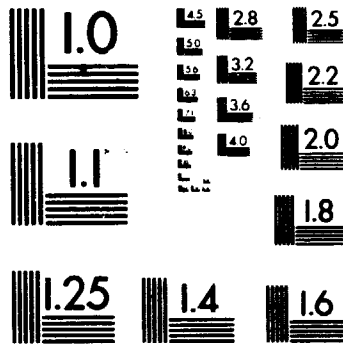


1 OF 7

N96-11129 UNCLAS



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

This microfiche was produced according to ANSI / AIIM Standards and meets the quality specifications contained therein. A poor blowback image is the result of the characteristics of the original document.

Shuttle Flight Data and In-Flight Anomaly List

*IN-16
5094*

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



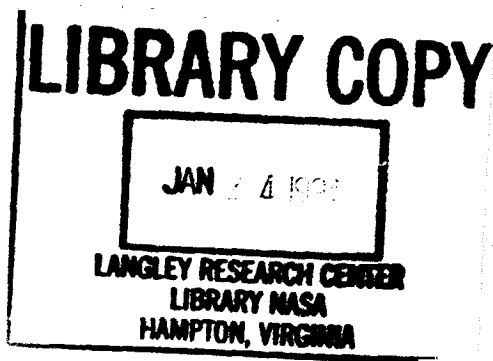
(NASA-CR-197667) SHUTTLE FLIGHT
DATA AND IN-FLIGHT ANOMALY LIST.
STS-1 THROUGH STS-50, AND STS-52
THROUGH STS-56. REVISION T
(Lockheed Engineering and Sciences
Co.) 603 p

N96-11129

Unclas

G3/16 0068334

Revision T October 1993



**National Aeronautics and
Space Administration**

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

SHUTTLE
FLIGHT DATA
AND
IN-FLIGHT ANOMALY LIST

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


Prepared by:

Flight Requirements Support Section
Lockheed Engineering and Sciences Company

for

Flight Engineering Office
Orbiter and GFE Projects Office

Approved by:



David W. Camp
Manager, Flight Engineering Office

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

October 1993

TABLE OF CONTENTS

| <u>Section</u> | <u>Page</u> |
|--|-------------|
| SHUTTLE FLIGHT DATA | 1-1 |
| LAUNCH AND LANDING DATES AND TIMES | 1-2 |
| CREW MEMBERS | 1-8 |
| ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS | 1-14 |
| SUMMARY OF CARGO AND SATELLITE WEIGHTS | 1-22 |
| CARGO SUMMARY | 1-27 |
| ASCENT AND ORBIT INSERTION | 1-57 |
| ENTRY AERODYNAMICS | 1-63 |
| LANDING DECELERATION | 1-67 |
| ORBITER DRAG CHUTE | 1-71 |
| CALCULATED BRAKE ENERGIES/PRESSURES AND BRAKE PART/SERIAL NUMBERS | 1-72 |
| LANDING AND FERRY | 1-79 |
| SPACE SHUTTLE FLIGHT DURATIONS FOR THE ENTIRE FLEET | 1-86 |
| ORBITER MASS PROPERTIES | 1-89 |
| AUXILIARY POWER UNITS | 1-94 |
| APU SERIAL NUMBER/PART NUMBER MATRIX | 1-99 |
| WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION | 1-103 |
| FUEL CELLS | 1-110 |
| FUEL CELL SERIAL NUMBER/PART NUMBER USAGE MATRIX | 1-116 |
| ORBITER TIRES | 1-120 |
| ORBITAL MANEUVERING SYSTEM: BURN DATA SUMMARY | 1-126 |
| PROPELLANT USAGE SUMMARY | 1-133 |
| REACTION CONTROL SYSTEM VERNIER THRUSTERS CONFIGURATION AND USAGE SUMMARY | 1-137 |

PRECEDING PAGE BLANK NOT FILMED

v

PAGE IV INTENTIONALLY BLANK

TABLE OF CONTENTS (Continued)

| <u>Section</u> | <u>Page</u> |
|---|-------------|
| OMS/RCS PODS AND FLIGHT ASSIGNMENTS | 1-138 |
| EXTRAVEHICULAR ACTIVITIES | 1-139 |
| REMOTE MANIPULATOR SYSTEM | 1-144 |
| ORBITER THERMAL PROTECTION SYSTEM: | |
| MAXIMUM TEMPERATURES DURING ENTRY | 1-149 |
| MAXIMUM TEMPERATURE RISE DURING ENTRY | 1-154 |
| DEBRIS IMPACT DAMAGE TO ORBITER THERMAL PROTECTION SYSTEM | 1-158 |
| ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS | 1-162 |
| WINDOW DATA | 1-167 |
| ACTIVE THERMAL CONTROL SUBSYSTEM: | |
| ASCENT, ENTRY & POSTLANDING EVENTS AND PERFORMANCE DATA | 1-174 |
| FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA | 1-179 |
| ATMOSPHERIC REVITALIZATION SUBSYSTEM | 1-183 |
| SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS | 1-187 |
| AFT FUSELAGE GAS SAMPLE ANALYSIS | 1-191 |
| KSC FACILITIES AND PROCESSING DATES | 1-203 |
| SOLID ROCKETS BOOSTERS | 1-210 |
| EXTERNAL TANK | 1-217 |
| MAIN ENGINE POSITION 1 | 1-222 |
| MAIN ENGINE POSITION 2 | 1-233 |
| MAIN ENGINE POSITION 3 | 1-244 |
| MAIN ENGINE SERIAL NUMBER/MAIN PROPULSION SYSTEM ENGINE LOCATION | 1-255 |
| EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM | 1-259 |
| SPECIFICATIONS FOR AVIONICS INCLUDING DPS, GNC, AND COMMUNICATIONS AND TRACKING | 1-273 |

TABLE OF CONTENTS (Concluded)

| <u>Section</u> | <u>Page</u> |
|---|-------------|
| COMPONENT - SERIAL NUMBER LOCATION MATRIX | |
| DATA PROCESSING SUBSYSTEM | 1-275 |
| GUIDANCE, NAVIGATION, AND CONTROL (GNC) SUBSYSTEM | 1-289 |
| COMMUNICATIONS AND TRACKING SUBSYSTEM | 1-318 |
| DISPLAYS AND CONTROLS SUBSYSTEM | 1-341 |
| ELECTRICAL POWER DISTRIBUTION AND CONTROL (EPDC) | 1-381 |
| MODULAR AUXILIARY DATA SUBSYSTEM | 1-405 |
| OPERATIONAL INSTRUMENTATION | 1-409 |
| ORBITER PROPULSION SYSTEMS | |
| RCS FORWARD THRUSTERS | 1-416 |
| LEFT-HAND POD RCS THRUSTERS | 1-420 |
| RIGHT-HAND POD RCS THRUSTERS | 1-424 |
| QUAD CHECK VALVE FLIGHT HISTORY | 1-428 |
| OMRSD FILE IX REQUIREMENTS HISTORY | 1-430 |
| DATA SOURCES | 1-431 |
| <u>SHUTTLE INFLIGHT ANOMALY LIST</u> | 2-1 |
| ORBITER SYSTEMS WORK UNIT CODE INDEX | 2-2 |
| ORBITER IN-FLIGHT ANOMALIES FOR THE FLEET | 2-3 |
| INFLIGHT ANOMALY LIST | 2-4 |
| MSFC FLIGHT PROBLEMS. | 2-36 |
| <u>ORBITER ATTITUDE TIMELINE</u> | 3-1 |
| <u>INDEX</u> | 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-50, and STS-52 through STS-56.

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

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

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

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

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

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

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

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

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

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

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

SHUTTLE FLIGHT HISTORIES
LAUNCH AND LANDING DATES AND TIMES

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

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

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

N/A = Not Available

SHUTTLE FLIGHT HISTORIES
LAUNCH AND LANDING DATES AND TIMES

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

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

** = Highest apogee on orbit

N/A = Not Available

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

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

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

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

SHUTTLE FLIGHT HISTORIES
LAUNCH AND LANDING DATES AND TIMES

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

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

** = Highest apogee on orbit.

M/A = Not Available

SHUTTLE FLIGHT HISTORIES
CREW MEMBERS

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

Note: Source: STS Mission Reports published by JSC/VP

* = DOT & E Program

** = All times were audited in January 1993.

SETTLE FLIGHT HISTORIES
CREW MEMBERS

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

* - All times were audited in January 1993.

Source: STS Mission Reports published by JSC/AF

SHUTTLE FLIGHT HISTORIES
CREW MEMBERS

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

Source: STS Mission Reports published by JSC/PT

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

SHUTTLE FLIGHT HISTORIES
CREW MEMBERS

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

* = All times were audited in January 1993.

Source: STS Mission Reports published by JSC/WF

SHUTTLE FLIGHT HISTORIES
CREW MEMBERS

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

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

SHUTTLE FLIGHT HISTORIES
CREW MEMBERS

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

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

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

Source: STS Mission Reports Published by VP.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED AIRBORNE

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

Source: STS Mission Reports published by VP

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

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

Source: STS Mission Reports published by VF.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

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

Source: STS Mission Reports published by VP.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

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

Source: STS Mission Reports Published by V7.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

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

Source: STS Mission Reports Published by V7.

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

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

ALPHABETICAL LISTING OF FLIGHT EXPERIENCED ASTRONAUTS

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

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

| Miss. Seq. No. | STS No. | Cargo Orb. OV- | Weight at Liftoff, lb | Deployed to Space, lb | Design Flt Inst. Weight, lb | Retrieved Satellite Weight, lb | Retrieved/Re-deployed Satellite, lb | EOS Deployed/Retrieved Satellite | | Self Deployed Satellite | | Retrieved Satellite | | Remarks |
|----------------|---------|----------------|-----------------------|-----------------------|-----------------------------|--------------------------------|-------------------------------------|----------------------------------|------------|-------------------------|------------|---------------------|------------|---|
| | | | | | | | | Weight, lb | Weight, lb | Weight, lb | Weight, lb | Weight, lb | Weight, lb | |
| 1 | 1 | 102 | 10,823 | 0 | 9,290 | 0 | 0 | | | | | | | |
| 2 | 2 | 102 | 18,778 | 0 | 11,048 | 0 | 0 | | | | | | | |
| 3 | 3 | 102 | 22,710 | 0 | 11,048 | 0 | 0 | POP (dar) | 344 | | | | | |
| 4 | 4 | 102 | 11,644 | 0 | 9,900 | 0 | 0 | TECOM (dar) | 816 | | | | | |
| 5 | 5 | 102 | 20,830 | 14,585 | 0 | 0 | 0 | | | SBB-C | 7,211 | | | |
| 6 | 6 | 099 | 46,862 | 37,546 | 0 | 0 | 0 | | | AMIE-C | 7,374 | | | |
| 7 | 7 | 099 | 31,893 | 14,949 | 0 | 0 | 0 | SPAS (dar) | 3,192 | TUBS-A | 37,546 | | | |
| 8 | 8 | 099 | 25,790 | 7,445 | 0 | 0 | 0 | | | AMIE-C | 7,374 | | | |
| 9 | 9 | 102 | 33,131 | 0 | 0 | 0 | 0 | | | PALAPA B-1 | 7,575 | | | |
| 10 | 41B | 099 | 28,252 | 15,073 | 0 | 0 | 0 | | | INSAR | 7,445 | | | |
| 11 | 41C | 099 | 33,831 | 21,396 | 0 | 0 | 4,740 | LEOP (d) | 21,396 | WESTAR VI | 7,307 | | | Spacelab Mission IRE failed to inflate. WESTAR VI and PALAPA B-2 failed to achieve orbit. |
| 12 | 41D | 103 | 41,382 | 0,086 | 0 | 0 | 0 | | | IRE | 210 | | | SMM launched 2-14-80 on ELP, failed to function 10 months later. STROM IV-2 failed to activate after deployment. |
| 13 | 41G | 099 | 17,592 | 4,949 | 0 | 0 | 0 | ESMS (d) | 4,949 | SUB | 7,383 | | | |
| | | | | | | | | | | STROM IV-2 | 15,196 | | | |
| | | | | | | | | | | TELSTAR | 7,507 | | | |

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

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

| Miss. No. | Orb. No. | Carg ^a Weight at Liftoff, lb | Deployed Weight to Space, lb | Design P/Wt Inst, lb | Retrieved Satellite Weight, lb | Retrieved/Re-deployed Satellite, lb | RMS Deployed/Retrieved Satellite | | Self Deployed Satellite | | Retrieved Satellite | | Remarks |
|-----------|----------|---|------------------------------|----------------------|--------------------------------|-------------------------------------|--|-----------------|--------------------------|------------------|---------------------|-----------|--|
| | | | | | | | Weight, lb | Satellite | Weight, lb | Satellite | Weight, lb | Satellite | |
| 14 | 51A 103 | 38,003 | 22,764 | 0 | 2,381 | 0 | | | AMIK D-2 | 7,574 | WESTAR VI | 1,119 | WESTAR and PALAPA B-2 launched on STS 41-B. |
| 15 | 51C 103 | | | | | | Department of Defense Mission - Data Not Available | | | | | | |
| 16 | 51D 103 | 28,747 | 22,576 | 0 | 0 | 0 | | | SYNCOM IV-3 | 15,190 | | | |
| 17 | 51B 099 | 30,748 | 105 | 0 | 0 | 0 | | | AMIK C-1 GAS, NUSAR | 7,386 103 | | | Spacelab Mission |
| 18 | 51G 103 | 38,258 | 22,832 | 0 | 0 | 0 | | SPARTAN-1 (dar) | 2,217 | | | | |
| 19 | 51P 099 | 33,012 | 0 | 0 | 0 | 0 | | POP (dar) | 638 | | | | Spacelab Mission |
| 20 | 51I 103 | 38,884 | 30,289 | 0 | 0 | 15,190 | | | ASC-1 | 7,591 | LEASAT 3 (red) | 15,190 | LEASAT 3 was originally launched on STS 41-D as SYNCOM IV-2. |
| 21 | 51J 104 | | | | | | Department of Defense Mission - Data Not Available | | | | | | |
| 22 | 61A 099 | 30,519 | 150 | 0 | 0 | 0 | | | GAS-GLOWE | 150 | | | SPACELAB Mission |
| 23 | 61B 104 | 42,788 | 27,465 | 0 | 0 | 0 | | | NOBELS-B | 7,573 | | | |
| 24 | 61C 102 | 28,625 | 12,351 | 0 | 0 | 0 | | | AUSSAS-2 | 7,634 | | | |
| 25 | 51L 099 | 48,633 | | | | | Vehicle Self-Destructed 67 Seconds After Lift-off | | | | | | |
| 26 | 26 103 | 44,601 | 37,514 | 0 | 0 | 0 | | | SASCOM BU2 SASCOM BU1 | 12,258 12,351 | | | |
| 27 | 27 104 | | | | | | Department of Defense Mission - Data not available | | | | | | |

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

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

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

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

SUMMARY OF PAYLOAD-CHANGEABLE CARGO AND SATELLITE WEIGHTS

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

Legend: d = deployed
r = retrieved

a Payload changeable weight - VP Weight Reports

SUMMARY OF PAYLOAD-CHARGEABLE CARGO AND SATELLITE WEIGHTS

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

Legend: d = deployed
r = retrieved

a Payload chargeable weight - VT Weight Reports

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

| 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): | |
| 18,778 | -0- | 18,778 | None | |
| DEPLOYABLE PAYLOADS: | | | CREW COMPARTMENT PAYLOAD: | |
| None | | | None | |
| ATTACHED PLB PAYLOADS: | | | SPECIAL PAYLOAD MISSION KITS: | |
| 1. OFT (Orbital Flight Test) Pallet: a. MAFS (Measurement of Air Pollution from Satellite) b. SMIR (Shuttle Multispectral Infrared Radiometer) c. SIR (Shuttle Imaging Radar) d. FILE (Features Identification and Location Experiment) e. OCE (Ocean Color Experiment) 2. DFI (Development Flight Instrumentation) Pallet 11,084 lb 3. ACIP (Aerodynamic Coefficient Identification Package) 4. IECH (Induced Environment Contamination Monitor) 5. OSTA-1 (Office of Space and Terrestrial Application) 5,395 | | | 1. RMS (Remote Manipulator System) S/W 201 | |

| CARGO SUMMARY | | MISSION SEQUENCE: 3 | STS-3 | ORBITER OV-102 |
|---|-----------------------------------|-------------------------------------|--|----------------|
| 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* | 22,710 | | |
| DEPLOYABLE PAYLOADS: Plasma Diagnostic Package Deployed and Retrieved Wt.= 344 lb (See RMS section) | | | | |
| ATTACHED PLS PAYLOADS: 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 (Development Flight Instrumentation) Pallet, 11,048 lb 3. ACIP (Aerodynamic Coefficient Identification Package), 448 lb *RMS deployed/berthed | | | CREW COMPARTMENT PAYLOAD: 1. MLR (Monodisperse Latex Reactor) 2. HBT (Reflex Bioengineering Test) | |
| | | | SPECIAL PAYLOAD MISSION KITS: 1. RMS (Remote Manipulator System) 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 | GAS (Getaway Special): | |
| 11,644 | 816 | 11,644 | 1. Utah State University a. Drosophila 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 | |
| DEPLOYABLE PAYLOADS: IECM (Induced Environment Contamination Monitor) deployed/reberthed by RMS. Deployed and Retrieved Wt. = 816 lb (See RMS section) | | | | |
| ATTACHED PLS PAYLOADS: DFI (Development Flight Instrumentation) 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: 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 | GAS (Getaway Special): | | |
| 20,830 | 14,585 | 6,245 | G-026: ERNO/Stability Of Metallic Dispersions. (JSC PIP 14021) | | |
| DEPLOYABLE PAYLOADS: | | | CREW COMPARTMENT PAYLOAD: | | |
| 1. SBS-C/PAM-D (Satellite Business System/Payload Assist Module) Deployed Wt = 7,211 lb | | | SSIP (Shuttle Student Involvement Program) | | |
| 2. ANIK-C/PAM-D - TELESAT Canada, Ltd/Payload Module Assist Deployed Wt = 7,374 lb | | | a. SE81-5 - Crystal Formation In Zero Gravity | | |
| ATTACHED PLB PAYLOADS: | | | b. SE81-9 - Convection In Zero Gravity | | |
| DFI (Development Flight Instrumentation) | | | c. SE81-2 - Growth Of Porifera | | |
| a. EIOM (Effects Of Interaction Of Oxygen with Materials) | | | SPECIAL PAYLOAD MISSION KITS: | | |
| b. ISAL (Investigation Of STS Atmospheric Luminosities) | | | Mission Specialist Seats (2) | | |
| | | | Note: NMS 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 | GAS (Getaway Special): | | |
| 46,662 | 37,546 | 9,116 | 1. G-005: Asahi Shiman, Japan | | |
| DEPLOYABLE PAYLOADS: | | | 2. G-049: U. S. Air Force Academy | | |
| TDRS-A/IUS (Tracking and Data Relay Satellite/ Inertial Upper Stage) Deployed Wt = 37,546 lb | | | 3. G-381: Park Seed Company | | |
| ATTACHED PLB PAYLOADS: | | | CREW COMPARTMENT PAYLOAD: | | |
| CBSA (Cargo Bay Storage Assembly) | | | 1. CFES (Continuous Flow Electrophoresis System) | | |
| | | | 2. MLR (Monodisperse Latex Reactor) | | |
| | | | 3. RME (Radiation Monitoring Experiment) | | |
| | | | 4. NOSL (Night/Day Optical Survey Of Lightning) | | |
| | | | SPECIAL PAYLOAD MISSION KITS: | | |
| | | | 1. Mini-WADS (Modular Auxiliary Data System) | | |
| | | | 2. EMU (Extravehicular Mobility Unit) | | |
| | | | Note: NMS NOT FLOWN | | |

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

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

| CARGO SUMMARY | | MISSION SEQUENCE: 9 | | STS-9 | ORBITER OV-102 |
|---|--------------------------------|----------------------------------|--|-------|----------------|
| PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB | DEPLOYED P/L WEIGHT, LB | RETURNED CARGO WEIGHT, LB | GAS (Getaway Special): None | | |
| 33,131 | -0- | 33,131 | None | | |
| None | | | | | |
| ATTACHED PLB PAYLOADS: | | | CREW COMPARTMENT PAYLOAD: | | |
| 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) | | | None | | |
| | | | SPECIAL PAYLOAD MISSION KITS: | | |
| | | | 1. Cryogenic sets 4 and 5. 2. Spacelab utility kit 3. TAGS (Text and Graphics System) 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 | GAS (Getaway Special): | | |
| 28,252 | 15,073 | 13,179 | 1. G-004: Utah State University/Aberdeen University 2. G-008: Utah State University/University of Utah/Brighton High School 3. G-051: General Telephone Labs 4. G-309: U. S. Air Force 5. G-349: Goddard Space Flight Center (re: flight STS-8) | | |
| DEPLOYABLE PAYLOADS: | | | CREW COMPARTMENT 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 (Shuttle Pallet Satellite)-01 - Not deployed due to RMS anomaly 4. IRT (Integrated Rendezvous Target) - Failed to inflate due to internal failure Deployed Wt = 210 lb | | | 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 (Monodisperse Latex Reactor) 6. RME (Radiation Monitoring Equipment) | | |
| ATTACHED PLB PAYLOADS: | | | SPECIAL PAYLOAD MISSION KITS: | | |
| 1. MFR (Manipulator Foot Restraint) 2. SESA (Special Equipment Storage Assembly) 3. Cinema 360 - High Quality Motion Picture Camera | | | 1. RMS (Remote Manipulator System) S/W 201 2. MMU (Manned Maneuvering Unit) - 2 3. Mini-MADS (Modular Auxiliary Data System) 4. Galley | | |

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

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

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

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

| CARGO SUMMARY | | MISSION SEQUENCE: 15 | STS 51-C | ORBITER OV-103 |
|--|-----------------------------------|-------------------------------------|--|----------------|
| 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 | | | | |
| ATTACHED PLB PAYLOAD: Data not available, DOD Classified Mission | | | CREW COMPARTMENT PAYLOAD: Data not available, DOD Classified Mission | |
| | | | SPECIAL PAYLOAD MISSION KIT: RMS (Remote Manipulator System) S/N 301 Other data not available, DOD Classified Mission | |

| CARGO SUMMARY | | MISSION SEQUENCE: 16 | STS 51-D | ORBITER OV-103 |
|--|-----------------------------------|-------------------------------------|---|----------------|
| PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB | DEPLOYED P/L WEIGHT, LB | RETURNED CARGO WEIGHT, LB | 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 | |
| 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 lb TELESAT-I (ANIK C-1)/PAM D - Canadian communication satellite. Placed in three year storage orbit. Deployed wt: 7,386 lb | | | CREW COMPARTMENT PAYLOADS: 1. CFES-III (Continuous Flow Electrophoresis System) 2. AFE (American Flight Echocardiograph) 3. PPE (Phase Partitioning Experiment) 4. SSIP (Shuttle Student Involvement Package) (2) a. Corn Statolith b. Brain Cell | |
| ATTACHED PLB PAYLOAD: None | | | SPECIAL PAYLOAD MISSION KITS: 1. RMS (Remote Manipulator System) S/N 301 2. PSA (Provision Storage Assembly) 3. MADS III (Modular Auxiliary Data System) | |

| 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 | GAS (Getaway Special): | |
| 30,748 | 105 | 30,643 | G-010 NUSAT, Northern Utah Satellite Weber State College, Utah, Utah State University, and New Mexico State University. First successful payload ejection from a GAS canister. Deployment Wt = 105 lb. | |
| DEPLOYABLE PAYLOADS: Refer to GAS section. | | | G-303 GLOP SM , Global Low Orbiting Message Relay Satellite. Defense Systems Inc., McLean, Va. Failed to eject from GAS canister. | |
| 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 (VWFCC) 4. Aurora Observation Astro Physics: 1. Studies of the Ionization States of Solar and Galactic Cosmic Ray Heavy Nuclei (IOW) Life Sciences: 1. Research Animal Holding Facility (RAHF) 2. Urine Monitoring Investigation (UMI) 3. Autogenic Feedback Training (AFT) | | | CREW COMPARTMENT PAYLOAD: UMS: Urine Monitoring System | |
| | | | SPECIAL PAYLOAD MISSION KITS: 1. Airlock 2. Long Transfer Tunnel 3. Galley 4. MPSS - Mission Peculiar Equipment Support Structure, carried ATMOS & IOW 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 | GAS (Getaway Special): | |
| 38,258 | 22,832 | 15,426 | G-007: Alabama Space & Rocket Center/Marshall Amateur Radio Club - 1. Solidification of Metals 2. Crystal Growth 3. Radish Seed Root Study 4. Radio Transmission Experiment | |
| 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 lb 2. ARABSAT-A/PAM-D: Aerospatiale Comm Satellite with McDac Payload Assist Module Booster. Owned by Saudi Arabian Communications Organization. Wt. = 7,695.0 lb 3. MORELOS-A/PAM-D: Hughes 376 Comm Satellite with McDac Payload Assist Module Booster. Owned by Mexican Communications and Transportation Agency Wt. = 7,591.0 lb 4. SPARTAN-1: Shuttle Pointed Autonomous Research Tool for Astronomy. SFSS: Spartan Flight Support Structure REM: Release/Engage Mechanism SEC: Scientific Experiment Carrier The SEC was released and retrieved using REM and RMS (Remote Manipulator System) Deployed & retrieved Wt = 2,217.0 lb | | | G-025: ERNO - Dynamic Behavior of Liquid Pro- pellants in low-g. G-027: DFVLR of West Germany - Slipcasting in micro-g. G-028: DFVLR of West Germany - Manganese - Bismuth production in micro-g. G-034: Dickshire Coors, Texas High School Students - 12 Biological/physical science experi- ments 1 Microprocessor controller G-314: USAF and USNRL - SURE (Space Ultra- violet Radiation Environment) | |
| | | | CREW COMPARTMENT PAYLOADS: ADSP (Automated Directional Solidification Furnace) FEE (French Echocardiograph Experiment) FPE (French Postural Experiment) HPTX (High Precision Tracking Experiment) | |
| ATTACHED PLB PAYLOADS: None | | | SPECIAL PAYLOAD MISSION KIT: RMS (Remote Manipulator System) S/W 301 Galley | |

| CARGO SUMMARY | | MISSION SEQUENCE: 19 | STS 51-F | ORBITER OV-099 |
|---|----------------------------|------------------------------|---|----------------|
| PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB | DEPLOYED P/L WEIGHT, LB | RETURNED CARGO WEIGHT, LB | GAS (Getaway Special): | |
| 33,012 | | 33,012 | None | |
| DEPLOYABLE PAYLOAD: Ejectable Plasma Diagnostic Package, Exp No. 3, second flight of PDP (STS-3 first flight). First flight as a free flyer to sample plasma away from the Shuttle. Deployed/Retrieved Wt = 628.0 lb. | | | CREW COMPARTMENT PAYLOADS: 0 Life Sciences <ul style="list-style-type: none"> ◦ 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 | |
| ATTACHED PLB PAYLOADS: Spacelab 2 <ul style="list-style-type: none"> 0 Plasma Physics <ul style="list-style-type: none"> ◦ 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 <ul style="list-style-type: none"> ◦ 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 (CNNE) (Exp 6) 0 Solar Astronomy <ul style="list-style-type: none"> ◦ 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 <ul style="list-style-type: none"> ◦ Properties of Superfluid Helium Zero-g (SFHe) (Exp 13) | | | SPECIAL PAYLOAD MISSION KITS: 1. Remote Manipulator System (RMS) S/N 302 2. Galley | |

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

| CARGO SUMMARY | | MISSION SEQUENCE: 21 | STS 51-J | ORBITER OV-104 |
|---|-----------------------------------|-------------------------------------|--|----------------|
| 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. | | | | |
| ATTACHED PLB PAYLOADS: Data not available, DOD Classified Mission | | | CREW COMPARTMENT PAYLOADS: Data not available - DOD Classified Mission | |
| | | | SPECIAL PAYLOAD MISSION KIT: 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 | 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 radiobiology. 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. | |
| 30,519 | 150 | 30,369 | | |
| DEPLOYABLE PAYLOADS: GLOMER - 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. <p style="text-align: right;">Deployed Wt = 150 lb</p> | | | | |
| ATTACHED PLB PAYLOADS: Spacelab D-1 - First completed Spacelab mission under German Mission Management. Joint control by BMT (Federal Ministry of Research and Technology) and DFVLP (Deutsche Forschungs-und Versuchsanstalt Fur Luft-und Raumfahrt). 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 | | | GAS (Getaway Special) None SPECIAL PAYLOAD MISSION KITS: 1. Airlock 2. Long Transfer Tunnel 3. Galley 4. USS - Unique Support Structure 5. RMS S/W 302. | |

| CARGO SUMMARY | | MISSION SEQUENCE: 23 | | STS 61-B | ORBITER OV-104 |
|--|--------------------------------|----------------------------------|--|----------|----------------|
| PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB | DEPLOYED P/L WEIGHT, LB | RETURNED CARGO WEIGHT, LB | GAS (Getaway Special) G-479 Telesat-Canada a. Primary surface mirror production b. Metallic crystal production | | |
| 42,788 | 27,465 | 15,323 | | | |
| DEPLOYABLE PAYLOADS: | | | CREW COMPARTMENT PAYLOADS: | | |
| <ol style="list-style-type: none"> 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 AUSSAT-2/PAM D: Hughes 376 Comm Satellite with MDAC Payload Assist Module booster. Owned by AUSSAT Proprietary Ltd. Deployed Wt = 7,634 lb 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 updated version of the PAM-D used for heavier payloads. Deployed Wt = 12,258 lb | | | <ol style="list-style-type: none"> CFES: Continuous Flow Electrophoresis System. Owned by McDonnell Douglas, separate biological samples using electrophoretic process. Third flight of this equipment. 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. MPSE: Morelos Payload Specialist Experiments, includes experiments in transportation of nutrients inside bean plants, inoculation of group bacteria viruses, germination of three seed types and medical experiments testing internal equilibrium and volume change of the leg due to fluid shifts in zero-g. OEX: Orbiter Experiments, an onboard experimental digital autopilot software package designed to provide precise stationkeeping capabilities between space vehicles. | | |
| ATTACHED PLB PAYLOADS: | | | SPECIAL PAYLOAD MISSION KITS: | | |
| <ol style="list-style-type: none"> 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. ACCESS: Assembly Concept for Construction of Erectable Space Structures (ACCESS) is validation of ground based timelines based on simulations. A 45-foot truss was assembled/disassembled by the two EV crew members. ICBC: INAX Cargo Bay Camera, joint effort between the Canadian INAX Corp. and NASA, consists of a 70mm film camera in pressurized container used to document EASE/ACCESS operations. | | | <ol style="list-style-type: none"> Food Warmers (2), galley not flown. BPS S/W 301 PSA (Provision Stowage Assembly) | | |

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

| CARGO SUMMARY | | | MISSION SEQUENCE: 25 | STS 51-L | ORBITER OV-099 |
|---|---------------------|-----------------------|---|----------|----------------|
| PAYLOAD-CHARGEABLE | DEPLOYED P/L | RETURNED CARGO | CREW COMPARTMENT PAYLOADS: | | |
| CARGO WEIGHT AT LIFT-OFF, LB | WEIGHT, LB | WEIGHT, LB | 1. Fluid Dynamics Experiment (FDE) Hughes Aircraft Company Experiment composed of six experiments: | | |
| 48,633 | N/A | N/A | a. Fluid position and ullage. b. 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. | | |
| DEPLOYABLE PAYLOADS: | | | 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 hydroponics magnetism, Newton's laws, effervescence, chromatography, and simple machines. Shuttle Student Involvement Packages: SES2-4 "The effects of weightlessness on grain formation and strength in metals" From: L. Bruce - St. Louis, MO Sponsor: McDonnell Douglas SES2-5 "Utilizing a semi-permeable membrane to direct crystal growth in zero gravity" From: S. Cavou - Marlboro, NY Sponsor: Union College SES3-9 "Chicken embryo development in space" From: J. Vellinger - Lafayette, IN Sponsor: Kentucky Fried Chicken Corporation | | |
| 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): | | | SPECIAL PAYLOAD MISSION KITS: | | |
| None | | | 1. RMS (Remote Manipulator System) 2. Galley 3. MNDS | | |

| CARGO SUMMARY | | | MISSION SEQUENCE: 26 | STS-26 | ORBITER OV-103 |
|--|---------------------|-----------------------|---|--------|----------------|
| PAYLOAD-CHARGEABLE | DEPLOYED P/L | RETURNED CARGO | GAS (Getaway Special): | | |
| CARGO WEIGHT AT LIFT-OFF, LB | WEIGHT, LB | WEIGHT, LB | None | | |
| 44,601 | 37,514 | 7,087 | CREW COMPARTMENT PAYLOADS: | | |
| DEPLOYABLE 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. IRCPE - 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. ABC - Aggregation of Red Blood Cells, MSFC & Australia, investigate aggregation characteristics of human red blood cells in zero g. 8. MLE - Mesoscale Lightning Experiment, MSFC, first flight, photograph atmospheric lightning activity from orbit. 9. ELRAD - Earth Limb Radiance Experiment, JSC, first flight, photograph earth limb radiance pre-sunrise/post-sunset. 10. Student Experiment SES2-4 - "Effects of weightlessness on Ti grain formation and strength". From L. Bruce, St. Louis, Mo., sponsor: McDonnell-Douglas 11. Student Experiment SES2-5 - "Utilizing a semi-permeable membrane to direct crystal growth in zero gravity". From S. Cavou, Marlboro, N. Y., sponsor: Union College. | | |
| 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) | | | | | |
| ATTACHED PLB PAYLOADS: | | | SPECIAL PAYLOAD MISSION KITS: | | |
| OASIS-1: Orbiter Experiment Autonomous Supporting Instrumentation System measures and records payload bay environmental data. | | | 1. Galley 2. MNDS | | |

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

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

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

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

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

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

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

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

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

| CARGO SUMMARY | | MISSION SEQUENCE: 35 | STS-31 | ORBITER OV-103 |
|---|-----------------------------------|-------------------------------------|--|----------------|
| PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB | DEPLOYED P/L WEIGHT, LB | RETURNED CARGO WEIGHT, LB | GAS (Getaway Special): | |
| 25,517 | 23,905 | 1,612 | None | |
| DEPLOYABLE PAYLOAD: Hubble Space Telescope (HST), a large aperture optical telescope Total deployed wt = 23,905 lb | | | CREW COMPARTMENT PAYLOAD: | |
| ATTACHED PLB PAYLOAD: 1. IMAK Cargo Bay Camera (ICBC) 2. Ascent Particle Monitor (APM) | | | <ol style="list-style-type: none"> 1. Air Force Maui Optical Site Calibration Test (AMOS) 2. IMAK 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) | |
| | | | SPECIAL PAYLOAD MISSION KITS: | |
| | | | <ol style="list-style-type: none"> 1. RMS 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): | |
| 46,173 | 38,604 | 7,569 | None | |
| DEPLOYABLE PAYLOAD: Ulysses/IUS/PAM-S - Deployable weight = 38,604 lb | | | CREW COMPARTMENT PAYLOAD: | |
| ATTACHED PLB PAYLOAD: SSBUV - Shuttle Solar Backscatter Ultraviolet Spectrometer ISAC - Intelsat Solar Array Coupon (Attached to RMS arm) | | | CHROMEX - Chromosomes 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 | |
| | | | SPECIAL PAYLOAD MISSION KITS: | |
| | | | <ol style="list-style-type: none"> 1. Remote Manipulator System (RMS) 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 PAYLOAD: Data not available - DOD Classified Mission | | | CREW COMPARTMENT PAYLOAD: Data not available - DOD Classified Mission | |
| ATTACHED PLB PAYLOAD: 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 | CREW COMPARTMENT PAYLOAD: SAREX - Shuttle Amateur Radio Experiment AMDS - Air Force Maui Optical Site Calibration Test | |
| DEPLOYABLE PAYLOAD: None | | | SPECIAL PAYLOAD MISSION KITS: 1. Galley 2. Aerodynamic Coefficient Identification Package (ACIP) | |
| ATTACHED PLB PAYLOAD: ASTRO-1 - Three ultraviolet telescopes attached to an Instrument Pointing System (IPS): 1. Wisconsin UV Photopolarimeter Experiment (WUPPE) 2. UV Imaging Telescope (UIT) 3. Hopkins UV Telescope (HUT) BEKRT - Broad Band X-Ray Telescope. Attached to its own two-axis pointing system (TAPS) | | | | |

| CARGO SUMMARY | | MISSION SEQUENCE: 39 | STS-37 | ORBITER OV-104 |
|--|--------------------------------|----------------------------------|---|----------------|
| PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB | DEPLOYED P/L WEIGHT, LB | RETURNED CARGO WEIGHT, LB | GAS (Getaway Special): | |
| 36,800 | 34,442 | 2,358 | | |
| DEPLOYABLE PAYLOAD: Gamma Ray Observatory (GRO), an unmanned astronomical observatory designed to image objects at high energy (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 PAYLOAD: Crew and Equipment Translation Aids (CETA) - designed to evaluate candidate techniques/equipment for EVA crewmember translation. Ascent Particle Monitor (APM) - designed to assess the particulate contamination in the Orbiter PLB during ascent. | | | SPECIAL PAYLOAD MISSION KITS: Remote Manipulator System (RMS) s/n 301 | |

| 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 | GAS (Getaway Special): | |
| 21,413 | 4,873 | 20,495 | None | |
| DEPLOYABLE PAYLOAD: Shuttle Payload Autonomous Satellite (SPAS) - II/ Infrared Background Signature Survey (IBSS) - SPAS-II/ IBSS was designed to observe rocket plume firings at infrared wavelengths Deployment weight: 4,046 lb Retrieval weight: 3,955 lb Multi-Purpose Experiment Container (MPEC) - An additional USAF experiment mounted on STP-1. Deployed weight: 270 lb GRO A, B, and C canister - Three canisters of chemicals were released. Deployed weight: 548 lb | | | CREW COMPARTMENT PAYLOAD: Cloud Logic to Optimize Use of Defense Systems (CLOUDS) - 1A Radiation Monitoring Equipment (RME) - III | |
| 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. | | | SPECIAL PAYLOAD MISSION KITS: Remote Manipulator System (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 | GAS (Getaway Special): 12 Experiments on GBA Solid State Microaccelerometer Experiment Experiment in Crystal Growth Orbital Ball Bearing Experiment In-Space Commercial Processing Foamed Ultralight Metals Chemical Precipitate Formation Microgravity Experiments Flower and vegetable seeds exposure to Space Semiconductor Crystal Growth Experiment Active Soldering Experiments Orbiter Stability Experiment Effects of Cosmic Ray Radiation on Floppy Disks and Plant Seeds Exposure to Microgravity | |
| 28,114 | 0 | 28,114 | | |
| DEPLOYABLE PAYLOAD: None | | | CREW COMPARTMENT PAYLOAD: Physiological Monitoring System (PMS) Urine Monitoring System (UMS) Animal Enclosure Modules (AEM) Middeck Zero-Gravity Experiment (MOZE) | |
| ATTACHED PLB PAYLOAD: Spacelab Life Sciences (SLS) - 1 - a. Spacelab Long Module b. Tunnel c. Tunnel Extension d. Tunnel Adapter Experiments: 6 Body Systems 6 Cardiovascular/Cardiopulmonary 3 Blood System 6 Musculoskeletal 3 Neurovestibular 1 Immune System 1 Renal/Endocrine System Gas Bridge Assembly (GBA) - 12 GAS experiments mounted on a truss structure in the PLB | | | | |
| | | | SPECIAL PAYLOAD MISSION KITS: Airlock Transfer Tunnel | |

| 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): 1. Tank Pressure Control Experiment (TACE) | |
| 46,712 | 37,575 | 9,137 | | |
| DEPLOYABLE PAYLOAD: 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 | | | 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 | |
| ATTACHED PLB PAYLOAD: 1. Space Station Heatpipe Advanced Radiator Element (SHARE-II) 2. Shuttle Solar Backscatter Ultraviolet Instrument 03 (SSBUV) 3. Optical Communications Through the Window (OCTW) Experiments: Gas Bridge Assembly (GBA) | | | | |
| | | | 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): | |
| 17,144 | 14,388 | 2756 | None | |
| DEPLOYABLE PAYLOAD: Upper Atmosphere Research Satellite (UARS) UARS Weight = 17,144 lb Deployable weight: 14,388 lb Non-deployable weight: 2,050 lb | | | CREW COMPARTMENT PAYLOAD: | |
| ATTACHED PLB PAYLOAD: | | | <ol style="list-style-type: none"> 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) | |
| Experiments: | | | SPECIAL PAYLOAD MISSION KITS: | |
| <u>Gas Bridge Assembly (GBA)</u> | | | | |

| 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 | GAS (Getaway Special): | |
| 44,637 | 37,588 | 7,049 | None | |
| DEPLOYABLE PAYLOAD: Defense Support Program/Inertial Upper Stage satellite DSP/IUS Weight Deployed weight: 37,588 lb Non-deployed weight: 5,612 lb | | | CREW COMPARTMENT PAYLOAD: | |
| ATTACHED PLB PAYLOAD: | | | <ol style="list-style-type: none"> 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) | |
| Experiments: | | | SPECIAL PAYLOAD MISSION KITS: | |
| <u>Gas Bridge Assembly (GBA)</u> | | | | |

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

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

| CARGO SUMMARY | | MISSION SEQUENCE: 46 | STS-45 | ORBITER OV-104 |
|--|----------------------------|------------------------------|---|----------------|
| PAYLOAD-CHARGEABLE CARGO WEIGHT AT LIFT-OFF, LB | DEPLOYED P/L WEIGHT, LB | RETURNED CARGO WEIGHT, LB | Solar Science Active Cavity Radiometer Irradiance Monitor (ACRIM) ACRIM 1 flown on the solar maximum satellite Measurement of the Solar Constant (SOLCON) Previously flown on Spacelab 1 Solar Spectrum Measurement from 180 to 3200 Nanometers (SOLSPEC) Previously flown on Spacelab 1 Solar Ultraviolet Spectral Irradiance Monitor (SUSIM) Previously flown on Spacelab 2 and on the Upper Atmosphere Research Satellite (UARS) Space Plasma Physics Atmospheric Emissions Photometric Imaging (AEPI) Previously flown on Spacelab 1 Space Experiments with Particle Accelerators (SEPA) Previously flown on Spacelab 1 Energetic Neutral Atom Precipitation (Cont'd on next page) | |
| 17,683 | 0 | 17,683 | | |
| DEPLOYABLE PAYLOAD: None | | | | |
| 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 flown on Spacelab 1 Reflight from Spacelab 3 Millimeter Wave Atmospheric Sounder (MAS) First flight Atmospheric Lyman Alpha Emissions (ALAE) Previously flown on Spacelab 1 Grille Spectrometer (GRILLE) Previously flown on Spacelab 1 Imaging Spectrometric Observatory (ISO) Previously flown on Spacelab 1 | | | | |

