN COMMANDED - ENTRY
V78OOO	27-23	104		NONE	MADS PCM 1 BITE; H2 FILL/DRN VLV RESP OUT OF SPEC
V78OOO	39-V-05	103		39RF05	MADS FDM BITES
V78POO	27-01	104		NONE	OI FAILURES: E. MADS RCC CHIN TEMP ERRATIC
V79	51F-20	099		NONE	DIGITAL AUTO PILOT DOWNMODED TO MANUAL
V79	9-34	102		NONE	INADVERTENT FLIGHT CONTROL CH 2 SHUTDOWN
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
V79ECA	57-09	105		57RF06	RJDA 1 L1/R1 MANIF DRIVER SWITCH FAILURE
V79ECB	41B-12	099		NONE	RH ARCS R3A DRIVER OUTPUT DISCRETE 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
V79EEA	68-11	105		68RF07	SLO PRESS INC. DURING RUDDER CH 3 SECONDARY ACT. CHECK
V79EOO	63-07	103		NONE	INADVERTENT FIRING OF L1L, L1U, R4U, F3L, AND F3U THRUSTERS
V79OOO	28-27	102		NONE	CREW REPORT LOUD THUMP/THUD AT FIRST OPS-1 TRANS
V79OOO	32-22	102		IM32RF22	BFS GPC ERRORS
V79OOO	37-V-09	104		NONE	PRELAUNCH BFS FLIGHT ANOMALY
V79SOO	50-V-28	102		NONE	EXCESSIVE AILERON TRIM DURING ENTRY
V79WCB	2-34	102		02F018	PILOT RHC - ROLL TRIM SWITCH FAIL
V79WD	51F-05	099		NONE	BFS LOGGED STORE PROTECT VIOLATION
V79WD	1-02	102		NONE	PASS & BFS TIMING SKEW
V79WD	51C-05B	103		NONE	BFS DEORBIT IGNITION TIME WAS 8 SECONDS LATE
V79WD	51C-05A	103		NONE	BFS DID NOT PROCEED TO MAJOR MODE 104 AFTER ET SEP
V79WLB	39-V-14	103		39RF13	PLT's RHC TRAVELED FULL AFT - COULDN'T ADJUST

INFLIGHT ANOMALY LIST
BY WUC

WUC	PROB#	ORB	NOTES	CAR	NOMENCLATURE
V79WOO	41-05	103		NONE	BFS BACKUP DP/DT TRIGGERED FDA
V90S/W	9-11	102		NONE	SPACELAB TOTAL KW COMPUTATION READING ZERO
V90S/W	51L-05	099		NONE	SRB NOZZLE CLEARANCE I-LOAD ERROR
V90S/W	61A-18	099		63070	POCC COMMAND RECEIVED A "PSP" INVALID REQUEST
V90S/W	61C-07	102		NONE	VERNIER RCS JETS FIRED EXCESSIVELY
V90S/W	51F-08	099		NONE	GPC BODY RATE DATA TRANSFER INCOMPATABLE WITH SL
V90S/W	9-09	102		55799	GPC STATE VECTOR TIME TAG TO SL INC BY 1 DAY
V90S/W	51B-19	099		NONE	BFS ERROR UPDATING RUNWAY
V90S/W	51B-05	099		NONE	SM ONBOARD DISPLAY DATA EXHIBITED ERRATIC VALUES
V90S/W	51D-10	103		NONE	PRIMARY AVIONICS SOFTWARE SYSTEM GNC GPC ERRORS
V90S/W	51I-08	103		NONE	BFS OMS 2 OUT OF PLANE VELOCITY 12.5 FPS GT PASS

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 - 1a	ME-2 GH2 out temp failure
STS- 1 - MPS - 2a	ME-2 GH2 out press failure
STS- 1 - MPS - 3a	MPS H2 topping valve slow closure after dump
STS- 1 - MPS - 4	ME-I GO2 FCV failed to open fully
STS- 1 - MPS - 5	ME-2 helium loss during second vacuum inerting
STS- 1 - MPS - 6	H2 concentration in Orbiter aft fuselage compartment
STS- 1 - MPS - 7a	Orbiter T-O H2 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

a = Appears in JSC list also.
b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 1 - SSME - 4	Isp discrepancy
STS- 2 - ET - 1	ET aft LOX dome accelerometer data erroneous
STS- 2 - MPS - 1	LO2 100 percent liquid level sensor failure
STS- 2 - MPS - 2	LO2 ECO sensor failed wet after STS-2 scrub
STS- 2 - MPS - 3	ME-2 press supply temp transducer failure
STS- 2 - MPS - 4a	ME-2 press supply press transducer failure
STS- 2 - MPS - 5	LO2 tank ullage press low during fast fill to topping
STS- 2 - MPS - 6a	LO2 and LH2 8-inch disconnect inserts loose
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 LH2 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

a = Appears in JSC list also.
b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
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	GN2 heater overtemp sensor in GSE failed during loading
STS- 3 - MPS - 2	ME-2 GH2 press out temp failure
STS- 3 - MPS - 3a	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
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 - 1a	MPS LO2 bleed valve position indicator switch malfunction
STS- 4 - MPS - 2	Facility/Orbiter LO2 interface temp failure
STS- 4 - MPS - 3a	ME-2 GH2 press out temp failure
STS- 4 - MPS - 4	High helium concentration in ET intertank area during LH2 loading

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 4 - MPS - 5a	LO2 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-II
STS- 4 - SSME - 4	Elevon nozzle tube leaks
STS- 4 - SSME - 5	Isp discrepancy
STS- 5 - MPS - 1	LO2 prevalves and fill/drain valves not closed properly
STS- 5 - MPS - 2a	GO2 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 - 1a	LO2 level sensor no. 1 failed wet
STS- 6 - MPS - 1a	ME-2 GH2 press out temp failure
STS- 6 - MPS - 2a	ME-2 GH2 press out press failure
STS- 6 - MPS - 3a	ME-I GH2 flow control valve hung up
STS- 6 - MPS - 4a	ME-3 helium reg out press increase

a = Appears in JSC list also.
b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
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
STS- 6 - SRB - 3	SRB flashing lights failed shortly after 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 EPON 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 - 1a	LH2 ullage press sensor stuck
STS- 7 - ET - 2	LH2 IOO-percent level sensor inconsistencies
STS- 7 - MPS - 1	GSE/Orbiter L02 inlet temp redline exceeded
STS- 7 - MPS - 2a	Leak at high-point bleed T-O umbilical disconnect
STS- 7 - MPS - 3a	ME-2 and ME-3 GH2 press supply press failed
STS- 7 - MPS - 4a	LH2 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

a = Appears in JSC list also.
b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
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
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 L02 ullage pressure transducer readings
STS- 8 - MPS - 1	L02 99.85-percent level meas failure
STS- 8 - MPS - 2a	ME-2 GH2 press supply press failure
STS- 8 - MPS - 3	ME-2 LH2 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

a = Appears in JSC list also.
b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
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-I LOX ASI supply line failure
STS- 8 - SSME - 2	ME-I HPFTP turbine disc temp decay
STS- 8 - SSME - 3a	ME-I 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 - 1a	H2 leakage at T-O unbilical disconnect
STS- 9 - MPS - 2a	GH2 FCV no. 1 did not fully open
STS- 9 - MPS - 3	LO2 tank ullage press slump
STS- 9 - MPS - 4	LH2 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-O99 RI)
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-I LPOTP disc press Ch B meas failure
STS- 9 - SSME - 2	ME-3 fuel bleed valve position indicator failure
STS- 9 - SSME - 3	ME-3 HPFT disc temp failure
STS- 9 - SSME - 4	ME-3 overheat and localized melting of nozzle aft TPS
STS- 11 - MPS - 1	ME-2 GN2 Orbiter press supply press failed

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 11 - MPS - 2	LO2 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 of 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 ring 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-I MFV skin temp meas failure
STS- 11 - SSME - 2	ME-I and ME-2 MFV 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 HPOTP of engine S/N 2012
STS- 41C - ET - 1a	LH2 primary IOO-percent liquid level sensor false indication
STS- 41C - MPS - 1	Discrepancy among LO2 load, usage, and residuals
STS- 41C - MPS - 2	GH2 pressurization supply pressure sensor failed

a = Appears in JSC list also.
b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 41C - SRB - 1	RH SRB main chute failed to inflate
STS- 41C - SRB - 2	LH SRB drogue chute damage
STS- 41C - SRB - 3	LH SRB main chute damage
STS- 41C - SRB - 4	Range safety system reduced signal strength
STS- 41C - SRB - 5	Voltage regulator failure
STS- 41C - SRB - 6	Extensive RH SRB aft skirt structural damage
STS- 41C - SRB - 7	Gas leak and erosion to primary O-ring of RH SRM nozzle-to-case joint
STS- 41D - ET - 1	Nose cone temperature measurements failed (first attempt)
STS- 41D - MPS - 1	GH2 pressurization supply temperature sensor failed
STS- 41D - SRB - 1	RSS antenna damaged
STS- 41D - SRB - 2	Unscheduled FDM autocalibration at frustum release
STS- 41D - SRB - 3	Hydrazine pump seal/lube oil overboard drain line melted
STS- 41D - SRB - 4	Low-frequency radial vibration exceedance on the aft IEA
STS- 41D - SRB - 5	One flashing light failed
STS- 41D - SRB - 6	RH SRM forward field joint erosion
STS- 41D - SRB - 7	LH SRM gas leak and erosion to primary O-ring of nozzle-to-case joint
STS- 41D - SSME - 1a	ME-3 MFV failure (aborted launch)
STS- 41D - SSME - 2	SSME vibration data dropout
STS- 41D - SSME - 3	ME-3 Ch A press meas contained data spikes
STS- 41G - MPS - 1a	Orbiter helium bottle press dropped
STS- 41G - MPS - 2	High LH2 tank back press during replenish
STS- 41G - MPS - 3a	GH2 pressurization system temperature and pressure sensors failed

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 41G - MPS - 4	LO2 tank ullage pressure slumped below expected minimum
STS- 41G - SRB - 1	BSM aeroheat shield cover lost
STS- 41G - SSME - 1	MFV skin temperature sensor failed
STS- 51A - MPS - 1	High LH2 tank back press during replenish
STS- 51A - MPS - 2	High LO2 tank ullage press during replenish
STS- 51A - MPS - 3	Uneven LO2 vent line flow
STS- 51A - MPS - 4a	ME-3 helium reg leakage
STS- 51A - MPS - 5	GH2 pressurization system temperature sensor failed
STS- 51A - SRB - 1	LSC fastener found in system tunnel
STS- 51A - SRB - 2	LH SRM nozzle throat inlet ablative ring separation from housing
STS- 51A - SRB - 3	Pinch marks on LH SRM center field joint primary and secondary O-rings
STS- 51A - SRB - 4	Pinch marks on LH aft field joint primary O-ring
STS- 51A - SSME - 1	ME-I LPFTP disc press meas failure
STS- 51A - SSME - 2	ME-2 HPFTP disc temp meas failure
STS- 51A - SSME - 3	ME-3 HPFTP lift-off seal leakage
STS- 51C - MPS - 1a	High helium concentration in midfuselage
STS- 51C - MPS - 2	GH2 pressurization system temperature sensor failure
STS- 51C - SRB - 1	LH SRB nozzle extension began breakup prior to nose cap jettison
STS- 51C - SRB - 2	LH SRM nozzle throat inlet ablative ring separation from housing
STS- 51C - SRB - 3	LH SRM forward field joint gas leak and erosion to primary O-ring
STS- 51C - SRB - 4	RH SRM primary O-ring gas leak and erosion at center field joint
STS- 51C - SRB - 5	Gas leaks to primary O-rings at nozzle-to-case joint on both SRMs

a = Appears in JSC list also.
b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 51C - SSME - 1	ME-2 HPFTP disc temp meas failure
STS- 51C - SSME - 2	ME-2 controller MFV servoactuator self-test failure
STS- 51C - SSME - 3	Crack in Channel B sensor header pin
STS- 51D - MPS - 1	High LH2 tank backpressure during replenish
STS- 51D - SRB - 1	RH SRB nozzle throat ring developed erosion pockets
STS- 51D - SRB - 2	One yaw gyro did not track the others
STS- 51D - SRB - 3	Gas leak and erosion in both SRM nozzle-to-case joints
STS- 51D - SSME - 1	ME-I HPFTP disc temp meas failure
STS- 51D - SSME - 2	ME-I HPFTV coolant liner press erratic
STS- 51D - SSME - 3	OPOV LO2 supply line temperature sensor failed
STS- 51B - MPS - 1	LO2 replenish not terminated as scheduled
STS- 51B - MPS - 2	Failed to dump LO2 through ME-3 during propellant dump
STS- 51B - MPS - 3	GH2 pressurization system pressure sensor failed
STS- 51B - SRB - 1	Missing portion of RH SRM forward segment aft end flap
STS- 51B - SRB - 2	One main parachute on each SRB failed to inflate properly
STS- 51B - SRB - 3	RH SRB gas leak at primary O-ring of forward field joint
STS- 51B - SRB - 4	Gas leak and erosion in both SRM nozzle-to-case joints. Erosion to secondary O-ring on LH SRM
STS- 51B - SSME - 1	ME-2 DCU loss of power
STS- 51B - SSME - 2	Broken tab in HPOTP of engine S/N 2021
STS- 51G - MPS - 1	Start of chilldown 25 min late
STS- 51G - MPS - 2	GN2 purge supply inadequate
STS- 51G - MPS - 3	ME-2 LH2 inlet press meas failure

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 51G - MPS - 4	GH2 pressurization system pressure sensor failure
STS- 51G - SRB - 1	Four RGA's failed postflight bench tests
STS- 51G - SRB - 2	One LH SRB parachute didn't inflate beyond first reef stage
STS- 51G - SRB - 3	One flashing light failed
STS- 51G - SRB - 4	Gas leaks and erosion on both SRM nozzle-to-case joints
STS- 51G - SRB - 5	Gas leaks, but no erosion in either SRM igniter joint
STS- 51F - MPS - 1	GH2 pressurization system pressure sensor failed
STS- 51F - SRB - 1	RGA 'C' yaw gave full-scale negative output
STS- 51F - SRB - 2	RH main chute sustained extensive damage
STS- 51F - SRB - 3	One RGA yaw rate gyro failed full-scale negative
STS- 51F - SRB - 4	LH SRM nozzle throat inlet ablative ring separation from housing
STS- 51F - SRB - 5	LH SRM forward center joint primary O-ring had poor splice joints
STS- 51F - SRB - 6	Gas leak in the RH SRM nozzle-to-case joint
STS- 51F - SRB - 7	Gas leak but no erosion to LH SRM igniter joint
STS- 51F - SSME - 1	ME-I HPFTP disc temp Ch B meas failure
STS- 51F - SSME - 2	ME-I HPFTP disc temp Ch A meas failure
STS- 51F - SSME - 3	ME-I shutdown prematurely
STS- 51F - SSME - 4	ME-3 HPFTP disc temp Ch B meas failure
STS- 51F - SSME - 5	CCV ME-2 position indicator failure (on-pad abort)
STS- 51I - ET - 1	Both nose-cone temperature measurements failed
STS- 51I - MPS - 1	High Orbiter L02 inlet temp causing L02 stop flow
STS- 51I - MPS - 2	TSM engine bleed temp high reading

a = Appears in JSC list also.
b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 51I - MPS - 3	LH2 IOO-percent secondary sensor no. 2 not calculated
STS- 51I - MPS - 4	LH2 recirc pump 1 stop
STS- 51I - MPS - 5	GH2 pressurization system pressure sensor failed
STS- 51I - SRB - 1	Holddown stud failed to eject
STS- 51I - SRB - 2	One RGA pitch rate gyro failed postflight bench test
STS- 51I - SRB - 3	Gas leak in the LH SRM nozzle-to-case joint
STS- 51I - SRB - 4	Gas leaks in both inner and outer seals of LH SRM igniter joints. No seal damage
STS- 51I - SRB - 5	Gas leaks, but no erosion to outer gasket of RH SRM igniter joint
STS- 51J - ET - 1	LH2 ullage press xducer no. 2 high
STS- 51J - MPS - 1	LH2 high-point bleed valve failure
STS- 51J - MPS - 2	L02 replenish valve anomaly
STS- 1IJ - MPS - 3	Avionics problems with controller to LH2 prevalve no. 3 closing solenoid
STS- 51J - SRB - 1	One RGA failed yaw postflight bench test
STS- 51J - SRB - 2	Second stage reefing line cutter failed to fire
STS- 5LJ - SRB - 3	Segment of LH SRM nozzle outer boot ring missing
STS- 5IJ - SRB - 4	Gas leak at primary seal of RH SRM igniter joints
STS- 5IJ - SSME - 1	Engine SN 2019 fuel system purge pressure increase during start transient
STS- 61A - ET - 1	L02 ullage pressure dropout
STS- 61A - MPS - 1	LH2 storage tank press high
STS- 61A - MPS - 2	LH2 recirc pumps not started at normal time
STS- 61A - MPS - 3	High H2 concentration at fill line flex hose flange
STS- 61A - SRB - 1	Holddown stud failed to eject

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 61A - SRB - 2	Three RGA's failed postflight bench test
STS- 61A - SRB - 3	Hydrazine fire during descent
STS- 61A - SRB - 4	Nozzle extension didn't sever
STS- 61A - SRB - 5	Tilt fuel isolator valve ruptured, rock isolation valve missing
STS- 61A - SRB - 6	Damage to forward skirt access door during towback
STS- 61A - SRB - 7	LH center and aft field joints had gas leaks to primary O-rings
STS- 61A - SRB - 8	RH forward field joint gas leak at primary O-ring
STS- 61A - SRB - 9	Gas leaks occurred at both SRM nozzle-to-case joints. O-ring erosion to the right joint but not the leak.
STS- 61A - SRB - 10	Gas leaks, but no erosion to outer seal of both SRM igniter joints
STS- 61A - SSME - 1	OPOV LO2 supply line temperature sensor failed
STS- 61B - SRB - 1	Aft skirt EPON shim missing
STS- 61B - SRB - 2	Gas leaks and erosion in both SRM nozzle-to-case joints
STS- 61B - SRB - 3	Gas leaks but no erosion to outer seal of both SRM igniter joints
STS- 61B - SSME - 1	HPFTP turbine discharge temperature sensor failed
STS- 61C - ET - 1	LO2 ullage press dropout
STS- 61C - MPS - 1	Valve sequencing out of order during terminal count
STS- 61C - MPS - 2	Loss of primary HGDS
STS- 61C - MPS - 3	Broken facility LO2 temperature probe found in LO2 prevalve visor (third launch attempt)
STS- 61C - MPS - 4	GH2 pressurization system pressure sensor failed
STS- 61C - SRB - 1	LH flashing light failed
STS- 61C - SRB - 2	LH SRB aft field joint gas leak and erosion at primary O-ring
STS- 61C - SRB - 3	Gas leak in the LH SRM nozzle-to-case joint

a = Appears in JSC list also.
b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 61C - SRB - 4	Gas leak and erosion in the RH SRM nozzle-to-case joint
STS- 61C - 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.
STS- 26 - B - 8	The cavity-collapse loads, measured 50 milliseconds after water impact, exceeded the design yield strength on 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 is in excess of the water impact shock load limit of 360g.
STS- 26 - B - 10	The right SRB RGA pyrotechnic shock level 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 in. down stream of joint G-15 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, S/N 2019.
STS- 26 - E - 3	The HPFTP discharge temperature on channel B experienced decay and recovery (70 degrees) in the thrust bucket at 65 percent RPL (E-1, S/N 2019).
STS- 26 - E - 4	The HPFTP coolant liner pressure experienced an oscillation (70 psia) at 104 percent RPL on E-1 S/N 2019.
STS- 26 - E - 5	During disassembly of maine engine 1, the bellows seal at the G15 joint was found to have a crack four inches long on the fifth convolution of the inside diameter (nozzle side).
STS- 26 - M - 1	During postflight inspection of both SRMs, thermal protection system (TPS) cork 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 joint; similar amounts in others.
STS- 26 - M - 3	The metal interference surfaces (capture feature) of the RSRM field joints exhibited corrosion (hundreds of gouges, pits, and/or scratches) during postflight investigation.
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 dry 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.

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
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 in. x 3 1/2 in.) 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.
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 cneter segments'factory joint weatherseals.
STS- 27 - M - 7	Data analysis indicated a 'rise-rate' delay om 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 in 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.

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

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 hydorgen 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.
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. 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	Eighteen loose (only finger tight) 3/8 in. SRM Stub/ETA Ring aft web fasteners were identified on the left SRB during postflight assessment. Six fasteners were located at the IEA position, and the remaining 12 were located randomly around the ETA Ring.
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 deg F to 19 deg F for a 10-minute period during the launch countdown. Following the period, the normal temperature of 80 deg F was indicated.

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
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 in. wide by 24 in. 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.
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
STS- 34 - M - 3	Putty on right SRM igniter outer gasket and left SRM igniter outer gasket retainer and between 234 and 5 degrees of the right SRM igniter. Also, putty found on aft face of the gasket retainer (0.11 in. 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 in. 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
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	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.
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 in. 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 in. diameter MCC debond was noted 2 in. 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.

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
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 in. X 24 in.) as missing from the left forward bipod strut attach point on the intertank.
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 in. X 3.0 in. 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
STS- 36 - M - 2	The left SRM igniter had a material separation on the I.D. of the igniter adapter plug secondary o-ring. Separation measured 0.700 in. in length (33% of o-ring circumference), by 0.045 in. in depth, at a 45-degree angle from the tangential plane of the surface.
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 in. X 10 in. to 5/8 in. X 5/8 in.).
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-O-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 in. at 216 degrees decreasing to 0 in. 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.

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
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.
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 deg, 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 LO2 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.
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 ET separation from the Orbiter, the crew took pictures exhibiting two possible divots in the intertank foam acreage.

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 42 - M - 1	The left and right RSRM nozzle-to-case joints had gas paths through the poly-surfide 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.
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 FID on Channel B of the HPOTP SSC pressure measurement. Data spiking of the measurement was observed at engine start + 5 seconds through 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).
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 base 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 deg 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.
STS- 51 - B - 1	During the countdown of the unsuccessful, STS-51 launch attempt on July 24, 1993, the right SRB TVC APU (tilt) turbine experienced an underspeed redline violation at T-20 seconds.

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 51 - B - 2	During postflight inspection of both the left and right aft skirts, blistering of the Hypalon was observed over multiple areas of the BTA closeout material.
STS- 51 - E - 1	During ascent of, STS-51, the SSME-1 (E2031) LPFTP discharge temperature (channel B) exhibited negative spiking, beginning at 11 seconds after engine start.
STS- 51 - E - 2	During the, STS-51 flight, SSME-2 (E2034) HPFTP discharge temperature sensor (channel B) failed high and was disqualified 412.05 seconds after engine start.
STS- 51 - E - 3	During the, STS-51 launch attempt on August 12, 1993, channel A2 of SSME-2 (E2033) fuel flow sensor failed the 1,800 gpm intrachannel limit 1.34 seconds after engine start.
STS- 58 - T - 1	During postflight review of the, STS-58 (ET-57) umbilical well camera film, three areas along the ET intertank acreage exhibited a loss of TPS. One ET intertank acreage divot and the two jackpad closeouts were identified as the TPS locations effected.
STS- 61 - B - 1	During refurbishment of the right SRB APU (rock position, S/N 171) at Sunstrand, portions of 62 of the 123 second-stage turbine wheel blades were missing.
STS- 61 - I - 1	During postflight inspection of the right RSRM forward center segment, the cork was missing from the forward edge of the aft GEI TPS run (station 1099) at 220 degrees.
STS- 61 - I - 2	A postflight HDP loads reconstruction revealed slip loads in posts 1 and 2 just prior to SRB ignition.
STS- 60 - B - 1	During drogue parachute deployment of the right SRB, parachute line 45 failed.
STS- 60 - E - 1	At approximately 1.72 seconds after the engine start command (ESC), the SSME-1 (E2012) EMSD pressure sensor exhibited a positive spike on channel A of up to 523.8 psia.
STS- 62 - B - 1	During postflight inspection of the right SRB frustum, blistering of the Hypalon was observed over multiple areas of the BTA closeout material.
STS- 59 - B - 1	Left-hand and right-hand aft skirts have K5NA separated from Hypalon and Primer at the BSM Support Brackets.
STS- 59 - E - 1	SSME 3 high pressure oxidizer turbopump (HPOTP) turbine discharge temperature measurements had a 218 deg F difference during mainstage, and this represents 7.2 sigma when compared to the flight database.
STS- 59 - I - 1	Main engine 1 experienced single-point spikes on two pressure measurements.
STS- 59 - I - 2	Indentation in Instafoam on forward face of right ETA ring near the aft IEA cover.
STS- 65 - B - 1	Right-hand RSS safe and arm device loose mounting fasteners.
STS- 65 - B - 2	Broken fastener on LH Aft IEA end cover.
STS- 65 - M - 1	Aft segment stiffener stub crack.
STS- 64 - -	None.
STS- 68 - E - 1	Main Engine 3 exceeded high pressure oxidizer turbine discharge temperature LCC.
STS- 68 - E - 2	Cracked sheet in turnaround duct in turbine discharge of hgh pressure fuel turbopump (U/N 4113R2).
STS- 66 - B - 1	RH Frustum MSA-2 not adhering to painted surface.

a = Appears in JSC list also.

b = Integration Anomaly.

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER	NOMENCLATURE
STS- 63 - B - 1	LH and RH SRB damage to both forward skirts and both aft assemblies.
STS- 63 - I - 1b	Main engine 1 experienced single point spikes on three pressure measurements.
STS- 67 - -	None.
STS- 71 - M - 1	Nozzle internal joint 3 gas path/primary o-ring erosion
STS- 70 - M - 1	Nozzle internal joint 3 gas path/primary o-ring erosion
STS- 69 - -	None
STS- 73 - E - 1	The first launch attempt was scrubbed during propellant loading because of a leaking main fuel valve on SSME 1
STS- 74 - -	None

a = Appears in JSC list also.

b = Integration Anomaly.

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 activites.

To more efficiently produce the Orbiter attitude timeline section, effective STS-37 and subsequent, attitude timelines will be produced by computer and the detailed timeline data tabulations will be the as-run data as presented on the cathode ray tube during the mission. Some missions require many attitude changes and do not lend themselves to efficient graphical presentation, therefore, only the tabulation of the timeline will be included for these missions.

The attitudes in this section are defined with respect to the Shuttle Orbiter body axes, as opposed to the Shuttle Orbiter structural dimensional axes.

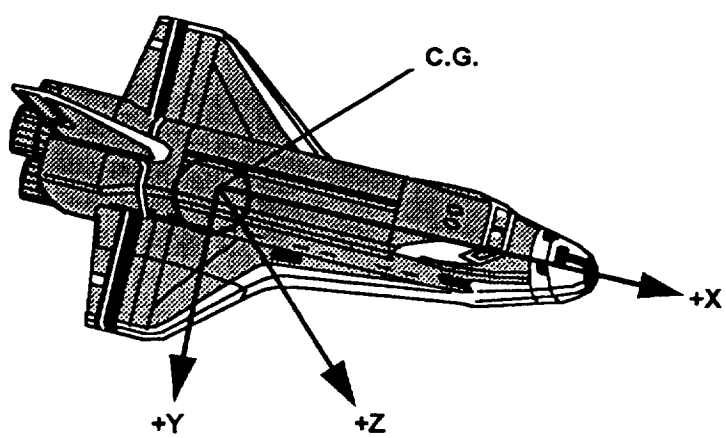
a. The origin is at the Orbiter's center of gravity (c.g.).

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



LIST OF ABBREVIATIONS AND ACRONYMS

The following is a list of abbreviations and acronyms used in this section:

ATT Attitude

DUR Duration

IH Inertial Hold

LV Local Vertical

LVLH Local Vertical-Local Horizontal

MET Mission Elapsed Time

SI Solar Inertial

VV Velocity Vector

β $\measuredangle$ Beta angle, angle between the sun vector and the orbital plane.

θ Theta angle, sun look angle as viewed from cockpit position looking forward and up, clockwise viewed from port side.

ϕ Phi angle, sun look angle as viewed from cockpit position looking starboard, as viewed from above.

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.

1 (STS-1), 2 (STS-2), 3 (STS-3) AND 4 (STS-4)

MISSION SEQ NO.	1	PT	-25.1	-23.8	-22.4	-20.8	-19.4	-18.5
STS NO.	1	MET	12	24	36	48		60
ORBITER OV-	102	ATT	-ZLV	+XLV	PTC	-ZLV	-XSI	-ZSI E153:42
OMS PODS		VV	-X	+Z		-X		
PORT	102	DUR	21:25	3:20	2:18	14:40	1:59	3:08
STBD	102	ROLL	0	186		0	183	θ_s 0
		PITCH	180	287		180		θ_s 88
		YAW	0	2		0		

MISSION SEQ NO.	2	PT	-51.4	-50.2	-48.7	-47.1	-45.3
STS NO.	2	MET	12	24	36	48	60
ORBITER OV-	102	ATT	-ZLV			-XSI	-ZSI E183:38
OMS PODS		VV	-X				
PORT	102	DUR	46:06			3:07	2:31
STBD	102	ROLL	180			θ_s 178	90
		PITCH	0			θ_s 188	0
		YAW	0				

MISSION SEQ NO.	3	PT	-34.0	-34.9	-35.5	-35.9	-36.1	-36.1	-35.9	-35.5	-34.9	-34.2	-33.3	-32.2	-30.9	-29.3
STS NO.	3	MET	12	24	36	48	60	MET1:72		MET1:84		MET1:96	108	120	132	144 156 168
ORBITER OV-	102	ATT	PTC	+XLV	-X SUN ORB RATE		PTC	NOSE TO SUI 2 REV/ORB ROLL					-ZSI		PTC	-ZSI
OMS PODS		VV	-ZLV +X +Y													
PORT	102	DUR	1:33 4:08	2:18	24:17		11:27	80:24					27:16		11:19	9:36
STBD	102	ROLL	180	230	θ_s 180			θ_s 0					θ_s 90			θ 90
		PITCH	0	296	θ_s 0			θ_s 0					θ_s 0			θ 0
		YAW	0	360												

PT	-27.7	-26.0			
MET	180	MET1:192			MET1:204
ATT	-ZSI	PTC	-XSI	-ZSI	E119:34
VV					
DUR			2:40	2:40	
ROLL	θ_s 90		θ 178	θ_s 90	
PITCH	θ_s 0		θ 178	θ_s 0	
YAW					

MISSION SEQ NO.	4	PT	-1.1	+0.2	+0.8	+1.9	+3.2	+4.7	+6.4	+8.0	+9.6	+11.2	+12.9	+15.0	+16.9	+20.5
STS NO.	4	MET	12	MET1:24	MET1:36	MET1:48	MET1:60	MET1:72	MET1:84	MET1:96	108	120	132	144	156	168
ORBITER OV-	102	ATT	-ZLV +XLV	+ZSI	-ZLV -ZSI	+XSV	-ZLV	-ZSI	+XSI	+ZSI	PTC	-XSI		PTC	-XSI -ZSI	E168:40
OMS PODS		VV	-Y +Y	+Y		+Y	+Y									
PORT	102	DUR	4:16 2:32	10:51	3:06	6:46	12:00	4:18	7:01	22:47	10:13	60:42		12:19	4:34	2:00
STBD	102	ROLL	0 240	θ_s 90	0 90	246	0	θ_s 90	θ_s 90	θ_s 90		θ_s 177			θ_s 176	70
		PITCH	192 200	θ_s 146	192 30	268	192	θ_s 180	θ_s 180	θ_s 180		θ_s 352			θ_s 178	0
		YAW	90 360		90	360	90									

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.

5 (STS-5), 6 (STS-6), 7 (STS-7) AND 8 (STS-8)

MISSION SEQ NO.	5	MET	-25.9	-24.1	-22.3	-20.3	-18.4	-16.5	-14.7	-12.8	-10.9	-9.1	-7.4
STS NO.	5	ATT	-ZLV / -ZLV	-ZLV		+YSI			-XSI NOSE 10°		PTC	-XSI / -ZSI	E(121:44
ORBITER OV-	102	VV	+X / +X	+X									
OMS PODS		DUR	2h 00 / 2h 00	24h 22		46h 49			24h 08		11h 12	3h 36 / 2h 17	
PORT	102	ROLL	210 / 180	180		Φ_S 90			Φ_S 10			Φ_S 170 / 70	
STBD	102	PITCH	0 / 0	0		Φ_S 90			Φ_S 180			Φ_S 170 / 0	
		YAW	0 / 0	0									
		DEPLOYS											

MISSION SEQ NO.	6	MET	-21.6	-21.9	-21.7	-21.9	-21.9	-21.8	-21.5	-21.0	-20.4	-19.7	-18.8
STS NO.	6	ATT	-ZLV / -ZLV	-ZLV			-ZLV	-ZLV				-XSI	E(119:43
ORBITER OV-	099	VV	+Y / +X	+X			+Y	+X					
OMS PODS		DUR	4h 24 / 4h 07	42h 46			2h 50	60h 09				2h 30	
PORT	099	ROLL	180 / 180	180			180	180				Φ_S 172	
STBD	099	PITCH	0 / 0	0			0	0				Φ_S 152	
		YAW	0 / 0	0			270	0					
		DEPLOYS											

MISSION SEQ NO.	7	MET	+17.5	+19.1	+21.1	+23.2	+25.2	+27.2	+29.3	+31.3	+33.3	+35.3	+37.2	+39.1	+40.9
STS NO.	7	ATT	-ZLV / -ZLV	-ZLV							-ZLV	-ZLV	-ZLV / -ZLV	-XSI / -YSI	E(140:40
ORBITER OV-	099	VV	+X / +X	+X							+Z	+X	+X / +X		
OMS PODS		DUR	3h 00 / 5h 30	60h 24							8h 27	19h 26	4h 40 / 10h 00	4h 54 / 2h 46	
PORT	099	ROLL	180 / 180	180							0	180	0 / 180	Φ_S 170 / Φ_S 47	
STBD	099	PITCH	0 / 0	0							90	0	180 / 0	Φ_S 179 / Φ_S 298	
		YAW	0 / 0	0							0	0	0 / 0		
		DEPLOYS	AMIK	PALAPA											

MISSION SEQ NO.	8	MET	+36.4	+37.0	+36.6	+35.4	+33.4	+30.9	+29.4
STS NO.	8	ATT	-ZLV	-ZLV / -XSI	-ZLV	-XLV / -ZLV	-XLV / -ZLV	+XLV / SI	E(144:38
ORBITER OV-	099	VV	+X	+X / GMS RATE	+X	-Z / +X	-Z / +X	-Z / -X	
OMS PODS		DUR	22h 36	7h 53 / 12h 00	33h 30	11h 00 / 11h 47	11h 40 / 3h 13	21h 00 / 2h 00	
PORT	099	ROLL	180	180 / Φ_S 180	180	180 / 180	0 / 180	0 / Φ_S 180	
STBD	099	PITCH	0	0 / Φ_S 0	0	90 / 0	270 / 0	270 / Φ_S 0	
		YAW	0	0	0	0 / 0	0 / 0	0	
		DEPLOYS		IUS/AT					

C106234C, ART. 1

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.
9 (STS-9), AND 10 (STS-41B)

MISSION SEQ NO.	9
STS NO.	9
ORBITER OV-	102
OMS PODS	
PORT	LV01
STBD	RV01

PT	-41.8	-44.2	-46.6	-49.1	-51.6	-54.0	-56.5	-58.9	-61.3	-63.7	-66.1	-68.4	-70.6	-72.7	-74.7
MET	12	24	36	48	60	72	84	96	108	120	132	144	156	168	180
ATT	-XLV	-ZLV	-XLV	-ZLV	AGTR	COLD TEST ROT	*MISC. ATTITUDES	-ZLV	*MISC. ATTITUDES	-ZLV	*MISC. ATTITUDES	-ZLV	HOT TEST COOL		
VV	Y	X	Z	-X				-X		-X		-X			
DUR	7:30	0:04	0:27	0:11	0:42	13:06		0:17		0:07		0:51		7:16	0:29
ROLL	90	180	0	0	336.78	267		0		0		0		202.7	180
PITCH	90	0	90	180	66	66		180		180		180		336.1	173
YAW	0	0	0	0	22	22		0		0		0		0.2	0
DEPLOYS															

*MISCELLANEOUS SHORT TERM ATTITUDES TO COMPLETE DTO'S. SEE REAL TIME ATTITUDE TIMELINE PRINTOUT.

PT	-76.5	-78.0	-79.0	-79.5	-79.4	-78.7
MET	180	192	204	216	228	240
ATT	SUN	-Z SUN	*MISC. ATTITUDES	-ZSI	PTC	TAIL SUN
VV						
DUR	0:22			4:00	0:18	3:20
ROLL	331.7			213	313	113
PITCH	144.6			9	6	76
YAW	323.6			315	293	10
DEPLOYS						

DEORBIT BURN 240:50:30

EI 247:11

MISSION SEQ NO.	10
STS NO.	41B
ORBITER OV-	099
OMS PODS	
PORT	099
STBD	099

PT	-26.8	-24.9	-22.8	-20.6	-18.5	-16.3	-14.2	-12.0	-9.9	-7.9	-5.9	-3.8	-2.0
MET	12	24	36	48	60	72	84	96	108	120	132	144	156 168
ATT	-ZLV	-ZLV		+XLV	-ZLV		-ZLV	-ZLV	-XLV	-ZLV	-ZSI	-YSI	-ZLV
VV	+X	+X		-Z	+X		+X	-X	+Z	+X			-X
DUR	0:05	37:30		5:30	15:40		17:40	3:37	10:19	33:13	10:34	2:33	10:33
ROLL	180	180		0	180		180	0	0	180	0 to 90	0 to 90	0
PITCH	0	0		270	0		0	180	90	0	0 to 20	0 to 90	180
YAW	0	0		0	0		0	0	120	0			0
DEPLOYS	WESTAR					PALAPA							

PT	0.2	1.5	3.1
MET	180	192	204
ATT	-ZLV	-XS	EI 11:00:40
VV	+X		
DUR	17:04	0:05	
ROLL	180	0 to 180	
PITCH	0	0 to 0	
YAW	0		
DEPLOYS			

C107572C. ART: 2

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.

11 (STS 41-C), 12 (STS 41-D), AND 13 (STS-41G)

MISSION SEQ NO.	11	MET	-12	-9	-5	-2	+2	+3	+6	+10	+13	+14
STS NO.	41C	ATT	-ZLV	-ZLV	+XLV		-ZSI	-ZLV	-ZLV	TAIL SUN	-XLV	-ZLV	-XSI	EI 167:10
ORBITER OV-	099	VV	+X	+X	-Z			-Y	+X	SI	+Z	-X		
OMS PODS		DUR	28:24	14:41	51:00		5:30	14:07	5:20	20:10	8:57	10:46	2:00	
PORT	103	ROLL	180	180	0		0 (5:00)	180	180	0 (5:170)	0	0	0 (5:180)	
STBD	103	PITCH	0	0	270		0 (5:90)	0	0	0 (5:270)	90	180	0 (5:0)	
		YAW	0	0	0			270	0		0	270		
		DEPLOYS		LDEF										

MISSION SEQ NO.	12	MET	-2.	+1.	2.	4.6	8.	16.	19.
STS NO.	41D	ATT	-ZLV -ZLV	-ZLV	-ZLV	-ZLV TAIL SUN	-ZLV	TAIL SUN -Z SI	NOSE/PORT SUN SI	-Z SI TAIL SUN -Z SI	NOSE/PORT SUN SI	-ZLV	-ZLV	-XSI	EI 144:26
ORBITER OV-	103	VV	+X +Y	-Y	+X	-Y	+X -Y	+X	-Y	-Y	-Y	+X	-X
OMS PODS		DUR	1:40 4:20	18:16	9:40	13:40	1:44 4:02	13:00	7:06	1:36	18:13	1:36 3:02 1:36	10:41	5:10	9:20	3:14
PORT	103	ROLL	180 180	180	180	180	180 360	180	300	0 (5:90)	0 (5:30)	0 (5:180) 300 0 (5:90)	0 (5:30)	180	0	0 (5:180)
STBD	103	PITCH	0 0	0	0	0	0 90	0	90	0 (5:0)	0 (5:90)	0 (5:0) 90 0 (5:0)	0 (5:90)	0	180	0 (5:0)
		YAW	0 270	270	0	270	0 0	0	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	-41.8	-39.0	-37.7	-35.6	-33.4	-31.2	-29.0	-26.7
STS NO.	41G	ATT	-ZLV *	-ZLV *	-ZLV *	-ZLV *	-ZLV *	-ZLV *	-ZLV *	-ZLV *	-ZLV *	-ZLV *	-ZLV *
ORBITER OV-	099	VV	+X	+X	-X	+X	+X	+X	+X	+X	+X	+X
OMS PODS		DUR	2:56	10:22	3:38	13:9	10:07	15:17	5:56	9:04	5:21
PORT	LP01	ROLL	180	180	180	180	180	180	180	180	180
STBD	RP01	PITCH	0	0	0	0	0	0	0	0	0
		YAW	0	0	0	0	0	0	0	0	0
		DEPLOYS															

*MISCELLANEOUS SHORT TERM ATTITUDES TO COMPLETE DTO'S. SEE REAL TIME ATTITUDE TIMELINE PRINTOUT.

	MET	-24.5	-22.2
	ATT	*	DEORBIT BURN 194:18:00
	VV		EI 198:47:05
	DUR		
	ROLL		
	PITCH		
	YAW		
	DEPLOYS		

C107573C, ART. 2

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.
14 (STS-51A), 16 (STS-51D) AND 17 (STS-51B)

MISSION SEQ NO.	14	MET	-27.7		-23.8		-20			-16.5				-12.4	-9.2		-5.3		-2.7	
STS NO.	51A	ATT	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	+XLV	STBD/ TOP SI	STBD/ TOP SI	STBD/ TOP SI	+XLV	STBD/ TOP SI	STBD/ TOP SI	
ORBITER OV-	103	VV	+X	+X	-Y	+X	-Y	-X	+X	-Y	+X	-Y	-Z				-Z			
OMS PODS		DUR	1:17	7:19	13:36	6:14	10:22	4:20	5:06	10:47	7:06	12:30	4:25	5:10	22:40	13:27	6:57	4:32	24:44	
PORT	103	ROLL	212	180	180	180	180	0	180	206	182	180	0	θ_s90	θ_s90	θ_s86	0	θ_s90	θ_s86	
STBD	103	PITCH	0	0	0	0	0	180	0	202	356	0	270	θ_s80	θ_s50	θ_s51	270	θ_s50	θ_s51	
		YAW	0	0	270	0	270	0	0	79	1	270	0	OM130	OM110	OM179	0	OM122	OM179	
		DEPLOYS					TELSAT		SYNCOM											

		MET	-0.6		
		ATT		+XLV	EI191:15
		VV		-Z	
		DUR		14:03	
		ROLL		0	
		PITCH		270	
		YAW		0	
		DEPLOYS			

MISSION SEQUENCE NO. 15 - DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE

MISSION SEQ NO.	16	MET	-9.0				-2.4	+.06	+1.7		+5.6		+9.8					+17.0		
STS NO.	51D	ATT	-ZLV	-ZLV	-ZLV		+XLV		+XLV		-XLV	-XLV	-XLV	-ZLV		-ZLV	+XSI		EI167:20	
ORBITER OV-	103	VV	+X	+X	-Y		+Z		+Z		+Z	+Z	-Z	+X		+X				
OMS PODS		DUR	1:53	6:04	11:32		24:13		36:53		6:59	17:36	4:26	19:53		13:59	3:13			
PORT	102	ROLL	180	180	0		180		180		0	180	0	180		180	θ_s180			
STBD	102	PITCH	0	0	180		270		270		90	270	290	270		0	θ_s0			
		YAW	0	0	270		0		0		0	0	0	0		0				
		DEPLOYS		TELSAT		SYNCOM		IMAGE					SYNCOM APPROACH		PRESS CONFERENCE					

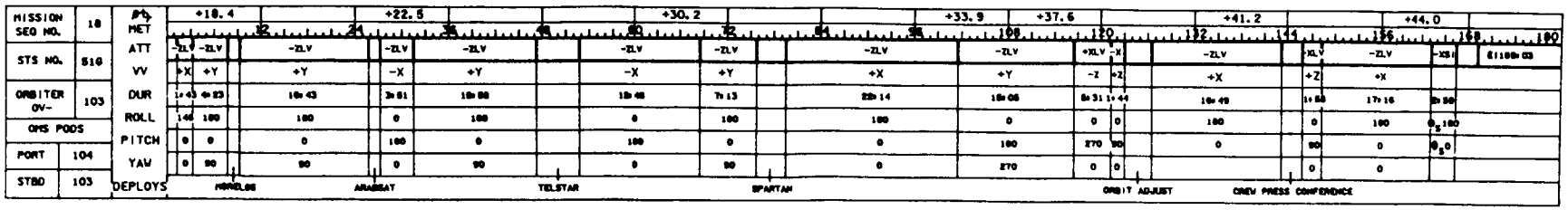
MISSION SEQ NO.	17	MET	-28.0		-29.0		-30.3		-31.7		-33.0		-34.4		-35.8	-36.5			-38.0	
STS NO.	51B	ATT	-ZLV			-XLV										NOSE SI - NOSE UP 10°		-XSI		
ORBITER OV-	099	VV	+X			-Y													EI167:30	
OMS PODS		DUR	3:32	4:15		120:17										19:06		2:30		
PORT	102	ROLL	180			90										θ_s10		θ_s180		
STBD	102	PITCH	0			90										θ_s180		θ_s0		
		YAW	0			2														
		DEPLOYS	TBRS ATMOS ATTITUDE																	

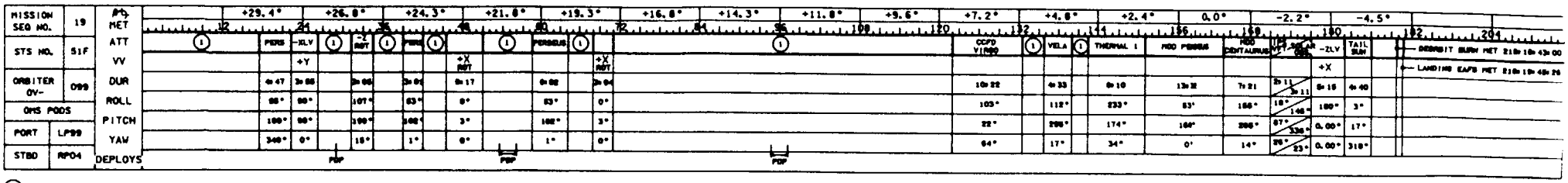
C106236C.ART,1

ORBITER ATTITUDE TIMELINE

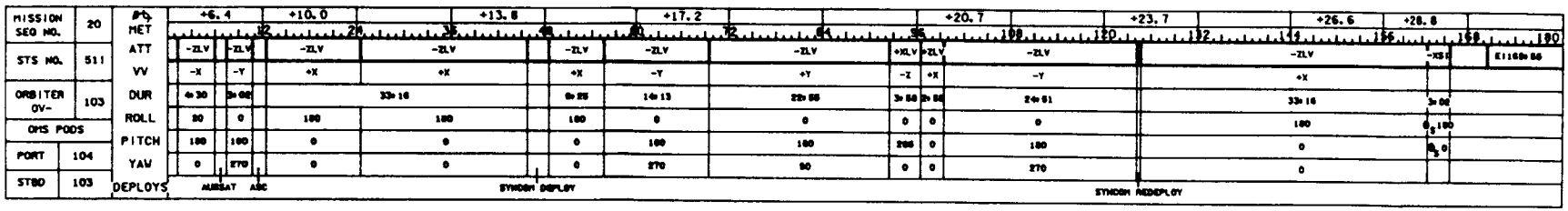
FOR MISSION SEQUENCE NOS

18 (STS-51G), 19 (STS-51F), 20 (STS-51I) AND 22 (STS-61A

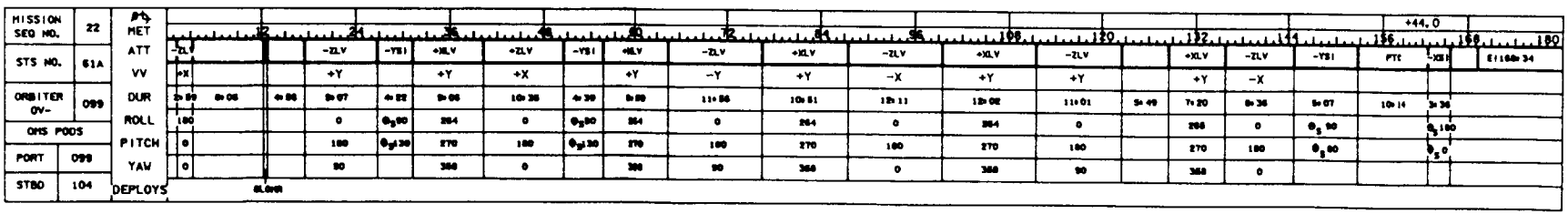




① MISCELLANEOUS SHORT-TERM ATTITUDES TO COMPLETE DTOS. SEE REAL TIME ATTITUDE TIMELINE PRINTOUT.



MISSION SEQUENCE NO. 21 - DEPARTMENT OF DEFENSE MISSION DATA NOT AVAILABLE.



C106237C. ART; 3

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.
23 (STS 61B) AND 24 (STS 61C)
25 (STS 51-L) STS-26, AND STS-27

MISSION SEQ NO.	23	MET	-9.4	-11.4	-13.4	-15.3	-17.3	-19.3	-21.3	-23.3	-25.4	-27.4	-29.5	-31.5	-33.5	-35.4
STS NO.	61B	ATT	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV	-ZLV			-ZLV	-ZLV	+ZSI	-ZLV	-YLV +XLV	-ZLV	-XSI	EI164+34
		VV	+X	-X	+X	-X	+X	+X			-X	+X		+X	+X	+Y	-X	
ORBITER OV-	104	DUR	3:12	14:40	5:00	10:40	3:14	50:11			12:34	12:00	12:41	4:04	2:57	3:05	10:47	3:36
OMS PODS		ROLL	180	0	180	0	180	180			0	180	θ_s90°	180	270	270	0	θ_s180
		PITCH	0	180	0	180	0	0			180	0	θ_s120°	0	0	270	180	θ_s0
PORT	099	YAW	0	0	0	0	0	0			0	0		0	0	0	0	
STBD	104	DEPLOYS	HERMELOS DEPLOY		AUSSAT		SATCOM				PHANTOM TARGET							

MISSION SEQ NO.	24	MET	-26.3	-24.3	-22.3	-20.3	-18.4	-16.5	-14.6	-12.7	-10.9	-9.2	-7.5	-5.8	-4.1
STS NO.	61C	ATT	-ZLV -ZLV	+YSI	UVX	-ZLV	UVX	-ZLV	-XLV	PTC	-XSI	SI	-ZLV	-XSI	-ZLV +XLV -ZLV	-XSI	EI146+26
		VV	+X +X			-Y		-Y	-Z				-Y		-Y +Z +X		
ORBITER OV-	102	DUR	3:18 4:24	11:19		18:46		12:33	5:42	10:37	3:15	7:15	12:13	3:10	2:30 1:30 12:26	3:13
OMS PODS		ROLL	215 180	θ_s90°		180		180	0		θ_s90	θ_s60	180	θ_s180	180 180 180	θ_s180
		PITCH	0 0	θ_s90°		0		0	240		θ_s90	θ_s40	0	θ_s0	0 270 0	θ_s0
PORT	103	YAW	0 0			270		270	0				0		0 0	
STBD	099	DEPLOYS	SATCOM DEPLOY						UVX	PRESS CONF		CHAMP		DERBIT ATTITUDE		

MISSION SEQUENCE NO. 25 - DATA NOT APPLICABLE.