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

| 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): | |
| 32,809 | 23,346 | 9,463 | None | |
| DEPLOYABLE PAYLOAD: | | CREW COMPARTMENT PAYLOAD: | | |
| International telecommunications satellite VI F3 (Intelsat) perigee kick motor (PKM) | | Commercial protein crystal growth (CPCG) Air Force Maui Optical Site Calibration (AMOS) Ultraviolet Plume Instrument (UVPI) | | |
| ATTACHED PLB PAYLOAD: | | SPECIAL PAYLOAD MISSION KITS: None | | |
| Assembly of station by EVA methods | | | | |

| 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): | |
| 24,305 | 0 | 24,305 | None | |
| DEPLOYABLE PAYLOAD: | | CREW COMPARTMENT PAYLOAD: | | |
| None | | *Zeolite Crystal Growth *Generic Bioprocessing Apparatus with 1 Refrigerator/Incubator Module (R/IM) *Astroculture (ASC) Protein Crystal Growth (PCG) Block 1 with 3 R/IMs *Investigation into Polymer Membrane Processing (IPMP) Shuttle Amateur Radio Experiment-II (SAREX-II) Ultraviolet Plume Instrument (UVPI) | | |
| ATTACHED PLB PAYLOAD: | | | | |
| United States Microgravity Laboratory (USML-1) Investigation into Polymer Membrane Processing (IPMP) Shuttle Amateur Radio Experiment-II (SAREX-II) Ultraviolet Plume Instrument (UVPI) Orbital Acceleration Research Experiment (OARE) Zeolite Crystal Growth (ZCG) Astroculture Generic Bioprocessing Apparatus (GBA) Protein Crystal Growth (PCG) Block 1 | | | | |

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

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

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

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

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

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

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

**SHUTTLE FLIGHT HISTORIES
ASCENT AND ORBIT INSERTION**

| Miss Seq. No. | STS- No. | Orb. OV- | Shuttle Lift-off Weight, lb | Max Q, psf, # M = | Calculated Wind Load Data, 1-3.5 Hr. Winds Top Load Indicator Code/Description/ Location | Load* Value Percent | SRB Sep | | MECO | | ET Sep | | OMS-1 Burn | | OMS-2 Burn | | Apogee/ Perigee Alt., nmi | Apogee/ Perigee Alt., nmi |
|---------------|----------|----------|-----------------------------|-------------------|---|---------------------|-------------------|-------------------|-------------------|------------|--------------|------------|----------------|--------------------|----------------|--------------------|---------------------------|---------------------------|
| | | | | | | | Vel., ft/sec | Alt., ft | Vel., ft/sec | Alt., ft | Vel., ft/sec | Alt., ft | Tig MET, h:m:s | Burn Duration, sec | Tig MET, h:m:s | Burn Duration, sec | | |
| 1 | 1 | 102 | 4,457,111 | 617 1.06 | PBD WEB Payload Bay Door Shear Hinge Fitting Web | 80.7 | 131.7 | 514.0 | 532.1 | 00:10:34 | 87.0 | 00:44:02 | 75.0 | | | | | |
| 2 | 2 | 102 | 4,470,308 | 640 1.09 | FWD FFOIN Forward External Tank Attach Fitting Load | 90.0 | 130.0 | 513.8 | 537.2 | 00:10:33.9 | 77.6 | 00:41:41.7 | 71.0 | | | | | |
| 3 | 3 | 102 | 4,468,755 | 651 1.04 | OMSL-6 Left OMS Pod Frame X = 232.7 | 91.8 | 127.9 | 513.4 | 531.5 | 00:10:34.4 | 86.0 | 00:40:50.4 | 88 | | | | | |
| 4 | 4 | 102 | 4,481,935 | 721 1.71 | ET 4-11 Midpoint Lefthand Vertical Strut (P4) | 97.4 | 130.0 156,024 | 512.7 25,677 | 530.4 354,800 | 00:10:32.6 | 88 | 00:37:40.6 | 105.0 | 130.0 | | | 130.0 | |
| 5 | 5 | 102 | 4,487,268 | 738 1.70 | VT-6-R Vertical Tail Root Rib | 96.6 | 129.08 155,206 | 510.68 361,206 | 528.77 366,193 | 00:10:30.8 | 137.8 | 00:44:40.8 | 116.8 | 160.0 | | | 160.0 | |
| 6 | 6 | 099 | 4,487,255 | 688 1.47 | WINGRA17 Right Wing Spar Web X = 1249, Y = 130 | 104.6 | 129.42 151,453 | 499.40 361,122 | 517.55 366,139 | 00:10:19.6 | 135.3 | 00:43:37.6 | 117.0 | 154.6 | | | 154.0 | |
| 7 | 7 | 099 | 4,482,241 | 701 1.56 | WINGRA17 Right Wing Spar Web X = 1249, Y = 130 | 90.8 | 126.2 149,357 | 500.1 361,420 | 518.2 366,506 | 00:10:20.2 | 139.5 | 00:44:30.2 | 117.5 | 160.4 | | | 160.2 | |
| 8 | 8 | 099 | 4,492,074 | 701 1.53 | WINGRA17 Right Wing Spar Web X = 1249, Y = 130 | 106.9 | 124.34 152,110 | 521.62 360,803 | 539.66 365,878 | 00:10:41.7 | 138.1 | 00:44:51.7 | 115.6 | 160.5 | | | 160.2 | |
| 9 | 9 | 102 | 4,503,361 | 676 1.52 | WINGLA22 Left Wing Spar Web X = 1191, Y = 130 | 93.7 | 126.24 161,689 | 509.18 372,249 | 527.32 378,580 | 00:10:29.3 | 63.8 | 00:40:37.3 | 101.5 | 134.9 | | | 134.4 | |
| 10 | 41B | 099 | 4,498,443 | 676 1.55 | WLE8R Left Wing Leading Edge | 94.8 | 127.92 152,605 | 521.42 361,029 | 539.57 366,061 | 00:10:41.6 | 150.2 | 00:45:24.6 | 125.0 | 165.0 | | | 165.0 | |
| 11 | 41C | 099 | 4,508,234 | 635 1.03 | WINGLA17 Left Wing Spar Web | 94.8 | 125.57 169,426 | 510.76 360,906 | 528.9 370,118 | | | 00:42:54 | 95.2 | 251.6 | | | 115.4 | |

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

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

SHUTTLE FLIGHT HISTORIES
ASCENT AND ORBIT INSERTION

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

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

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

**FLIGHT HISTORIES
ASCENT AND ORBIT INSERTION**

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

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

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

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

SHUTTLE FLIGHT HISTORIES
ASCENT AND ORBIT INSERTION

| Miss Seq. No. | STS- No. | Orb. OV- | Shuttle Lift-off Weight, lb | Max Q, psf, @ M = | Calculated Wind Load Data, | | SRB Sep MFT, sec/ Vel., fps/ Alt., ft | MECO MFT, sec/ Vel., fps/ Alt., ft | ET Sep MFT, sec/ Vel., fps/ Alt., ft | OMS-1 Burn | | OMS-2 Burn | | |
|---------------------|-------------|-------------|--------------------------------------|-------------------------|---|--|--|---|---|----------------------|--------------------------------|---------------------------------|----------------------|--------------------------------|
| | | | | | Top Load Indicator Code/Description/ Location | Load Value Percent | | | | Tig MFT, h:m:s | Burn Dura- tion, sec. | Apogee/ Perigee Alt., nmi | Tig MFT, h:m:s | Burn Dura- tion, sec. |
| 32 | 33 | 103 | 4,529,160 | 729.3 1.5 | | LP-2.0 AFT OMS F ONS Frame Inner Cap X=1360 | DOD | DOD | DOD | DOD | DOD | DOD | DOD | 302.0 126.0 |
| 33 | 32 | 102 | 4,519,487 | 641.1 1.05 | 91.3 | L-2.0 AFT OMS F ONS Frame Inner Cap X=1360 | 511.00 5,281.42 157,254 361,119 | 530.00 25,911.68 368,882 | NONE | N/A | 00:40:25.6 | 139.5 | N/A | 178.0 173.0 |
| 34 | 36 | 104 | 4,507,283 | 743.9 1.49 | 94.0 | L-2.0 AFT OMS F ONS Frame Inner Cap X=1360 | DOD | DOD | DOD | DOD | DOD | DOD | DOD | 132.0 115.0 |
| 35 | 31 | 103 | 4,514,665 | 656.3 1.08 | 92.7 | L-2.0 Aft OMS F ONS Frame Inner Cap X=1360 | 510.00 5,324.21 155,453 | 528.00 26,134.83 372,084 | NONE | N/A | 00:42:35.9 | 304.4 | N/A | 333.00 327.00 |
| 36 | 41 | 103 | 4,544,024 | 665.0 1.1 | 88.0 | L-2.0 AFT OMS F ONS Inner Frame Cap | 510.39 4,113.0 156,553 | 528.37 | NONE | N/A | 00:39:53.4 | 143.6 | N/A | 160.2 159.4 |
| 37 | 38 | 104 | 4,531,909 | | | DOD MISSION - DATA NOT AVAILABLE | | | | | | | | 142.0 115.0 |
| 38 | 35 | 102 | 4,600,228 | 696.0 N/A | 92.0 | L-2.0 WING LA 20 Left Wing Spar Shear X = 1362, Y = 235 | 511.6 | 529.67 | NONE | N/A | 00:40:24.7 | 179.2 | N/A | 190.2 187.7 |
| 39 | 37 | 104 | 4,519,158 | 681.0 1.57 | 85.0 | L-2.0 Wing LA20 | 512.71 5294.5 361,246 | 530.16 26000.7 369,797 | NONE | N/A | 00:41:43.1 | 234.7 | N/A | 247 239 |
| 40 | 39 | 103 | 4,512,698 | 706.6 1.65 | 99.0 | L-2.0 Aft OMS | 514.51 5035.4 152,683 | 531.40 25793.3 367,696 | NONE | N/A | 00:36:07.5 | 129.0 | N/A | 140 136 |

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

SHUTTLE FLIGHT HISTORIES
ASCENT AND ORBIT INSERTION

| Miss Seq. No. | STS- No. | Orb. OV- | Shuttle Lift-off Weight, lb | Max Q, psf, $\theta M =$ | Calculated Wind Load Data, L-3.5 Hr. Winds Top Load Indicator Code/Description/ Location | SRB Sep | | MECO | | ET Sep | | OMS-1 Burn | | OMS-2 Burn | | Apogee/Perigee Alt., nmi | Apogee/Perigee Alt., nmi |
|---------------|----------|----------|-----------------------------|--------------------------|--|-------------------------------|------------------------------|-------------------------------|-------------------------------|--------|----------------|---------------------|---------------------|------------|-----|--------------------------|--------------------------|
| | | | | | | MET, sec/ Val., fps/ Alt., ft | sec/ Val., fps/ Alt., ft | MET, sec/ Val., fps/ Alt., ft | h:m:s | h:m:s | Tig MET, h:m:s | Burn Duration, sec. | Burn Duration, sec. | | | | |
| 41 | 40 | 102 | 4,518,801 | 688.9 1.12 | L-2.0 Wing LA21 | 88.0 | 124.74 5,275.1 153,002 | 509.8 25,803.2 361,444 | 527.86 25,869.0 366,809 | None | N/A | 00:42:17.6 | 124.1 | 157 | 146 | | |
| 42 | 43 | 104 | 4,522,828 | 775 1.67 | L-2.0 Throttle low yaw positive WLE-P7 | 91.0 | 125.60 4265.2 149,261 | 507.80 25,796 360,846 | 526.04 25,689 366,906 | None | N/A | 00:39:51.0 | 142.7 | 174 | 161 | | |
| 43 | 48 | 103 | 4,503,424 | 767.4 | L-2.0 DOLIU Wing L-A21 | 96.0 | 125.04 4,148.9 155,365 | 516.12 26,002 372,308 | 534.52 26,074 382,935 | None | N/A | 00:43:40 | 266.2 | 313 | 302 | | |
| 44 | 44 | 104 | 4,520,641 | 730 1.45 | L-2.0 Nominal Aft OMS F | 90.0 | 126.56 4,229.3 152,899 | 509.70 25,826 360,535 | 528.07 25,924 367,944 | None | N/A | 00:40:48 | 183.8 | 197 | 194 | | |
| 45 | 42 | 103 | 4,518,872 | 685 1.39 | L-2.0 Nominal WLE P7 | 87.0 | 127.84 4,252.7 155,716 | 510.1 24,938 373,301 | 528.6 24,994 382,889 | None | N/A | 00:36:08.1 | 159.2 | 163 | 161 | | |
| 46 | 45 | 104 | 4,495,720 | 670 1.4 | L-2.0 Yaw neg Aft OMS F | 91.0 | 128.00 4,221.5 155,044 | 510.4 24,845 372,180 | 528.6 24,994 382,889 | None | N/A | 00:36:20 | 145.6 | 162 | 159 | | |
| 47 | 49 | 105 | 4,516,872 | 675 1.55 | L-2.0 DOLIU Wing L-A21 | 83.0 | 127.2 4,215.8 156,553 | 509.4 24,350.6 360,713 | 527.6 24,466 368,365 | None | N/A | 00:39:57.8 | 124.3 | 182 | 148 | | |
| 48 | 50 | 102 | 4,520,103 | 659.8 | L-2.0 NOMINAL WING L-A14 | 96.0 | 126.24 4,215.7 157,456 | 507.2 25,794 360,806 | 526.5 25,868 366,831 | None | N/A | 00:39:50.7 | 141.3 | 160 | 160 | | |
| 49 | 46 | 104 | 4,516,789 | 730 | L-2.0 DOLIU WING L-A14 | 94.0 | 125.12 4,232.6 152,815 | 509.4 25,907 350,589 | 527.7 25,978 369,300 | None | N/A | 00:41:23.4 | 222.4 | 230 | 228 | | |

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

SHUTTLE FLIGHT HISTORIES
ASCENT AND ORBIT INSERTION

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

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

SHUTTLE FLIGHT HISTORIES
ENTRY AERODYNAMICS

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

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

SHUTTLE FLIGHT HISTORIES
ENTRY AERODYNAMICS

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

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

SHUTTLE FLIGHT HISTORIES
ENTRY AERODYNAMICS

| Miss. Seq. No. | STS-Orb. No. | Entry Interface | | Cross Range, nmi. | Max. Load Factor, g | Max. Dyn. Press., psf | First Roll Rev. Vol., fps | Term. Area Energy Mgmt. | | Approach & Landing | | | | | | | |
|----------------|--------------|-----------------|-----------------|-------------------|---------------------|-----------------------|---------------------------|-------------------------|--------------------|-----------------------|--------------|------------------|--------------------------|--------------|-----|-------|-----|
| | | Velocity, fps | Pth. Angle, deg | | | | | I/F Range, nmi. | I/F Load Factor, g | Max. Dyn. Press., psf | I/F Alt, ft. | Glide Slope, deg | Velocity, Max. Over thld | Keas At MGRD | | | |
| 30 | 28 | 102 | 25,803 | -1.11 | 4,332 | 186 | 1.54 | 213 | 19,494 | 58.8 | 1.6 | 295 | 10,000 | 19 | 299 | 224 | 155 |
| 31 | 34 | 104 | 25,784 | -1.19 | 4,156 | 496 | 1.54 | 219 | 13,653 | 60.1 | 1.7 | 286 | 10,000 | 19 | 305 | 220 | 195 |
| 32 | 33 | 103 | 25,998 | -1.48 | 4,068 | 226 | 1.52 | 215 | 16,988 | 60.2 | 1.5 | 301 | 10,000 | 19 | 300 | 211 | 199 |
| 33 | 32 | 102 | 25,823 | -1.25 | 4,317 | 372 | 1.62 | 253 | 16,293 | 58.8 | 1.7 | 295 | 10,000 | 17 | 300 | 230 | 207 |
| 34 | 36 | 104 | 25,713 | -1.18 | 4,338 | 255 | 1.57 | 204 | 18,520 | 59.5 | 1.9 | 325 | 5,000 | 19 | 298 | 218 | 199 |
| 35 | 31 | 103 | 26,120 | -1.61 | 4,121 | 420 | 1.60 | 205 | 15,905 | 60.2 | 1.54 | 279 | 10,000 | 19 | 299 | 194 | 177 |
| 36 | 41 | 103 | 25,762 | -1.20 | 4,147 | 492 | N/A | 212.7 | 13,639 | 60.0 | 1.67 | 291 | 9,777 | 19 | 306 | 224 | 192 |
| 37 | 38 | 104 | 25,729 | -1.16 | 4,146 | 3 | 1.57 | 207 | 20,816 | 60.3 | 1.42 | 273 | 9,819 | 19 | 301 | 218 | 199 |
| 38 | 35 | 102 | 25,858 | -1.32 | 4,266 | 426 | 1.58 | 245.8 | 15,406 | 59.15 | 1.59 | 279 | 8,052 | 17 | 300 | 217 | 201 |
| 39 | 37 | 104 | 24,612 | -1.40 | 4,175 | 375 | 1.57 | 205 | 16,455 | 59.0 | 1.66 | 276 | 5,048 | 19 | 288 | 161 | 168 |
| 40 | 39 | 103 | 25,765 | -1.06 | 4,502 | 616 | 1.57 | 246.5 | 11,543 | 60.2 | 1.50 | 295 | 9,862 | 19 | 302 | 222.1 | 218 |
| 41 | 40 | 102 | 25,772 | -1.23 | 4,339 | 211 | 1.56 | 245.4 | 18,904 | 58.9 | 1.70 | 298 | 10,014 | 17 | 311 | 218.6 | 203 |
| 42 | 43 | 104 | 25,794 | -1.16 | 4,312 | 180 | 1.57 | 294 | 19,141 | 60.3 | 1.4 | 223 | 10,000 | 19 | 295 | 221 | 197 |
| 43 | 48 | 103 | 26,077 | -1.58 | 4,194 | 690 | 1.56 | 286 | 11,167 | 59.9 | 1.5 | 217.5 | 10,000 | 19 | 297 | 219 | 203 |
| 44 | 44 | 104 | 25,868 | -1.28 | 4,195 | 379 | 1.6 | 285 | 16,190 | 60.5 | 1.74 | 222.5 | 9,833 | 19 | 295 | 222 | 189 |

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

SHUTTLE FLIGHT HISTORIES
ENTRY AERODYNAMICS

| Miss. Seq. No. | STS- No. | Orb. OV- | Entry Interface | | Cross Range, nmi. | Max. Load Factor, g | Max. Dym. Press., psf | First Roll Rev. Vol., fps | Term. Area Energy Mgmt. | | | Approach & Landing | | | | |
|----------------|----------|----------|-----------------|----------------------|-------------------|---------------------|-----------------------|---------------------------|-------------------------|-----------------|---------------------------|--------------------|------------------|----------------|----------------|---------|
| | | | Velocity, fps | Flt. Pth. Angle, deg | | | | | Range, nmi. | I/F Range, nmi. | I/F Max. Dym. Press., psf | Alt ft. | Glide Slope, deg | Velocity, Max. | Keas Over thld | At MGTD |
| 45 | 42 | 103 | 25,785 | -1.12 | 4,358 | 1.61 | 232 | 14,053 | 59.6 | 1.40 | 308 | 10,000 | 19 | 310 | 229.0 | 196 |
| 46 | 45 | 104 | 25,785 | -1.13 | 4,231 | 1.56 | 241.23 | 10,840.6 | 60.4 | 1.82 | 328 | 7,451 | 19 | 309 | 217 | 192 |
| 47 | 49 | 105 | 25,841 | -1.28 | 4,162 | 1.56 | 215 | 15,850 | 59.2 | 1.57 | 293 | 9,931 | 19 | 299 | 217 | 194 |
| 48 | 50 | 102 | 25,786 | -1.18 | 4,347 | 1.51 | 248.4 | 15,984.3 | 59.7 | 1.51 | 313 | 9,885 | 17 | 311 | 229 | 203 |
| 49 | 46 | 104 | 25,698 | -0.99 | 4,397 | 1.57 | 225 | 13,624 | 59.7 | 1.45 | 299 | 9,869 | 19 | 303 | 216 | 195 |
| 50 | 47 | 105 | 25,803 | -1.11 | 4,341 | 1.57 | 240.1 | 11,228.4 | 60.6 | 1.39 | 307 | 9,917 | 17 | 305 | 233 | 202 |
| 51 | 52 | 102 | 25,666 | -0.94 | 4,454 | 1.58 | 247 | 18,350 | 60.1 | 1.51 | 297 | 9,820 | 19 | 302 | 224 | 211 |
| 52 | 53 | 103 | 25,813 | -1.28 | 4,237 | 1.56 | 210 | 7,202 | 60.0 | 1.96 | 287 | 9,431 | 19 | 301 | 226 | 212 |
| 53 | 54 | 105 | 27,780 | -1.20 | 4,213 | 1.56 | 211 | 17,043 | 60.5 | 1.8 | 295 | 9,873 | 19 | 302 | 232 | 212 |
| 54 | 56 | 103 | 25,797 | -1.23 | 4,375 | 1.63 | 227 | 21,354 | 60.1 | 1.69 | 291 | 9,844 | 19 | 304 | 219 | 206 |
| 55 | 55 | 102 | 25,779 | -1.16 | 4,299 | 1.56 | 260 | 10,463 | 59.8 | 1.5 | 309 | 9,848 | 17 | 319 | 238 | 217 |
| 56 | 57 | 105 | 25,988 | -1.43 | 4,210 | 1.58 | 252 | 12,389 | 58.9 | 1.38 | 320 | 9,907 | 17 | 313 | 233 | 207 |

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

SHUTTLE FLIGHT HISTORIES
LANDING - ELERATION

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

^akgs = knots, ground speed

^bBased on runway measurements except for brake initiation (onboard service)

^cBased on LaRC analysis of KSC spin-up measurements

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

SHUTTLE FLIGHT HISTORIES
LANDING DECELERATION

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

^akgs = knots, ground speed

^bBased on runway measurements except for brake initiation (onboard service)

^cBased on LARC analysis of KSC spin-up measurements

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

SHUTTLE FLIGHT HISTORIES
LANDING DECELERATION

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

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

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

SHUTTLE FLIGHT HISTORIES
LANDING DECELERATION

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

^a kgs = knots, ground speed

^b Based on runway measurements except for brake initiation (onboard service)

^c Based on LaRC analysis of KSC spin-up measurements

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

SHUTTLE FLIGHT HISTORIES
ORBITER DRAG CHUTE

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

Notes:

- ^a Traceability ID: 07718-00XXX
- ^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 (V59H0220C)

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

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

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

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

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

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

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

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

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

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

| Miss. Seq. No. | STS- No. | Orb. OV- | Gross Brake Energies, Million ft.-lb. and Serial/Part Numbers | | | | | | Maximum Pressures, Psia | | | | Remarks |
|----------------|----------|----------|---|--|--|--|--------|-----------|-------------------------|------------|-------|---|---------|
| | | | Left Hand | | Right Hand | | Total | Left Hand | | Right Hand | | | |
| | | | Outboard Energy *PW/SN | Inboard Energy *PW/SN | Inboard Energy *PW/SN | Outboard Energy *PW/SN | | Outbd | Inbd | Outbd | Inbd | | |
| 16 | 51D | 103 | 20.28 20/39 Note 1 | 20.60 20/41 Note 1 Minor damage | 41.01 20/44 Note 1 Damage | 41.13 20/42 Note 1 Damage | 123.02 | 800 | 856 | 968 | 1,048 | Broken stator on RH, brakes locked up at end of rollout; RHIB last 113 ft and RHOB last 5 ft. | |
| 17 | 51B | 099 | 16.28 20/35 Note 1 Damage | 14.35 20/22 Note 1 Damage | 15.01 20/24 Note 1 | 11.04 20/34 Note 1 | 56.68 | 1,090 | 1,090 | 1,090 | 1,060 | Broken rotors on LH brakes; RH brakes fully instrumented. | |
| 18 | 51G | 103 | 22.21 20/08 Note 1 | 23.17 20/36 Note 1 | 12.86 20/38 Note 1 | 11.63 20/37 Note 1 Minor damage | 69.87 | 1,472 | 1,592 | 944 | 960 | | |
| 19 | 51F | 099 | 26.45 20/40 Note 1 | 22.20 20/03 Note 1 Minor damage | 21.15 20/46 Note 1 | 14.67 20/45 Note 1 | 84.47 | 1,407 | 1,272 | 1,080 | 983 | RH brakes fully instrumented. | |
| 20 | 51I | 103 | 8.72 20/14 Note 1 | 8.65 20/16 Note 1 | 10.58 20/18 Note 1 Minor damage | 9.06 20/17 Note 1 Minor damage | 37.01 | 928 | 904 | 912 | 968 | | |
| 21 | 51J | 104 | 8.81 20/09 Note 1 Minor damage | 10.67 20/07 Note 1 Minor damage | 10.56 20/06 Note 1 | 10.46 20/23 Note 1 Minor damage | 40.50 | 944 | 792 | 864 | 960 | | |
| 22 | 61A | 099 | 13.72 20/39 Note 1 | 9.85 20/44 Note 1 | 14.30 20/41 Note 1 | 9.39 20/42 Note 1 | 47.26 | 867 | 780 | 973 | 1,002 | No brake damage. RH brakes fully instrumented. Brake pedal bungee used. | |
| 23 | 61B | 104 | 22.18 20/35 Note 1 | 28.53 20/34 Note 1 | 26.59 20/22 Note 1 | 26.81 20/24 Note 1 | 104.11 | 768 | 1,016 | 904 | 1,016 | No brake damage. | |

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

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

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

| Miss. Seq. No. | STS- No. | Orb. OV- | Gross Brake Energies, Million ft.-lb, and Serial/Part Numbers | | | | Maximum Pressures, psia | | | | Remarks | | |
|----------------|----------|----------|---|------------------------------------|------------------------------------|------------------------------------|-------------------------|-------|------------|-------|---------|--|--|
| | | | Left Hand | | Right Hand | | Left Hand | | Right Hand | | | | |
| | | | Outboard Energy *PN/SN | Inboard Energy *PW/SN | Outboard Energy *PW/SN | Inboard Energy *PW/SN | Outbd | Inbd | Outbd | Inbd | | | |
| 24 | 61C | 102 | 24.06 20/32 Note 1 | 29.47 20/31 Minor damage | 33.92 20/21 Note 1 Damage | 32.07 20/33 Note 1 Damage | 119.52 | 1,032 | 1,136 | 1,176 | 1,224 | RH18 stator #3 had major cracks in beryllium due to over temperature. Brake pedal bungee used.** | |
| 25 | 51L | 099 | N/A | 20/43 Note 1 | N/A | 20/40 Note 1 | N/A | N/A | N/A | N/A | N/A | N/A | |
| 26 | 26 | 103 | 16.49 30/24 Note 1 | 14.89 30/22 Note 1 | 17.55 30/35 Note 1 | 19.36 30/34 Note 1 | 68.29 | 1,093 | 850 | 1,070 | 1,053 | No brake damage. RH brakes fully instrumented. Modifications: ** thick stator brake, stiffened axle, 6 brake orifices and A/S circuitry. | |
| 27 | 27 | 104 | 14.69 30/06 Note 1 | 15.28 30/07 Note 1 | 18.19 30/21 Note 1 | 17.55 30/44 Note 1 | 65.71 | 824 | 816 | 992 | 864 | No brake damage. | |
| 28 | 29 | 103 | 23.49 30/22 Note 1 | 22.09 30/24 Note 1 | 28.72 30/35 Note 1 | 29.49 30/34 Minor damage | 103.79 | 976 | 855 | 1,190 | 1,097 | Cracked rotor on RH08. RH brakes fully instrumented. | |
| 29 | 30 | 104 | 22.30 30/08 Note 1 | 24.18 30/16 Note 1 | 28.78 30/39 Note 1 | 26.41 30/42 Note 1 | 101.67 | 672 | 680 | 1,008 | 928 | No brake damage. | |
| 30 | 28 | 102 | 8.84 30/09 Note 1 | 8.06 30/17 Note 1 | 7.84 30/14 Note 1 | 9.06 30/18 Note 1 | 33.80 | 752 | 680 | 664 | 792 | No brake damage. | |
| 31 | 34 | 104 | 7.15 30/06 Note 1 Minor damage | 7.40 30/07 Note 1 | 7.16 30/21 Note 1 | 6.70 30/44 Minor damage | 28.41 | 720 | 736 | 672 | 768 | | |
| 32 | 33 | 103 | 33.44 30/08 Note 1 Damage | 30.96 30/16 Note 1 Damage | 34.47 30/35 Note 1 | 34.29 30/34 Note 1 | 133.16 | 1,200 | 1,116 | 1,097 | 1,060 | Rotor cracking and beryllium carbide found on LH brakes. RH brakes fully instrumented. | |

*Part Number/Serial Number

Note 1: PN MC621-0051-00XX, SN 971530000XX

Note 2: PN MC621-0051-00XX, SN 039530000XX

**Including subsequent flights.

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

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

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

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

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

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

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

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

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

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

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

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

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

SHUTTLE FLIGHT HISTORIES
LANDING AND FERRY

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

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

a p = peak

SHUTTLE FLIGHT HISTORIES
LANDING AND FERRY

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

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

SHUTTLE FLIGHT HISTORIES
LANDING AND FERRY

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

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

* P = peak

SHUTTLE FLIGHT HISTORIES
LANDING AND FERRY

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

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

SHUTTLE FLIGHT HISTORIES
LANDING AND FERRY

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

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

SHUTTLE FLIGHT HISTORIES
LANDING AND FERRY

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

a P = peak

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

**SHUTTLE FLIGHT HISTORIES
LANDING AND FERRY**

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

^a P = peak

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

SPACE SHUTTLE FLIGHT DURATIONS FOR THE ENTIRE FLEET

a) OV-102 Vehicle

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

b) OV-099 Vehicle

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

Notes:

- ^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 ENTIRE FLEET (Continued)

c) OV-103 Vehicle

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

d) OV-104 Vehicle

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

Notes:

- ^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 40 minutes is derived from an average of 8 minutes 30 seconds for ascent and an average of 31 minutes 30 seconds for the time from entry interface to landing.

SPACE SHUTTLE FLIGHT DURATIONS FOR ENTIRE FLEET (Concluded)

e) OV-105 Vehicle

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

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

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

Notes:

- ^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 40 minutes is derived from an average of 8 minutes 30 seconds for ascent and an average of 31 minutes 30 seconds for the time from entry interface to landing.

SHUTTLE FLIGHT HISTORIES
ORBITER MASS PROPERTIES

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

NA/DOB = Not Available/Department of Defense Mission

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

SHUTTLE FLIGHT HISTORIES
ORBITER MASS PROPERTIES

| Miss. Seq. No. | STS- No. | Orb. OV- | Lift-off Weight, lb | | | Pre-Deorbit burn Weight, lb | | | Entry Interface Weight, lb | | | Mach 3 Weight, lb | | | Landing Weight, lb | | | Ferry Weight, lb | | | | | | | | | |
|----------------|----------|----------|---------------------|------|-------|-----------------------------|------|-------|----------------------------|------|-------|-------------------|------|-------|--------------------|------|-------|------------------|---|---|-----------------|--|--|-----------------|------|-------|--|
| | | | CG X | Y | Z | CG X | Y | Z | CG X | Y | Z | CG X | Y | Z | CG X | Y | Z | CG X | Y | Z | | | | | | | |
| 12 | 41D | 103 | 1118.0 | 0.0 | 382.8 | 1100.0 | -0.1 | 376.6 | 1093.4 | -0.2 | 373.5 | 1090.7 | -0.1 | 372.6 | 1091.7 | -0.2 | 369.6 | 201,674.5 | | | 202,366 | | | 1121.8 | -0.2 | 373.8 | |
| 13 | 41G | 099 | 1119.0 | -0.1 | 381.7 | 1093.5 | -0.2 | 374.6 | 1085.4 | -0.2 | 371.9 | 1083.7 | -0.2 | 371.3 | 1084.8 | -0.1 | 368.4 | 202,266.1 | | | N/A KSC Landing | | | N/A KSC Landing | | | |
| 14 | 51A | 103 | 1120.9 | -0.1 | 382.6 | 1090.2 | -0.2 | 375.2 | 1083.4 | -0.2 | 372.5 | 1081.4 | -0.2 | 371.8 | 1082.6 | -0.1 | 369.1 | 207,505.7 | | | N/A KSC Landing | | | N/A KSC Landing | | | |
| 15 | 51C | 103 | NA/DOD | | | NA/DOD | | | NA/DOD | | | NA/DOD | | | NA/DOD | | | NA/DOD | | | N/A KSC Landing | | | N/A KSC Landing | | | |
| 16 | 51D | 103 | 1126.5 | -0.1 | 381.7 | 1110.6 | -0.2 | 377.0 | 1095.8 | -0.1 | 372.5 | 1092.7 | -0.1 | 371.3 | 1094.3 | -0.1 | 368.6 | 198,014.2 | | | N/A KSC Landing | | | N/A KSC Landing | | | |
| 17 | 51B | 099 | 1114.2 | -0.2 | 381.4 | 1096.7 | -0.3 | 378.0 | 1085.7 | -0.3 | 373.4 | 1084.1 | -0.3 | 372.8 | 1085.4 | -0.3 | 370.3 | 213,499.4 | | | | | | 213,363 | | | |
| 18 | 51G | 103 | 1109.6 | 0.2 | 379.6 | 1091.5 | -0.2 | 375.2 | 1084.3 | 0.0 | 372.2 | 1082.1 | 0.0 | 371.4 | 1083.7 | 0.0 | 368.8 | 204,169.4 | | | | | | 204,387 | | | |
| 19 | 51F | 099 | 1111.6 | -0.4 | 381.8 | 1091.1 | -0.5 | 376.3 | 1082.3 | -0.6 | 373.4 | 1079.8 | -0.6 | 372.5 | 1081.3 | -0.6 | 370.0 | 216,735.4 | | | | | | 217,564.7 | | | |
| 20 | 51I | 103 | 1121.3 | 0.5 | 382.5 | 1110.0 | 0.2 | 376.7 | 1094.4 | 0.2 | 371.9 | 1092.4 | 0.3 | 371.3 | 1094.2 | 0.3 | 368.5 | 196,674.4 | | | | | | 197,259.3 | | | |
| 21 | 51J | 104 | NA/DOD | | | NA/DOD | | | NA/DOD | | | NA/DOD | | | NA/DOD | | | NA/DOD | | | N/A KSC Landing | | | 191,623 | | | |
| 22 | 61A | 099 | 1109.0 | -0.1 | 380.4 | 1091.8 | -0.4 | 377.1 | 1085.5 | -0.4 | 374.2 | 1083.8 | -0.4 | 373.6 | 1085.2 | -0.4 | 371.1 | 214,171.4 | | | | | | 214,138.3 | | | |

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

SHUTTLE FLIGHT HISTORIES
ORBITER MASS PROPERTIES

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

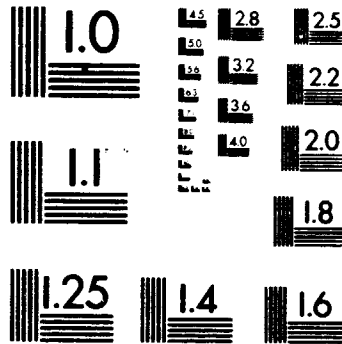
NA/DOD = Not Available/Department of Defense Mission

Source:

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

2 OF 7

N96-11129 UNCLAS



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

SHUTTLE FLIGHT HISTORIES
ORBITER MASS PROPERTIES

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

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

C-2

SHUTTLE FLIGHT HISTORIES
ORBITER MASS PROPERTIES

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

NA/DOO = Not Available/Department of Defense Mission

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

SHUTTLE FLIGHT HISTORIES
AUXILIARY POWER UNITS

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

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

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

SHUTTLE FLIGHT HISTORIES
AUXILIARY POWER UNITS

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

SHUTTLE FLIGHT HISTORIES
AUXILIARY POWER UNITS

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

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

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

SHUTTLE FLIGHT HISTORIES
AUXILIARY POWER UNITS

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

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

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

SHUTTLE FLIGHT HISTORIES
AUXILIARY POWER UNITS

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

^a Cumulative run time includes ground operating time for various tests.

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

SHUTTLE HISTORIES
APU SERIAL NUMBER/PART NUMBER MATRIX

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

SHUTTLE HISTORIES
APU SERIAL NUMBER/PART NUMBER MATRIX

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

SHUTTLE HISTORIES
APU SERIAL NUMBER/PART NUMBER MATRIX

| Miss. Seq. No. | STS- No. | Orb. CV- | SERIAL NUMBERS | | | | | | | | | | | | | | | | | | |
|----------------|----------|----------|----------------|-----|-----|-----|------|------|------|-----|------|------|-----|-----|------|------|------|------|------|------|------|
| | | | 203 | 204 | 205 | 206 | 207 | 208 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 | |
| 30 | 28 | 102 | | | | | | | | | | 0221 | | | 0221 | | | | 0201 | | |
| 31 | 34 | 104 | | | | | 0211 | | | | 0201 | | | | 0201 | | | | | | |
| 32 | 33 | 103 | | | | | | | | | | 0211 | | | | | 0201 | | 0201 | | 0201 |
| 33 | 32 | 102 | | | | | | | | | | 0221 | | | | 0221 | | | 0201 | | |
| 34 | 36 | 104 | | | | | 0211 | | | | 0201 | | | | 0201 | | | | | | |
| 35 | 31 | 103 | 0311 | | | | | | | | | | | | | | 0201 | | | | 0201 |
| 36 | 41 | 103 | 0311 | | | | | | 0301 | | | 0321 | | | | | | | | | |
| 37 | 38 | 104 | | | | | | 0271 | | | | | | | | | | | | 0201 | |
| 38 | 35 | 102 | | | | | | | | | | | | | | 0221 | | | | 0311 | |
| 39 | 37 | 104 | | | | | | 0271 | | | | | | | | | 0251 | | | | |
| 40 | 39 | 103 | 0311 | | | | | | 0301 | | | 0321 | | | | | 0251 | | | | |
| 41 | 40 | 102 | | | | | | | | | | | | | | | | 0201 | | | 0301 |
| 42 | 43 | 104 | | | | | | | | | | | | | | | 0251 | | | 0311 | |
| 43 | 48 | 103 | 0311 | | | | | | 0301 | | | | | | | | | | | | |
| 44 | 44 | 104 | 0311 | | | | | 0271 | | | | | | | | | | | | 0311 | |

SHUTTLE HISTORIES
APU SERIAL NUMBER/PART NUMBER MATRIX

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

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

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

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

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

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

| Miss. Seq. No. | STS- No. | Orb. OV- | System 1 | | | System 2 | | | System 3 | | | Additional comments (prior to or during flight) | | | | |
|----------------|----------|----------|----------|---------|---------------|------------------|---------|---------|---------------|---|---------|---|---------|---------------|--|---|
| | | | APU S/N | WSB S/N | Core load, lb | Lube oil cooling | APU S/N | WSB S/N | Core load, lb | Lube oil cooling | APU S/N | | WSB S/N | Core load, lb | Lube oil cooling | |
| 21 | 51J | 104 | 306 | 013 | 3.85 | OK | 307 | 015 | 3.85 | OK | 308 | 014 | 3.85 | OK | WSB'S replaced following this mission due to corrosion of core probably caused by introduction of "bad" water. | |
| 23 | 61B | 104 | 306 | 013 | 3.8 | OK | 307 | 015 | 3.78 | OK | 308 | 014 | 3.5 | OK | | |
| 27 | 27 | 104 | 307 | 016 | 3.5 | OK | 303 | 002 | 3.52 | OK | 207 | 004 | 3.52 | OK | | |
| 29 | 30 | 104 | 307 | 016 | 3.87 | OK | 303 | 002 | 3.87 | 265°F | 207 | 004 | 3.87 | OK | | |
| 31 | 34 | 104 | 307 | 016 | 3.75 | 265°F | 303 | 002 | 3.87 | Undercool | 207 | 004 | 3.87 | OK | | |
| 34 | 36 | 104 | 307 | 016 | 3.87 | OK | 303 | 002 | 3.87 | OK | 207 | 004 | 3.87 | OK | | |
| 37 | 38 | 104 | 305 | 016 | 3.87 | OK | 208 | 002 | 3.87 | 318°F | 311 | 004 | 3.87 | OK | | |
| 39 | 37 | 104 | 305 | 016 | 3.87 | OK | 208 | 018 | 3.87 | Undercool | 307 | 004 | 3.87 | 231°F & 211°F | | |
| | | | | | | | | | | 189°F | | | | Overcool | | APU GGVW leak testing started. APU GGVW 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. APU GGVW leak test conducted. Closed loop hot flushed APU/WSB 3. WSB 2 GM2 regulator removed and replaced. APU GGVW leak test conducted. APU/WSB 2 was hot flushed. WSB 2 H2O spray valves were removed and replaced. |
| 42 | 43 | 104 | 305 | 016 | 3.74 | OK | 208 | 018 | 3.85 | No Cooling 323°F = Ascent start at TAEM | 307 | 004 | 3.85 | OK | | |
| 35 | 44 | 104 | 203 | 016 | 3.75 | OK | 208 | 018 | 3.75 | OK | 307 | 004 | 3.75 | OK | | |

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

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

WATER SPRAY BOILER ABNORMAL COOLING INVESTIGATION

| Miss. Seq. No. | STS- No. | Orb. OV- | System 1 | | | System 2 | | | System 3 | | | Additional comments (prior to or during flight) | | | |
|----------------|----------|----------|----------|---------|---------------|--------------------|---------|---------|---------------|--------------------|---------|---|---------|--------------------|---|
| | | | APU S/N | MSB S/N | Core load, lb | Lube oil cooling | APU S/N | MSB S/N | Core load, lb | Lube oil cooling | APU S/N | | MSB S/N | Core load, lb | Lube oil cooling |
| 47 | | 105 | 303K 014 | 014 | 3.74 | 267°F Undercool | 401 | 017 | 3.74 | 263° undercool | 207K | 015 | 3.74 | OK | APU GGVN leak test conducted. First flight with three IAPU'S. All 3 WSB had minor temp overshoots at cooling initiate for ascent & entry. |
| 50 | 47 | 105 | 303K 014 | 014 | 3.74 | | 401 | 017 | 3.74 | 3.74 | 207K | 015 | 3.74 | 319°F | > ATP AP's. WSB's 1 and 3 were hot-flushed due to undercool exhibited on STS-47. |
| 53 | 54 | 105 | 303K 014 | 014 | 3.74 | OK | 401 | 017 | 3.74 | OK | 207K | 015 | 3.74 | 227°F undercool | |
| 56 | 57 | 105 | 303K 014 | 014 | 3.74 | OK | 401 | 017 | 3.74 | 267°F undercool | 207K | 015 | 5.00 | 278°F undercool | WSB 3 was preloaded to 5.0 +/- .1 lb. WSB's 1 and 2 were loaded as usual (3.75 +/- 0.25 lb). |

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

| Miss. Seq. No. | STS- No. | Orb. OV- | System 1 | | | System 2 | | | System 3 | | | Additional comments (prior to or during flight) | | | |
|----------------|----------|----------|----------|---------|---------------|------------------|---------|---------|---------------|---|---------|---|---------|-------------------|---|
| | | | APU S/N | MSB S/N | Core load, lb | Lube oil cooling | APU S/N | MSB S/N | Core load, lb | Lube oil cooling | APU S/N | | MSB S/N | Core load, lb | Lube oil cooling |
| 1 | 1 | 102 | 203 | 004 | 4.95 | OK | 207 | 003 | 5.04 | OK | 208 | 002 | 4.95 | 285°F Undercool | All vent orifices = 1.24" dia. |
| 2 | 2 | 102 | 203 | 004 | 5 | OK | 206 | 003 | 5 | OK | 208 | 002 | 5 | 325°F Undercool | All vent orifices = 1.24" dia. |
| 3 | 3 | 102 | 204 | 004 | 4 | OK | 206 | 003 | 3 | OK | 208 | 002 | 0+ | 350°F Undercool | High APU gearbox pressure - sys 1 & 3. |
| 4 | 4 | 102 | 204 | 004 | 5 | OK | 206 | 003 | 5 | OK | 208 | 002 | 5 | 275°F Undercool | All vent orifices = 1.24" dia. |
| 5 | 5 | 102 | 204 | 004 | 5 | 240°F Overcool | 206 | 003 | 5 | OK | 205 | 009 | 5 | OK | Vent orifices = 1.24" dia. (1,2) & .8" (3). |
| 9 | 9 | 102 | 204 | 004 | 5.02 | OK | 206 | 003 | 5.02 | OK | 205 | 009 | 5.02 | 288°F & Undercool | High APU gearbox pressure - sys 2. |
| 31 | 31 | 102 | 301 | 004* | 3.52 | OK | 203 | 003 | 3.52 | OK | 310 | 009 | 3.52 | OK | All vent orifices to 0.8" dia. |
| 32 | 32 | 102 | 311 | 013 | 3.75 | OK | 308 | 003 | 3.75 | OK | 304 | 009 | 3.75 | OK | |
| 33 | 33 | 102 | 311 | 013 | 3.5 | OK | 308 | 003 | 3.5 | OK | 304 | 009 | 3.83 | OK | |
| 38 | 38 | 102 | 310 | 013 | 3.61 | OK | 308 | 003 | 3.61 | Ascent spraying not required, 240°F maximum | 306 | 009 | 3.61 | 277°F Undercool | High APU gearbox pressure - sys 3. |
| 41 | 40 | 102 | 310 | 013 | 3.87 | OK | 312 | 003 | 3.87 | OK | 306 | 009 | 3.87 | OK | High APU gearbox pressure - sys 2. |
| 48 | 50 | 102 | 204K | 013 | 3.74 | 263°F Undercool | 402 | 003 | 3.74 | OK | 403 | 009 | 3.74 | OK | APU GOVM leak testing started. |
| 51 | 52 | 102 | | 013 | 3.74 | | | 003 | 3.74 | | | 002 | 3.74 | | MSB 2 hot flushed closed loop. |
| 55 | 55 | 102 | 407 | 013 | 3.75 | OK | 408 | 003 | 3.75 | OK | 403 | 002 | 3.75 | 277°F Undercool | MSB 2 hot flushed closed loop. |
| | | | | | | | | | | | | | | 226°F Overcool | APU/MSB 3 hot flushed closed loop. |
| | | | | | | | | | | | | | | | MSB 1, 2, 3 hot flushed closed loop. |
| | | | | | | | | | | | | | | | MSB 3 replaced due to water leakage from a pinhole through the MX core. |
| | | | | | | | | | | | | | | | Replacement MSB failed GM2 pressure decay test and was waived. |
| | | | | | | | | | | | | | | | System 2 regulator exhibited excessive internal leakage. MSB system 2 regulator was replaced with S/M 22 regulator. |

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

WATER SPRAY BOILER ANOMALOUS COOLING INVESTIGATION

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

Vent orifices found loose.

High APU gearbox pressure - sys 1.

SHUTTLE FLIGHT HISTORIES
FUEL CELLS

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

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

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

SHUTTLE FLIGHT HISTORIES
FUEL CELLS

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

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

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

SHUTTLE FLIGHT HISTORIES
FUEL CELLS

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

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

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

SHUTTLE FLIGHT HISTORIES
FUEL CELLS

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

Source: JSC/ZP5 Power Branch

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

SHUTTLE FLIGHT HISTORIES
FUEL CELLS

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

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

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

SHUTTLE FLIGHT HISTORIES
FUEL CELLS

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

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

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

SHUTTLE HISTORIES
FUEL CELL SERIAL NUMBER/PART NUMBER USAGE MATRIX

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

SHUTTLE HISTORIES
FUEL CELL SERIAL NUMBER/PART NUMBER USAGE MATRIX

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

SHUTTLE HISTORIES
FUEL CELL SERIAL NUMBER/PART NUMBER USAGE MATRIX

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

SHUTTLE HISTORIES
FUEL CELL SERIAL NUMBER/PART NUMBER USAGE MATRIX

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

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

SHUTTLE FLIGHT HISTORIES
ORBITER TIRES

| Miss. Seq. No. | STS- No. | Orb. OV- | Main Gear Tires - P ^N , Status, and SN | | | | Nose Gear Tires - P ^N , Status, and SN | | | | Remarks |
|----------------|----------|----------|---|--------------------------|--------------------------|--------------------------|---|--|------------|------------|---------|
| | | | Left Hand | | Right Hand | | Left Hand | | Right Hand | | |
| | | | Outboard | Inboard | Inboard | Outboard | Left Hand | Right Hand | Left Hand | Right Hand | |
| 1 | 1 | 102 | *=3 New 9338AK0836 | *=3 New 9332AK0837 | *=3 New 9335AK0875 | *=2 New 7007AK0805 | *=2 New 7007AK1089 | LHOB tire was cut. | | | |
| 2 | 2 | 102 | *=4 New 1082A00900 | *=4 New 1079A00454 | *=4 New 1075A00040 | *=2 Used 1 7007AK0805 | *=2 Used 1 7007AK1089 | Nominal tire wear. | | | |
| 3 | 3 | 102 | *=4 Used 1 1082A00900 | *=4 Used 1 1079A00454 | *=4 Used 1 1075A00040 | *=2 New 7007AK0156 | *=2 New 7007AK0804 | Nominal tire wear. | | | |
| 4 | 4 | 102 | *=4 New 1079A00874 | *=4 New 104200851 | *=4 New 1083A00037 | *=2 New 7007AK0795 | *=2 New 7007AK0131 | Nominal tire wear. | | | |
| 5 | 5 | 102 | *=4 Used 1 1079A00874 | *=4 Used 1 1042A00851 | *=4 New 1350A00468 | *=2 Used 1 7007AK0795 | *=2 Used 1 7007AK0131 | LH MLG tires had touchdown spot damage. LH1B tire was badly damaged. | | | |
| 6 | 6 | 099 | *=4 New 1079A00455 | *=4 New 1079A00453 | *=4 New 1077A00427 | *=2 New 7007AK0129 | *=2 New 7007AK0508 | Nominal tire wear. | | | |
| 7 | 7 | 099 | *=4 New 101A00463 | *=4 New 2208A00436 | *=4 New 2334A00472 | *=2 Used 1 7007AK0129 | *=2 Used 1 7007AK0508 | Nominal tire wear. | | | |
| 8 | 8 | 099 | *=4 New 2209A00465 | *=4 New 2300A01059 | *=4 New 2209A00464 | *=2 New 7076AK0650 | *=2 New 7076AK0651 | Nominal tire wear. | | | |
| 9 | 9 | 102 | *=4 New 2211A00439 | *=4 New 2302A00460 | *=4 New 2290A00435 | *=2 New 7006AK0035 | *=2 New 7006AK1034 | Nominal tire wear. | | | |
| 10 | 41B | 099 | *=4 New 2187A00444 | *=4 New 1348A00809 | *=4 Used 1 2209A00464 | *=2 Used 1 7076AK0650 | *=2 Used 1 7076AK0651 | MLG tires scuffed due to rough runway surface at KSC. | | | |
| 11 | 41C | 099 | *=4 New 2222A00490 | *=4 New 2187A01054 | *=4 New 2211A00442 | *=2 New 1232A01068 | *=2 New 1232A01067 | Nominal tire wear. | | | |

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

SHUTTLE FLIGHT HISTORIES
ORBITER TIRES

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

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

SHUTTLE FLIGHT HISTORIES
ORBITER TIRES

| Miss. Seq. No. | STS- No. | Orb. OV- | Main Gear Tires - PN ^a , Status, and SN | | | | Nose Gear Tires - PN ^a , Status, and SN | | | | Remarks |
|----------------|----------|----------|--|--------------------------|-----------------------|-----------------------|--|--------------------------|--|--------------------|---------|
| | | | Left Hand | | Right Hand | | Left Hand | | Right Hand | | |
| | | | Outboard | Inboard | Outboard | Inboard | Outboard | Left Hand | Right Hand | | |
| 22 | 61A | 099 | *=4 Used 1 2196A00963 | *=4 Used 1 4067A00704 | *=4 New 2188A00477 | *=4 New 4077A00767 | *=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 4077A00767 | *=4 New 4076A00756 | *=2 New 5141A00559 | *=2 New 5141A00703 | Nominal tire wear. | | |
| 24 | 61C | 102 | *=4 Used 1 4159A00665 | *=4 Used 1 4054A01123 | *=4 New 4077A00847 | *=4 New 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 | Nominal tire wear. | | |
| 26 | 26 | 103 | *=4 New 5169A00526 | *=4 New 5164A00474 | *=4 New 5170A00546 | *=4 New 5158A00661 | *=2 New 5150A00553 | *=2 New 5154A00055 | Nominal tire wear. | | |
| 27 | 27 | 104 | *=4 New 5142A00539 | *=4 New 5136A00649 | *=4 New 5165A00670 | *=4 New 5135A00434 | *=2 New 5149A01068 | *=2 New 5149A01069 | Nominal tire wear. LHIB tire had a leak of 1.4 psi/g/day at 70°F. | | |
| 28 | 29 | 103 | *=4 New 5129A00527 | *=4 New 5168A00539 | *=4 New 5133A00666 | *=4 New 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. | | |

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

SHUTTLE FLIGHT HISTORIES
ORBITER TIRES

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

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

^a MC194-0007-000*-03481

SHUTTLE FLIGHT HISTORIES
ORBIT ? 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 | Right Hand | Left Hand | |
| | | | Outboard | Inboard | Outboard | Inboard | | | | | |
| 43 | 48 | 103 | *=4 New 9215W00665 | *=4 New 9110W00555 | *=4 New 9210W00668 | *=4 New 9114W00346 | *=4 New 9114W00346 | *=6 New 1132W00625 | *=6 New 1132W00629 | All MLG tires had higher than expected wear, especially the LHIB tire. | |
| 44 | | 104 | *=4 New 9213W00616 | *=4 New 9212W00527 | *=4 New 9210W00046 | *=4 New 9216W00361 | *=4 New 9216W00361 | *=6 New 1133W00230 | *=6 New 1131W00625 | Nominal tire wear. | |
| 45 | 42 | 103 | *=4 New 9216W00836 | *=4 New 9110W00554 | *=4 New 9210W00007 | *=4 New 9217W00066 | *=4 New 9217W00066 | *=6 New 1130W00968 | *=6 New 1133W00636 | Nominal tire wear. | |
| 46 | 45 | 104 | *=4 New 9217W00366 | *=4 New 1274W00373 | *=4 New 9212W00063 | *=4 New 1274W00374 | *=4 New 1274W00374 | *=6 Used 1 1132W00629 | *=6 Used 1 1132W00625 | Nominal tire wear. | |
| 47 | 49 | 105 | *=4 New 1274W00375 | *=4 New 9214W00014 | *=4 New 1274W00710 | *=4 New 9210W00013 | *=4 New 9210W00013 | *=6 New 1134W00953 | *=6 New 1132W00626 | Nominal tire wear. | |
| 48 | 50 | 102 | *=5 New 2017W00080 | *=5 New 2022W00414 | *=5 New 2021W00417 | *=5 New 2016W00079 | *=5 New 2016W00079 | *=6 New 1132W00956 | *=6 New 1134W00956 | First flight of the new MLG commercial tread tires. Nominal tire wear. | |
| 49 | 46 | 104 | *=5 New 2021W00678 | *=5 New 2017W00241 | *=5 New 2022W00745 | *=5 New 2021W00010 | *=5 New 2021W00010 | *=6 New 1130W00968 | *=6 New 1133W00636 | Nominal tire wear. | |
| 50 | 47 | 105 | *=5 New 2016W00404 | *=5 New 2016W00081 | *=5 New 2016W00676 | *=5 New 2022W00070 | *=5 New 2022W00070 | *=6 New 1133W00969 | *=6 New 1135W00964 | Nominal tire wear. | |
| 51 | 52 | 102 | *=5 New 2020W00346 | *=5 New 2021W00011 | *=5 New 2017W00082 | *=5 New 2021W00414 | *=5 New 2021W00414 | *=6 New 1135W00960 | *=6 New 1132W00627 | Nominal tire wear. | |
| 52 | 53 | 103 | *=5 New 2020W00344 | *=5 New 2016W00675 | *=5 New 2020W00011 | *=5 New 2017W00405 | *=5 New 2017W00405 | *=6 New 1134W00455 | *=6 New 1130W00967 | Nominal tire wear. | |
| 53 | 54 | 105 | *=5 New 2143W00399 | *=5 New 2143W00731 | *=5 New 2022W00415 | *=5 New 2143W00730 | *=5 New 2143W00730 | *=6 New 1133W00967 | *=6 New 1130W00631 | A 0.3 in. diameter x 2 ply. deep half-moon shaped cut was found in the RHIB tire. | |

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

SHUTTLE FLIGHT HISTORIES
ORBITER TIRES

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

SHUTTLE HISTORIES
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

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

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

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

SHUTTLE HISTORIES
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

| Miss. Seq. No. | STS- No. | Orb. OV- | OMS Firing Nomenclature: Engines Used | | | | | | | | | | | | | Total Burn Time, sec LH/RH ΔV ft./sec. | Pod S/W LH/RH* | OMS Eng S/W LH/RH |
|----------------|----------|----------|---|------------------------------|-------------------------------|--------------------------------|-------------------------------|---------------------------------|------------------------------|--------------------------------|--------------------------------|------------------------------|------------------------------|--------------|------------|--|----------------|-------------------|
| | | | OMS-1 | OMS-2 | OMS-3 | OMS-4 | OMS-5 | OMS-6 | NSR | TI | NC-3A | TI-2 | Deorb | | | | | |
| | | | Burn Time, sec Delta Velocity, ft/sec | | | | | | | | | | | | | | | |
| 10 | 41B | 099 | OMS-1 2 150.2 247.0 | OMS-2 2 125.0 204.0 | OMS-3 1-RH 13.0 11.0 | OMS-4 1-LH 31.2 27.0 | OMS-5 1-LH 41.8 36.5 | OMS-6 1-LH 12.4 11.0 | NSR 2 12.4 11.0 | TI 1-RH 13.0 11.6 | NC-3A 1-RH 8.6 7.9 | TI-2 1-LH 6.2 6.2 | Deorb 2 168.2 216.0 | LP01 RP01 | 106 105 | | | |
| 11 | 41C | 099 | OMS-1 Dir. Insert. Not Perf. 148.6 | OMS-2 2 95.2 148.6 | NC-1 1-RH 14.3 11.4 | NSR 1-LH 11.7 9.4 | TI 1-RH 15.0 9.4 | NSR 2 144.0 231.1 | TI 1-LH 13.0 11.6 | NC-3A 1-RH 8.6 7.9 | TI-2 1-LH 6.2 6.2 | Deorb 2 243.0 460.6 | LP03 RP01 | 107 105 | | | | |
| 12 | 41D | 103 | OMS-1 2 153.5 237.3 | OMS-2 2 126.2 196.5 | OMS-3 1-LH 13.6 11.3 | OMS-4 2 8.6 15.1 | OMS-5 1-RH 12.2 11.0 | OMS-6 2 20.6 37.3 | Deorb 2 166.8 311.1 | | | | LP03 RP03 | 107 108 | | | | |
| 13 | 41G | 099 | OMS-1 2 134.5 224.9 | OMS-2 2 143.3 247.2 | OMS-3 2 50.6 90.5 | OMS-4 2 51.3 91.7 | OMS-5 2 19.3 35.0 | OMS-6 2 16.1 29.0 | Deorb 2 141.9 269.2 | | | | LP01 RP01 | 106 111 | | | | |
| 14 | 51A | 103 | OMS-1 2 151.0 235.9 | OMS-2 2 114.8 177.3 | NC-1 1-LH 11.2 8.9 | CIRC-1 1-RH 16.2 12.7 | A SEP 1-LH 13.6 11.0 | S SEP 2 8.6 15.2 | NSR 2 17.8 31.5 | NC-3-1 1-RH 13.4 12.0 | TI-1 1-RH 10.7 9.6 | NC-1-2 2 8.6 15.3 | TI-2 1-LH 11.7 10.5 | LP03 RP03 | 107 108 | | | |
| 15 | 51C | 103 | Data not available, Department of Defense Mission | | | | | | | | | | | | | LP03 RP03 | 107 108 | |
| 16 | 51D | 103 | OMS-1 Direct Insert Not Perf. 142.6 228.1 | OMS-2 2 142.6 228.1 | SEP-1 1-RH 13.4 11.0 | SEP-2 2 8.4 15.0 | RETRO 2 8.4 15.0 | NSR 1-LH 12.0 11.8 | NC-3 1-LH 12.8 11.5 | TI 1-LH 9.4 8.6 | SEP-II 1-LH 21.8 21.7 | Deorb 2 237.8 451.5 | LP03 RP03 | 107 106 | | | | |
| 17 | 51B | 099 | OMS-1 2 133.4 225.5 | OMS-2 2 145.2 243.3 | | | | | | | | | Deorb 2 265.4 470.4 | LP01 RP04 | 106 113 | | | |
| 18 | 51G | 103 | OMS-1 Dir Insert. Not Perf. 177.6 278.7 | OMS-2 2 177.6 278.7 | SEP-1 1-LH 13.4 11.0 | SEP-2 1-LH 13.0 11.0 | SEP-3 1-LH 12.6 11.0 | OMS-6 1-RH 111.8 100.0 | | | | | Deorb 2 150.4 279.3 | LP04 RP03 | 110 108 | | | |

SHUTTLE HISTORIES
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

| Miss. Seq. No. | STS- No. | Orb. OV- | OMS Firing Nomenclature Engines Used Burn Time, sec Delta Velocity, ft/sec | | | | | | | | | | | Total Burn Time, sec LH/RH AV ft/sec. | Pod S/W LH/RH* | OMS Eng S/W LH/RH | | |
|----------------|----------|----------|---|-----------------------------|---------------------------|---------------------------|-------------------------|-------------------------|-----------------|-------------------|-------------------|---------------------------|--------|---|----------------|------------------------------|--------------|------------|
| | | | ATO | OMS-2 | OMS-3 | OMS-4 | OMS-5 | OMS-6 | OMS-7 | OMS-8 | OMS-9 | OMS-10 | OMS-11 | | | | | |
| 19 | 51P | 099 | 2 106.4 | 2 119.4 35.0 193.7 | 2 57.4 | 2 45.1 75.2 | 2 15.2 25.6 | 2 3.4 5.8 | | | | | | | | Deorb 2 171.1 301.8 | LP01 RP04 | 106 113 |
| 20 | 51I | 103 | OMS-1 Dir Insert Not Perf. | 2 183.2 279.3 | 2 13.8 11.0 | 2 1-RH 13.2 11.0 | 2 10.6 15.0 | 2 40.2 35.7 | 2 9.6 8.7 | 2 26.4 47.6 | 2 19.4 17.6 | 2 15.0 13.7 15.0 | | | | Deorb 2 251.6 476.2 | LP04 RP03 | 110 108 |
| 21 | 51J | 104 | | | | | | | | | | | | | | | LP03 RP01 | 107 111 |
| 22 | 61A | 099 | OMS-1 2 121.2 195.7 | 2 131.6 221.5 | | | | | | | | | | | | Deorb 2 170.4 301.4 | LP01 RP03 | 106 108 |
| 23 | 61B | 104 | OMS-1 Dir Insert. Not Perf. | 2 180.4 278.1 | 2 13.8 11.0 | 2 RH 13.4 11.0 | 2 LH 16.0 14.1 | 2 RH 49.2 49.5 | | | | | | | | Deorb 2 169.0 314.0 | LP03 RP01 | 107 111 |
| 24 | 61C | 102 | OMS-1 2 164.2 265.5 | 2 134.6 217.5 | 2 1-LH 16.4 14.1 | | | | | | | | | | | Deorb 2 232.0 417.8 | LP04 RP04 | 110 113 |
| 25 | 51L | 099 | N/A | N/A | N/A | | | | | | | | | | | N/A | LV01 RV01 | 112 102 |
| 26 | 26 | 103 | OMS-1 Dir Insert. Not Perf. | 2 141.6 223.0 | 2 16.8 30.9 | 2 OMS-3 2 | | | | | | | | | | Deorb 2 168.0 325.0 | LP04 RP03 | 109 114 |

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

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

SHUTTLE HISTORIES
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

| Miss. Seq. No. | STS- No. | Orb. OV- | OMS Firing Nomenclature Engines Used | | | | | | | | | | Total Burn Time, sec LH/RH | Pod S/N LH/RH* | OMS Eng S/N LH/RH | | |
|----------------|----------|----------|--------------------------------------|--|------------------------|--|----------------------------------|--|----------------------------------|--|----------------------------------|--|----------------------------|----------------|------------------------------|--------------|------------|
| | | | Burn Time, sec | | Delta Velocity, ft/sec | | DOD MISSION - DATA NOT AVAILABLE | | DOD MISSION - DATA NOT AVAILABLE | | DOD MISSION - DATA NOT AVAILABLE | | | | | | |
| 27 | 27 | 104 | | | | | | | | | | | | | LP01 RP01 | 106 111 | |
| 28 | 29 | 103 | | | | | | | | | | | | | Deorb 2 161.4 313.0 | LP04 RP03 | 109 114 |
| 29 | 30 | 104 | | | | | | | | | | | | | Deorb 2 165.8 326.4 | LP01 RP01 | 106 111 |
| 30 | 28 | 102 | | | | | | | | | | | | | Deorb 2 N/A | LP03 RP04 | 105 108 |
| 31 | 34 | 104 | | | | | | | | | | | | | Deorb 2 168.0 321.1 | LP01 RP03 | 106 114 |
| 32 | 33 | 103 | | | | | | | | | | | | | Deorb 2 N/A | LP04 RP01 | 109 111 |
| 33 | 32 | 102 | | | | | | | | | | | | | Deorb 2 299.2 489.5 | LP03 RP04 | 105 108 |
| 34 | 36 | 104 | | | | | | | | | | | | | | LP01 RP03 | 106 114 |
| 35 | 31 | 103 | | | | | | | | | | | | | Deorb 2 290.5 573.5 | LP04 RP01 | 109 111 |

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

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

SHUTTLE HISTORIES
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

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

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

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

SHUTTLE HISTORIES
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

| Miss. Seq. No. | STS- No. | Orb. OV- | OMS Firing Nomenclature Engines Used Burn Time, sec Delta Velocity, ft/sec | | | | | | | | | | Total Burn Time, sec LH/RH ΔV ft/sec. | Pod S/N LH/RH* | OMS Eng S/N LH/RH | | | | | |
|----------------|----------|----------|---|------------------------------|----------------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------|---|-------------------|----------------------|--------------|--|-------------------------|--------------|------------|
| | | | OMS-1 Direct Insert. | OMS-2 2 183.8 286.1 | OMS-3 2 16.4 30.2 | OMS-4 1-RH 1-LH | OMS-5 2 45.9 72.4 | OMS-6 1-RH 1-LH | OMS-7 1-LH 1-RH | OMS-8 1-LH 1-RH | OMS-9 1-LH 1-RH | Deorbit 2 | | | | Deorbit 2 | | | | |
| 44 | 44 | 104 | | | | | | | | | | | | | | | | 382.5 382.5 671.9 | LP01 RP01 | 106 111 |
| 45 | 42 | 103 | | | | | | | | | | | | | | | | 337.4 337.4 574.1 | LP04 RP03 | 109 114 |
| 46 | 45 | 104 | | | | | | | | | | | | | | | | 380.0 365.0 672.6 | LP01 RP01 | 106 111 |
| 47 | 49 | 105 | | | | | | | | | | | | | | | | 380.2 386.4 655.9 | LP03 RP04 | 105 108 |
| 48 | 50 | 102 | | | | | | | | | | | | | | | | 375.0 375.0 613.5 | LP05 RP05 | 115 116 |
| 49 | 46 | 104 | | | | | | | | | | | | | | | | 555.4 555.4 935.3 | LP01 RP01 | 106 111 |
| 50 | 47 | 105 | | | | | | | | | | | | | | | | 311.4 311.4 524.2 | LP03 RP04 | 105 108 |
| 51 | 52 | 102 | | | | | | | | | | | | | | | | 467.3 292.7 639.8 | LP05 RP05 | 115 116 |
| 52 | 53 | 103 | | | | | | | | | | | | | | | | 403.6 416.3 736.9 | LP04 RP03 | 109 114 |

* These data were audited in January 1993.
** Single left engine; right pod crossfeed
Source: JSC/EP2, Propulsion Branch, In-house Mission Reports

SHUTTLE HISTORIES
ORBITAL MANEUVERING SYSTEM BURN DATA SUMMARY

| Miss. Seq. No. | STS- No. | Orb. OV- | OMS Firing Nomenclature Engines Used | | | | | | | | | | | | Total Burn Time, sec LH/RH AV ft./sec. | Pod S/N LH/RH* | OMS Eng S/N LH/RH | | | |
|----------------|----------|----------|---|------|-------|--|-------|--|----------------|--|------------------------|--|---------|--|--|-------------------|----------------------|-------------------------|--------------|------------|
| | | | OMS-2 | | OMS-3 | | OMS-4 | | Burn Time, sec | | Delta Velocity, ft/sec | | Deorbit | | | | | | | |
| 53 | 54 | 105 | 2 | 1 | 1 | | | | | | | | | | | | | 330.9 323.5 570.2 | LP03 RP04 | 105 108 |
| | | | 143.3 | 33.4 | 27.0 | | | | | | | | | | | | | 153.0 292.9 | | |
| | | | 222.0 | 30.4 | 24.9 | | | | | | | | | | | | | | | |
| 54 | 56 | 103 | 2 | 1 | | | | | | | | | | | | | | 356.1 364.1 639.1 | LP01 RP03 | 106 114 |
| | | | 148.8 | 8.0 | | | | | | | | | | | | | | 206.1 378.7 | | |
| | | | 253.6 | 6.8 | | | | | | | | | | | | | | | | |
| 55 | 55 | 102 | 2 | | | | | | | | | | | | | | | 316.9 316.9 512.4 | LP05 RP05 | 115 116 |
| | | | 140.2 | | | | | | | | | | | | | | | 172.9 290.2 | | |
| | | | 222.2 | | | | | | | | | | | | | | | | | |

* These data were audited in January 1993.

** Single left engine; right pod crossfeed

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

SHUTTLE FLIGHT HISTORIES
ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

| Miss. Seq. No. | STS-Orb. No. | Fuel, MSH | | | | | | | | | | | | Oxidizer, N ₂ O ₄ | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--------------|------------|------|-------|------|----------------------------|-----|-------|------|---------------|------|-------|------|---|------|-------|-----|------------|------|-------|------|----------------------------|------|-------|-------|---------------|----|-------|----|---------------|----|-------|----|----|--|----|--|
| | | Loaded, lb | | | | RCS Interconnect Usage, lb | | | | Residuals, lb | | | | OMS Usage, lb | | | | Loaded, lb | | | | RCS Interconnect Usage, lb | | | | Residuals, lb | | | | OMS Usage, lb | | | | | | | |
| | | LH | | RH | | LH | | RH | | LH | | RH | | LH | | RH | | LH | | RH | | LH | | RH | | LH | | RH | | LH | | RH | | LH | | RH | |
| | | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | Total | OH | | | | |
| 1 | 102 | 3197 | 3509 | 6706 | 274 | 279 | 553 | 372 | 798 | 1170 | 2551 | 2432 | 4983 | 5267 | 5781 | 11048 | 438 | 451 | 889 | 773 | 1369 | 2142 | 4056 | 3961 | 8017 | | | | | | | | | | | | |
| 2 | 102 | 3221 | 3466 | 6687 | 19 | 58 | 77 | 485 | 1010 | 1495 | 2717 | 2398 | 5115 | 5306 | 5711 | 11017 | 31 | 92 | 123 | 861 | 1435 | 2295 | 4414 | 4184 | 8598 | | | | | | | | | | | | |
| 3 | 102 | 3325 | 3325 | 6650 | 457 | 430 | 887 | 443 | 579 | 1022 | 2425 | 2316 | 4741 | 5477 | 5477 | 10954 | 731 | 687 | 1418 | 841 | 889 | 1730 | 3905 | 3901 | 7806 | | | | | | | | | | | | |
| 4 | 102 | 4232 | 4188 | 8420 | 268 | 415 | 683 | 716 | 668 | 1384 | 3248 | 3105 | 6353 | 6848 | 6764 | 13612 | 428 | 664 | 1092 | 977 | 933 | 1910 | 5443 | 5167 | 10610 | | | | | | | | | | | | |
| 5 | 102 | 3693 | 3737 | 7430 | 174 | 312 | 486 | 406 | 361 | 767 | 3113 | 3064 | 6177 | 6084 | 6168 | 12252 | 279 | 498 | 777 | 532 | 477 | 1009 | 5273 | 5193 | 10466 | | | | | | | | | | | | |
| 6 | 099 | 3660 | 3606 | 7266 | 0 | 93 | 93 | 377 | 359 | 736 | 3283 | 3154 | 6437 | 6042 | 5058 | 12000 | 0 | 150 | 150 | 613 | 504 | 1117 | 5429 | 5304 | 10733 | | | | | | | | | | | | |
| 7 | 099 | 3935 | 3935 | 7870 | 216 | 216 | 432 | 444 | 447 | 891 | 3275 | 3272 | 6547 | 6488 | 6488 | 12376 | 346 | 346 | 692 | 657 | 702 | 1359 | 5485 | 5440 | 10925 | | | | | | | | | | | | |
| 8 | 099 | 4125 | 4125 | 8250 | 0 | 0 | 0 | 575 | 575 | 1150 | 3550 | 3550 | 7100 | 6798 | 6798 | 13596 | 0 | 0 | 0 | 813 | 857 | 1670 | 5985 | 5941 | 11926 | | | | | | | | | | | | |
| 9 | 102 | 2976 | 2976 | 5952 | 347 | 347 | 694 | 343 | 323 | 666 | 2286 | 2306 | 4592 | 4901 | 4901 | 9802 | 554 | 554 | 1108 | 483 | 387 | 870 | 3864 | 3960 | 7824 | | | | | | | | | | | | |
| 10 | 41B | 099 | 4712 | 4576 | 9288 | 575 | 254 | 829 | 294 | 1323 | 3843 | 3293 | 7136 | 7743 | 7519 | 15262 | 920 | 405 | 1325 | 451 | 1570 | 2021 | 6372 | 5544 | 11916 | | | | | | | | | | | | |
| 11 | 41C | 099 | 4712 | 4712 | 9424 | 598 | 440 | 1038 | 562 | 526 | 1088 | 3552 | 3746 | 7494 | 7743 | 15486 | 757 | 703 | 1660 | 584 | 527 | 1111 | 6202 | 6513 | 12715 | | | | | | | | | | | | |
| 12 | 41D | 103 | 4485 | 4485 | 8970 | 0 | 140 | 140 | 980 | 896 | 1876 | 3505 | 3449 | 6954 | 7370 | 14740 | 0 | 223 | 223 | 1464 | 1253 | 2717 | 5906 | 5894 | 11800 | | | | | | | | | | | | |
| 13 | 41G | 099 | 4712 | 4712 | 9424 | 214 | 217 | 421 | 560 | 529 | 1089 | 3938 | 3976 | 7914 | 7743 | 15486 | 341 | 330 | 671 | 656 | 773 | 1429 | 6746 | 6640 | 13386 | | | | | | | | | | | | |
| 14 | 51A | 103 | 4712 | 4712 | 9424 | 502 | 475 | 977 | 305 | 433 | 738 | 3004 | 2804 | 7709 | 7744 | 15488 | 804 | 759 | 1563 | 493 | 510 | 1003 | 6447 | 6475 | 12922 | | | | | | | | | | | | |
| 15 | 51C | 103 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Department of Defense Mission - Data not available

ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

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

ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

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

ORBITAL MANEUVERING SYSTEM - PROPELLANT USAGE SUMMARY

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

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

SHUTTLE HISTORIES
REACTION CONTROL SYSTEM VERNIER THRUSTERS
CONFIGURATION AND USAGE SUMMARY

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

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

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

OMS/RCS PODS AND FLIGHT ASSIGNMENTS

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

SHUTTLE HISTORIES
EXTRAVEHICULAR ACTIVITIES

| Flight | STS-1 | STS-2 | STS-3 | STS-4 | STS-5 | STS-6 | STS-7 | STS-8 | STS-9 | STS-41B | STS-41C | STS-41D |
|--|------------------------------------|------------------------------------|------------------------------------|-----------------------------------|----------------------------------|----------------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------------|-----------------------------------|-------------------------------|
| Plt. no. Orbiter no/fit EVA schedule | 1 OV-102-1 None scheduled | 2 OV-102-2 None scheduled | 3 OV-102-3 None scheduled | 4 OV-102- None scheduled | OV-102-5 One EVA scheduled | OV-099-1 One EVA scheduled | OV-099-2 None scheduled | OV-099-3 None scheduled | OV-102-6 None scheduled | OV-099-4 Two EVA's scheduled | V-099-5 Two EVA's scheduled | OV-103-1 None scheduled |
| EVA 1 Vacuum Battery Official | | | | | Not performed | 4/7/83 3:58 4:19 | | | | 2/7/84 5:35 5:55 | 4/8/84 2:50 2:57 | |
| EVA 2 Vacuum Battery Official | | | | | | | | | | 2/9/84 6:02 6:17 | 4/11/84 7:07 6:18,6:05 | |
| EVA 3 Vacuum Battery Official | | | | | | | | | | | | |
| EVA 4 Vacuum Battery Official | | | | | | | | | | | | |
| EV1 EV2 | Young Crippen | Engle Truly | Loussa Fullerton | Mattingly Hartsfield | Lenoir Allen | Musgrave Peterson | Thagard Fabian | Gardner Truly | Young Garrriott | McCandless Stewart | Nelson Von Hofen | Mullane Hawley |
| EV1 EMU EV2 EMU B/U EMU | 1002 1003 | 1009 1010 | 1012 1013 | 1019 1016 | 1023 1022 | 1026 1024 1025 | 1028 1027 | 1031 1032 | 1037 1036 | 1040 1038 1041 | 1043 1044 1045 | 1046 1048 |
| EV1 PLSS EV2 PLSS B/U PLSS | 1003 1005 | 1006 1005 | 1006 1005 | 1006 1005 | 1006 1005 | 1003 1005 1006 | 1005 1003 | 1005 1006 | 1008 1007 | 1008 1009 1007 | 1008 1009 1007 | 1006 1010 |
| EV1 SOP EV2 SOP B/U SOP | 1003 1004 | 1006 1004 | 1005 1004 | 1005 1004 | 1003 1005 | 1003 1007 1006 | 1007 1003 | 1007 1006 | 1008 1005 | 1003 1006 1010 | 1003 1006 1010 | 1005 1007 |
| EV1 DCH EV2 DCH B/U DCH | 1004 1002 | 1006 1005 | 1004 1005 | 1007 1002 | 1005 1002 | 1006 1007 1005 | 1007 1006 | 1007 1002 | 1004 1005 | 1004 1009 1005 | 1004 1009 1005 | 1008 1011 |
| EV1 SCU EV2 SCU | 1004 1005 | 1004 1005 | 1004 1005 | 1005 1004 | 1005 1004 | 1006 1007 | 1007 1006 | 1006 1007 | 1004 1005 | 1009 1010 | 1006 1007 | 1006 1007 |

SHUTTLE HISTORIES
EXTRAVEHICULAR ACTIVITIES

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

SHUTTLE HISTORIES
EXTRAVEHICULAR ACTIVITIES

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

SHUTTLE HISTORIES
EXTRAVEHICULAR ACTIVITIES

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

SHUTTLE HISTORIES
EXTRAVEHICULAR ACTIVITIES

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

SHUTTLE HISTORIES
REMOTE MANIPULATOR SYSTEM

| Miss. Seq. No. | STS No. | Orb. OV- | Major RMS LRU Serial Numbers | | | | | RMS Major Usage Matrix | | | | | Contingency Usage/Remarks | | | | | | | | | |
|----------------|---------|----------|------------------------------|-----|---------------|---------|-----|------------------------|-----|-----------------------|--------------|-------|---------------------------|---------------|--------------|-----------------|--|--|--|-------|-------|--|
| | | | ATB | EE | MCIU | Dec PNL | THC | RHC | TPS | H ₂ O Dump | SAT PPH Burn | Other | | MFR | Deploy/Barth | Retrieve/Repair | | | | | | |
| 1 | 1 | 102 | | | RMS NOT FLOWN | | | | | | | | | | | | | | | | | |
| 2 | 2 | 102 | 201 | 201 | 201 | 203 | 203 | 202 | | | | | | | | | | | Shoulder yaw joint failed in backup mode. | | | |
| 3 | 3 | 102 | 201 | 201 | 201 | 203 | 203 | 202 | X | | | | | PDP (d,b) | | | | | RMS wrist camera failed, unable to gaggle IECA. | | | |
| 4 | 4 | 102 | 201 | 201 | 201 | 203 | 203 | 202 | | | | | | IECA (d,b) | | | | | End effector flags showed incorrect status due to broken wiring. | | | |
| 5 | 5 | 102 | | | RMS NOT FLOWN | | | | | | | | | | | | | | | | | |
| 6 | 6 | 099 | | | RMS NOT FLOWN | | | | | | | | | | | | | | | | | |
| 7 | 7 | 099 | 201 | 301 | 301 | 301 | 301 | 202 | | | | | | SPAS-01 (d,b) | | | | | | 3,192 | | |
| 8 | 8 | 099 | 201 | 301 | 301 | 301 | 301 | 202 | | | | | | PFTA (d,b) | | | | | | | 7,350 | |
| 9 | 9 | 102 | | | RMS NOT FLOWN | | | | | | | | | | | | | | | | | |
| 10 | 41B | 099 | 201 | 301 | 301 | 301 | 301 | 202 | | | | | | | | | | | | | | |
| 11 | 41C | 099 | 302 | 302 | 301 | 301 | 301 | 202 | | | X | | | | | | | | | | | |
| 12 | 41D | 103 | 301 | 201 | 303 | 302 | 302 | 301 | X | X | | | | | | | | | | | | |

SPAS-1 (RSC) Flight Hardware Allocation Reports

SHUTTLE HISTORIES
REMOTE MANIPULATOR SYSTEM

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

SPAR-1 (KSC) Flight Hardware Allocation Reports

SHUTTLE HISTORIES
REMOTE MANIPULATOR SYSTEM

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

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

SHUTTLE HISTORIES
REMOT. MANIPULATOR SYSTEM

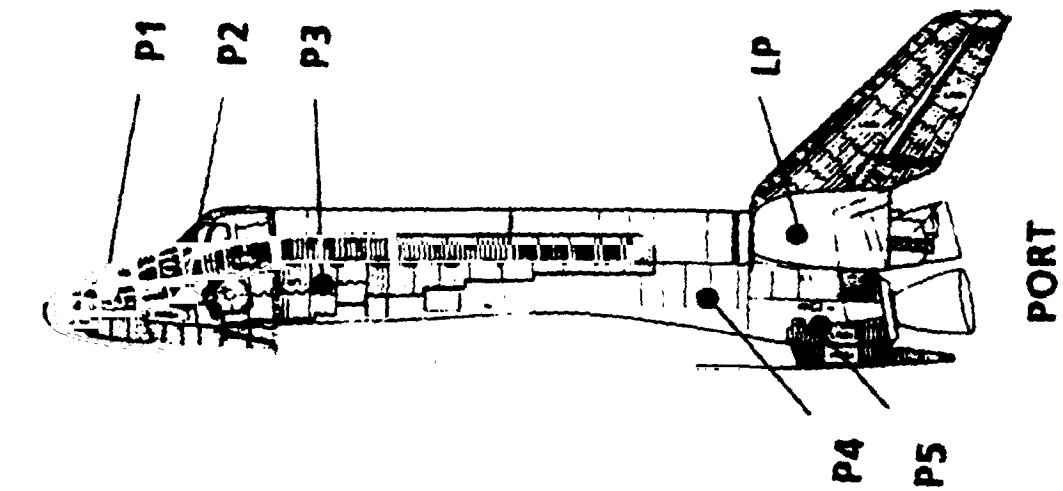
| Miss. Seq. No. | STS- No. | Orb. OV- | Major RMS LRU Serial Numbers | | | | Major RMS Usage Matrix | | | | Contingency Usage/Remarks | | |
|----------------|----------|----------|------------------------------|------|---------|----------------------------------|------------------------|--------------|------------|-----|---------------------------|-------------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