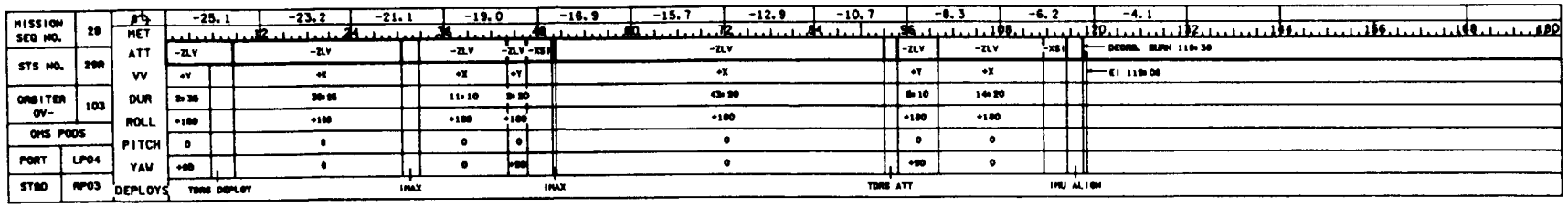
MISSION SEQ NO.	26	MET	-30°	-27°	-25°	-23°	-21°
STS NO.	26R	ATT	-ZLV -ZLV	-ZLV	-ZLV +XLV	-ZLV -ZLV	-ZLV	-XSI DE-ORB	EI-90°+30°
		VV	-Y +X	+Y	+Y -Z	-X +X	-X +X
ORBITER OV-	103	DUR	3°+10° 10°+10°	11°+90°	11°+40° 2°	6°+30° 11°+44°	11°+80°	11°+90°	2°+40°
OMS PODS		ROLL	180 180	180	180 60	180 180	180	180	30 61
		PITCH	0 0	0	0 283	0 0	0	0	360 179
PORT	109	YAW	61 0	0	0 0	0 0	0	0	12 332
STBD	114	DEPLOYS	TDRS						

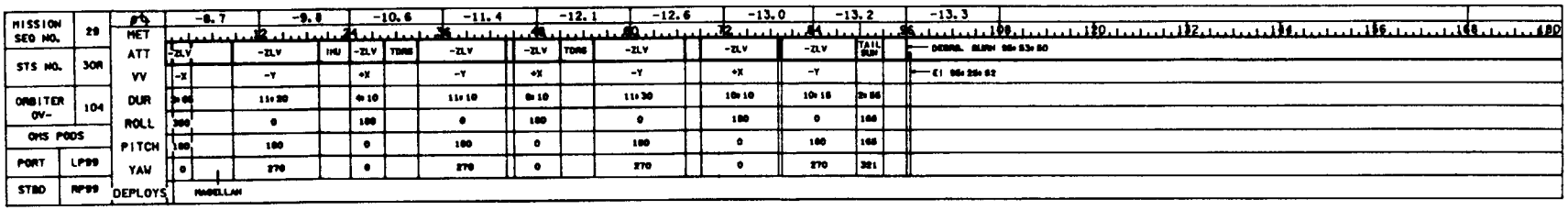
MISSION SEQUENCE NO. 27 - DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE.

C107445C. ART. 2

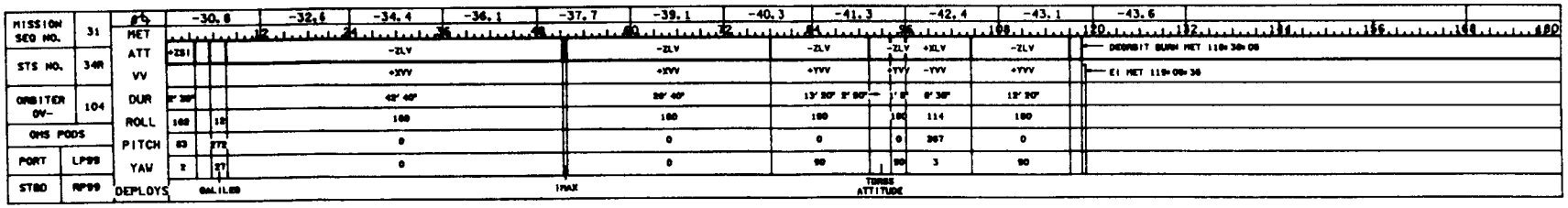
ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.
28 (STS-29R), 29 (STS 30R)
30 (STS-28R), 31 (STS-34R) AND 32 (STS-33R)





MISSION SEQUENCE NO. 30 - DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE.

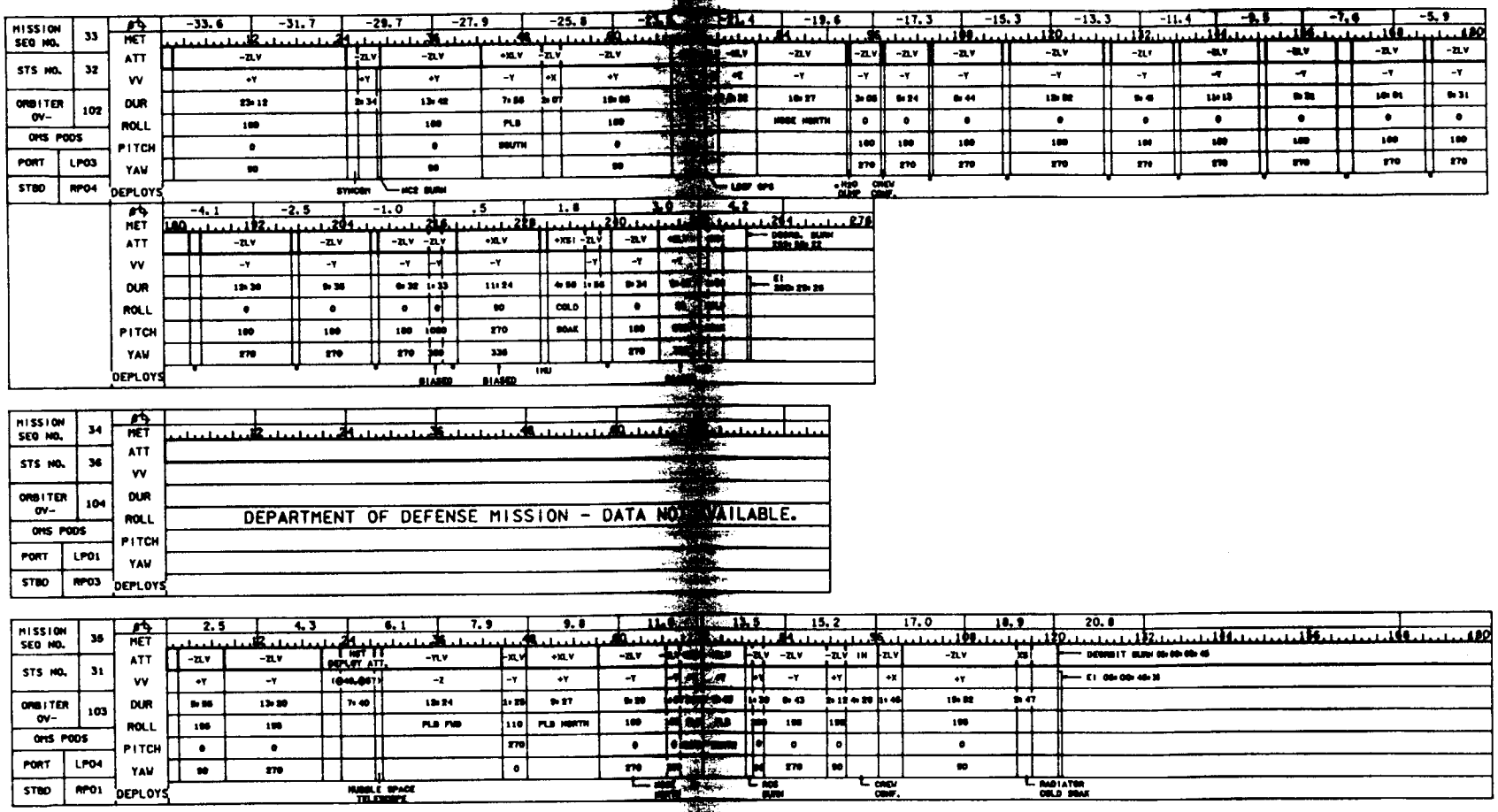


MISSION SEQUENCE NO. 32 - DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE.

C107563C.ART, 2

ORBITER ATTITUDE TIMELINE

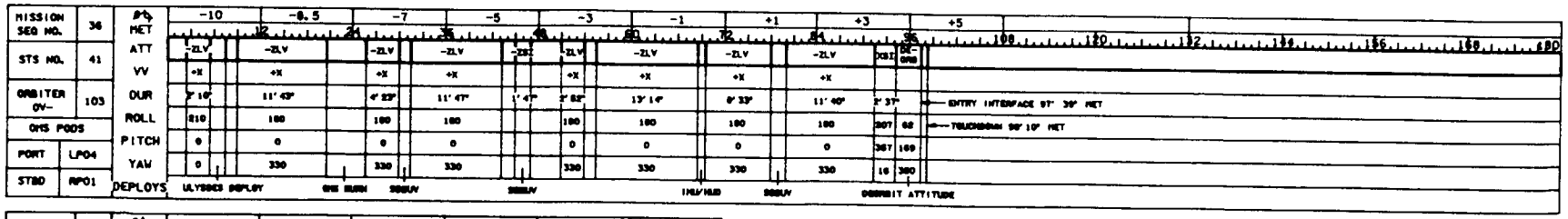
FOR MISSION SEQUENCE NO.
33 (STS-32), 34 (STS 36),
AND 35 (STS-31)



C107800C. ART. 1

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.
36 (STS-41), 37 (STS-38), AND 38 (STS-35)



MISSION SEQ NO.	37	
STS NO.	38	
ORBITER OV-	104	
OMS PODS		
PORT	LP01	
STBD	RP03	

MET 12 24 36 48 60 72

ATT
VV
DUR
ROLL
PITCH
YAW
DEPLOYS

DOD MISSION - DATA NOT AVAILABLE.

MISSION SEQ NO.	38	
STS NO.	35	
ORBITER OV-	102	
OMS PODS		
PORT	LP03	
STBD	RP04	

MET 12 24 36 48 60 72

ATT
VV
DUR
ROLL
PITCH
YAW
DEPLOYS

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.

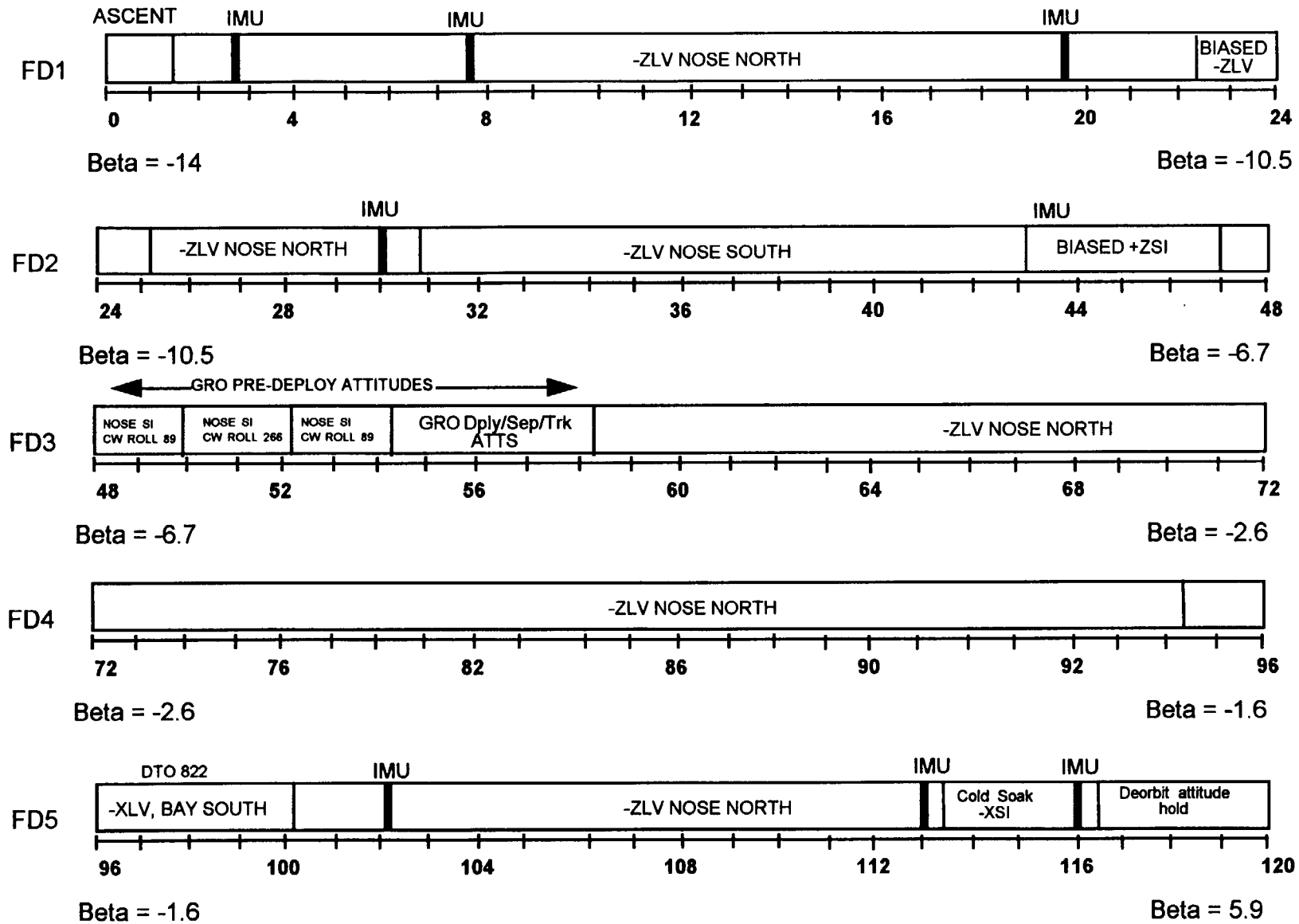
C107917C. ART. 1

TABLE 3-II. STS-35 AS-FLOWN ATTITUDE TIMELINE

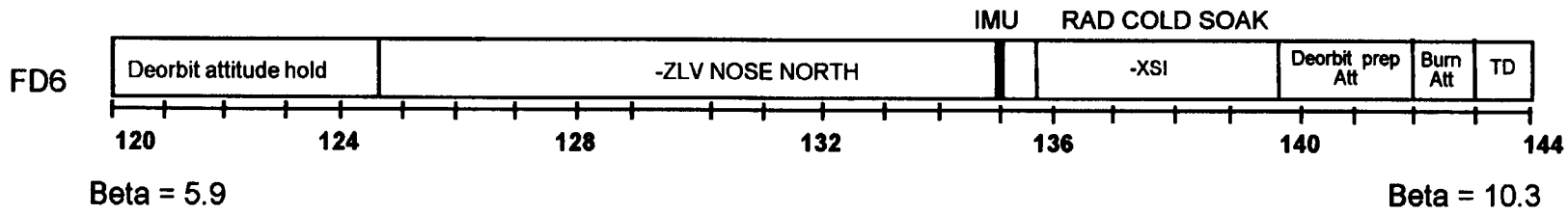
No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
217	8227-31H	344:14:00:53 8:07:11:52	IH	MIR601	280.00	144.00	297.00
218	1112-IOH	344:14:45:39 8:07:56:30	IH	MIR601	183.00	227.00	49.00
219	4419-10B	344:15:57:01 8:09:00:00	IH	MIR601	163.00	227.00	19.00
220	8337-10D	344:10:39:01 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 AI	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

MET (HRS:MIN)		DURATION (HRS:MIN)	ATTITUDE/EVENT
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 degrees)
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 degrees)
49:50	52:13	2:23	Nose SI (Rolled CW 266 degrees) EVA Attitude
52:13	54:15	2:02	Nose SI (Rolled CW 89 degrees)
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 ATTITUDE 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		
					Roll	Pitch	Yaw
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	PQO2 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
24	PU02A GAL CTR	119:02:19:54 0:14:46:40	IH	MIR601	207.18	34.15	13.82

TABLE 3-V. STS-39 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
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	PU02B PERSCL	119:04:27:14 0:16:54:00	IH	MIR601	56.42	34.04	356.36
28	PU02B 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	PL02G 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
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

TABLE 3-V. STS-39 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
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	PQ04 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
70		121:20:42:14 3:09:09:00	LVLH		52.00	320.00	289.00
71		121:21:02:14 3:09:29:00	IH	MIR601	277.00	311.00	287.00
72		121:21:17:14 3:09:44:00	LVLH		52.00	320.00	289.00

TABLE 3-V. STS-39 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
73		121:21:23:00 3:09:49:46	LVLH		52.00	320.00	289.00
74	CP1	121:21:30:00 3:09:56:46	LVLH		52.00	320.00	289.00
75		121:21:34:14 3:10:01:00	LVLH		308.00	320.00	71.00
76	MCP1	121:21:46:14 3:10:13:00	LVLH		52.00	320.00	289.00
77	VNP1	121:21:57:00 3:10:23:46	LVLH		52.00	320.00	289.00
78	OP3	121:22:04:00 3:10:30:46	LVLH		52.00	320.00	289.00
79	NOP3	121:22:08:14 3:10:35:00	LVLH		308.00	320.00	71.00
80	PRCS OBS ATT	121:22:17:14 3:10:44:00	LVLH		52.00	320.00	289.00
81	MCP3	121:22:21:00 3:10:47:46	LVLH		52.00	320.00	289.00
82	VNP3	121:22:31:00 3:10:57:46	LVLH		52.00	320.00	289.00
83	OP2	121:22:38:00 3:11:04:46	LVLH		52.00	320.00	289.00
84	NOP2	121:22:43:00 3:11:09:46	LVLH		308.00	320.00	71.00
85	MCP2	121:22:55:00 3:11:21:46	LVLH		52.00	320.00	289.00
86	VNP2	121:23:05:00 3:11:31:46	LVLH		52.00	320.00	289.00
87	PRCS BURN	121:23:12:00 3:11:38:46	LVLH		52.00	320.00	289.00
88	-YLV -ZVV	121:23:32:14 3:11:59:00	LVLH		0.00	270.00	90.00
89		122:02:00:14 3:14:27:00	IH	MIR601	180.00	113.00	2.00
90	-YLV -ZVV	122:02:05:44 3:14:32:30	LVLH		0.00	270.00	90.00
91	NCCNF	122:05:29:54 3:17:56:40	IH	MIR601	132.00	322.00	58.00
92	-Z TGT TRK	122:05:48:04 3:18:14:50	LVLH		0.00	270.00	0.00
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

TABLE 3-V. STS-39 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
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
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	PF06	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

TABLE 3-V. STS-39 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
121	PF020	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	PF02B	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
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

TABLE 3-V. STS-39 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
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	PF03 AURORA	124:16:13:14 6:04:40:00	LVLH		180.00	270.00	0.00
162	SCO X-1	124:17:28:14 6:05:55:00	IH	MIR601	204.00	93.09	18.27
163	PU02A CENX-3	124:18:51:14 6:07:18:00	IH	MIR601	86.04	210.10	9.51
164	PU02A GAL CENTER	124:19:33:14 6:08:00:00	IH	MIR601	190.64	78.37	27.79
165	PU02A CENX-2	124:20:18:34 6:08:45:20	IH	MIR601	81.32	217.71	59.01
166	PFU02B SCO-X1	124:22:14:44 6:10:41:30	IH	MIR601	163.54	185.15	23.33
167	PU02A GS1124	124:23:17:14 6:11:44:00	IH	MIR601	87.66	202.57	18.50
168	PFU02B CYG X-1	124:23:55:14 6:12:22:00	IH	MIR601	224.79	205.79	351.47

TABLE 3-V. STS-39 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
169	PFU02B GAL CTR	125:01:18:14 6:13:45:00	IH	MIR601	179.27	274.22	330.82
170	PU02B	125:02:20:14 6:14:47:00	IH	MIR601	87.77	202.19	12.38
171	PFU02B	125:02:58:14 6:15:25:00	IH	MIR601	244.78	225.59	358.20
172	PF02A	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	PF02B	125:05:45:44 6:18:12:30	IH	MIR601	275.07	120.50	67.38
175	PFU02B	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	PQ04	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	GGS	125:11:38:14 7:00:05:00	LVLH		120.00	260.00	2.00
181	PQ04 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
185	PQ04 QRAM	125:18:03:14 7:06:30:00	LVLH		25.00	180.00	90.00
186	PF02B CHAMLN	125:19:07:14 7:07:34:00	IH	MIR601	230.60	138.25	35.26
187	PQ04 QRAM	125:19:58:14 7:08:25:00	LVLH		295.00	270.00	0.00
188	-ZLV MS	125:20:43:14 7:09:10:00	LVLH		180.00	0.00	90.00
189	ORB ADJUST BURN	125:22:25:44 7:10:52:30	IH	MIR601	70.00	290.00	314:00
190	UVLIM SCAN START	125:22:43:14 7:11:10:00	LVLH		5.00	55.00	0.00
191	UVLIM SCAN ROTR	125:22:53:35 7:11:20:21	ROTR	MIR601	261.00	304.00	0.00
192	UVLIM SCAN CNCL	125:23:40:14 7:12:07:00	IH	MIR601	106.00	110.00	57.00

TABLE 3-V. STS-39 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
193	SKIRT CVF AIRGLW	125:23:53:32 7:12:20:18	LVLH		187.00	104.00	274.00
194	SKIRT CVF CANCEL	125:23:54:14 7:12:21:00	IH	MIR601	290.00	210.00	13.00
195	UVLIM SCAN START	126:00:10:10 7:12:44:56	LVLH		10.00	55.00	0.00
196	UVLIM SCAN ROTR	126:00:23:17 7:12:58:03	ROTR	MIR601	266.00	305.00	1.00
197	UVLIM SCAN CNCL	126:01:09:14 7:13:36:00	IH	MIR601	97.00	118.00	57.00
198	MOON CAL	126:01:25:42 7:13:52:28	IH	MIR601	235.00	144.00	340.00
199	UVLIM SCAN START	126:01:43:54 7:14:10:40	LVLH		5.00	55.00	0.00
200	UVLIM SCAN ROTR	126:01:52:59 7:14:19:45	ROTR	MIR601	268.00	389.00	18.00
201	SKIRT CVF START	126:02:50:03 7:15:16:49	LVLH		0.00	345.00	0.00
202	SKIRT CVF ROT	126:02:58:44 7:15:25:30	LVLH		15.00	45.00	270.00
203	SKIRT CVF ROT	126:03:06:19 7:15:33:05	LVLH		180.00	165.00	0.00
204	GGN	126:03:22:43 7:15:49:29	LVLH		240.00	268.00	358.00
205	SKIRT CVF LVLH	126:03:32:44 7:15:59:30	LVLH		180.00	100.00	0.00
206	UVLIM LIMB SCAN	126:06:25:54 7:18:52:40	LVLH		180.00	235.00	10.00
207	UVLIM LIMB ROTR	126:06:29:14 7:18:56:00	ROTR	MIR601	282.89	119.96	336.70
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-O IMU ALIGN	126:14:59:14 8:03:26:00	IH	MIR601	291.00	304.00	21.00
215	D-O 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

TABLE 3-V. STS-39 AS-FLOWN ATTITUDE TIMELINE

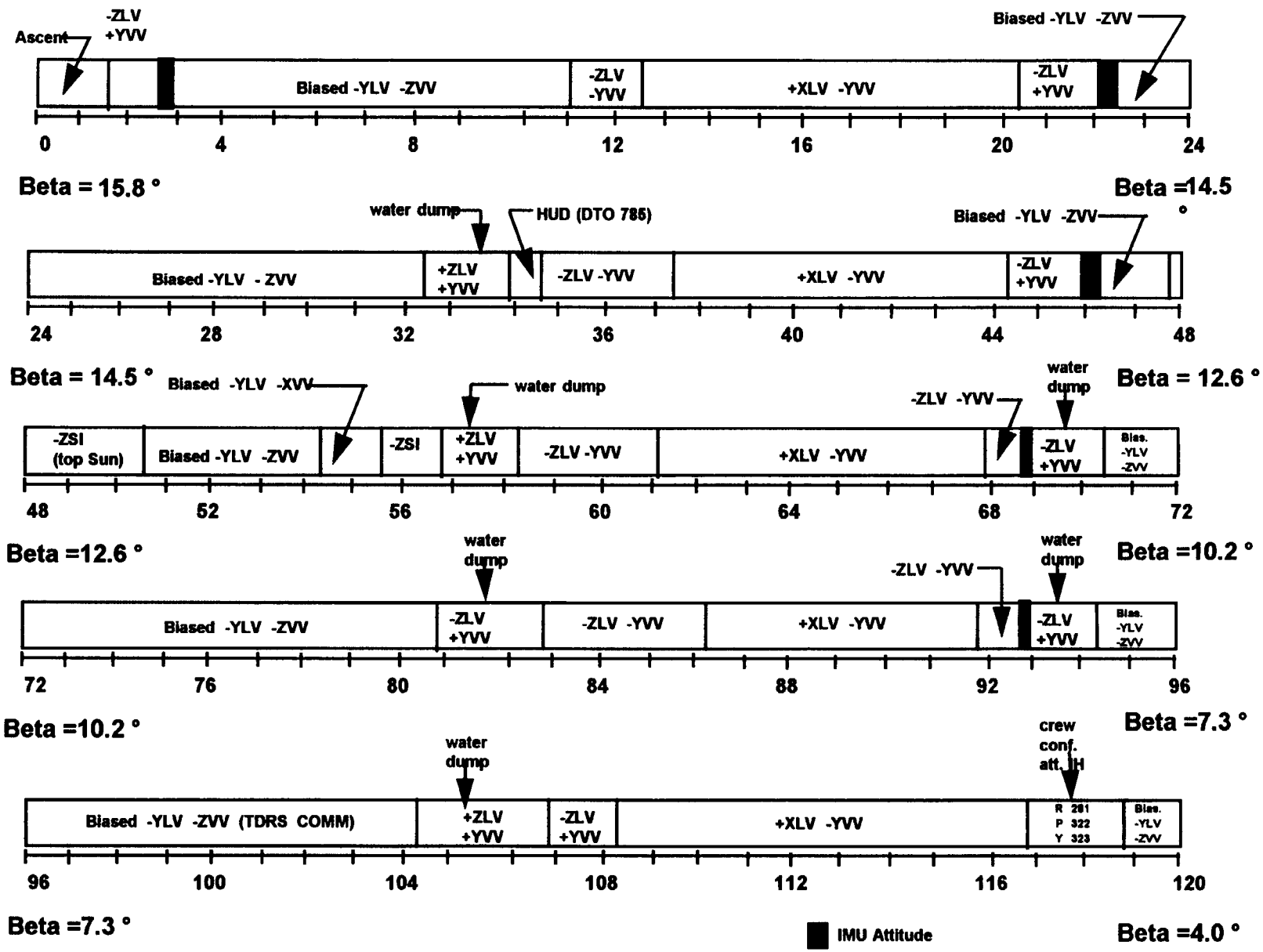
No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
217	DEORBIT	126:17:25:14 8:05:52:00	IH	MIR601	112.00	110.00	40.00
218	MM 303 ENTRY	126:17:57:59 8:06:24:45	IH	CUR101	254.26	305.18	5.30
219	MM 304 ENTRY	126:18:18:30 8:06:45:16	LVLH		1.00	38.89	358.66

TABLE 3-VI - STS-40 AS-FLOWN TIMELINE

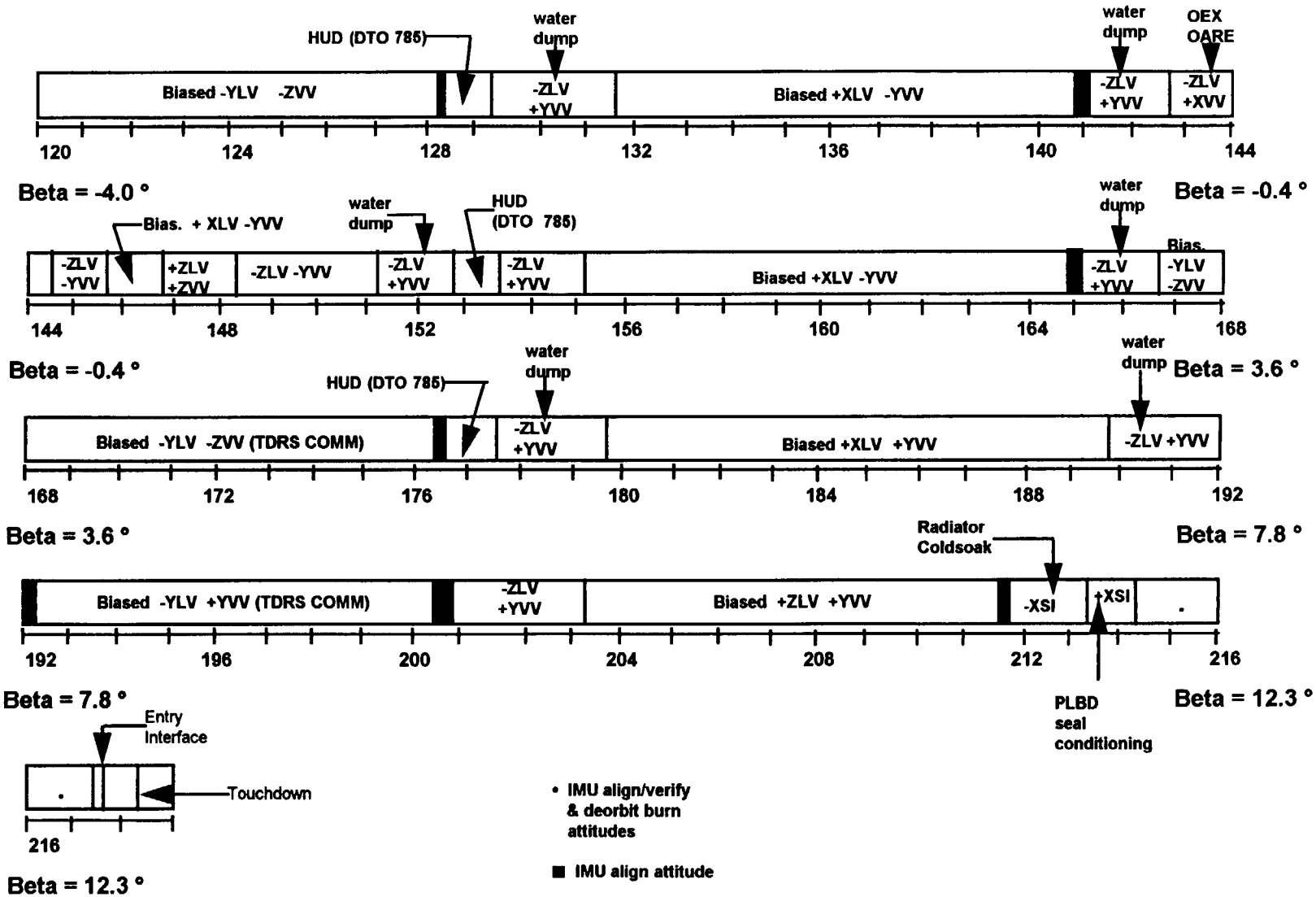
MET (HRS:MIN)	DURATIO (HRS:MIN)	ATTITUDE/EVENT
0:00:00 - 0:01:28	1:28	Ascent
0:01:28 - 0:02:55	1:27	-ZLV +YVV (Top Earth, Nose South)
0:02:55 - 0:11:04	8:09	Biased -YLV -ZVV (R=90,P=180,Y=60)
0:11:04 - 0:12:27	1:23	-ZLV -YVV
0:12:27 - 0:20:05	7:38	+XLV -YVV
0:20:05 - 0:22:37	2:32	-ZLV +YVV
0:22:37 - 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
6:21:09 - 6:22:37	1:28	-ZLV +YVV (WATER DUMP)

TABLE 3-VI - STS-40 AS-FLOWN TIMELINE

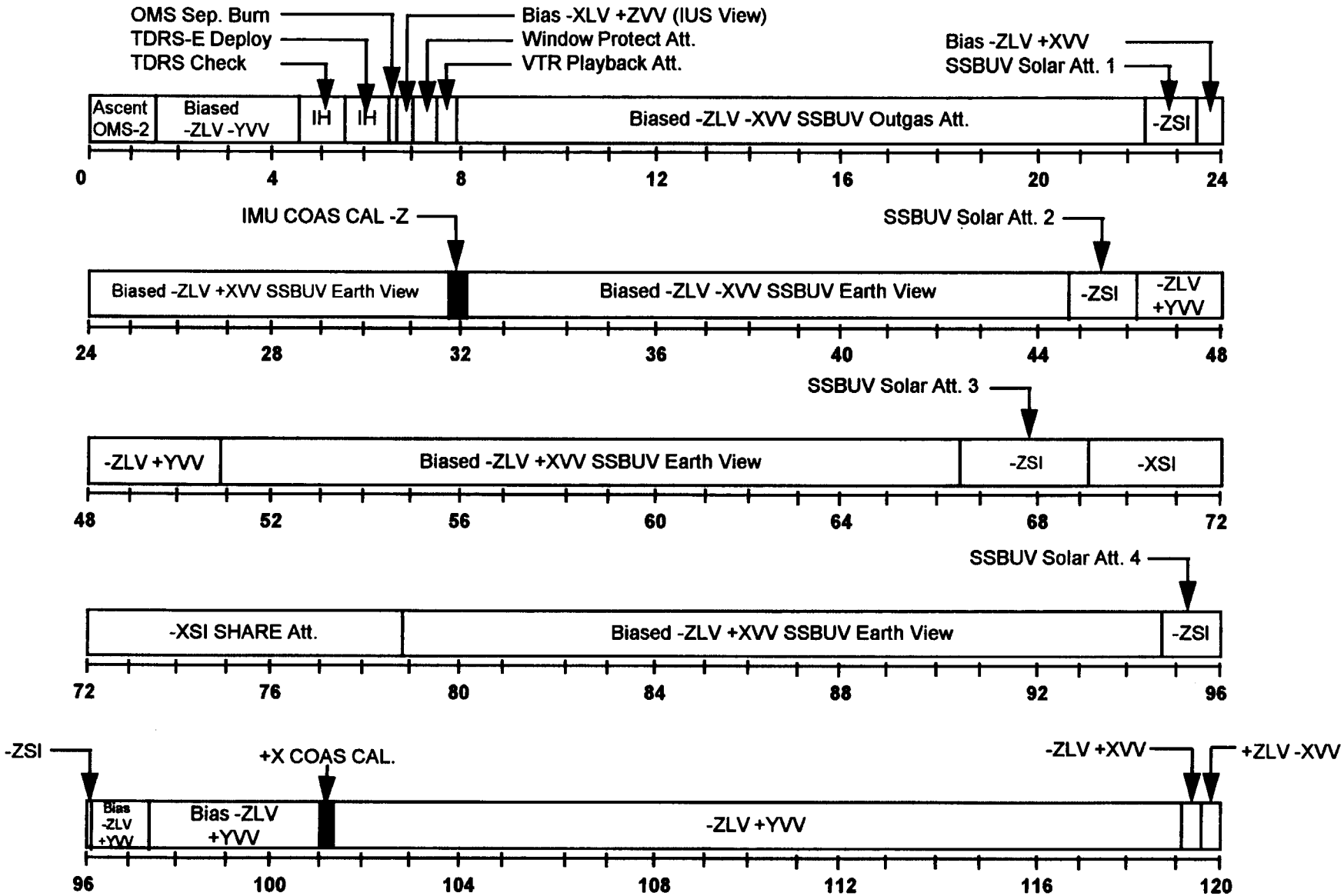
MET (HRS:MIN)	DURATIO (HRS:MIN)	ATTITUDE/EVENT
6:22:37 - 7:08:38	10:01	BIASED -YLV -ZVV (TDRS COMM)
7:08:38 - 7:09:29	0:51	HUD (DTO 785)
7:09:29 - 7:11:37	2:08	-ZLV +YVV (WATER DUMP)
7:11:37 - 7:21:34	9:57	BIASED +XLV +YVV
7:21:34 - 8:00:14	2:40	-ZLV +YVV (WATER DUMP)
8:00:14 - 8:09:06	8:52	BIASED -YLV -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 COLDSOAK)
8:21:17 - 8:22:16	0:59	+XSI (PLBD SEAL CONDITIONING)
8:22:16 - 9:01:17	3:01	IMU ALIGN AND VERIFY/DEORBIT BURN ATT.
9:01:43		ENTRY INTERFACE
9:01:15		TOUCHDOWN



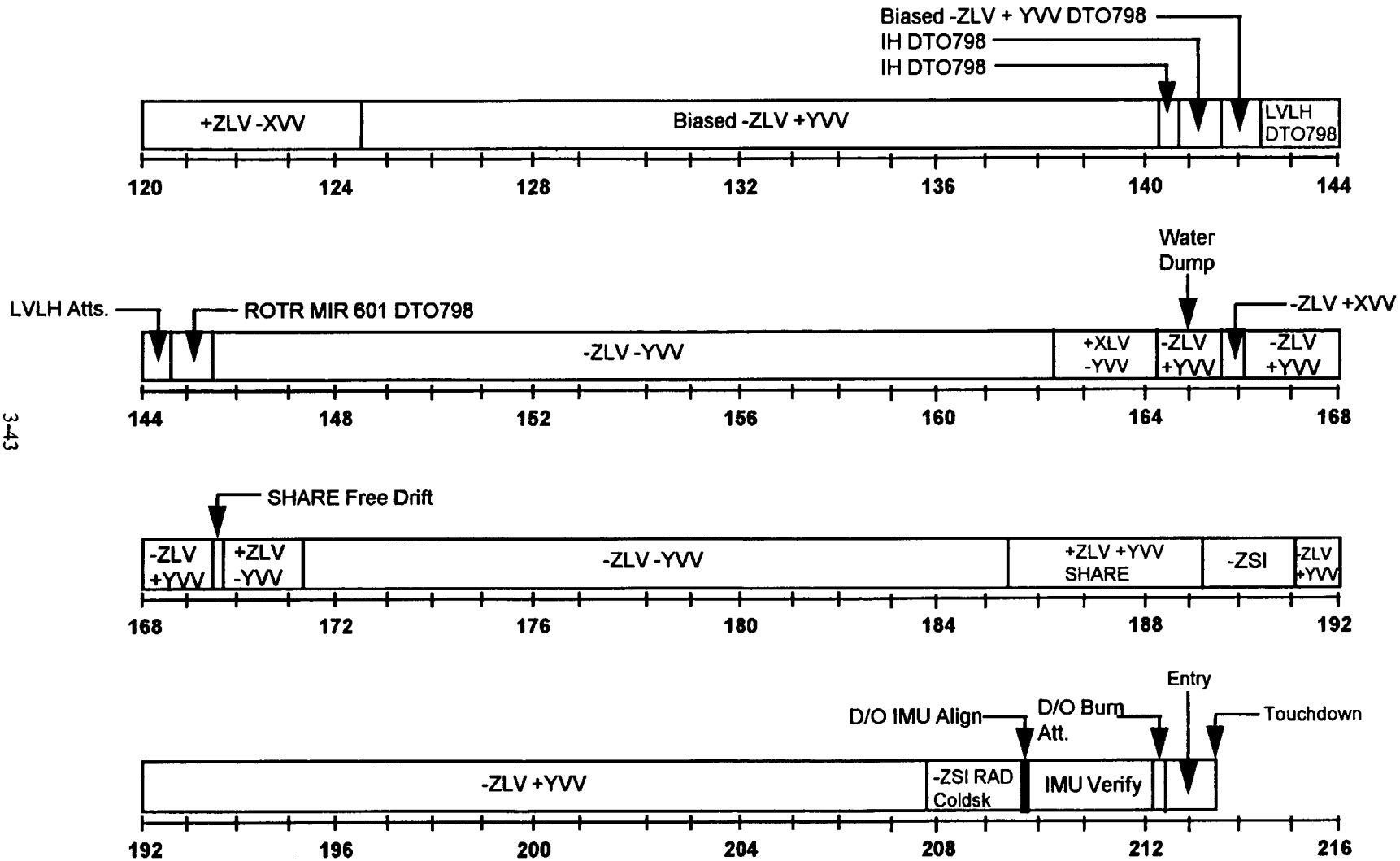
STS-40 As-flown Attitude Timeline



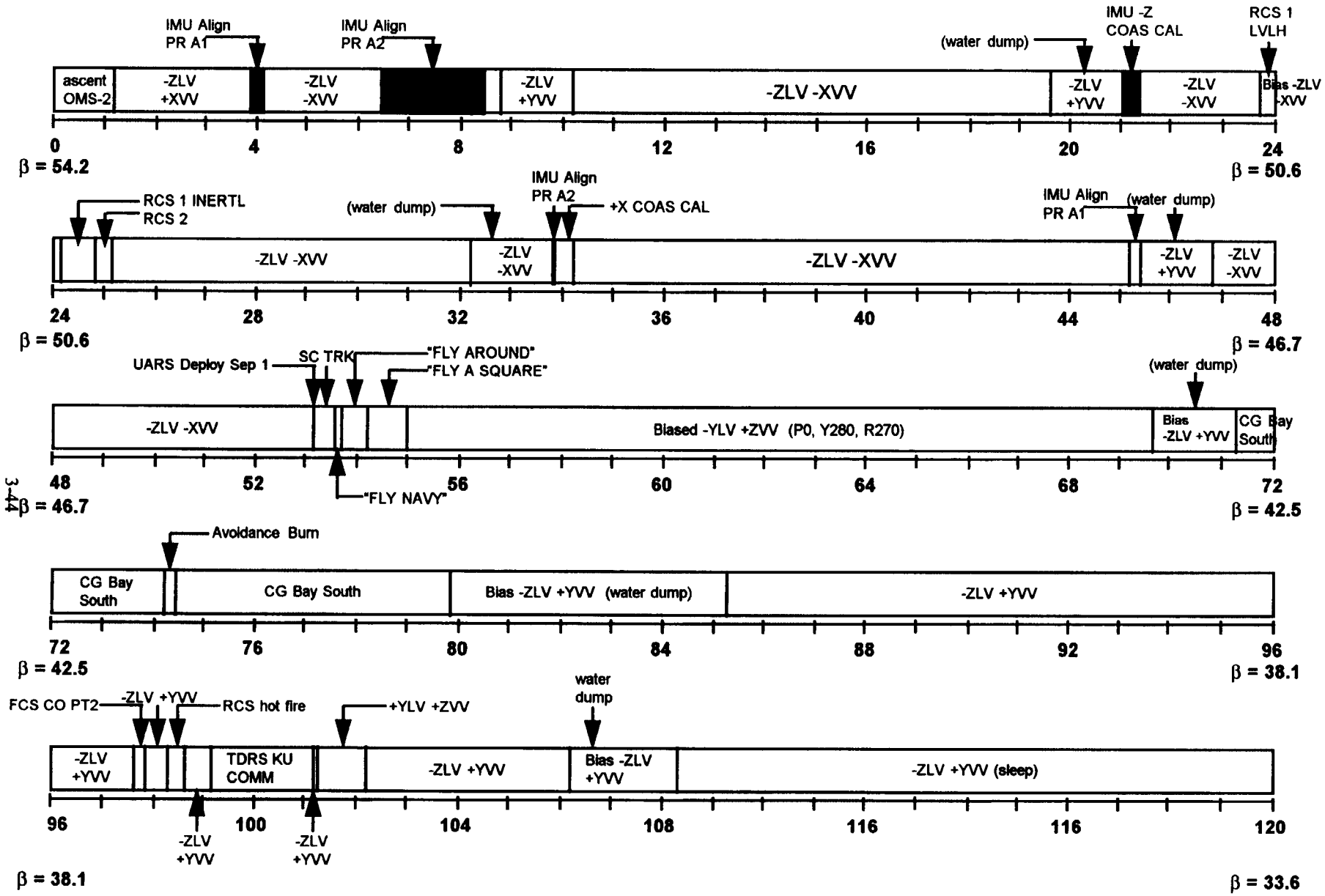
STS-40 As-flown Attitude Timeline (continued)



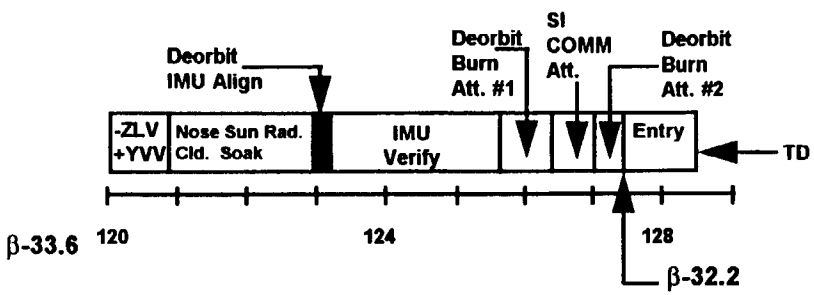
STS-43 AS-FLOWN ATTITUDE TIMELINE



STS-43 AS-FLOWN ATTITUDE TIMELINE Cont.



STS-48 AS-FLOWN ATTITUDE TIMELINE



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 C/O 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.

TABLE 3-VII - STS-48 AS-FLOWN ATTITUDE TIMELINE

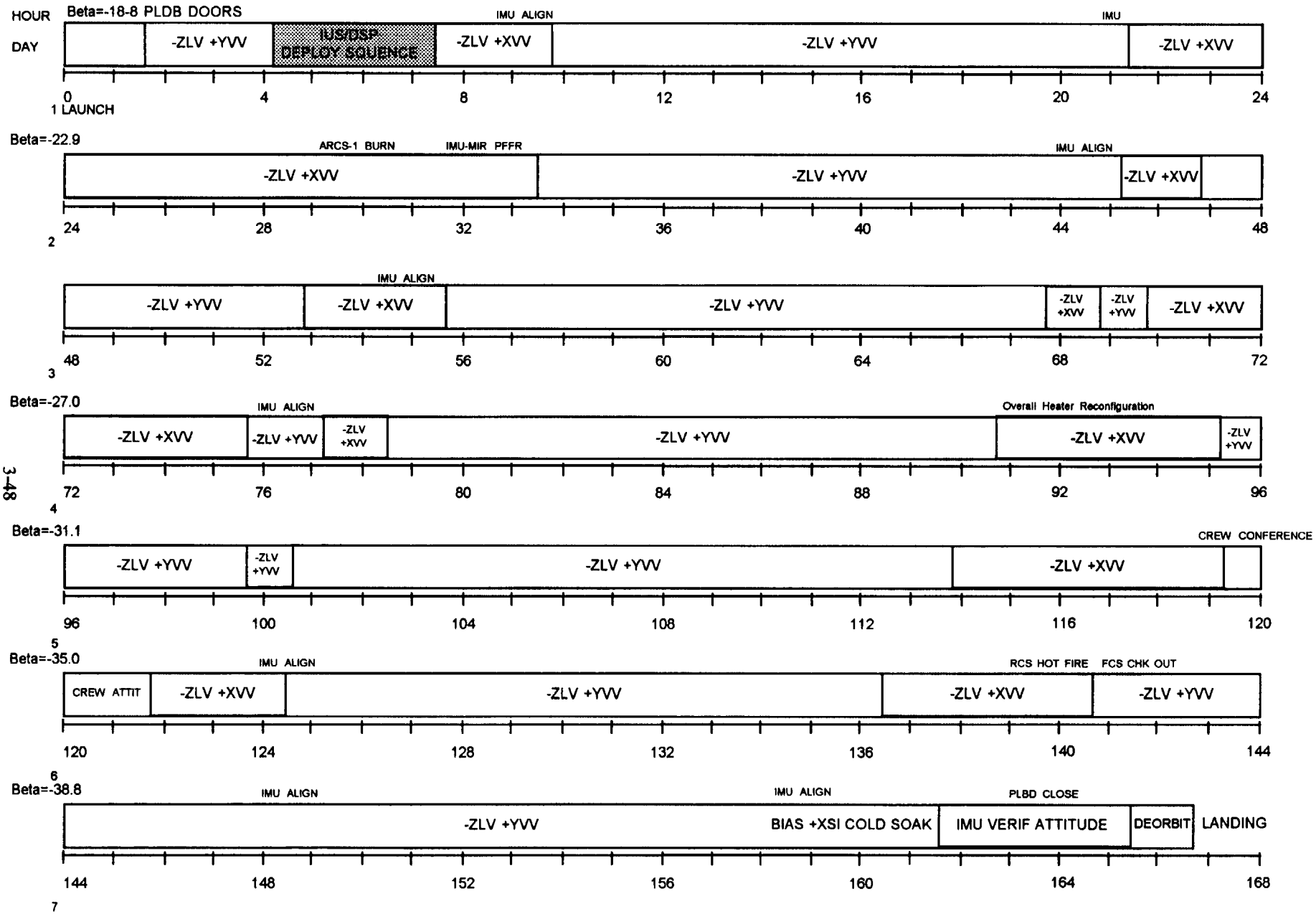
Mission elapsed time day:hour:minute		Duration Hr:min	Attitude/Event
0:00:00	0:00:28	0:28	Ascent
0:00:28	0:01:18	0:50	OMS-2 maneuver attitude
0:01:18	0:03:40	2:22	-ZLV +XVV
0:03:40	0:04:01	0:21	IMU align PR A1
0:04:01	0:06:19	2:18	-ZLV -XVV
0:06:19	0:08:21	2:02	IMU align PR A2
0:08:21	0:08:53	0:32	+X 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 -YLV +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	+YLV +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
5:00:58	5:03:01	2:03	Nose Sun (SI) Radiator Cold Soak

Note: * = Landing was delayed one revolution due to clouds/visibility at KSC.
Landing was at Edwards AFB on the next revolution.

TABLE 3-VII - STS-48 AS-FLOWN ATTITUDE TIMELINE

Mission elapsed time day:hour:minute		Duration Hr:min	Attitude/Event
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.



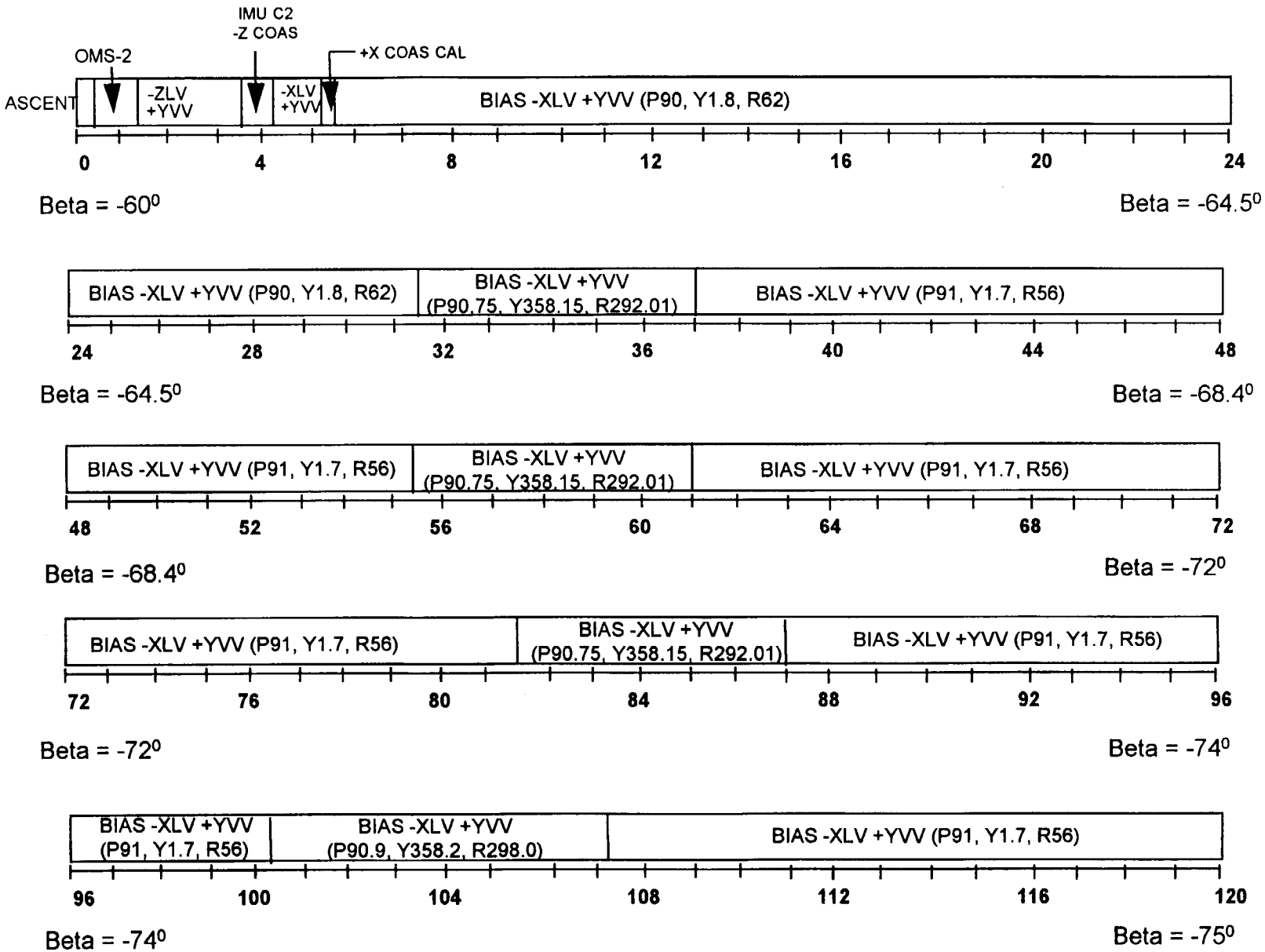
STS-44 SIMPLIFIED AS-FLOWN ATTITUDE TIMELINE

TABLE 3-VIII.- STS-44 AS-FLOWN ATTITUDE TIMELINE

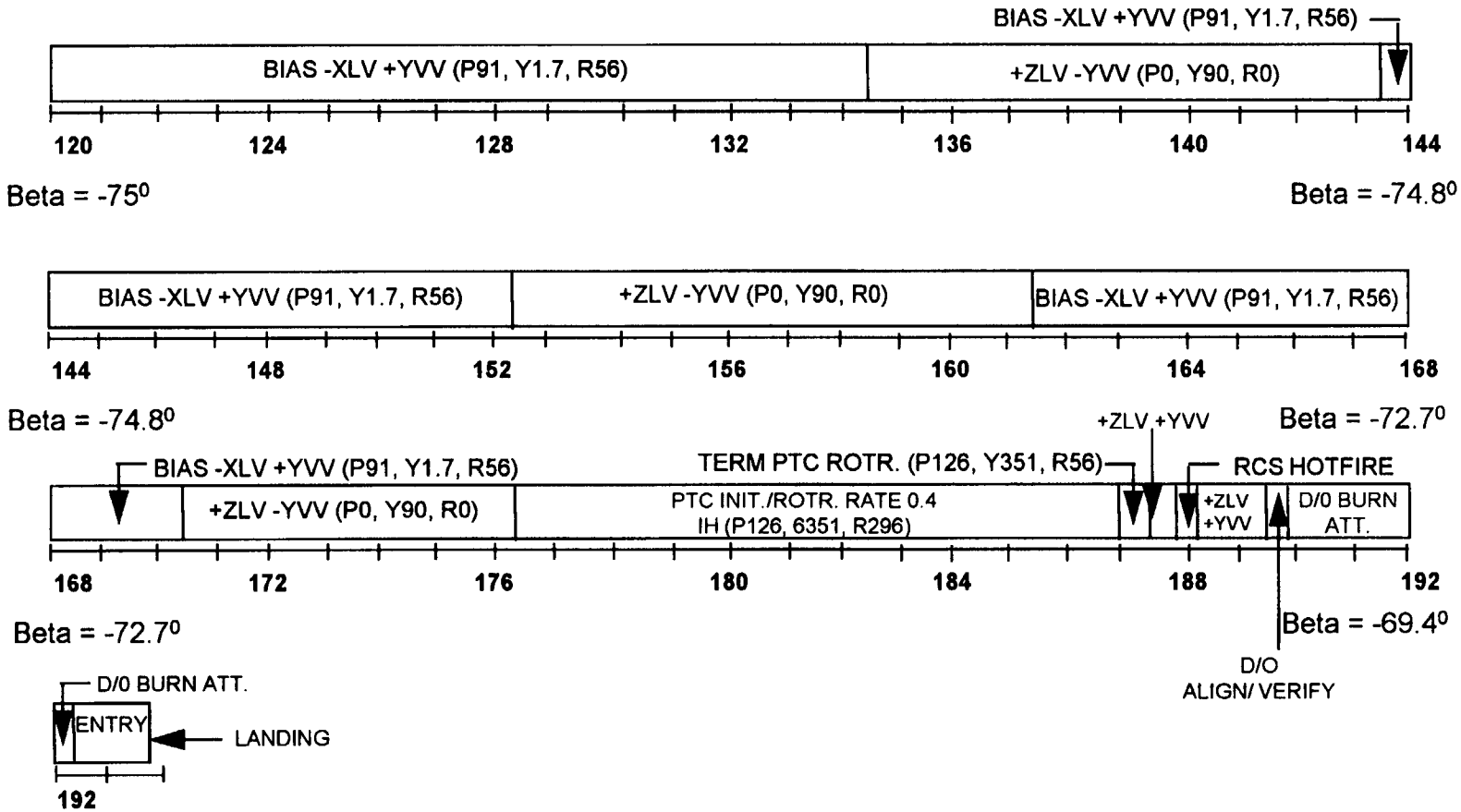
Mission elapsed time, day:hour:minute	Duration hr:min	Attitude/Event
0:00:00 - 0:00:30	0:30	Launch
0:00:30 - 0:01:22	0:52	OMS-2 Manuever attitude
0:01:22 - 0:04:13	2:51	-ZLV Nose South
0:04:13 - 0:07:45	3:32	DSP/IUS Deployment attitude
0:07:45 - 0:09:48	2:03	-ZLV Nose forward
0:09:48 - 0:21:42	11:54	-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 maneuver
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 maneuver and entry
6:21:49	--	Landing

TABLE 3-IX - STS-42 AS-FLOWN ATTITUDE TIMELINE

Mission elapsed time day:hour:minute		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



ATTITUDES 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 189:38 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 (Cont.)

TABLE 3-X. STS-45 BETA ANGLE vs MISSION ELAPSED TIME

Mission elapsed time, day:hour	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
24	AEP1	085:12:39:40 0:23:26:00	LVLH		98.40	1.00	34.20

TABLE 3-XI. STS-45 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
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 O2	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
47	AEPSLIM	085:21:53:32 1:08:39:52	LVLH		90.00	90.00	20.00
48	-Z ATLAS SUNTAN	085:22:14:58 1:09:01:18	IH	MIR601	171.10	96.00	61.90

TABLE 3-XI. STS-45 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
49	AEP 1	085:23:09:49 1:09:56:09	LVLH		58.26	83.43	16.06
50	AEPSLIM	085:23:24:05 1:10:10:25	LVLH		90.00	90.00	20.00
51	-ZSI SUSIM	085:23:43:40 1:10:30:00	IH	MIR601	170.90	95.90	59.90
52	AEP 1	086:00:39:59 1:11:26:19	LVLH		58.00	83.90	15.70
53	+ZLV -XVV	086:01:05:04 1:11:51:24	LVLH		180.00	180.00	0.00
54	ISO	086:03:44:07 1:14:30:27	LVLH		151.60	180.00	0.00
55	-ZLV +XVV	086:04:21:09 1:15:07:29	LVLH		180.00	0.00	0.00
56	-ZLV -XVV	086:05:44:40 1:16:31:00	LVLH		0.00	180.00	0.00
57	ISO13A B ROT	086:07:11:40 1:17:58:00	LVLH		0.00	90.00	90.00
58	13A END ATT	086:07:49:40 1:18:36:00	LVLH		0.00	186.30	90.00
59	-Z STAR	086:08:02:40 1:18:49:00	IH	MIR601	32.00	66.00	21.00
60	ISO13A B ROT	086:08:42:29 1:19:28:49	LVLH		0.00	90.00	90.00
61	13A END ATT	086:09:22:40 1:20:09:00	LVLH		0.00	186.30	90.00
62	MSFC COM ATT	086:09:35:40 1:20:22:00	IH	MIR601	130.00	0.00	60.00
63	-ZLV -XVV	086:10:03:10 1:20:49:30	LVLH		0.00	180.00	0.00
64	SEP C SCAN	086:12:49:57 1:23:35:57	LVLH		170.47	269.74	277.00
65	SCAN MNVR	086:12:57:34 1:23:43:54	LVLH		180.21	269.79	277.09
66	-ZLV -XVV	086:13:09:07 1:23:55:27	LVLH		0.00	180.00	0.00
67	AEPSB	086:14:20:50 2:01:07:10	LVLH		50.00	100.00	0.00
68	-ZLV -XVV	086:14:37:50 2:01:24:10	LVLH		0.00	180.00	0.00
69	INTERMEDIATE ATT	086:23:58:40 2:10:45:00	LVLH		0.00	180.00	64.00
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

TABLE 3-XI. STS-45 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
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	087:84:30:20 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
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

TABLE 3-XI. STS-45 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
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	SEP6	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
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

TABLE 3-XI. STS-45 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
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
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

TABLE 3-XI. STS-45 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
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
162	SEP10A	090:08:53:10 5:19:39:30	LVLH		147.00	270.00	90.00
163	ISO14	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

TABLE 3-XI. STS-45 AS-FLOWN ATTITUDE TIMELINE

No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
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	ISO13A 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	ISO14	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	ISO14	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							
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

TABLE 3-XI. STS-45 AS-FLOWN ATTITUDE TIMELINE

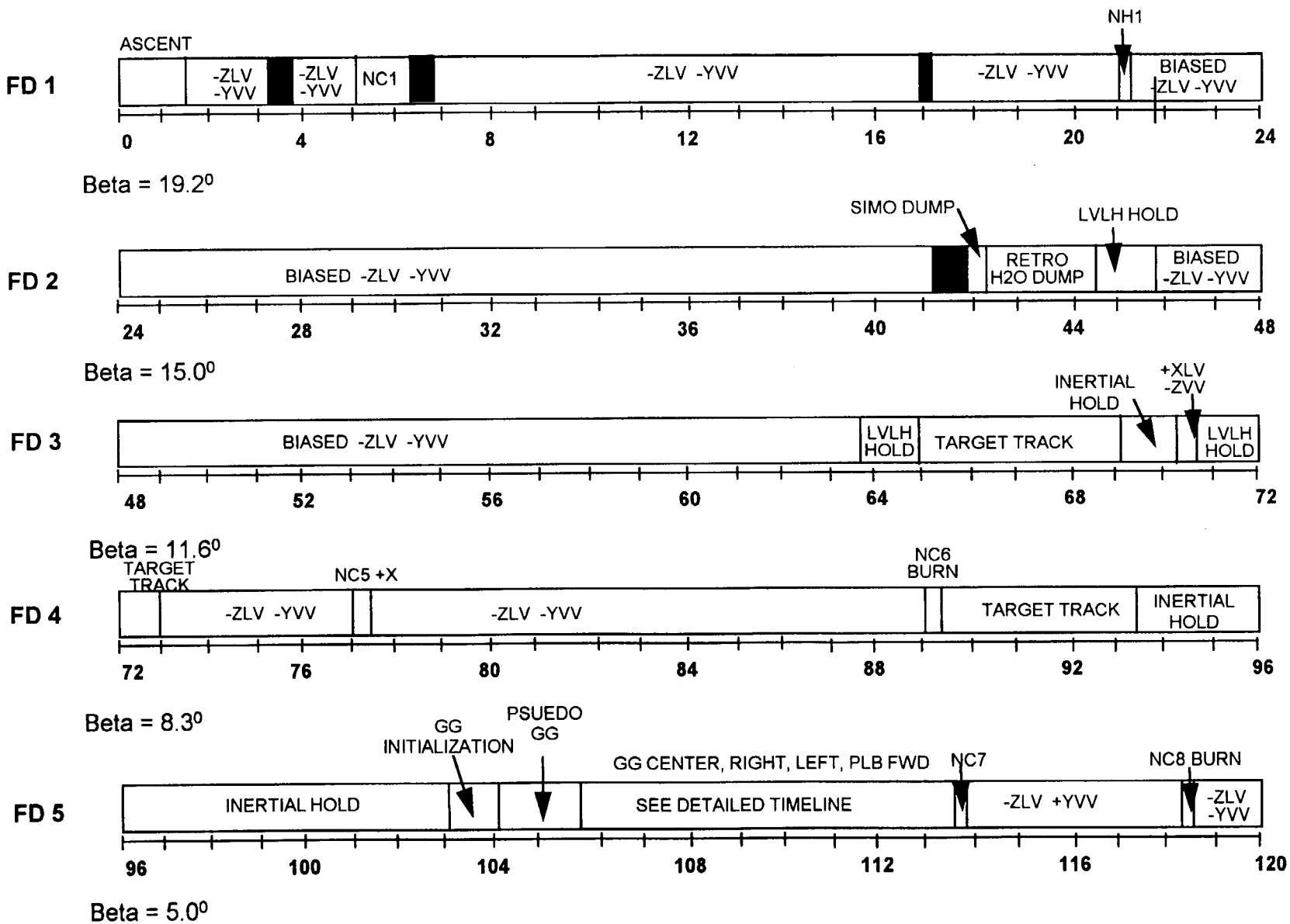
No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
193	-ZSI	091:21:26:40 7:08:13:00	IH	MIR601	165.00	98.00	50.00
194	-ZLV -XVV	091:22:31:40 7:09:18:00	LVLH		0.00	180.00	0.00
195	-ZSI	091:22:58:40 7:09:45:00	IH	MIR601			
196	-ZLV +XVV	092:00:04:36 7:10:30:52	LVLH		180.00	0.00	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
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

TABLE 3-XI. STS-45 AS-FLOWN ATTITUDE TIMELINE

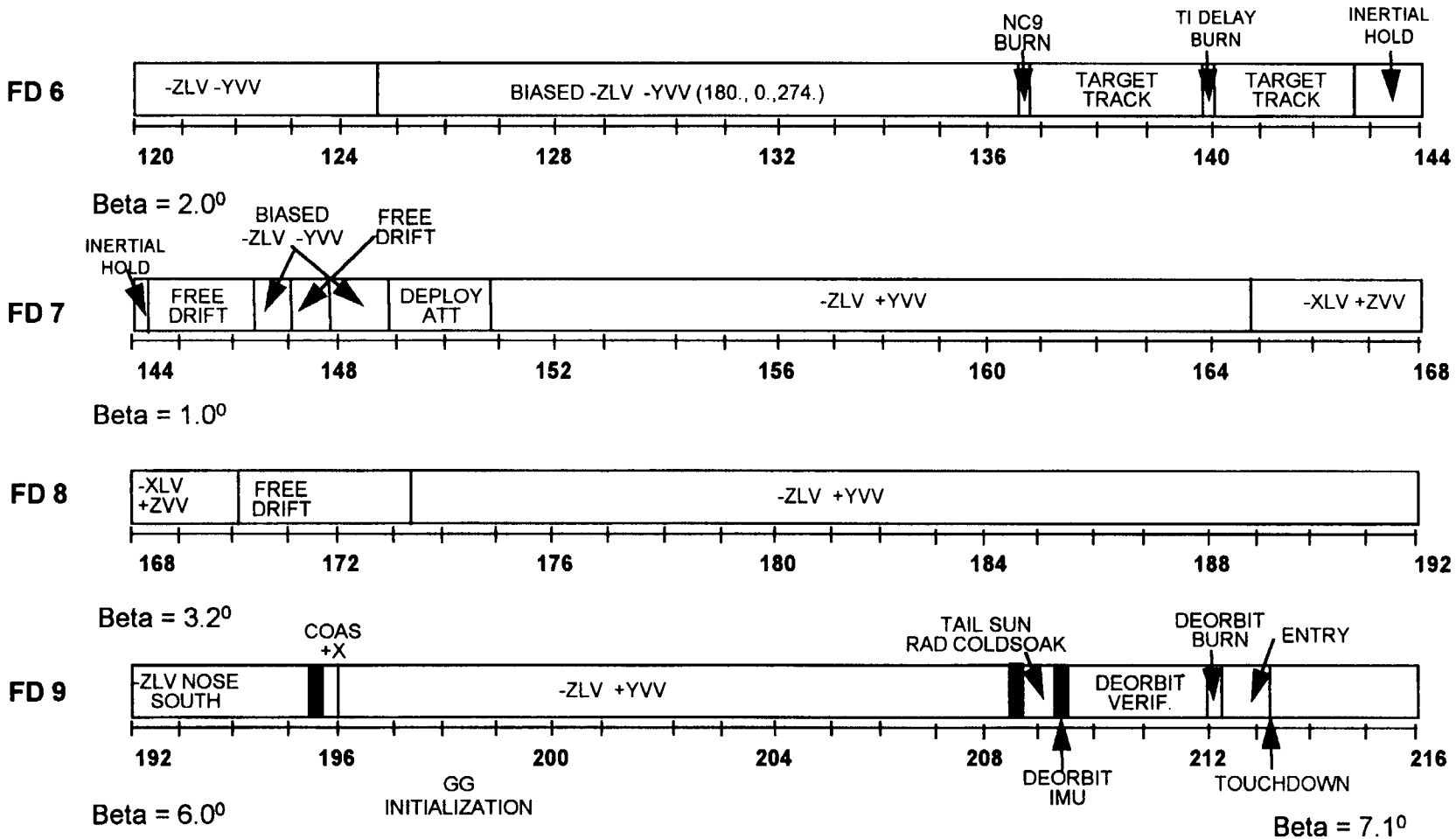
No.	Comment	Time, G.m.t./ M.E.T.	Mode	Matrix	Attitude		
					Roll	Pitch	Yaw
217	ISO100	092:22:29:17 8:09:15:37	LVLH		48.14	73.93	36.72
218	+YLV -XVV	092:23:06:20 8:09:52:40	LVLH				
219	BIAS -ZLV +YVV	093:00:10:12 8:10:56:32	LVLH		0.00	100.00	55.00
220	+ZSI FOR PTC	093:03:13:40 8:14:00:00	IH	MIR601	191.07	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

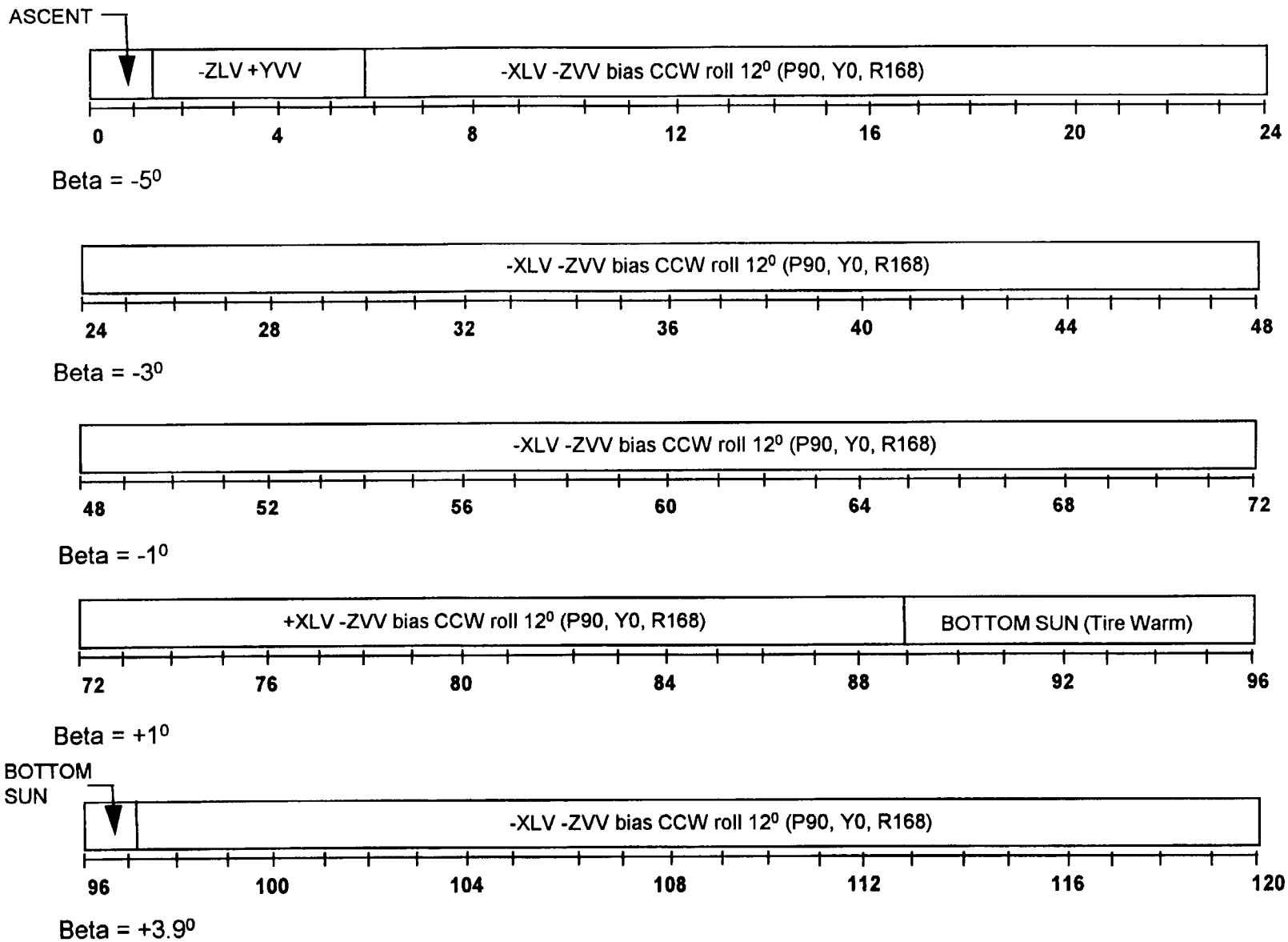
Mission elapsed time day:hour:minute		Duration Hr:min	Attitude/Event
6:00:05	6:00:19	0:14	Inertial Hold (279.,265.,20.)
6:00:19	6:01:25	1:06	Free Drift (Various IH)
6:01:25	6:02:28	1:03	Free Drift (Various LVLH)
6:02:28	6:03:00	0:32	Bias -ZLV -XVV (4.,175.,0.)
6:03:00	6:03:48	0:48	Free Drift (Various 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.)



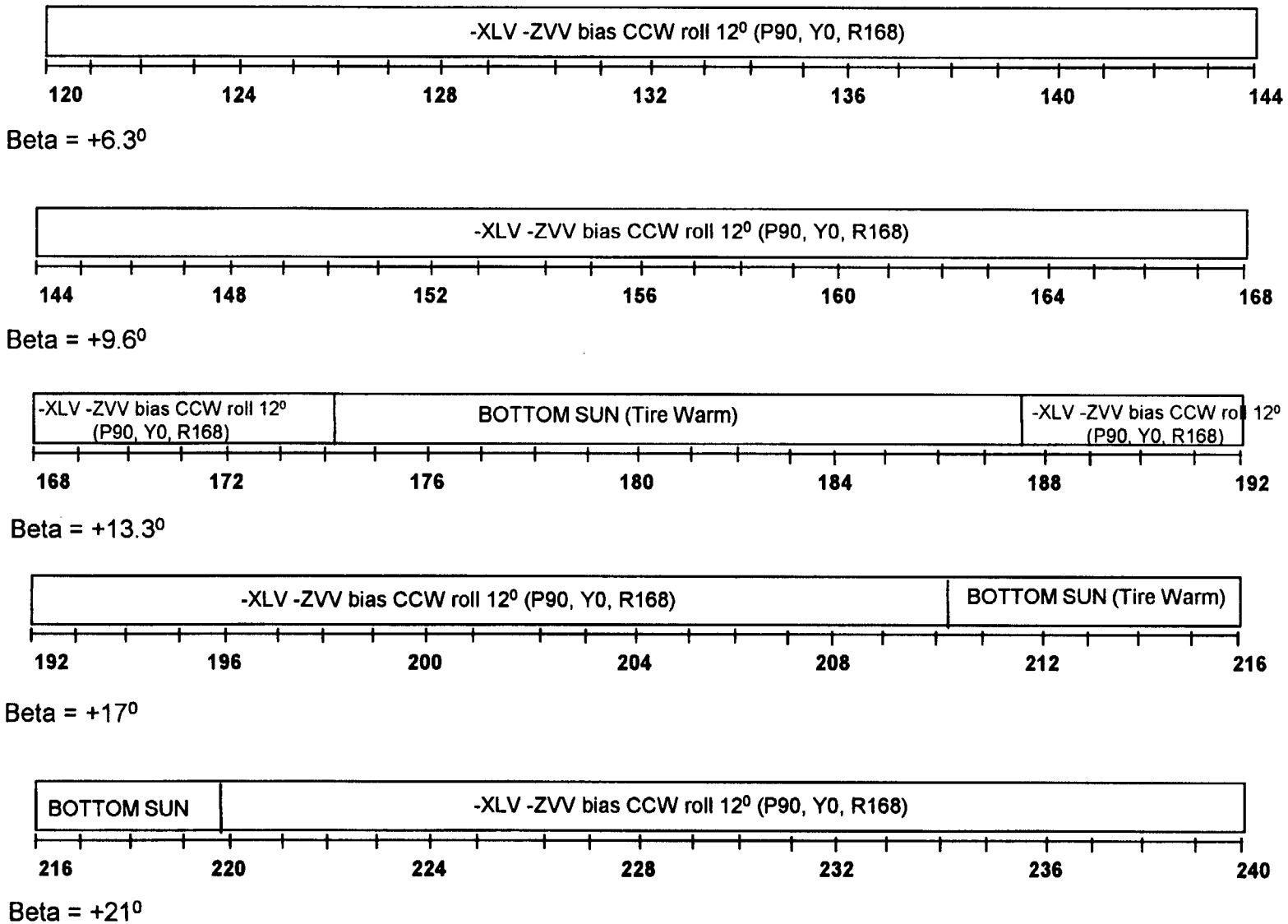
STS-49 AS-FLOWN ATTITUDE TIMELINE



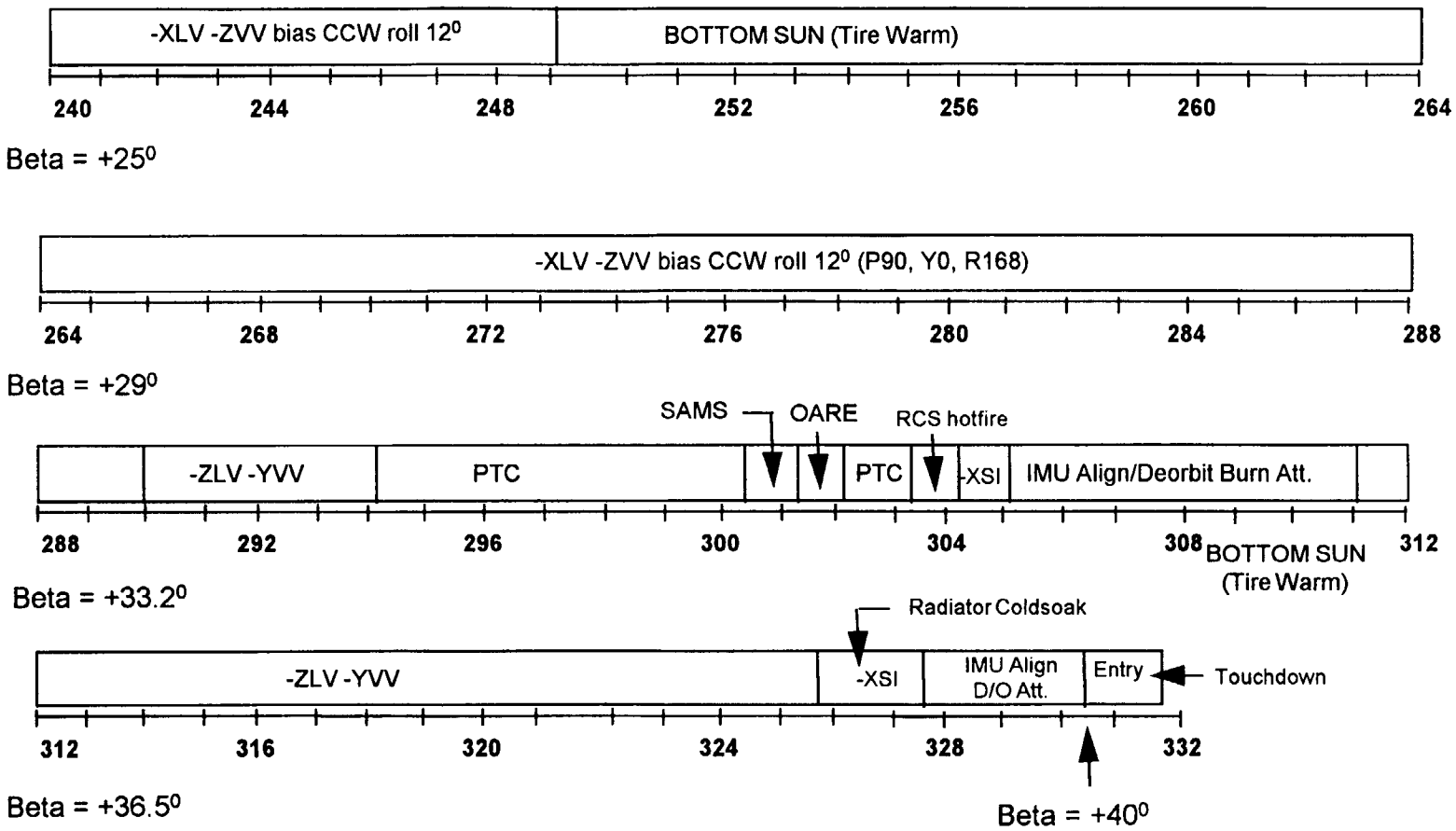
STS-49 AS-FLOWN ATTITUDE TIMELINE (Cont.)



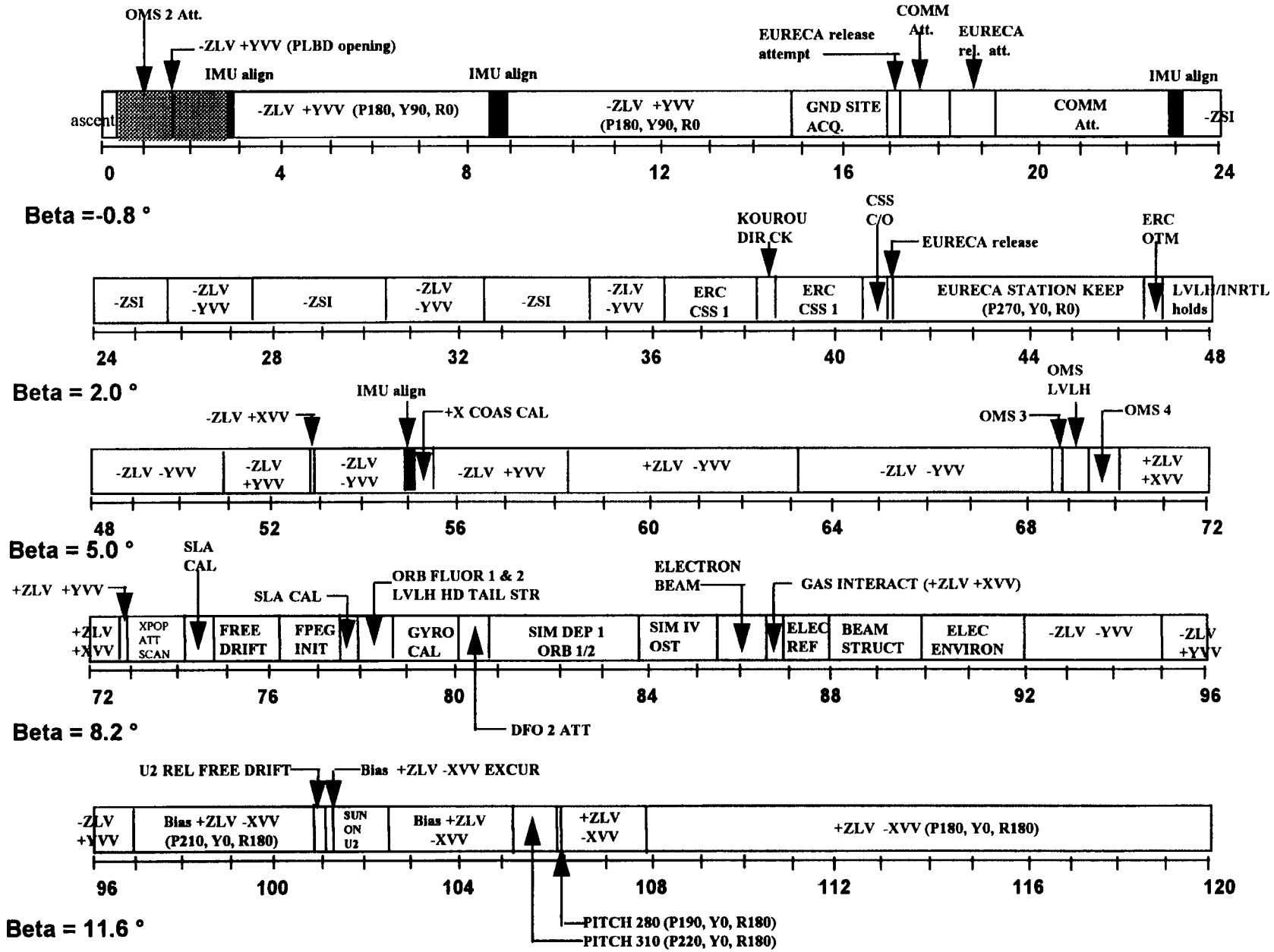
STS-50 AS-FLOWN ATTITUDE TIMELINE



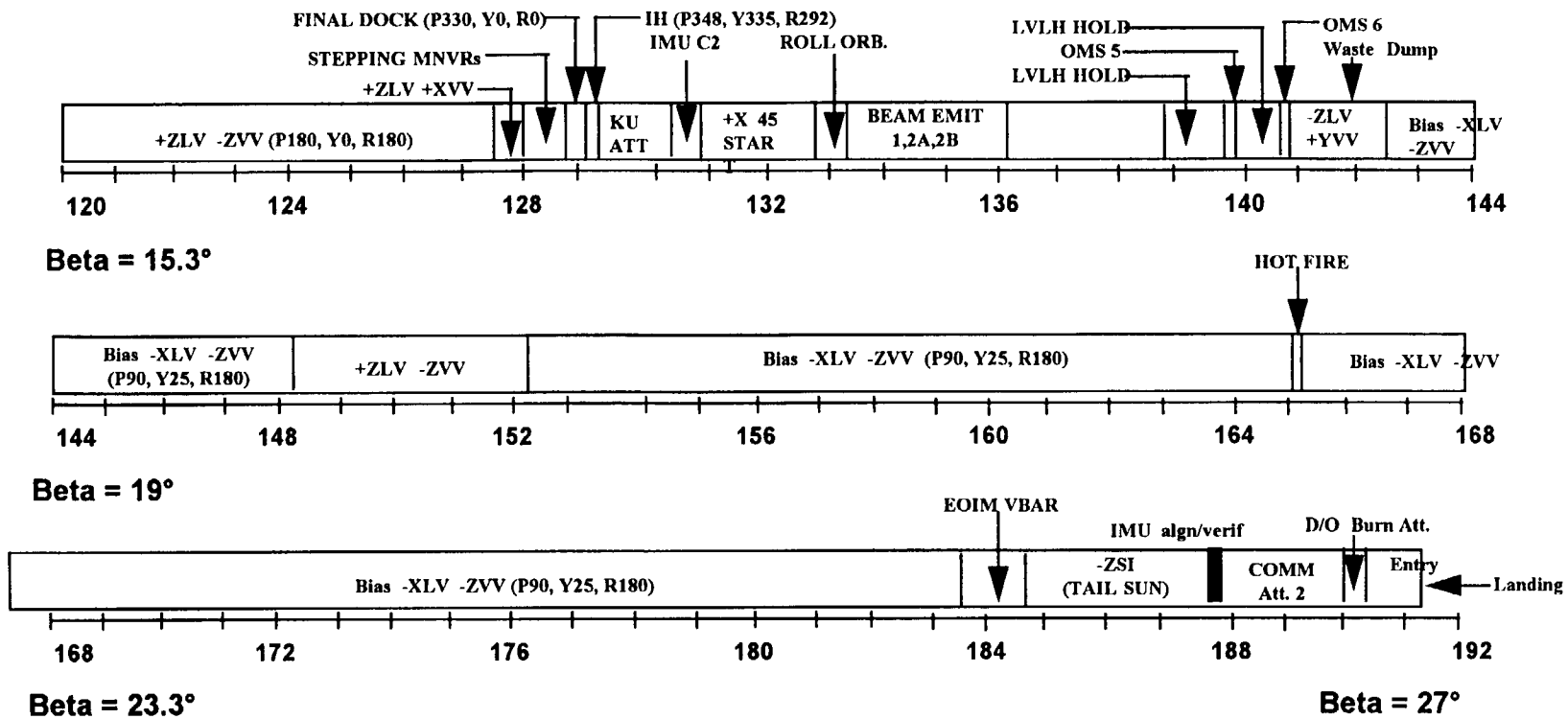
STS-50 AS-FLOWN ATTITUDE TIMELINE (Cont.)



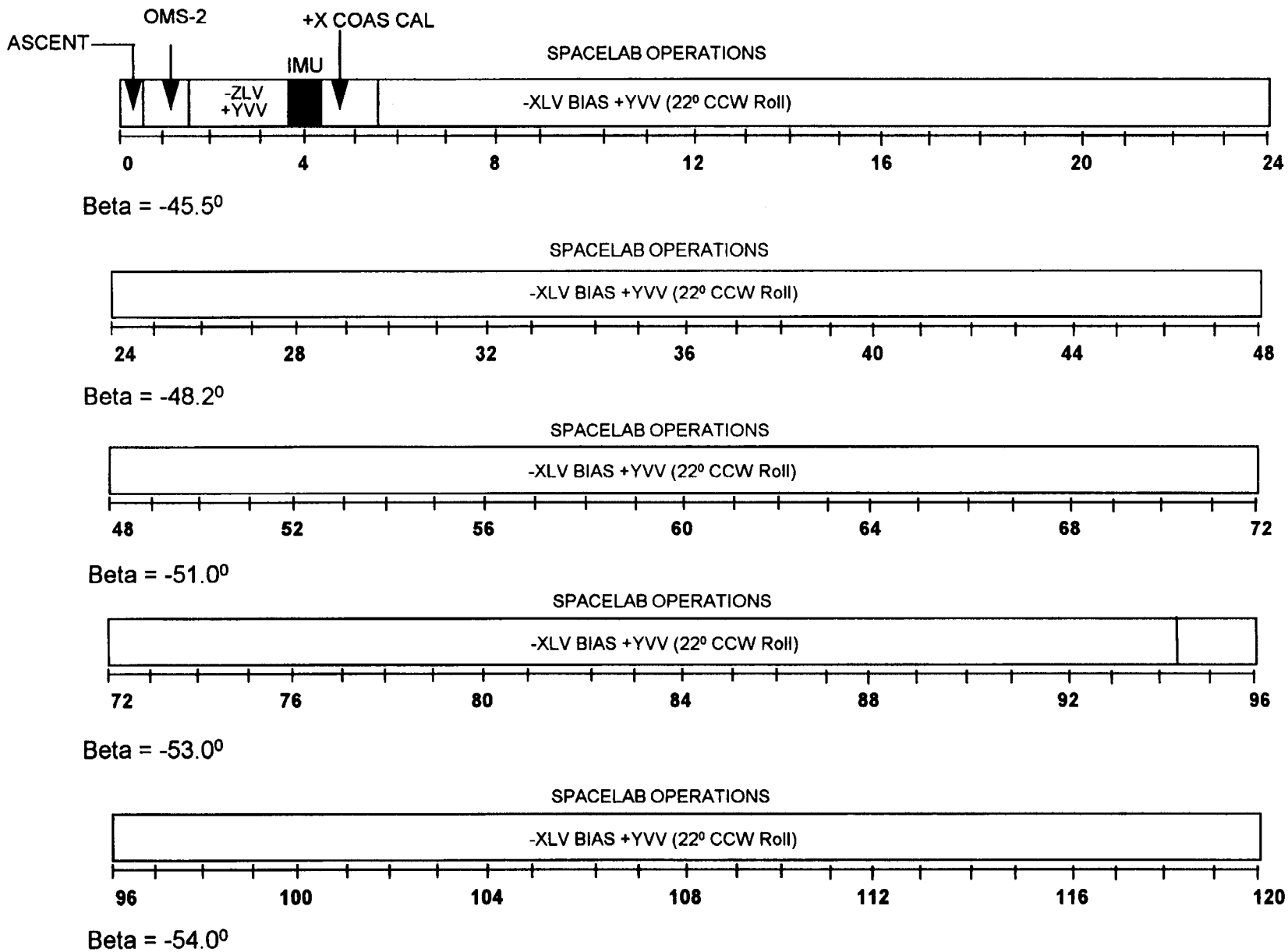
STS-50 AS-FLOWN ATTITUDE TIMELINE (Cont.)



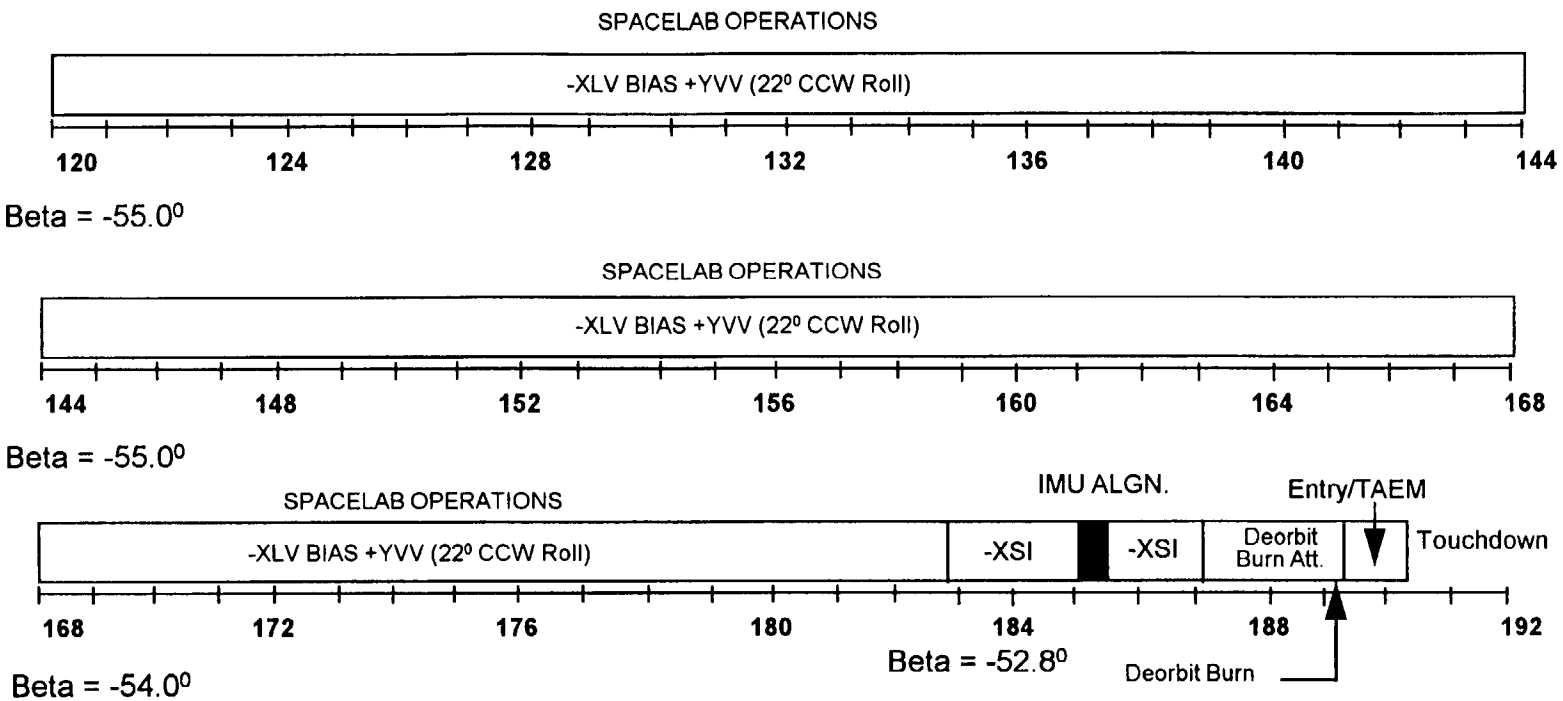
STS-46 AS-FLOWN ATTITUDE TIMELINE



STS-46 AS-FLOWN ATTITUDE TIMELINE (CONT'D)



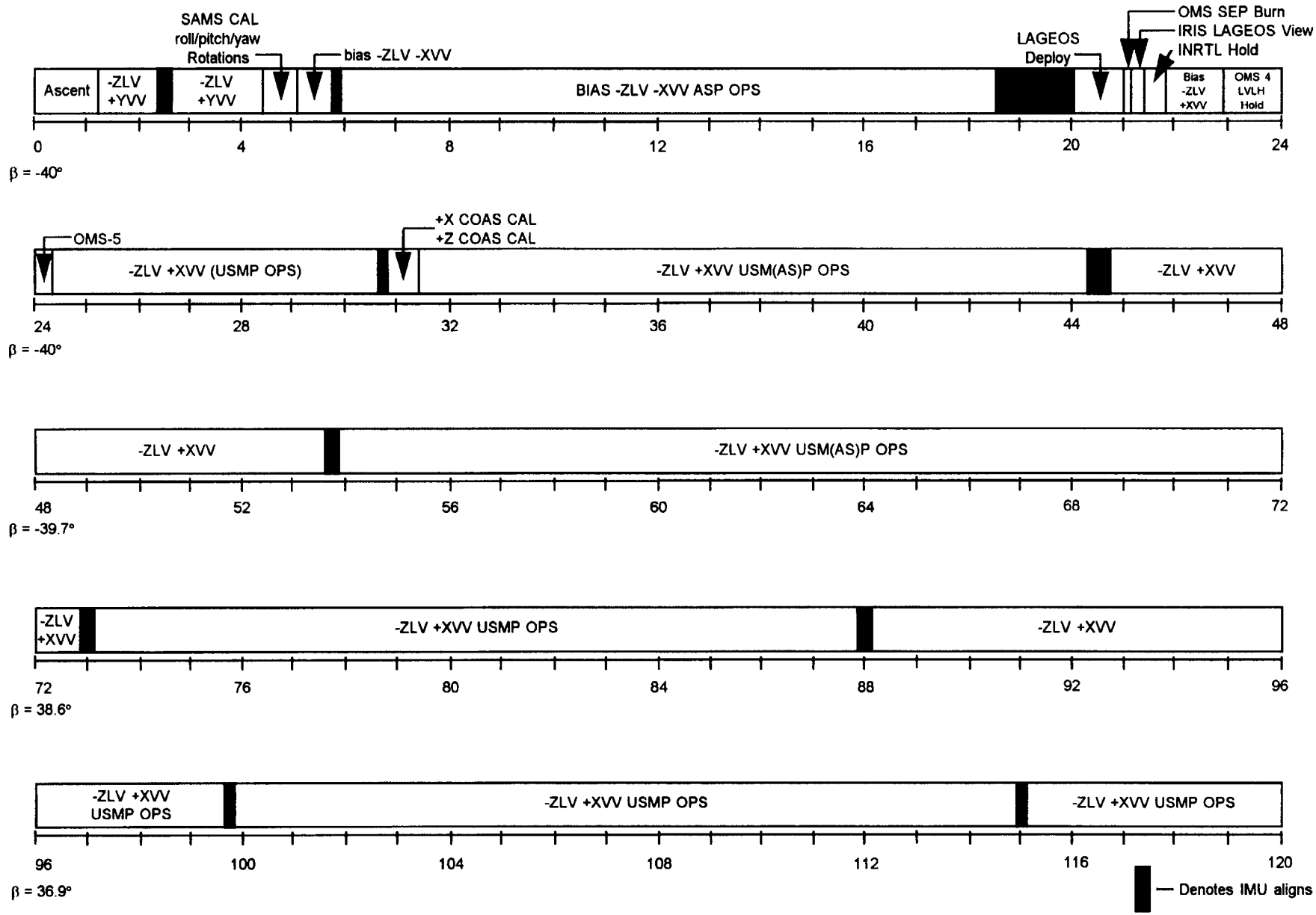
STS-47 AS-FLOWN ATTITUDE TIMELINE



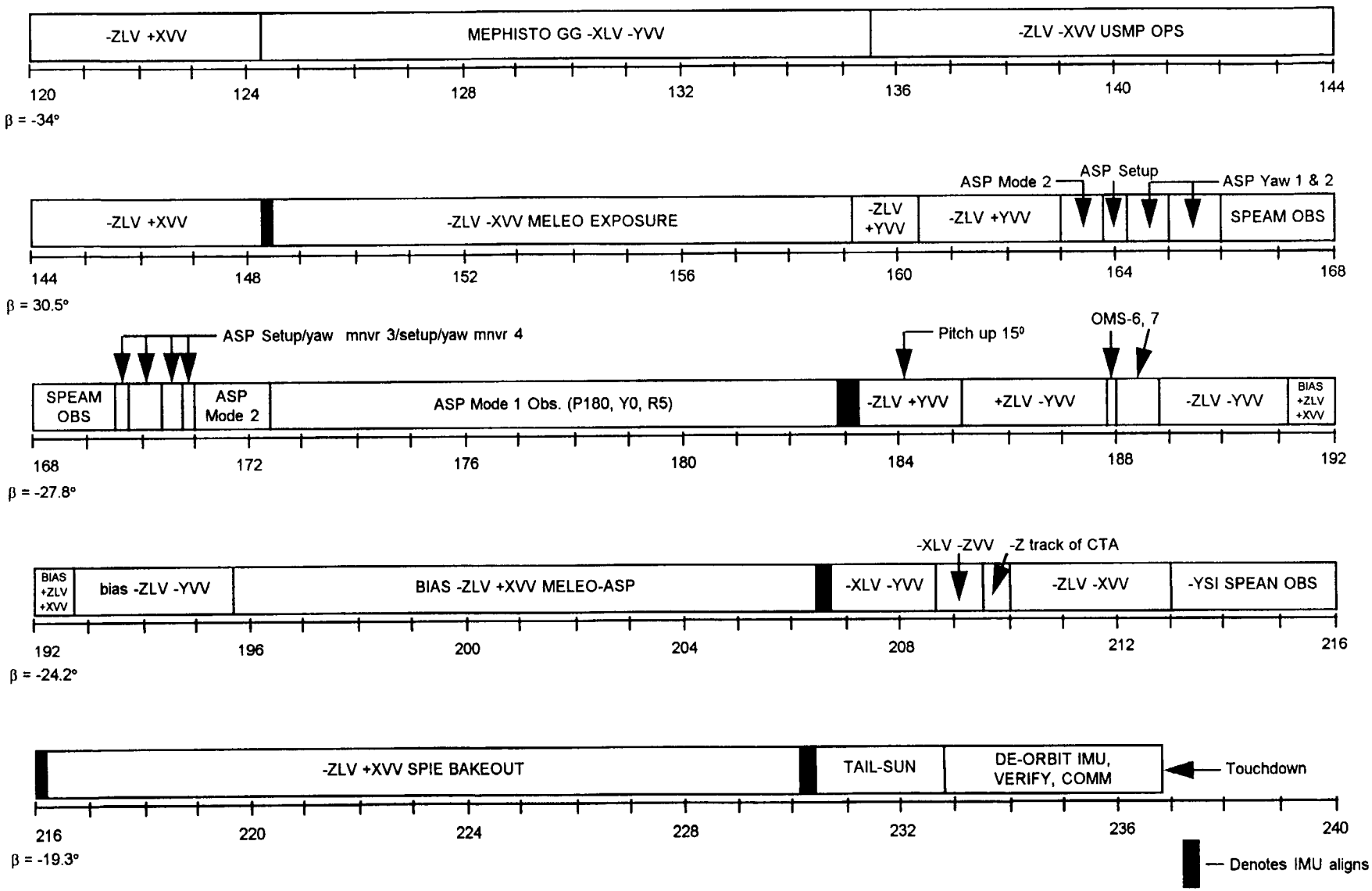
ATTITUDE LEGEND:

OMS-2: IH (P58, Y9, R76)
IMU ALIGN: IH (P291, Y316, R347)
+X COAS CAL: IH (P30.91, Y345.95, 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 (Cont.)