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

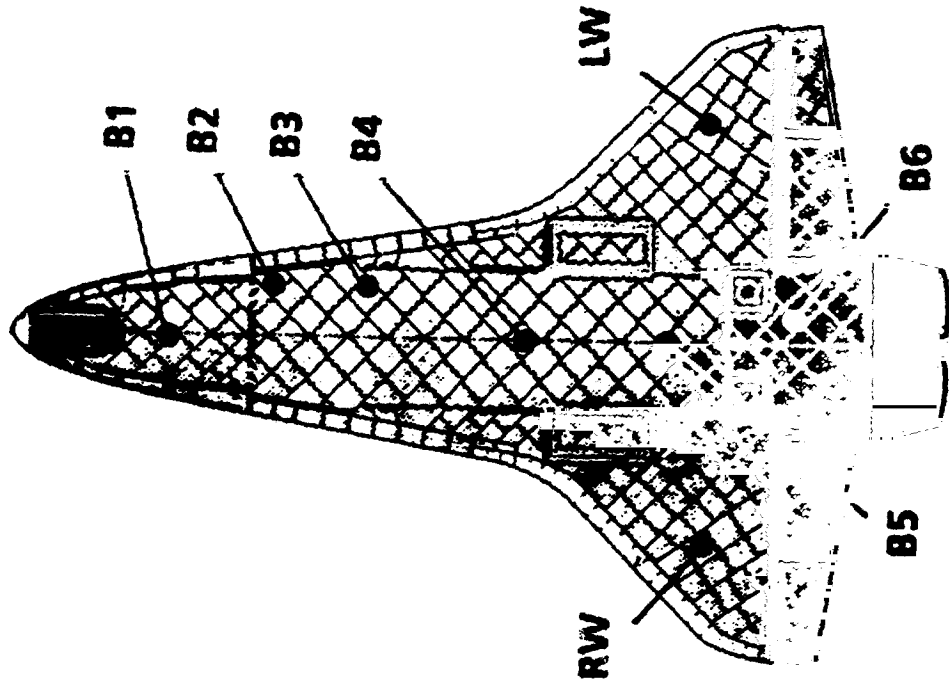
SHUTTLE HISTORIES
REMOTE MANIPULATOR SYSTEM

| Miss. Seq. No. | STS No. | Orb. OV- | Major RMS LRU Serial Numbers | | | | RMS Major Usage Matrix | | | | | | | Mass Handled by RMS, lb | Contingency Usage/Remarks | | | | |
|----------------|---------|----------|------------------------------|-----|----------------------|-----|------------------------|------------|------------|-----|-----------------------|--------------|-------|-------------------------|---------------------------|--------------------------|-------------------------------------|-------|---------------------------|
| | | | Arm | EE | MCIU | DEC | THC | RHC | TV Surveys | | | Satellite | | | | Miscellaneous Activities | | | |
| | | | | | | | | | | TPS | H ₂ O Dump | SAT PRM Burn | Other | MFR | Deploy/Berth | | Retrieve/Repair | | |
| 48 | 50 | 102 | | | | | | | | | | | | | | | | | |
| 49 | 46 | 104 | 201 | 303 | 403 | 302 | 302 | 302 | 302 | | | | | | EURECA | | Water Dump Survey | 9,832 | Overnight park |
| 50 | 47 | 105 | 303 | 401 | 404 | 202 | 303 | 303 | 301 | | | | | | | | | 0 | Never uncradled |
| 51 | 52 | 102 | 301 | 402 | 406 | 203 | 202 | 303 | 303 | | | | | | CANEX-2 CTA | | MELBO SPIE OGLW-2 PRM Monitor | 150 | |
| 52 | 53 | 103 | | | | | | | | | | | | | | | | | |
| 53 | 54 | 105 | | | 404 | 202 | 303 | 303 | 301 | | | | | | | | | | |
| 54 | 56 | 103 | 201 | 403 | 405/ 407 spare | 203 | 203 | 303/ KI | 303/ KI | | | | | | SPARTAN -201 | SPARTAN -201 | Water Dump Survey | 2,713 | Deployed and retrieved |
| 55 | 55 | 102 | | | | | | | | | | | | | | | | | |

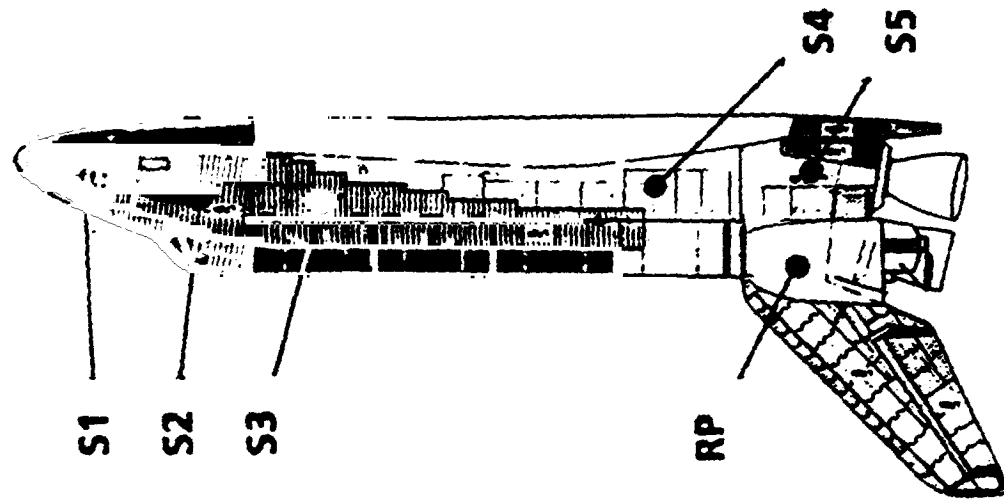
SPAR-1 (KSC) Flight Hardware Allocation Reports
JSC/VP12 RMS Operations Office



PORT



BOTTOM



STARBOARD

Normal operation subsystem temperature sensor locations

SHUTTLE HISTORIES
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

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

Source: NASA - JSC - ES3

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

N/A = No data

SHUTTLE HISTORIES
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

| Miss. Seq. No. | STS-Orb. No. OV- | ORBITER STRUCTURE MAXIMUM TEMPERATURES DURING ENTRY | | | | | | | | | | | | | | | | | | Orb Pods | | | | |
|----------------|------------------|---|-----|-----|-----|-----|-----|----------|-----|-----|-----------|-----|-----|-----|-----|-----|----------------|-----|-----|----------|-----|-----|----|----|
| | | Lower surface | | | | | | LMR Wing | | | Port Side | | | | | | Starboard Side | | | | | | LP | RP |
| | | B1 | B2 | B3 | B4 | B5 | B6 | LM | RM | P1 | P2 | P3 | P4 | P5 | S1 | S2 | S3 | S4 | S5 | | | | | |
| 16 | 51D | 103 | 138 | 183 | 171 | 149 | 170 | 178 | 111 | 107 | 170 | 117 | 88 | 46 | N/A | 130 | 97 | 87 | 49 | 65 | 65 | 60 | | |
| 17 | 51B* | 099 | 125 | 185 | 175 | 161 | 156 | 154 | 114 | 117 | 162 | 112 | 178 | 62 | 70 | 156 | 125 | 183 | 62 | 73 | 153 | 62 | | |
| 18 | 51G | 103 | 130 | 170 | 161 | 146 | 167 | 177 | 112 | 114 | 175 | 112 | 88 | 46 | N/A | 148 | 114 | 96 | 47 | 59 | 70 | 67 | | |
| 19 | 51P* | 099 | 120 | 177 | 171 | 170 | 175 | 167 | 140 | 146 | 138 | 101 | 189 | 86 | 85 | 148 | 122 | 194 | 98 | 101 | 161 | 73 | | |
| 20 | 51I | 103 | 130 | 169 | 159 | 143 | 162 | 175 | 107 | 112 | 164 | 101 | 80 | 40 | N/A | 136 | 98 | 86 | 39 | 57 | 65 | 60 | | |
| 21 | 51J | 104 | 123 | 164 | 158 | 133 | 153 | 175 | 101 | 117 | 111 | 80 | 76 | 42 | 57 | 137 | 107 | 83 | 37 | 55 | 55 | 52 | | |
| 22 | 61A* | 099 | 143 | 200 | 196 | 185 | 191 | 178 | 130 | 143 | 127 | 112 | 191 | 78 | 88 | 175 | 172 | 236 | 124 | 117 | N/A | 76 | | |
| 23 | 61B | 104 | 125 | 159 | 159 | 143 | 170 | 207 | 101 | 125 | 117 | 83 | 73 | 41 | 60 | 154 | 138 | 112 | 57 | 68 | 60 | 60 | | |
| 24 | 61C | 102 | 127 | 196 | 186 | 159 | 188 | 186 | 122 | 112 | 167 | 140 | 127 | 63 | 83 | 125 | N/A | 143 | 47 | 73 | 62 | 55 | | |
| 25 | 51L | 099 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | | |
| 26 | 26 | 103 | 124 | 167 | 149 | 122 | 164 | 169 | 114 | 11' | 151 | 96 | 83 | 52 | 60 | 175 | 104 | 78 | 42 | 55 | 57 | 70 | | |
| 27 | 27* | 104 | 175 | 220 | 212 | 188 | 207 | 209 | 146 | 164 | 122 | 102 | 101 | 49 | 62 | 182 | 185 | 143 | 96 | 96 | 70 | 81 | | |
| 28 | 29 | 103 | 148 | 188 | 165 | 138 | 177 | 175 | 114 | 112 | 156 | 104 | 83 | 34 | 52 | 153 | 107 | 78 | 32 | 47 | 57 | 65 | | |
| 29 | 30 | 104 | 122 | 161 | 149 | 127 | 149 | 170 | 122 | 117 | 138 | 88 | 78 | 47 | 38 | 163 | 117 | 96 | 47 | 60 | 78 | 62 | | |
| 30 | 28 | 102* | 125 | 183 | 196 | 186 | 225 | 206 | 138 | 125 | 137 | 112 | 89 | 55 | 78 | 167 | N/A | 112 | 62 | 76 | 83 | 83 | | |

Source: NASA - JSC - 883

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

N/A = No data

SHUTTLE HISTORIES
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

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

Source: NASA - JSC - ES3

* - High inclination orbit entry
(higher temperatures expected)

† - High TPS roughness
(Higher temperatures expected)

N/A = No data

SHUTTLE HISTORIES
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

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

Source: NASA - JSC - ES3

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

N/A = No data

SHUTTLE HISTORIES
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

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

Source: NASA - JSC - ES3

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

N/A = Not Available

SHUTTLE HISTORIES
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

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

Source: NASA - JSC - ES3

- High Inclination Orbit Entry
(Higher Temperatures Expected)

N/A = Not Available

SHUTTLE HISTORIES
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

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

Source: NASA - JSC - ES3

N/A = Not Available
 * - High Inclination Orbit Entry
 (Higher Temperatures Expected)
 0 - High TPS Roughness
 (Higher Temperatures Expected)

SHUTTLE HISTORIES
THERMAL PROTECTION SYSTEM - ENTRY TEMPERATURES

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

Source: NASA - JSC - ES3

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

N/A = Not Available

DEBRIS IMPACT DAMAGE TO ORBITER THERMAL PROTECTION SYSTEM

| Miss. Seq. No. | STS No. | Orb. OV- | Lower surface > 1" Tot. | | Upper surface > 1" Tot. | | Right (STRD) side > 1" Tot. | | Left (Port) side > 1" Tot. | | Right OMS > 1" Tot. | | Left OMS > 1" Tot. | | Overall > 1" Tot. | |
|----------------|---------|----------|-------------------------|------|-------------------------|---|-----------------------------|------|----------------------------|------|---------------------|------|--------------------|------|-------------------|-----|
| | | | > 1" Tot. | Tot. | > 1" Tot. | Tot. | > 1" Tot. | Tot. | > 1" Tot. | Tot. | > 1" Tot. | Tot. | > 1" Tot. | Tot. | | |
| 1 | 1 | 102 | | | 247 | TILE REPLACED BECAUSE OF IN-FLIGHT DAMAGE | | | | | | | | | | 247 |
| 2 | 2 | 102 | | | 109 | TILE REPLACED BECAUSE OF IN-FLIGHT DAMAGE | | | | | | | | | | 109 |
| 3 | 3 | 102 | | | 113 | TILE REPLACED BECAUSE OF IN-FLIGHT DAMAGE | | | | | | | | | | 113 |
| 4 | 4 | 102 | | | 122 | TILE REPLACED BECAUSE OF IN-FLIGHT DAMAGE | | | | | | | | | | 122 |
| 5 | 5 | 102 | | | 161 | TILE REPLACED BECAUSE OF IN-FLIGHT DAMAGE | | | | | | | | | | 161 |
| 6 | 6 | 099 | 21 | 89 | 5 | 13 | 8 | 16 | 2 | 2 | N/A | N/A | N/A | N/A | 36 | 120 |
| 7 | 7 | 099 | 41 | 153 | N/A | N/A | 4 | 56 | 0 | 16 | 2 | 18 | 1 | 10 | 48 | 253 |
| 8 | 8 | 099 | 3 | 29 | 0 | 4 | 0 | 7 | 0 | 9 | 0 | 3 | 4 | 4 | 7 | 56 |
| 9 | 9 | 102 | 9 | 49 | 1 | 5 | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | 14 | 58 |
| 10 | 10 | 099 | 11 | 19 | 11 | 25 | 2 | 5 | 5 | 7 | 0 | 2 | 5 | 5 | 34 | 63 |
| 11 | 11 | 099 | 5 | 27 | 3 | 5 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 8 | 36 |
| 12 | 12 | 099 | 10 | 44 | 2 | 5 | 6 | 14 | 0 | 0 | 10 | 40 | 3 | 8 | 31 | 111 |
| 13 | 13 | 099 | 25 | 69 | 2 | 40 | 2 | 11 | 1 | 10 | 2 | 15 | 4 | 9 | 36 | 154 |
| 14 | 14 | 103 | 14 | 66 | 1 | 8 | 0 | 1 | 0 | 0 | 4 | 9 | 1 | 3 | 20 | 87 |
| 15 | 15 | 103 | 24 | 67 | N/A | N/A | 1 | 5 | 0 | 0 | 2 | 2 | 1 | 7 | 28 | 81 |

Source: KSC/RIC Launch Support Operations

Legend: N/A = Not available

DEBRIS IMPACT DAMAGE TO ORBITER THERMAL PROTECTION SYSTEM

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

DEBRIS IMPACT DAMAGE TO ORBITER THERMAL PROTECTION SYSTEM

| Miss. Seq. No. | STS-Orb. OV- No. | Location and size of debris hits | | | | | | | | | | | | | | |
|----------------|------------------|----------------------------------|-----------|---------------|-----------|-------------------|-----------|-------------|-----------|-----------|-----------|-----------|-----------|-----------|----|-----|
| | | Lower surface | | Upper surface | | Right (STBD) side | | Left (Port) | | Right OMS | | Left OMS | | Overall | | |
| | | > 1" Tot. | > 1" Tot. | > 1" Tot. | > 1" Tot. | > 1" Tot. | > 1" Tot. | > 1" Tot. | > 1" Tot. | > 1" Tot. | > 1" Tot. | > 1" Tot. | > 1" Tot. | > 1" Tot. | | |
| 30 | 28 | 102 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 |

Source: KSC/RIC Launch Support Operations

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

SHUTTLE HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

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

SHUTTLE HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

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

SHUTTLE HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

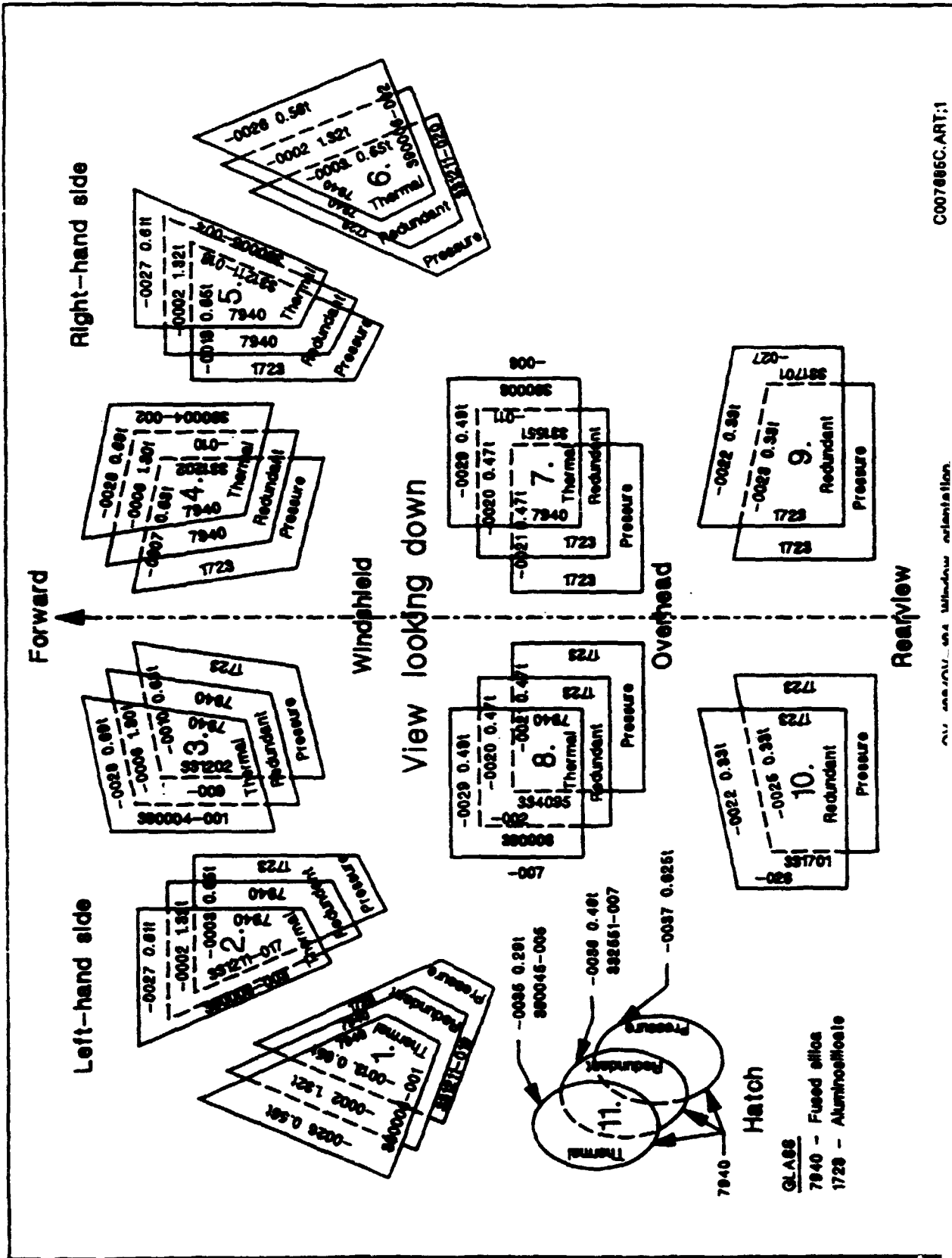
| Miss. Seq. No. | STS-Orb. OV-Flt. | PROBLEMS | Related Inflight Anomaly |
|----------------|------------------|--|------------------------------|
| 21 | 51J 104 1 | o Lost gap filler on left inboard elevon caused severe damage to 2 tile carrier panels and seal panel. o 2 tile carrier panels. | STS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

SHUTTLE HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

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

SHUTTLE HISTORIES
ORBITER THERMAL PROTECTION SYSTEM SIGNIFICANT PROBLEMS

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



C007886C.ART:1

VIEW ORIENTATION AND WINDOW ORIENTATION

WINDOW DATA

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

WINDOW DATA

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

WINDOW DATA

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

WINDOW DATA

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

WINDOW DATA

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

WINDOW DATA

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

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

| Miss. Seq. No. | STS- No. | Orb. OV- | ASCENT EVENTS & PERFORMANCE DATA | | | | | | | | | | ENTRY & POST-LANDING EVENTS AND PERFORMANCE DATA | | | | | | | | | |
|----------------|----------|----------|----------------------------------|---------------------|--------------------|----------------------|--------------------------|---------------------------|-----------------------|-------------------------|------------------|-----------------|--|-----------------------|------------------------|------------------------|-----------------------------------|-------------------------------------|--|--|--|--|
| | | | FES Start, MET h:m | RAD. Start, MET h:m | PLSD Open, MET h:m | Deploy RAD., MET h:m | H/L FES Inhibit, MET h:m | FES Start, Out-Temp., of. | MAX FES In Temp., of. | Start RAD. Flow, + TD-M | RAD Flow Time, M | ABS Start, TD/M | Start GSE Cooling TD-M | Start PLB Purge, TD-M | Avg RAD. In Temp., of. | Max FCA Out Temp., of. | NH ₃ Quan At Start, lb | NH ₃ Quan At Cooling, lb | | | | |
| 1 | 1 | 102 | 2:16 | 1:10 | 1:52 | 1:56 | 2:10 | 94 | 115 | +1 | 15 | -9 | 15 | 103 | 64 | 102 | 72 | | | | | |
| 2 | 2 | 102 | 2:19 | 1:17 | 2:15 | 2:21 | 2:25 | 97 | 120 | -8 | 36 | +9 | 27 | 98 | 71 | 98 | 80 | | | | | |
| 3 | 3 | 102 | 2:13 | 1:31 | 2:38 | 2:42 | 2:43 | 97 | 117 | -11 | 50 | +8 | 35 | 103 | 74 | 98 | 80 | | | | | |
| 4 | 4 | 102 | 2:16 | 0:57 | 2:01 | PDOP | 2:30 | 99 | 118 | -10 | >140 | +12 | 30 | 97 | 68 | 99 | 85 | | | | | |
| 5 | 5 | 102 | 2:21 | 1:15 | 1:34 | PDOP | 1:59 | >100 | 117 | -11 | 45 | +16 | 28 | 100 | 66 | 98 | 87 | | | | | |
| 6 | 6 | 099 | 2:13 | 1:14 | 1:45 | NP | 2:01 | 94 | 104 | -11 | 61 | +11 | 25 | 87 | 67 | 95 | 81 | | | | | |
| 7 | 7 | 099 | 2:10 | 1:09 | 1:24 | NP | 1:51 | 95 | 106 | -11 | 52 | +12 | DNA | 92 | 68 | 95 | 65 | | | | | |
| 8 | 8 | 099 | 2:10 | 1:10 | 1:28 | 2:30 | 1:40 | 95 | 106 | -11 | 78 | +14 | 20 | 89 | 64 | 96 | 91 | | | | | |
| 9 | 9 | 102 | 2:15 | 1:05 | 1:29 | 1:38 | 1:41 | 91 | 108 | -11 | 56 | -10 | 21 | 94 | 82 | 98 | 71 | | | | | |
| 10 | 41B | 099 | 2:12 | 1:16 | 1:30 | NP | 1:40 | 88 | 101 | -11 | >140 | +15 | 27 | 90 | >69 | 96 | 86 | | | | | |
| 11 | 41C | 099 | | 1:06 | 1:28 | PDOP | 1:40 | 88 | 101 | -11 | 30 | -8 | DNA | 85 | 54 | 100 | 86 | | | | | |
| 12 | 41D | 103 | | 1:12 | 1:33 | NP | 1:46 | 55 | 99 | -11 | 54 | +12 | 34 | 86 | >58 | 98 | 87 | | | | | |
| 13 | 41G | 099 | 2:10 | 1:08 | 1:18 | NP | 1:26 | 83 | 102 | -11 | >180 | -7 | 32 | 88 | >75 | 97 | 72 | | | | | |

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

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

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

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

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

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

Legend: PDOP = Performed during orbit period
 NP = Not performed
 DMA = Data not available
 GSE = Ground support equipment
 TD = Touchdown

PLBD = Payload bay doors
 FES = Flash evaporator subsystem
 ABS = Ammonia boiler subsystem
 RAD = Radiator

N/A = Not applicable
 H/L = High load
 FCA = Flow control assembly

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

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

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

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

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

Legend: PDOP = Performed during orbit period
 NP = Not performed
 DMA = Data not available
 GSE = Ground support equipment
 TD = Touchdown

PLBD = Payload bay doors
 FES = Flash evaporator subsystem
 ABS = Ammonia boiler subsystem
 RAD = Radiator

N/A = Not applicable
 H/L = High load
 FCA = Flow control assembly

ACTIVE THERMAL CONTROL SUBSYSTEM
FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA

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

ACTIVE THERMAL CONTROL SUBSYSTEM
FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA

| Miss. Seq. No. | STS. No. | Orb. OV- | Flash Evaporator Subsystem Water Usage | | | | Flight Total | Radiator Freon Temperature Extremes | | | | | | |
|----------------|----------|----------|--|-------------|------------|------------|--------------|-------------------------------------|--------------------------|--------------------------|---------------|---------------|-----|-----|
| | | | Topping FES | Hi-load FES | Ascent | On-Orbit | | De-Orbit | Radiator in Temp Maximum | Radiator in Temp Minimum | FCL 1 Minimum | FCL 2 Minimum | | |
| | | | A Valve lb | B Valve lb | A Valve lb | B Valve lb | lb | lb | lb | lb | °F. | °F. | °F. | °F. |
| 15 | 51C | 103 | | | | | | | | | | | | |
| 16 | 51D | 103 | 1654 | 98 | 90 | 265 | 124 | 1620 | 363 | 2107 | 103 | 68 | -57 | -55 |
| 17 | 51B | 099 | 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 | 099 | 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 | | | | | | | | | | | | |
| 22 | 61A | 099 | 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 | 099 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 26 | 26 | 103 | 329 | 248 | 80 | 185 | 110 | 455 | 277 | 842 | 112 | 80 | -50 | -30 |
| 27 | 27 | 104 | | | | | | | | | | | | |
| 28 | 29 | 103 | 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 |

ACTIVE THERMAL CONTROL SUBSYSTEM
FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA

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

ACTIVE THERMAL CONTROL SUBSYSTEM
FLASH EVAPORATOR SUBSYSTEM AND RADIATOR PERFORMANCE DATA

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

ATMOSPHERIC REVITALIZATION SUBSYSTEM

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

DOO MISSION - DATA NOT AVAILABLE

ATMOSPHERIC REVITALIZATION SUBSYSTEM

| Miss. Seq. No. | STS- No. | Orb. OV- | Cabin Temperature Peaks | | | | Cabin Partial Pressure of CO ₂ (PPCO ₂) | | | | Cabin Reduced Pressure Operations | | | | | | | | | | |
|----------------|------------------|----------------|-------------------------|----------------|--------------------|----------------|--|-----------|-------------------|-----------------------------|-----------------------------------|---------------------|----------------------------------|---------------|--|--------------|-----------------|----------|----------|----------|-----|
| | | | Ascent | | On-Orbit | | Entry | | Crew Person Hours | PPCO ₂ Max. mmHg | PPCO ₂ Min. mmHg | LiOH Canisters Used | Duration of 10.2 Paia Operations | | PPO ₂ During Despress to 10.2 | | Operations 10.2 | | | | |
| HK Air Out °F. | Cabin Air In °F. | HK Air Out °F. | Cabin Air Max. °F. | HK Air Out °F. | Cabin Air Min. °F. | HK Air Out °F. | Cabin Air In °F. | Max. mmHg | | | | | Min. mmHg | Start MDT h:m | End MDT h:m | Duration h:m | Max. psi | Min. psi | Max. psi | Min. psi | |
| 16 | 51D | 103 | 68.0 | 85.0 | 58.0 | 83.0 | 76.0 | 64.2 | 85.3 | 1170 | 11.0 | 0.6 | 23 | 76:00 | 126:40 | 50:40 | 3.5 | 2.8 | 2.9 | 2.6 | |
| 17 | 51B | 099 | 71.0 | 84.0 | 58.0 | 83.5 | 74.0 | 67.4 | 81.7 | 1176 | 5.5 | 1.0 | 31 | | | | | | | | |
| 18 | 51G | 103 | 64.2 | 87.8 | 64.0 | 89.0 | 80.0 | 65.0 | 88.0 | 1188 | 6.8 | 0.9 | 23 | | | | | | | | |
| 19 | 51F | 099 | 64.2 | 80.2 | 61.0 | 92.0 | 76.0 | 69.0 | 77.0 | 1335 | 6.5 | 1.2 | 23 | | | | | | | | |
| 20 | 51I | 103 | 65.8 | 84.6 | 53.0 | 82.0 | 72.0 | 63.0 | 84.0 | 851 | 5.3 | 0.7 | 17 | 72:06 | 140:30 | 68:24 | 3.8 | 2.6 | 3.4 | 2.6 | |
| 21 | 51J | 104 | | | | | | | | | DOD MISSION - DATA NOT AVAILABLE | | | | | | | | | | |
| 22 | 61A | 099 | 70.0 | 84.4 | 59.0 | 80.0 | 73.0 | 64.0 | 81.0 | 1350 | 5.6 | 1.0 | 30 | | | | | | | | |
| 23 | 61B | 104 | 69.4 | 73.0 | 58.0 | 84.0 | 74.0 | 63.0 | 78.0 | 1156 | 3.0 | 0.8 | 23 | 48:14 | 123:06 | 74:52 | 3.7 | 2.7 | 3.0 | 2.7 | |
| 24 | 61C | 102 | 69.0 | 81.0 | 66.0 | 86.0 | 80.0 | 63.0 | 78.0 | 1022 | 7.3 | 1.0 | 22 | | | | | | | | |
| 25 | 51L | 099 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| 26 | 26 | 103 | 61.0 | 72.0 | 76.0 | 89.0 | 72.0 | 73.4 | 73.8 | 48.5 | 3.7 | 0.7 | 10 | | | | | | | | |
| 27 | 27 | 104 | | | | | | | | | DOD MISSION - DATA NOT AVAILABLE | | | | | | | | | | |
| 28 | 29 | 103 | 58.0 | 81.0 | 53.0 | 82.0 | 71.0 | 64.0 | 78.0 | 598 | 6.5 | 1.0 | 13 | | | | | | | | |
| 29 | 30 | 104 | 59.0 | 72.0 | 63.0 | 84.0 | 72.0 | 63.0 | 76.0 | 485 | 3.2 | .8 | 10 | 49:02 | 73:00 | 23:58 | 3.4 | 2.7 | 2.96 | 2.64 | |

Legend: DDA = Data not available

ATMOSPHERIC REVITALIZATION SUBSYSTEM

| Miss. Seq. No. | STS-Orb. OV- | Cabin Temperature Peaks | | | | | | Cabin Partial Pressure of CO ₂ (PPCO ₂) | | | | Cabin Reduced Pressure Operations | | | | | | | | | | | | |
|----------------|--------------|-------------------------|---------------|----------------|--------------------|--------------------|----------------|--|-------------------|-----------|---------------------|-----------------------------------|---------------|--|--------------|------------------------------------|----------|----------|----------|------|------|-----|-----|-----|
| | | Ascent | | On-Orbit | | Entry | | Crew Person Hours | PPCO ₂ | | LiOH Canisters Used | Duration of 10.2 Paia Operations | | PP0 ₂ During Despress to 10.2 | | PP0 ₂ During Operations | | | | | | | | |
| | | Hx Air Out °F. | Cabin Air °F. | Hx Air Out °F. | Cabin Air Max. °F. | Cabin Air Min. °F. | Hx air Out °F. | | Cabin Air °F. | Max. mmHg | | Min. mmHg | Start MET h:m | End MET h:m | Duration h:m | Max. psi | Min. psi | Max. psi | Min. psi | | | | | |
| 45 | 42 | 103 | 74.5 | 76.0 | 65.0 | 84.5 | 72.5 | 63.5 | 78.0 | 1359.8 | 4.35 | 0.78 | 28 | N/A | N/A | N/A | N/A | N/A | | | | | | |
| 46 | 45 | 104 | 65.0 | 68.0 | 65.0 | 82.0 | 70.0 | 65.0 | 77.0 | 1499.2 | 7.6 | 1.05 | 32 | N/A | N/A | N/A | N/A | N/A | | | | | | |
| 47 | 49 | 105 | 67.0 | 69.5 | 62.0 | 83.0 | 72.5 | 63.5 | 74.5 | 1491.1 | 5.4 | 1.05 | 30 | 20:21 | 92:11 | 71:50 | 3.16 | 2.78 | 2.86 | 2.56 | | | | |
| 48 | 50 | 102 | 66.0 | 73.0 | 68.0 | 80.5 | 70.5 | 61.0 | 77.0 | 2320.5 | 7.25 | 0.65 | 22/RCRS | N/A | N/A | N/A | N/A | N/A | N/A | N/A | | | | |
| 49 | 46 | 104 | 68.0 | 70.0 | 74.0 | 84.0 | 70.0 | 54.0 | 71.0 | 1338.7 | 6.05 | 0.72 | 27 | 126:16 | 130:57 | 4:41 | 3.8 | 2.85 | 2.85 | 2.75 | | | | |
| 50 | 47 | 105 | 55.0 | 71.0 | 66.0 | 84.0 | 76.5 | 62.0 | 76.0 | 1333.5 | 4.7 | 0.86 | 27 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | | | |
| 51 | 52 | 102 | 68.0 | 74.0 | 68.0 | 85.0 | 72.8 | 69.0 | 80.0 | 1422.0 | 5.4 | 1.72 | 3/RCRS | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | | |
| 52 | 53 | 103 | 64.0 | 69.0 | 74.0 | 80.0 | 69.8 | 60.0 | 80.0 | 875.0 | 7.60 | 0.78 | 17 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | | |
| 53 | 54 | 105 | 72.0 | 75.0 | 64.8 | 80.0 | 65.0 | 51.0 | 74.0 | 715.0 | 3.50 | 0.68 | 20 | 70:53 | 125:53 | 55:00 | 3.18 | 2.6 | 3.4 | 2.55 | 2.55 | | | |
| 54 | 56 | 103 | 72.5 | 69.5 | 68.0 | 82.8 | 69.8 | 65.0 | 71.0 | 1110.0 | 6.8 | 0.75 | 25 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 55 | 55 | 102 | 72.0 | 71.0 | 75.0 | 80.5 | 70.0 | 70.0 | 78.5 | 1676.5 | 6.0 | 1.25 | 12 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Legend: DNA = Data not available

Hx = Heat exchanger

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

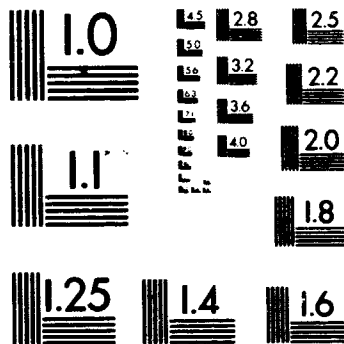
| Miss. Seq. No. | STS No. | Orb. OV- | Supply Water Management Subsystem | | | | | | | Waste Management Subsystem | | | | | | | Remarks | | | | | | | |
|----------------|---------|----------|-----------------------------------|------------|-------------|--------------|----------------|--------------|---------------|----------------------------|-----------------------|--------------|------------------------|--------|-----|--------|---------|--------|------|--------|------|------|------|---|
| | | | Qty at Lift-off, lb | FC Prod lb | FES Use, lb | Crew Use, lb | Qty Dumped, lb | No. of Dumps | Qty at TD, lb | On-Orbit Qty Max., lb | On-Orbit Qty Min., lb | No. of Dumps | Total Waste Dumped, lb | Dump 1 | | Dump 2 | | Dump 3 | | Dump 4 | | | | |
| 1 | 1 | 102 | 876 | 704 | 635 | 27 | 261 | 2 | 657 | 901 | 724 | 2 | 26 | 12 | 14 | 14.7 | 14.7 | N/A | N/A | N/A | N/A | N/A | N/A | |
| 2 | 2 | 102 | 882 | 625 | 704 | 16 | 287 | 2 | 500 | 865 | 701 | 0 | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 3 | 3 | 102 | 728 | 2260 | 1034 | 68 | 1422 | 9 | 464 | 920 | 566 | 0 | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 4 | 4 | 102 | 562 | 2006 | 587 | 83 | 1537 | 13 | 361 | 638 | 354 | 1 | 82 | 82 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 5 | 5 | 102 | 507 | 1471 | 601 | 127 | 943 | 8 | 307 | 628 | 396 | 0 | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 6 | 6 | 099 | 483 | 1254 | 658 | 120 | 676 | 7 | 283 | 604 | 369 | 0 | 0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 7 | 7 | 099 | 450 | 1555 | 763 | 192 | 878 | 7 | 172 | 618 | 352 | 1 | 87 | 87 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 8 | 8 | 099 | 480 | 1660 | 528 | 181 | 1133 | 10 | 298 | 635 | 388 | 1 | 29 | 29 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 9 | 9 | 102 | 459 | 3249 | 1964 | 282 | 1075 | 18 | 387 | 612 | 374 | 1 | 49 | 49 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | |
| 10 | 41B | 099 | 521 | 2258 | 1278 | 331 | 803 | 8 | 367 | 620 | 438 | 2 | 206 | 129 | 77 | 10.2 | 10.2 | N/A | N/A | N/A | N/A | N/A | N/A | Ice formed on nozzle on both dumps. |
| 11 | 41C | 099 | 468 | 1833 | 639 | 310 | 1117 | 7 | 235 | 538 | 301 | 3 | 142 | 69 | 48 | 10.2 | 10.2 | 25 | 14.7 | N/A | N/A | N/A | N/A | |
| 12 | 41D | 103 | 469 | 1740 | 1490 | 174 | 248 | 3 | 297 | 591 | 380 | 1 | 11 | 11 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | Ice formed on nozzle, RMS used to remove ice. |
| 13 | 41G | 099 | 526 | 2292 | 1269 | 395 | 791 | 9 | 363 | 628 | 416 | 4 | 276 | 55 | 73 | 14.7 | 14.7 | 66 | 14.7 | 82 | 14.7 | 14.7 | 14.7 | |

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

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

3 OF 7

N96-11129 UNCLAS



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

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

| Miss. Seq. No. | STS- No. | Orb. OV- | Supply Water Management Subsystem | | | | | | Waste Management Subsystem | | | | | | Remarks | | | | | | | | | |
|----------------|----------|----------|--|------------|-------------|--------------|----------------|--------------|----------------------------|--------------|--------------|------------------------|---------------|---------------|---------------|--------|--------|------|------|-------|-------|---|--|--|
| | | | Qty at Lift-off, lb | FC Prod lb | FES Use, lb | Crew Use, lb | Qty Dumped, lb | No. of Dumps | Qty at TD, lb | On-Orbit Qty | No. of Dumps | Total Waste Dumped, lb | Dump 1 | Dump 2 | | Dump 3 | Dump 4 | | | | | | | |
| | | | | | | | | | Max., Min., lb | | | Presure, psia | Presure, psia | Presure, psia | Presure, psia | | | | | | | | | |
| 30 | 28 | 102 | DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE | | | | | | | | | | | | | | | | | | | | | |
| 31 | 34 | 104 | 599 | 1269 | 1104 | 132 | 271 | 3 | 362 | 576 | 447 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | |
| 32 | 33 | 103 | DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE | | | | | | | | | | | | | | | | | | | | | |
| 33 | 32 | 102 | 515 | 2753 | 1141 | 299 | 1511 | 14 | 317 | 601 | 377 | 2 | 143 | 0 | 104 | 0 | 0 | 0 | | | | | | |
| 34 | 36 | 104 | DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE | | | | | | | | | | | | | | | | | | | | | |
| 35 | 31 | 103 | 532 | 1344 | 825 | 152 | 485 | 4 | 414 | 613 | 424 | 1 | 91 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| 36 | 41 | 103 | 579 | 1142 | 1128 | 105 | 64 | 1 | 424.4 | 622.1 | 431 | 1 | 37 | 0 | 0 | 0 | 0 | 0 | 14.7 | | | | | |
| 37 | 38 | 104 | DEPARTMENT OF DEFENSE MISSION - DATA NOT AVAILABLE | | | | | | | | | | | | | | | | | | | | | |
| 38 | 35 | 102 | 535 | 2876 | 2431 | 596.8 | 0 | 0 | 383.2 | 618.8 | 437 | 5 | 316.5 | 47.7 | 14.7 | 46.9 | 14.7 | 97.4 | 14.7 | 93 | 14.7 | Dump 4 to OMC Dump 5 to UAS (31.5 lb) | | |
| 39 | 37 | 104 | 522 | 1617 | 1372 | 171 | 166 | 2 | 431 | 616 | 412 | 2 | 114 | 74 | 10.7 | 39 | 14.7 | 0 | 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 | 101 | 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 | 101.9 | 101.9 | | |
| 42 | 43 | 104 | 518 | 2375 | 2099 | 286 | 100 | 2 | 408 | 623 | 410 | 4 | 265 | 60 | 14.7 | 64 | 14.7 | 64 | 14.7 | 102 | 14.7 | 102 | | |
| 43 | 48 | 103 | 591 | 1455 | 1001 | 167 | 582 | 5 | 296 | 600 | 281 | 1 | 125 | 125 | 14.7 | 0 | 0 | 0 | 0 | 0 | 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 | 83 | 14.7 | 83 | 0 | |

C-3.

SUPPLY WATER AND WASTE MANAGEMENT SUBSYSTEMS

| Miss. Seq. No. | STS- No. | Orb. OV- | Supply Water Management Subsystem | | | | | | Waste Management Subsystem | | | | | | Remarks | | | | | | |
|----------------|----------|----------|-----------------------------------|------------|-------------|--------------|----------------|--------------|----------------------------|-----------------------|----------|--------------|------------------------|----------------|---------|------------------------|----------------|------------------------|----------------|---|--|
| | | | Qty at Lift-off, lb | FC Prod lb | FES Use, lb | Crew Use, lb | Qty Dumped, lb | No. of Dumps | Qty at TD, lb | On-Orbit Qty Max., lb | Min., lb | No. of Dumps | Total Waste Dumped, lb | Dump 1 Qty, lb | | Dump 1 Pres-sure, psia | Dump 2 Qty, lb | Dump 2 Pres-sure, psia | Dump 3 Qty, lb | Dump 3 Pres-sure, psia | Dump 4 Qty, lb |
| 45 | 42 | 103 | 591 | 2600 | 2569 | 241 | 0 | 0 | 382 | 646 | 368 | 99.7 | 14.7 | 74.8 | 14.7 | 0 | 0 | 0 | 0 | | |
| 46 | 45 | 104 | 592 | 2579 | 2342 | 402 | 0 | 0 | 427 | 624 | 475 | 57 | 14.7 | 102 | 14.7 | 121 | 14.7 | 129 | 14.7 | | |
| 47 | 49 | 105 | 494 | 2185 | 1701 | 439 | 2 | 427 | 627 | 423 | 84 | 10.2 | 124 | 10.2 | 119 | 10.2 | 0 | 0 | 0 | | |
| 48 | 50 | 102 | 498 | 4994 | 4874 | 257 | 0 | 331 | 641 | 393 | 56 | 14.7 | 68 | 14.7 | 51 | 14.7 | 7.5 | 14.7 | | | |
| 49 | 46 | 104 | 500 | 2315 | 1889 | 355 | 1* | 112 | 627 | 363 | 251 | 107 | 0* | 58 | 14.7 | 86 | 14.7 | | | Water and waste tank depress to cabin press (DPO 0325). | |
| 50 | 47 | 105 | 508 | 2513 | 2522 | 221 | 0 | 113 | 640 | 525 | 204 | 108 | 14.7 | 96 | 14.7 | | | | | | |
| 51 | 52 | 102 | 542 | 2686 | 2416 | 192 | 1 | 434 | 648 | 433 | 92.5 | 69 | 14.7 | 23.5 | 14.7 | | | | | | |
| 52 | 53 | 103 | 602 | 1847 | 969 | 256 | 7 | 339 | 623 | 425 | 200 | 96 | 14.7 | 104 | 14.7 | | | | | Waste water dump 2 - simultaneous dump | |
| 53 | 54 | 105 | 412 | 1581 | 1416 | 212 | 0 | 366 | 641 | 307 | 96 | 96 | 14.7 | | | | | | | | |
| 54 | 56 | 103 | 581 | 2720 | 2482 | 368 | 1 | 415 | 646 | 435 | 300 | 48.5 | 14.7 | 122 | 14.7 | 129 | 14.7 | | | | |
| 55 | 55 | 102 | 501 | 3136 | 1361* | 297* | 12 | 350 | 644 | 398 | 227 | | | | | | | | | | Waste water collected/dumped for CWC; therefore quantity is approximate. |

APT FUSELAGE GAS SAMPLE ANALYSIS

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

^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

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

^a Corrected for pyrotechnic ingestion

^b Traces of Benzene and Toluene

^c Ammonia = < 0.01 percent in all bottles

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

^aCorrected for pyrotechnic ingestion
^bTraces of Benzene and Toluene
^cPyrotechnic valve in open position
^dLeak at thermocouple gauge

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

^a Corrected for pyrotechnic ingestion
^b Traces of Benzene and Toluene
^c Broken thermocouple base pressure tested - leaked through thermocouple
^d Valve did not close (room pressure)
^e 1,1,1 Trichloroethane and Xylene contaminant found. Approximate concentration = 0.01 percent.