STS-52 AS-FLOWN ATTITUDE TIMELINE

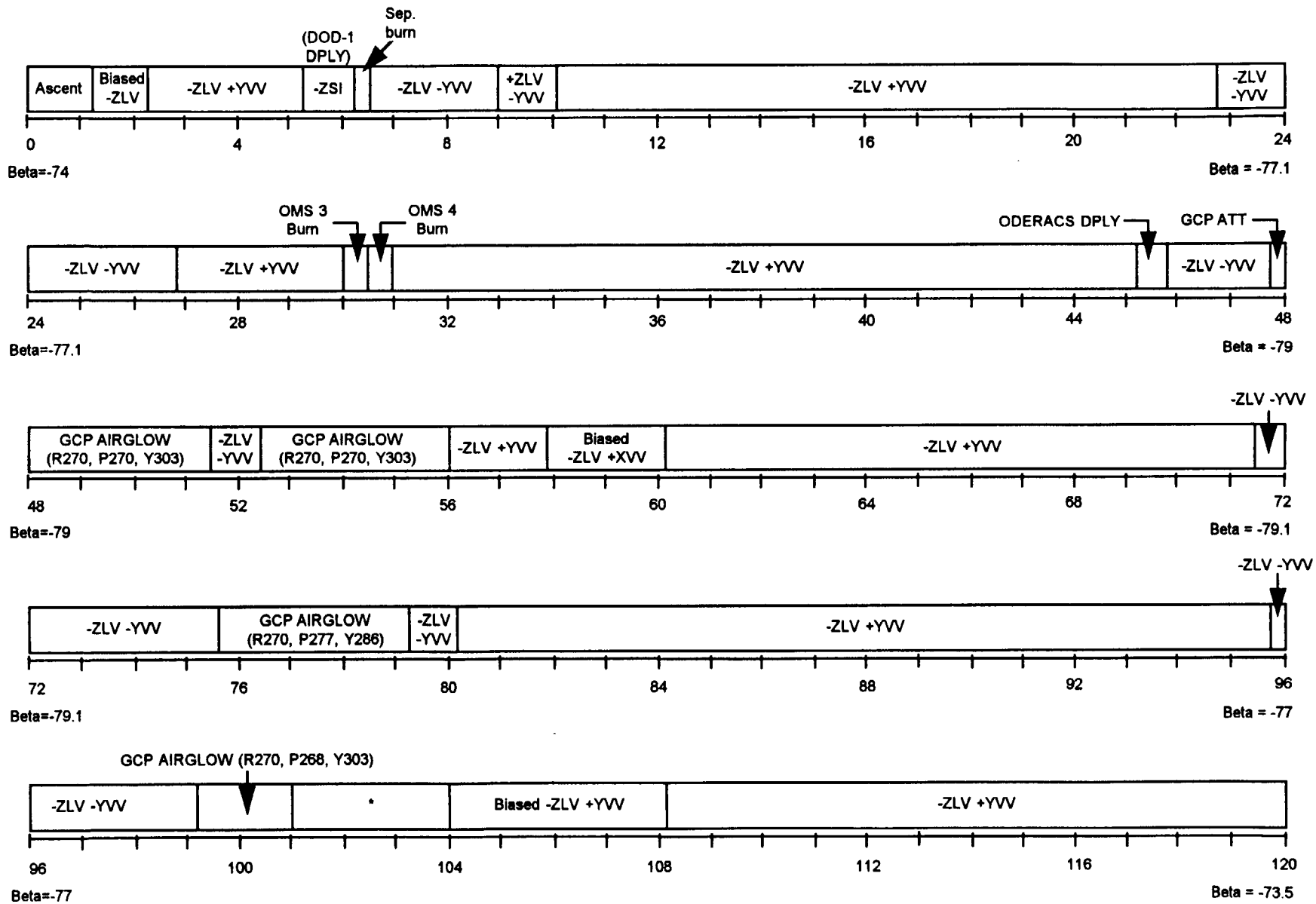


STS-52 AS-FLOWN ATTITUDE TIMELINE (CONT'D)

TABLE 3-XIII - STS-53 AS-FLOWN ATTITUDE TIMELINE

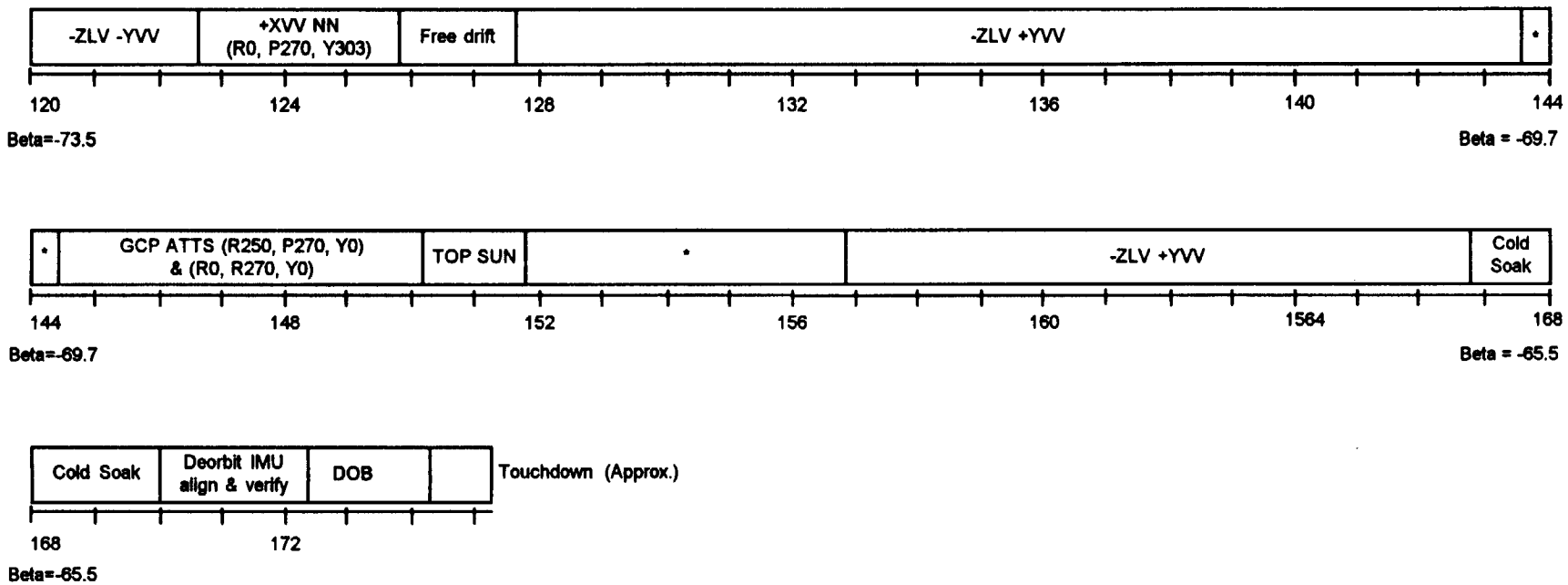
Mission elapsed time day:hour:minute		Duration Hr:min	Attitude/Event
0:00:00	0:01:12	1:12	Ascent
0:01:12	0:02:08	0:56	PLBD OPS/Biased -ZLV +YVV
0:02:08	0:05:03	2:55	-ZLV +YVV
0:05:03	0:06:06	1:03	-ZSI/Payload Deploy
0:06:06	0:06:17	0:11	Separation Burn
0:06:17	0:09:05	2:48	-ZLV -YVV
0:09:05	0:10:22	1:17	+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 cintinuous, but rather a series of attitudes with incremental YAW. The Θ, Φ combination (with respect to the Earth) was held constant at Θ90, Φ180.



* - 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

TABLE 3-XIV - STS-54 AS-FLOWN TIMELINE

Attitude Start	Attitude Complete	MET, hrs.	Duration, hr:min	Reference	Attitude, roll, pitch, yaw	Attitude, description
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)	OMS 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 SRM-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	0:19:33:00	9.88	9.67	SI	(109.17, 203.76, 341.4)	DXS (Bias Bottom SI)
0:19:33:00	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

TABLE 3-XIV - STS-54 AS-FLOWN TIMELINE

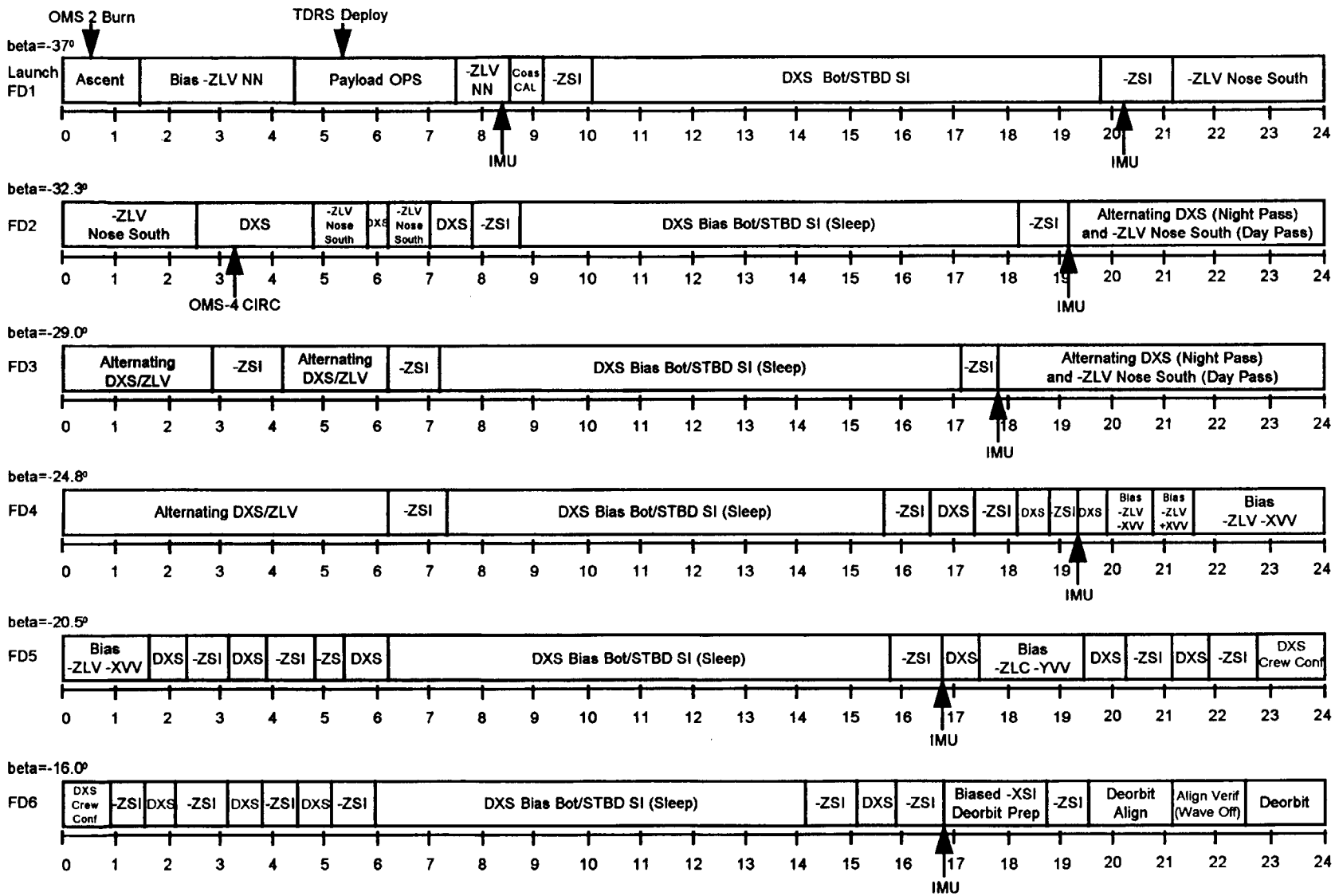
Attitude Start	Attitude Complete	MET, hrs.	Duration, hr:min	Reference	Attitude, roll, pitch, yaw	Attitude, description
1:06:53:00	1:07:38:30	30.88	0.76	SI	(109.72, 205.51, 341.99)	DXS (Bias Bottom SI)
1:07:38:30	1:08:34:30	31.64	0.93	SI	(237.02, 125.91, 3.7)	-ZSI
1:08:34:30	1:18:12:30	32.58	9.63	SI	(109.76, 205.64, 342.03)	DXS (Bias Bottom SI)
1:18:12:30	1:18:57:00	42.21	0.74	SI	(236.66, 126.27, 3.12)	-ZSI
1:18:57:00	1:19:17:00	42.95	0.33	SI	-139, 203, 354	IMU ALIGN
1:19:17:00	1:19:42:00	43.28	0.42	SI	(110, 206.44, 342.31)	DXS (Bias Bottom SI)
1:19:42:00	1:20:38:00	43.70	0.93	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
1:20:38:00	1:21:13:30	44.63	0.59	SI	(110.02, 206.51, 342.33)	DXS (Bias Bottom SI)
1:21:13:30	1:22:08:00	45.23	0.91	LVLH	(0, 180, 270)	-ZLV NOSE NORTH
1:22:08:00	1:22:44:00	46.13	0.60	SI	(110.05, 206.61, 342.37)	DXS (Bias Bottom SI)
1:22:44:00	1:23:39:00	46.73	0.92	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
1:23:39:00	2:00:14:00	47.65	0.58	SI	(110.09, 206.71, 342.4)	DXS (Bias Bottom SI)
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	9.69	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	0.58	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

TABLE 3-XIV - STS-54 AS-FLOWN TIMELINE

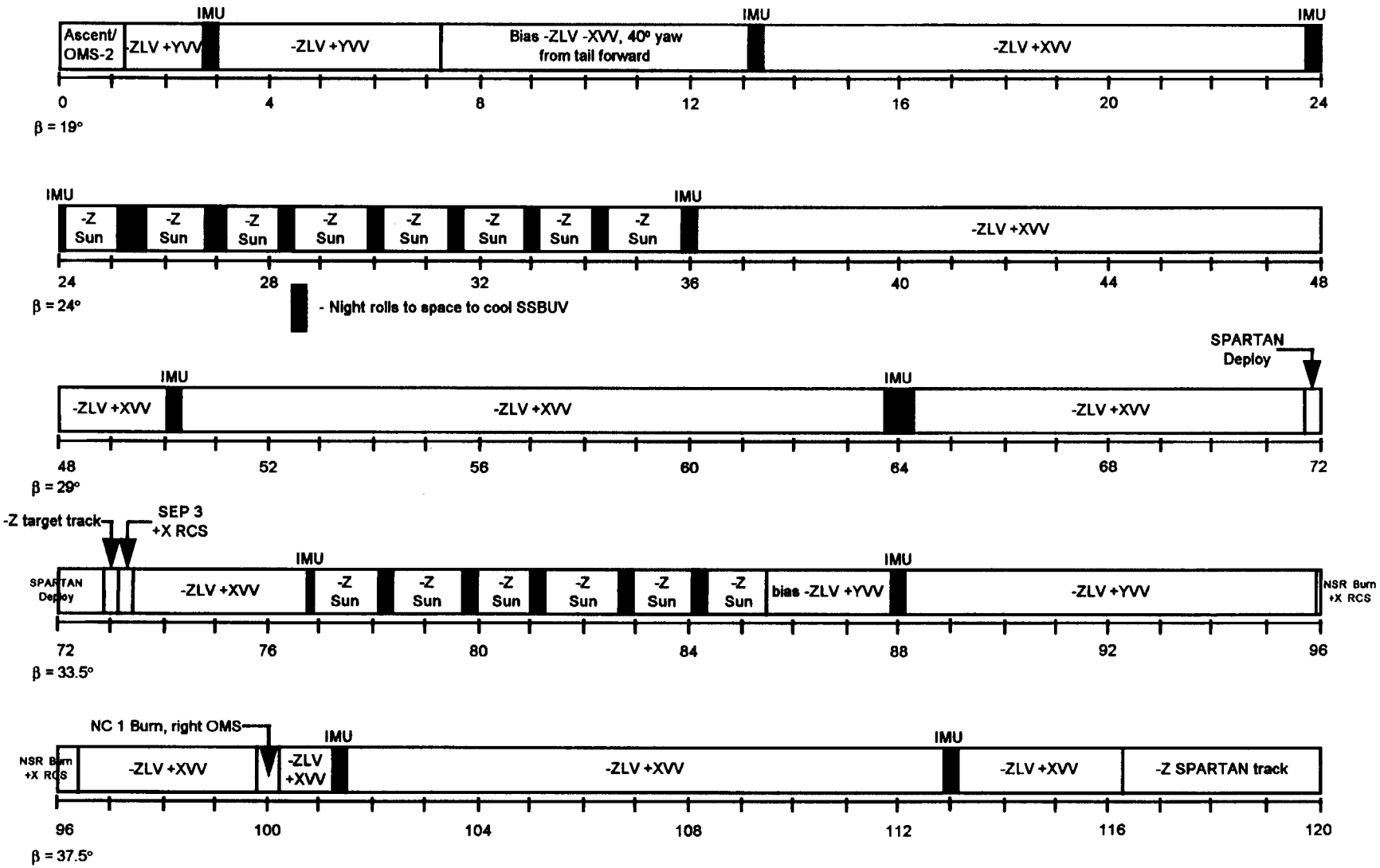
Attitude Start	Attitude Complete	MET, hrs.	Duration, hr:min	Reference	Attitude, roll, pitch, yaw	Attitude, description
2:23:48:00	3:00:24:00	71.80	0.60	SI	(110.51, 208.12, 342.9)	DXS (Bias Bottom SI)
3:00:24:00	3:01:19:00	72.40	0.92	LVLH	(0, 180, 90)	-ZLV NOSE SOUTH
3:01:19:00	3:01:55:00	73.32	0.60	SI	(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)
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	IMU ALIGN
4:16:41:00	4:17:08:00	112.68	0.45	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

TABLE 3-XIV - STS-54 AS-FLOWN TIMELINE

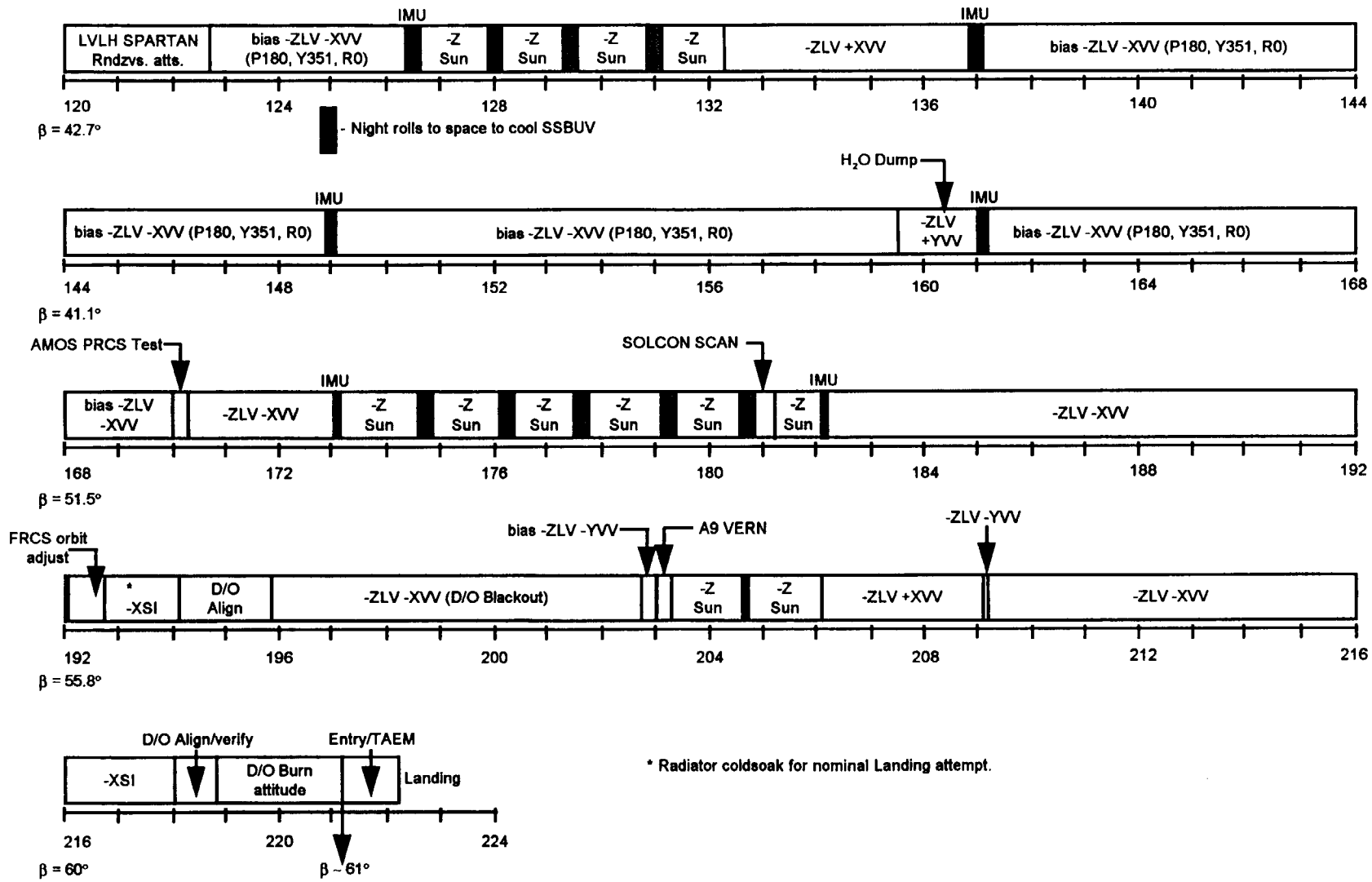
Attitude Start	Attitude Complete	MET, hrs.	Duration, hr:min	Reference	Attitude, roll, pitch, yaw	Attitude, description
4:19:24:00	4:20:10:00	115.40	0.77	SI	(110.96, 209.68, 343.47)	DXS (Bias Bottom SI)
4:20:10:00	4:21:02:00	116.17	0.87	SI	(234.3, 125.93, 0.85)	-ZSI
4:21:02:00	4:21:40:00	117.03	0.63	SI	(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
4:22:33:00	5:00:47:00	118.55	2.23	SI	(110.98, 209.76, 343.5)	CREW CONF + DXS (Bias Bottom SI)
5:00:47:00	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	0.88	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	IMU 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-54 AS-FLOWN ATTITUDE TIMELINE



STS-56 AS-FLOWN ATTITUDE TIMELINE



* Radiator coldsoak for nominal Landing attempt.

STS-56 AS-FLOWN ATTITUDE TIMELINE (CONT'D)

TABLE 3-XV - STS-55 AS-FLOWN ATTITUDE TIMELINE

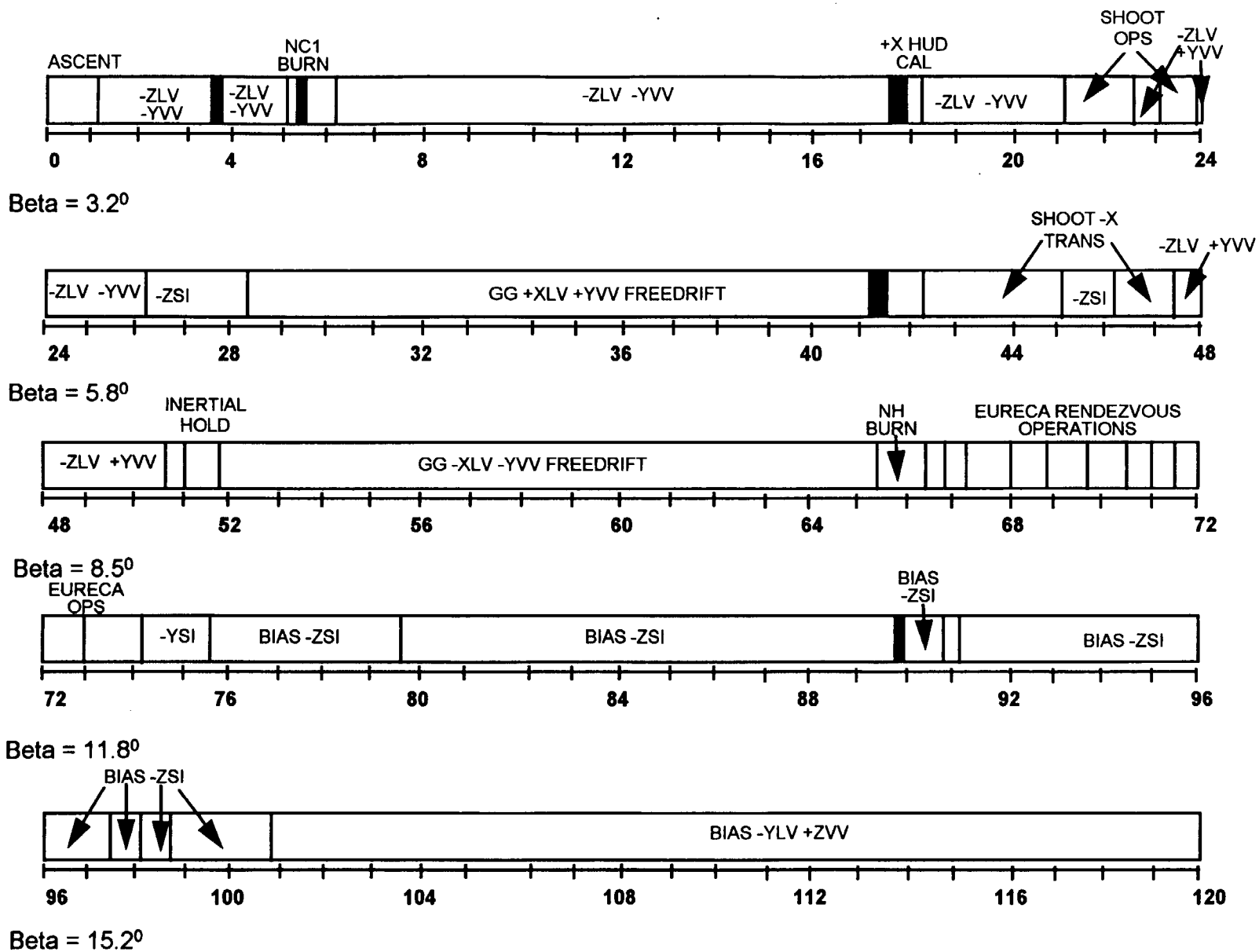
Mission elapsed time day:hour:minute		Duration Hr:min	Attitude/Event
0:00:00	0:01:16	1:16	Ascent
0:01:16	0:02:44	1:28	+ZSL Nose South
0:02:44	0:05:41	2:57	Bias Bottom Sun (Theta-107, Phi-187)
0:05:41	0:08:20	2:39	Bias Bottom Sun (Theta-96, Phi-168)
0:08:20	0:08:37	0:17	HUD Calibration (Theta-152, Phi-83)
0:08:37	0:10:19	1:42	Bias Bottom Sun (Theta-52, Phi-172)
0:10:19	0:10:46	1:27	-ZLV +XVV
0:10:46	0:11:49	1:03	Bias Bottom Sun (Theta-52, Phi-172)
0:11:49	0:12:21	0:32	-ZLV +XVV
0:12:21	0:13:19	0:58	Bias Bottom Sun (Theta-52, Phi-172)
0:13:19	0:13:58	0:39	-ZLV +XVV
0:13:58	0:14:50	0:52	Bias Bottom Sun (Theta-52, Phi-172)
0:14:50	0:15:41	0:51	Bias -ZLV +XVV
0:15:41	0:16:24	0:43	Bias Bottom Sun (Theta-96, Phi-169)
0:16:24	0:17:09	0:45	-ZLV +XVV
0:17:09	0:17:58	0:49	Bias Bottom Sun (Theta-96, Phi-169)
0:17:58	0:18:38	0:40	-ZLV +XVV
0:18:38	0:19:34	0:56	Bias Bottom Sun (Theta-96, Phi-169)
0:19:34	0:20:13	0:39	-ZLV +XVV
0:20:13	0:23:58	3:45	Bias Bottom Sun (Theta-96, Phi-169)
0:23:58	1:00:31	0:33	-ZLV +XVV
1:00:31	1:02:35	2:04	Bias Bottom Sun (Theta-45, Phi-170)
1:02:35	1:04:09	1:34	Bias +ZLV +YVV
1:04:09	1:05:52	1:43	Bias Bottom Sun (Theta-128, Phi-153)
1:05:52	1:09:42	3:50	Bias Bottom Sun (Theta-97, Phi-169)
1:09:42	1:15:10	5:28	Bias Bottom Sun (Theta-106, Phi-186)
1:15:10	1:15:43	0:33	-ZLV +XVV
1:15:43	1:16:35	0:52	Bias Bottom Sun (Theta-106, Phi-186)
1:16:35	1:17:04	0:29	-ZLV +XVV
1:17:04	1:18:06	2:02	Bias Bottom Sun (Theta-106, Phi-186)
1:18:06	1:18:49	0:43	-ZLV +XVV
1:18:49	1:19:41	0:52	Bias Bottom Sun (Theta-100, Phi-187)
1:19:41	1:20:23	0:42	-ZLV +XVV
1:20:23	1:21:47	1:24	Bias Bottom Sun (Theta-100, Phi-187)
1:21:47	2:02:42	4:55	Bias Bottom Sun (Theta-45, Phi-171)
2:02:42	2:04:14	1:32	Bias +ZLV +YVV
2:04:14	2:10:34	6:20	Bias Bottom Sun (Theta-98, Phi-169)
2:10:34	2:11:23	0:49	Bias -XLV +YVV
2:11:23	2:12:07	0:44	Bias Bottom Sun (Theta-98, Phi-169)
2:12:07	2:12:33	0:26	-ZLV +XVV
2:12:33	2:13:44	1:11	Bias Bottom Sun (Theta-105, Phi-185)
2:13:44	2:14:06	0:22	-ZLV +XVV
2:14:06	2:16:36	2:20	Bias Bottom Sun (Theta-105, Phi-185)
2:16:36	2:18:11	1:35	Bias -XLV +YVV
2:18:11	2:18:55	0:44	-ZLV +XVV
2:18:55	2:23:21	4:26	Bias Bottom Sun (Theta-101, Phi-188)

TABLE 3-XV - STS-55 AS-FLOWN ATTITUDE TIMELINE

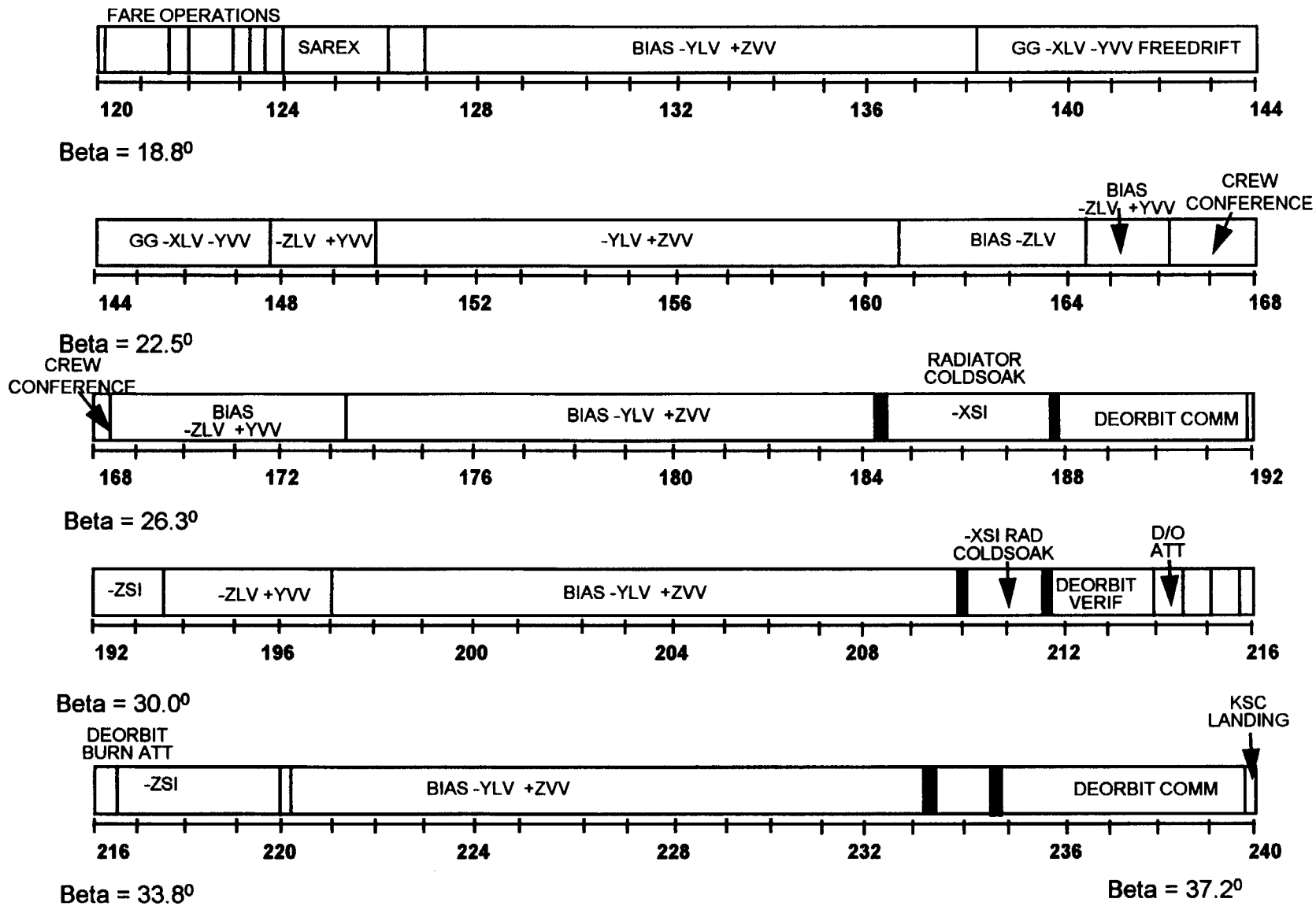
Mission elapsed time day:hour:minute		Duration Hr:min	Attitude/Event
2:23:21	3:00:30	1:09	Bias Bottom Sun (Theta-98, Phi-169)
3:00:30	3:01:17	0:47	Bias Bottom Sun (Theta-49, Phi-166)
3:01:17	3:02:47	1:30	Bias +ZLV +YVV
3:02:47	3:05:29	2:42	Bias +ZLV +XVV
3:05:29	3:09:05	3:36	Bias Bottom Sun (Theta-99, Phi-168)
3:09:05	3:12:23	3:18	Bias Bottom Sun (Theta-46, Phi-174)
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 (Theta-46, Phi-174)
3:22:15	3:23:49	1:34	Bias Bottom Sun (Theta-99, Phi-168)
3:23:49	4:09:18	9:29	Bias +ZLV +YVV
4:09:18	4:12:28	3:10	Bias Bottom Sun (Theta-104, Phi-184)
4:12:28	4:12:46	0:18	-ZLV +XVV
4:12:46	4:15:16	2:30	Bias Bottom Sun (Theta-104, Phi-184)
4:15:16	4:16:21	1:05	-ZLV +YVV
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 (Theta-46, Phi-174)
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 (Theta-103, Phi-190)
5:19:05	5:22:44	3:39	Bias Bottom Sun (Theta-46, Phi-174)
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 (Theta-49, Phi-166)
6:12:28	6:13:01	0:33	Bias -ZLV +XVV
6:13:01	6:14:30	1:29	Bias Bottom Sun (Theta-99, Phi-168)
6:14:30	6:16:00	1:30	Bias +ZLV +YVV
6:16:00	6:16:35	0:35	-ZLV +XVV
6:16:35	6:22:44	6:09	Bias Bottom Sun (Theta-99, Phi-168)
6:22:44	7:02:25	3:41	Bias +ZLV +YVV

TABLE 3-XV - STS-55 AS-FLOWN ATTITUDE TIMELINE

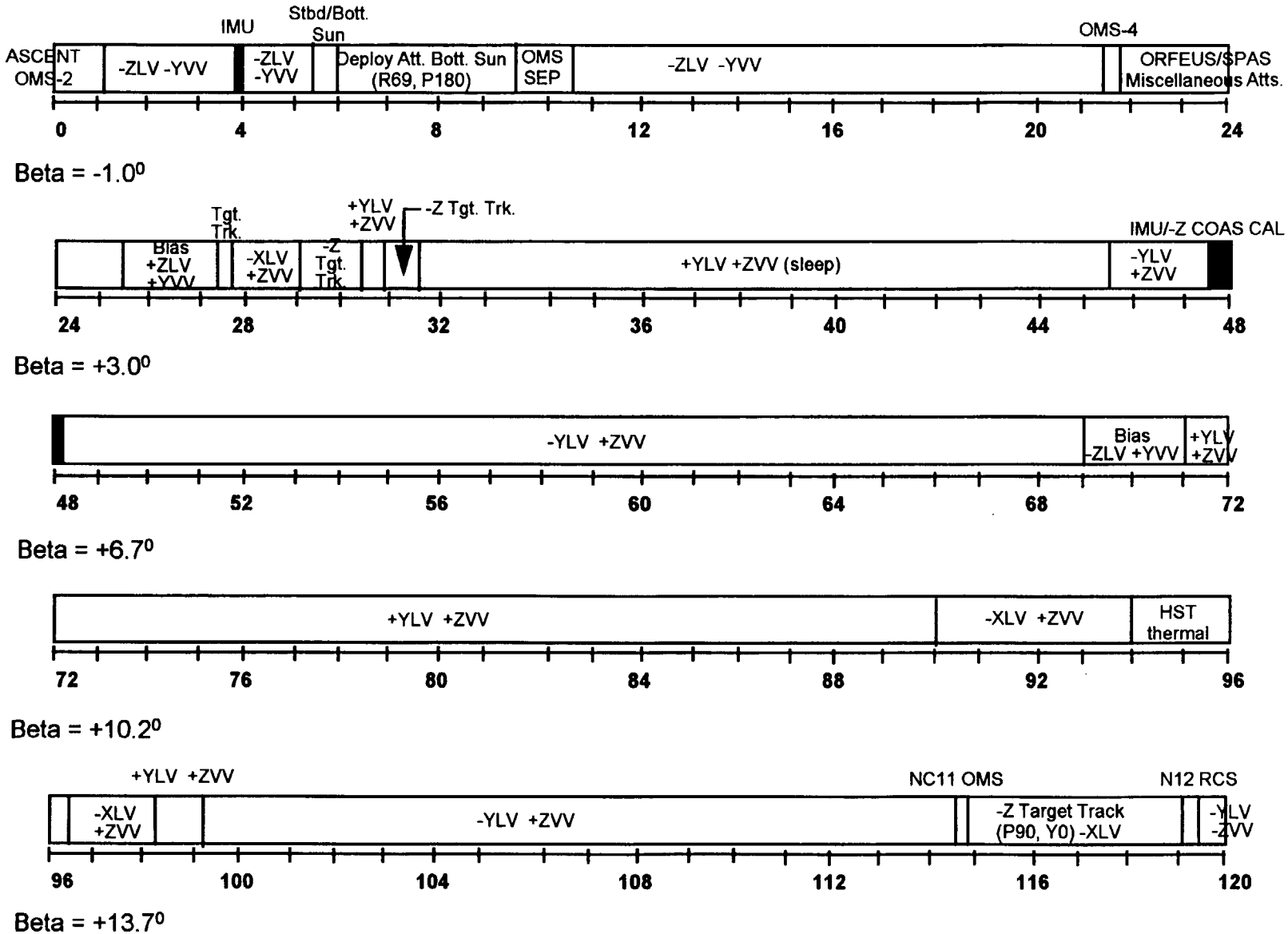
Mission elapsed time day:hour:minute		Duration Hr:min	Attitude/Event
7:02:25	7:03:01	0:36	-ZLV +XVV
7:03:01	7:04:00	0:59	Bias Bottom Sun (Theta-46, Phi-174)
7:04:00	7:04:36	0:36	-ZLV +XVV
7:04:36	7:11:06	6:30	Bias +ZLV +YVV
7:11:06	7:11:42	0:36	-ZLV +XVV
7:11:42	7:14:05	2:23	Bias +ZLV +YVV
7:14:05	7:15:07	1:02	-ZLV +XVV
7:15:07	7:17:10	2:03	Bias Bottom Sun (Theta-99, Phi-168)
7:15:07	7:17:49	0:39	-ZLV +XVV
7:17:49	7:20:26	2:37	Bias Bottom Sun (Theta-99, Phi-168)
7:20:26	7:21:07	0:41	-ZLV +XVV
7:21:07	7:22:16	1:09	Bias Bottom Sun (Theta-104, Phi-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 (Theta-104, Phi-192)
8:07:27	8:09:51	2:24	Bias +ZLV +YVV
8:09:51	8:13:09	3:18	Top Sun (Theta-90, Phi-0)
8:13:09	8:13:38	0:29	-ZLV +XVV
8:13:38	8:23:39	10:01	Bias Bottom Sun (Theta-105, Phi-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 (Theta-49, Phi-166)
9:08:12	9:08:46	0:34	-ZLV +XVV
9:08:46	9:11:20	2:34	Bias Bottom Sun (Theta-49, Phi-166)
9:11:20	9:11:35	0:15	-ZLV +XVV
9:11:35	9:13:15	1:40	Bias Bottom Sun (Theta-49, Phi-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 (Theta-77, Phi-262)
9:22:10	9:22:39	0:29	Deorbit Burn Att (Theta-30, Phi-292)
9:23:40			Touchdown



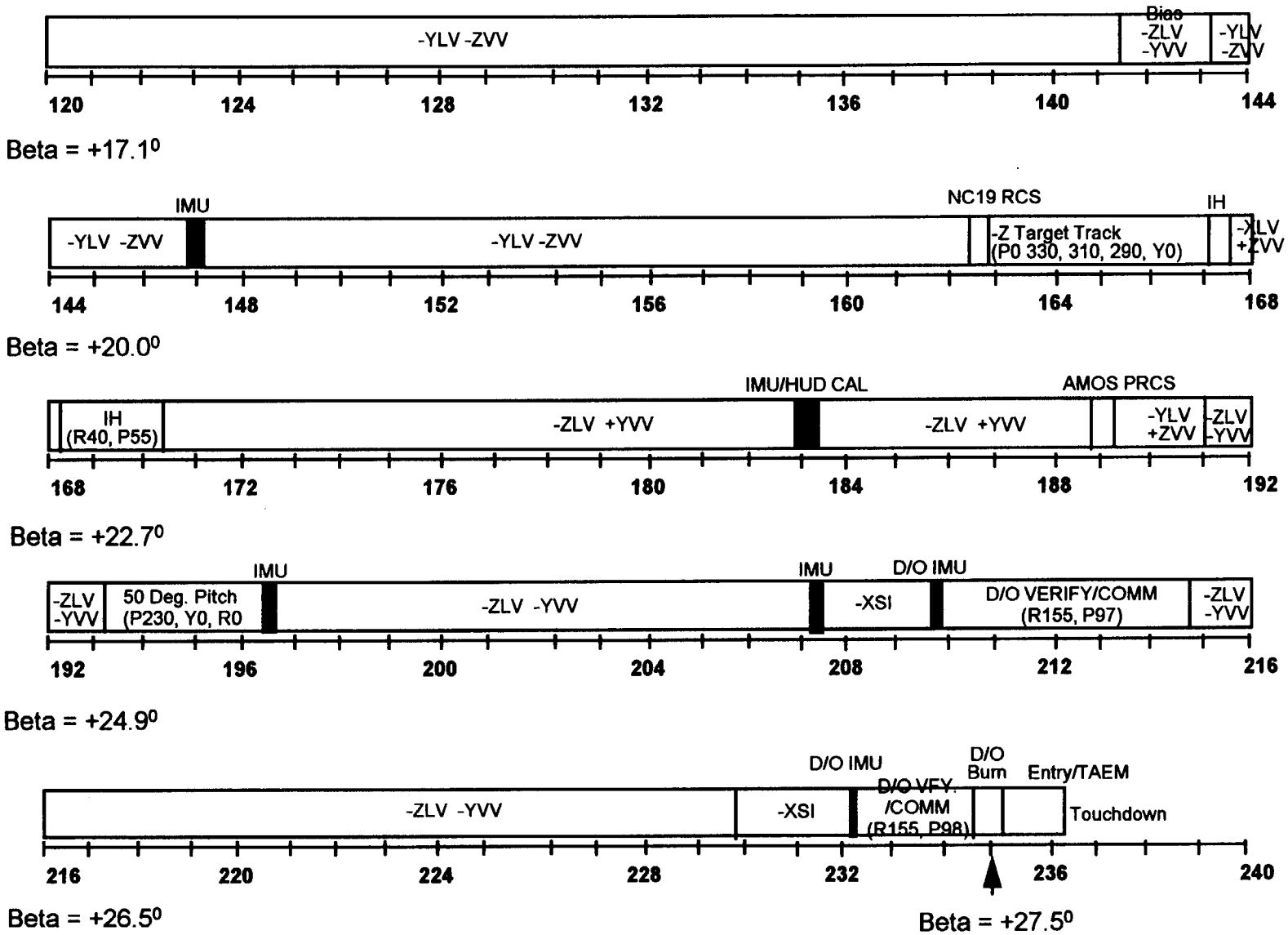
STS-57 AS-FLOWN ATTITUDE TIMELINE



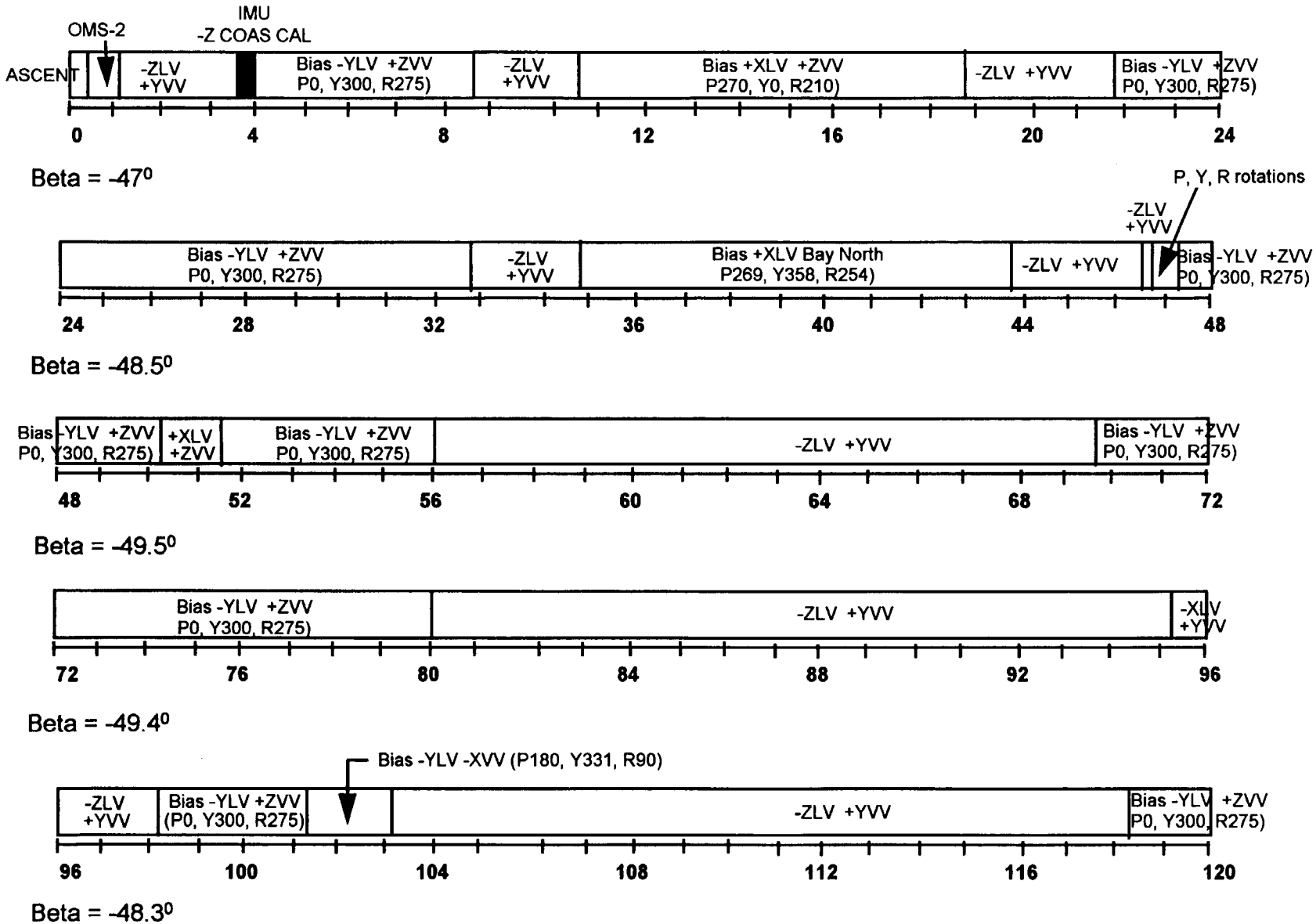
STS-57 AS-FLOWN ATTITUDE TIMELINE (Cont.)



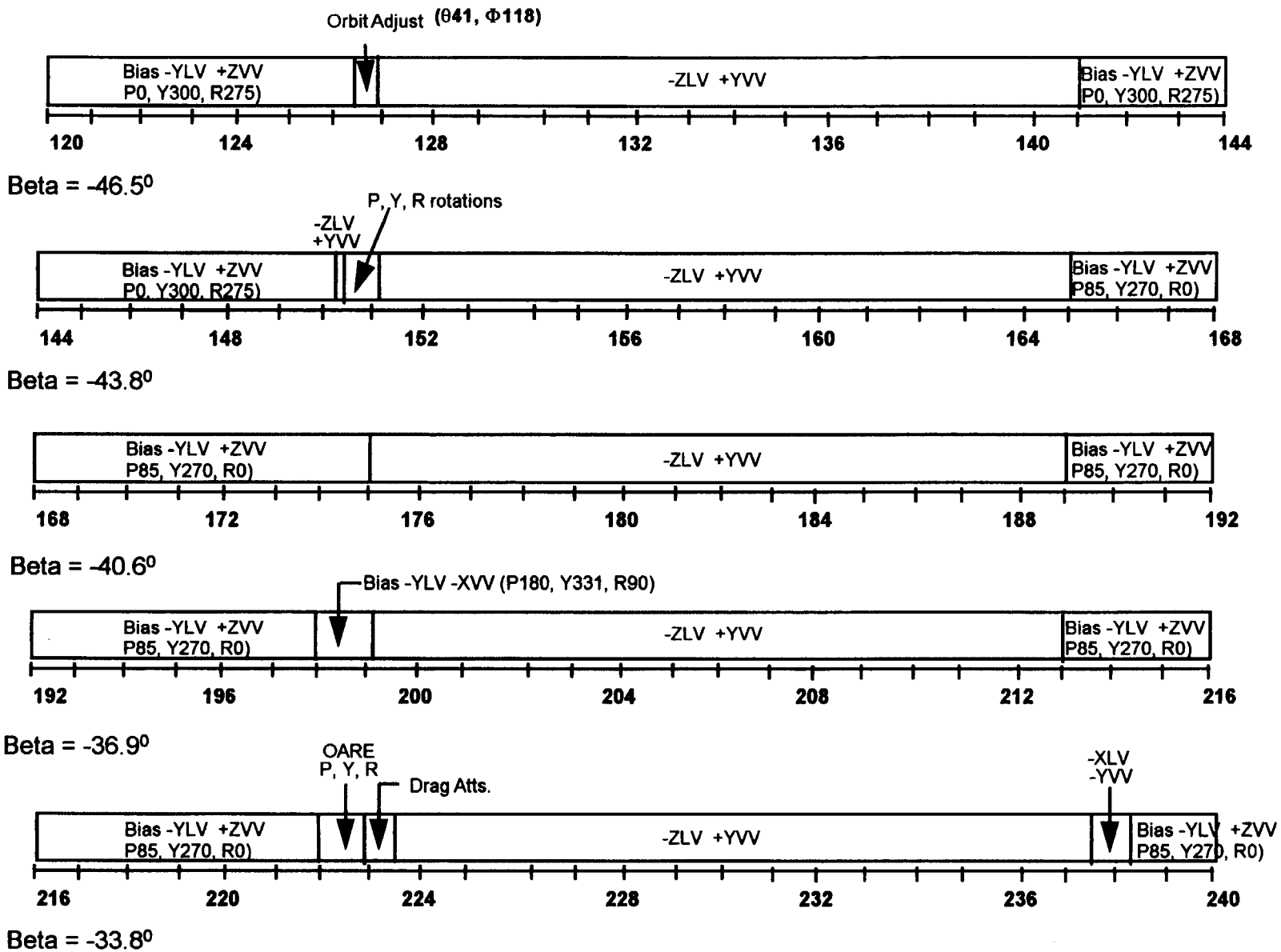
STS-51 AS-FLOWN ATTITUDE TIMELINE



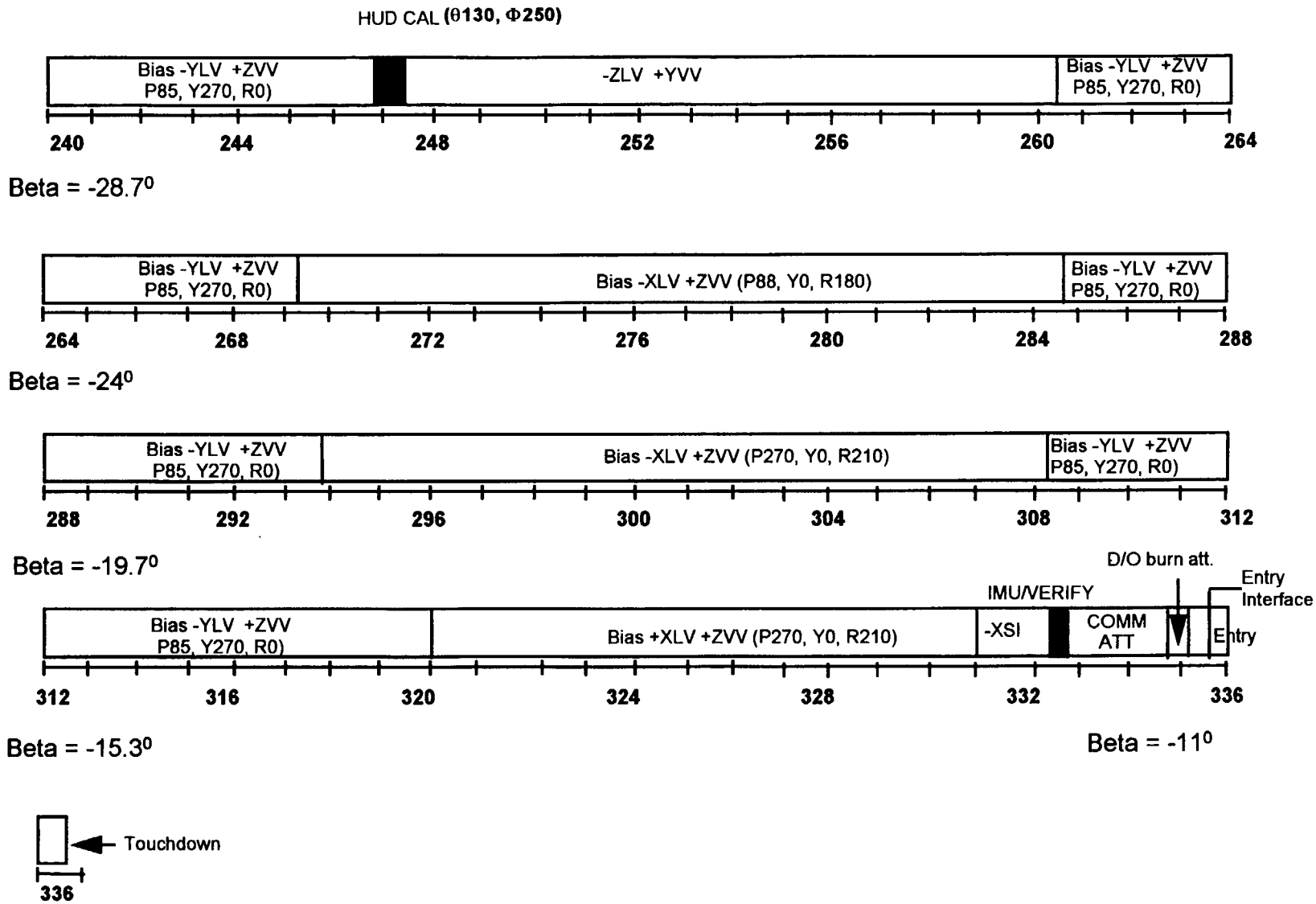
STS-51 AS-FLOWN ATTITUDE TIMELINE (Cont.)



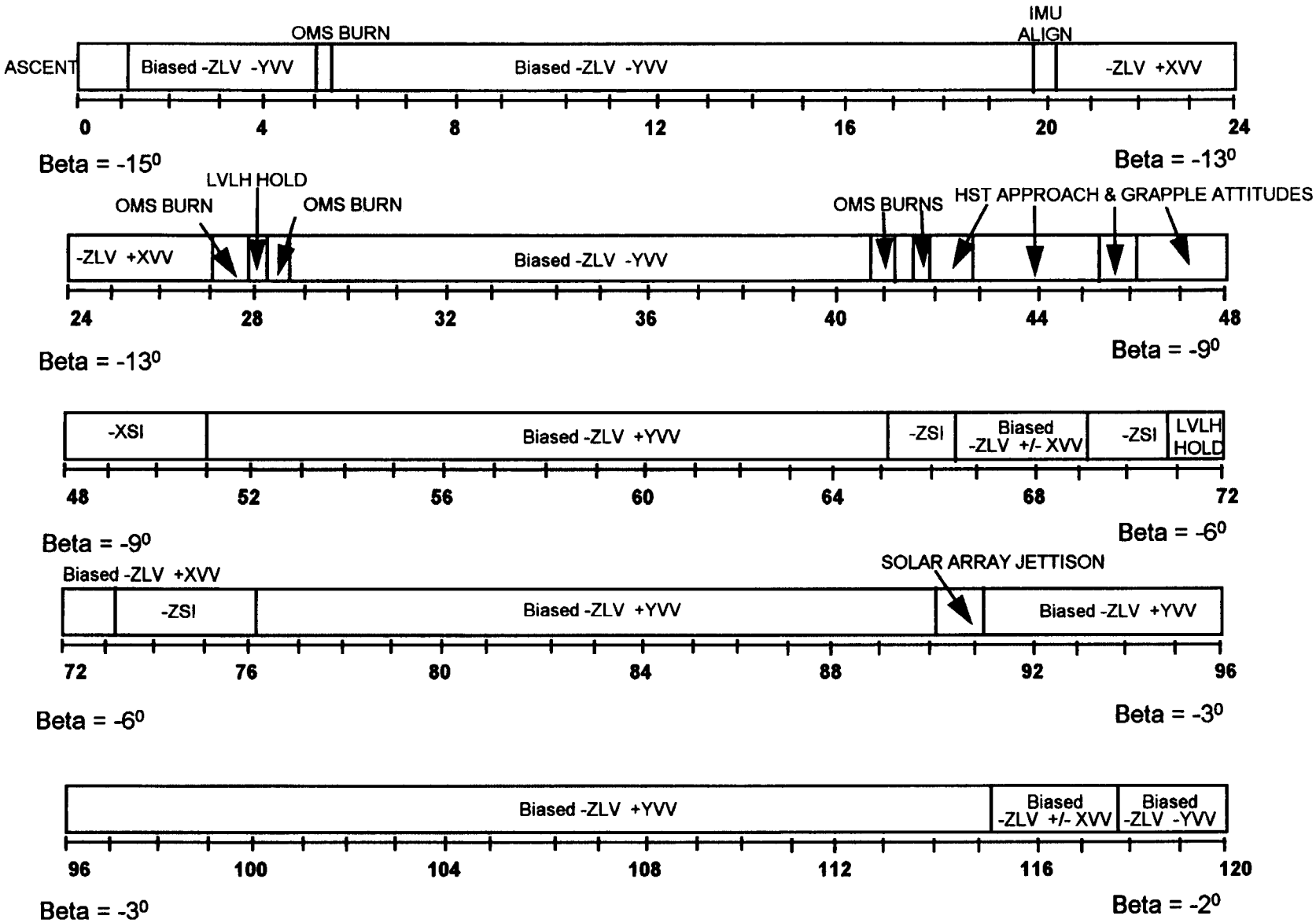
STS-58 AS-FLOWN ATTITUDE TIMELINE



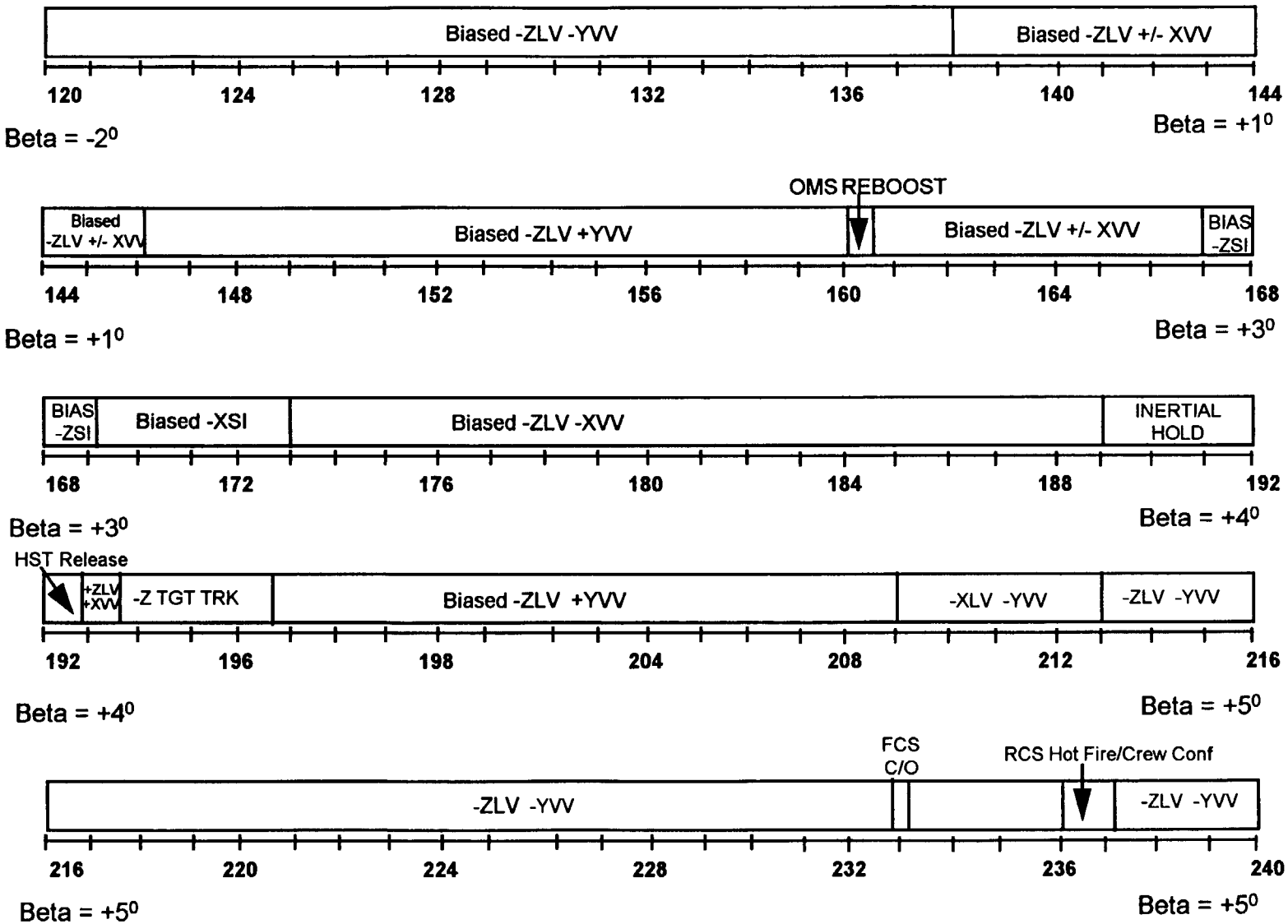
STS-58 AS-FLOWN ATTITUDE TIMELINE (Cont.)



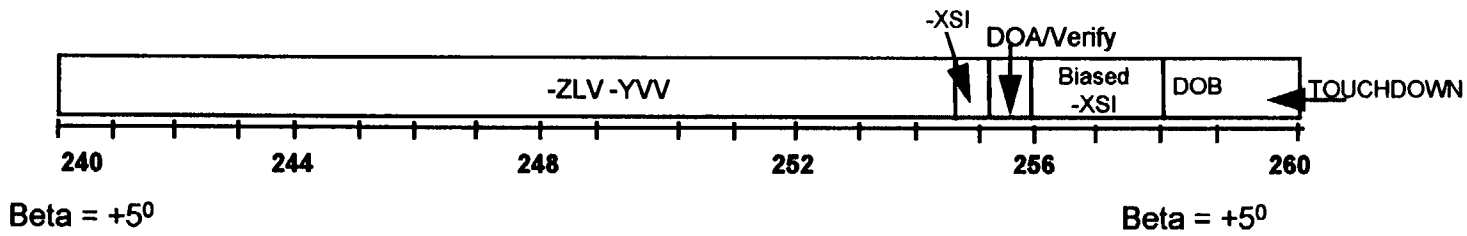
STS-58 AS-FLOWN ATTITUDE TIMELINE (Cont.)



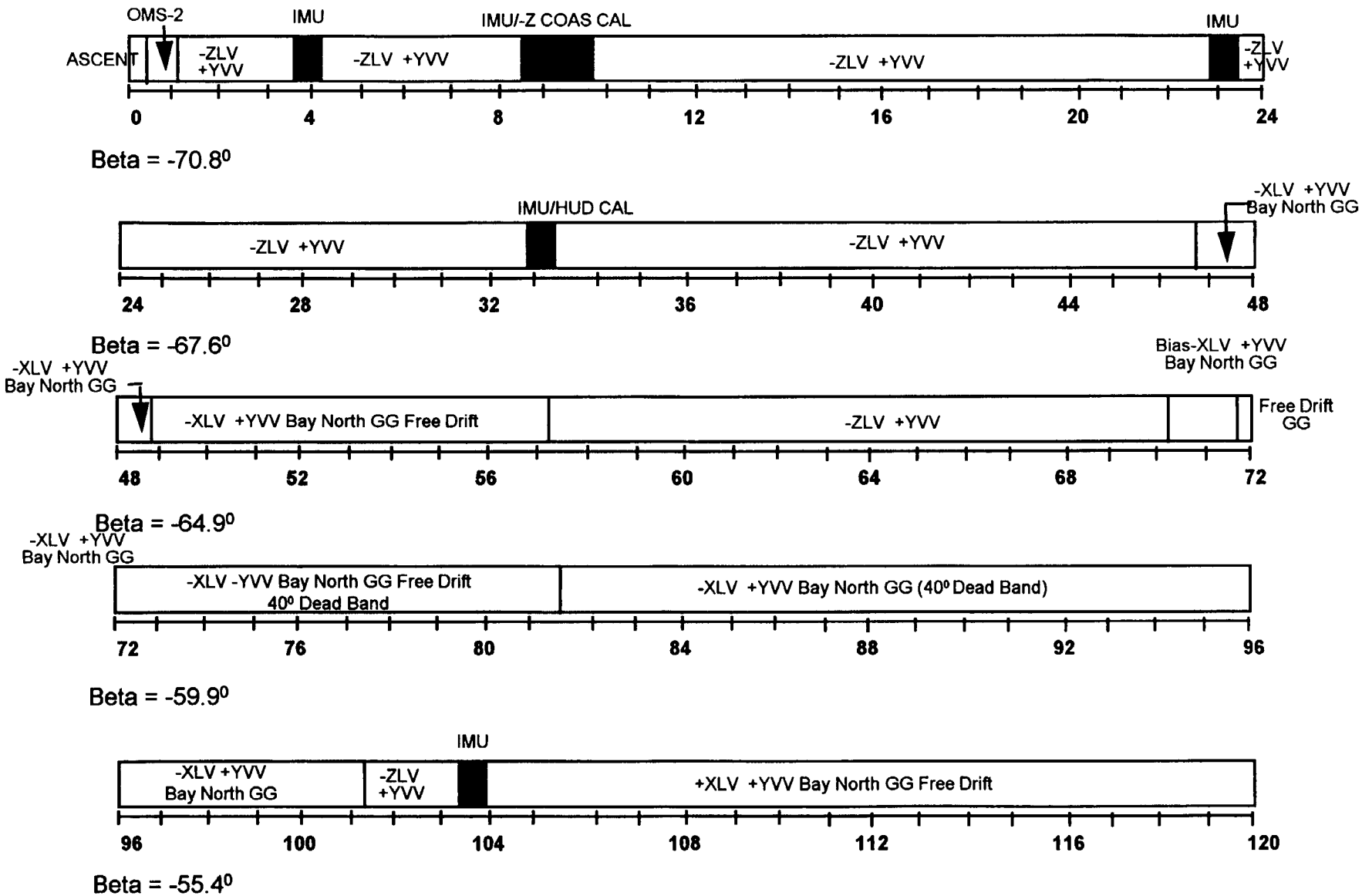
STS-61 AS-FLOWN ATTITUDE TIMELINE



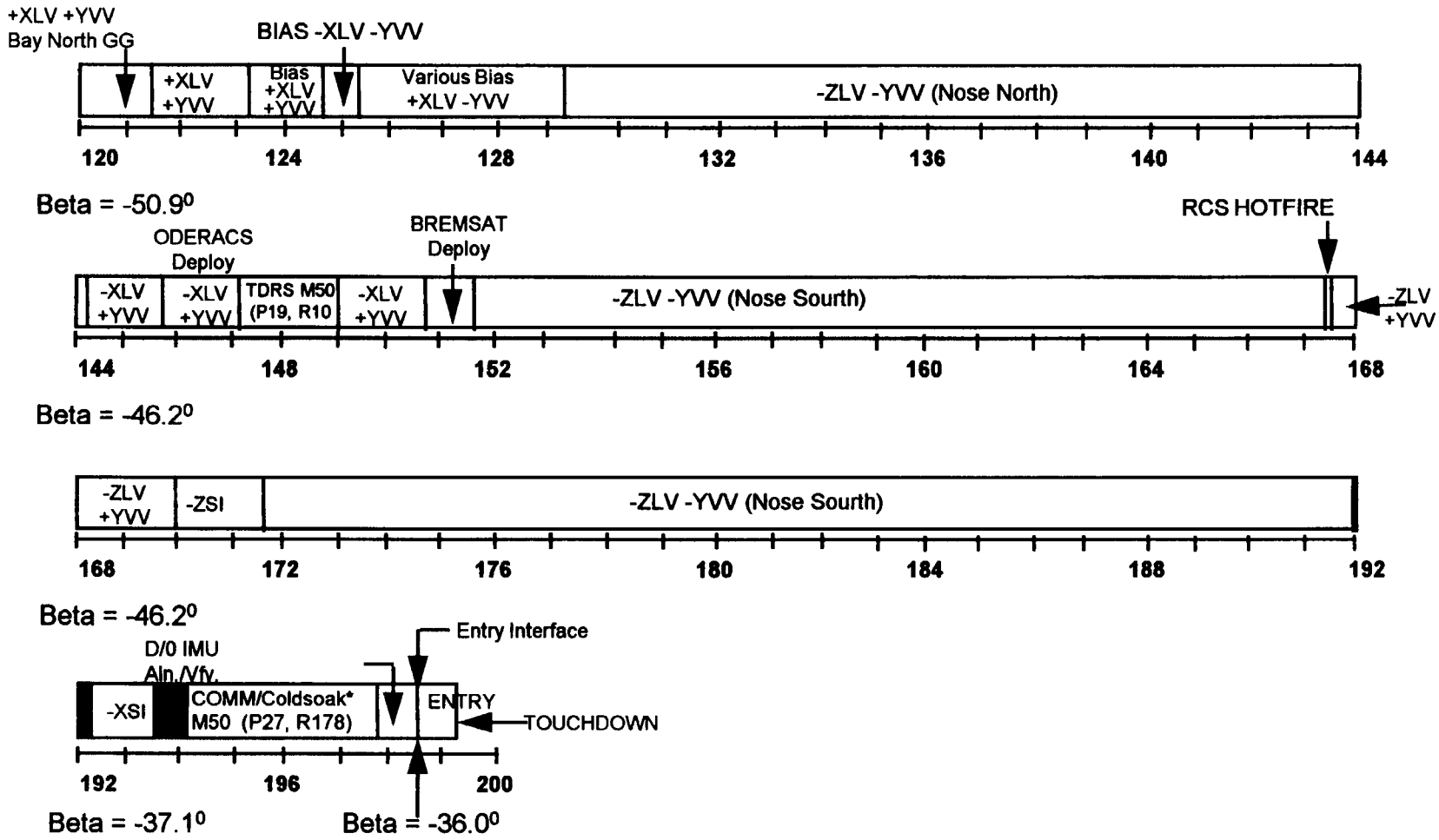
STS-61 AS-FLOWN ATTITUDE TIMELINE (Cont.)



STS-61 AS-FLOWN ATTITUDE TIMELINE (Cont.)

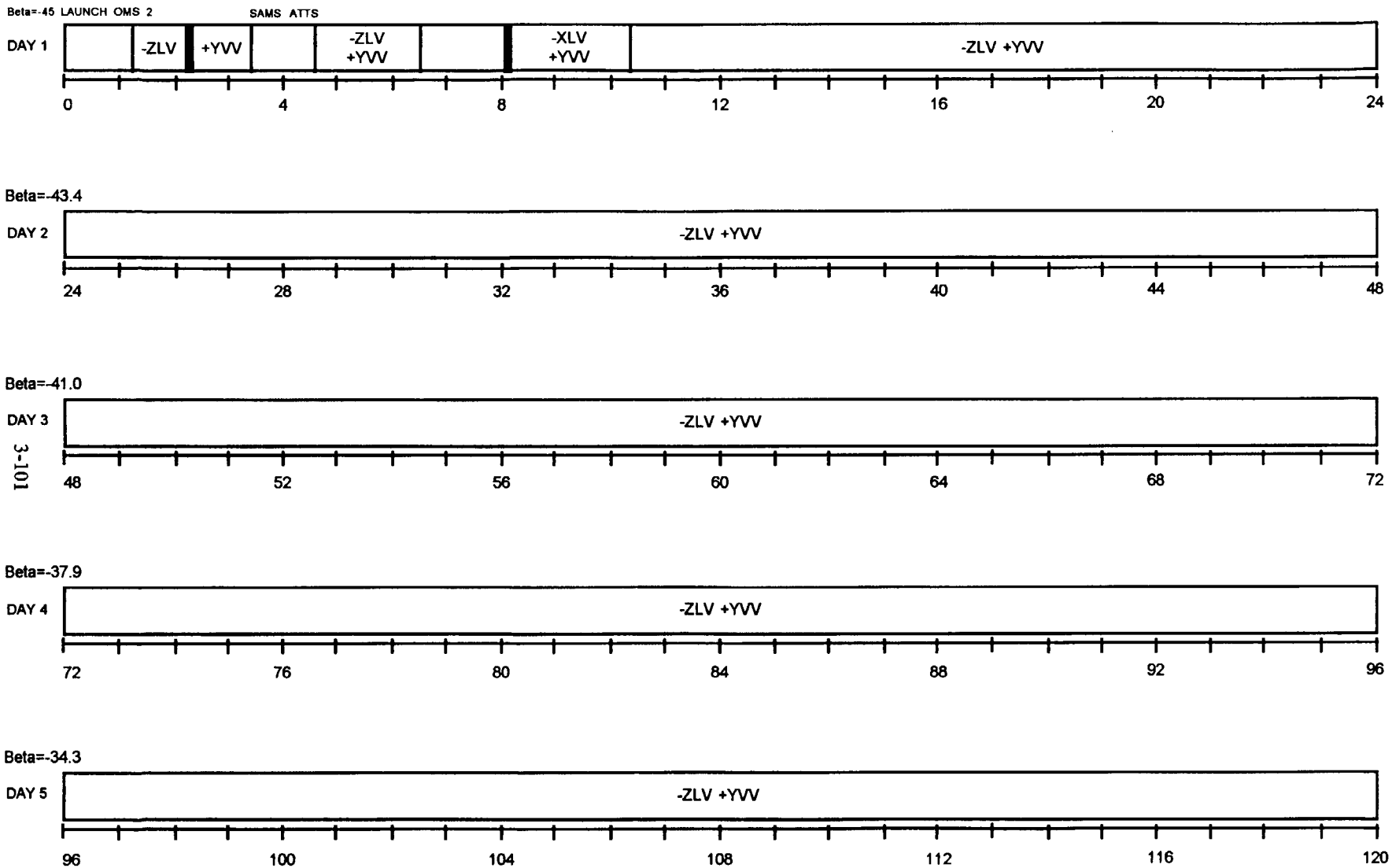


STS-60 AS-FLOWN ATTITUDE TIMELINE

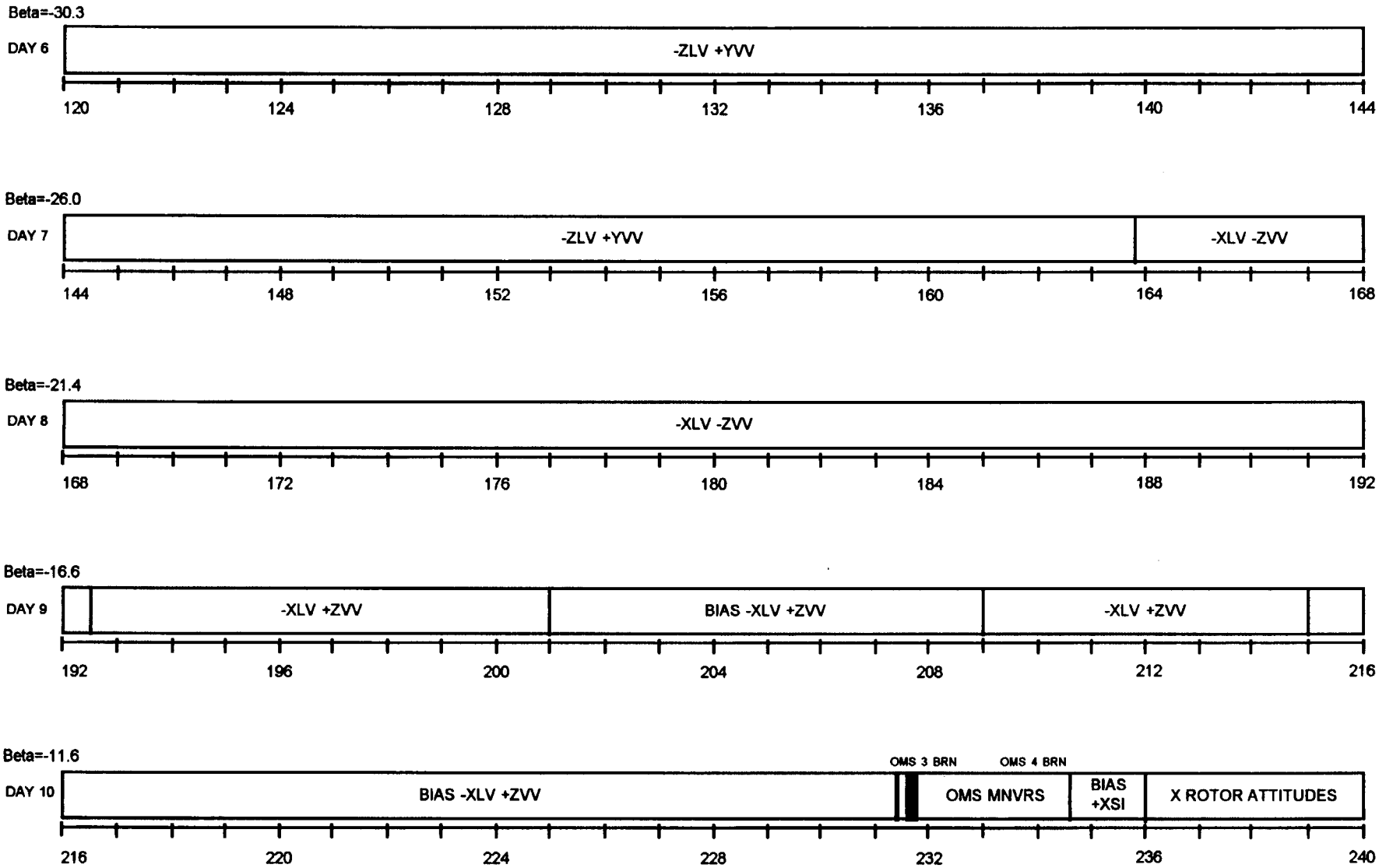


* Includes 1-rev. waiveoff

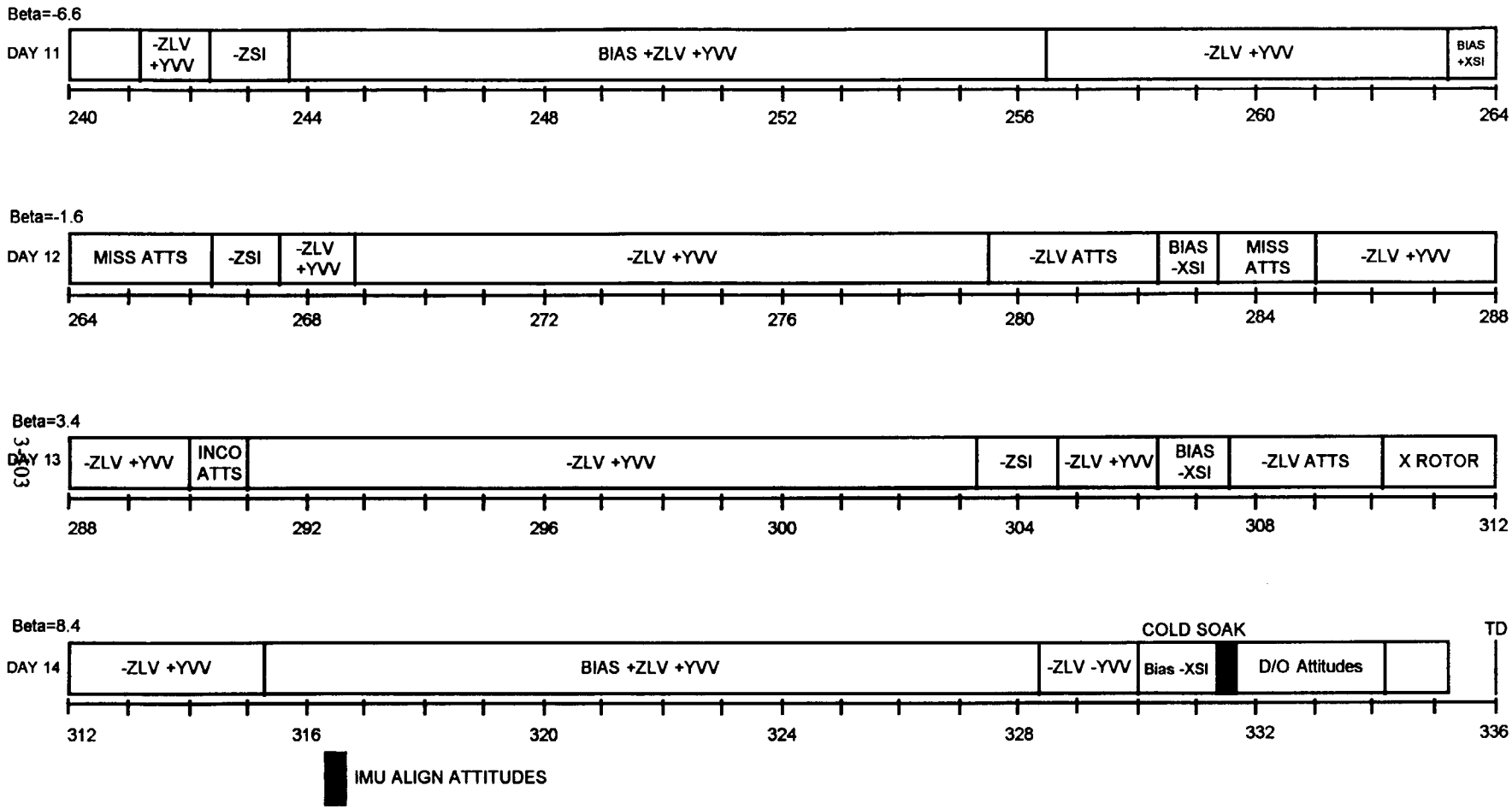
STS-60 AS-FLOWN ATTITUDE TIMELINE (...)



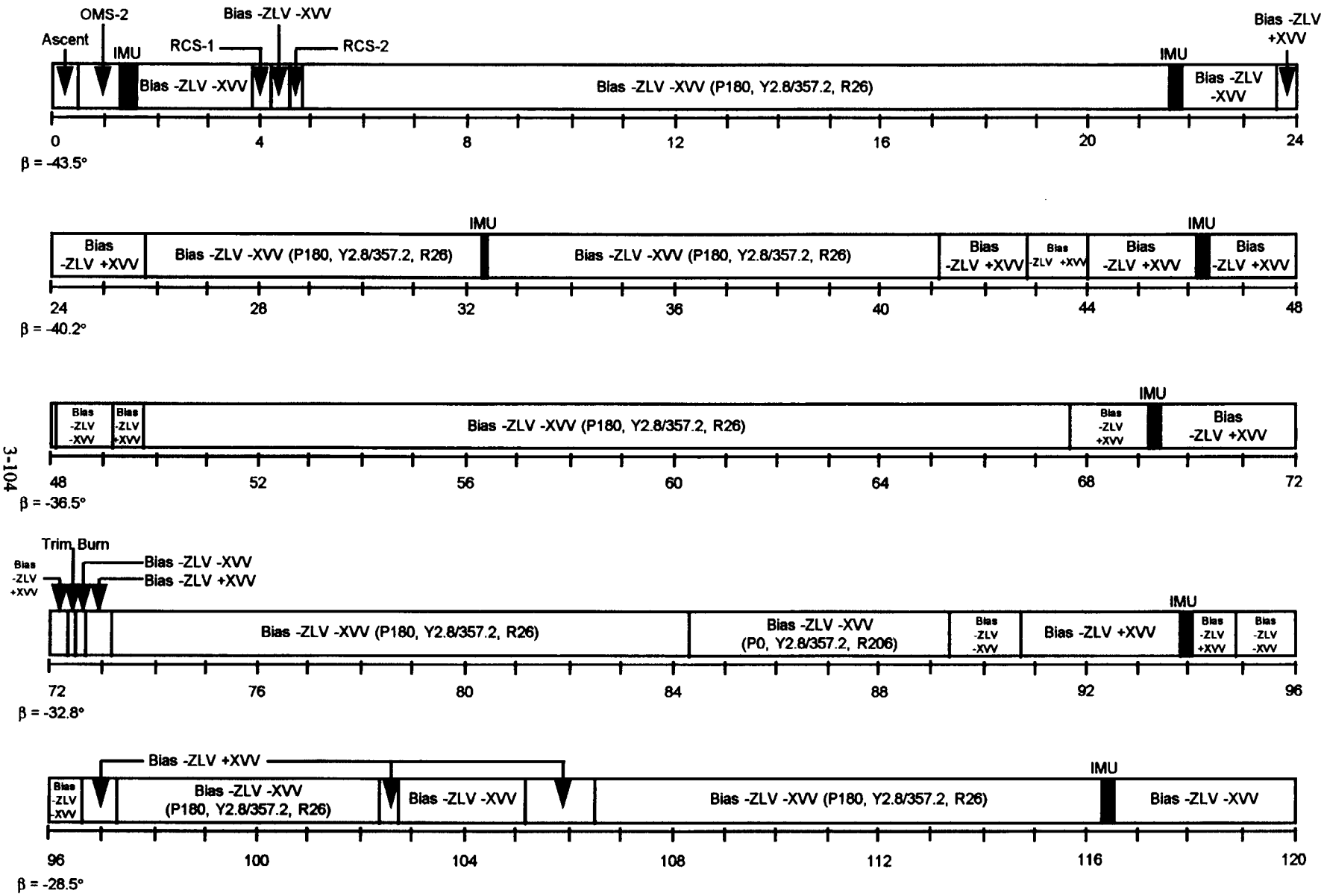
STS-62 AS-FLOWN ATTITUDE TIMELINE



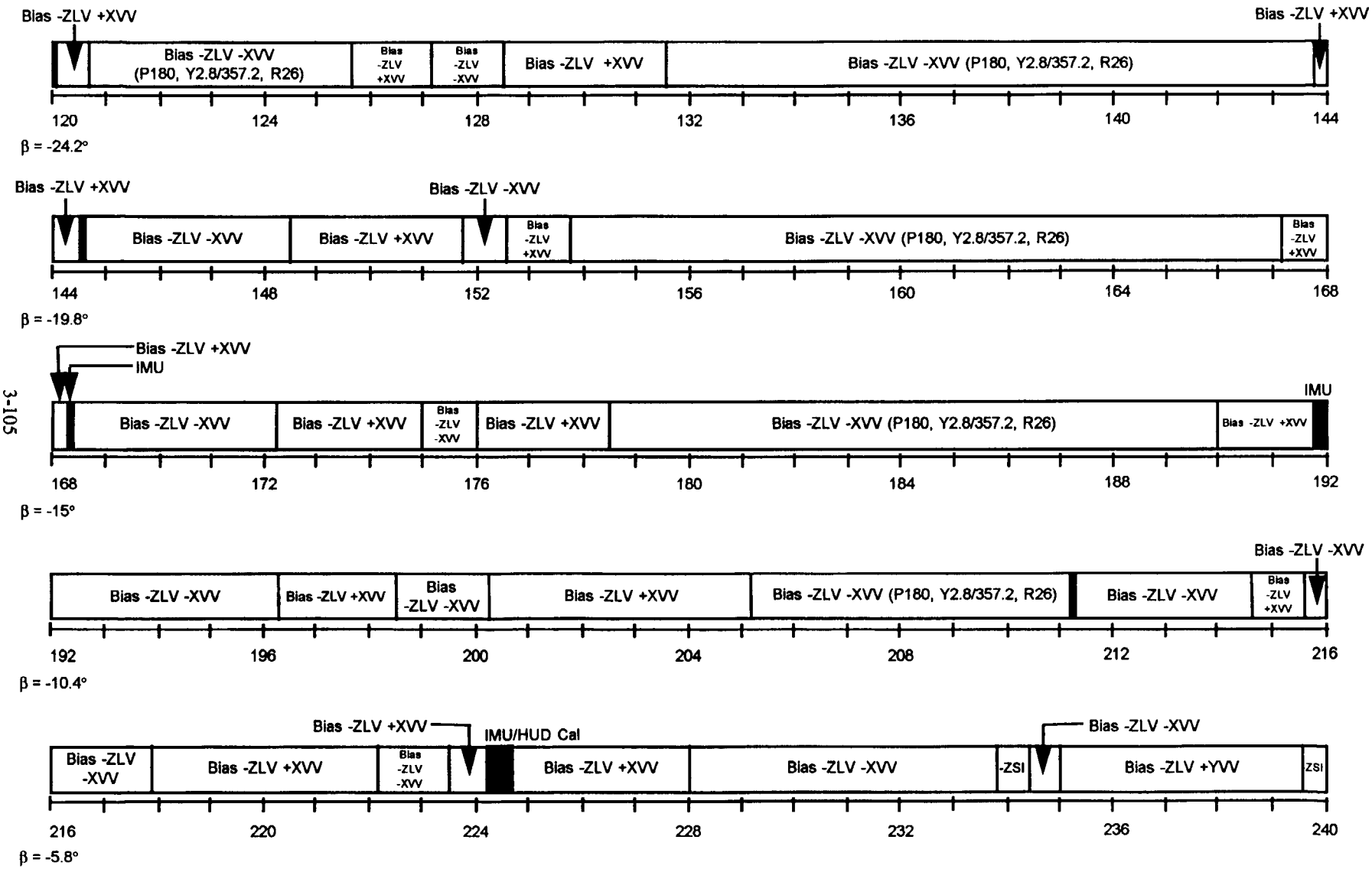
STS-62 AS-FLOWN ATTITUDE TIMELINE (Cont.)



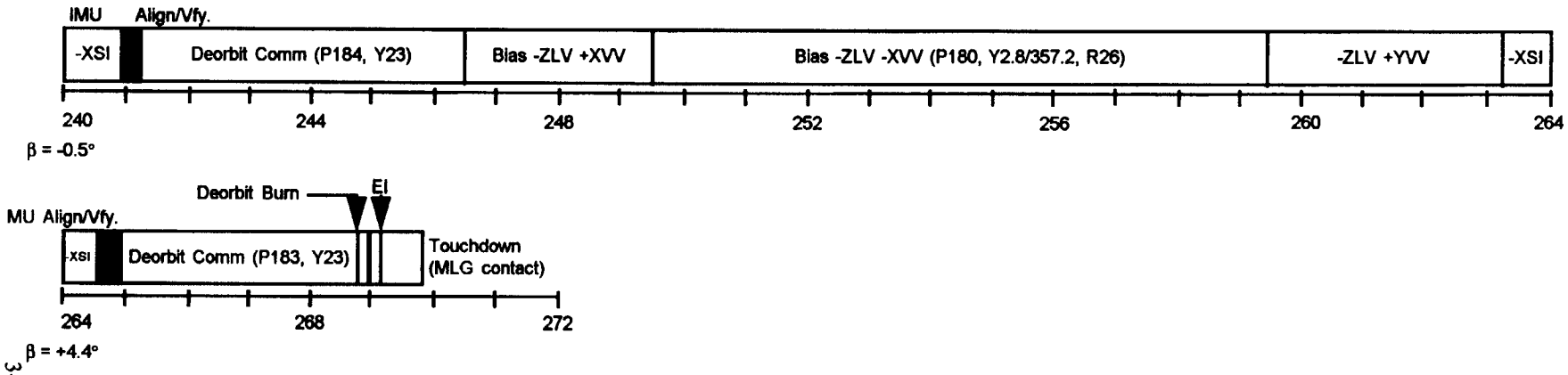
STS-62 AS-FLOWN ATTITUDE TIMELINE (Cont.)