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

^aCorrected for pyrotechnic ingestion
^bTraces of Benzene and Toluene
^cSpool valve open to atmosphere

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

^aCorrected for pyrotechnic ingestion

^bSpool failed to close completely

^cPyrotechnics did not ignite

^dThe helium and hydrogen levels indicate a small leak to atmospheric pressure between landing and analysis

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

^aTraces of Benzene and Toluene

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

^aNo. 2 right bottle was lost
^bLaboratory thinks bottles had a slow leak after landing

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

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

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

NOTE: ALL VALUES ARE GIVEN IN PERCENT BY VOLUME +/-0.01
 * Pyrotechnic Hydrogen Correction Based on H₂/CO Ratio 26.85/49.55 = 0.54 (%CO)
 * Air Calculated from Normal Air Ratios N₂=78.08%; O₂=20.95%; Ar 0.934%
 * Considered as Part of Sample
 * Balance Nitrogen
 ** Partial Leakers

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

NOTE: ALL VALUES ARE GIVEN IN PERCENT BY VOLUME +/- 0.01
 * Pyrotechnic Hydrogen Correction Based on H₂/CO Ratio 26.85/49.55 = 0.54 (%CO)
 * Air Calculated from Normal Air Ratios N₂=78.08%; O₂=20.95%; A. 0.934%
 * Balance Nitrogen
 ** Partial Leakers

AFT FUSELAGE GAS SAMPLE ANALYSIS

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

NOTE: ALL VALUES ARE GIVEN IN PERCENT BY VOLUME +/-0.01
 * Pyrotechnic Hydrogen Correction Based on H₂/CO Ratio 26.85/49.55 = 0.54 (%CO)
 * Air Calculated from Normal Air Ratios N₂=78.08%; O₂=20.95%; Ar 0.934%
 * Considered as Part of Sample
 * Balance Nitrogen
 ** Partial Leakers

SHUTTLE FLIGHT HISTORIES
KSC FACILITIES AND PROCESSING DATES

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

SHUTTLE FLIGHT HISTORIES
KSC FACILITIES AND PROCESSING DATES

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

SHUTTLE FLIGHT HISTORIES
KSC FACILITIES AND PROCESSING DATES

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

SHUTTLE FLIGHT HISTORIES
KSC FACILITIES AND PROCESSING DATES

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

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

SHUTTLE FLIGHT HISTORIES
NASC FACILITIES AND PROCESSING DATES

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

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

SHUTTLE FLIGHT HISTORIES
ISC FACILITIES AND PROCESSING DATES

| Miss. Seq. No. | STS- No. | Orb. OV- | Moved to OFF Cal. Days in Proc. | | Moved to VAB Cal. Days in Proc. | | Stacked on MLP | | | Moved to PAD Cal. days in Proc. | | Actual Launch Date | Remarks | Orb. on gnd pwr, hrs. |
|----------------|----------|----------|---------------------------------|---------------|---------------------------------|---------------|----------------|---|----------------|---------------------------------|----------|---|---------|-----------------------|
| | | | HB 1 | HB 2 | HB 1 | HB 3 | 1 | 2 | 3 | A | B | | | |
| 4. | 43 | 104 | | 4/19/91 61 | 6/19/91 1 | 6-20-91 5 | | | 6/25/91 39 | | 08/02/91 | Successful launch on August 2, 1991, at 214:15:02 G.M.T. (11:02 e.d.t.) | 1442 | |
| 43 | 48 | 103 | 5/28/91 80 | | 8/1/91 1 | | 8/2/91 10 | | 8/12/91 32 | | 09/12/91 | Successful launch on September 12, 1991, at 255:23:11:04 G.M.T. (1911 e.d.t.) | 1502 | |
| 44 | 44 | 104 | | 8/11/91 68 | 10/19/91 1 | 10/20/91 4 | | | 10/24/91 32 | | 11/24/91 | Successful launch on November 24, 1991, at 328:23:44 G.M.T. | 1609 | |
| 45 | 42 | 103 | Day 3 9/27/91 76 | | 12/12/91 1 | | 12/13/91 6 | | 12/19/91 34 | | 1/22/92 | Successful launch on January 22, 1992, at 22:14:52:33 G.M.T. | 1332 | |
| 46 | 45 | 104 | | 12/9/91 76 | | 2/14/92 6 | | | 2/20/92 33 | | 3/24/92 | Successful launch on March 24, 1992, at 84:13:13:39.991 G.M.T. | 1316 | |
| 47 | 49 | 105 | 7/26/91 221 | | 3/7/92 1 | | 3/8/92 5 | | | 3/13/92 53 | 5/7/92 | Successful launch on May 7, 1992, at 128:23:40:00.019 G.M.T. | 2940 | |
| 48 | 50 | 102 | B-3 2/10/92 109 | | 5/29/92 1 | | 5/30/92 4 | | 6/3/92 22 | | 6/25/92 | Successful launch June 25, 1992, at 177:16:12:22 G.M.T. | 1897 | |

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

SHUTTLE FLIGHT HISTORIES
KSC FACILITIES AND PROCESSING DATES

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

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

SHUTTLE FLIGHT HISTORIES
SOLID ROCKET BOOSTERS

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

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

* At 60*

SHUTTLE FLIGHT HISTORIES
SOLID ROCKET BOOSTERS

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

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

SHUTTLE FLIGHT HISTORIES
SOLID ROCKET BOOSTERS

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

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

**SHUTTLE FLIGHT HISTORIES
SOLID ROCKET BOOSTERS**

| Miss. Seq. No. | STS- No. | Orb. OV- | SRB S/N | SRB Position Nomen. | Ignition Weight, lb | Separation Weight, lb | Usable Propellant, lb | Maximum Sea-level Thrust, *lb. | Burn Time, sec | Motor Type | Case Type | Recovery System Remarks |
|----------------|----------|----------|---------|----------------------|----------------------------|------------------------|------------------------|--------------------------------|------------------|--------------|---------------|---|
| 30 | 28 | 102 | BI-028 | 360H005A 360H005B | 1,301,088.4 1,300,644 | 187,739.4 187,872.8 | 1,106,380 1,105,772 | 3,090,000 3,080,000 | 124.28 124.32 | RSRM RSRM | LMC Re-design | 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. |
| 31 | 34 | 104 | BI-032 | 360L006A 360L006B | 1,300,812.6 1,300,164.6 | 186,802.0 187,440.7 | 1,106,943 1,105,654 | 3,060,000 3,070,000 | 124.88 124.92 | RSRM | LMC Re-design | IFA STS-34-B-3 - The reefing line cutter (located at gore 60) on the left SRB drogue parachute failed to actuate. |
| 32 | 33 | 103 | BI-034 | 360L007A 360L007B | 1,299,924.3 1,299,918.9 | 187,836.8 188,802.9 | 1,105,634 1,105,629 | 3,030,000 3,050,000 | 126.75 126.79 | RSRM | LMC Re-design | |
| 33 | 32 | 102 | BI-035 | 360L008A 360L008B | 1,299,175.0 1,299,405.4 | 187,026.0 187,300.5 | 1,105,393 1,105,355 | 3,090,000 3,100,000 | 125.12 125.16 | RSRM | LMC Re-design | |
| 34 | 36 | 104 | BI-036 | 360L009A 360L009B | 1,299,250.5 1,299,094.6 | 187,304.2 187,502.8 | 1,105,247 1,104,854 | 3,070,000 3,060,000 | 125.80 125.84 | RSRM | LMC Re-design | 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). |
| 35 | 31 | 103 | BI-037 | 360Q010A 360W010A | 1,300,240.5 1,200,213.9 | 187,649.3 188,019.9 | 1,105,792 1,105,479 | 3,070,000 3,070,000 | 125.76 125.80 | RSRM | LMC Re-design | |
| 36 | 41 | 103 | BI-040 | 360Q011A 360Q011B | 1,301,371.5 1,301,388.0 | 188,361.8 188,407.8 | 1,106,358 1,106,404 | 3,060,000 3,060,000 | 124.12 124.16 | RSRM | LMC Re-design | |

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

SHUTTLE FLIGHT HISTORIES
SOLID ROCKET BOOSTERS

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

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

SHUTTLE FLIGHT HISTORIES
SOLID ROCKET BOOSTERS

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

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

SHUTTLE FLIGHT HISTORIES
SOLID ROCKET BOOSTERS

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

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

SHUTTLE FLIGHT HISTORIES
EXTERNAL TANK

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

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

SHUTTLE FLIGHT HISTORIES
EXTERNAL TANK

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

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

SHUTTLE FLIGHT HISTORIES
EXTERNAL TANK

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

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

SHUTTLE FLIGHT HISTORIES
EXTERNAL TANK

| Miss. Seq. No. | STS- No. | Orb. OV- | Ext. Tank | | Liquid Oxygen Quantity, lb | | | Liquid Hydrogen Quantity, lb | | | Residual, Total Liquid | Best Est. Traj... Lat./Long. | Entry Impact Position From Prediction | |
|----------------|----------|----------|-------------------|------------------|----------------------------|-----------|---------|------------------------------|---------------------------|---------|------------------------|------------------------------|---------------------------------------|---|
| | | | Type | Model No. | Loaded Eng. Start Command | At T-O | At MECO | Residual, Total Liquid | Loaded Eng. Start Command | At T-O | | | | At MECO |
| 30 | 28 | 102 | LMT | LMT -24 | 1,382,851 | 1,373,393 | 7,629 | 6,195 | 231,820 | 230,082 | 3,703 | 2,971 | 38.643°S 149.651°W | Classified |
| 31 | 34 | 104 | LMT | LMT -20 | 1,381,656 | 1,372,219 | 7,383 | 6,009 | 231,784 | 230,044 | 4,084 | 3,345 | 3.4°N 147.6°W | Approximately 7 nautical miles from predicted impact print. |
| 32 | 33 | 103 | LMT ET-38 | LMT -31 | 1,382,286 | 1,372,813 | 8,057 | 6,704 | 231,814 | 230,074 | 3,180 | 2,438 | 28.565°S 86.421°E | Classified |
| 33 | 32 | 102 | LMT | LMT -25 | 1,382,321 | 1,372,817 | 8,348 | 7,094 | 231,741 | 229,975 | 3,902 | 3,186 | 10.435°N 157.216°W | 31 nmi. uprange |
| 34 | 36 | 104 | LMT | LMT -26 | 1,381,385 | 1,311,898 | 8,252 | 6,974 | 231,657 | 229,925 | 4,277 | 3,560 | 61.464°S 145.114°E | Classified |
| 35 | 31 | 103 | LT WT | LMT -27 | 1,378,556 | 1,369,038 | 8,616 | 7,260 | 231,568 | 229,825 | 4,091 | 3,352 | 19.946°N 150.007°W | 85 nmi. uprange |
| 36 | 41 | 103 | LMT | LMT -32 | 1,380,562 | 1,371,063 | 7,322 | 6,028 | 231,659 | 229,913 | 3,710 | 2,984 | 12.52°N 164.127°W | 52 nmi. uprange |
| 37 | 38 | 104 | LMT | LMT -33 | 1,381,562 | 1,372,056 | 7,861 | 6,421 | 231,689 | 229,962 | 4,007 | 3,253 | 28.52°S 84.91°W | Classified |
| 38 | 35 | 102 | LMT | LMT -28 | 1,381,403 | 1,371,917 | 10,725 | 9,336 | 231,664 | 229,900 | 3,669 | 2,923 | 15.09°N 159.01°W | 63 nmi. uprange |
| 39 | 37 | 104 | Lt. Wt. LMT 30 | ET-37 LMT 30 | 1,381,727 | 1,372,232 | 7,906 | 6,554 | 231,688 | 229,950 | 3,857 | 3,116 | 20.23° N 149.32° W | 64 nmi. uprange |
| 40 | 39 | 103 | Lt. Wt. | ET-46 LMT 39 | 1,382,470 | 1,372,994 | 9,828 | 8,493 | 231,829 | 230,070 | 3,465 | 2,718 | 43.819°S 156.294° W | 81 nmi. uprange |
| 41 | 40 | 102 | Lt. Wt. | Lt.-41 LMT 34 | 1,383,242 | 1,373,758 | 11,130 | 9,859 | 231,869 | 230,116 | 4,252 | 3,523 | 1.05° N 146.06° W | 77 nmi. uprange |

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

SHUTTLE FLIGHT HISTORIES
EXTERNAL TANK

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 1

| Miss. Seq. No. | STS- Orb. No. | Main Engine Pos. 1 Comp. | | | | | | | | | | | | Main Engine Position 1 Performance Summary | | | | Remarks | |
|----------------|------------------|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--|--|---|---|---------|---|
| | | E n g | M C C | N 1 1 | L P T | L P T | H P T | H P T | P P P | P P P | L P P | L P P | C n t | Attained Max Throttle, percent/time, sec | Attained Max q Throttle, percent/time, sec | Re-attained Max Throttle, percent/time, sec | Attained 3g Throttle, percent/time, sec | | Vacuum Thrust, lb |
| 7 | 099 | 2 | 4 | 2 | 2 | 2 | 9 | 9 | 2 | 2 | 2 | F | 104 11.50 | 75 37.20 | 104 70.60 | 65 501.00 | 488,303 | 453.65 | |
| 8 | 099 | 2 | 4 | 2 | 2 | 2 | 9 | 9 | 2 | 2 | 2 | F | 100 4.20 | 69 34.10 | 100 70.90 | 65 522.00 | 469,661 | 453.49 | |
| 9 | 102 | 2 | 4 | 2 | 2 | 2 | 9 | 9 | 2 | 2 | 2 | F | 104 10.50 | 78 37.40 | 104 68.80 | 65 510.20 | 490,340 | 453.34 | |
| 10 | 41B 099 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | F | 100 4.54 | 73 38.50 | 100 69.80 | 65 522.10 | 470,155 | 453.59 | |
| 11 | 41C 099 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | F | 104 10.77 | 67 36.01 | 104 67.69 | 65 511.27 | 488,511 | 453.85 | |
| 12 | 41D 103 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | F | 104 11.00 | 81 27.45 65 38.26 | 104 77.80 | 65 515.66 | 488,821 | 453.24 | First 2-step main engine throttle. ME2109 re-placed 2021, due to debonded shield. |

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 1

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 1

| Miss. Seq. No. | STS- No. | Orb. OV- | Main Engine Pos. 1 Comp. | | | | | | | | | | | | | Main Engine Position 1 Performance Summary | | | | Remarks | |
|----------------|----------|----------|--------------------------|---|---|---|---|---|---|---|---|---|---|---|-------|--|---|--|--|---------|--|
| | | | E | M | N | L | P | H | L | H | P | L | H | P | C | Attained Max Throttle, percent/ time, sec | Attained Max q Throttle, percent/ time, sec | Re-attained Max Throttle, percent/ time, sec | Attained 3g Throttle, percent/ time, sec | | Vacuum Thrust lb @ 150 sec |
| 19 | 51F | 099 | 2 | 4 | 4 | 2 | 2 | 2 | 4 | 2 | 4 | 2 | 4 | F | 104 | 97 | 104 | 104 | 487,254 | 454.89 | High HPFTP discharge temperature measurement caused shutdown at T+350 seconds. Controller F24 replaced by F20. |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 10.91 | 26.71 | | | | | |
| | | | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | | 65 | | | | | |
| | | | 3 | 3 | 3 | 5 | 9 | 2 | 5 | 1 | | | | | | 39.47 | | | | | |
| 20 | 51I | 103 | | | | | | | | | | | | | 104 | 70 | 104 | 104 | 488,628 | 453.35 | Nozzle 4004 replaced by 2018. |
| | | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | F | 10.31 | 35.07 | 64.63 | 65 | | | |
| | | | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | | 67 | | | | | |
| | | | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 0 | | | 37.55 | | | | | |
| | | | 9 | 8 | 8 | 8 | 5 | 7 | 1 | 9 | | | | | | | | | | | |
| 21 | 51J | 104 | | | | | | | | | | | | | 104 | 68 | 104 | 104 | 489,924 | 453.46 | |
| | | | 2 | 4 | 4 | 9 | 2 | 2 | 4 | 2 | 5 | 2 | 5 | F | 10.43 | 35.39 | 65.11 | 65 | | | |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 3 | 0 | 1 | 1 | 1 | | 65 | | | | | |
| | | | 1 | 2 | 0 | 0 | 2 | 1 | 0 | 1 | 1 | 1 | 1 | | | 37.51 | | | | | |
| | | | 1 | 0 | 2 | 5 | 2 | 5 | 1 | 6 | | | | | | | | | | | |
| 22 | 61A | 099 | | | | | | | | | | | | | 100 | 89 | 104 | 104 | 487,481 | 453.82 | |
| | | | 4 | 4 | 4 | 2 | 2 | 4 | 2 | 4 | 2 | 4 | 4 | F | 4.32 | 25.85 | 70.09 | 65 | | | |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 2 | 2 | 0 | | 65 | | | | | |
| | | | 2 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | | 35.77 | | | | | |
| | | | 3 | 3 | 3 | 5 | 9 | 2 | 5 | 1 | | | | | | | | | | | |
| 23 | 61B | 104 | | | | | | | | | | | | | 104 | 65 | 104 | 104 | 490,280 | 453.41 | F11 replaced by F23. HPFTP 5301 replaced by 2413R2. |
| | | | 2 | 4 | 4 | 9 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | F | 10.49 | 37.37 | 69.37 | 65 | | | |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 4 | 0 | 2 | 2 | 0 | | | | | | | |
| | | | 1 | 2 | 0 | 0 | 2 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | | | | | | | |
| | | | 1 | 0 | 2 | 5 | 2 | 5 | 3 | 6 | | | | | | | | | | | |

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 1

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 1

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

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

*Changed since last hot fire/STS-29

**Nozzle/MCC Inspection: New GIS/seal

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 1

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 1

| Miss. Seq. No. | STS- Orb. OV- | Main Engine Pos. 1 Comp. | | | | | | | | | | Main Engine Position 1 Performance Summary | | | | Remarks | |
|----------------|---------------|--------------------------|---|---|---|---|---|---|---|---|---|---|--|--|----------------------------|---------|------------------------------|
| | | E | M | N | L | H | L | H | P | C | Attained Max Throttle, percent/ time, sec | Attained Max Q Throttle, percent/ time, sec | Re-attained Max Throttle, percent/ time, sec | Attained 3g Throttle, percent/ time, sec | Vacuum Thrust lb @ 150 sec | | Vacuum Specific Impulse, sec |
| 45 | 103 | 2 | 4 | 2 | 4 | 2 | 4 | 4 | 2 | F | 100/ 4.26 | 75/ 33.52 N/A | 104/ 65.20 | 67/ 510.12 | 487,783 | 452.33 | |
| 46 | 104 | 2 | 4 | 4 | 4 | 2 | 4 | 2 | 2 | F | 100/ 10.88 | 89/ 28.32 74/ 35.84 | 104/ 69.28 | 67/ 510.68 | 489,866 | 452.51 | |
| 47 | 105 | 2 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | F | 104/ 10.42 | 89/ 25.14 73/ 36.02 | 104/ 61.70 | 67/ 509.14 | 488,501 | 452.76 | |
| 48 | 102 | 2 | 2 | 2 | 2 | 9 | 2 | 4 | 2 | F | 104/ 10.38 | 74/ 38.06 NONE | 104/ 65.58 | 67/ 506.99 | 489,382 | 452.52 | |

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

* Replaced prior to STS-12

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 1

| Miss. Seq. No. | STS- Orb. No. | Main Engine Pos. 1 Comp. | | | | | | | | | | | Main Engine Position 1 Performance Summary | | | | | Remarks | | |
|----------------|---------------|--------------------------|--------|--------|---------|---------|---------|---------|---------|-------|-------|---------|--|---|--|--|----------------------------|------------|------------------------------|--------|
| | | E n g | M C C | N z l | L P O T | H P O T | L P P P | H P P T | P P P P | P W H | P D I | C n t l | Attained Max Throttle, percent/ time, sec | Attained Max q Throttle, percent/ time, sec | Re-attained Max Throttle, percent/ time, sec | Attained 3g Throttle, percent/ time, sec | Vacuum Thrust lb @ 150 sec | | Vacuum Specific Impulse, sec | |
| 49 | 46 104 | 2 0 0 | 2 0 0 | 2 0 0 | 2 0 0 | 6 0 0 | 2 0 0 | 2 0 0 | 2 0 0 | 2 0 0 | 2 0 0 | 2 0 0 | 2 0 0 | 2 0 0 | 104/ 10:32 | 82/ 30.16 | 104/ 65.20 | 67/ 509.37 | 487,908 | 452.66 |
| | | 3 2 3 | 2 3 3 | 3 0 3 | 3 0 3 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 67/ 57.84 | | | | | |
| | | 2 7 0 | 2 0 5 | 7 3 3 | 3 8 9 | R 1 | | | | | | | | | | | | | | |
| 50 | 47 105 | 2 0 0 | 2 1 0 | 2 1 0 | 2 1 0 | 4 1 0 | 4 1 0 | 4 1 0 | 4 1 0 | 4 1 0 | 4 1 0 | 4 1 0 | 4 1 0 | 100/ 4:23 | 67/ 34.20 | 104/ 66.36 | 67/ 513.73 | 489,322 | 452.56 | |
| | | 2 0 1 | 2 0 1 | 2 0 0 | 2 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | NONE | | | | | | |
| | | 6 4 4 | 4 4 9 | 8 2 0 | 2 2 0 | R 2 | | | | | | | | | | | | | | |
| 51 | 52 102 | 2 0 0 | 2 0 0 | 2 0 0 | 2 0 0 | 4 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 100/ 4:16 | 95/ 25.86 | 104/ 68.10 | 67/ 511.79 | 489,255 | 452.58 | |
| | | 3 2 1 | 0 1 1 | 0 1 2 | 0 1 2 | 2* 2* | 2* 2* | 2* 2* | 2* 2* | 2* 2* | 2* 2* | 2* 2* | 2* 2* | 67/ 31.30 | | | | | | |
| | | 0 6 3 | 8 1 4* | 8 1 4* | 6* 5 | R* 3* | | | | | | | | | | | | | | |
| 52 | 53 103 | 2 0 0 | 2 0 0 | 2 1 1 | 2 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 4 1 1 | 100/ 4:07 | 73/ 28.07 | 104/ 61.19 | 67/ 507.11 | 489,180 | 452.53 | |
| | | 2 1 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | 0 0 0 | | | | | | | |
| | | 4 3 6 | 5 8 1 | 8 1 8 | 6 2 6 | R 1 | | | | | | | | | | | | | | |

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 1

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 2

| Miss. Seq. No. | STS-Orb. OV-No. | Main Engine Pos. 2 Comp. | | | | | | | | | Main Engine Position 2 Performance Summary | | | | | Remarks | | | | | | | | | | | |
|----------------|-----------------|--------------------------|---|---|---|---|---|---|---|---|--|--|---|---|-----------------------------|---------|------------------------------|---|----|---------|-----|---------|----|----------|---------|--------|--|
| | | E | M | N | L | H | L | H | P | C | Attained Max Throttle, percent/time, sec | Attained Max q Throttle, percent/time, sec | Re-attained Max Throttle, percent/time, sec | Attained 3g Throttle, percent/time, sec | Vacuum Thrust, lb @ 150 sec | | Vacuum Specific Impulse, sec | | | | | | | | | | |
| 1 | 102 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 65 | 55.00 * | 100 | 73.00 * | 65 | 513.00 * | 408,610 | 454.63 | |
| 2 | 102 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 68 | 58.00 * | 100 | 70.00 * | 65 | 516.00 * | 470,795 | 454.45 | |
| 3 | 102 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 68 | 42.00 * | 100 | 62.00 * | 65 | 514.00 * | 470,972 | 454.44 | |
| 4 | 102 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 65 | 46.30 * | 100 | 60.800 | 65 | 513.40 | 470,520 | 454.48 | |
| 5 | 102 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 85 | 42.90 * | 100 | 62.30 * | 65 | 511.30 * | 470,831 | 452.76 | |
| 6 | 099 | 2 | 2 | 2 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 81 | 39.30 * | 104 | 71.60 * | 65 | 500.30 * | 488,967 | 453.26 | |

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 2

| Miss. Seq. No. | STS-Orb. No. | Main Engine Pos. 2 Comp. | | | | | | | | | | | | | | | | | | | | | | | | Main Engine Position 2 Performance Summary | | | | Remarks | | | | | |
|----------------|--------------|--------------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|---|--------------------------|--------------------------------------|--|---|---|--------------------|---------|------------------------------|-------|-------|-------|-------|--|-------|-------------------------|-------|---------|--------|---------|---------|------------------------------------|--|
| | | Main Engine Pos. 2 Comp. | | | | | | | | | | | | Main Engine Pos. 2 Comp. | | | | | | | | | | | | Vacuum Thrust | | Vacuum Specific Impulse | | | | | | | |
| | | E n g i n e | M C C | N C | L P | L P | H P | H P | L P | L P | H P | H P | P | C | Attained Throttle, percent/time, sec | Attained Max q Throttle, percent/time, sec | Re-attained Max Throttle, percent/time, sec | Attained 3g Throttle, percent/time, sec | Vacuum Thrust lb e | 150 sec | Vacuum Specific Impulse, sec | | | | | | | | | | | | | | |
| 7 | 099 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 9 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 5 | 5 | 4 | 5 | 3 | 7 | 37.20 | 104 | 70.60 | 65 | 501.00 | 488,668 | 453.68 | | |
| 8 | 099 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 9 | 2 | 2 | 2 | 0 | 0 | 1 | 1 | 1 | 1 | 5 | 5 | 4 | 5 | 3 | 69 | 34.10 | 100 | 70.90 | 65 | 522.00 | 470,728 | 453.41 | |
| 9 | 102 | 2 | 4 | 4 | 2 | 9 | 4 | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 2 | 0 | 4 | 10.50 | 37.40 | 104 | 68.80 | 78 | 37.40 | 100 | 10.50 | 78 | 37.40 | 100 | 68.80 | 65 | 510.20 | 487,804 | 453.46 | |
| 10 | 41B 099 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 9 | 2 | 2 | 2 | 0 | 5 | 100 | 4.54 | 73 | 38.51 | 100 | 69.80 | 73 | 38.51 | 100 | 4.54 | 73 | 38.51 | 65 | 522.10 | 471,002 | 453.31 | | |
| 11 | 41C 099 | 2 | 4 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 5 | 104 | 10.91 | 67 | 36.11 | 104 | 67.69 | 67 | 36.11 | 104 | 10.91 | 67 | 36.11 | 65 | 511.35 | 488,495 | 453.33 | | |
| 12 | 41D 103 | 2 | 4 | 4 | 2 | 9 | 4 | 2 | 2 | 2 | 0 | 2 | 2 | 2 | 0 | 0 | 4 | 104 | 11.8 | 84 | 27.57 | 104 | 77.96 | 84 | 27.57 | 104 | 11.8 | 65 | 38.38 | 65 | 515.79 | 487,572 | 453.52 | First 2-step main engine throttle. | |

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

**SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 2**

| Miss. Seq. No. | STS- Orb. No. OV- | Main Engine Pos. 2 Comp. | | | | | | | | | | | | | | Main Engine Position 2 Performance Summary | | | | Remarks | | | | | | | | | | | |
|----------------|-------------------|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|---|---|---------|----------------------------|------------------------------|-------|-------|-------|-------|--------|---------|---------|--------------------------------|--|
| | | E | M | N | L | H | L | H | L | P | H | P | P | C | D | Attained Throttle, percent/time, sec | Attained Max q Throttle, percent/time, sec | Re-attained Max Throttle, percent/time, sec | Attained 3g Throttle, percent/time, sec | | Vacuum Thrust lb @ 150 sec | Vacuum Specific Impulse, sec | | | | | | | | | |
| 13 | 41G 099 | 2 | 4 | 2 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 2 | 9 | 2 | 9 | 2 | 0 | 5 | 92 | 25.63 | 65 | 36.15 | 100 | 69.15 | 65 | 531.29 | 468,816 | 453.23 | HPFTP 9311R1 replaced 2018. |
| 14 | 51A 103 | 2 | 4 | 4 | 2 | 9 | 4 | 2 | 9 | 4 | 2 | 2 | 0 | 0 | 2 | 2 | 0 | 0 | 9 | 89 | 22.25 | 67 | 37.09 | 104 | 77.33 | 65 | 513.99 | 489,000 | 453.36 | | |
| 15 | 51C 103 | 2 | 4 | 4 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 0 | 9 | 92 | 22.73 | 65 | 38.57 | 104 | 71.45 | 65 | 511.51 | 489,208 | 453.29 | HPOTP 9211 replaced by 2018R1. |
| 16 | 51D 103 | 2 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 2 | 90 | 22.61 | 65 | 38.21 | 100 | 78.41 | 65 | 532.83 | 469,405 | 453.45 | Controller F9 replaced by F22. | |
| 17 | 51B 099 | 2 | 4 | 2 | 0 | 2 | 2 | 0 | 2 | 0 | 2 | 2 | 0 | 0 | 3 | 2 | 9 | 2 | 5 | 94 | 25.89 | 65 | 36.85 | 104 | 70.93 | 65 | 515.79 | 488,270 | 453.40 | | |
| 18 | 51G 103 | 2 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 4 | 2 | 4 | 2 | 0 | 9 | 83 | 27.64 | 65 | 38.52 | 104 | 78.56 | 65 | 516.26 | 489,900 | 453.32 | HPOTP 2018R1 replaced by 2016R3. HPFTP 2017R2 replaced by 4201. |

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 2

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 2

| Miss. No. | STS- No. | Orb. OV- | Main Engine Pos. 2 Comp. | | | | | | | | | | | | Main Engine Position 2 Performance Summary | | | | Remarks | | | |
|-----------|-------------|-------------|--------------------------|-------------|-------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|---|--|--|-------------------------------------|--------------|---------------------------------------|--------|--|
| | | | E n g | M C C | M C C | N C C | L P O T P | H P O T P | L P F T P | L P F T P | P P H I C | P P V H I | C n t k l | Attained Max Throttle, percent/ time, sec | Attained Max Throttle, percent/ time, sec | Re-attained Max Throttle, percent/ time, sec | Attained 3g Throttle, percent/ time, sec | Vacuum Thrust lb @ 150 sec | | Vacuum Specific Impulse, sec | | |
| 24 | 61C | | 2 | 4 | 4 | 4 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 85 | 104 11.15 | 104 72.79 | 67 502.37 | 590,277 | 453.32 | |
| 25 | 51L | 099 | 2 | 4 | 4 | 4 | 2 | 4 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 94 | 104 10.76 | 104 58.28 | N/A | N/A | N/A | |
| 26 | 26 | 103 | 2 | 4 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 102 | 104 65.52 | 65 512.40 | 488,590 | 452.96 | | |
| 27 | 27 | 104 | 2 | 4 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 6 | 96 | 104 64.32 | 65 511.80 | 488,238 | 454.64 | | |
| 28 | 29 | 103 | 2 | 4 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 66 | 104 63.96 | 65 509.08 | 488,380 | 452.96 | | |
| 29 | 30 | 104 | 2 | 4 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 9 | 102/ 26.68 | 104 62.36 | 65 514.28 | 488,022 | 454.67 | | |

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 2

| Miss. Seq. No. | STS-Orb. No. | Main Engine Pos. 2 Comp. | | | | | | | | | | Main Engine Position 2 Performance Summary | | | | Remarks | | | | | | | | | | |
|----------------|--------------|--------------------------|-------|-------|---------|---------|---------|---------|-------|-----------|---|---|--|--|----------------------------|---------|------------------------------|---|---|---|-------------------------|------------|------------|---------|--------|--|
| | | E n g | M C C | N z l | L P O T | H P O T | L P F T | H P F T | P P P | C n t l y | Attained Max Throttle, percent/ time, sec | Attained Max q Throttle, percent/ time, sec | Re-attained Max Throttle, percent/ time, sec | Attained 3g Throttle, percent/ time, sec | Vacuum Thrust lb @ 150 sec | | Vacuum Specific Impulse, sec | | | | | | | | | |
| 30 | 28 | 102 | 2 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 5 | 2 | 2 | 0 | 0 | 1 | 1 | 5 | 97/ 27.20 65/ 33.76 | 104/ 65.76 | 65/ 515.64 | 487,742 | 453.00 | |
| 31 | 34 | 104 | 2 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 3 | 2 | 2 | 0 | 0 | 1 | 1 | 7 | 100/ 26.24 65/ 34.24 | 104/ 65.12 | 65/ 511.84 | 488,247 | 453.66 | |
| 32 | 33 | 103 | 2 | 2 | 4 | 2 | 4 | 2 | 6 | 2 | 6 | 2 | 1 | 1 | 0 | 2 | 2 | 2 | 7 | 8 | 97/ 26.60 65/ 40.84 | 104/ 56.04 | 65/ 506.64 | 489,478 | 453.55 | |
| 33 | 32 | 102 | 2 | 2 | 4 | 2 | 4 | 2 | 2 | 2 | 4 | 2 | 4 | 0 | 0 | 1 | 2 | 5 | 2 | 2 | 65/ 34.28 102/ 24.36 | 104/ 65.16 | 65/ 512.04 | 488,775 | 452.93 | |
| 34 | 36 | 104 | 2 | 2 | 4 | 2 | 4 | 2 | 2 | 2 | 6 | 2 | 6 | 0 | 0 | 1 | 1 | 7 | 5 | 7 | 98/ 27.56 75/ 35.24 | 104/ 59.56 | 65/ 509.76 | 488,126 | 454.74 | |

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 2

| Miss. Seq. No. | STS- No. | Orb. Ov- | Main Engine Pos. 2 Comp. | | | | | | | | | | | | Main Engine Position 2 Performance Summary | | | | Remarks | | | | | |
|----------------|----------|----------|--------------------------|---|---|---|---|---|---|---|---|---|---|---|--|---------------|---------------|---------------|---------------|---------------------------------------|---|--|---------------------------------------|----------------------------|
| | | | E | M | N | L | H | L | H | P | P | L | H | P | P | O | P | C | | Attained Throttle, percent/ time, sec | Attained Max q Throttle, percent/ time, sec | Re-attained Max Throttle, percent/ time, sec | Attained Throttle, percent/ time, sec | Vacuum Thrust lb @ 150 sec |
| 35 | 31 | 103 | 2 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 6 | 2 | 6 | 2 | 2 | 2 | F | 104/ 10.40 | 97/ 24.48 | 104/ 65.60 | 65/ 510.72 | 489,599 | 453.56 | |
| | | | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 2 | 2 | 7 | | 67/ 34.56 | | | | | | |
| | | | 1 | 9 | 7 | | 0 | 8 | 0 | 2 | 8 | | | | | | | | | | | | | |
| 36 | 41 | 103 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | F | 104/ 10.52 | 100/ 24.28 | 104/ 65.08 | 65/ 509.72 | 489,355 | 453.56 | | |
| | | | 0 | 0 | 0 | 1 | 5 | 1 | 0 | 0 | 2 | 7 | | | | | | 67/ 34.20 | | | | | | |
| | | | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 7 | | | | | | | | | | | | | |
| | | | 1 | 9 | 7 | | 0 | 1 | 0 | 0 | 8 | | | | | | | | | | | | | |
| 37 | 38 | 104 | 2 | 4 | 2 | 2 | 4 | 2 | 4 | 2 | 6 | 2 | 6 | 2 | P | 104/ 10.36 | 72/ 32.60 | 104/ 68.60 | 65/ 509.40 | 489,242 | 450.95 | | | |
| | | | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 7 | | | | | | | | | | | | | |
| | | | 2 | 0 | 2 | 0 | 0 | 2 | 0 | 2 | 2 | 2 | 2 | 2 | 7 | | | | | | | | | |
| | | | 2 | 6 | 3 | 4 | 7 | 4 | 7 | 4 | 7 | 2 | 2 | 2 | 2 | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 38 | 35 | 102 | 2 | 2 | 4 | 4 | 6 | 4 | 4 | 4 | 4 | 2 | 4 | 2 | F | 104/ 10.36 | 71/ 33.08 | 104/ 69.56 | 65/ 511.32 | 489,022 | 452.55 | | | |
| | | | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 6 | | | | | | | | | | | |
| | | | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 6 | | | | | | | | | | | | |
| | | | 2 | 0 | 2 | 6 | 3 | 6 | 3 | 6 | 7 | 5 | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| 39 | 37 | 104 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 4 | 2 | 4 | 2 | 4 | F | 104/ 10.32 | 87/ 24.56 | 104/ 65.52 | 65/ 512.52 | 489,766 | 453.53 | | | |
| | | | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 9 | | | | | 67/ 34.96 | | | | | | |
| | | | 3 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 9 | | | | | | | | | | | | | |
| | | | 1 | 9 | 7 | | 0 | 7 | 0 | 0 | 8 | | | | | | | | | | | | | |

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 2

| Miss. Seq. No. | STS- No. | Orb. OV- | Main Engine Pos. 2 Comp. | | | | | | | | | | | | Main Engine Position 2 Performance Summary | | | | Remarks | | | |
|----------------|----------|----------|--------------------------|---|---|---|---|---|---|---|---|---|---|--|--|----------------------------|------------------------------|---------------|---------------|---------|--------|--|
| | | | E | M | N | L | H | L | H | P | C | Attained Max Throttle, percent/ time, sec | Attained Max q Throttle, percent/ time, sec | Re-attained Max Throttle, percent/ time, sec | Attained 3g Throttle, percent/ time, sec | Vacuum Thrust lb @ 150 sec | Vacuum Specific Impulse, sec | | | | | |
| 40 | 39 | 103 | 2 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | F | 100/ 4.26 | 94/ 25.88 70/ 32.28 | 104/ 63.80 | 67/ 514.48 | 488,528 | 452.37 | |
| 41 | 40 | 102 | 2 | 4 | 2 | 2 | 4 | 8 | 6 | 2 | 2 | 4 | 0 | 0 | 7 | 104/ 10.48 | 98/ 26.80 71/ 36.08 | 104/ 66.80 | 67/ 509.84 | 488,499 | 450.53 | |
| 42 | 43 | 104 | 2 | 4 | 2 | 2 | 4 | 2 | 4 | 4 | 2 | 4 | 0 | 0 | 1 | 104/ 10.32 | 84/ 30.64 67/ 58.32 | 104/ 65.52 | 67/ 507.60 | 489,470 | 452.54 | |
| 43 | 48 | 103 | 2 | 4 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 9 | 100/ 4.34 | 89/ 27.56 67/ 34.60 | 104 66.28 | 67 516.48 | 488,867 | 453.57 | |
| 44 | 44 | 104 | 2 | 4 | 2 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 7 | 104/ 10.52 | 73/ 33.40 | 104/ 62.84 | 67 509.88 | 485,958 | 452.57 | |

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 2

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 3

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 3

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 3

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 3

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 3

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

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 3

| Miss. Seq. No. | STS-Orb. No. | Main Engine Pos. 3 Comp. | | | | | | | | | | | | Main Engine Position 3 Performance Summary | | | | Remarks | |
|----------------|--------------|--------------------------|---|---|---|---|---|---|---|---|---|---|-----------|--|--|---|---|---------|------------------------------|
| | | E | M | N | L | H | L | H | P | P | O | P | C | Attained Max Throttle, percent/time, sec | Attained Max Q Throttle, percent/time, sec | Re-attained Max Throttle, percent/time, sec | Attained 3g Throttle, percent/time, sec | | Vacuum Thrust lb @ time, sec |
| 49 | 46 | 2 | 2 | 2 | 4 | 6 | 4 | 2 | 4 | 2 | 4 | F | 104/10.54 | 82/30.38 | 104/65.42 | 67/509.59 | 489,037 | 452.33 | |
| | | 0 | 0 | 0 | 3 | 0 | 0 | 2 | 0 | 4 | 4 | F | | 67/58.06 | | | | | |
| | | 2 | 2 | 2 | 0 | 0 | 0 | 2 | 0 | 6 | 6 | F | | | | | | | |
| | | 7 | 4 | 7 | 2 | 8 | 7 | 5 | 4 | | | | | | | | | | |
| | | | | | | R | | | | | | | | | | | | | |
| | | | | | | 3 | | | | | | | | | | | | | |
| 50 | 47 | 2 | 4 | 4 | 2 | 6 | 2 | 2 | 2 | 2 | 4 | F | 100/4.34 | 67/34.44 | 104/66.60 | 67/513.97 | 489,010 | 452.51 | |
| | | 0 | 0 | 0 | 1 | 1 | 0 | 3 | 0 | 4 | 4 | F | | NONE | | | | | |
| | | 2 | 1 | 1 | 2 | 0 | 2 | 2 | 2 | 5 | 5 | F | | | | | | | |
| | | 9 | 2 | 5 | 1 | 3 | 9 | 2 | 7 | | | | | | | | | | |
| | | | | | | R | | | | | | | | | | | | | |
| | | | | | | 2 | | | | | | | | | | | | | |
| 51 | 52 | 2 | 2 | 5 | 2 | 4 | 2 | 2 | 4 | 2 | 4 | F | 100/4.37 | 95/26.12 | 104/68.36 | 67/512.05 | 488,992 | 452.56 | |
| | | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 3 | 3 | F | | 67/31.56 | | | | | |
| | | 3 | 3 | 0 | 3 | 0 | 3 | 3 | 0 | 4 | 4 | F | | | | | | | |
| | | 4 | 0 | 2 | 3 | 7 | 2 | 0 | 6 | | | | | | | | | | |
| | | | | | | R | | | | | | | | | | | | | |
| | | | | | | 1 | | | | | | | | | | | | | |
| 52 | 53 | 2 | 4 | 4 | 4 | 2 | 4 | 2 | 2 | 2 | 4 | F | 100/4.11 | 73/28.11 | 104/61.23 | 67/507.16 | 488,709 | 452.53 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | F | | | | | | | |
| | | 1 | 0 | 2 | 0 | 3 | 0 | 3 | 1 | 1 | 1 | F | | | | | | | |
| | | 7 | 2 | 3 | 9 | 1 | 9 | 2 | 8 | | | | | | | | | | |
| | | | | | | R | | | | | | | | | | | | | |
| | | | | | | 1 | | | | | | | | | | | | | |
| 53 | 54 | 2 | 4 | 2 | 2 | 4 | 4 | 2 | 4 | 2 | 4 | F | 104/4.12 | 72/27.00 | 104/56.60 | 67/503.61 | 487,808 | 452.44 | |
| | | 0 | 0 | 0 | 1 | 6 | 1 | 0 | 0 | 5 | 7 | F | | | | | | | |
| | | 1 | 1 | 2 | 3 | 0 | 0 | 3 | 0 | 7 | 7 | F | | | | | | | |
| | | 8 | 4 | 8 | 0 | 2 | 5 | 5 | 9 | | | | | | | | | | |
| | | | | | | R | | | | | | | | | | | | | |
| | | | | | | 1 | | | | | | | | | | | | | |
| 54 | 56 | 2 | 4 | 2 | 2 | 4 | 4 | 2 | 4 | 2 | 4 | F | 100/4.06 | 89/21.18 | 104/61.98 | 67/508.23 | 487,505 | 452.51 | |
| | | 0 | 0 | 0 | 1 | 6 | 1 | 0 | 0 | 5 | 5 | F | | 69/28.38 | | | | | |
| | | 1 | 1 | 2 | 3 | 0 | 0 | 3 | 0 | 7 | 7 | F | | | | | | | |
| | | 8 | 4 | 8 | 0 | 2 | 5 | 5 | 9 | | | | | | | | | | |
| | | | | | | R | | | | | | | | | | | | | |
| | | | | | | 1 | | | | | | | | | | | | | |

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

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

SHUTTLE FLIGHT HISTORIES
MAIN ENGINE POSITION 3

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

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

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

MAIN ENGINE SERIAL NUMBER/MAIN PROPULSION SYSTEM ENGINE LOCATION

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

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

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

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

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

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

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

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

| Mission Seq. No. | STS- No. | Orb. OV- | Mission Changes* | Event | Impact | Remarks |
|------------------|----------|----------|------------------|---|--|--|
| 4 | 4 | 102 | | Prelaunch rainstorms resulted in excessive moisture being absorbed by the tiles. | Tile bakout on-orbit required considerable mission replanning. Tile waterproofing was improved and tile witness panel was implemented. | See problem STS 4-1. |
| | | | | Both SRB's were lost after water impact. | Extensive recovery operations and problem analysis effort resulted. | |
| | | | | 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. |
| | | | | 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 | 5 | 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. |
| | | | | 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 H, leak into aft compartment was detected during FRP. Cracks in SSME No.1 detected by second FRP 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 NSFC FRP-3, and NSFC Delta FRP-3. |
| | | | | IUS failed to place TDRS in geosynchronous orbit. | Extensive TDRS maneuvering to achieve proper orbit was required. | |
| | | | | Humidity separator B circuit breaker tripped due to burned wire bundle. | Failure analysis and fixes delayed other IUS-boosted payloads and Specalab launch. | |
| 7 | 7 | 099 | 5 | Weather at NSC was unacceptable for landing. | Extensive review was made of wire routing and protection from abrasion. | See problem STS 6-8. |

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SHUTTLE FLIGHT HISTORIES
EVENTS ALTERING MISSION DURATION OR CAUSING SIGNIFICANT IMPACT TO SHUTTLE FLIGHT PROGRAM¹

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

¹PD = Delay on Pad; D = Launch Delay; E = Mission Extended; JSC/VP Program Mission Reports, STS-1 and S = Mission Shortened; a = actual launch date. JSC/VP3 Flight Problem Closures, STS-1 and subsequent missions.

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

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

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

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

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

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

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

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

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

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

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

A/IONICS
DATA PROCESSING (DPS) SUBSYSTEM

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | SYT |
|----------|--------|-------|-----------|--------------------------|-------------|-------------|---------------|------|------|
| 49 | STS-46 | OV104 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRO13 | 1 | F |
| 46 | STS-46 | OV104 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRO07 | 2 | F |
| 48 | STS-46 | OV104 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRO15 | 3 | F |
| 50 | STS-47 | OV105 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRO17 | 1 | F |
| 50 | STS-47 | OV105 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRO16 | 2 | F |
| 50 | STS-47 | OV105 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRO18 | 3 | F |
| 51 | STS-52 | OV102 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRO14 | 1 | F |
| 51 | STS-52 | OV102 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRO03 | 2 | F |
| 51 | STS-52 | OV102 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRO02 | 3 | F |
| 53 | STS-54 | OV106 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRU17 | 1 | F |
| 53 | STS-54 | OV106 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRU16 | 2 | F |
| 53 | STS-54 | OV106 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRU18 | 3 | F |
| 54 | STS-55 | OV102 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRU14 | 1 | F |
| 54 | STS-55 | OV102 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRU03 | 2 | F |
| 54 | STS-55 | OV102 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJRU02 | 3 | F |
| 36 | STS-41 | OV103 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 00000000J1 | 1 | F |
| 36 | STS-41 | OV103 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000020 | 2 | F |
| 36 | STS-41 | OV103 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000024 | 3 | F |
| 36 | STS-41 | OV103 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000034 | 4 | F |
| 36 | STS-41 | OV103 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000022 | 5 | F |
| 36 | STS-41 | OV103 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000018 | 6 | F |
| 37 | STS-38 | OV104 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000029 | 1 | F |
| 37 | STS-38 | OV104 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000023 | 2 | F |
| 37 | STS-38 | OV104 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000035 | 3 | F |
| 37 | STS-38 | OV104 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000007 | 4 | F |
| 37 | STS-38 | OV104 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000015 | 5 | F |
| 37 | STS-38 | OV104 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000036 | 6 | F |
| 37 | STS-38 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000021 | 1 | F |
| 38 | STS-35 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000006 | 2 | F |
| 38 | STS-35 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000033 | 3 | F |
| 38 | STS-35 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000017 | 4 | F |
| 38 | STS-35 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000038 | 5 | F |
| 38 | STS-35 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000001 | 6 | F |
| 41 | STS-40 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000025 | 1 | F/SP |
| 41 | STS-40 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000021 | 2 | F |
| 41 | STS-40 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000006 | 3 | F |
| 41 | STS-40 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000033 | 4 | F |
| 41 | STS-40 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000011 | 5 | F |
| 41 | STS-40 | OV102 | DPS | CENTRAL PROCESSING UNIT | MC615-0001 | -0210 | 0000000018 | 6 | F |
| 36 | STS-41 | OV103 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000000018 | 1 | F |
| 36 | STS-41 | OV103 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000000001 | 2 | F |
| 37 | STS-36 | OV104 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000000017 | 1 | F |
| 37 | STS-36 | OV104 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000000020 | 2 | F |
| 38 | STS-36 | OV102 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000000009 | 1 | F |
| 38 | STS-36 | OV102 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000000008 | 2 | F |
| 38 | STS-37 | OV104 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000000017 | 1 | F |
| 38 | STS-37 | OV104 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000000020 | 2 | F |
| 40 | STS-38 | OV103 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000000018 | 1 | F |
| 40 | STS-38 | 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 | STATUS |
|----------|--------|-------|-----------|--------------------------|-------------|-------------|---------------|------|--------|
| 44 | STS-44 | OV104 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000020 | 1 | F |
| 45 | STS-42 | OV103 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000018 | 1 | F |
| 46 | STS-42 | OV103 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000001 | 2 | F |
| 46 | STS-45 | OV104 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000017 | 1 | F |
| 47 | STS-45 | OV104 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000020 | 2 | F |
| 47 | STS-49 | OV106 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000010 | 2 | F |
| 47 | STS-49 | OV106 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000025 | 2 | F |
| 48 | STS-50 | OV102 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000009 | 1 | F |
| 48 | STS-50 | OV102 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000008 | 2 | F |
| 48 | STS-46 | OV104 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000017 | 1 | F |
| 49 | STS-46 | OV104 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000020 | 2 | F |
| 50 | STS-47 | OV105 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000010 | 2 | F |
| 50 | STS-47 | OV105 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000025 | 2 | F |
| 51 | STS-52 | OV102 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000009 | 1 | F |
| 51 | STS-52 | OV102 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000008 | 2 | F |
| 52 | STS-54 | OV105 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000010 | 2 | F |
| 53 | STS-54 | OV105 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000025 | 2 | F |
| 54 | STS-55 | OV102 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000009 | 1 | F |
| 54 | STS-55 | OV102 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 000000008 | 2 | F |
| 36 | STS-41 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000007 | 1 | F |
| 36 | STS-41 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000022 | 2 | F |
| 36 | STS-41 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000021 | 3 | F |
| 36 | STS-41 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000025 | 4 | F |
| 37 | STS-38 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000020 | 1 | F |
| 37 | STS-38 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000029 | 2 | F |
| 37 | STS-38 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000026 | 3 | F |
| 37 | STS-38 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000012 | 4 | F |
| 38 | STS-35 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000024 | 1 | F |
| 38 | STS-35 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000032 | 2 | F |
| 38 | STS-35 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000018 | 3 | F |
| 38 | STS-35 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000033 | 4 | F |
| 39 | STS-37 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000020 | 1 | F |
| 39 | STS-37 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000029 | 2 | F |
| 39 | STS-37 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000026 | 3 | F |
| 39 | STS-37 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000012 | 4 | F |
| 40 | STS-39 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000007 | 1 | F |
| 40 | STS-39 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000022 | 2 | F |
| 40 | STS-39 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0110 | 000000021 | 3 | F |
| 40 | STS-39 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000025 | 4 | F |
| 41 | STS-40 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000035 | 1 | F |
| 41 | STS-40 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0110 | 000000030 | 3 | F |
| 41 | STS-40 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000033 | 4 | F |
| 42 | STS-43 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0110 | 000000034 | 1 | F |
| 42 | STS-43 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000029 | 2 | F |
| 42 | STS-43 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000026 | 3 | F |
| 42 | STS-43 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000012 | 4 | F |
| 43 | STS-48 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000027 | 1 | F |
| 43 | STS-48 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000022 | 2 | F |
| 43 | STS-48 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000021 | 3 | F |
| 43 | STS-48 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000025 | 4 | F |
| 44 | STS-44 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0110 | 000000009 | 1 | F |
| 44 | STS-44 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000029 | 2 | F |
| 44 | STS-44 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000026 | 3 | F |
| 44 | STS-44 | OV104 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000012 | 4 | F |
| 45 | STS-42 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000027 | 1 | F |
| 45 | STS-42 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000022 | 2 | F |
| 45 | STS-42 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 000000021 | 3 | F |
| 45 | STS-42 | OV103 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0108 | 000000025 | 4 | F |

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

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

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

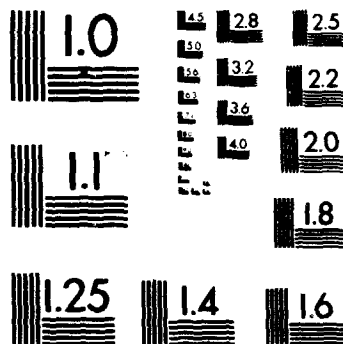
| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SL | ST |
|----------|--------|-------|-----------|------------------------------|-------------|-------------|---------------|----|------|
| 53 | STS-54 | OV108 | DPS | GENERAL PURPOSE COMPUTER | MC615-0025 | -0203 | 0000000522 | 3 | F |
| 53 | STS-54 | OV108 | DPS | GENERAL PURPOSE COMPUTER | MC615-0025 | -0203 | 0000000510 | 4 | F |
| 53 | STS-54 | OV108 | DPS | GENERAL PURPOSE COMPUTER | MC615-0025 | -0203 | 0000000520 | 5 | F |
| 54 | STS-55 | OV102 | DPS | GENERAL PURPOSE COMPUTER | MC615-0025 | -0203 | 0000000536 | 6 | F/SP |
| 54 | STS-55 | OV102 | DPS | GENERAL PURPOSE COMPUTER | MC615-0025 | -0202 | 0000000527 | 2 | F |
| 54 | STS-55 | OV102 | DPS | GENERAL PURPOSE COMPUTER | MC615-0025 | -0203 | 0000000511 | 3 | F |
| 54 | STS-55 | OV102 | DPS | GENERAL PURPOSE COMPUTER | MC615-0025 | -0203 | 0000000532 | 4 | F |
| 54 | STS-55 | OV102 | DPS | GENERAL PURPOSE COMPUTER | MC615-0025 | -0203 | 0000000533 | 5 | F |
| 54 | STS-55 | OV102 | DPS | GENERAL PURPOSE COMPUTER | MC615-0025 | -0203 | 0000000535 | 6 | F |
| 36 | STS-41 | OV109 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000001 | 1 | F |
| 36 | STS-41 | OV103 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000038 | 2 | F |
| 36 | STS-41 | OV103 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000008 | 3 | F |
| 36 | STS-41 | OV103 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000030 | 4 | F |
| 37 | STS-38 | OV104 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000020 | 5 | F |
| 37 | STS-38 | OV104 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000017 | 1 | F |
| 37 | STS-38 | OV104 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000029 | 1 | F |
| 37 | STS-38 | OV104 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000023 | 3 | F |
| 37 | STS-38 | OV104 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000026 | 4 | F |
| 37 | STS-38 | OV104 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000015 | 5 | F |
| 38 | STS-35 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000031 | 1 | F |
| 38 | STS-35 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000032 | 2 | F |
| 38 | STS-35 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000025 | 3 | F |
| 38 | STS-35 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000037 | 4 | F |
| 38 | STS-35 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000024 | 6 | F |
| 41 | STS-40 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000038 | 1 | F/SP |
| 41 | STS-40 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000031 | 2 | F |
| 41 | STS-40 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000032 | 2 | F |
| 41 | STS-40 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000025 | 3 | F |
| 41 | STS-40 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000024 | 4 | F |
| 41 | STS-40 | OV102 | DPS | INPUT/OUTPUT PROCESSING UNIT | MC615-0001 | -0314 | 0000000014 | 5 | F |
| 36 | STS-41 | OV103 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000001 | 1 | F |
| 36 | STS-41 | OV103 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000006 | 2 | F |
| 36 | STS-41 | OV103 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000017 | 3 | F |
| 37 | STS-38 | OV104 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000004 | 1 | F |
| 37 | STS-38 | OV104 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000010 | 2 | F |
| 37 | STS-38 | OV104 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000005 | 3 | F |
| 38 | STS-35 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000019 | 1 | F |
| 38 | STS-35 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000015 | 2 | F |
| 38 | STS-35 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000025 | 3 | F |
| 38 | STS-35 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000025 | 3 | F |
| 38 | STS-35 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000004 | 1 | F |
| 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 | STATUS | STATA |
|----------|--------|-------|-----------|--------------------------|-------------|-------------|---------------|------|--------|-------|
| 44 | STS-44 | OV104 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000005 | 3 | F | S |
| 45 | STS-42 | OV103 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000001 | 1 | F | L |
| 46 | STS-42 | OV103 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000006 | 2 | F | O |
| 46 | STS-42 | OV103 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000017 | 3 | F | T |
| 46 | STS-45 | OV104 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000004 | 1 | F | T |
| 46 | STS-45 | OV104 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000010 | 2 | F | T |
| 46 | STS-47 | OV104 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000005 | 3 | F | T |
| 47 | STS-47 | OV108 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000201 | 1 | F | T |
| 47 | STS-49 | OV108 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000203 | 2 | F | T |
| 47 | STS-49 | OV108 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000202 | 3 | F | T |
| 48 | STS-50 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000019 | 1 | F | T |
| 48 | STS-50 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000015 | 2 | F | T |
| 48 | STS-50 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000025 | 3 | F | T |
| 49 | STS-46 | OV104 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000004 | 1 | F | T |
| 49 | STS-46 | OV104 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000010 | 2 | F | T |
| 49 | STS-46 | OV104 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000005 | 3 | F | T |
| 49 | STS-47 | OV105 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000011 | 1 | F | T |
| 50 | STS-47 | OV105 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000003 | 2 | F | T |
| 50 | STS-47 | OV105 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000002 | 3 | F | T |
| 50 | STS-47 | OV105 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000019 | 1 | F | T |
| 51 | STS-52 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000011 | 2 | F | T |
| 51 | STS-52 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000005 | 3 | F | T |
| 51 | STS-52 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000011 | 1 | F | T |
| 53 | STS-54 | OV105 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000003 | 2 | F | T |
| 53 | STS-54 | OV105 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000007 | 3 | F | T |
| 54 | STS-55 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000019 | 1 | F | T |
| 54 | STS-55 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000019 | 2 | F | T |
| 54 | STS-55 | OV102 | DPS | KEYBOARD UNIT | MC615-0007 | -0104 | 0000000025 | 3 | F | T |
| 36 | STS-41 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000122 | 1 | F | F |
| 36 | STS-41 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000124 | 2 | F | F |
| 36 | STS-41 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000155 | 3 | F | F |
| 36 | STS-41 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000085 | 4 | F | F |
| 37 | STS-38 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000134 | 1 | F | F |
| 37 | STS-38 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000064 | 2 | F | F |
| 37 | STS-38 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000043 | 3 | F | F |
| 37 | STS-38 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000123 | 4 | F | F |
| 38 | STS-35 | OV102 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000132 | 1 | F | F |
| 38 | STS-35 | OV102 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000063 | 2 | F | F |
| 38 | STS-35 | OV102 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000135 | 3 | F | F |
| 38 | STS-35 | OV102 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000136 | 4 | F | F |
| 39 | STS-37 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000134 | 1 | F | F |
| 39 | STS-37 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000099 | 2 | F | F |
| 39 | STS-37 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000043 | 3 | F | F |
| 39 | STS-37 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000124 | 4 | F | F |
| 40 | STS-39 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000122 | 1 | F | F |
| 40 | STS-39 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000124 | 2 | F | F |
| 40 | STS-39 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000135 | 3 | F | F |
| 40 | STS-39 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000136 | 4 | F | F |
| 40 | STS-39 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000135 | 3 | F | F |
| 41 | STS-40 | OV102 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000132 | 1 | F | F |
| 41 | STS-40 | OV102 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000121 | 2 | F | F |
| 41 | STS-40 | OV102 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000135 | 3 | F | F |
| 41 | STS-40 | OV102 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000134 | 4 | F | F |
| 42 | STS-43 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000156 | 4 | F | F |
| 42 | STS-43 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000064 | 2 | F | F |
| 42 | STS-43 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000043 | 3 | F | F |
| 42 | STS-43 | OV104 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000123 | 4 | F | F |
| 43 | STS-48 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000122 | 1 | F | F |
| 43 | STS-48 | OV103 | DPS | FLIGHT AFT MULT./DEMULT. | MC615-0004 | -6210 | 0000000124 | 2 | F | F |

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

4 OF 7

N96-11129 UNCLAS



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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLQT | STATA |
|----------|--------|-------|-----------|-------------------------------|-------------|-------------|---------------|------|-------|
| 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-38 | OV102 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -6610 | 0000000139 | 1 | F |
| 38 | STS-38 | OV102 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -6610 | 0000000088 | 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-38 | 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 | -6610 | 0000000139 | 1 | 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-46 | OV104 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -6610 | 0000000108 | 1 | F |
| 46 | STS-46 | 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 | -7600 | 0000000138 | 1 | F/SP |
| 48 | STS-50 | OV102 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -7600 | 0000000138 | 1 | F/SP |
| 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 | 0000000212 | 1 | F |
| 51 | STS-52 | OV102 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -7600 | 0000000138 | LM1 | F/SP |
| 51 | STS-52 | OV102 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -7600 | 0000000138 | 1 | F/SP |
| 53 | STS-54 | OV105 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -7600 | 0000000138 | 1 | F |
| 53 | STS-54 | OV105 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -7600 | 0000000138 | 1 | F |
| 54 | STS-55 | OV102 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -7600 | 0000000138 | LM1 | F/SP |
| 54 | STS-55 | OV102 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -7600 | 0000000138 | 1 | F/SP |
| 54 | STS-55 | OV102 | DPS | COMMAND DECODER MULT./DEMULT. | MC615-0004 | -7600 | 0000000138 | 1 | F |
| 36 | STS-41 | OV103 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000119 | 1 | F |
| 36 | STS-41 | OV103 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000170 | 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 | -6710 | 0000000092 | 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 | -6710 | 0000000119 | 1 | 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 | -6710 | 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 | 0000000152 | 1 | 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 | -6710 | 0000000092 | 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 | 0000000119 | 1 | 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 | -6710 | 0000000092 | 2 | F |
| 45 | STS-42 | OV103 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000092 | 2 | F |
| 45 | STS-42 | OV103 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000092 | 2 | F |
| 46 | STS-42 | OV103 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000119 | 1 | F |
| 46 | STS-42 | OV103 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000119 | 1 | F |

C-4

ORIGINAL PART IS
OF POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SL | ST |
|----------|--------|-------|-----------|-----------------------|-------------|-------------|---------------|----|------|
| 46 | STS-45 | OV104 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000076 | 2 | F/SP |
| 47 | STS-49 | OV105 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -7700 | 0000000220 | 1 | F |
| 47 | STS-49 | OV105 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -7700 | 0000000219 | 2 | F |
| 48 | STS-50 | OV102 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000152 | 1 | F |
| 48 | STS-50 | OV102 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000120 | 2 | F |
| 49 | STS-46 | OV104 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000119 | 1 | F |
| 49 | STS-46 | OV104 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000076 | 2 | F/SP |
| 60 | STS-47 | OV105 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -7700 | 0000000220 | 1 | F |
| 60 | STS-47 | OV105 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -7700 | 0000000219 | 2 | F |
| 81 | STS-52 | OV102 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000152 | 1 | F |
| 81 | STS-52 | OV102 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000120 | 2 | F |
| 53 | STS-54 | OV105 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -7700 | 0000000220 | 1 | F |
| 53 | STS-54 | OV105 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -7700 | 0000000219 | 2 | F |
| 54 | STS-55 | OV102 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000152 | 1 | F |
| 54 | STS-55 | OV102 | DPS | PAYLOAD MULT./DEMULT. | MC615-0004 | -6710 | 0000000120 | 2 | F |
| 36 | STS-41 | OV103 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000008 | 1 | F |
| 36 | STS-41 | OV103 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000003 | 2 | F |
| 37 | STS-38 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000005 | 1 | F |
| 37 | STS-38 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000006 | 2 | F |
| 38 | STS-35 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0201 | 0000000010 | 1 | F |
| 38 | STS-35 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000007 | 2 | F |
| 39 | STS-37 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000005 | 1 | F |
| 39 | STS-37 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000006 | 2 | F |
| 40 | STS-39 | OV103 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000006 | 1 | F |
| 40 | STS-39 | OV103 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000003 | 2 | F |
| 41 | STS-40 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0201 | 0000000009 | 1 | F |
| 41 | STS-40 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000007 | 2 | F |
| 42 | STS-43 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000009 | 1 | F |
| 42 | STS-43 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000008 | 2 | F |
| 43 | STS-48 | OV103 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000009 | 1 | F |
| 43 | STS-48 | OV103 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000008 | 2 | F |
| 44 | STS-44 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000009 | 1 | F |
| 44 | STS-44 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000008 | 2 | F |
| 45 | STS-42 | OV103 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000009 | 1 | F |
| 45 | STS-42 | OV103 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000008 | 2 | F |
| 46 | STS-45 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000009 | 1 | F |
| 46 | STS-45 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000008 | 2 | F |
| 47 | STS-49 | OV105 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000009 | 1 | F |
| 47 | STS-49 | OV105 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000008 | 2 | F |
| 48 | STS-50 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000009 | 1 | F |
| 48 | STS-50 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000008 | 2 | F |
| 49 | STS-46 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000009 | 1 | F |
| 49 | STS-46 | OV104 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000008 | 2 | F |
| 60 | STS-47 | OV105 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000009 | 1 | F |
| 60 | STS-47 | OV105 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000008 | 2 | F |
| 51 | STS-52 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000009 | 1 | F |
| 51 | STS-52 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000008 | 2 | F |
| 53 | STS-54 | OV105 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000009 | 1 | F |
| 53 | STS-54 | OV105 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000008 | 2 | F |
| 54 | STS-55 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000009 | 1 | F |
| 54 | STS-55 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0202 | 0000000008 | 2 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | L O T | S A T |
|-------------|--------|-------|-----------|-------------------------------|----------------|----------------|------------------|-------------|-------------|
| 54 | STS-55 | OV102 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJR014 | 1 | F |
| 54 | STS-55 | OV102 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJR003 | 2 | F |
| 54 | STS-55 | OV102 | DPS | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000TJR002 | 3 | F |
| 54 | STS-55 | OV102 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000UUUUU9 | 1 | F |
| 54 | STS-55 | OV102 | DPS | DATA BUS ISOLATION AMP. | MC409-0019 | -0002 | 0000UUUUU8 | 2 | F |
| 54 | STS-55 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 0000UUUUJ9 | 1 | F |
| 54 | STS-55 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 0000UUUUJ7 | 2 | F |
| 54 | STS-55 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0110 | 0000UUUUJ0 | 3 | F |
| 54 | STS-55 | OV102 | DPS | DISPLAY ELECTRONICS UNIT | MC615-0008 | -0109 | 0000UUUUJ3 | 4 | F |
| 54 | STS-55 | OV102 | DPS | DISPLAY UNIT | MC615-0006 | -0112 | 0000UUUUJ9 | 1 | F |
| 54 | STS-55 | OV102 | DPS | DISPLAY UNIT | MC615-0006 | -0112 | 0000UUUUJ7 | 2 | F |
| 54 | STS-55 | OV102 | DPS | DISPLAY UNIT | MC615-0006 | -0112 | 0000UUUUJ3 | 3 | F |
| 54 | STS-55 | OV102 | DPS | DISPLAY UNIT | MC615-0006 | -0112 | 0000UUUUJ7 | 4 | F |
| 54 | STS-55 | OV102 | DPS | ENGINE INTERFACE UNIT | MC409-0009 | -0012 | 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 | 0000000136 | 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 | 0000000002 | 1 | F |
| 54 | STS-55 | OV102 | DPS | MASS MEMORY UNIT | MC615-0005 | -0300 | 0000000004 | 2 | F |

AVIONICS
GUIDANCE NAVIGATION AND CONTROL (GNC) SUBSYSTEM

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLATA |
|----------|--------|-------|-----------|------------------------------|-------------|-------------|---------------|-------|
| 50 | STS-47 | OV105 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000026 | F |
| 50 | STS-47 | OV105 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000027 | F |
| 51 | STS-52 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000023 | F |
| 51 | STS-52 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000006 | F |
| 51 | STS-52 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000011 | F |
| 51 | STS-52 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000007 | F |
| 53 | STS-54 | OV105 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000029 | F |
| 53 | STS-54 | OV105 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000028 | F |
| 53 | STS-54 | OV105 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000026 | F |
| 53 | STS-54 | OV105 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000027 | F |
| 54 | STS-55 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000023 | F |
| 54 | STS-55 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000006 | F |
| 54 | STS-55 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000011 | F |
| 54 | STS-55 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621 0043 | -2043 | 0000000007 | F |
| | | | | | | | | |
| 36 | STS-41 | OV103 | GNC | AIR DATA PROBE | MC432 0206 | -0005 | 0004274663 | F |
| 36 | STS-41 | OV103 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274667 | R |
| 37 | STS-38 | OV104 | GNC | AIR DATA PROBE | MC432 0206 | -0005 | 0004274662 | L |
| 37 | STS-38 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274664 | R |
| 38 | STS-35 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274661 | L |
| 38 | STS-35 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274626 | R |
| 39 | STS-37 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274662 | L |
| 39 | STS-37 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274664 | R |
| 39 | STS-39 | OV103 | GNC | AIR DATA PROBE | MC432 0206 | -0005 | 0004274663 | L |
| 40 | STS-39 | OV103 | GNC | AIR DATA PROBE | MC432 0206 | -0005 | 0004274667 | R |
| 41 | STS-40 | OV102 | GNC | AIR DATA PROBE | MC432 0206 | -0005 | 0004274661 | L |
| 41 | STS-40 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274666 | R |
| 42 | STS-43 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274662 | L |
| 42 | STS-43 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274664 | R |
| 43 | STS-48 | OV103 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274667 | R |
| 43 | STS-48 | OV103 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 000427466J | L |
| 44 | STS-44 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274662 | L |
| 44 | STS-44 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274664 | R |
| 45 | STS-42 | OV103 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274663 | L |
| 45 | STS-42 | OV103 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274667 | R |
| 46 | STS-45 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274662 | L |
| 46 | STS-45 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274664 | R |
| 47 | STS-49 | OV105 | GNC | AIR DATA PROBE | MC432 0206 | -0005 | 0598851599 | L |
| 47 | STS-49 | OV105 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0598851561 | R |
| 48 | STS-50 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274661 | L |
| 48 | STS-50 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274626 | R |
| 49 | STS-46 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274662 | L |
| 49 | STS-46 | OV104 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274664 | R |
| 50 | STS-47 | OV105 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0598851599 | L |
| 50 | STS-47 | OV105 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0598851561 | R |
| 51 | STS-52 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274661 | L |
| 51 | STS-52 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274626 | R |
| 53 | STS-54 | OV105 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0598851599 | L |
| 53 | STS-54 | OV105 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0598851561 | R |
| 54 | STS-55 | OV102 | GNC | AIR DATA PROBE | MC432 0206 | -0005 | 0004274661 | L |
| 54 | STS-55 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274667 | R |
| 54 | STS-55 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274662 | L |
| | | | | | | | | |
| 36 | STS-41 | OV103 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409 0011 | 0006 | 0000318009 | F |
| 36 | STS-41 | OV103 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409 0011 | 0006 | 0000318012 | F |
| 36 | STS-41 | OV103 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409 0011 | 0006 | 0000318007 | F |
| 37 | STS-38 | OV104 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409 0011 | 0006 | 0000067414 | F |
| 37 | STS-38 | OV104 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409 0011 | 0006 | 0000318005 | F |
| 37 | STS-38 | OV104 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409 0011 | 0006 | 000067412 | F |
| 37 | STS-38 | OV104 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409 0011 | 0006 | 0000000631 | F |

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

1-29
3

| MISS SEQ | STS | ORIG | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | STAY |
|----------|--------|-------|-----------|------------------------------|-------------|-------------|---------------|------|
| 45 | STS-42 | OV103 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000020 | F |
| 46 | STS-42 | OV103 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000023 | F |
| 46 | STS-48 | OV104 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000027 | F |
| 48 | STS-48 | OV104 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000025 | F |
| 46 | STS-48 | OV104 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000014 | F |
| 46 | STS-48 | OV108 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000034 | F |
| 47 | STS-49 | OV108 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000033 | F |
| 47 | STS-48 | OV108 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000032 | F |
| 47 | STS-48 | OV108 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000011 | F |
| 48 | STS-50 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000008 | F |
| 48 | STS-60 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000009 | F |
| 48 | STS-50 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000010 | F |
| 49 | STS-46 | OV104 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000027 | F |
| 49 | STS-46 | OV104 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000025 | F |
| 49 | STS-46 | OV104 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000014 | F |
| 49 | STS-46 | OV104 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000034 | F |
| 50 | STS-47 | OV105 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000033 | F |
| 50 | STS-47 | OV105 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000011 | F |
| 50 | STS-47 | OV105 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000032 | F |
| 51 | STS-52 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000008 | F |
| 51 | STS-52 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000009 | F |
| 51 | STS-52 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000010 | F |
| 53 | STS-54 | OV105 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000034 | F |
| 53 | STS-54 | OV105 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000033 | F |
| 53 | STS-54 | OV105 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000011 | F |
| 53 | STS-54 | OV105 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000032 | F |
| 54 | STS-55 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000008 | F |
| 54 | STS-55 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000009 | F |
| 54 | STS-55 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000010 | F |
| 36 | STS-41 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 0000000306 | F |
| 36 | STS-41 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 0000000306 | F |
| 36 | STS-41 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 0000000313 | F |
| 36 | STS-41 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 0000000314 | F |
| 36 | STS-41 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0073 | 0000000403 | F |
| 36 | STS-41 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 0000000402 | L18 |
| 36 | STS-41 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 0000000407 | LOB |
| 36 | STS-41 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0021 | 0000000403 | R18 |
| 37 | STS-38 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 0000000308 | ROB |
| 37 | STS-38 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 0000000308 | F |
| 37 | STS-38 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 0000000315 | F |
| 37 | STS-38 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 0000000316 | F |
| 37 | STS-38 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0073 | 0000000406 | F |
| 37 | STS-38 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 0000000303 | L18 |
| 37 | STS-38 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 0000000402 | LOB |
| 37 | STS-38 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0021 | 0000000404 | R18 |
| 37 | STS-38 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 0000000409 | ROB |
| 38 | STS-35 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 0000000307 | F |
| 38 | STS-35 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 0000000307 | F |
| 38 | STS-35 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 0000000311 | F |
| 38 | STS-35 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 0000000312 | F |
| 38 | STS-35 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0003 | 0000000405 | F |
| 38 | STS-35 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 0000000010 | L18 |

1-63
2-53
U-84

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | L O T | T A Y |
|-------------|--------|-------|-----------|---------------------|----------------|----------------|------------------|-------------|-------------|
| 38 | STS-35 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000410 | LOB | F |
| 38 | STS-35 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0011 | 000000401 | RIB | F |
| 38 | STS-35 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000404 | ROB | F |
| 39 | STS-37 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 000000308 | | F |
| 39 | STS-37 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 000000308 | | F |
| 39 | STS-37 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000315 | | F |
| 39 | STS-37 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000316 | | F |
| 39 | STS-37 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0073 | 000000406 | | F |
| 39 | STS-37 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 000000303 | L18 | F |
| 39 | STS-37 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000402 | LOB | F |
| 39 | STS-37 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0021 | 000000404 | R18 | F |
| 39 | STS-37 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000409 | ROB | F |
| 40 | STS-39 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 000000306 | | F |
| 40 | STS-39 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 000000306 | | F |
| 40 | STS-39 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000313 | | F |
| 40 | STS-39 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000314 | | F |
| 40 | STS-39 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0073 | 000000403 | | F |
| 40 | STS-39 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 000000402 | L18 | F |
| 40 | STS-39 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000407 | LOB | F |
| 40 | STS-39 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0021 | 000000403 | R18 | F |
| 40 | STS-39 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000408 | ROB | F |
| 41 | STS-40 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 000000307 | | F |
| 41 | STS-40 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 000000307 | | F |
| 41 | STS-40 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000311 | | F |
| 41 | STS-40 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000312 | | F |
| 41 | STS-40 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0073 | 000000401 | | F |
| 41 | STS-40 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 000000403 | L18 | F |
| 41 | STS-40 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000410 | LOB | F |
| 41 | STS-40 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0011 | 000000401 | R18 | F |
| 41 | STS-40 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000404 | ROB | F |
| 42 | STS-43 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 000000308 | | F |
| 42 | STS-43 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 000000308 | | F |
| 42 | STS-43 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000315 | | F |
| 42 | STS-43 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000316 | | F |
| 42 | STS-43 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0073 | 000000406 | | F |
| 42 | STS-43 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 000000303 | L18 | F |
| 42 | STS-43 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000402 | LOB | F |
| 42 | STS-43 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0021 | 000000404 | R18 | F |
| 42 | STS-43 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000409 | ROB | F |
| 43 | STS-48 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 000000306 | | F |
| 43 | STS-48 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 000000306 | | F |
| 43 | STS-48 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000313 | | F |
| 43 | STS-48 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000314 | | F |
| 43 | STS-48 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0073 | 000000403 | L18 | F |
| 43 | STS-48 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 000000402 | LOB | F |
| 43 | STS-48 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0021 | 000000403 | R18 | F |
| 43 | STS-48 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000408 | ROB | F |
| 44 | STS-44 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 000000406 | | F |
| 44 | STS-44 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 000000308 | | F |
| 44 | STS-44 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000315 | | F |
| 44 | STS-44 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 000000316 | | F |
| 44 | STS-44 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0073 | 000000406 | | F |
| 44 | STS-44 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 000000303 | L18 | F |
| 44 | STS-44 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000402 | LOB | F |
| 44 | STS-44 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0021 | 000000404 | R18 | F |
| 44 | STS-44 | OV104 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 000000409 | ROB | F |
| 45 | STS-42 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 000000306 | | F |
| 45 | STS-42 | OV103 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 000000306 | | F |

1-206

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

| MIS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | L O T | T A T |
|------------|--------|-------|-----------|---------------------|----------------|----------------|------------------|-------------|-------------|
| 51 | STS-52 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0011 | 0000000401 | R1B | F |
| 51 | STS-52 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0012 | 0000000404 | ROB | F |
| 53 | STS-54 | OV105 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 0000000309 | | F |
| 53 | STS-54 | OV105 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 0000000318 | | F |
| 53 | STS-54 | OV105 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 0000000319 | | F |
| 53 | STS-54 | OV105 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0073 | 0000000407 | L1B | F |
| 53 | STS-54 | OV105 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 0000000404 | | F |
| 53 | STS-54 | OV105 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 0000000411 | L0B | F |
| 53 | STS-54 | OV105 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0021 | 0000000406 | R1B | F |
| 53 | STS-54 | OV105 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 0000000412 | ROB | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 0000000307 | | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 0000000311 | | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 0000000312 | | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0083 | 0000000401 | | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0024 | 0000000403 | L1B | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0022 | 0000000410 | L0B | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0011 | 0000000401 | R1B | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0012 | 0000000404 | ROB | F |
| 36 | STS-41 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000009 | L1B | F |
| 36 | STS-41 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0018 | 0000000004 | L1B | F |
| 36 | STS-41 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0019 | 0000000012 | R1B | F |
| 36 | STS-41 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0019 | 0000000007 | ROB | F |
| 37 | STS-38 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000010 | L1B | F |
| 37 | STS-38 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0018 | 0000000002 | L0B | F |
| 37 | STS-38 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0019 | 0000000006 | R1B | F |
| 37 | STS-38 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000006 | ROB | F |
| 38 | STS-35 | OV102 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000002 | L1B | F |
| 38 | STS-35 | OV102 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000006 | L0B | F |
| 38 | STS-35 | OV102 | GNC | ELEVON ACTUATORS | MC621-0014 | -0018 | 0000000003 | ROB | F |
| 38 | STS-35 | OV102 | GNC | ELEVON ACTUATORS | MC621-0014 | -0019 | 0000000001 | ROB | F |
| 39 | STS-37 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0018 | 0000000010 | L1B | F |
| 39 | STS-37 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000002 | L0B | F |
| 39 | STS-37 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000008 | R1B | 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 | L1B | F |
| 40 | STS-39 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000004 | L0B | F |
| 40 | STS-39 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000012 | R1B | F |
| 40 | STS-39 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0019 | 0000000007 | ROB | F |
| 41 | STS-40 | OV102 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000-000002 | L1B | F |
| 41 | STS-40 | OV102 | GNC | ELEVON ACTUATORS | MC621-0014 | -0018 | 0000000006 | L0B | F |
| 41 | STS-40 | OV102 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000003 | R1B | F |
| 41 | STS-40 | OV102 | GNC | ELEVON ACTUATORS | MC621-0014 | -0019 | 0000000001 | ROB | F |
| 42 | STS-43 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000010 | L1B | F |
| 42 | STS-43 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0018 | 0000000002 | L0B | F |
| 42 | STS-43 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000004 | R1B | F |
| 42 | STS-43 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0019 | 0000000006 | ROB | F |
| 43 | STS-48 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000004 | L0B | F |
| 43 | STS-48 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000004 | L0B | F |
| 43 | STS-48 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000007 | ROB | F |
| 43 | STS-48 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0019 | 0000000010 | L1B | F |
| 44 | STS-44 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0018 | 0000000002 | L0B | F |
| 44 | STS-44 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000002 | L0B | F |
| 44 | STS-44 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000006 | R1B | F |
| 44 | STS-44 | OV104 | GNC | ELEVON ACTUATORS | MC621-0014 | -0019 | 0000000008 | ROB | F |
| 45 | STS-42 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0017 | 0000000009 | L1B | F |
| 45 | STS-42 | OV103 | GNC | ELEVON ACTUATORS | MC621-0014 | -0018 | 0000000004 | L0B | F |

1-37
298

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | LOT | DATE |
|----------|--------|-------|-----------|-----------------------------------|-------------|-------------|---------------|-----|------|
| 44 | STS-44 | OV104 | GNC | INERTIAL MEASUREMENT UNIT | MC409-0004 | -0010 | 0000000014 | 1 | F |
| 44 | STS-44 | OV104 | GNC | INERTIAL MEASUREMENT UNIT | MC409-0004 | -0010 | 0000000009 | 2 | F |
| 45 | STS-44 | OV103 | 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 |
| 46 | STS-45 | OV104 | GNC | INERTIAL MEASUREMENT UNIT | MC409-0004 | -0010 | 0000000020 | 3 | F |
| 46 | STS-45 | OV104 | GNC | INERTIAL MEASUREMENT UNIT (HAINS) | MC409-0126 | -1004 | 0000000014 | 1 | F |
| 46 | STS-45 | OV104 | GNC | INERTIAL MEASUREMENT UNIT | MC409-0004 | -0010 | 0000000203 | 2 | F |
| 47 | STS-49 | OV105 | 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 |
| 48 | STS-50 | OV102 | 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 |
| 49 | STS-46 | OV104 | GNC | INERTIAL MEASUREMENT UNIT (KT-70) | MC409-0004 | -0010 | 0000000016 | 3 | F |
| 49 | STS-46 | OV104 | GNC | INERTIAL MEASUREMENT UNIT (HAINS) | MC409-0004 | -0010 | 0000000014 | 1 | F |
| 49 | STS-46 | OV104 | GNC | INERTIAL MEASUREMENT UNIT | MC409-0126 | -1004 | 0000000203 | 2 | F |
| 50 | STS-47 | OV105 | 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 |
| 51 | STS-52 | OV102 | 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 |
| 53 | STS-54 | OV105 | GNC | INERTIAL MEASUREMENT UNIT (KT-70) | MC409-0004 | -0010 | 0000000016 | 3 | F |
| 53 | STS-54 | OV105 | GNC | INERTIAL MEASUREMENT UNIT (HAINS) | MC409-0004 | -0010 | 0000000014 | 1 | F |
| 53 | STS-54 | OV105 | GNC | INERTIAL MEASUREMENT UNIT (KT-70) | MC409-0004 | -0010 | 0000000019 | 2 | F |
| 54 | STS-55 | OV102 | 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 | 1V | 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 | 2V | 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 | 3V | 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 | 1V | F |
| 37 | STS-38 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000008 | 2P | F |
| 37 | STS-38 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000012 | 2V | F |
| 37 | STS-38 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000007 | 3P | F |
| 38 | STS-35 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000011 | 3V | 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 | 1V | 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 | 2V | F |
| 38 | STS-35 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000009 | 3P | F |
| 39 | STS-37 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000010 | 3V | 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 | 1V | F |
| 39 | STS-37 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000008 | 2P | F |
| 39 | STS-37 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000012 | 2V | F |
| 39 | STS-37 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000007 | 3P | F |
| 40 | STS-39 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000004 | 1P | F |
| 40 | STS-39 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000008 | 1V | 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 | 2V | F |