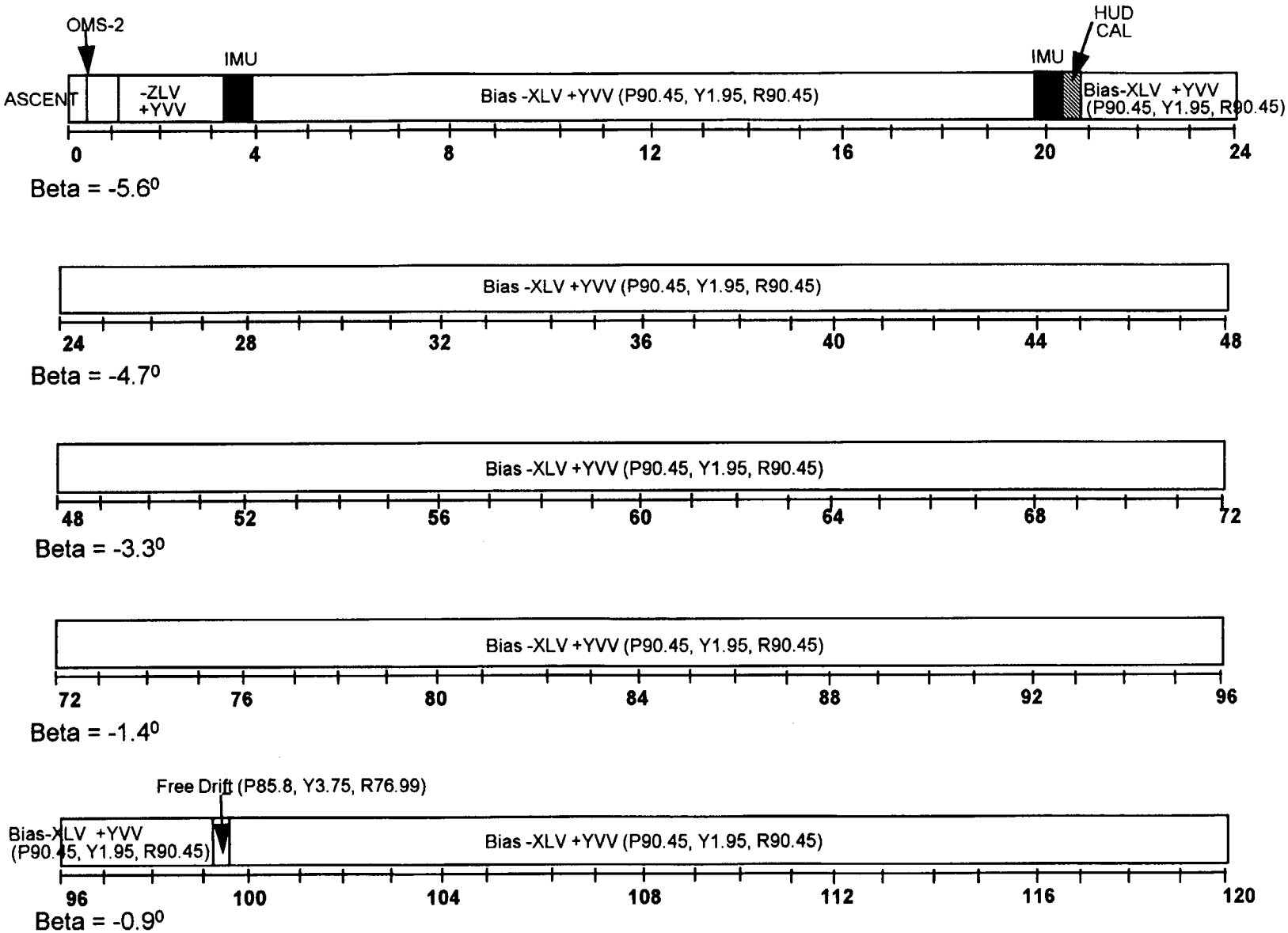
STS-59 AS-FLOWN ATTITUDE TIMELINE



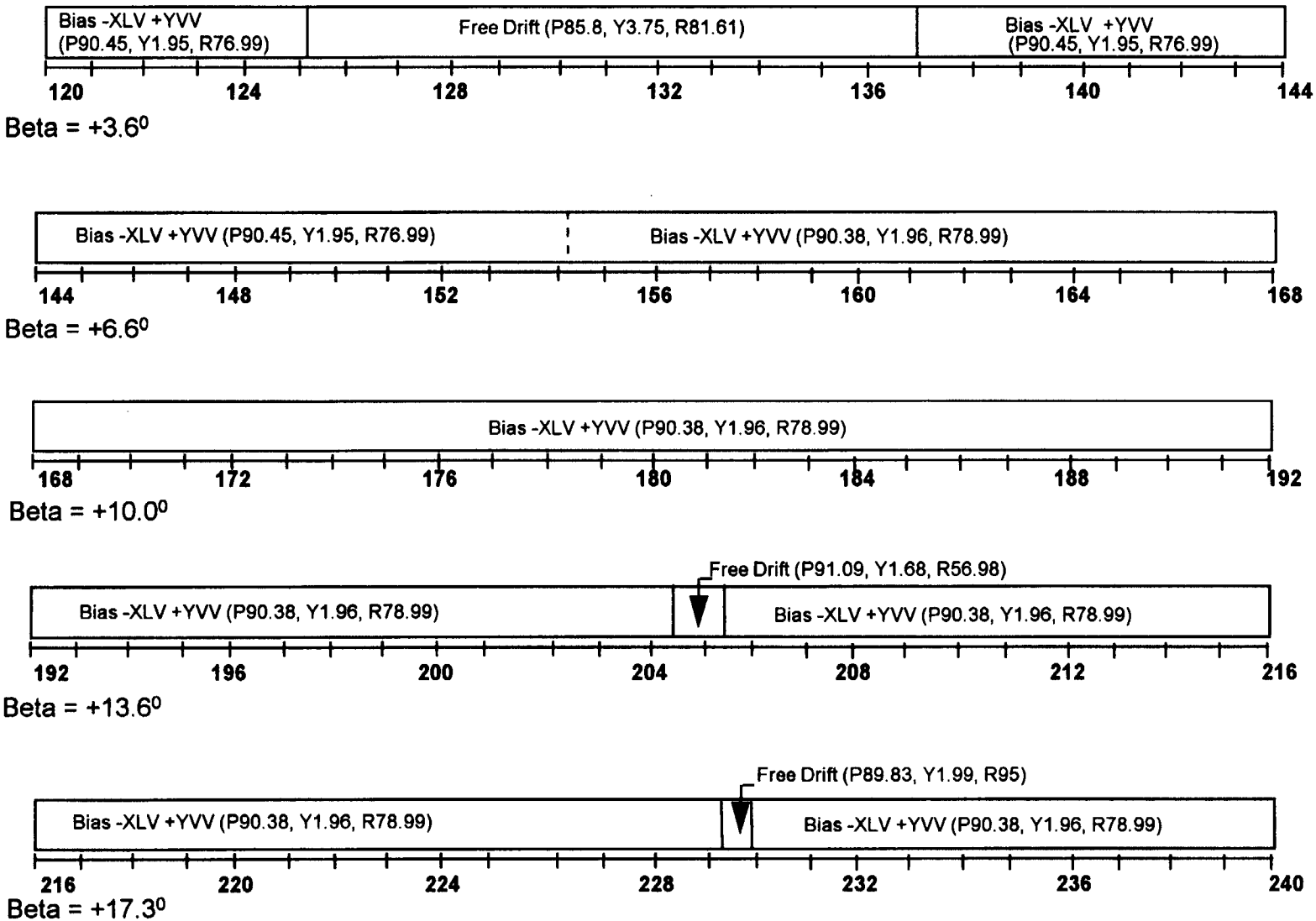
STS-59 AS-FLOWN ATTITUDE TIMELINE (CONTINUED)



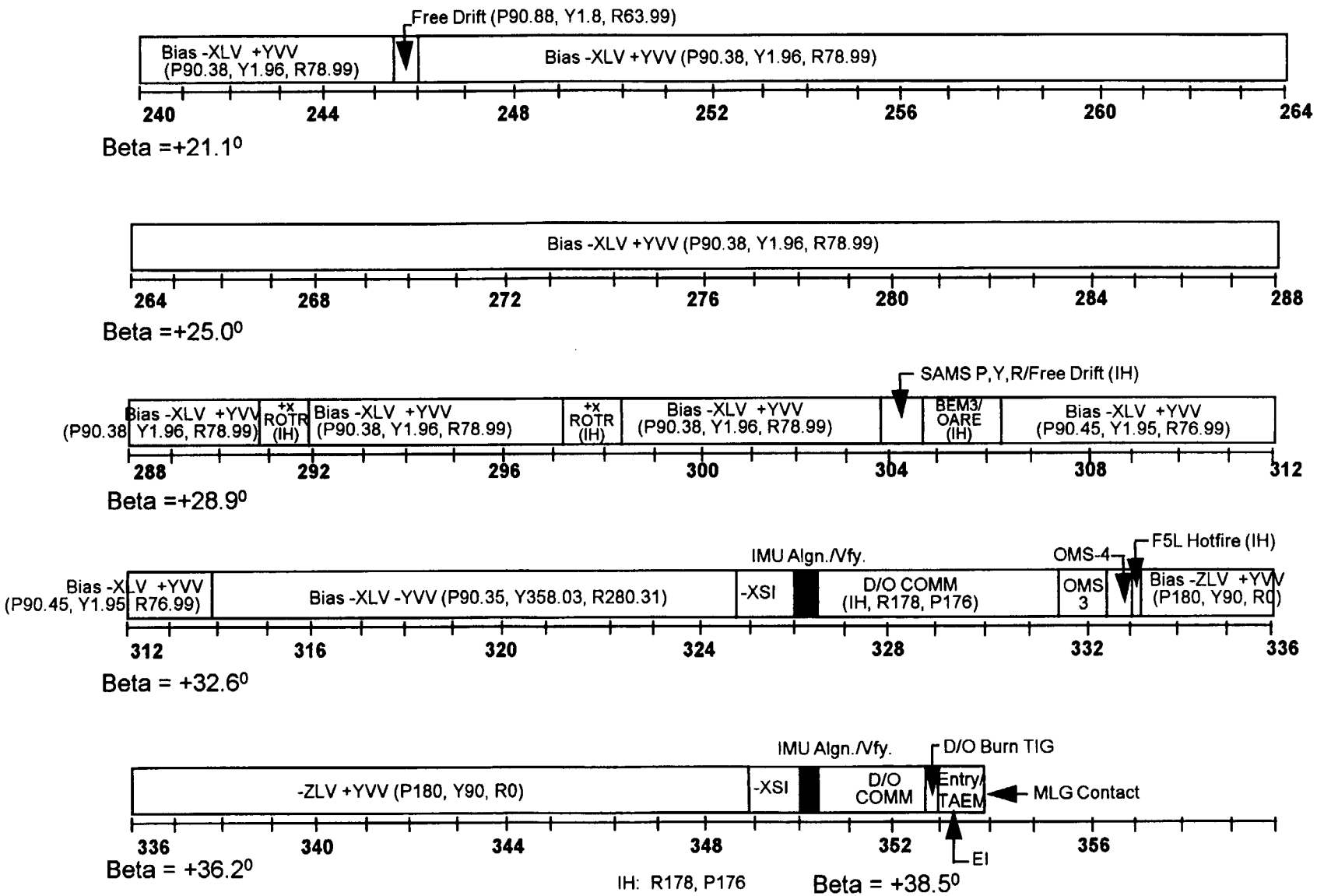
STS-59 AS-FLOWN ATTITUDE TIMELINE (CONTINUED)



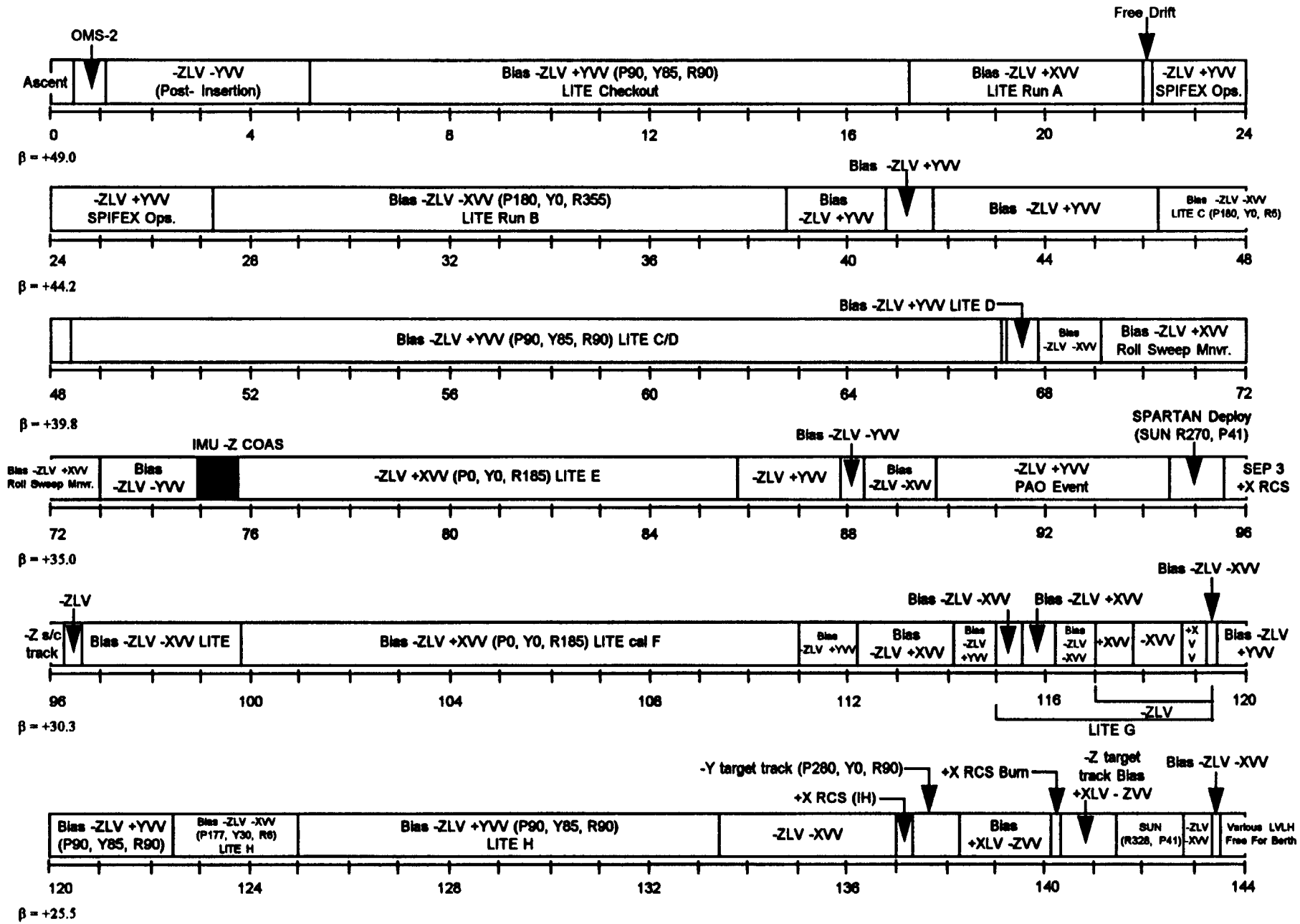
STS-65 AS-FLOWN ATTITUDE TIMELINE



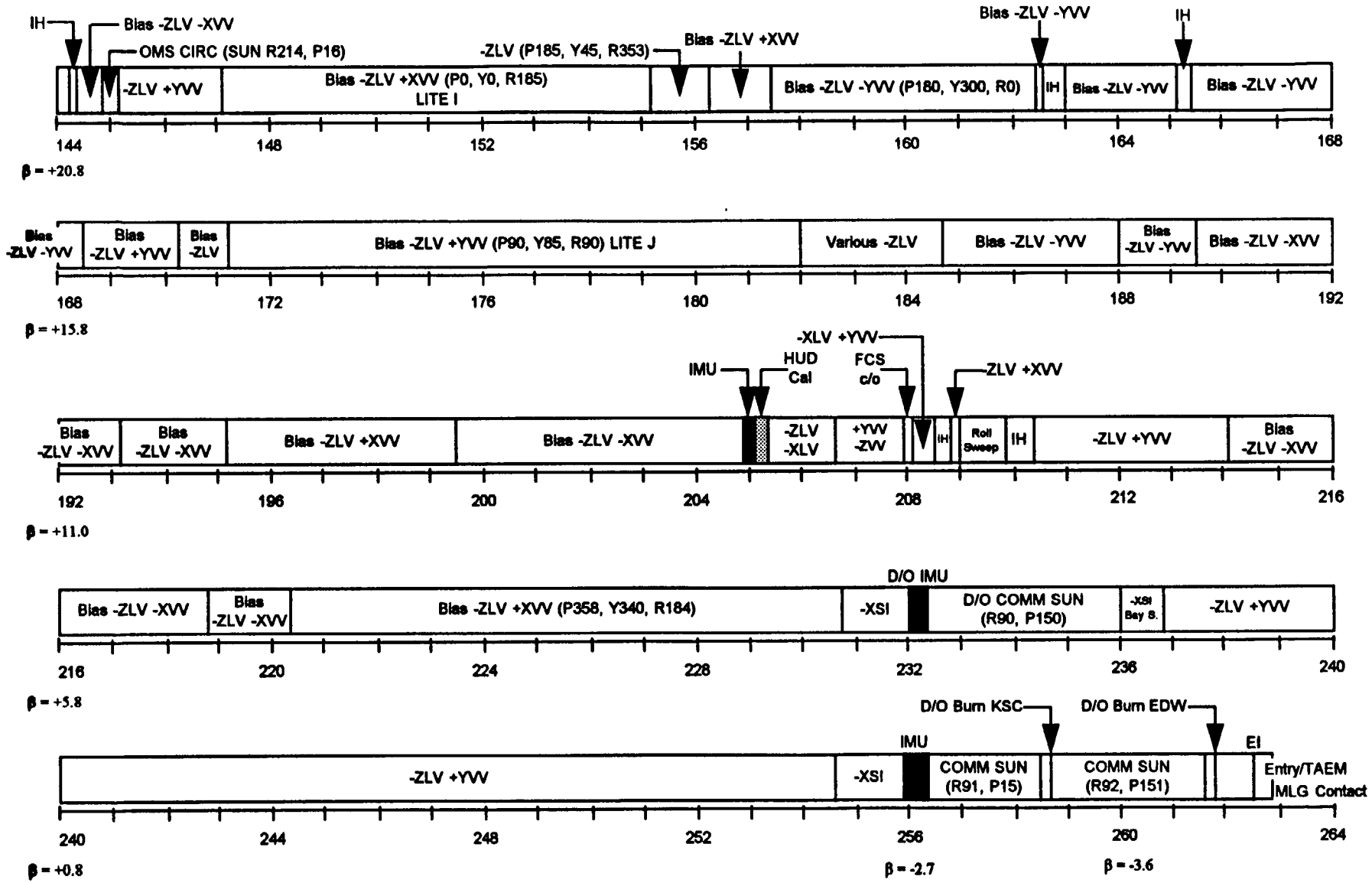
STS-65 AS-FLOWN ATTITUDE TIMELINE



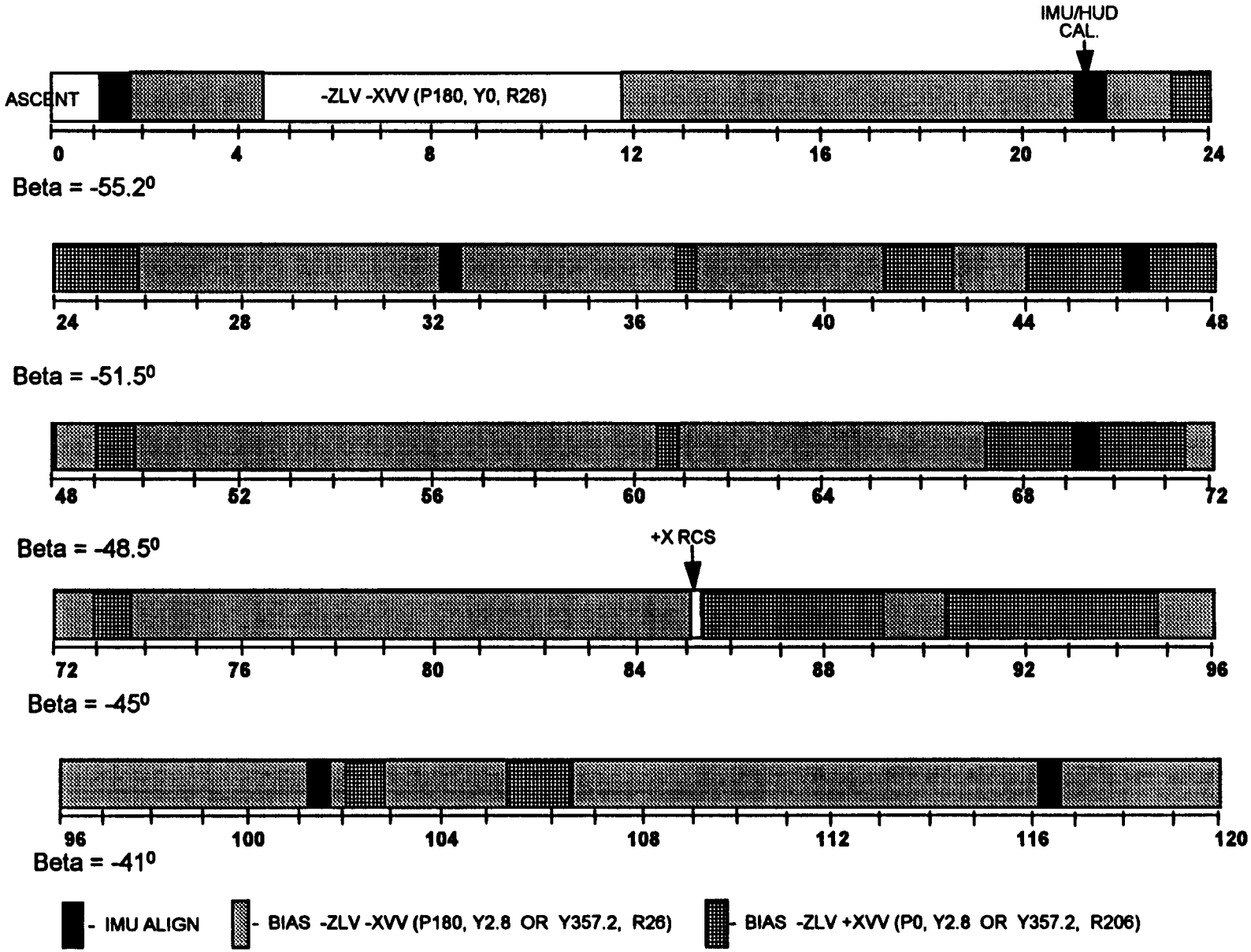
STS-65 AS-FLOWN ATTITUDE TIMELINE



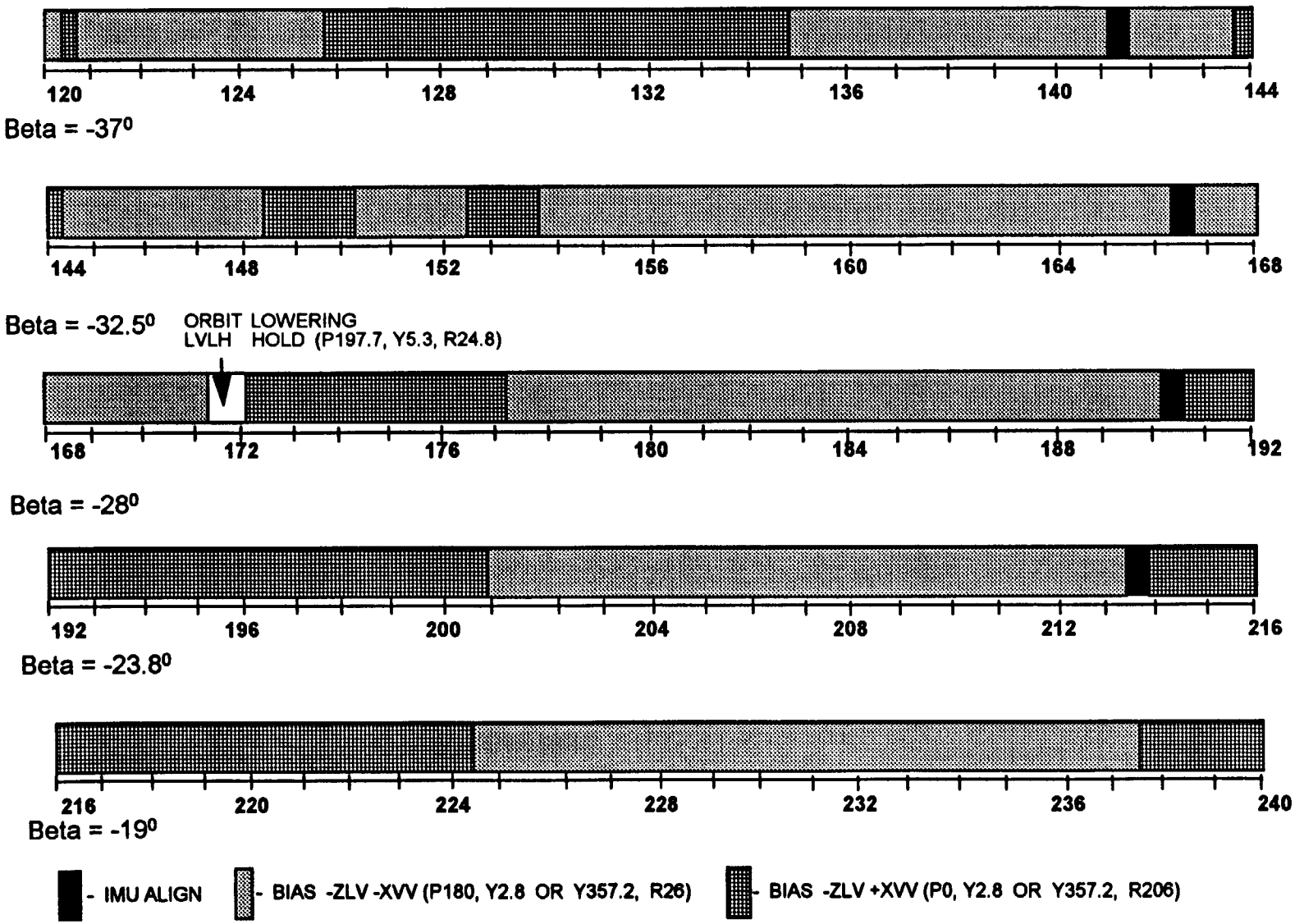
STS-64 AS-FLOWN ATTITUDE TIMELINE



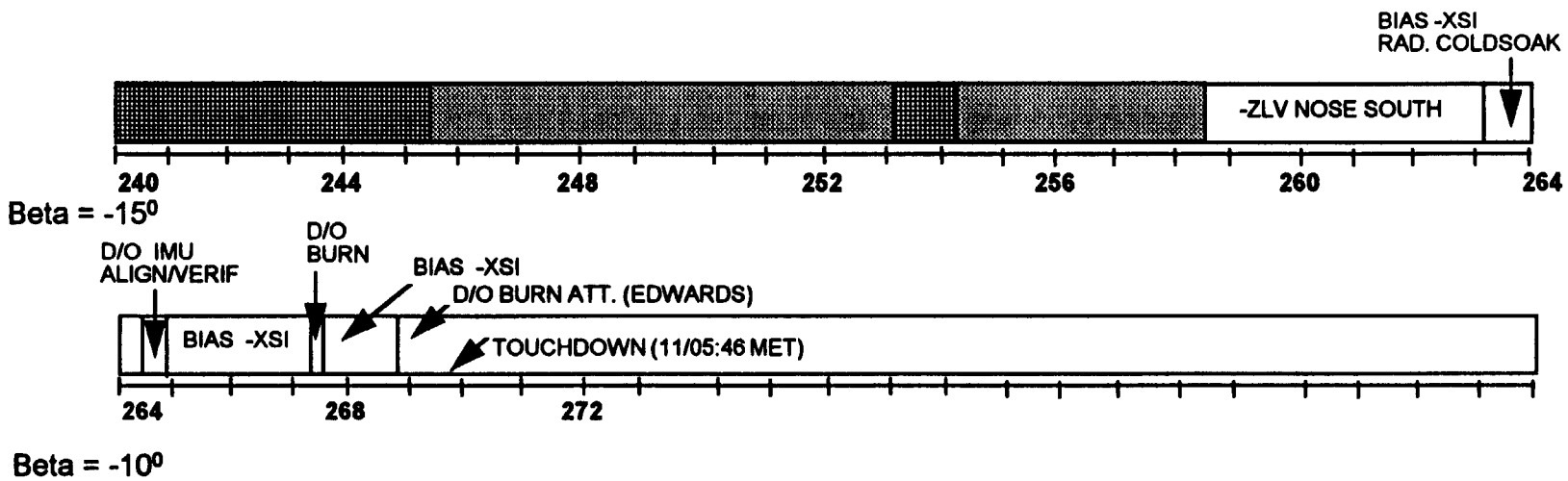
STS-64 AS-FLOWN ATTITUDE TIMELINE (CONT'D)



STS-68 AS-FLOWN ATTITUDE TIMELINE

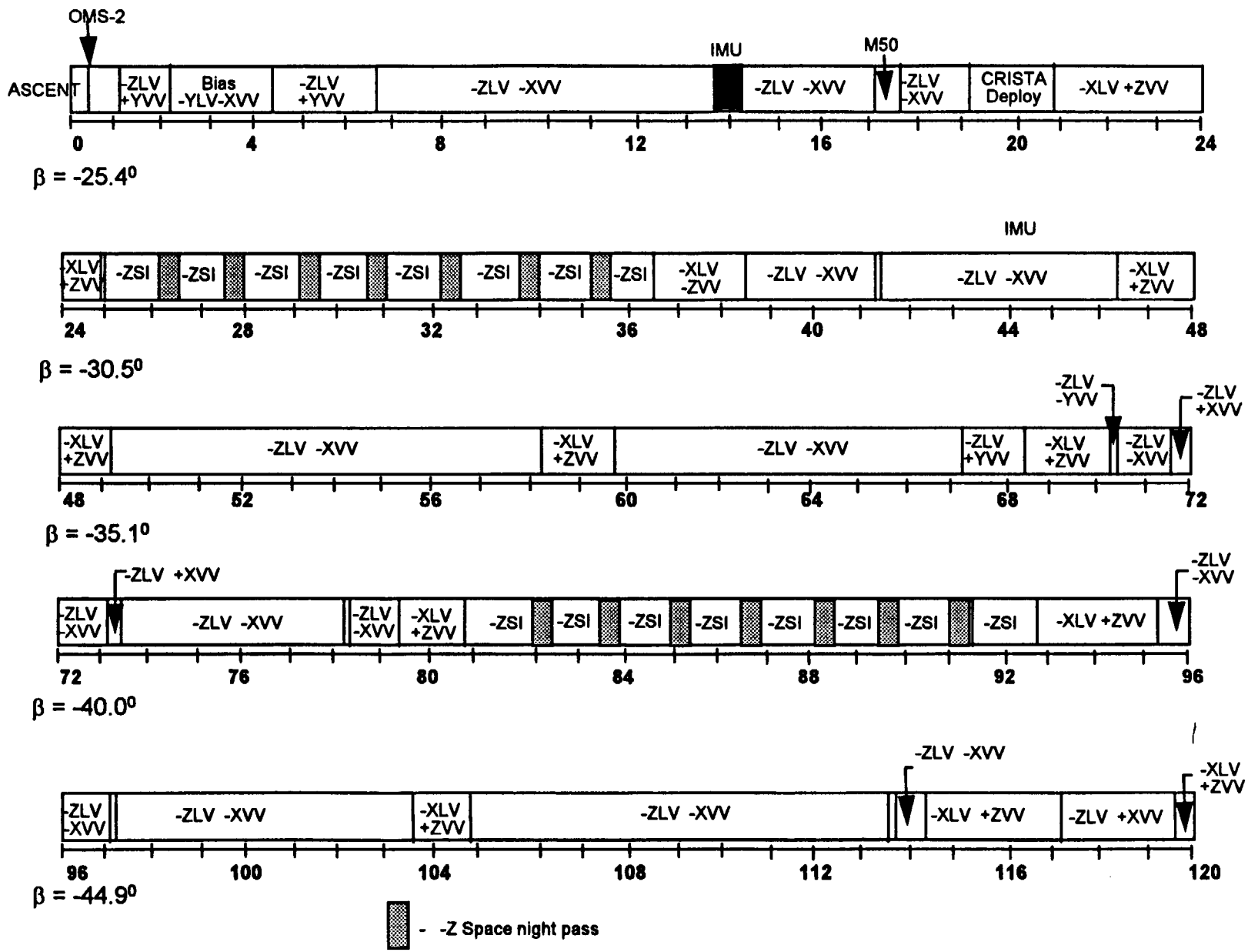


STS-68 AS-FLOWN ATTITUDE TIMELINE

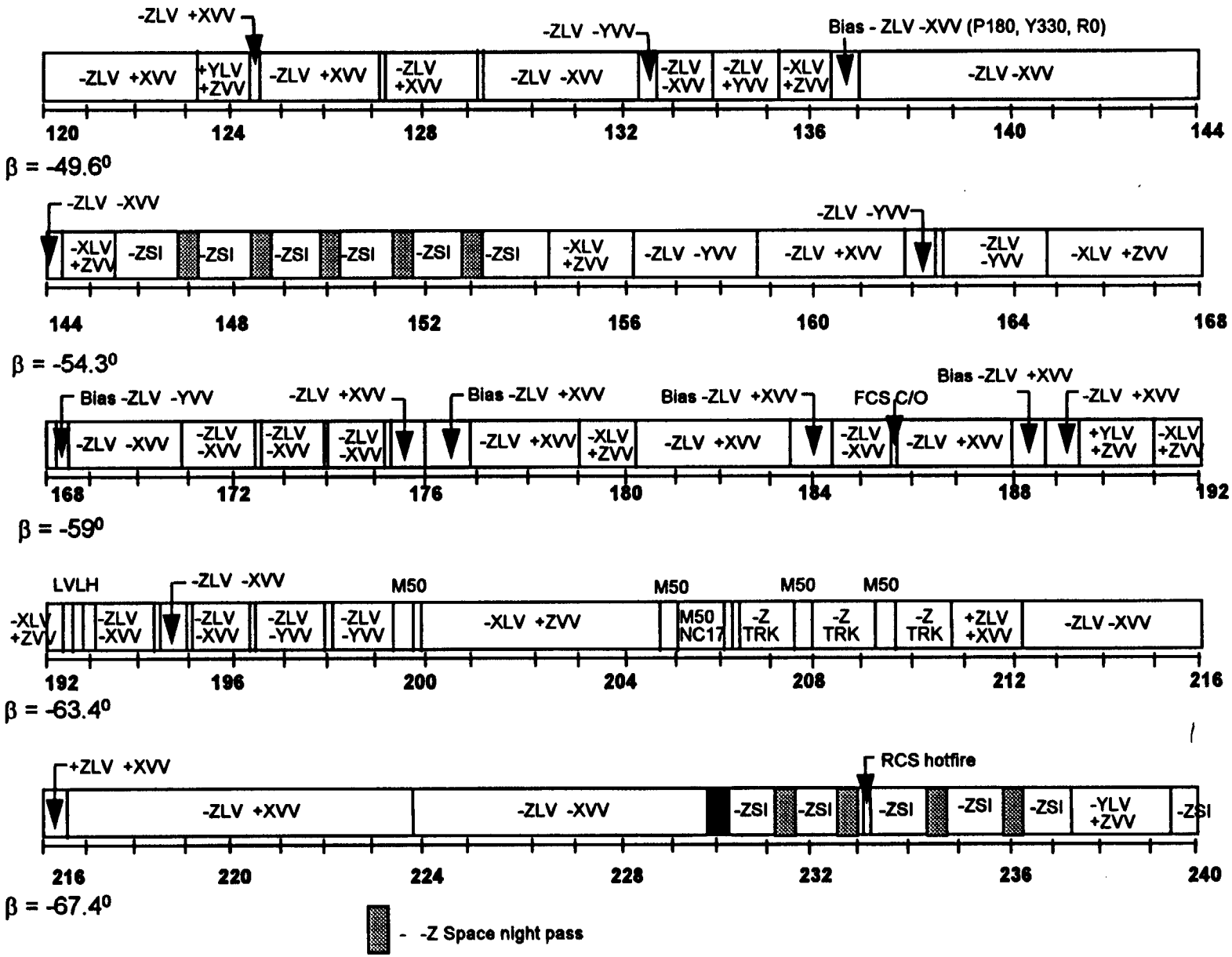


- IMU ALIGN
- BIAS -ZLV -XVV (P180, Y2.8 OR Y357.2, R26)
- BIAS -ZLV +XVV (P0, Y2.8 OR Y357.2, R206)

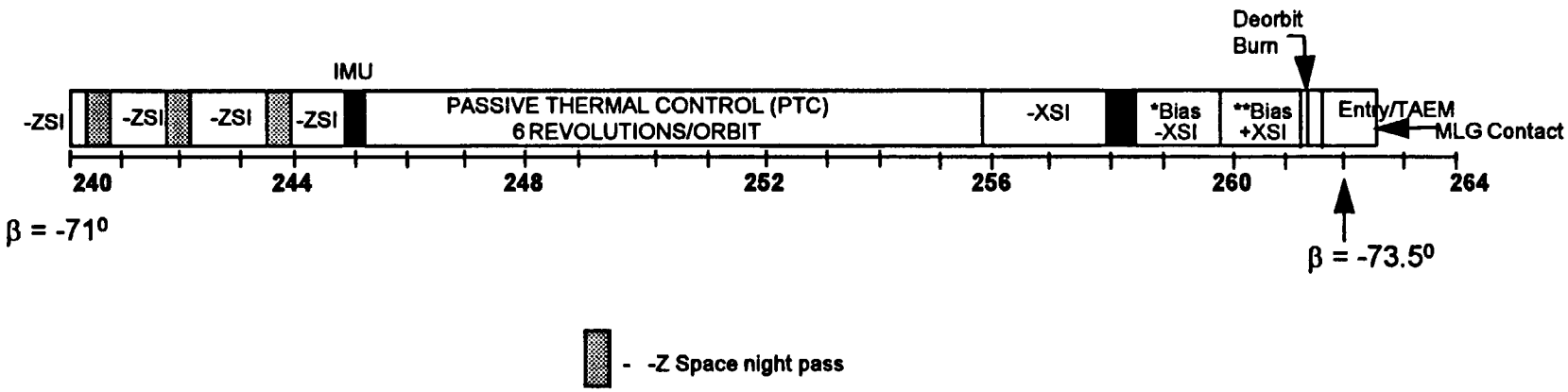
STS-68 AS-FLOWN ATTITUDE TIMELINE



STS-66 AS-FLOWN ATTITUDE TIMELINE



STS-66 AS-FLOWN ATTITUDE TIMELINE

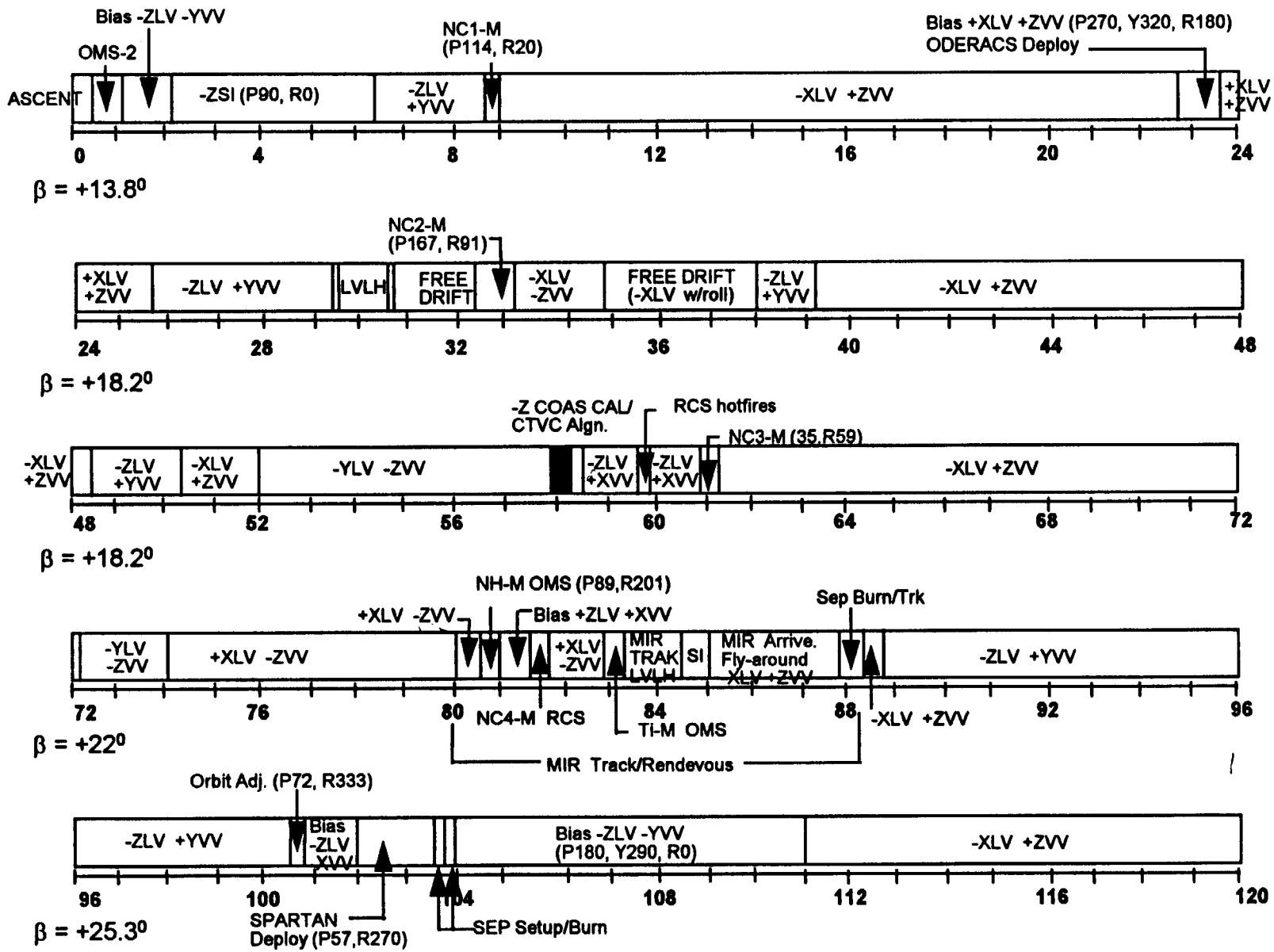


End-of-Mission Attitudes:

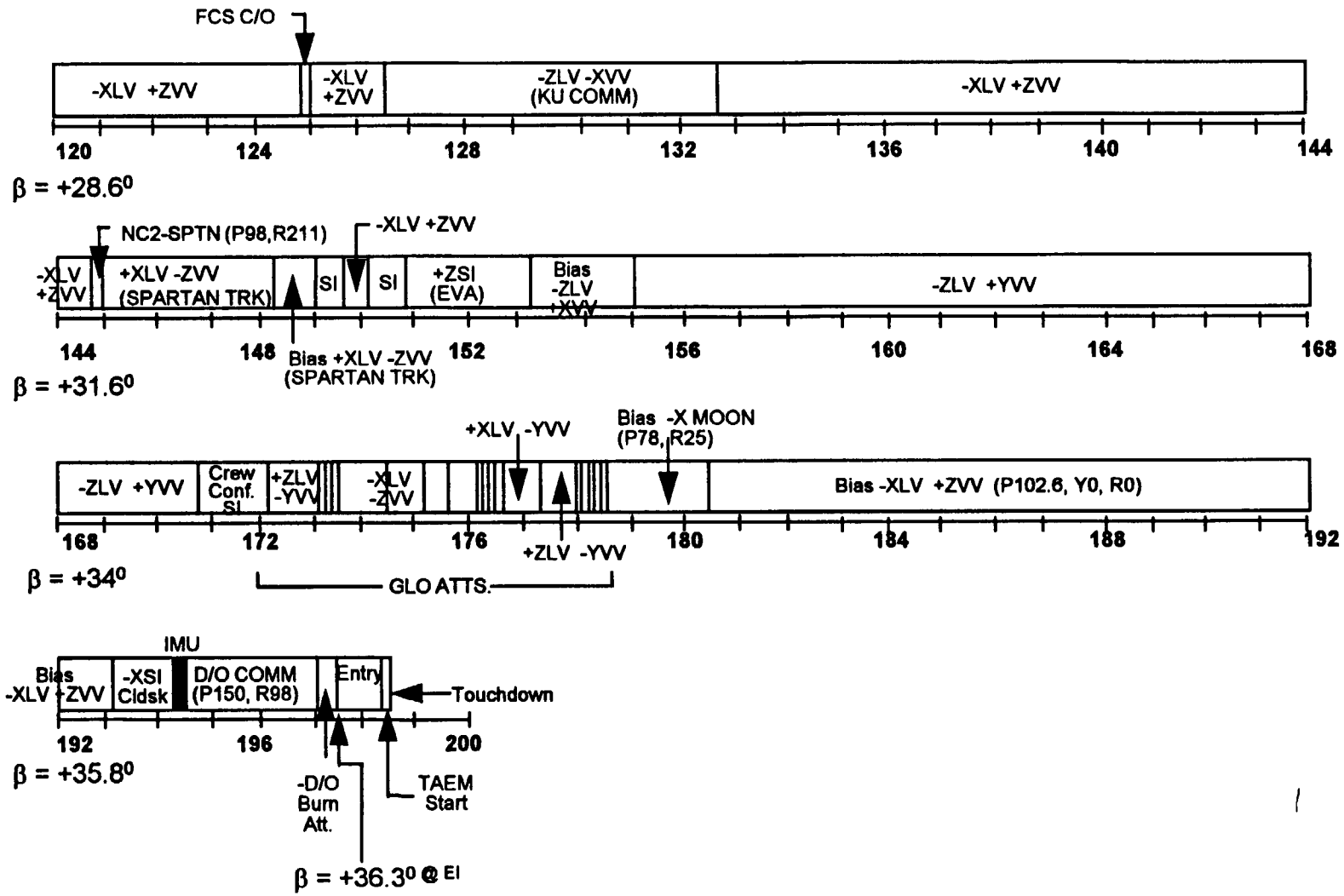
* COMM/Thermal Attitude: Starboard-Sun 30^0 Bias to warm OMS OX HPBL QD

** Wave-off COMM/Thermal Attitude 20^0 Pitch-up Bias to maintain Sun off OMS OX HPBL heater thermostat on aft bulkhead at orbital midnight; i.e. to preclude inhibiting heater operation.

STS-66 AS-FLOWN ATTITUDE TIMELINE



STS-63 AS-FLOWN ATTITUDE TIMELINE



STS-63 AS-FLOWN ATTITUDE TIMELINE

TABLE 3-XVI. STS-67 AS-FLOWN ATTITUDE TIMELINE

MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
0.00	0.50	LVLH	00.00	00.00	00.00	19.40	LIFTOFF
0.50	0.89	IH	27.00	72.00	92.00	19.40	OMS-2
1.38	3.36	LVLH	180.00	281.00	00.00	19.50	Bias -ZLV -YVV
4.75	1.29	IH	144.00	39.00	187.00	19.70	IPS-PINT
6.03	0.77	IH	230.00	310.00	120.00	19.80	IPS-OSPC
6.80	1.65	IH	225.00	348.00	113.00	19.90	IPT IDPT
8.45	1.18	IH	77.00	357.00	64.00	20.00	IDPT SSUB
9.63	4.02	IH	32.00	21.00	179.00	20.00	J3 F&A 1
13.65	7.02	IH	85.00	74.00	126.00	20.30	J3 F&A 2
20.67	2.67	IH	146.00	37.00	59.00	20.70	HUT-SF
23.34	1.01	IH	306.00	64.00	55.00	20.80	WUP-F&A
24.34	0.77	IH	167.00	46.00	319.00	20.90	HUT-CAL
25.12	0.92	LVLH	00.00	340.00	180.00	20.90	BR-EARTH
26.04	1.27	IH	247.00	23.00	318.00	21.00	4469-11H
27.31	0.85	IH	99.00	09.00	353.00	21.00	6308-20U
28.16	0.94	IH	53.00	35.00	171.00	21.10	6103-10U
29.10	0.50	IH	158.00	15.00	09.00	21.10	6594-11U
29.60	1.18	IH	45.00	26.00	163.00	21.10	2203-10W
30.78	0.99	IH	78.00	322.00	236.00	21.20	2133-10W
31.77	0.97	IH	188.00	287.00	60.00	21.20	2271-10W
32.74	2.24	IH	37.00	344.00	156.00	21.30	4453-10H
34.98	0.86	IH	99.00	307.00	333.00	21.40	0001-10H
35.84	1.12	IH	15.00	22.00	48.00	21.40	4804-10U
36.97	0.80	IH	347.00	292.00	04.00	21.50	5201-11U
37.77	1.28	IH	286.00	77.00	99.00	21.50	5201-10U
39.04	0.87	IH	304.00	335.00	68.00	21.50	4508-10W
39.91	0.78	IH	120.00	08.00	271.00	21.60	0656-10W
40.69	1.02	IH	325.00	67.00	143.00	21.60	9421-10U
41.71	1.18	IH	248.00	311.00	64.00	21.60	0003-10H
42.89	0.54	IH	310.00	346.00	182.00	21.70	8116-11H
43.43	0.74	IH	213.00	03.00	13.00	21.70	3402-10H
44.17	1.08	IH	183.00	17.00	248.00	21.70	1204-10H
45.25	1.06	IH	340.00	55.00	165.00	21.70	0608-10W
46.30	0.74	IH	348.00	355.00	331.00	21.80	5109-12U
47.05	1.01	IH	293.00	62.00	219.00	21.80	6235-11U
48.06	0.97	IH	238.00	14.00	113.00	21.80	2302-10W
49.03	1.46	IH	187.00	22.00	158.00	21.80	0502-12W
50.49	1.01	IH	34.00	353.00	303.00	21.90	4543-10W
51.50	0.45	IH	333.00	14.00	143.00	21.90	2916-10H
51.95	1.00	IH	83.00	323.00	230.00	21.90	4469-10H
52.95	0.99	IH	80.00	295.00	268.00	21.90	8415-21H
53.94	1.07	IH	247.00	73.00	104.00	21.90	3206-20H
55.01	1.02	IH	263.00	339.00	251.00	22.00	1204-20H
56.03	0.86	IH	170.00	333.00	58.00	22.00	3266-11H
56.90	0.52	IH	135.00	353.00	295.00	22.00	2979-10H
57.42	0.60	IH	194.00	41.00	138.00	22.00	8106-10U

TABLE 3-XVI. STS-67 AS-FLOWN ATTITUDE TIMELINE

MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
58.02	0.78	IH	150.00	34.00	258.00	22.00	5196-10U
58.80	1.59	IH	135.00	69.00	282.00	22.00	6248-11U
60.39	1.04	IH	194.00	353.00	345.00	22.00	4211-11W
61.44	0.62	IH	205.00	345.00	275.00	22.10	3270-11W
62.05	1.19	IH	193.00	348.00	344.00	22.10	4211-12W
63.24	0.72	IH	288.00	321.00	56.00	22.10	2907-11W
63.96	0.56	IH	289.00	36.00	200.00	22.10	0001-12H
64.52	1.59	IH	224.00	42.00	316.00	22.10	2567-10H
66.11	0.72	IH	218.00	04.00	01.00	22.10	2707-11H
66.83	1.02	IH	41.00	301.00	232.00	22.10	8415-11H
67.85	0.93	IH	295.00	333.00	46.00	22.10	8202-11H
68.78	1.20	IH	78.00	328.00	237.00	22.10	4469-20H
69.98	0.64	IH	274.00	30.00	192.00	22.10	9425-10U
70.62	0.79	IH	343.00	30.00	240.00	22.10	5312-10U
71.41	0.84	IH	99.00	28.00	27.00	22.10	8210-10U
72.25	1.33	IH	177.00	346.00	113.00	22.10	2302-20W
73.58	0.80	IH	333.00	00.00	293.00	22.10	3327-10W
74.38	0.84	IH	221.00	02.00	147.00	22.10	3807-19W
75.22	0.81	IH	74.00	294.00	77.00	22.10	2255-11H
76.02	0.80	IH	308.00	52.00	183.00	22.10	8116-21H
76.83	0.55	IH	127.00	317.00	259.00	22.10	2564-11H
77.38	0.93	IH	26.00	283.00	225.00	22.10	8121-13H
78.30	0.78	IH	334.00	345.00	11.00	22.10	8102-11H
79.09	1.01	IH	46.00	301.00	251.00	22.10	8535-21H
80.10	1.07	IH	18.00	00.00	126.00	22.10	2248-10H
81.17	0.49	IH	76.00	310.00	267.00	22.10	2953-10H
81.66	0.81	IH	44.00	329.00	171.00	22.10	6141-11U
82.47	1.00	IH	103.00	318.00	287.00	22.10	5108-11U
83.47	0.96	IH	10.00	43.00	95.00	22.10	5311-11U
84.44	0.36	IH	160.00	309.00	177.00	22.10	5201-13U
84.80	1.03	IH	51.00	02.00	76.00	22.10	3114-10W
85.83	0.93	IH	220.00	350.00	16.00	22.00	2203-11W
86.76	1.26	IH	254.00	59.00	305.00	22.00	4557-10W
88.02	1.31	LVLH	180.00	90.00	00.00	22.00	-ZLV +YVV
89.33	0.25	IH	12.00	57.00	194.00	22.00	New IDIN
89.58	0.82	IH	195.00	48.00	315.00	22.00	8535-22W
90.40	0.87	IH	222.00	10.00	355.00	22.00	3413-10W
91.26	0.74	IH	148.00	343.00	329.00	22.00	8535-11H
92.00	0.83	IH	257.00	56.00	309.00	21.90	2567-12H
92.83	1.05	IH	49.00	315.00	345.00	21.90	3217-10H
93.89	0.62	IH	288.00	27.00	39.00	21.90	6207-10U
92.50	0.91	IH	41.00	343.00	344.00	21.90	8310-11U
95.41	0.53	IH	164.00	16.00	176.00	21.90	6197-10U
95.94	0.93	IH	126.00	68.00	291.00	21.90	6248-12U
96.87	1.08	IH	226.00	09.00	115.00	21.80	2302-30W
97.94	0.72	IH	219.00	347.00	278.00	21.80	3270-12W