ORIGINAL PAGE IS
OF POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | T A T |
|-------------|--------|-------|-----------|-----------------------|----------------|----------------|------------------|------------------|-------------|
| 40 | STS-39 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000006 | 3P | F |
| 40 | STS-39 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000002 | 3V | F |
| 41 | STS-40 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000002 | 1P | F |
| 41 | STS-40 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000003 | 1V | F |
| 41 | STS-40 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000001 | 2P | F |
| 41 | STS-40 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000001 | 2V | F |
| 41 | STS-40 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000009 | 3P | F |
| 41 | STS-40 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000010 | 3V | F |
| 42 | STS-43 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000005 | 1P | F |
| 42 | STS-43 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000014 | 1V | F |
| 42 | STS-43 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000008 | 2P | F |
| 42 | STS-43 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000012 | 2V | F |
| 42 | STS-43 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000007 | 3P | F |
| 42 | STS-43 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000011 | 3V | F |
| 43 | STS-48 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000004 | 1P | F |
| 43 | STS-48 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000008 | 1V | F |
| 43 | STS-48 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000003 | 2P | F |
| 43 | STS-48 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000013 | 2V | F |
| 43 | STS-48 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000002 | 3P | F |
| 43 | STS-48 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000002 | 3V | F |
| 44 | STS-44 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000005 | 1P | F |
| 44 | STS-44 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000014 | 1V | F |
| 44 | STS-44 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000012 | 2P | F |
| 44 | STS-44 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000008 | 2P | F |
| 44 | STS-44 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000012 | 2V | F |
| 44 | STS-44 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000011 | 3V | F |
| 45 | STS-42 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000004 | 1P | F |
| 45 | STS-42 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000008 | 1V | F |
| 45 | STS-42 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000004 | 1P | F |
| 45 | STS-42 | OV103 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000008 | 1V | F |
| 46 | STS-45 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000004 | 1P | F |
| 46 | STS-45 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000008 | 1V | F |
| 46 | STS-45 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000004 | 1P | F |
| 46 | STS-45 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000008 | 1V | F |
| 47 | STS-49 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000007 | 3P | F |
| 47 | STS-49 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000011 | 3V | F |
| 47 | STS-49 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000006 | 1P | F |
| 47 | STS-49 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000016 | 1V | F |
| 47 | STS-49 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000011 | 2P | F |
| 47 | STS-49 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000015 | 2V | F |
| 47 | STS-49 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000010 | 3P | F |
| 47 | STS-49 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000017 | 3V | F |
| 48 | STS-50 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000002 | 1P | F |
| 48 | STS-50 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000003 | 1V | F |
| 48 | STS-50 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000001 | 2P | F |
| 48 | STS-50 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000001 | 2V | F |
| 48 | STS-50 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000009 | 3P | F |
| 48 | STS-50 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000010 | 3V | F |
| 49 | STS-46 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000005 | 1P | F |
| 49 | STS-46 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000014 | 1V | F |
| 49 | STS-46 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000008 | 2P | F |
| 49 | STS-46 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000012 | 2V | F |
| 49 | STS-46 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000007 | 3P | F |
| 49 | STS-46 | OV104 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000011 | 3V | F |
| 50 | STS-47 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000006 | 1P | F |
| 50 | STS-47 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000016 | 1V | F |
| 50 | STS-47 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000011 | 2P | F |

ORIGINAL PAGE IS
OF POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOTT | SYTAT |
|----------|--------|-------|-----------|--|-------------|-------------|---------------|-------|-------|
| 50 | STS-47 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000015 | 2Y | F |
| 50 | STS-47 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000010 | 3P | F |
| 50 | STS-47 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000017 | 3V | F |
| 51 | STS-52 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000002 | 1P | F |
| 51 | STS-52 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000003 | 1V | F |
| 51 | STS-52 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000001 | 2P | F |
| 51 | STS-52 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000001 | 2Y | F |
| 51 | STS-52 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000009 | 3P | F |
| 51 | STS-52 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000010 | 3V | F |
| 53 | STS-54 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000006 | 1P | F |
| 53 | STS-54 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000016 | 1V | F |
| 53 | STS-54 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000011 | 2P | F |
| 53 | STS-54 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000015 | 2Y | F |
| 53 | STS-54 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000010 | 3P | F |
| 53 | STS-54 | OV105 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000017 | 3V | F |
| 54 | STS-55 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0026 | 0000000002 | 1P | F |
| 54 | STS-55 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000003 | 1V | F |
| 54 | STS-55 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000001 | 2P | F |
| 54 | STS-55 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000001 | 2Y | F |
| 54 | STS-55 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000009 | 3P | F |
| 54 | STS-55 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000010 | 3V | F |
| 36 | STS-41 | OV103 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0010 | 9643000005 | | F |
| 37 | STS-38 | OV104 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0017 | 9643000006 | | F |
| 38 | STS-35 | OV102 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0010 | 9643000003 | | F |
| 39 | STS-37 | OV104 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0017 | 9643000008 | | F |
| 40 | STS-39 | OV103 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0010 | 9643000005 | | F |
| 41 | STS-40 | OV102 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0010 | 9643000003 | | F |
| 42 | STS-43 | OV104 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0017 | 9643000006 | | F |
| 43 | STS-48 | OV103 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0010 | 9643000005 | | F |
| 44 | STS-44 | OV104 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0017 | 9643000006 | | F |
| 45 | STS-42 | OV103 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0010 | 9643000005 | | F |
| 46 | STS-45 | OV104 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0017 | 9643000006 | | F |
| 47 | STS-49 | OV105 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0019 | 9643000007 | | F |
| 48 | STS-50 | OV102 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0019 | 9643000008 | | F |
| 49 | STS-46 | OV104 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0017 | 9643000006 | | F |
| 50 | STS-47 | OV105 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0019 | 9643000007 | | F |
| 51 | STS-52 | OV102 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0019 | 9643000008 | | F |
| 53 | STS-54 | OV105 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0019 | 9643000007 | | F |
| 54 | STS-55 | OV102 | GNC | NOSEWHEEL STEERING ASSY-ACTUATOR | MC621-0058 | -0019 | 9643000008 | | F |
| 36 | STS-41 | OV103 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001004 | | F |
| 37 | STS-38 | OV104 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001003 | | F |
| 38 | STS-35 | OV102 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001002 | | F |
| 39 | STS-37 | OV104 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001003 | | F |
| 40 | STS-39 | OV103 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001004 | | F |
| 41 | STS-40 | OV102 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001002 | | F |
| 42 | STS-43 | OV104 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001003 | | F |
| 43 | STS-48 | OV103 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001004 | | F |
| 44 | STS-44 | OV104 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001003 | | F |
| 45 | STS-42 | OV103 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001004 | | F |
| 46 | STS-45 | OV104 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001003 | | F |
| 48 | STS-47 | OV105 | GNC | NOSEWHEEL STEERING ASSY-DIRECT TRANSDUCER | MC621-0058 | -0014 | 9643001004 | | F |
| 48 | STS-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 | STATUS |
|----------|--------|-------|-----------|--|-------------|-------------|---------------|------|--------|
| 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-48 | OV108 | 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 | OV108 | GNC | NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX | MC621-0058 | -0020 | 9643000004 | | F |
| 51 | STS-52 | OV102 | GNC | NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX | MC621-0058 | -0020 | 9643000006 | | F |
| 53 | STS-54 | OV108 | GNC | NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX | MC621-0058 | -0020 | 9643000004 | | F |
| 54 | STS-55 | OV102 | GNC | NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX | MC621-0058 | -0020 | 9643000006 | | F |
| 54 | STS-55 | OV102 | GNC | NOSEWHEEL STEERING ASSY-STEERING CONTROL BOX | MC621-0058 | -0020 | 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 |
| 53 | STS-52 | OV102 | GNC | OMS THRUST VECTOR CONTROL ACTUATOR | MC621-0009 | -2163 | 0000000133 | | F |
| 53 | STS-54 | OV108 | GNC | OMS THRUST VECTOR CONTROL ACTUATOR | MC621-0009 | -2161 | 0000000113 | | F |
| 53 | STS-54 | OV108 | GNC | OMS THRUST VECTOR CONTROL ACTUATOR | MC621-0009 | -2163 | 0000000117 | | F |
| 53 | STS-54 | OV108 | GNC | OMS THRUST VECTOR CONTROL ACTUATOR | MC621-0009 | -2163 | 0000000122 | | F |
| 53 | STS-54 | OV108 | GNC | OMS THRUST VECTOR CONTROL ACTUATOR | MC621-0009 | -2161 | 0000000123 | | F |
| 54 | STS-55 | OV102 | GNC | OMS THRUST VECTOR CONTROL ACTUATOR | MC621-0009 | -2163 | 0000000109 | | F |
| 54 | STS-55 | OV102 | GNC | OMS THRUST VECTOR CONTROL ACTUATOR | MC621-0009 | -2161 | 0000000131 | | F |
| 54 | STS-55 | OV102 | GNC | OMS THRUST VECTOR CONTROL ACTUATOR | MC621-0009 | -2161 | 0000000132 | | F |
| 54 | STS-55 | OV102 | GNC | OMS THRUST VECTOR CONTROL ACTUATOR | MC621-0009 | -2163 | 0000000133 | | F |
| 1 51 | STS-52 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000127 | | F |
| 51 | STS-52 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000128 | | F |
| 51 | STS-52 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000129 | | F |
| 51 | STS-52 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000130 | | F |
| 53 | STS-54 | OV108 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000107 | | F |
| 53 | STS-54 | OV108 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000111 | | F |
| 53 | STS-54 | OV108 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000121 | | F |
| 54 | STS-55 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000121 | | F |
| 54 | STS-55 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000121 | | F |
| 54 | STS-55 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000121 | | F |
| 54 | STS-55 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000121 | | F |
| 54 | STS-55 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 0000000121 | | F |
| 36 | STS-41 | OV103 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000024 | 1 | F |
| 36 | STS-41 | OV103 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000031 | 2 | F |
| 36 | STS-41 | OV103 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000024 | 3 | F |
| 37 | STS-38 | OV104 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000022 | 4 | F |
| 37 | STS-38 | OV104 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000027 | 1 | F |
| 37 | STS-38 | OV104 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000032 | 2 | F |
| 37 | STS-38 | OV104 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000029 | 3 | F |
| 38 | STS-35 | OV102 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000028 | 4 | F |
| 38 | STS-35 | OV102 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0010 | 0000000014 | 1 | F |
| 38 | STS-35 | OV102 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0010 | 0000000015 | 2 | F |
| 38 | STS-35 | OV102 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0010 | 0000000016 | 3 | F |
| 39 | STS-37 | OV104 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0010 | 0000000017 | 4 | F |
| 39 | STS-37 | OV104 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000027 | 1 | F |
| 39 | STS-37 | OV104 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000032 | 2 | F |
| 39 | STS-37 | OV104 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000029 | 3 | F |
| 40 | STS-39 | OV103 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000028 | 4 | F |
| 40 | STS-39 | OV103 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000023 | 1 | F |
| 40 | STS-39 | OV103 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000031 | 2 | F |
| 40 | STS-39 | OV103 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0011 | 0000000024 | 3 | F |

ORIGINAL PAGE IS
OF POOR QUALITY

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

S T A T -
S L O T -

DASH SERIAL
NUMBER NUMBER

PART
NUMBER

LRU NOMENCLATURE

SUBSYSTEM

ORB

STS

MISS SEQ

ORIGINAL PAGE IS
POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|-------------|--------|-------|-----------|-----------------------|----------------|----------------|------------------|------|--------|
| 51 | STS-82 | OV102 | GMC | RATE GYRO ASSY | MC493-0015 | -0015 | 0000000088 | 4 | F |
| 52 | STS-84 | OV108 | GMC | RATE GYRO ASSY | MC493-0015 | -0108 | 0000000107 | 1 | F |
| 53 | STS-84 | OV108 | GMC | RATE GYRO ASSY | MC493-0015 | -0105 | 0000000092 | 2 | F |
| 54 | STS-84 | OV108 | GMC | RATE GYRO ASSY | MC493-0015 | -0105 | 0000000085 | 3 | F |
| 55 | STS-84 | OV108 | GMC | RATE GYRO ASSY | MC493-0015 | -0105 | 0000000080 | 4 | F |
| 56 | STS-86 | OV102 | GMC | RATE GYRO ASSY | MC493-0015 | -0015 | 0000000123 | 1 | F |
| 57 | STS-86 | OV102 | GMC | RATE GYRO ASSY | MC493-0015 | -0015 | 0000000120 | 2 | F |
| 58 | STS-86 | OV102 | GMC | RATE GYRO ASSY | MC493-0015 | -0015 | 0000000073 | 3 | F |
| 59 | STS-86 | OV102 | GMC | RATE GYRO ASSY | MC493-0015 | -0015 | 0000000068 | 4 | F |
| 36 | STS-41 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000011 | 1 | F |
| 37 | STS-41 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000009 | 2 | F |
| 38 | STS-41 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 39 | STS-38 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000002 | 1 | F |
| 40 | STS-38 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000021 | 2 | F |
| 41 | STS-38 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000012 | 3 | F |
| 42 | STS-38 | OV102 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000018 | 1 | F |
| 43 | STS-38 | OV102 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000013 | 2 | F |
| 44 | STS-37 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000014 | 3 | F |
| 45 | STS-37 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000002 | 1 | F |
| 46 | STS-37 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000021 | 2 | F |
| 47 | STS-37 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000012 | 3 | F |
| 48 | STS-39 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000011 | 1 | F |
| 49 | STS-39 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000009 | 2 | F |
| 50 | STS-39 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 51 | STS-40 | OV102 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000016 | 1 | F |
| 52 | STS-40 | OV102 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000018 | 2 | F |
| 53 | STS-40 | OV102 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000014 | 3 | F |
| 54 | STS-43 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000002 | 1 | F |
| 55 | STS-43 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000021 | 2 | F |
| 56 | STS-43 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000012 | 3 | F |
| 57 | STS-48 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000011 | 1 | F |
| 58 | STS-48 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000009 | 2 | F |
| 59 | STS-48 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 60 | STS-44 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000002 | 1 | F |
| 61 | STS-44 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000021 | 2 | F |
| 62 | STS-44 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000012 | 3 | F |
| 63 | STS-42 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000011 | 1 | F |
| 64 | STS-42 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000009 | 2 | F |
| 65 | STS-42 | OV103 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 66 | STS-45 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 67 | STS-45 | OV105 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000011 | 2 | F |
| 68 | STS-45 | OV104 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 69 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 70 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 71 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 72 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 73 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 74 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 75 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 76 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 77 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 78 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 79 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 80 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 81 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 82 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |
| 83 | STS-48 | OV108 | GMC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 0000000015 | 3 | F |

1-41
306

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | S T A T |
|----------|--------|-------|-----------|-----------------------------|-------------|-------------|---------------|------|---------|
| 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 |
| 48 | STS-42 | OV103 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000010 | 1 | F |
| 48 | STS-42 | OV103 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000021 | 2 | F |
| 48 | STS-45 | OV104 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000013 | 1 | F |
| 48 | STS-45 | OV104 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000004 | 2 | F |
| 47 | STS-49 | OV105 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000025 | 2 | F |
| 47 | STS-49 | OV105 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000019 | 1 | F |
| 48 | STS-50 | OV102 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000024 | 2 | F |
| 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 | 0000000025 | 2 | F |
| 50 | STS-47 | OV105 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000019 | 1 | F |
| 51 | STS-52 | OV102 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000024 | 2 | F |
| 51 | STS-52 | OV102 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000013 | 1 | F |
| 53 | STS-54 | OV105 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000025 | 2 | F |
| 53 | STS-54 | OV105 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000019 | 1 | F |
| 54 | STS-55 | OV102 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000024 | 2 | F |
| 54 | STS-55 | OV102 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000013 | 1 | F |
| 54 | STS-55 | OV102 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 0000000004 | 2 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0014 | 00000000303 | 1 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 00000000305 | 2 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0003 | 00000000305 | 3 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0013 | 00000000306 | 4 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0006 | 00000000306 | 5 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 00000000306 | 6 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 00000000307 | 7 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0010 | 00000000310 | 10 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0010 | 00000000311 | 11 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0068 | 00000000405 | 18 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0049 | 00000000403 | 19 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0040 | 00000000403 | 20 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0041 | 00000000403 | 21 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0042 | 00000000403 | 22 | F |
| 36 | STS-41 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0014 | 00000000305 | 23 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0013 | 00000000306 | 1 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0003 | 00000000306 | 2 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 00000000307 | 3 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 00000000308 | 4 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 00000000308 | 5 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 00000000309 | 6 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0010 | 00000000312 | 10 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0010 | 00000000313 | 11 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0066 | 00000000403 | 18 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0006 | 00000000404 | 19 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0049 | 00000000404 | 20 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0040 | 00000000404 | 21 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0041 | 00000000404 | 22 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0042 | 00000000404 | 23 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0041 | 00000000404 | 24 | F |
| 37 | STS-38 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0042 | 00000000404 | 25 | F |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0014 | 00000000301 | 1 | F |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 00000000301 | 2 | F |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 00000000302 | 3 | F |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0006 | 00000000302 | 4 | F |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0003 | 00000000302 | 5 | F |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 00000000302 | 6 | F |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 00000000303 | 7 | F |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0013 | 00000000303 | 13 | F |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0010 | 00000000304 | 10 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | A T T |
|-------------|--------|-------|-----------|-----------------------------|----------------|----------------|------------------|------------------|-------------|
| 36 | 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 | F | 1 |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0052 | 0000000401 | F | 2 |
| 38 | STS-35 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0055 | 0000000401 | F | 3 |
| 38 | STS-35 | OV102 | IC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0056 | 0000000401 | F | 4 |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0014 | 0000000306 | F | |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0003 | 0000000306 | F | |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0013 | 0000000307 | F | |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000308 | F | |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 0000000308 | F | |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000309 | F | |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 0000000312 | F | |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0010 | 0000000313 | F | |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0068 | 0000000403 | F | |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0006 | 0000000404 | F | |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0049 | 0000000404 | F | 1 |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0040 | 0000000404 | F | 2 |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0041 | 0000000404 | F | 3 |
| 39 | STS-37 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0042 | 0000000404 | F | 4 |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0014 | 0000000303 | F | |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000305 | F | |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0003 | 0000000305 | F | |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0013 | 0000000305 | F | |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 0000000306 | F | |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0006 | 0000000306 | F | |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000306 | F | |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 0000000307 | F | |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0010 | 0000000310 | F | |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0068 | 0000000403 | F | 1 |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0049 | 0000000403 | F | 2 |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0041 | 0000000403 | F | 3 |
| 40 | STS-39 | OV103 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0042 | 0000000403 | F | 4 |
| 41 | STS-40 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0014 | 0000000303 | F | |
| 41 | STS-40 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000303 | F | |
| 41 | STS-40 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0006 | 0000000302 | F | |
| 41 | STS-40 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000302 | 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 | 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 | -0068 | 0000000406 | F | |
| 41 | STS-40 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0051 | 0000000401 | F | 1 |
| 41 | STS-40 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0052 | 0000000401 | F | 2 |
| 41 | STS-40 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0055 | 0000000401 | F | 3 |
| 41 | STS-40 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0056 | 0000000401 | F | 4 |
| 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 | 0000000308 | F | |
| 42 | STS-43 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000308 | 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 | 0000000312 | F | |

ORIGINAL PAGE IS
OF POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | S T A T |
|-------------|--------|-------|-----------|-----------------------------|----------------|----------------|------------------|------------------|------------------|
| 46 | STS-45 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0016 | 0000000312 | | F |
| 46 | STS-45 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0016 | 0000000313 | | F |
| 46 | STS-45 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0068 | 0000000403 | | F |
| 46 | STS-45 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0049 | 0000000404 | 1 | F |
| 46 | STS-45 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0041 | 0000000404 | 2 | F |
| 46 | STS-45 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0042 | 0000000404 | 3 | F |
| 46 | STS-45 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0014 | 0000000307 | 4 | 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 | -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 | -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 | -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 | 0000000406 | | F |
| 48 | STS-50 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0051 | 0000000401 | 1 | F |
| 48 | STS-50 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0052 | 0000000401 | 2 | F |
| 48 | STS-50 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0055 | 0000000404 | 3 | F |
| 48 | STS-50 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0056 | 0000000404 | 4 | F |
| 49 | STS-46 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0014 | 0000000305 | | F |
| 49 | STS-46 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0003 | 0000000306 | | F |
| 49 | STS-46 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0013 | 0000000306 | | F |
| 49 | STS-46 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000307 | | F |
| 49 | STS-46 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000308 | | F |
| 49 | STS-46 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 0000000308 | | F |
| 49 | STS-46 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 0000000309 | | F |
| 49 | STS-46 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0016 | 0000000312 | | F |
| 49 | STS-46 | OV104 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0016 | 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 |

1-311

ORIGINAL PAGE IS
OF POOR QUALITY

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

1312

ORIGINAL PAGE IS OF POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|-------------|--------|-------|-----------|------------------------------|----------------|----------------|------------------|------|--------|
| 43 | STS-38 | OV103 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000007 | F | S |
| 44 | STS-44 | OV104 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000006 | F | A |
| 45 | STS-42 | OV103 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000007 | F | T |
| 46 | STS-45 | OV104 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000006 | F | O |
| 47 | STS-49 | OV105 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000010 | F | T |
| 48 | STS-50 | OV102 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000005 | F | S |
| 49 | STS-46 | OV104 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000006 | F | A |
| 50 | STS-47 | OV105 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000010 | F | T |
| 51 | STS-52 | OV102 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000005 | F | S |
| 53 | STS-54 | OV105 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000010 | F | A |
| 54 | STS-55 | OV102 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000005 | F | T |
| 36 | STS-41 | OV103 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000006 | F | S |
| 37 | STS-38 | OV104 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000005 | F | A |
| 38 | STS-35 | OV102 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000002 | F | T |
| 39 | STS-37 | OV104 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000005 | F | O |
| 40 | STS-39 | OV103 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000006 | F | T |
| 41 | STS-40 | OV102 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000005 | F | S |
| 42 | STS-43 | OV104 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000002 | F | A |
| 43 | STS-48 | OV103 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000005 | F | T |
| 44 | STS-44 | OV104 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000006 | F | O |
| 45 | STS-42 | OV103 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000005 | F | T |
| 46 | STS-45 | OV104 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000002 | F | S |
| 47 | STS-48 | OV105 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000005 | F | A |
| 48 | STS-50 | OV102 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000010 | F | T |
| 49 | STS-46 | OV104 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000006 | F | O |
| 50 | STS-47 | OV105 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000005 | F | T |
| 51 | STS-52 | OV102 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000002 | F | S |
| 53 | STS-54 | OV105 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000010 | F | A |
| 54 | STS-55 | OV102 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000005 | F | T |
| 36 | STS-41 | OV103 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000013 | F | S |
| 37 | STS-38 | OV104 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000009 | F | A |
| 38 | STS-35 | OV102 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000002 | F | T |
| 39 | STS-37 | OV104 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000011 | F | O |
| 40 | STS-39 | OV103 | GNC | STAR TRACKER UNIT | MC431-0128 | -0012 | 0000000002 | F | T |
| 41 | STS-40 | OV102 | GNC | STAR TRACKER UNIT | MC431-0128 | -0012 | 0000000006 | F | S |
| 42 | STS-43 | OV104 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000008 | F | A |
| 43 | STS-48 | OV103 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000011 | F | T |
| 44 | STS-44 | OV104 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000013 | F | O |
| 45 | STS-42 | OV103 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000009 | F | T |
| 46 | STS-45 | OV104 | GNC | STAR TRACKER UNIT | MC431-0128 | -0012 | 0000000002 | F | S |
| 47 | STS-49 | OV105 | GNC | STAR TRACKER UNIT | MC431-0128 | -0012 | 0000000006 | F | A |
| 48 | STS-50 | OV102 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000008 | F | T |
| 49 | STS-46 | OV104 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000013 | F | O |
| 49 | STS-46 | OV104 | GNC | STAR TRACKER UNIT | MC431-0128 | -0013 | 0000000009 | F | T |

| MISS SEQ | STS | ORB | SUBSYSTEM | I, RU NOMENCLATURE | UNIT | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | S T A T E |
|-------------|--------|-------|-----------|-----------------------|-----------------------------|----------------|----------------|------------------|------------------|-----------------------|
| 50 | STS-47 | OV105 | GNC | STAR TRACKER | UNIT | MC431-0128 | -1002 | 0000000002 | Y | F |
| 50 | STS-47 | OV105 | GNC | STAR TRACKER | UNIT | MC431-0128 | -0011 | 0000000003 | Z | F |
| 51 | STS-52 | OV102 | GNC | STAR TRACKER | UNIT | MC431-0128 | -1002 | 0000000003 | Y | F |
| 51 | STS-52 | OV102 | GNC | STAR TRACKER | UNIT | MC431-0128 | -0012 | 0000000006 | Z | F |
| 53 | STS-54 | OV105 | GNC | STAR TRACKER | UNIT | MC431-0128 | -1002 | 0000000002 | Z | F |
| 53 | STS-54 | OV105 | GNC | STAR TRACKER | UNIT | MC431-0128 | -0011 | 0000000003 | Y | F |
| 54 | STS-56 | OV102 | GNC | STAR TRACKER | UNIT | MC431-0128 | -1002 | 0000000003 | Y | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER | UNIT | MC431-0128 | -0012 | 0000000006 | Z | F |
| 36 | STS-41 | OV103 | GNC | STAR TRACKER | UNIT 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 | -0204 | 0000000005 | Z | F |
| 47 | STS-49 | OV105 | GNC | STAR TRACKER | UNIT LIGHT SHADE | MC431-0128 | -0007 | 0000000005 | Y | F |
| 47 | STS-49 | OV105 | GNC | STAR TRACKER | UNIT LIGHT SHADE | MC431-0128 | -0104 | 0000000004 | Z | F |
| 48 | STS-50 | OV102 | GNC | STAR TRACKER | UNIT LIGHT SHADE | 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 LIGHT SHADE | MC431-0128 | -0207 | 0000000008 | Y | F |
| 50 | STS-47 | OV105 | GNC | STAR TRACKER | UNIT LIGHT SHADE | MC431-0128 | -0104 | 0000000005 | Z | F |
| 51 | STS-52 | OV102 | GNC | STAR TRACKER | UNIT LIGHT SHADE | MC431-0128 | -0204 | 0000000007 | Z | F |
| 51 | STS-52 | OV102 | GNC | STAR TRACKER | UNIT LIGHT SHADE | MC431-0128 | -0207 | 0000000002 | Y | F |
| 53 | STS-54 | OV105 | GNC | STAR TRACKER | UNIT LIGHT SHADE | MC431-0128 | -0207 | 0000000004 | Z | F |
| 53 | STS-54 | OV105 | GNC | STAR TRACKER | UNIT LIGHT SHADE | MC431-0128 | -0207 | 0000000002 | Y | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER | UNIT LIGHT SHADE | MC431-0128 | -0207 | 0000000002 | Y | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER | UNIT LIGHT SHADE | MC431-0128 | -0104 | 0000000004 | Z | F |
| 36 | STS-41 | OV103 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | MC431-0128 | -0008 | 0000000005 | Y | F |
| 36 | STS-41 | OV103 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | MC431-0128 | -0008 | 0000000009 | Z | F |
| 37 | STS-38 | OV104 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | MC431-0128 | -0008 | 0000000009 | Y | F |
| 37 | STS-38 | OV104 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | MC431-0128 | -0008 | 0000000002 | Z | F |
| 38 | STS-35 | OV102 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | MC431-0128 | -0008 | 0000000006 | Y | F |
| 38 | STS-35 | OV102 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | MC431-0128 | -0008 | 0000000006 | Z | F |
| 39 | STS-37 | OV104 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | MC431-0128 | -0008 | 0000000003 | 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 | 0000000006 | Z | 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 | 0000000003 | Y | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|------------------|-----------------------------|-------------|---------------|------|--------|
| 42 | STS-43 | OV104 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000002 | Z | F |
| 43 | STS-48 | OV103 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000005 | Y | F |
| 43 | STS-48 | OV103 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000009 | Z | F |
| 44 | STS-44 | OV104 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000003 | Y | F |
| 44 | STS-44 | OV104 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000002 | Z | F |
| 45 | STS-42 | OV103 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000005 | Y | F |
| 45 | STS-42 | OV103 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000009 | Z | F |
| 46 | STS-45 | OV104 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000003 | Y | F |
| 46 | STS-45 | OV104 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000002 | Z | F |
| 47 | STS-49 | OV105 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000006 | Y | F |
| 47 | STS-49 | OV105 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000102 | Z | F |
| 47 | STS-49 | OV105 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000110 | Y | F |
| 48 | STS-50 | OV102 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000008 | Z | F |
| 48 | STS-50 | OV102 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000003 | Y | F |
| 49 | STS-46 | OV104 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000002 | Z | F |
| 49 | STS-46 | OV104 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000006 | Y | F |
| 50 | STS-47 | OV105 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000102 | Z | F |
| 50 | STS-47 | OV105 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000110 | Y | F |
| 51 | STS-52 | OV102 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000008 | Z | F |
| 51 | STS-52 | OV102 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000003 | Y | F |
| 53 | STS-54 | OV105 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000006 | Y | F |
| 53 | STS-54 | OV105 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000102 | Z | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000003 | Y | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER | UNIT PROTECTIVE WINDOW ASSY | -0008 | 0000000008 | Z | F |

ORIGINAL PAGE IS
OF POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | T A T |
|-------------|--------|-------|-----------|--|----------------|----------------|------------------|------------------|-------------|
| 54 | STS-55 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621-0043 | -2043 | 0000000023 | 1 | F |
| 54 | STS-55 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621-0043 | -2043 | 0000000006 | 2 | F |
| 54 | STS-55 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621-0043 | -2043 | 0000000011 | 3 | F |
| 54 | STS-55 | OV102 | GNC | ACCELEROMETER ASSEMBLY | MC621-0043 | -2043 | 0000000007 | 4 | F |
| 54 | STS-55 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274661 | L | F |
| 54 | STS-55 | OV102 | GNC | AIR DATA PROBE | MC432-0206 | -0005 | 0004274626 | R | F |
| 54 | STS-55 | OV102 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409-0011 | -0006 | 0000067411 | 1 | F |
| 54 | STS-55 | OV102 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409-0011 | -0006 | 0000318011 | 2 | F |
| 54 | STS-55 | OV102 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409-0011 | -0006 | 0000318005 | 3 | F |
| 54 | STS-55 | OV102 | GNC | AIR DATA TRANSDUCER ASSEMBLY | MC409-0011 | -0006 | 0000067405 | 4 | F |
| 54 | STS-55 | OV102 | GNC | AERO SURFACE SERVO AMP | MC621-0043 | -6046 | 0000000020 | 1 | F |
| 54 | STS-55 | OV102 | GNC | AERO SURFACE SERVO AMP | MC621-0043 | -6046 | 0000000021 | 2 | F |
| 54 | STS-55 | OV102 | GNC | AERO SURFACE SERVO AMP | MC621-0043 | -6046 | 0000000022 | 3 | F |
| 54 | STS-55 | OV102 | GNC | AERO SURFACE SERVO AMP | MC621-0043 | -6046 | 0000000027 | 4 | F |
| 54 | STS-55 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000011 | 1 | F |
| 54 | STS-55 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000008 | 2 | F |
| 54 | STS-55 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000009 | 3 | F |
| 54 | STS-55 | OV102 | GNC | ASCENT THRUST VECTOR CONTROL | MC621-0043 | -6541 | 0000000010 | 4 | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0019 | 00000000307 | | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0016 | 00000000307 | | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 00000000311 | | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0017 | 00000000312 | | F |
| 54 | STS-55 | OV102 | GNC | BODY FLAP ACTUATION | MC621-0056 | -0083 | 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 | 1V | F |
| 54 | STS-55 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0027 | 0000000001 | 2P | F |
| 54 | STS-55 | OV102 | GNC | MAIN ENGINE ACTUATORS | MC621-0015 | -0028 | 0000000001 | 2V | 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 | 3V | 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 | STATUS |
|----------|--------|-------|-----------|---|-------------|-------------|---------------|------|--------|
| 54 | STS-55 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 000000128 | 1 | F |
| 54 | STS-55 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 000000129 | 2 | F |
| 54 | STS-55 | OV102 | GNC | OMS SYSTEM THRUST VECTOR CONTROL CONTROLLER | MC621-0009 | -2125 | 000000130 | 3 | F |
| 54 | STS-55 | OV102 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0010 | 000000014 | 1 | F |
| 54 | STS-55 | OV102 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0010 | 000000015 | 2 | F |
| 54 | STS-55 | OV102 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0010 | 000000016 | 3 | F |
| 54 | STS-55 | OV102 | GNC | RATE GYRO ASSY-ORBITER | MC493-0015 | -0010 | 000000017 | 4 | F |
| 54 | STS-55 | OV102 | GNC | RATE GYRO ASSY | MC493-0015 | -0015 | 000000123 | 1 | F |
| 54 | STS-55 | OV102 | GNC | RATE GYRO ASSY | MC493-0015 | -0015 | 000000120 | 2 | F |
| 54 | STS-55 | OV102 | GNC | RATE GYRO ASSY | MC493-0015 | -0015 | 000000073 | 3 | F |
| 54 | STS-55 | OV102 | GNC | RATE GYRO ASSY | MC493-0015 | -0015 | 000000068 | 4 | F |
| 54 | STS-55 | OV102 | GNC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 000000018 | 1 | F |
| 54 | STS-55 | OV102 | GNC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 000000013 | 2 | F |
| 54 | STS-55 | OV102 | GNC | ROTATION HAND CONTROL | MC621-0043 | -3047 | 000000014 | 3 | F |
| 54 | STS-55 | OV102 | GNC | AFT REACTION JET DRIVER | MC621-0043 | -6344 | 000000018 | 1 | F |
| 54 | STS-55 | OV102 | GNC | AFT REACTION JET DRIVER | MC621-0043 | -6344 | 000000020 | 2 | F |
| 54 | STS-55 | OV102 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 000000019 | 1 | F |
| 54 | STS-55 | OV102 | GNC | FWD REACTION JET DRIVER | MC621-0043 | -6244 | 000000024 | 2 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0014 | 0000000301 | 1 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000301 | 2 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0005 | 0000000302 | 3 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 0000000302 | 4 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0006 | 0000000302 | 5 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0003 | 0000000302 | 6 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0007 | 0000000303 | 7 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0013 | 0000000303 | 8 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0016 | 0000000304 | 9 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0016 | 0000000307 | 10 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0068 | 0000000406 | 11 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0051 | 0000000401 | 12 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0052 | 0000000401 | 13 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0055 | 0000000401 | 14 | F |
| 54 | STS-55 | OV102 | GNC | RUDDER SPEEDBRAKE ACTUATION | MC621-0053 | -0056 | 0000000401 | 15 | F |
| 54 | STS-55 | OV102 | GNC | STEERING POSITION AMPLIFIER | MC621-0043 | -3641 | 0000000005 | 1 | F |
| 54 | STS-55 | OV102 | GNC | STEERING POSITION TRANSDUCER | MC621-0043 | -3740 | 0000000002 | 2 | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER UNIT | MC431-0128 | -1002 | 0000000003 | 3 | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER UNIT | MC431-0128 | -0012 | 0000000006 | 4 | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER UNIT LS | MC431-0128 | -0207 | 0000000002 | 5 | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER UNIT LIGHT SHADE | MC431-0128 | -0104 | 0000000004 | 6 | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER UNIT PROTECTIVE WINDOW ASSY | MC431-0128 | -0008 | 0000000010 | 7 | F |
| 54 | STS-55 | OV102 | GNC | STAR TRACKER UNIT PROTECTIVE WINDOW ASSY | MC431-0128 | -0008 | 0000000008 | 8 | F |

AVIONICS
COMMUNICATIONS AND TRACKING (CT) SUBSYSTEM

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | EQUIPMENT | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | T A T |
|-------------|--------|-------|-----------|-----------------------|-----------|----------------|----------------|------------------|------------------|-------------|
| 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 | 0000BA8617 | F | |
| 44 | STS-44 | OV104 | CT | ANTENNA, AIRLOCK | | V075-730513 | -004 | 0000J74328 | F | |
| 45 | STS-42 | OV103 | CT | ANTENNA, AIRLOCK | | V075-730513 | -004 | 0000BA8617 | F | |
| 46 | STS-45 | OV104 | CT | ANTENNA, AIRLOCK | | V075-730513 | -004 | 0000J74328 | F | |
| 47 | STS-49 | OV105 | CT | ANTENNA, AIRLOCK | | V075-730513 | -004 | 0000BA8617 | F | |
| 48 | STS-50 | OV102 | CT | ANTENNA, AIRLOCK | | V075-730513 | -004 | 0000GH4680 | F | |
| 49 | STS-46 | OV104 | CT | ANTENNA, AIRLOCK | | V075-730513 | -003 | 0000J54726 | F | |
| 50 | STS-47 | OV105 | CT | ANTENNA, AIRLOCK | | V075-730513 | -004 | 0000BA8617 | F | |
| 51 | STS-52 | OV102 | CT | ANTENNA, AIRLOCK | | V075-730513 | -004 | 0000GH4680 | F | |
| 53 | STS-54 | OV105 | CT | ANTENNA, AIRLOCK | | V075-730513 | -004 | 0000J54726 | 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 | |
| 37 | STS-41 | OV103 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000025 | F | |
| 38 | STS-41 | OV103 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000026 | F | |
| 39 | STS-41 | OV103 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000027 | F | |
| 40 | STS-41 | OV103 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000028 | F | |
| 41 | STS-38 | OV104 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000030 | F | |
| 42 | STS-38 | OV104 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000037 | F | |
| 43 | STS-38 | OV104 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000038 | F | |
| 44 | STS-38 | OV104 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000039 | F | |
| 45 | STS-38 | OV104 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000040 | F | |
| 46 | STS-38 | OV104 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000041 | F | |
| 47 | STS-38 | OV104 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000042 | F | |
| 48 | STS-35 | OV102 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000001 | F | |
| 49 | STS-35 | OV102 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000008 | F | |
| 50 | STS-35 | OV102 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000010 | F | |
| 51 | STS-35 | OV102 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000013 | F | |
| 52 | STS-35 | OV102 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000014 | F | |
| 53 | STS-35 | OV102 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000015 | F | |
| 54 | STS-35 | OV102 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000016 | F | |
| 55 | STS-35 | OV102 | CT | AUDIO TERM UNITS | | MC409-0005 | -0012 | 0000000018 | F | |
| 56 | 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 | SLTY | STAY |
|----------|--------|-------|-----------|------------------------|-------------|-------------|---------------|------|------|
| 49 | STS-46 | OV104 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000038 | F | |
| 49 | STS-46 | OV104 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000039 | F | |
| 49 | STS-46 | OV104 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000040 | F | |
| 49 | STS-46 | OV104 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000041 | F | |
| 50 | STS-47 | OV105 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000042 | F | |
| 50 | STS-47 | OV105 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000043 | F | |
| 50 | STS-47 | OV105 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000044 | F | |
| 50 | STS-47 | OV105 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000046 | F | |
| 50 | STS-47 | OV105 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 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 | F | 1 |
| 36 | STS-41 | OV103 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000016 | F | 2 |
| 36 | STS-41 | OV103 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1 | 0000000009 | F | 3 |
| 37 | STS-38 | OV104 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000004 | F | 1 |
| 37 | STS-38 | OV104 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000003 | F | 2 |
| 37 | STS-38 | OV104 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1 | 0000000001 | F | 3 |
| 38 | STS-35 | OV102 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000010 | F | 1 |
| 38 | STS-35 | OV102 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000012 | F | 2 |
| 38 | STS-35 | OV102 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1 | 0000000007 | F | 3 |
| 39 | STS-37 | OV104 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000004 | F | 1 |
| 39 | STS-37 | OV104 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000003 | F | 2 |
| 39 | STS-37 | OV104 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1 | 0000000001 | F | 3 |
| 40 | STS-39 | OV103 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000013 | F | 1 |
| 40 | STS-39 | OV103 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000016 | F | 2 |
| 40 | STS-39 | OV103 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1 | 0000000009 | F | 3 |
| 41 | STS-40 | OV102 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000010 | F | 1 |
| 41 | STS-40 | OV102 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000012 | F | 2 |
| 41 | STS-40 | OV102 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1 | 0000000007 | F | 3 |
| 42 | STS-43 | OV104 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000004 | F | 1 |
| 42 | STS-43 | OV104 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000003 | F | 2 |
| 42 | STS-43 | OV104 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1 | 0000000001 | F | 3 |
| 43 | STS-48 | OV103 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000013 | F | 1 |
| 43 | STS-48 | OV103 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000016 | F | 2 |
| 43 | STS-48 | OV103 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1 | 0000000009 | F | 3 |
| 44 | STS-44 | OV104 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000004 | F | 1 |

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

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

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

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

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|---------------------------------|-------------|-------------|---------------|------|--------|
| 39 | STS-37 | OV104 | CT | MICROWAVE SCANNING BEAM RF ASSY | MC409-0017 | -0003 | 0000000026 | 2 | F |
| 39 | STS-37 | OV104 | CT | MICROWAVE SCANNING BEAM RF ASSY | MC409-0017 | -0007 | 0000000029 | 3 | F |
| 40 | STS-39 | OV103 | CT | MICROWAVE SCANNING BEAM RF ASSY | MC409-0017 | -0007 | 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 | -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 | STATUS |
|----------|--------|-------|-----------|--------------------------|-------------|-------------|---------------|------|--------|
| 43 | STS-48 | OV103 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000302 | 1 | F |
| 43 | STS-48 | OV103 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000308 | 2 | F |
| 44 | STS-44 | OV104 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000307 | 1 | F |
| 44 | STS-44 | OV104 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000309 | 2 | F |
| 45 | STS-42 | OV103 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000302 | 1 | F |
| 45 | STS-42 | OV103 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000308 | 2 | F |
| 46 | STS-45 | OV104 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000307 | 1 | F |
| 46 | STS-45 | OV104 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000309 | 2 | F |
| 47 | STS-49 | OV105 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000312 | 1 | F |
| 47 | STS-49 | OV105 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000313 | 2 | F |
| 48 | STS-50 | OV102 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000301 | 1 | F |
| 48 | STS-50 | OV102 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000304 | 2 | F |
| 49 | STS-46 | OV104 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000309 | 1 | F |
| 49 | STS-46 | OV104 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000312 | 2 | F |
| 50 | STS-47 | OV105 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000313 | 1 | F |
| 50 | STS-47 | OV105 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000301 | 2 | F |
| 51 | STS-52 | OV102 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000304 | 1 | F |
| 53 | STS-54 | OV105 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000312 | 1 | F |
| 53 | STS-54 | OV105 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000313 | 2 | F |
| 54 | STS-55 | OV102 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000301 | 1 | F |
| 54 | STS-55 | OV102 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000304 | 2 | F |
| 36 | STS-41 | OV103 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0006 | 1 | F |
| 37 | STS-38 | OV104 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0007 | 2 | F |
| 38 | STS-35 | OV102 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0002 | 1 | F |
| 39 | STS-37 | OV104 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0007 | 2 | F |
| 40 | STS-39 | OV103 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0006 | 1 | F |
| 41 | STS-40 | OV102 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0002 | 2 | F |
| 42 | STS-43 | OV104 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0006 | 1 | F |
| 43 | STS-48 | OV103 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0005 | 2 | F |
| 44 | STS-44 | OV104 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0006 | 1 | F |
| 45 | STS-42 | OV103 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0005 | 2 | F |
| 46 | STS-45 | OV104 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0006 | 1 | F |
| 47 | STS-49 | OV105 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0008 | 2 | F |
| 48 | STS-50 | OV102 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0003 | 1 | F |
| 49 | STS-46 | OV104 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0006 | 2 | F |
| 50 | STS-47 | OV105 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0006 | 1 | F |
| 51 | STS-52 | OV102 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0003 | 2 | F |
| 53 | STS-54 | OV105 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0008 | 1 | F |
| 54 | STS-55 | OV102 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0003 | 2 | F |
| 36 | STS-41 | OV103 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000304 | 1 | F |
| 36 | STS-41 | OV103 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000307 | 2 | F |
| 37 | STS-38 | OV104 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000310 | 1 | F |
| 37 | STS-38 | OV104 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000309 | 2 | F |
| 38 | STS-35 | OV102 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000308 | 1 | F |
| 38 | STS-35 | OV102 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0901 | 0000000302 | 2 | F |
| 39 | STS-37 | OV104 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000310 | 1 | F |
| 39 | STS-37 | OV104 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000309 | 2 | F |
| 40 | STS-39 | OV103 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000304 | 1 | F |
| 41 | STS-40 | OV102 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000308 | 1 | F |
| 41 | STS-40 | OV102 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000302 | 2 | F |
| 42 | STS-43 | OV104 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000310 | 1 | F |
| 42 | STS-43 | OV104 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000309 | 2 | F |
| 43 | STS-46 | OV103 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000304 | 1 | F |
| 43 | STS-46 | OV103 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000307 | 2 | F |
| 43 | STS-48 | OV103 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000308 | 1 | F |
| 44 | STS-44 | OV104 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 0000000310 | 1 | F |