TABLE 3-XVI. STS-67 AS-FLOWN ATTITUDE TIMELINE

MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
98.66	0.97	IH	210.00	43.00	339.00	21.80	4211-13W
99.63	0.67	IH	04.00	24.00	252.00	21.80	3407-12H
100.30	0.89	IH	150.00	34.00	24.00	21.70	7342-13H
101.19	0.74	IH	31.00	306.00	39.00	21.70	2253-10H
101.93	72.00	IH	132.00	304.00	34.00	21.70	6306-20H
102.65	0.80	IH	49.00	289.00	59.00	21.70	3206-21H
103.45	0.70	IH	117.00	325.00	22.00	21.70	6303-31H
104.15	0.99	IH	33.00	352.00	13.00	21.60	2822-10H
105.14	1.07	IH	79.00	47.00	310.00	21.60	2506-10H
106.22	1.03	IH	280.00	53.00	205.00	21.60	9405-12U
107.25	0.73	IH	215.00	308.00	231.00	21.50	5109-13U
107.98	0.90	IH	273.00	335.00	159.00	21.50	6272-10U
108.88	0.62	IH	302.00	64.00	58.00	21.50	2252-10H
109.50	0.82	IH	49.00	42.00	87.00	21.40	3266-21H
110.32	0.46	IH	284.00	353.00	269.00	21.40	3405-11H
110.79	0.99	IH	158.00	47.00	28.00	21.40	8208-11H
111.78	0.71	IH	228.00	358.00	322.00	21.40	4413-10H
112.49	0.67	IH	221.00	351.00	76.00	21.30	2534-11H
113.17	0.54	IH	216.00	07.00	317.00	21.30	3409-11H
113.71	0.86	IH	81.00	52.00	106.00	21.30	0003-11H
114.57	1.07	IH	255.00	31.00	314.00	21.20	4469-21H
115.64	0.91	IH	233.00	09.00	201.00	21.20	7316-10U
116.55	0.51	IH	154.00	293.00	133.00	21.20	5101-12U
117.06	0.91	IH	271.00	17.00	149.00	21.10	6604-10U
117.98	0.73	IH	305.00	47.00	47.00	21.10	7401-10U
118.71	0.97	IH	71.00	32.00	00.00	21.10	6223-10U
119.67	0.66	IH	259.00	61.00	90.00	21.00	8211-10U
120.34	0.69	IH	253.00	338.00	150.00	21.00	6134-10U
121.03	1.16	IH	210.00	357.00	32.00	21.00	2205-10W
122.19	0.83	IH	80.00	324.00	238.00	20.90	2306-10W
123.01	0.71	IH	189.00	11.00	25.00	20.90	4595-10W
123.72	0.83	IH	108.00	315.00	257.00	20.80	2306-20W
124.55	0.72	IH	183.00	24.00	26.00	20.80	4586-10W
125.27	0.71	IH	12.00	23.00	228.00	20.70	2306-30W
125.99	0.72	IH	04.00	337.00	154.00	20.70	4596-10W
126.71	0.82	IH	29.00	07.00	224.00	20.70	2306-40W
127.53	0.73	IH	60.00	353.00	100.00	20.60	2586-10H
128.26	0.69	IH	129.00	328.00	358.00	20.60	8116-12H
128.95	0.82	IH	328.00	315.00	66.00	20.50	8202-21H
129.77	1.14	IH	37.00	16.00	220.00	20.50	4445-11H
130.91	0.83	IH	310.00	18.00	143.00	20.40	7305-10H
131.74	0.65	IH	41.00	298.00	52.00	20.40	5403-12U
132.39	0.95	IH	308.00	54.00	188.00	20.30	6404-10U
133.34	1.27	IH	282.00	26.00	97.00	20.30	2302-40W
134.61	1.84	LVLH	180.00	90.00	00.00	20.20	-ZLV +YVV
136.45	0.64	IH	170.00	13.00	107.00	20.10	2843

TABLE 3-XVI. STS-67 AS-FLOWN ATTITUDE TIMELINE

MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
137.09	0.92	IH	67.00	287.00	313.00	20.00	2517-10H
138.00	2.72	IH	196.00	08.00	326.00	20.00	2860-10H
140.72	0.70	IH	231.00	13.00	303.00	19.80	3430-11H
141.42	0.88	IH	10.00	51.00	148.00	19.80	7342-14H
142.30	0.62	IH	274.00	52.00	280.00	19.70	3404-11H
142.92	0.91	IH	155.00	347.00	25.00	19.70	6202-10U
143.83	0.68	IH	231.00	339.00	08.00	19.60	6103-11U
144.51	0.84	IH	232.00	295.00	64.00	19.60	6215-10U
145.35	1.30	IH	210.00	05.00	138.00	19.50	4503-10W
146.65	2.27	IH	213.00	02.00	161.00	19.40	2316-10W
148.92	0.77	IH	102.00	348.00	88.00	19.20	2237-10W
149.69	0.73	IH	201.00	330.00	173.00	19.20	2316-30W
150.41	0.75	IH	181.00	06.00	68.00	19.10	2209-10W
151.17	0.88	IH	197.00	304.00	171.00	19.10	2316-40W
152.05	0.90	IH	182.00	331.00	69.00	19.00	3208-11H
152.95	0.71	IH	205.00	336.00	319.00	18.90	3411-11H
153.66	0.81	IH	358.00	25.00	166.00	18.90	0011-10H
154.47	0.79	IH	33.00	17.00	206.00	18.80	3227-13H
155.26	0.80	IH	268.00	58.00	193.00	18.80	6308-21U
156.06	0.74	IH	187.00	341.00	235.00	18.70	5204-10U
156.80	1.13	IH	93.00	57.00	343.00	18.60	6608-10U
157.93	0.86	IH	206.00	20.00	54.00	18.50	2236-10W
158.79	0.99	IH	231.00	17.00	317.00	18.50	2133-20W
159.78	1.44	IH	217.00	44.00	169.00	18.40	2109-10W
161.23	0.57	IH	162.00	336.00	40.00	18.30	2916-11H
161.79	0.93	IH	63.00	12.00	294.00	18.20	1204-41H
162.72	1.05	IH	315.00	34.00	221.00	18.10	7350-14H
163.77	0.67	IH	339.00	354.00	14.00	18.00	3232-21H
164.45	0.76	IH	344.00	324.00	156.00	18.00	8208-13H
165.21	0.77	IH	319.00	79.00	24.00	17.90	2250-10H
165.98	0.85	IH	266.00	00.00	180.00	17.90	2605-10H
166.83	0.77	IH	183.00	77.00	158.00	17.80	5102-11U
167.60	0.68	IH	285.00	340.00	191.00	17.70	9425-11U
168.28	0.61	IH	250.00	329.00	23.00	17.70	6109-11U
168.89	0.86	IH	221.00	319.00	107.00	17.60	5311-12U
169.75	1.32	IH	226.00	289.00	07.00	17.50	3301-10W
171.07	0.78	IH	00.00	336.00	296.00	17.40	4547-11W
171.84	0.69	IH	306.00	273.00	98.00	17.30	2102-10W
172.53	0.98	IH	127.00	311.00	271.00	17.30	4555-10W
173.50	0.79	IH	10.00	328.00	210.00	17.20	8415-25H
174.30	0.82	IH	75.00	330.00	225.00	17.10	4470-11H
175.12	0.83	IH	270.00	344.00	162.00	17.00	7343-12H
175.95	1.02	IH	75.00	289.00	86.00	16.90	2257-11H
176.97	0.97	IH	76.00	44.00	312.00	16.80	2506-21H
177.93	0.74	IH	131.00	305.00	100.00	16.80	4458-11H
178.68	0.76	IH	91.00	23.00	286.00	16.70	1204-61H

TABLE 3-XVI. STS-67 AS-FLOWN ATTITUDE TIMELINE

MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
179.44	1.10	IH	300.00	65.00	169.00	16.60	9202-10U
180.55	0.61	IH	164.00	305.00	318.00	16.50	7323-12U
181.15	1.09	IH	276.00	64.00	191.00	16.40	9422-10U
182.24	0.50	IH	122.00	43.00	121.00	16.30	2906-11H
182.74	3.74	IH	215.00	44.00	311.00	16.20	3223-20H
186.48	0.66	IH	273.00	34.00	289.00	15.80	3253-11H
187.14	0.89	IH	325.00	52.00	219.00	15.80	2577-10H
188.02	0.75	IH	284.00	46.00	297.00	15.70	4473-10H
188.77	1.19	IH	334.00	35.00	211.00	15.60	8415-13H
189.96	0.84	IH	85.00	355.00	123.00	15.50	2530-12H
190.80	0.91	IH	350.00	339.00	288.00	15.40	1204-31H
191.71	0.98	IH	185.00	335.00	01.00	15.30	5301-10U
192.70	0.59	IH	162.00	01.00	178.00	15.20	5201-14U
193.29	1.06	IH	208.00	27.00	161.00	15.10	5101-13U
194.35	1.17	IH	197.00	09.00	37.00	15.00	2239-10W
195.51	0.75	IH	178.00	03.00	248.00	14.90	3111-10W
196.26	1.69	IH	67.00	301.00	227.00	14.80	4211-14W
197.95	0.64	IH	127.00	298.00	357.00	14.60	8116-22H
198.58	0.97	IH	154.00	350.00	166.00	14.50	3232-22H
199.56	0.92	IH	115.00	318.00	349.00	14.40	7407-21H
200.47	1.01	IH	07.00	02.00	38.00	14.30	6597-10H
201.48	0.78	IH	103.00	60.00	251.00	14.20	5109-11U
202.26	0.65	IH	238.00	309.00	12.00	14.10	6141-13U
202.91	0.88	IH	119.00	333.00	302.00	14.10	5107-10U
203.79	1.23	IH	313.00	56.00	184.00	14.00	6225-10U
205.02	0.70	IH	314.00	293.00	85.00	13.80	5302-10U
205.71	0.74	IH	150.00	17.00	300.00	13.70	9203-11U
206.45	1.13	LVLH	180.00	90.00	00.00	13.70	-ZLV +YVV
207.58	0.58	IH	219.00	305.00	192.00	13.50	3271-10W
208.16	1.06	IH	218.00	43.00	339.00	13.40	4560-10W
209.22	0.72	IH	219.00	305.00	192.00	13.30	3271-10W
209.94	1.01	IH	349.00	357.00	166.00	13.20	3213-10H
210.95	0.71	IH	244.00	48.00	320.00	13.10	2567-20H
211.66	0.89	IH	300.00	320.00	165.00	13.00	8612-10H
212.54	0.57	IH	295.00	47.00	287.00	12.90	4442-10H
213.11	0.85	IH	331.00	49.00	195.00	12.90	8121-12H
213.96	0.74	IH	265.00	75.00	314.00	12.80	2231-11H
214.70	2.23	IH	165.00	336.00	04.00	12.70	8115-10H
216.93	0.77	IH	247.00	292.00	19.00	12.40	6142-11U
217.70	0.96	IH	288.00	290.00	141.00	12.30	7303-11U
218.66	0.92	IH	262.00	80.00	304.00	12.20	4563-10W
219.58	1.09	IH	356.00	356.00	272.00	12.10	4549-10W
220.66	2.49	IH	190.00	314.00	150.00	12.00	2317-10W
223.15	0.89	IH	352.00	296.00	24.00	11.70	8102-12H
224.04	0.71	IH	99.00	342.00	349.00	11.60	6310-31H
224.75	0.77	IH	334.00	330.00	52.00	11.50	3204-13H

TABLE 3-XVI. STS-67 AS-FLOWN ATTITUDE TIMELINE

MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
225.52	0.71	IH	294.00	310.00	196.00	11.40	6310-32H
226.23	0.71	IH	95.00	292.00	97.00	11.30	2210-11H
226.93	0.92	IH	179.00	287.00	84.00	11.20	7343-13H
227.85	0.55	IH	189.00	47.00	125.00	11.10	6271-11U
228.41	0.81	IH	272.00	62.00	212.00	11.00	9405-11U
229.22	0.64	IH	262.00	38.00	291.00	10.90	5312-11U
229.86	1.06	IH	270.00	70.00	240.00	10.80	6235-12U
230.92	0.97	IH	203.00	336.00	352.00	10.70	4564-10W
231.89	0.84	IH	04.00	337.00	290.00	10.60	2223-11W
232.73	0.65	IH	353.00	327.00	153.00	10.50	2107-10W
233.38	0.80	IH	260.00	350.00	237.00	10.40	2222-10W
234.18	1.32	IH	305.00	13.00	212.00	10.30	8138-11H
235.50	1.34	IH	332.00	37.00	212.00	10.10	8415-16H
236.84	0.67	IH	303.00	51.00	283.00	9.90	4413-11H
237.51	1.05	IH	04.00	336.00	207.00	9.90	8415-17H
238.56	0.72	IH	341.00	345.00	14.00	9.70	3232-20H
239.28	0.90	IH	224.00	81.00	229.00	9.60	8424-10H
240.18	1.25	IH	121.00	310.00	345.00	9.50	6246-10U
241.43	0.73	IH	303.00	08.00	35.00	9.30	6207-11U
242.15	2.19	IH	304.00	355.00	109.00	9.20	1320-60U
244.34	0.98	IH	16.00	21.00	225.00	9.00	2133-31W
245.32	1.16	IH	10.00	328.00	340.00	8.80	3269-10W
246.48	1.05	IH	157.00	313.00	118.00	8.70	4474-10H
247.53	0.72	IH	186.00	323.00	217.00	8.50	3410-11H
248.25	1.31	IH	73.00	42.00	315.00	8.40	4429-10H
249.56	1.10	IH	300.00	26.00	189.00	8.30	7407-10U
250.66	0.64	IH	33.00	31.00	181.00	8.10	5303-10U
251.30	0.94	IH	295.00	58.00	208.00	8.00	7107-10U
252.24	0.53	IH	40.00	25.00	174.00	7.90	4807-10U
252.77	0.89	IH	252.00	73.00	229.00	7.80	9101-11U
253.66	0.65	IH	70.00	77.00	151.00	7.70	6102-11U
254.31	0.93	IH	250.00	73.00	230.00	7.60	9101-12U
255.25	0.68	IH	348.00	348.00	18.00	7.50	6408-10U
255.92	0.84	IH	351.00	44.00	117.00	7.40	1205-10W
256.76	0.94	IH	215.00	32.00	351.00	7.30	4569-11W
257.70	0.98	IH	219.00	14.00	303.00	7.10	3323-11W
258.68	1.11	IH	345.00	16.00	176.00	7.00	8115-20H
259.80	1.89	IH	191.00	17.00	316.00	6.80	3404-10H
261.69	0.97	IH	306.00	63.00	200.00	6.60	2603-13H
262.66	0.82	IH	40.00	35.00	270.00	6.40	1201-10H
263.48	0.57	IH	128.00	307.00	357.00	6.30	8116-14H
264.04	0.88	IH	68.00	337.00	239.00	6.30	3253-12H
264.92	0.97	IH	105.00	278.00	339.00	6.10	7309-10U
265.90	0.70	IH	218.00	57.00	13.00	6.00	6108-10U
266.60	0.76	IH	223.00	294.00	110.00	5.90	9428-10U
267.36	3.50	IH	176.00	359.00	158.00	5.80	4592-10W

TABLE 3-XVI. STS-67 AS-FLOWN ATTITUDE TIMELINE

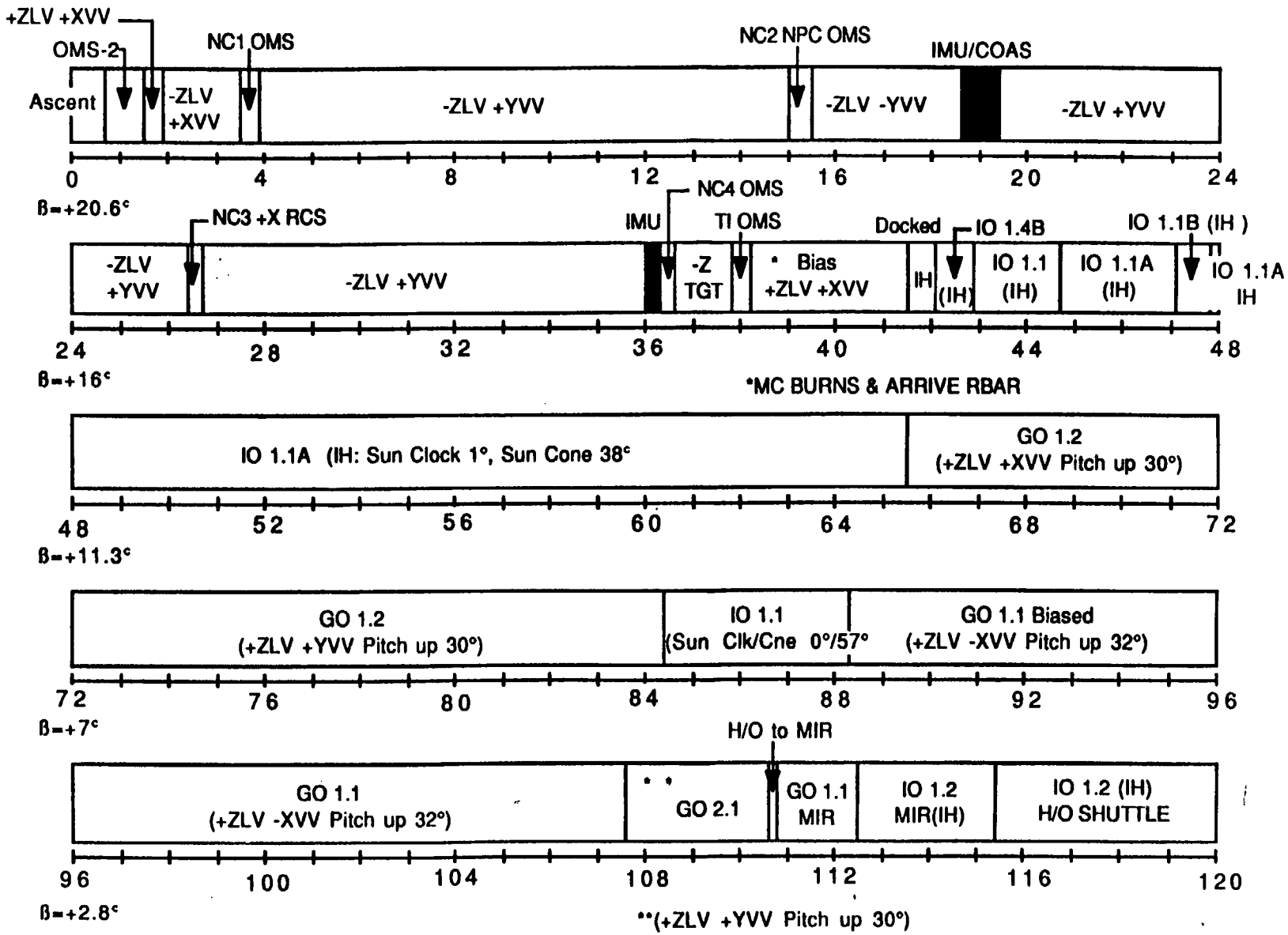
MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
270.86	0.96	IH	01.00	355.00	88.00	5.30	4518-10H
271.81	0.80	IH	345.00	32.00	299.00	5.20	1201-21H
272.62	0.95	IH	310.00	02.00	169.00	5.00	8612-21H
273.57	0.68	IH	216.00	343.00	320.00	4.90	4473-21H
274.25	1.44	IH	300.00	54.00	239.00	4.80	7350-15H
275.69	0.71	IH	352.00	22.00	159.00	4.60	7342-15H
276.40	0.97	IH	56.00	46.00	169.00	4.50	6138-10U
277.37	0.65	IH	279.00	16.00	240.00	4.40	9203-12U
278.03	0.64	IH	209.00	311.00	226.00	4.30	5109-14U
278.67	1.31	IH	223.00	66.00	257.00	4.20	9302-20U
279.98	0.78	IH	118.00	34.00	90.00	4.00	3120-11W
280.76	0.83	IH	138.00	08.00	268.00	3.90	0656-20W
281.59	1.11	IH	135.00	56.00	16.00	3.80	0608-20W
282.70	1.18	IH	317.00	359.00	71.00	3.60	8447-10H
283.88	1.08	IH	184.00	01.00	320.00	3.40	3223-21H
284.96	0.74	IH	129.00	69.00	331.00	3.30	6310-21H
285.70	0.83	IH	339.00	49.00	06.00	3.20	2268-11H
286.53	0.72	IH	249.00	77.00	214.00	3.10	6353-30H
287.24	0.73	IH	317.00	44.00	274.00	3.00	2564-13H
287.98	0.96	IH	14.00	301.00	257.00	2.80	8122-10H
288.94	0.53	IH	184.00	306.00	07.00	2.70	9399-10U
289.47	0.88	IH	320.00	321.00	209.00	2.60	5105-10U
290.35	0.91	IH	56.00	357.00	151.00	2.50	6259-10U
291.26	0.56	IH	198.00	309.00	94.00	2.40	1320-70U
291.81	1.23	LVLH	180.00	90.00	00.00	2.30	-ZLV +YVV
293.05	0.90	IH	265.00	357.00	285.00	2.10	3270-13W
293.95	0.98	IH	13.00	54.00	39.00	2.00	4109-11W
294.92	2.23	IH	161.00	341.00	166.00	1.80	2282-23W
297.16	0.81	IH	100.00	304.00	355.00	1.50	8506-11H
297.97	2.18	IH	128.00	296.00	127.00	1.40	4416-10U
300.15	1.88	IH	44.00	297.00	49.00	1.10	6198-10U
302.03	1.08	IH	343.00	337.00	02.00	0.80	5201-12U
303.11	0.78	IH	28.00	314.00	338.00	0.60	8310-12U
303.89	0.45	IH	343.00	333.00	319.00	0.50	5112-10U
304.34	3.11	IH	358.00	03.00	21.00	0.40	4519-11W
307.45	0.62	IH	324.00	21.00	94.00	0.00	2828-10H
308.08	0.53	IH	39.00	01.00	328.00	-0.10	4429-20H
308.61	0.79	IH	234.00	43.00	79.00	-0.20	4103-11H
309.40	0.75	IH	104.00	08.00	350.00	-0.30	6310-22H
310.14	0.77	IH	324.00	56.00	238.00	-0.40	2866-10H
310.92	0.75	IH	100.00	306.00	355.00	-0.50	8506-12H
311.67	0.75	IH	122.00	81.00	107.00	-0.60	3401-11H
312.41	0.65	IH	71.00	287.00	337.00	-0.70	8424-20H
313.06	0.52	IH	118.00	324.00	298.00	-0.80	2607-14H
313.58	1.02	IH	12.00	286.00	239.00	-0.90	6232-11U
314.60	0.81	IH	42.00	343.00	157.00	-1.10	5304-11U

TABLE 3-XVI. STS-67 AS-FLOWN ATTITUDE TIMELINE

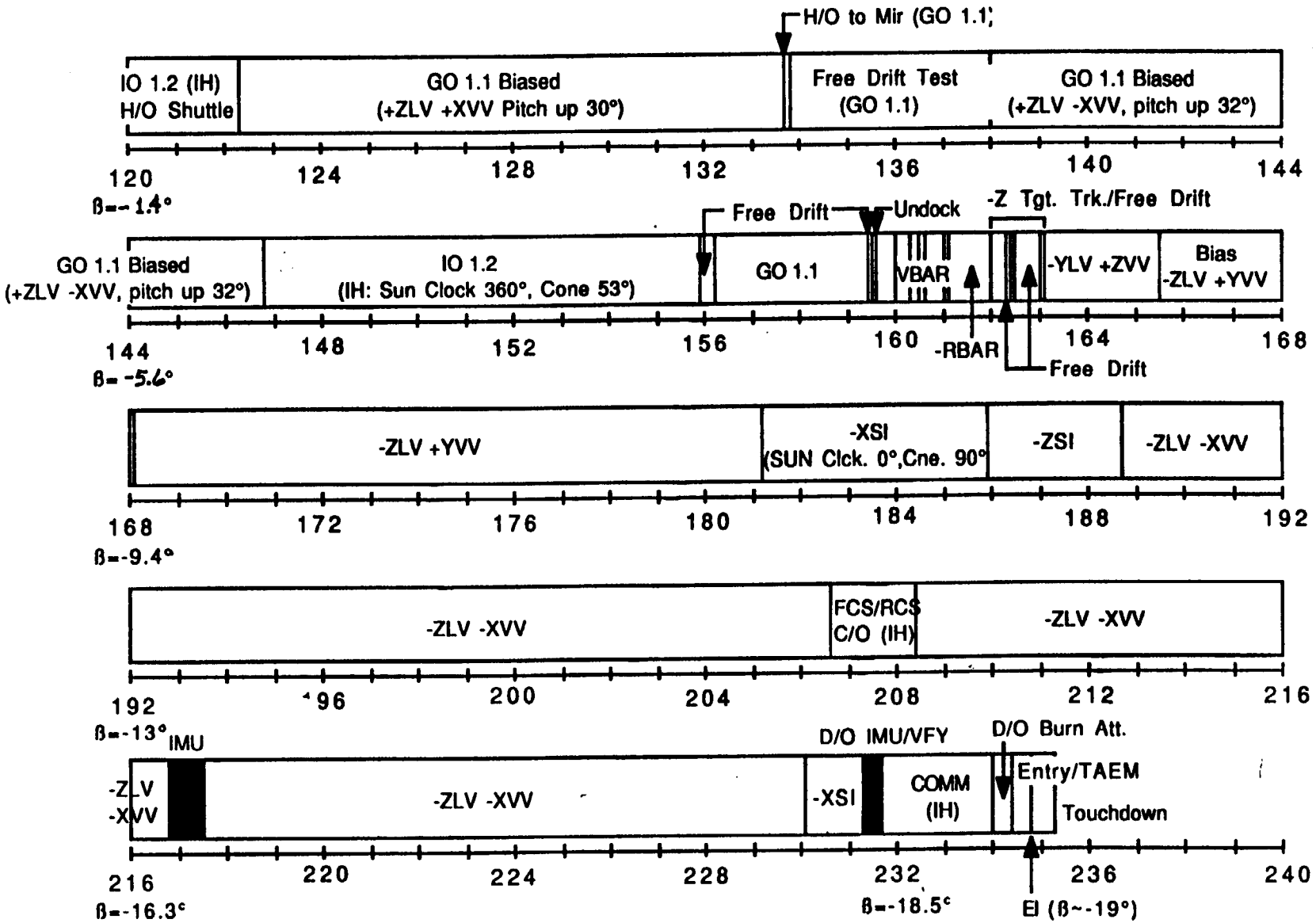
MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
315.40	0.88	IH	05.00	278.00	263.00	-1.20	6309-20U
316.28	0.50	IH	148.00	345.00	242.00	-1.30	4566-11W
316.78	2.92	IH	167.00	03.00	165.00	-1.40	4517-10W
319.70	0.55	IH	204.00	353.00	40.00	-1.80	2702-10H
320.25	0.55	IH	307.00	57.00	183.00	-1.90	8116-23H
320.80	0.57	IH	186.00	331.00	257.00	-2.00	4566-12H
321.37	0.87	IH	152.00	303.00	114.00	-2.10	4410-11H
322.24	0.81	IH	72.00	312.00	106.00	-2.20	6299-12U
323.04	0.73	IH	269.00	62.00	195.00	-2.30	6353-10U
323.77	1.57	IH	67.00	60.00	331.00	-2.40	5116-10U
325.34	0.80	IH	25.00	316.00	61.00	-2.70	6269-11U
326.14	1.07	IH	295.00	38.00	246.00	-2.80	5108-12U
327.21	0.70	IH	16.00	06.00	62.00	-2.90	2320-11W
327.91	0.49	IH	262.00	44.00	147.00	-3.00	3613-11W
328.40	0.42	IH	252.00	339.00	256.00	-3.10	2242-11W
328.82	0.83	IH	296.00	15.00	197.00	-3.20	0001-13H
329.65	0.73	IH	271.00	337.00	255.00	-3.30	1204-51H
330.38	1.06	IH	169.00	60.00	337.00	-3.40	7347-12H
331.44	0.50	IH	286.00	353.00	252.00	-3.60	5195-10U
331.94	0.81	IH	158.00	17.00	09.00	-3.60	6594-12U
332.75	0.75	IH	38.00	20.00	293.00	-3.80	9496-10U
333.50	1.07	IH	57.00	289.00	30.00	-3.90	4207-10W
334.57	1.03	IH	43.00	60.00	175.00	-4.00	3301-20W
335.60	0.85	IH	237.00	351.00	238.00	-4.20	4547-12W
336.45	1.13	IH	204.00	49.00	147.00	-4.30	4516-12W
337.58	0.53	IH	109.00	08.00	239.00	-4.50	4566-13W
338.11	0.93	IH	62.00	299.00	265.00	-4.60	8535-11H
339.04	0.56	IH	32.00	40.00	260.00	-4.70	8126-10H
339.60	0.92	IH	32.00	304.00	239.00	-4.80	8535-12H
340.52	0.70	IH	126.00	296.00	274.00	-4.90	2567-32H
341.22	0.90	IH	143.00	310.00	38.00	-5.00	8210-12U
342.12	0.97	IH	38.00	307.00	60.00	-5.10	8106-12U
343.09	0.84	IH	104.00	313.00	18.00	-5.30	1320-80U
343.94	0.83	IH	350.00	324.00	120.00	-5.40	2265-10W
344.77	0.87	IH	68.00	16.00	301.00	-5.50	4577-10W
345.64	0.91	IH	150.00	305.00	107.00	-5.70	3807-12W
346.55	0.46	IH	332.00	328.00	280.00	-5.80	4543-11W
347.01	0.60	IH	223.00	59.00	310.00	-5.90	2577-12H
347.61	0.50	IH	295.00	56.00	219.00	-6.00	2614-13H
348.12	1.69	IH	308.00	61.00	217.00	-6.00	3403-11H
349.81	0.98	IH	37.00	306.00	77.00	-6.30	6271-12U
350.79	0.60	IH	09.00	314.00	357.00	-6.40	4801-10U
351.39	0.78	IH	343.00	348.00	05.00	-6.50	5102-10U
352.17	0.60	IH	86.00	51.00	326.00	-6.60	6248-14U
352.77	0.58	IH	343.00	05.00	04.00	-6.70	6112-10U
353.35	1.13	IH	27.00	09.00	08.00	-6.80	2109-11W

TABLE 3-XVI. STS-67 AS-FLOWN ATTITUDE TIMELINE

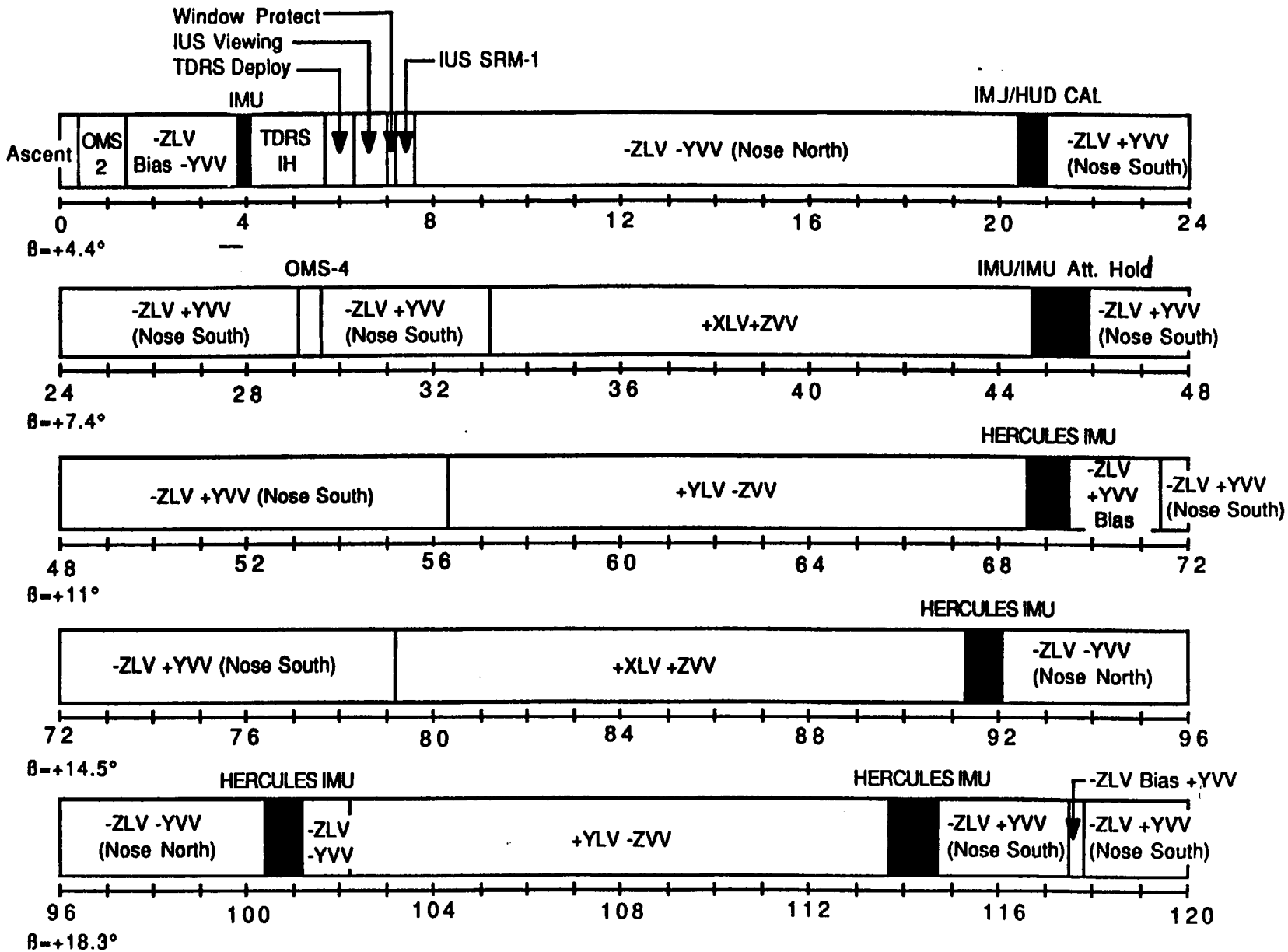
MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
354.48	1.37	IH	356.00	35.00	45.00	-7.00	2204-10W
355.85	0.73	IH	326.00	36.00	257.00	-7.20	3253-13H
356.57	0.74	IH	156.00	32.00	347.00	-7.30	7347-13H
357.31	0.73	IH	202.00	330.00	315.00	-7.40	4413-12H
358.04	1.09	IH	94.00	305.00	07.00	-7.50	Lunar Obs
359.13	9.03	LVLH	180.00	90.00	00.00	-7.70	-ZLV +YVV
368.16	1.13	IH	178.10	05.60	332.90	-9.00	Bias -XSI
369.28	0.11	IH	117.00	28.00	301.00	-9.20	D O Align
369.40	0.10	IH	119.00	320.00	282.00	-9.20	Align Verif
369.50	3.22	IH	182.00	15.00	333.00	-9.20	Bias -XSI
372.71	19.79	LVLH	180.00	90.00	00.00	-9.60	W OFF -ZLV +YVV
392.51	1.20	IH	177.60	04.60	334.30	-12.40	Bias -XSI
393.71	0.23	IH	117.00	28.00	301.00	-12.50	D O Align
393.94	0.17	IH	119.00	320.00	282.00	-12.60	Align Verif
394.11	3.71	IH	178.00	05.00	334.00	-12.60	Bias -XSI
397.82	0.38	IH	72.40	58.60	192.90	-13.10	D O Burn
398.20	0.35	IH	350.60	343.70	296.50	-13.10	MM 303



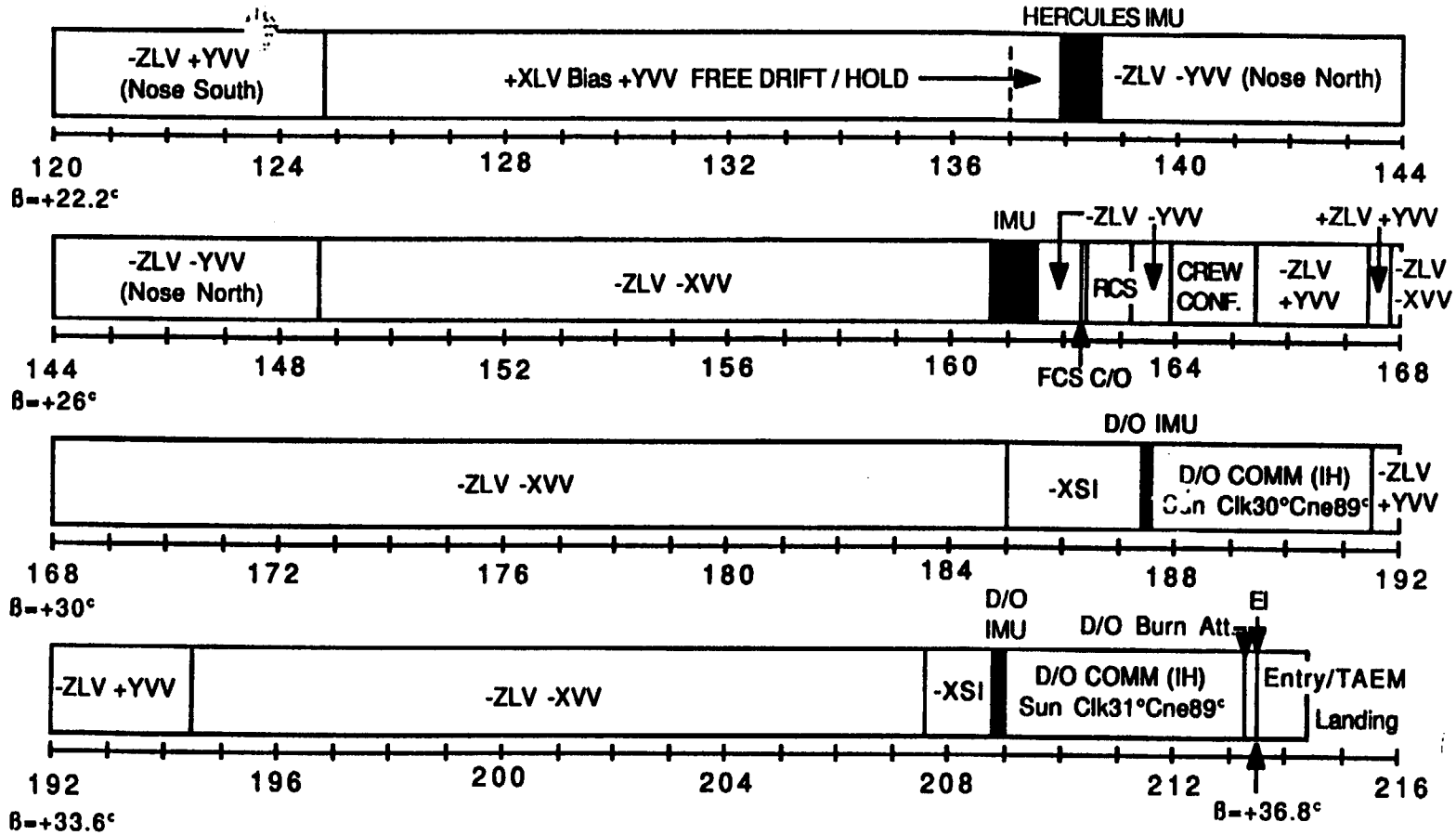
STS-71 AS FLOWN ATTITUDE TIMELINE



STS-71 AS FLOWN ATTITUDE TIMELINE (CONCLUDED)



STS-70 AS FLOWN ATTITUDE TIMELINE



STS-70 AS FLOWN ATTITUDE TIMELINE (CONCLUDED)

TABLE 3-XVII. STS-69 AS-FLOWN ATTITUDE TIMELINE

MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
0.00	0.17	LVLH	00.00	00.00	00.00	-18.70	LIFTOFF
0.17	0.46	IH	168.00	304.00	225.00	-18.70	POST MECO
0.63	1.03	IH	08.80	29.10	113.40	-18.70	OMS-2
1.66	1.41	LVLH	180.00	270.00	00.00	-18.60	-ZLU -YVV
3.07	0.42	IH	298.00	40.00	170.00	-18.50	IMU ALIGN
3.49	10.00	LVLH	90.00	00.00	00.00	-18.50	-XLV +ZVV
13.49	3.96	LVLH	95.00	05.00	359.60	-17.80	JET WARMING
17.44	2.45	LVLH	00.00	70.00	180.00	-17.40	-ZLV BIAS +YVV
19.90	0.68	IH	98.80	349.80	14.20	-17.20	-ZSI
20.57	0.91	IH	148.30	298.10	236.10	-17.20	SEH MOON VIEW
21.49	0.64	IH	07.70	76.00	88.50	-17.10	-ZSI
22.12	0.86	LVLH	90.00	00.00	270.00	-17.10	-XLV -YVV
22.98	0.65	IH	06.90	76.10	89.20	-17.00	-ZSI
23.63	1.47	IH	147.20	23.20	82.80	-16.90	SPARTAN DEPLOY
25.10	0.05	LVLH	350.00	00.00	180.00	-16.80	BIAS -ZLV +XVV
25.15	0.87	IH	14.10	09.00	113.00	-16.80	SEP 2 HOLD
26.02	0.62	IH	05.40	76.20	90.70	-16.70	-ZSI
26.64	1.01	LVLH	90.00	00.00	330.00	-16.70	-XLV BIAS +ZVV
27.65	0.55	IH	04.60	76.30	91.50	-16.60	-ZSI
28.20	0.96	LVLH	90.00	00.00	270.00	-16.50	-ZLV -YVV
29.16	0.55	IH	183.80	283.70	87.80	-16.50	-ZSI
29.71	10.39	LVLH	95.00	05.00	359.60	-16.40	JET BIAS ATT
40.10	2.80	LVLH	00.00	290.00	180.00	-15.40	-ZLV BIAS -YVV
42.90	1.90	LVLH	192.00	00.00	00.00	-15.20	NC2
44.81	1.81	IH	355.80	76.70	99.70	-15.00	-ZSI SEH SRSS
46.62	1.30	LVLH	90.00	00.00	270.00	-14.80	SEH EARTH LIMB
47.92	1.69	IH	354.30	76.80	101.10	-14.70	-ZSI SEH SRSS
49.61	2.16	LVLH	90.00	00.00	270.00	-14.50	SEH EARTH LIMB
51.77	1.21	IH	123.30	296.10	30.30	-14.30	-ZSI
52.98	2.24	LVLH	90.00	00.00	270.00	-14.10	EARTH LIMB
55.22	0.61	IH	239.30	290.80	141.80	-13.90	-ZSI SEH SRSS
55.83	2.38	LVLH	90.00	00.00	270.00	-13.90	EARTH LIMB
58.21	0.49	IH	212.70	284.10	116.40	-13.60	-ZSI SEH SRSS
58.70	7.06	LVLH	95.00	05.00	359.60	-13.60	JET BIAS ATT
65.76	0.28	IH	348.50	40.00	304.80	-12.80	NC4
66.04	0.21	LVLH	270.00	00.00	00.00	-12.70	+XLV -ZVV
66.25	0.58	LVLH	270.30	00.00	360.00	-12.70	TGT TRACK
66.83	0.67	LVLH	275.90	00.00	360.00	-12.70	TGT TRACK
67.50	0.58	LVLH	270.40	00.00	00.00	-12.60	TGT TRACK
68.08	0.25	LVLH	276.10	00.00	359.90	-12.50	TGT TRACK
68.33	0.66	LVLH	281.80	00.00	00.00	-12.50	TGT TRACK
68.99	0.36	IH	177.40	346.30	51.80	-12.40	Ti
69.36	0.13	LVLH	270.00	00.00	00.00	-12.40	+XLV -ZVV
69.49	0.54	LVLH	273.00	00.00	00.00	-12.40	MC1
70.03	0.16	LVLH	296.00	00.00	00.00	-12.30	MC2
70.19	0.18	LVLH	314.00	00.00	00.00	-12.30	MC3

TABLE 3-XVII. STS-69 AS-FLOWN ATTITUDE TIMELINE

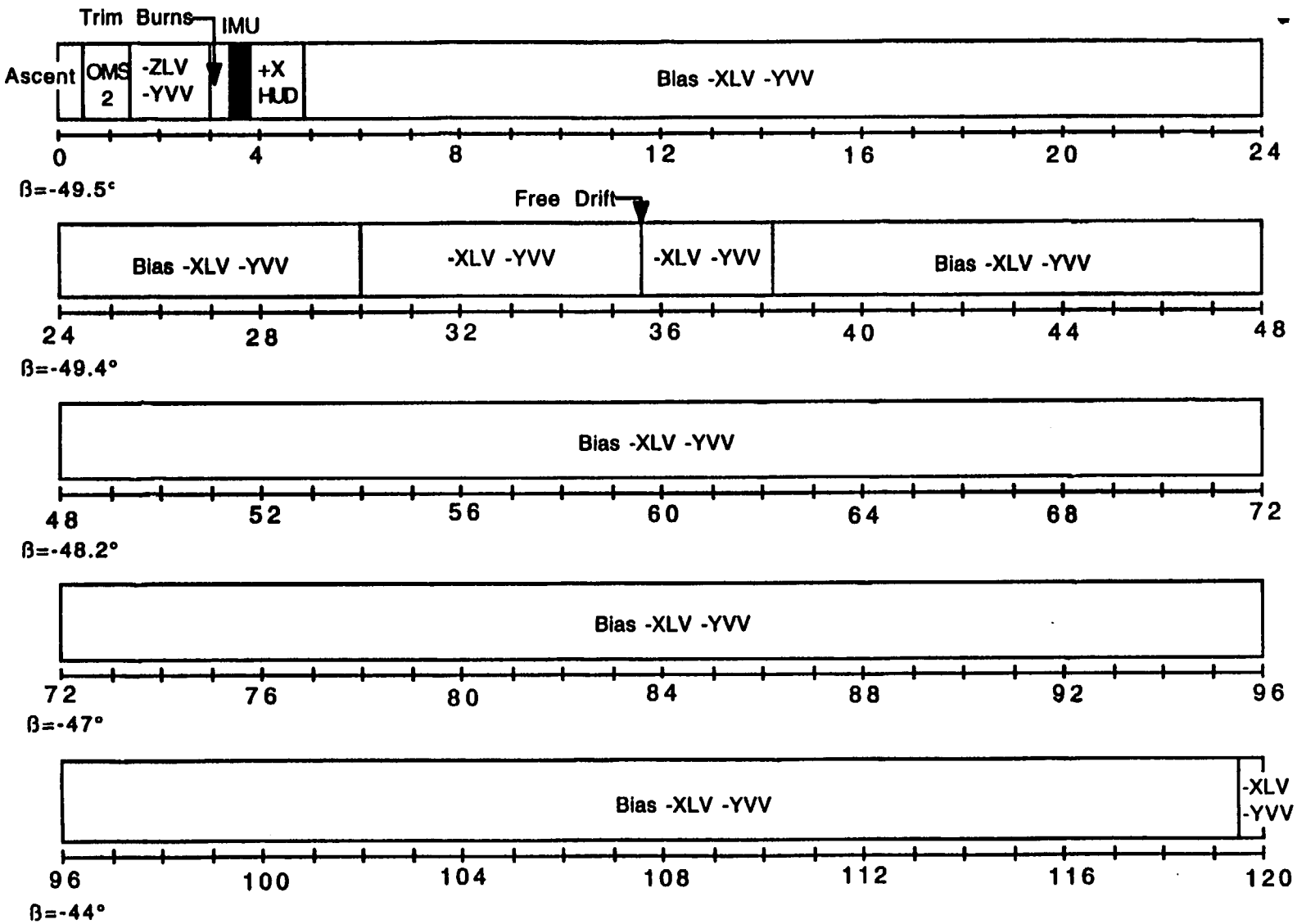
MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
70.37	0.03	LVLH	341.00	00.00	00.00	-12.30	MC4
70.40	0.42	IH	184.00	347.00	64.00	-12.30	INERTIAL HOLD
70.82	1.62	LVLH	90.00	00.00	00.00	-12.20	VBAR ARRIVAL
72.44	2.95	LVLH	00.00	60.00	180.00	-12.00	-ZLV BIAS +YVV
75.39	0.38	IH	47.00	327.00	135.00	-11.70	OMS 3 BURN
75.77	0.80	IH	227.00	34.00	224.00	-11.60	OMS 4 BURN
76.57	0.66	IH	299.00	62.30	153.60	-11.50	-ZSI
77.24	8.11	LVLH	180.00	00.00	00.00	-11.50	-ZLV -XVV
85.35	0.28	LVLH	90.10	357.70	250.40	-10.50	BIAS -XLV PLB N
85.63	1.45	LVLH	90.10	357.60	250.10	-10.50	BIAS -XLV PLB N
87.08	0.05	LVLH	90.00	00.00	280.80	-10.30	RAM CLEAN
87.13	1.36	LVLH	90.00	00.00	289.10	-10.30	RAM CLEAN
88.49	1.05	LVLH	90.00	00.00	239.50	-10.10	RAM CLEAN
89.54	0.11	LVLH	90.00	00.00	291.30	-10.00	
89.54	0.11	LVLH	90.00	00.00	291.30	-10.00	ADACS C O
89.65	1.03	LVLH	90.00	00.00	257.30	-10.00	ADACS C O
90.67	1.09	LVLH	90.00	00.00	286.00	-9.80	ADACS C O
91.76	0.35	LVLH	90.00	00.00	254.00	-9.70	ADACS C O
92.11	0.08	LVLH	90.00	00.00	261.00	-9.60	RMS MNVR TO REL
92.19	0.09	LVLH	90.00	00.00	275.00	-9.60	REL POSN
92.27	0.32	LVLH	90.00	00.00	278.70	-9.60	RELEASE
92.59	3.83	LVLH	90.00	00.00	285.00	-9.60	POST RELEASE
96.42	4.25	LVLH	90.00	00.00	00.00	-9.10	-XLV +ZVV
100.67	46.13	LVLH	90.00	00.00	00.00	-8.60	-XLV +ZVV
146.79	1.47	LVLH	90.00	352.20	00.00	-2.30	BIAS FOR UVSTAR
148.26	11.73	LVLH	90.00	00.00	00.00	-2.10	-Z TGT TRACK
159.99	0.09	IH	149.00	318.00	50.00	-0.50	NC8
160.07	2.55	LVLH	90.00	00.00	00.00	-0.50	-Z TGT TRACK
162.63	0.36	LVLH	180.00	00.00	00.00	-0.10	-Z TGT TRACK
162.99	0.21	IH	318.80	47.00	314.30	0.00	TI
163.20	0.29	LVLH	270.00	00.00	00.00	0.00	-Z TGT TRACK
163.49	0.47	LVLH	276.00	00.00	00.00	0.00	MC1
163.96	0.16	LVLH	295.00	00.00	00.00	0.10	MC2
164.12	0.17	LVLH	311.00	00.00	00.00	0.10	MC3
164.29	0.08	LVLH	295.00	00.00	00.00	0.20	MC4
164.37	0.45	IH	180.00	03.50	62.00	0.20	INERTIAL MANUAL
164.82	1.94	LVLH	90.00	00.00	00.00	0.20	VBAR ARRIVAL
166.76	0.55	LVLH	00.00	00.00	00.00	0.50	PITCH TERMINATE
167.31	2.21	LVLH	180.00	70.00	00.00	0.60	-ZLV BIAS +YVV
169.52	0.18	IH	211.00	31.00	50.00	0.90	OMS 5 BURN
169.70	0.57	LVLH	208.70	349.30	02.40	0.90	LVLH HOLD
170.27	0.33	IH	34.00	327.00	311.00	1.00	OMS 6 BURN
170.60	2.44	LVLH	180.00	70.00	00.00	1.00	-ZLV BIAS +YVV
173.04	0.96	IH	288.00	32.10	05.30	1.40	+Y DEEP SPACE
174.00	1.22	IH	189.20	20.20	157.60	1.60	+Y JUPITER
175.22	0.67	IH	87.40	36.50	10.30	1.70	-ZSI

TABLE 3-XVII. STS-69 AS-FLOWN ATTITUDE TIMELINE

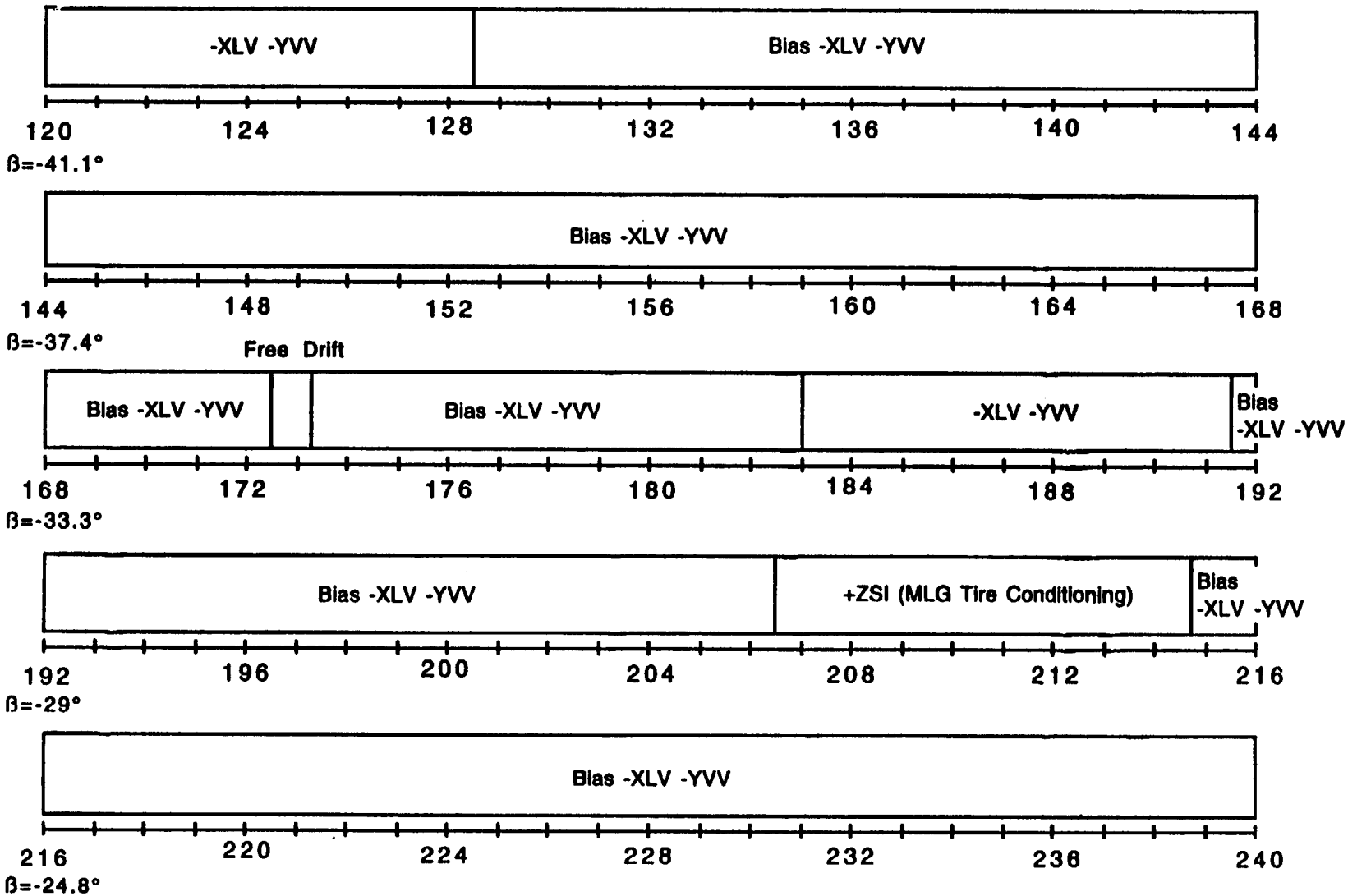
MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
175.89	1.16	IH	287.40	32.00	05.70	1.80	+Y DEEP SPACE
177.05	0.82	IH	09.50	339.30	206.90	2.00	+Y JUPITER
177.87	0.83	IH	217.50	59.60	48.40	2.10	+Y DEEP SPACE
178.70	0.75	IH	09.50	339.30	206.90	2.20	+Y JUPITER
179.45	0.75	IH	219.90	60.80	46.30	2.30	+Y DEEP SPACE
180.20	0.75	IH	09.50	339.30	206.90	2.40	+Y JUPITER
180.95	3.43	IH	222.30	61.90	44.20	2.50	+Y DEEP SPACE
184.39	0.76	LVLH	90.00	00.00	270.00	3.10	-XLV -YVV
185.14	0.20	LVLH	180.00	270.00	00.00	3.20	-ZLV -YVV
185.34	0.27	LVLH	270.00	00.00	90.00	3.20	+XLV -YVV
185.61	0.15	LVLH	270.00	00.00	70.00	3.20	+XLV -YVV
185.76	0.21	LVLH	270.00	00.00	00.00	3.30	+XLV -YVV
185.97	0.16	LVLH	270.00	00.00	90.00	3.30	+XLV -YVV
186.14	0.17	LVLH	310.00	00.00	90.00	3.30	+XLV -YVV
186.31	0.10	LVLH	270.00	00.00	90.00	3.40	+XLV -YVV
186.41	0.17	LVLH	230.00	00.00	90.00	3.40	+XLV -YVV
186.57	0.42	LVLH	270.00	00.00	90.00	3.40	+XLV -YVV
186.99	0.41	LVLH	270.00	00.00	180.00	3.50	+XLV -YVV
187.40	3.62	LVLH	90.00	00.00	152.00	3.50	-XLV BIAS +YVV
191.02	0.26	LVLH	00.00	90.00	00.00	4.10	+ZLV -YVV
191.28	0.17	LVLH	00.00	45.00	00.00	4.10	PRCS TEST
191.45	0.15	LVLH	00.00	00.00	00.00	4.10	PRCS TEST
191.60	0.21	LVLH	00.00	330.00	00.00	4.20	PRCS TEST
191.81	0.24	LVLH	00.00	300.00	00.00	4.20	PRCS TEST
192.06	0.49	LVLH	270.00	350.00	90.00	4.20	BIAS +XLV -YVV
192.55	3.19	LVLH	90.00	00.00	70.00	4.30	-XLV BIAS +YVV
195.74	3.07	IH	277.50	30.90	10.60	4.80	+Y DEEP SPACE
198.82	3.34	LVLH	180.00	270.00	00.00	5.20	-ZLV -YVV
202.16	1.10	IH	277.40	31.00	10.60	5.70	UVSTAR C111
203.26	2.22	LVLH	180.00	270.00	00.00	5.90	-ZLV NOSE NTH
205.48	2.27	LVLH	180.00	75.00	00.00	6.20	FC PURGE VIEW
207.75	0.48	LVLH	00.00	90.00	00.00	6.50	GLO GE +ZLV NS
208.23	5.76	IH	290.50	67.70	341.00	6.60	BELLY SUN EVA
214.00	1.64	LVLH	180.00	270.00	00.00	7.40	-ZLV -YVV
215.64	1.78	LVLH	180.00	70.00	00.00	7.70	-ZLV BIAS +YVV
217.42	1.30	IH	104.10	309.30	13.40	7.90	-ZSI SEH OPS
218.72	1.01	IH	194.30	36.80	65.80	8.10	+Y DEEP SPACE
219.73	0.75	IH	09.20	339.80	206.60	8.30	+Y JUPITER
220.48	0.81	IH	194.90	37.80	65.40	8.40	+Y DEEP SPACE
221.29	1.21	IH	189.20	20.20	157.30	8.50	+Y JUPITER
222.50	0.84	IH	138.40	281.90	45.30	8.70	-ZSI SEH OPS
223.34	0.84	IH	113.90	293.00	26.10	8.80	+Y DEEP SPACE
224.17	0.68	IH	189.20	20.20	157.30	8.90	+Y JUPITER
224.86	0.91	IH	304.80	62.40	299.80	9.00	+Y DEEP SPACE
225.77	0.72	IH	14.10	341.80	208.20	9.10	+Y JUPITER
226.48	0.85	IH	304.90	62.40	299.70	9.20	+Y DEEP SPACE

TABLE 3-XVII. STS-69 AS-FLOWN ATTITUDE TIMELINE

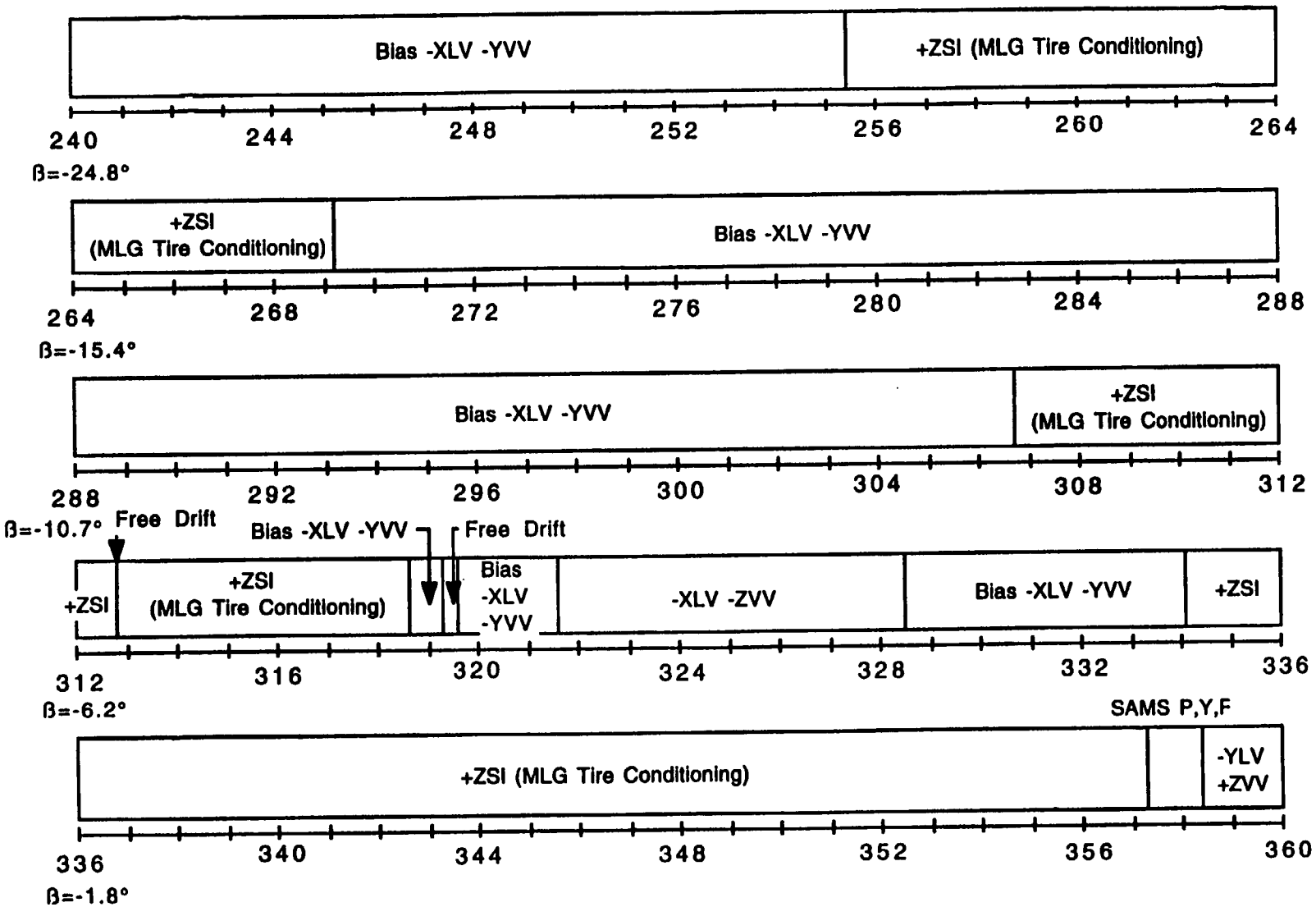
MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
227.33	0.61	IH	104.20	309.00	13.40	9.40	-ZSI SEH OPS
227.94	0.95	IH	317.70	43.70	289.40	9.50	+Y DEEP SPACE
228.90	0.92	IH	09.20	339.80	206.60	9.60	+Y JUPITER
229.81	0.86	IH	198.60	43.20	63.10	9.70	+Y DEEP SPACE
230.67	0.23	LVLH	270.00	00.00	120.00	9.90	+ XLV BIAS -YVV
230.90	0.56	LVLH	270.00	00.00	00.00	9.90	OG ROLL
231.46	1.68	LVLH	270.00	350.00	90.00	10.00	+XLV -YVV
233.14	0.70	LVLH	00.00	90.00	00.00	10.20	+ZLV -YVV
233.83	0.10	LVLH	00.00	45.00	00.00	10.30	PRCS TEST
233.93	0.09	LVLH	00.00	00.00	00.00	10.30	PRCS TEST
234.02	0.10	LVLH	00.00	330.00	00.00	10.30	PRCS TEST
234.12	0.34	LVLH	00.00	300.00	00.00	10.40	PRCS TEST
234.46	1.27	LVLH	90.00	00.00	70.00	10.40	-XLV BIAS +YVV
235.73	1.23	IH	92.44	01.90	06.00	10.60	-ZSI SEH OPS
236.96	5.77	LVLH	90.00	00.00	70.00	10.80	-XLV BIAS +YVV
242.74	11.00	LVLH	180.00	00.00	00.00	11.60	-ZLV -XVV
253.74	0.26	IH	321.00	352.00	344.00	13.10	IMU ALIGN
253.99	1.32	LVLH	180.00	70.00	00.00	13.10	-ZLV BIAS +YVV
255.32	1.24	IH	358.30	354.30	05.70	13.30	-XSI
256.55	0.37	IH	310.00	25.00	344.00	13.50	D O IMU ALIGN
256.92	0.22	IH	03.00	326.00	142.00	13.50	D O IMU VERIF
257.14	2.14	IH	338.00	13.00	49.00	13.60	COMM ATT
259.28	0.33	IH	136.00	39.00	87.00	13.90	D O BURN
259.61	0.34	IH	10.00	314.00	305.00	13.90	MM 303
259.95	1.24	LVLH	40.00	00.00	00.00	13.90	MM 304
261.19	0.00	LVLH	180.00	00.00	00.00	0.00	-ZLV -XVV



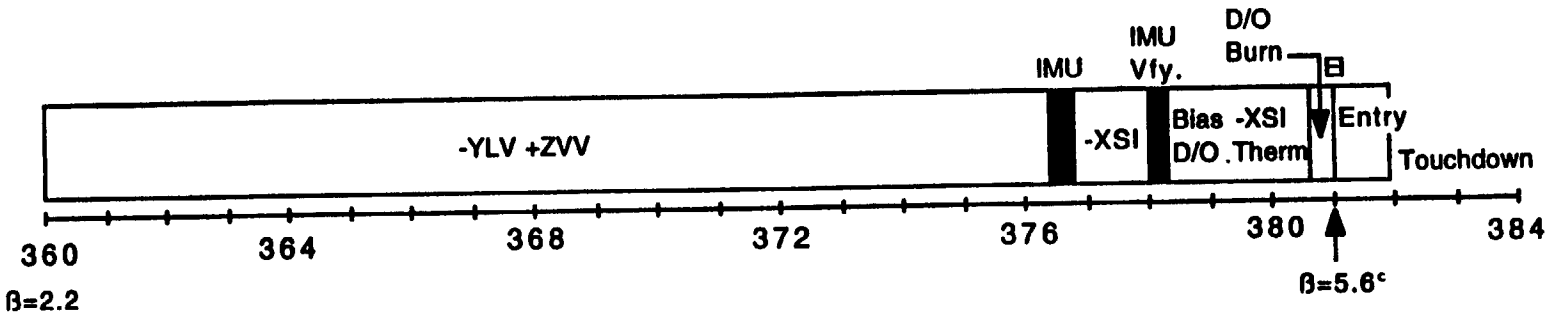
STS-73 AS FLOWN ATTITUDE TIMELINE



STS-73 AS FLOWN ATTITUDE TIMELINE (CONTINUED)



STS-73 AS FLOWN ATTITUDE TIMELINE (CONTINUED)



STS-73 AS FLOWN TIMELINE (CONCLUDED)

TABLE 3-XVIII. STS-74 AS-FLOWN ATTITUDE TIMELINE

MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
0.00	0.48	LVLH	00.00	00.00	00.00	-69.10	LIFTOFF
0.48	0.93	IH	82.70	45.30	39.40	-69.10	OMS 2
1.40	1.27	LVLH	180.00	90.00	00.00	-69.10	-ZLV +YVV
2.67	0.56	IH	276.00	322.00	326.00	-69.10	NC1 +X OMS
3.23	2.77	LVLH	180.00	90.00	00.00	-69.10	-ZLV +YVV
6.00	4.88	LVLH	180.00	270.00	00.00	-69.00	-ZLV -YVV
10.88	5.10	LVLH	90.00	00.00	270.00	-68.80	-XLV -YVV
15.99	1.09	IH	49.00	01.00	120.00	-68.60	IMU COAS
17.08	9.64	LVLH	180.00	00.00	00.00	-68.50	-ZLV -XVV
26.72	0.12	IH	200.00	37.00	308.00	-67.90	NH OMS
26.83	0.74	LVLH	350.80	359.90	180.30	-67.90	LVLH HOLD
27.57	0.39	IH	47.00	342.00	66.00	-67.80	NC3 OMS
27.97	1.53	LVLH	180.00	00.00	00.00	-67.80	-ZLV -XVV
29.50	5.01	LVLH	00.00	00.00	00.00	-67.60	+ZLV +XVV
34.51	4.74	LVLH	90.00	00.00	270.00	-67.20	-XLV -YVV
39.25	1.47	LVLH	180.00	90.00	00.00	-66.80	-ZLV +YVV
40.72	5.35	LVLH	180.00	270.00	00.00	-66.60	-ZLV -YVV
46.07	4.63	IH	310.00	18.00	131.00	-66.10	MOON CAL
50.70	0.33	IH	57.00	339.00	245.00	-65.50	NC4 NPC +X RCS
51.03	10.58	LVLH	170.00	00.00	00.00	-65.50	-ZLV -XVV
61.61	0.80	LVLH	270.00	00.00	00.00	-64.20	-Z TGT TRACK
62.41	0.20	LVLH	290.00	00.00	00.00	-64.10	-Z TGT TRACK
62.61	0.15	LVLH	270.00	00.00	00.00	-64.10	-Z TGT TRACK
62.76	0.31	IH	15.00	327.00	235.00	-64.00	TI OMS BURN
63.07	0.23	LVLH	270.00	00.00	00.00	-64.00	-Z TGT TRACK
63.30	0.02	LVLH	276.40	00.00	00.00	-64.00	LVLH HOLD
63.32	0.35	LVLH	276.40	00.00	00.00	-64.00	COMMENT N/A
63.67	0.15	LVLH	290.00	00.00	00.00	-63.90	-Z TGT TRACK
63.82	0.02	LVLH	310.00	00.00	00.00	-63.90	-Z TGT TRACK
63.83	0.07	LVLH	312.50	00.00	00.00	-63.90	LVLH HOLD
63.90	0.10	LVLH	312.50	00.00	00.00	-63.90	COMMENT N/A
64.00	0.02	LVLH	345.00	00.00	00.00	-63.90	LVLH HOLD
64.02	0.21	LVLH	345.00	00.00	00.00	-63.90	COMMENT N/A
64.22	2.00	LVLH	00.00	00.00	00.00	-63.80	R-BAR ARRIVAL
66.23	0.04	LVLH	17.10	10.80	347.30	-63.60	FREE DRIFT
66.27	0.22	IH	58.60	20.50	243.20	-63.60	CREW STOPS MNVR
66.49	5.15	IH	152.30	330.60	263.00	-63.50	IO5.1.20.120
71.64	2.04	IH	177.10	307.80	160.00	-62.80	IO5.1.20.00
73.68	6.23	LVLH	81.00	53.10	101.20	-62.50	GO 5.1 MODIFIED
79.91	8.55	IH	318.50	72.20	90.80	-61.60	IO4.3.15.00
88.46	6.21	IH	170.80	307.30	148.80	-60.30	IO5.1.18.00
94.66	1.63	IH	137.90	321.10	304.80	-59.40	IO5.1.18.182
96.30	1.37	IH	170.00	307.00	146.40	-59.10	IO5.1.18.00
97.66	6.19	LVLH	82.20	48.10	99.90	-58.90	GO 5.1 NOMINAL
103.85	8.66	IH	308.70	68.30	104.40	-57.90	IO4.3.15.00
112.51	1.27	LVLH	82.10	319.10	88.70	-56.40	GO 4.1

TABLE 3-XVIII. STS-74 AS-FLOWN ATTITUDE TIMELINE

MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
113.78	1.45	LVLH	82.20	48.10	99.90	-56.20	MIR MNVR GO5.1
115.23	2.70	IH	165.00	307.80	137.10	-56.00	IO5.1.17.00
117.93	0.27	LVLH	353.00	62.00	80.00	-55.50	PASDE
118.20	0.62	LVLH	277.70	06.00	196.30	-55.50	RETURN TO
118.82	2.17	IH	158.10	320.50	220.70	-55.40	IO5.1.17.90
120.99	1.05	LVLH	82.20	48.10	99.90	-55.00	GO 5.1 NOMINAL
122.05	0.06	LVLH	90.70	59.00	84.00	-54.80	FREE DRIFT
122.11	5.86	LVLH	82.20	48.10	99.90	-54.80	GO 5.1 NOMINAL
127.96	9.81	IH	304.50	64.00	111.20	-53.80	IO4.3.15.00
137.77	1.98	LVLH	132.10	354.10	183.90	-52.00	GO 3.1
139.75	1.33	IH	230.30	33.40	284.10	-51.70	UNDOCKING
141.08	0.42	IH	272.80	287.00	313.10	-51.40	INRT HOLD
141.50	0.13	LVLH	168.10	00.00	180.00	-51.40	SEP BURN
141.63	0.07	LVLH	95.00	00.00	180.00	-51.30	-Z TARGET TRACK
141.70	0.10	LVLH	120.00	00.00	180.00	-51.30	-Z TARGET TRACK
141.81	0.33	LVLH	160.00	00.00	180.00	-51.30	-Z TARGET TRACK
142.13	0.11	LVLH	194.00	00.00	270.00	-51.20	-Y TARGET TRACK
142.24	0.20	LVLH	226.00	00.00	270.00	-51.20	-Y TARGET TRACK
142.44	0.24	LVLH	245.00	00.00	270.00	-51.20	-Y TARGET TRACK
142.68	0.45	LVLH	255.00	00.00	270.00	-51.10	-Y TARGET TRACK
143.13	0.58	LVLH	180.00	90.00	00.00	-51.00	-XLV +YVV
143.71	1.27	LVLH	270.00	00.00	270.00	-50.90	+XLV +YVV
144.98	1.57	LVLH	180.00	00.00	00.00	-50.70	-ZLV -XVV
146.56	0.19	IH	338.00	292.00	200.00	-50.40	OMS ORB ADJUST
146.75	0.58	LVLH	198.80	349.50	03.10	-50.40	LVLH HOLD
147.33	0.32	IH	135.00	68.00	183.00	-50.30	OMS ORB ADJUST
147.65	2.10	LVLH	270.00	00.00	270.00	-50.20	+XLV +YVV
149.75	6.38	LVLH	90.00	00.00	270.00	-49.80	-XLV -YVV
156.13	5.54	LVLH	90.00	00.00	00.00	-48.60	-XLV +ZVV
161.67	2.08	LVLH	180.00	90.00	00.00	-47.50	-ZLV +YVV
163.75	3.03	LVLH	90.00	00.00	270.00	-47.10	-XLV -YVV
166.78	1.58	LVLH	90.00	00.00	290.00	-46.50	BIAS -XLV -YVV
168.36	2.73	IH	100.20	29.10	299.40	-46.20	-ZSI (APAS)
171.09	1.49	LVLH	180.00	00.00	270.00	-45.70	+YLV -XVV
172.58	1.46	LVLH	270.00	00.00	90.00	-45.40	+XLV -YVV
174.04	0.20	LVLH	00.00	90.00	00.00	-45.10	+ZLV -YVV
174.25	0.11	LVLH	00.00	45.00	00.00	-45.10	GLO PRCS TEST
174.35	0.10	LVLH	00.00	00.00	00.00	-45.00	GLO PRCS TEST
174.45	0.10	LVLH	00.00	315.00	00.00	-45.00	GLO PRCS TEST
174.55	0.07	LVLH	00.00	270.00	00.00	-45.00	GLO PRCS TEST
174.62	0.26	LVLH	168.00	307.00	185.00	-45.00	LVLH HOLD
174.88	1.33	LVLH	180.00	270.00	00.00	-44.90	-ZLV -YVV
176.21	6.11	LVLH	90.00	00.00	270.00	-44.70	-XLV -YVV
182.32	7.03	LVLH	170.00	00.00	00.00	-43.50	-ZLV -XVV
189.35	2.03	LVLH	170.00	00.00	00.00	-42.10	-ZLV -XVV
191.38	1.37	IH	329.50	54.30	260.20	-41.70	-XSI

TABLE 3-XVIII. STS-74 AS-FLOWN ATTITUDE TIMELINE

MET	Duration	Attitude Reference	Attitude			Beta Angle	Comment
			Pitch	Yaw	Roll		
192.75	0.17	IH	255.00	325.00	101.00	-41.40	D O IMU ALIGN
192.92	0.11	IH	312.00	24.00	202.00	-41.40	D O IMU VERIF
193.03	2.28	IH	302.00	45.00	300.00	-41.40	D O COMM ATT
195.32	0.24	IH	125.00	314.00	332.00	-40.90	D O BURN ATT
195.55	0.35	IH	233.30	01.60	94.30	-40.90	MM 303
195.91	0.00	LVLH	38.50	358.20	01.50	0.00	MM 304

INDEX

Ascent data 1-78
Aft Fuselage;
  Gas samples analysis 1-255
Anomalies for fleet 2-3
Auxiliary Power Unit Data;
  Serial number 1-145
  Mission run time 1-129
  Cumulative run time 1-129
  Serial no./part no. matrix 1-145
Astronauts; crew members 1-13,1-24
  Flight experienced 1-24
  Flights flown 1-13
  Total hours flown 1-24
  Affiliation 1-24
  EVA Assignments 1-198
  flight hours 1-13,1-24
  flights flown 1-13,1-24
  flight position 1-13,1-24
Brakes
  Energies from landing 1-98
  Initiation 1-92
  Maximum pressures 1-98
Cargo;
  Lift-off weight 1-30
  Deployed weight 1-30
  Retrieved weight 1-30
  Summary 1-30, 1-39
Crew compartment payloads.... 1-40 thru 1-77
Crew members 1-15
Data sources 1-526
Dates
  EVA 1-198
  ferry flights 1-108
  KSC processing 1-269
  landing 1-3
  launch 1-3
Distance
  cross range 1-89
  from threshold
    MGTD 1-92
    NGTD 1-92
    Brake initiated 1-92
    rollout 1-92
Drag Chute 1-95
Duration
  EVA 1-198
  ferry flight preparations 1-108
  flight 1-3, 1-117
  KSC processing 1-269
  OMS 1 & 2 burns 1-78, 1-181
  OMS burns 1-181
  on-orbit 1-117
  rollout 1-92
  SRB burns 1-285
Electrical energy
  average power 1-164
  average daily energy 1-164
  total electrical energy 1-164
  Orbiter ground power 1-269
Entry
  Conditions 1-89
EVA Summary 1-198
Events Altering Mission Duration 1-328
Ferry
  Departure 1-108
  Arrival 1-108
Flight;
  Altitude 1-3
  Durations 1-3, 1-117
  Revolutions 1-3
Fuel Cells
  Average electrical loads 1-164
  Part no./Serial no. matrix 1-174
  Run time 1-164
Getaway Specials (GAS) ..... 1-40 thru 1-77
Launch
  Date 1-3
  Site 1-3
  Time 1-3
Landing;
  Date 1-3
  Sink rate 1-92
  Site 1-3
  Time 1-3
  Winds 1-108
MSFC Element Anomalies 2-37
OMRSD File IX Requirements 1-525
OMS
  burn summary 1-181
  fuel 1-192
  oxidizer 1-192
  Propellant usage 1-192
  RCS Interconnect 1-192
  Serial no. of engines 1-181
OMS/RCS Pods and Flight
    Assignments 1-197
Orbiter Mass Properties
  entry interface 1-122
  ferry 1-122
  landing 1-122
  lift-off 1-122
  Mach 3 1-122
RMS
  mass handled 1-204
  Usage matrix 1-204
Payloads
  cargo weight 1-30,1-40
  deployed weight 1-30,1-40
  retrieved weight 1-30
  return weight 1-30
Shuttle
  lift-off 1-78
  In-flight anomaly list 2-1
Solid rocket booster 1-285
  ignition weight 1-285
  separation weight 1-285
  usable propellant 1-285
Orbital data
  highest altitude 1-3
  apogee/perigee after OMS 1 & 2 1-78
  inclination 1-3
  landing orbit 1-3
Orbiter
  In-flight anomaly list 2-9
  In-flight anomalies for fleet 2-3
    names 1-1
    times flown 1-3
    tires 1-177
  Work unit code index 2-2
Part/serial numbers
  Avionics 1-353
  APU 1-129, 1-145
  brakes 1-98
  check valves 1-522
  communications 1-408
  drag chute 1-95
  display and control 1-434
  electrical power 1-474
  EMU 1-198
  External tank 1-293
  fuel cells 1-164, 1-174
  Modular Auxiliary Data System 1-498
  MMU 1-198
  Operational instrumentation 1-498
  OMS engines 1-181
  OMS pods 1-181, 1-197
  Propulsion 1-509
  RMS 1-204
  SSME 1-298,1-307,1-316, 1-325
  Tires 1-177
  DPS 1-354
  GN&C 1-372
  RCS 1-195,1-508,1-513,1-517
  Water spray
    boiler 1-147, 1-150, 1-154, 1-159,1-162
Payloads
  Deployable 1-30
  Attached 1-30
  Getaway Special 1-30, 1-40
  Crew Compartment 1-30
Maximum Q during ascent 1-78
RCS
  Burn times 1-195
  Check valve summary 1-522
  Configuration and usage data 1-195
  Component and location
    matrix 1-509,1-513,1-517
  RCS/OMS pod assignments 1-181, 1-197
Runway data 1-92
Run Time
  APU 1-129
  fuel cells 1-164
  EMU 1-198
  MMU 1-198
Satellites;
  Names 1-30,1-40
  Weights 1-30,1-40
Site
  ferry flight stops 1-108
  landing 1-3
  launch 1-3
Specifications
  Avionics 1-351
Supply water 1-248
Temperatures
  Cabin air 1-245
  FES start out/in 1-242
  Maximum structural temperature
    from entry 1-216
  Maximum temp rise during entry 1-218
  Radiator freon 1-242
Thermal Protection System
  Entry Temperatures 1-216
  Damage 1-220
  Significant problems 1-223
Thrust
  SRB 1-285
Time
  ferry departure 1-108
  ferry arrival 1-108
Time,G.m.t
  landing 1-3
    main gearTD 1-108
    nose gear TD 1-108
    SRB separation 1-78
    wheels stop 1-108
  launch 1-3

Time, MET
ABS start 1-239
ET separation 1-78
FES start 1-239
MECO 1-78
OMS Ignition 1-78
PLBD open 1-239
Radiator deploy 1-239
Radiator flow start 1-239
SRB separation 1-78
SSME:
maximum throttle 1-298, 1-307, 1-316
maximum g throttle 1-298, 1-307, 1-316
re-attained maximum throttle 1-298, 1-307,1-316
3g throttle 1-298, 1-307, 1-316
Timelines
Mission 3-1,3-2
Tires;
Part nos., and usage matrix 1-177
Velocity
Orbiter
approach and landing
brake initiation,keas 1-92
drag chute 1-95
MGTD,kgs 1-92
MGTD,keas 1-92
maximum,keas 1-92
NGTD,kgs 1-92
over threshold, keas 1-89
pitch rate,deg/sec 1-92
sink rate,fps 1-92
entry interface,fps 1-89
ET sep,fps 1-78
first roll reversal,fps 1-78
MECO,fps 1-89
SRB sep,fps 1-89
Waste
dumps 1-248
Water;
crew use, lb 1-248
dumped, lb 1-248
fuel cell production,lb 1-248
FES Usage 1-248
Water Spray Boiler
OV-099 1-147
OV-102 1-150
OV-103 1-154
OV-104 1-159
OV-105 1-162
Serial nos. 1-147,1-150, 1-154, 1-159, 1-162

Weights
External tank
LH2
engine start command 1-293
MECO 1-293
residual 1-293
t-0 1-293
LO2
engine start command 1-293
MECO 1-293
residual 1-293
T-0 1-293
Impact after entry 1-293
Orbiter 1-122
SRB
burn time 1-285
ignition characteristics 1-285
separation data 1-285
Wind, landing
direction 1-108
speed 1-108
Windloads
topload indicator 1-78
Window
damage location 1-231
disposition 1-231
Work Unit Code
Listing 2-2

SHUTTLE FLIGHT DATA AND IN-FLIGHT ANOMALY LIST - JSC-19413

NASA Hqs.
MO/W. Green
MZ/K. Hudkins
MZB/H. Miller
ME/W. Bihner
ME/C. Krumery
ME/N. Starkey
MOC/F. Pipkin
QP/L. Nemecek

JSC
AC5/ J. W. Young
AP/J. E. Carr
AP2/Library
AP3/Chief (6)
AP3/K. Fluegel
AP3/K. Humphries
AP4/S. A. Nesbitt (3)
AP4/S. Luna (3)
AP4/B. Dean
CA/D. C. Leestma
CB/Chief (9)
CB/Technical Asst.
CB/W. F. Readdy
CB/M. Lopez-Alegria
CB/T. Henricks
DA8/Library
DA8/R. D. Legler
DA8/E. M. Henderson
DA8/R. Jackson
DD46/H. Canada
DE32/M. Rodriggs
DE43/P. J. Cerna
DF/J. Knight
DF/R. N. Fitts
DF2/H. Clancy
DF24/A. Morrison
DF43/B. Doremus
DF6/K. Jackson
DF63/D. Swoboda
DJ/W. Gaylor
DM/J. C. Harpold
DM22/G. Ricks
DM22/J. Siders
DM43/G. Pogue
DM46/M. Linde
DO4/R. H. Nute
DO6/H. Moffett
DO7/C. Dailey
DT33/M. Martinez
DT45/R. Brown
DT48/Library
DT46/Sim Supervisors
DT66/S. Buie
EA6/K. Templin
EC/N. Prince
EC3/D. M. Hoy
EC3/N. Cerna
EC3/C. Hoffman
EC5/S. Anderson
EC5/J. Granahan
EC5/L. A. Trevino
EG/D. Zimpfer
EG/Library
EG2/M. M.Hammerschmidt
EG2/H. G. Law, III
EG2/R. W. Loffi
EG2/V. M. Levy
EG3/S. Derry
EG3/R. Meyerson
EV16/Library
EK2/J. D. Miller
EP/W. Brasher
EP2/L. R. Rhodes (2)
EP2/J. Applewhite
EP2/Library
EP5/D. Gaston
ER7/L. Bains
ES2/T. E. Pelischek
ES2/L. Estes
ES3/R. G. Brown
ES3/R. Serna
ES4/J. D. Dagen
ES5/L. J. Leger
ES6/R. Davis
EV/J. W. Griffin
EV211/B. C. Embrey
EV2/R. I. Macias
EV3/L. Leonard
EV3/R. W. Nuss
EV3/R. Yates
EV4/J. C. Lamoreux
GK-5/Z. Byrns
ID3/M. K. Hendrix
MC/R. E. Matthews
MC/S. Hutchins
MER-30/Library
MG/C. Seaman
MS2/G. Sandars
MS32/A. Reubens
MS5/M. R. Rother
MT/E. W. Hoskins
MT/R. Swalin
MT2/G. Nield
MT2/D. DeAtkine
MT2/PIM's (15)
MV3/D. W. Camp
MV3/All Personnel (9)
MV3/O. C. Critzos (2)
NA2/M. Erminger
ND4/R. Montague
NS4/C. Nguyen
NS43/S. Littlefield
NS44/P. T. Goffney (2)
NS4/Library
OA/D. Ward
OB/K. Griffin
OC/M. Pestana
OK/J. Bates
PS12/J. Kovacevich
PS33/STI Center (3)
SA/J. Loftus
SD5/J. Charles
SN3/E. Christiansen
SN5/M. Guance
SP/B. R. Sheegog
SP2/R. L. Bond
SP2/J. T. Jackson
SP3.R.C. Malone
SP3/C. D. Wheelwright
SP4/T. A. Pletcher
SP4/T. W. Rathjen
SP5/H. L. Roberts
SP5/J. Huhn
ZR1/AF Library

KSC
CS/P. Breakfield
DA-NAM/W. Haase
GTS-620/G. C. Woolf
LO-PMO-2/L. Schaffer
MK/L. Shriver
MK-S10-1/R. Segert
PA-EAB/J. Green
PA-MSB/Pub. Library (2)
PA-MSB/K. Grinter
RM/ENG-2/G. Macri
RM-SSP/D. Carlson
RO-STS/T. L. Smith
RO-SLQ-3/J. Shehane
ROC-1/G. S. Waldrop
SHER-10/P. Shawa
THI-V/H. Sherrod
TL-DMD-2/J. Schmidt
TL-PCC-4/J. Strange
TM/J. F. Herrington
TM-SPO-6/J. Angermeier
TP-FLO/E. M. Sestile
TP-FLO/J. Murphy
TP-PED-2/G. Cates
TP-LOD-1/M. D. Leinbach
TV-ETD-3/M. Kraus
TV-MSD-6/P. Rosado
Library-D/J. Page (2)
TV-MSD-5/C. Mariano
TV-PEO/P. Cardone
TV-PEO/E. Mango
TV-PEO-2/J. Cowart

Goddard Space Flight Center
531.4/T. Sobchak

MSFC
CN22D/Repository (5)
CR01/J. Ehl
CR70/J. Helmstetter
EE31/G. Harsh (2)
EP14/D. Seymour
EP22/R. Flashbart
EP24/T. Rieckhoff
EP42/R. Christenson
PD34/S. Perrine
SA21/G. C. Ladner
SA51/K. Henson
SA41/C. H. Rutland

Rockwell-JSC
ZC01/J. Mechelay
ZCO1/M. Fields
ZC01/B. Weaver
ZC01/N. J. Bertelli
ZC01/M. Beyer
ZC01/C. Ewing
ZC01/C. Ritrivi
ZC01/R. J. Moore
ZC01/D. Russell
ZC01/C. Asuncion
ZC01/L. Jenkins (2)
ZC01/R. D. White
ZC01/B. Wallace
ZC01/J. A. Smith
ZC01/P. Diggins
ZC01/R. Phillips
ZC01/C. Beatty
ZC01/E. Henkel
ZC01/A. Majed
ZC01/J. Zelon
ZC01/C. Gibson
ZC01/R. Rabke
ZC01/J. Woodall
R16C/J. Oberg
R16D/A. Hochstein
R20B/R. Pechacek
R20B/T. Merkle

Rockwell-KSC
ZK07/M. Rice
ZK16/M. Gore
ZK16/M. Motz
ZK16/C. Pettus, Jr.
ZK21/J. K. Smith
ZK27/J. Tribe (5)
ZK85/F. P. Pagano
ZK86/J. Pruitt
ZK87/D. Cejda
ZK89/R. Luecking
ZL81/J. Baker

Rockwell-Downey
AB38/R. E. Thomas
AB53/R. Minor
AC19/M. Porter
AC28/K. Duong
AC94/C. Fann
AC94/J. Goldish
AD08/J. R. Potts
AD39/R. Rubens
AE26/J. Anderson
AE73/W. Fleming
AE73/B. Roberts
AD75/Data Management
AD88/C. Rogers
FA43/G. Sinclair
FB44/L. Krueger
AC15/S. Culbertson
FA99/J. J. Larson (12)
FC74/E. Rusinek
FB94/L. Muchow
FB94/J. Swanson

Rockwell - Seal Beach
SK23/D. A. Weston

Lockheed Martin Engineering and Sciences
3700 Bay Area Blvd.
Suite 600
Houston, TX 77258
6402/Project Office

Aerospace Corporation
P. O. Box 92957
Los Angeles, CA 90009-2957
M1-199/Lib. Spec.

Lockheed Martin Engineering and Sciences (Loral)
F6E3S/T. Thornton
F6E4S/G. Fletcher
F6E4S/S. Roshan-Zamir
F6E5S/J. Pinson

Langley Research Center
Hampton, VA 23665-5225
Technical Library/185
D. Morris/365

Lockheed Martin Engineering and Sciences
Houston, Texas 77058
A22/R. Miley
B30/S. R. King
B30/E. Jonke
C12/R. W. Fricke (10)
C23/J. Disler
C23/H. Patrick
C42/R. Klemer
C70/J. F. Keener
C71/E. Mohr
C80/E. Robinson
C87/S. Bouslog

United States Air Force
Wright Patterson AFB,
OH 45433
NAIC/TASS/M. Ryan

Lockheed Martin Space Operations
Kennedy Space Center
LSO-003/P. Scott
LSO-321/H. L. Lamberth
LSO-400/T. Bayline
LSO-247/J. Hoopes (5)
LSO-178/R. S. Herman
LSO-291/R. Loomis
LSO-376/J. M. Glass
LSO-383/D. W. Patterson
LSO-410/K. Lathrop
LSO-419/A. DeLuna
LSO-439/L. Jenkins

COPY
NASA LANGLEY RESEARCH CENTER
LIBRARY NASA
HAMPTON, VIRGINIA

Notify MV3/R. W. Fricke (713-483-3313) of any correction, addition, or deletion to this list

SHUTTLE FLIGHT DATA AND IN-FLIGHT ANOMALY LIST - JSC-19413

Lewis Research Center
21000 Brookpark Road
Cleveland, OH 44135
309-1/T. Miller
500-115/R. Friedman
333-1/T. Fuller

Hamilton Standard
1 Hamilton Road
Windsor Locks, Conn.
06096-1010
M/S1A-2-X65/S. Ruel

Dryden Flight Research Facility
P. O. Box 273
Edwards, CA 93253
D-ODS/J. D'Agostino

Kaman Sciences Corp.
Suite 200
2560 Huntington Ave
Alexandria, VA 22303
Attn: Dr. Darren McKnight (2)

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
JY43/C. Carter (2)
JC-73/H. McKay

Lockheed Martin Space Operations
1100 Lockheed Way
Titusville, Fl 32780
LSO-003/P. Scott

McDonnell-Douglas Space Systems
5301 Bolsa Ave.
A3-L270-12-2/V. Jacobs
Huntington Beach, CA 92647

Rockwell International
555 Discovery Dr.
Huntsville, AL 35806
ZA19/R. G. Penny

Boeing Company
P. O. Box 3999
Attn: R. Morris
Mail Stop 82-37
Seattle, WA. 98124

Notify MV3/R. W. Fricke (713-483-3313) of any correction, addition, or deletion to this list

SHUTTLE FLIGHT DATA AND IN-FLIGHT ANOMALY LIST - JSC-19413

NASA Hqs.
MO/W. Green
MZ/K. Hudkins
MZB/H. Miller
ME/W. Bihner
ME/C. Krumery
ME/N. Starkey
MOC/F. Pipkin
QP/L. Nemecek

JSC
AC5/ J. W. Young
AP/J. E. Carr
AP2/Library
AP3/Chief (6)
AP3/K. Fluegel
AP3/K. Humphries
AP3/S. A. Nesbitt
AP4/S. Luna (3)
AP4/B. Dean
CA/D. C. Leestma
CB/Chief (9)
CB/Technical Asst.
CB/W. F. Readdy
CB/M. Lopez-Alegria
CB/T. Henricks
DA8/Library
DA8/R. D. Legler
DA8/E. M. Henderson
DA8/R. Jackson
DD46/H. Canada
DE32/M. Rodriggs
DE43/P. J. Cerna
DF/J. Knight
DF/R. N. Fitts
DF2/H. Clancy
DF24/A. Morrison
DF43/B. Doremus
DF6/K. Jackson
DF63/D. Swoboda
DJ/W. Gaylor
DM/J. C. Harpold
DM22/G. Ricks
DM22/J. Siders
DM43/G. Pogue
DM46/M. Linde
DO4/R. H. Nute
DO6/H. Moffett
DO7/C. Dailey
DT33/M. Martinez
DT45/R. Brown
DT48/Library
DT46/Sim Supervisors
DT66/S. Buie
EA6/C. Teixeira
EA6/K. Templin
EC/N. Prince
EC3/D. M. Hoy
EC3/N. Cerna
EC3/C. Hoffman
EC5/S. Anderson
EC5/J. Granahan
EC5/L. A. Trevino
EG/D. Zimpfer
EG/Library
EG2/M. M.Hammerschmidt
EG2/H. G. Law, III
EG2/R. W. Loffi
EG2/V. M. Levy
EG3/S. Derry
EG3/R. Meyerson
EV16/Library
EK2/J. D. Miller
EP/W. Brasher
EP2/L. R. Rhodes (2)
EP2/J. Applewhite
EP2/Library
EP5/D. Gaston
ER7/L. Bains
ES2/T. E. Pelischek
ES2/L. Estes
ES3/R. G. Brown
ES3/R. Serna
ES4/J. D. Dagen
ES5/L. J. Leger
ES6/R. Davis
EV/J. W. Griffin
EV211/B. C. Embrey
EV2/R. I. Macias
EV3/L. Leonard
EV3/R. W. Nuss
EV3/R. Yates
EV4/J. C. Lamoreux
FA22/D. W. Camp
FA22/All Personnel (9)
FA22/O. C. Critzos (2)
GK-5/Z. Byrns
ID3/M. K. Hendrix
MC/R. E. Matthews
M[illegible] S. Hutchins
M[illegible]R-30/Library
MG/C. Seaman
MS2/G. Sandars
MS32/A. Reubens
MS5/M. R. Rother
MT/E. W. Hoskins
MT/R. Swalin
MT2/G. Nield
MT2/D. DeAtkine
MT2/PIM's (15)
NA2/M. Erminger
ND4/R. Montague
NS4/C. Nguyen
NS44/P. T. Gaffney
NS4/Library
OA/D. Ward
OB/K. Griffin
OC/M. Pestana
OK/J. Bates
PS12/J. Kovacevich
PS33/STI Center (3)
SA/J. Loftus
SD5/J. Charles
SN3/E. Christiansen
SN5/M. Guance
SP/F. A. McAllister
SP2/R. L. Bond
SP2/J. T. Jackson
SP3.R.C. Malone
SP3/C. D. Wheelwright
SP4/T. A. Pletcher
SP4/T. W. Rathjen
SP5/H. L. Roberts
SP5/J. Huhn
ZR1/AF Library

KSC
CS/P. Breakfield
DA-NAM/W. Haase
GTS-620/G. C. Woolf
LO-PMO-2/L. Schaffer
MK/L. Shriver
MK-S10-1/R. Segert
PA-EAB/J. Green
PA-MSB/Pub. Library (2)
PA-MSB/K. Grinter
RM/ENG-2/G. Macri
RM-SSP/D. Carlson
RO-STS/T. L. Smith
RO-SLQ-3/J. Shehane
ROC-1/G. S. Waldrop
SHER-10/P. Shawa
THI-V/H. Sherrod
TL-DMD-2/J. Schmidt
TL-PCC-4/J. Strange
TM/J. F. Herrington
TM-SPO-6/J. Angermeier
TP-FLO/E. M. Sestile
TP-FLO/J. Murphy
TP-PED-2/G. Cates
TP-LOD-1/M. D. Leinbach
TV-ETD-3/M. Kraus
TV-MSD-6/P. Rosado
Library-D/J. Page (2)
TV-MSD-5/C. Mariano
TV-PEO/P. Cardone
TV-PEO/E. Mango
TV-PEO-2/J. Cowart

Goddard Space Flight Center
531.4/T. Sobchak

MSFC
CN22D/Repository (5)
CR01/J. Ehl
CR70/J. Helmstetter
EE31/G. Harsh (2)
EP14/D. Seymour
EP22/R. Flashbart
EP24/T. Rieckhoff
EP42/R. Christenson
PD34/S. Perrine
SA21/G. C. Ladner
SA51/K. Henson
SA41/C. H. Rutland

Rockwell-JSC
ZC01/J. Mechelay
ZC01/M. Fields
ZC01/B. Weaver
ZC01/N. J. Bertelli
ZC01/M. Beyer
ZC01/C. Ewing
ZC01/C. Ritrivi
ZC01/R. J. Moore
ZC01/D. Russell
ZC01/C. Asuncion
ZC01/L. Jenkins (2)
ZC01/R. D. White
ZC01/B. Wallace
ZC01/J. A. Smith
ZC01/P. Diggins
ZC01/R. Phillips
ZC01/C. Beatty
ZC01/E. Henkel
ZC01/A. Majed
ZC01/J. Zelon
ZC01/C. Gibson
ZC01/R. Rabke
ZC01/J. Woodall
R16C/J. Oberg
R16D/A. Hochstein
R20B/R. Pechacek
R20B/T. Merkle

Rockwell-KSC
ZK07/M. Rice
ZK16/M. Gore
ZK16/M. Motz
ZK16/C. Pettus, Jr.
ZK21/J. K. Smith
ZK27/J. Tribe (5)
ZK85/F. P. Pagano
ZK86/J. Pruitt
ZK87/D. Cejda
ZK89/R. Luecking

Rockwell-Downey
AB38/R. E. Thomas
AB53/R. Minor
AC19/M. Porter
AC28/K. Duong
AC94/C. Fann
AC94/J. Goldish
AD08/J. R. Potts
AD39/R. Rubens
AE26/J. Anderson
AE73/W. Fleming
AE73/B. Roberts
AD75/Data Management
AD88/C. Rogers
FA43/G. Sinclair
FB44/L. Krueger
AC15/S. Culbertson
FA99/J. J. Larson (12)
FC74/E. Rusinek
FB94/L. Muchow
FB94/J. Swanson

Rockwell - Seal Beach
SK23/D. A. Weston

LORAL
3700 Bay Area Blvd.
Suite 600
Houston, TX 77258
6402/Project Office

Aerospace Corporation
P. O. Box 92957
Los Angeles, CA 90009-2957
M1-199/Lib. Spec.

Loral Corporation
F6G4S/S. Little
F6E3S/T. Thornton
F6E4S/G. Fletcher
F6E4S/J. Gills
F6E4S/S. Roshan-Zamir
F6E5S/J. Pinson

Langley Research Center
Hampton, VA 23665-5225
Technical Library/185
D. Morris/365

Lockheed Martin Engineering and Sciences
Houston, Texas 77058
A22/R. Miley
B30/S. R. King
B30/E. Jonke
C12/R. W. Fricke (10)
C23/J. Disler
C23/H. Patrick
C42/R. Klemer
C70/J. F. Keener
C71/E. Mohr
C80/E. Robinson
C87/S. Bouslog

United States Air Force
Wright Patterson AFB,
OH 45433
NAIC/TASS/M. Ryan

Lockheed Martin Space Operations
Kennedy Space Center
LSO-003/P. Scott
LSO-321/H. L. Lamberth
LSO-400/T. Bayline
LSO-247/J. Hooper (5)
LSO-178/R. S. Herman
LSO-291/R. Loomis
LSO-376/J. M. Glass
LSO-383/D. W. Patterson
LSO-410/K. Lathrop
LSO-419/A. DeLuna
LSO/439/L. Jenkins

NASA Technical Library
3 1176 01421 6445

Notify FA22/R. W. Fricke (713-483-3313) of any correction, addition, or deletion to this list