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

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

| MISS SEQ | STS | ORR | SUB SYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|------------|---------------------------------|-------------|-------------|---------------|------|--------|
| 47 | STS-49 | OV108 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000001 | 1 | F |
| 47 | STS-49 | OV108 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000003 | 1 | F |
| 47 | STS-49 | OV108 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000003 | 2 | F |
| 47 | STS-49 | OV108 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000004 | 2 | F |
| 48 | STS-50 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000007 | 1 | F |
| 48 | STS-50 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000005 | 2 | F |
| 48 | STS-50 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000006 | 2 | F |
| 48 | STS-48 | OV104 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0172 | -0005 | 0000000012 | 1 | F |
| 49 | STS-48 | OV104 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0072 | -0005 | 0000000013 | 1 | F |
| 49 | STS-46 | OV104 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0072 | -0006 | 0000000013 | 2 | F |
| 49 | STS-46 | OV104 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0072 | -0006 | 0000000014 | 2 | F |
| 50 | STS-47 | OV105 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000003 | 1A | F |
| 50 | STS-47 | OV105 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000003 | 1F | F |
| 50 | STS-47 | OV105 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000004 | 2A | F |
| 50 | STS-47 | OV105 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000003 | 2F | F |
| 51 | STS-52 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000005 | 1 | F |
| 51 | STS-52 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000007 | 1 | F |
| 51 | STS-52 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000005 | 2 | F |
| 51 | STS-52 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000006 | 2 | F |
| 53 | STS-54 | OV105 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000003 | 1A | F |
| 53 | STS-54 | OV105 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000001 | 1F | F |
| 53 | STS-54 | OV105 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000004 | 2A | F |
| 53 | STS-54 | OV105 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000003 | 2F | F |
| 54 | STS-55 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000005 | 1 | F |
| 54 | STS-55 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000007 | 1 | F |
| 54 | STS-55 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000005 | 2 | F |
| 54 | STS-55 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000006 | 2 | F |
| 36 | STS-41 | OV103 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000106 | | F |
| 37 | STS-38 | OV104 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000105 | | F |
| 38 | STS-35 | OV102 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000107 | | F |
| 39 | STS-37 | OV104 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000109 | | F |
| 40 | STS-39 | OV103 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000108 | | F |
| 41 | STS-40 | OV102 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000107 | | F |
| 42 | STS-43 | OV104 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000109 | | F |
| 43 | STS-48 | OV103 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000106 | | F |
| 44 | STS-44 | OV104 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000109 | | F |
| 45 | STS-42 | OV103 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000106 | | F |
| 46 | STS-45 | OV104 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000109 | | F |
| 47 | STS-49 | OV105 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000102 | | F/SP |
| 48 | STS-46 | OV104 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000108 | | F/SP |
| 49 | STS-46 | OV104 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000103 | | F/SP |
| 50 | STS-47 | OV105 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000107 | | F/SP |
| 51 | STS-52 | OV102 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000110 | | F/SP |
| 53 | STS-54 | OV105 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000107 | | F/SP |
| 54 | STS-55 | OV102 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000110 | | F/SP |
| 36 | STS-41 | OV103 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000011 | | F |
| 37 | STS-38 | OV104 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000008 | | F |
| 38 | STS-35 | OV102 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000010 | | F |
| 39 | STS-37 | OV104 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000008 | | F |
| 40 | STS-39 | OV103 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000011 | | F |
| 41 | STS-40 | OV102 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000010 | | F |
| 42 | STS-43 | OV104 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000008 | | F |
| 43 | STS-48 | OV103 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000011 | | F |
| 44 | STS-44 | OV104 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000008 | | F |
| 45 | STS-42 | OV103 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000011 | | F |
| 46 | STS-45 | OV104 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000008 | | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|---------------------------------|-------------|-------------|---------------|------|--------|
| 47 | STS-49 | OV105 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000012 | F | S |
| 48 | STS-50 | OV102 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000010 | F | A |
| 49 | STS-46 | OV104 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000008 | F | T |
| 50 | STS-47 | OV105 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000012 | F | T |
| 51 | STS-52 | OV102 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000010 | F | T |
| 53 | STS-54 | OV106 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000012 | F | T |
| 54 | STS-55 | OV102 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000010 | F | T |
| 36 | STS-41 | OV103 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0041 | 000DAX0003 | LL | F |
| 36 | STS-41 | OV103 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0042 | 000DAX0003 | LR | F |
| 36 | STS-41 | OV103 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0043 | 000DBT0001 | UL | F |
| 37 | STS-38 | OV104 | 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 | 000DAX0005 | LL | F |
| 48 | STS-50 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0052 | 000DAY0005 | LR | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|---------------------|-------------|-------------|---------------|------|--------|
| 48 | STS-50 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0044 | 000000002 | UR | F |
| 49 | STS-46 | OV104 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0041 | 0000X0004 | LL | F |
| 49 | STS-46 | OV104 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0042 | 0000AY002 | LR | F |
| 49 | STS-46 | OV104 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0043 | 0000B0003 | UL | F |
| 49 | STS-46 | OV104 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0054 | 0000BU004 | UR | F |
| 50 | STS-47 | OV105 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0051 | 0000AX006 | LL | F |
| 50 | STS-47 | OV105 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0052 | 0000AY006 | LR | F |
| 50 | STS-47 | OV105 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0053 | 0000B0006 | UL | F |
| 51 | STS-52 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0054 | 0000BU007 | UR | F |
| 51 | STS-52 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0051 | 0000AX006 | LL | F |
| 51 | STS-52 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0052 | 0000AY005 | LR | F |
| 51 | STS-52 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0053 | 0000B0004 | UL | F |
| 53 | STS-54 | OV105 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0051 | 0000AX006 | LL | F |
| 53 | STS-54 | OV105 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0052 | 0000AY006 | LR | F |
| 53 | STS-54 | OV105 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0053 | 0000B0006 | UL | F |
| 53 | STS-54 | OV105 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0054 | 0000BU007 | UR | F |
| 54 | STS-55 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0051 | 0000AX001 | LL | F |
| 54 | STS-55 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0052 | 0000AY005 | LR | F |
| 54 | STS-55 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0053 | 0000B0004 | UL | F |
| 54 | STS-55 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0044 | 0000BU002 | UR | F |
| 36 | STS-41 | OV103 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000305 | | F |
| 37 | STS-38 | OV104 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000302 | | F |
| 38 | STS-35 | OV102 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000304 | | F |
| 39 | STS-37 | OV104 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000302 | | F |
| 40 | STS-39 | OV103 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000305 | | F |
| 41 | STS-40 | OV102 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000306 | | F |
| 42 | STS-43 | OV104 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000302 | | F |
| 43 | STS-48 | OV103 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000305 | | F |
| 44 | STS-44 | OV104 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000302 | | F |
| 45 | STS-42 | OV103 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000305 | | F |
| 46 | STS-45 | OV104 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000302 | | F |
| 47 | STS-49 | OV105 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000308 | | F |
| 48 | STS-50 | OV102 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000306 | | F |
| 48 | STS-46 | OV104 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000306 | | F |
| 50 | STS-47 | OV105 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000308 | | F |
| 51 | STS-52 | OV102 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000306 | | F |
| 53 | STS-54 | OV105 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000308 | | F |
| 54 | STS-55 | OV102 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000308 | | F |
| 54 | STS-55 | OV102 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 0000000304 | | F |
| 36 | STS-41 | OV103 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000010 | | F |
| 36 | STS-41 | OV103 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000011 | | F |
| 37 | STS-38 | OV104 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000012 | | F |
| 37 | STS-38 | OV104 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000013 | | F |
| 38 | STS-35 | OV102 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000001 | | F |
| 38 | STS-35 | OV102 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000005 | | F |
| 39 | STS-37 | OV104 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000012 | | F |
| 39 | STS-37 | OV104 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000013 | | F |
| 40 | STS-39 | OV103 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000010 | | F |
| 40 | STS-39 | OV103 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000011 | | F |
| 41 | STS-40 | OV102 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000001 | | F |
| 41 | STS-40 | OV102 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000005 | | F |
| 42 | STS-43 | OV104 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000012 | | F |
| 42 | STS-43 | OV104 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000013 | | F |
| 43 | STS-48 | OV103 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000010 | | F |
| 43 | STS-48 | OV103 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000011 | | F |
| 44 | STS-44 | OV104 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000012 | | F |
| 44 | STS-44 | OV104 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 0000000013 | | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|-----------------------------------|-------------|-------------|---------------|------|--------|
| 45 | STS-42 | OV103 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 000000010 | | S |
| 45 | STS-42 | OV103 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 000000011 | | A |
| 46 | STS-45 | OV104 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 000000012 | | T |
| 48 | STS-45 | OV104 | CT | SPKR MIC UNIT | MC409-0005 | -0024 | 000000013 | | 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 | 0000015073 | 3 | F |
| 47 | STS-49 | OV105 | CT | TACTICAL AIR NAVIGATION | MC409-0014 | -0006 | 0000015064 | 1 | F |
| 47 | STS-49 | OV105 | CT | TACTICAL AIR NAVIGATION | MC409-0014 | -0001 | 0000000002 | 2 | F |
| 47 | STS-49 | OV105 | CT | TACTICAL AIR NAVIGATION | MC409-0014 | -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 |
| 38 | STS-41 | OV103 | CT | ANTENNAS, TACAN | MC481-0068 | -0002 | 000001027 | 1L | F |

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | S T A T |
|-------------|--------|-------|-----------|---------------------|----------------|----------------|------------------|------------------|------------------|
| 46 | STS-45 | OV104 | CT | ANTENNA, UHF | MC481-0066 | -0001 | 0000000005 | | F |
| 47 | STS-49 | OV105 | CT | ANTENNA, UHF | MC481-0066 | -0001 | 0000000007 | | F |
| 48 | STS-50 | OV102 | CT | ANTENNA, UHF | MC481-0066 | -0001 | 0000000002 | | F |
| 49 | STS-46 | OV104 | CT | ANTENNA, UHF | MC481-0066 | -0001 | 0000000005 | | F |
| 50 | STS-47 | OV105 | CT | ANTENNA, UHF | MC481-0066 | -0001 | 0000000007 | | F |
| 51 | STS-52 | OV102 | CT | ANTENNA, UHF | MC481-0066 | -0001 | 0000000002 | | F |
| 53 | STS-54 | OV105 | CT | ANTENNA, UHF | MC481-0066 | -0001 | 0000000007 | | F |
| 54 | STS-55 | OV102 | CT | ANTENNA, UHF | MC481-0066 | -0001 | 0000000002 | | F |
| 36 | STS-41 | OV103 | CT | S-BAND 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 | 0000000310 | 1 | F |
| 43 | STS-48 | OV103 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000307 | 2 | F |
| 44 | STS-44 | OV104 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000306 | 2 | F |
| 44 | STS-44 | OV104 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000310 | 1 | F |
| 45 | STS-42 | OV103 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000308 | 2 | F |
| 45 | STS-42 | OV103 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000307 | 1 | F |
| 46 | STS-45 | OV104 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000306 | 2 | F |
| 46 | STS-45 | OV104 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000310 | 1 | F |
| 47 | STS-49 | OV105 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000308 | 2 | F |
| 47 | STS-49 | OV105 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000312 | 1 | F |
| 48 | STS-50 | OV102 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000313 | 2 | F |
| 48 | STS-50 | OV102 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000304 | 1 | F |
| 49 | STS-46 | OV104 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000301 | 2 | F |
| 49 | STS-46 | OV104 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000310 | 1 | F |
| 50 | STS-47 | OV105 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000308 | 2 | F |
| 50 | STS-47 | OV105 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000312 | 1 | F |
| 51 | STS-52 | OV102 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000313 | 2 | F |
| 51 | STS-52 | OV102 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000304 | 1 | F |
| 53 | STS-54 | OV105 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000312 | 2 | 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 | 1 | 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 | SLT | STATA |
|----------|--------|-------|-----------|--|-------------|-------------|---------------|-----|-------|
| 54 | STS-55 | OV102 | CT | AUDIO CENTRAL CONTROL EQUIPMENT | MC409-0005 | -0001 | 0000000006 | | F |
| 54 | STS-55 | OV102 | CT | ANTENNA, AIRLOCK | V075-730513 | -003 | 0000J54726 | | F |
| 54 | STS-55 | OV102 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000001 | | F |
| 54 | STS-55 | OV102 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000008 | | F |
| 54 | STS-55 | OV102 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000010 | | F |
| 54 | STS-55 | OV102 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000013 | | F |
| 54 | STS-55 | OV102 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000014 | | F |
| 54 | STS-55 | OV102 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000015 | | F |
| 54 | STS-55 | OV102 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000016 | | F |
| 54 | STS-55 | OV102 | CT | AUDIO TERM UNITS | MC409-0005 | -0012 | 0000000018 | | F |
| 54 | STS-55 | OV102 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000010 | 1 | F |
| 54 | STS-55 | OV102 | CT | COMMUNICATION SECURITY | KGX-60 | MOD1/3 | 0000000012 | 2 | F |
| 54 | STS-55 | OV102 | CT | DEPLOYED ELEC ASSY | MC409-0025 | -DEA | 0000000108 | | F |
| 54 | STS-55 | OV102 | CT | S-BAND FM SIGNAL PROC. | MC478-0106 | -3501 | 0000000303 | | F |
| 54 | STS-55 | OV102 | CT | S-BAND FM TRANSMITTER | MC478-0106 | -3001 | 0000000304 | 1 | F |
| 54 | STS-55 | OV102 | CT | S-BAND FM TRANSMITTER | MC478-0106 | -3001 | 0000000303 | 2 | F |
| 54 | STS-55 | OV102 | CT | ANTENNA, HEMI/GPS | MC481-0090 | -0003 | 000DBN0005 | L | F |
| 54 | STS-55 | OV102 | CT | ANTENNA, HEMI/GPS | MC481-0090 | -0004 | 000DBM0001 | U | F |
| 54 | STS-55 | OV102 | CT | DEPLOYED ASSY | MC409-0025 | -3008 | 0000000108 | | F |
| 54 | STS-55 | OV102 | CT | KU-BAND ELEC. ASSY-1 EA-1 | MC409-0025 | -1005 | 0000000103 | | F |
| 54 | STS-55 | OV102 | CT | ELECT ASSY-2 EA-2 | MC409-0025 | -2005 | 0000000108 | | F/SP |
| 54 | STS-55 | OV102 | CT | SIGNAL PROCESSOR ASSY | MC409-0025 | -4001 | 0000000102 | | F |
| 54 | STS-55 | OV102 | CT | MULTIPLE HEADSET ADAPTER | MC409-0005 | -0300 | 0000000006 | | F |
| 54 | STS-55 | OV102 | CT | MICROWAVE SCANNING BEAM DECODER ASSY | MC409-0017 | -0008 | 0000000018 | 1 | F |
| 54 | STS-55 | OV102 | CT | MICROWAVE SCANNING BEAM DECODER ASSY | MC409-0017 | -0008 | 0000000017 | 2 | F |
| 54 | STS-55 | OV102 | CT | MICROWAVE SCANNING BEAM DECODER ASSY | MC409-0017 | -0008 | 0000000010 | 3 | F |
| 54 | STS-55 | OV102 | CT | MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA | MC481-0067 | -0001 | 0000000013 | 1 | F |
| 54 | STS-55 | OV102 | CT | MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA | MC481-0067 | -0001 | 0000000019 | 2 | F |
| 54 | STS-55 | OV102 | CT | MICROWAVE SCAN BEAM LANDING SYSTEM ANTENNA | MC481-0067 | -0001 | 0000000012 | 3 | F |
| 54 | STS-55 | OV102 | CT | MICROWAVE SCANNING BEAM RF ASSY | MC409-0017 | -0007 | 0000000025 | 1 | F |
| 54 | STS-55 | OV102 | CT | MICROWAVE SCANNING BEAM RF ASSY | MC409-0017 | -0007 | 0000000024 | 2 | F |
| 54 | STS-55 | OV102 | CT | MICROWAVE SCANNING BEAM RF ASSY | MC409-0017 | -0007 | 0000000021 | 3 | F |
| 54 | STS-55 | OV102 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000030 | 1 | F |
| 54 | STS-55 | OV102 | CT | NETWORK SIGNAL PROCESSOR | MC476-0137 | -0004 | 0000000030 | 2 | F |
| 54 | STS-55 | OV102 | CT | ANTENNA, PAYLOAD | MC481-0071 | -0002 | 000DAG0003 | | F |
| 54 | STS-55 | OV102 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 00000000315 | 1 | F |
| 54 | STS-55 | OV102 | CT | PAYLOAD INTERROGRATOR | MC478-0105 | -0001 | 00000000302 | 2 | F |
| 54 | STS-55 | OV102 | CT | S-BD PREAMPLIFIER ASSY | MC478-0106 | -2001 | 00000000303 | | F |
| 54 | STS-55 | OV102 | CT | PAYLOAD SIGNAL PROCESSOR ASSY | MC476-0138 | -0004 | 00000001305 | 1 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLT | STA |
|----------|--------|-------|-----------|---------------------------------|-------------|-------------|---------------|-----|------|
| 54 | STS-55 | OV102 | CT | PAYLOAD SIGNAL PROCESSOR ASSY | MC478-0138 | -0004 | 0000000308 | 2 | F |
| 54 | STS-55 | OV102 | CT | S-BD PWR-AMP | MC478-0106 | -2501 | 0000000305 | | F |
| 54 | STS-55 | OV102 | CT | RADAR ALT VETER | MC409-0015 | -0006 | 0000000023 | 1 | F |
| 54 | STS-55 | OV102 | CT | RADAR ALTIMETER | MC409-0015 | -0006 | 0000000025 | 2 | F |
| 54 | STS-55 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000005 | 1 | F |
| 54 | STS-55 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0001 | 0000000007 | 1 | F |
| 54 | STS-55 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000005 | 2 | F |
| 54 | STS-55 | OV102 | CT | RADAR ANTENNAS, ALTIMETER | MC481-0116 | -0002 | 0000000006 | 2 | F |
| 54 | STS-55 | OV102 | CT | RATE SENSOR ASSY | MC409-0025 | -XXXX | 0000000110 | | F/SP |
| 54 | STS-55 | OV102 | CT | S-BAND SWITCH BEAM CONTROL ASSY | MC450-0064 | -0001 | 0000000010 | | F |
| 54 | STS-55 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0051 | 000DAX0001 | LL | F |
| 54 | STS-55 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0052 | 000DAY0005 | LR | F |
| 54 | STS-55 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0053 | 000DBT0004 | UL | F |
| 54 | STS-55 | OV102 | CT | S-BD ANTENNAS, QUAD | MC481-0088 | -0044 | 000DBU0002 | UR | F |
| 54 | STS-55 | OV102 | CT | S-BD SWITCH ASSY | MC478-0106 | -4004 | 00000000304 | | F |
| 54 | STS-55 | OV102 | CT | TACTICAL AIR NAVIGATION (GOULD) | MC409-0014 | -0006 | 0000015072 | 1 | F |
| 54 | STS-55 | OV102 | CT | TACTICAL AIR NAVIGATION (GOULD) | MC409-0014 | -0006 | 0000015065 | 2 | F |
| 54 | STS-55 | OV102 | CT | TACTICAL AIR NAVIGATION (GOULD) | MC409-0014 | -0006 | 0000015073 | 3 | F |
| 54 | STS-55 | OV102 | CT | ANTENNAS, TACAN | MC481-0068 | -0002 | 0000001012 | 1L | F |
| 54 | STS-55 | OV102 | CT | ANTENNAS, TACAN | MC481-0068 | -0002 | 0000001015 | 1U | F |
| 54 | STS-55 | OV102 | CT | ANTENNAS, TACAN | MC481-0068 | -0002 | 0000001013 | 2L | F |
| 54 | STS-55 | OV102 | CT | ANTENNAS, TACAN | MC481-0068 | -0002 | 0000001016 | 2U | F |
| 54 | STS-55 | OV102 | CT | ANTENNAS, TACAN | MC481-0068 | -0002 | 0000001018 | 3L | F |
| 54 | STS-55 | OV102 | CT | ANTENNAS, TACAN | MC481-0068 | -0002 | 0000001014 | 3U | F |
| 54 | STS-55 | OV102 | CT | ANTENNA, UHF | MC481-0066 | -0001 | 0000000002 | | F |
| 54 | STS-55 | OV102 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000311 | | F |
| 54 | STS-55 | OV102 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000304 | 1 | F |
| 54 | STS-55 | OV102 | CT | S-BAND TRANSPONDER | MC478-0106 | -1001 | 0000000301 | 2 | F |

AVIONICS
DISPLAY AND CONTROL (DC) SUBSYSTEM

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|-----------------------------|-------------|-------------|---------------|------|--------|
| 44 | STS-44 | OV104 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000016 | 3 | F |
| 45 | STS-42 | OV103 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000011 | 1 | F |
| 45 | STS-42 | OV103 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000019 | 2 | F |
| 45 | STS-42 | OV103 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000013 | 3 | F |
| 46 | STS-45 | OV104 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000017 | 1 | F |
| 46 | STS-45 | OV104 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000018 | 2 | F |
| 46 | STS-45 | OV104 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000016 | 3 | F |
| 47 | STS-49 | OV105 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000023 | 1 | F |
| 47 | STS-49 | OV105 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000022 | 2 | F |
| 47 | STS-49 | OV105 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000021 | 3 | F |
| 48 | STS-50 | OV102 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000009 | 1 | F |
| 48 | STS-50 | OV102 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000008 | 2 | F |
| 48 | STS-50 | OV102 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000010 | 3 | F |
| 49 | STS-46 | OV104 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000017 | 1 | F |
| 49 | STS-46 | OV104 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000018 | 2 | F |
| 49 | STS-46 | OV104 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000016 | 3 | F |
| 49 | STS-46 | OV104 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000023 | 1 | F |
| 50 | STS-47 | OV105 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000022 | 2 | F |
| 50 | STS-47 | OV105 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000021 | 3 | F |
| 50 | STS-47 | OV105 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000009 | 1 | F |
| 51 | STS-52 | OV102 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000008 | 2 | F |
| 51 | STS-52 | OV102 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000010 | 3 | F |
| 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 | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623108209 | 1 | F |
| 37 | STS-38 | OV102 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623098208 | 2 | F |
| 38 | STS-35 | OV104 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623067802 | 1 | F |
| 39 | STS-37 | OV104 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623098208 | 2 | F |
| 40 | STS-39 | OV102 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623108209 | 1 | F |
| 41 | STS-40 | OV102 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623067802 | 1 | F |
| 42 | STS-43 | OV104 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623098208 | 2 | F |
| 43 | STS-48 | OV103 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623108209 | 1 | F |
| 44 | STS-44 | OV104 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623098208 | 2 | F |
| 45 | STS-42 | OV103 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623108209 | 1 | F |
| 46 | STS-45 | OV104 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623098208 | 2 | F |
| 47 | STS-48 | OV105 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 000989009 | 2 | F |
| 48 | STS-46 | OV104 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623067802 | 1 | F |
| 49 | STS-46 | OV104 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623098208 | 2 | F |
| 50 | STS-47 | OV105 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623067802 | 1 | F |
| 51 | STS-52 | OV102 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 000989009 | 2 | F |
| 53 | STS-54 | OV105 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 000989009 | 2 | F |
| 54 | STS-55 | OV102 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623067802 | 1 | F |
| 54 | STS-55 | OV102 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623067802 | 1 | F |
| 36 | STS-41 | OV103 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0008201014 | 1 | F |
| 36 | STS-41 | OV103 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0008302017 | 2 | F |
| 37 | STS-38 | OV104 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0007603007 | 1 | F |
| 37 | STS-38 | OV104 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0008201013 | 2 | F |
| 38 | STS-35 | OV102 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0007803010 | 1 | F |
| 38 | STS-35 | OV102 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0007603009 | 2 | F |
| 38 | STS-37 | OV104 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0007803007 | 1 | F |
| 39 | STS-37 | OV104 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0008201013 | 2 | F |
| 40 | STS-39 | OV103 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0008201014 | 1 | F |
| 40 | STS-39 | OV103 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0008302017 | 2 | F |
| 41 | STS-40 | OV102 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0007803010 | 1 | F |

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

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

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

S L O S T A T - F

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

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

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

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

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | T A T |
|-------------|--------|-------|-----------|--------------------------------|----------------|----------------|------------------|------------------|-------------|
| 37 | STS-38 | OV104 | DC | FLOOD LITE | MC434-0078 | -0007 | 0000000307 | F | |
| 37 | STS-38 | OV104 | DC | FLOOD LITE | MC434-0078 | -0008 | 0000000308 | F | |
| 38 | STS-35 | OV102 | DC | FLOOD LITE | MC434-0078 | -0005 | 000000805 | F | |
| 38 | STS-35 | OV102 | DC | FLOOD LITE | MC434-0078 | -0006 | 000000809 | 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 | 000000103 | F | |
| 40 | STS-39 | OV103 | DC | FLOOD LITE | MC434-0078 | -0007 | 0000000205 | F | |
| 41 | STS-40 | OV102 | DC | FLOOD LITE | MC434-0078 | -0005 | 000000805 | F | |
| 41 | STS-40 | OV102 | DC | FLOOD LITE | MC434-0078 | -0006 | 000000809 | 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 | 000000103 | 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 | 000000103 | F | |
| 45 | STS-42 | OV103 | DC | FLOOD LITE | MC434-0078 | -0007 | 0000000205 | F | |
| 46 | STS-45 | OV104 | DC | FLOOD LITE | MC434-0078 | -0007 | 0000000307 | F | |
| 46 | STS-45 | OV104 | DC | FLOOD LITE | MC434-0078 | -0008 | 0000000308 | F | |
| 47 | STS-49 | OV105 | DC | FLOOD LITE | MC434-0078 | -0007 | 0000000015 | F | |
| 47 | STS-49 | OV105 | DC | FLOOD LITE | MC434-0078 | -0008 | 0000000016 | F | |
| 48 | STS-50 | OV102 | DC | FLOOD LITE | MC434-0078 | -0005 | 0000067805 | F | |
| 48 | STS-50 | OV102 | DC | FLOOD LITE | MC434-0078 | -0006 | 0000067809 | F | |
| 49 | STS-46 | OV104 | DC | FLOOD LITE | MC434-0078 | -0007 | 0000086307 | F | |
| 49 | STS-46 | OV104 | DC | FLOOD LITE | MC434-0078 | -0008 | 0000108308 | F | |
| 50 | STS-47 | OV105 | DC | FLOOD LITE | MC434-0078 | -0007 | 0000189015 | F | |
| 50 | STS-47 | OV105 | DC | FLOOD LITE | MC434-0078 | -0008 | 0000289016 | F | |
| 51 | STS-52 | OV102 | DC | FLOOD LITE | MC434-0078 | -0006 | 0000067805 | F | |
| 51 | STS-52 | OV102 | DC | FLOOD LITE | MC434-0078 | -0007 | 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 | OV104 | 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 | OV105 | DC | ACCELEROMETER INDICATOR | MC432-0219 | -0002 | 000000006E | F | |
| 47 | STS-49 | OV104 | 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 | 000000006E | F | |
| 53 | STS-54 | OV105 | DC | ACCELEROMETER INDICATOR | MC432-0219 | -0002 | 000000004E | F | |
| 54 | STS-55 | 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 | F | 1 |
| 36 | STS-41 | OV103 | DC | HORIZONTAL SITUATION INDICATOR | MC432-0218 | -0004 | 0000000009 | F | 2 |
| 37 | STS-38 | OV104 | DC | HORIZONTAL SITUATION INDICATOR | MC432-0218 | -0004 | 0000000016 | F | 1 |
| 37 | STS-38 | OV104 | DC | HORIZONTAL SITUATION INDICATOR | MC432-0218 | -0004 | 0000000015 | F | 2 |
| 38 | STS-35 | OV102 | DC | HORIZONTAL SITUATION INDICATOR | MC432-0218 | -0004 | 0000000006 | F | 1 |

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

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

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

S T A I
S L O T I

DASH SERIAL
NUMBER NUMBER

PART
NUMBER

LRU
NOMENCLATURE

SUBSYSTEM
ORB

MISS STS
SEQ

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 -0022 0000000428 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 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 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
 45 STS-42 OV103 DC LITE-INTERIOR MC434-0068 -0022 0000000362 F
 45 STS-42 OV103 DC LITE-INTERIOR MC434-0068 -0011 0000000369 F
 45 STS-42 OV103 DC LITE-INTERIOR MC434-0068 -0011 0000000355 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 -0009 0000000325 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 -0014 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

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | S T A T |
|-------------|--------|-------|-----------|---------------------|----------------|----------------|------------------|------------------|------------------|
| 48 | 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 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0011 | 0000000369 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0030 | 0000000605 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0129 | 0000000615 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0030 | 0000000642 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0119 | 0000000651 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0119 | 0000000652 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0120 | 0000000653 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0120 | 0000000654 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0115 | 0000000673 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0116 | 0000000674 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0122 | 0000000675 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0121 | 0000000677 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0121 | 0000000678 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0121 | 0000000679 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0121 | 0000000680 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0121 | 0000000681 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0111 | 0000000683 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 0000000684 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 0000000685 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 0000000686 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 0000000687 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 0000000688 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 0000000689 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 0000000690 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 0000000691 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 0000000692 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0109 | 0000000693 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0109 | 0000000694 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0127 | 0000000696 | F | |
| 50 | STS-47 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0127 | 0000000697 | F | |
| 50 | STS-47 | OV106 | 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 | -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 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0030 | 0000000605 | F | |
| 53 | STS-54 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0129 | 0000000615 | F | |
| 53 | STS-54 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0030 | 0000000642 | F | |
| 53 | STS-54 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0119 | 0000000651 | F | |
| 53 | STS-54 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0119 | 0000000652 | F | |
| 53 | STS-54 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0120 | 0000000653 | F | |
| 53 | STS-54 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0115 | 0000000673 | F | |
| 53 | STS-54 | OV106 | DC | LITE-INTERIOR | MC434-0068 | -0116 | 0000000674 | F | |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLTY | STAT |
|----------|--------|-------|-----------|------------------|-------------|-------------|---------------|------|------|
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0122 | 000000675 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0121 | 000000677 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0121 | 000000678 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0121 | 000000679 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0121 | 000000680 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0111 | 000000681 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 000000683 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 000000684 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 000000685 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 000000686 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 000000688 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 000000689 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 000000690 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 000000691 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0114 | 000000692 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0109 | 000000693 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0109 | 000000694 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0127 | 000000696 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0127 | 000000697 | F | F |
| 53 | STS-54 | OV105 | DC | LITE-INTERIOR | MC434-0068 | -0128 | 000000698 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0016 | 000000105 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0018 | 000000111 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0009 | 000000113 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0009 | 000000126 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0011 | 000000137 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0014 | 000000144 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0027 | 000000429 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0027 | 000000474 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0028 | 000000475 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0029 | 000000484 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0030 | 000000486 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0030 | 000000488 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0015 | 000000594 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0014 | 000000621 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0021 | 000000629 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0021 | 000000632 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0021 | 000000633 | F | F |
| 54 | STS-55 | OV102 | DC | LITE-INTERIOR | MC434-0068 | -0021 | 000000634 | F | F |
| 36 | STS-41 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018049 | X | F |
| 36 | STS-41 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018157 | Y | F |
| 36 | STS-41 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018158 | 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 | 0000068041 | 9 | F |
| 37 | STS-38 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018265 | X | F |
| 37 | STS-38 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018266 | Y | F |
| 37 | STS-38 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018267 | 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 | STATUS |
|----------|--------|-------|-----------|------------------|-------------|-------------|---------------|------|--------|
| 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 |
| 38 | STS-35 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018265 | X | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018266 | Y | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018267 | Z | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027808 | 1 | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068043 | 2 | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000010H046 | 3 | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108156 | 4 | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000010A159 | 5 | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018260 | 6 | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018261 | 7 | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018262 | 8 | F |
| 39 | STS-37 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018264 | 9 | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000118049 | X | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108157 | Y | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108158 | Z | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000088033 | 1 | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068035 | 2 | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068036 | 3 | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068037 | 4 | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068038 | 5 | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068039 | 6 | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068040 | 7 | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068041 | 8 | F |
| 40 | STS-39 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000118048 | 9 | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000010H044 | X | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000010K052 | Y | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0001286071 | Z | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027804 | 1 | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027809 | 2 | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027810 | 3 | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027811 | 4 | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027812 | 5 | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027813 | 6 | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027802 | 7 | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027805 | 8 | F |
| 41 | STS-40 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000037830 | 9 | F |
| 42 | STS-43 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018265 | X | F |
| 42 | STS-43 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018266 | Y | F |
| 42 | STS-43 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018267 | Z | F |
| 42 | STS-43 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 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 | STATION |
|----------|--------|-------|-----------|------------------|-------------|-------------|---------------|------|---------|
| 42 | STS-43 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108159 | 5 | F |
| 42 | STS-43 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018260 | 6 | F |
| 42 | STS-43 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018261 | 7 | F |
| 42 | STS-43 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018262 | 8 | F |
| 42 | STS-43 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018264 | 9 | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000118049 | X | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108157 | Y | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108158 | Z | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068033 | 1 | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068035 | 2 | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068036 | 3 | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068037 | 4 | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068038 | 5 | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068039 | 6 | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068040 | 7 | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068041 | 8 | F |
| 43 | STS-48 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000118048 | 9 | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018265 | X | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018266 | Y | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018267 | Z | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027808 | 1 | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068043 | 2 | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108046 | 3 | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108156 | 4 | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108159 | 5 | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018260 | 6 | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018261 | 7 | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018262 | 8 | F |
| 44 | STS-44 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018264 | 9 | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000118049 | X | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108157 | Y | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108158 | Z | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068033 | 1 | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068035 | 2 | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068036 | 3 | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068037 | 4 | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068038 | 5 | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068039 | 6 | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068040 | 7 | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068041 | 8 | F |
| 45 | STS-42 | OV103 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108048 | 9 | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018265 | X | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018266 | Y | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018267 | Z | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027808 | 1 | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068043 | 2 | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108046 | 3 | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108156 | 4 | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108159 | 5 | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018260 | 6 | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018261 | 7 | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018262 | 8 | F |
| 46 | STS-45 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 000018264 | 9 | F |
| 47 | STS-49 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089084 | Y | F |
| 47 | STS-49 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089077 | Z | F |
| 47 | STS-49 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089074 | 1 | F |
| 47 | STS-49 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089076 | 2 | F |
| 47 | STS-49 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089073 | 3 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | T A |
|-------------|--------|-------|-----------|---------------------|----------------|----------------|------------------|---------|-----|
| 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 | OV102 | 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 | 000108052 | 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 | 0000018268 | 1 | F |
| 49 | STS-46 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000027808 | 2 | F |
| 49 | STS-46 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000068043 | 3 | F |
| 49 | STS-46 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108046 | 4 | F |
| 49 | STS-46 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108156 | 5 | F |
| 49 | STS-46 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000108159 | 6 | F |
| 49 | STS-46 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018260 | 7 | F |
| 49 | STS-46 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018261 | 8 | F |
| 49 | STS-46 | OV104 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000018262 | 9 | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089082 | X | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089084 | Y | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089077 | Z | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089074 | 1 | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089076 | 2 | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089073 | 3 | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089075 | 4 | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089078 | 5 | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089079 | 6 | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089081 | 7 | F |
| 50 | STS-47 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089080 | 8 | F |
| 51 | STS-52 | OV102 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089083 | 9 | F |
| 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 |
| 53 | STS-54 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000037830 | 9 | F |
| 53 | STS-54 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089082 | X | F |
| 53 | STS-54 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089084 | Y | F |
| 53 | STS-54 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089077 | Z | F |
| 53 | STS-54 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089074 | 1 | F |
| 53 | STS-54 | OV105 | DC | LIGHT DIMMER | MC459-0004 | -0001 | 0000089076 | 2 | F |

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

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STA |
|-------------|--------|-------|-----------|------------------------------|----------------|----------------|------------------|------|-----|
| 37 | STS-38 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0006 | 2200006108 | | F |
| 37 | STS-38 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0007 | 2200007108 | | F |
| 38 | STS-35 | OV102 | DC | METER-ROUND ELEC | MC432-0237 | -0004 | 2200004101 | | F |
| 38 | STS-35 | OV102 | DC | METER-ROUND ELEC | MC432-0237 | -0006 | 2200006102 | | F |
| 38 | STS-35 | OV102 | DC | METER-ROUND ELEC | MC432-0237 | -0007 | 2200007102 | | F |
| 39 | STS-37 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0004 | 2200004108 | | F |
| 39 | STS-37 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0006 | 2200006108 | | F |
| 39 | STS-37 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0007 | 2200007108 | | F |
| 40 | STS-39 | OV103 | DC | METER-ROUND ELEC | MC432-0237 | -0004 | 2200004105 | | F |
| 40 | STS-39 | OV103 | DC | METER-ROUND ELEC | MC432-0237 | -0006 | 2200006105 | | F |
| 40 | STS-39 | OV103 | DC | METER-ROUND ELEC | MC432-0237 | -0007 | 2200007105 | | F |
| 41 | STS-40 | OV102 | DC | METER-ROUND ELEC | MC432-0237 | -0004 | 2200004101 | | F |
| 41 | STS-40 | OV102 | DC | METER-ROUND ELEC | MC432-0237 | -0006 | 2200006102 | | F |
| 41 | STS-40 | OV102 | DC | METER-ROUND ELEC | MC432-0237 | -0007 | 2200007102 | | F |
| 42 | STS-43 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0004 | 2200004106 | | F |
| 42 | STS-43 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0006 | 2200006108 | | F |
| 42 | STS-43 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0007 | 2200007106 | | F |
| 43 | STS-48 | OV103 | DC | METER-ROUND ELEC | MC432-0237 | -0004 | 2200004105 | | F |
| 43 | STS-48 | OV103 | DC | METER-ROUND ELEC | MC432-0237 | -0006 | 2200006105 | | F |
| 43 | STS-48 | OV103 | DC | METER-ROUND ELEC | MC432-0237 | -0007 | 2200007105 | | F |
| 44 | STS-44 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0004 | 2200004106 | | F |
| 44 | STS-44 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0006 | 2200006108 | | F |
| 44 | STS-44 | OV104 | DC | METER-ROUND ELEC | MC432-0237 | -0007 | 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 | 2200004108 | | F |
| 50 | STS-47 | OV105 | DC | METER-ROUND ELEC | MC432-0237 | -0006 | 2200006110 | | F |
| 50 | STS-47 | OV105 | DC | METER-ROUND ELEC | MC432-0237 | -0007 | 2200007108 | | F |
| 51 | STS-52 | OV102 | DC | METER-ROUND ELEC | MC432-0237 | -0004 | 2200004101 | | F |
| 51 | STS-52 | OV102 | DC | METER-ROUND ELEC | MC432-0237 | -0006 | 2200006102 | | F |
| 51 | STS-52 | OV102 | DC | METER-ROUND ELEC | MC432-0237 | -0007 | 2200007102 | | F |
| 51 | STS-52 | OV102 | DC | METER-ROUND ELEC | MC432-0237 | -0004 | 2200004101 | | F |
| 53 | STS-54 | OV105 | DC | METER-ROUND ELEC | MC432-0237 | -0004 | 2200004108 | | 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 | S L U T | S T A T |
|----------|--------|-------|-----------|-------------------------------|-----------------|-------------|---------------|---------|---------|
| 40 | STS-39 | OV103 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000008 | 1 | F |
| 40 | STS-39 | OV103 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000002 | 2 | F |
| 41 | STS-40 | OV102 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000005 | 1 | F |
| 42 | STS-43 | OV104 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000010 | 1 | F |
| 42 | STS-43 | OV104 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000011 | 2 | F |
| 43 | STS-48 | OV103 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000008 | 1 | F |
| 43 | STS-48 | OV103 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000002 | 2 | F |
| 44 | STS-44 | OV104 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000010 | 1 | F |
| 44 | STS-44 | OV104 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000011 | 2 | F |
| 45 | STS-42 | OV103 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000008 | 1 | F |
| 45 | STS-42 | OV103 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000002 | 2 | F |
| 46 | STS-45 | OV104 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000010 | 1 | F |
| 46 | STS-45 | OV104 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000011 | 2 | F |
| 47 | STS-49 | OV105 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000014 | 1 | F |
| 47 | STS-49 | OV105 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000015 | 2 | F |
| 48 | STS-50 | OV102 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000004 | 1 | F |
| 48 | STS-50 | OV102 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000005 | 2 | F |
| 49 | STS-46 | OV104 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000010 | 1 | F |
| 49 | STS-46 | OV104 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000011 | 2 | F |
| 50 | STS-47 | OV105 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000014 | 1 | F |
| 50 | STS-47 | OV105 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000015 | 2 | F |
| 51 | STS-52 | OV102 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000004 | 1 | F |
| 51 | STS-52 | OV102 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000005 | 2 | F |
| 53 | STS-54 | OV105 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000014 | 1 | F |
| 53 | STS-54 | OV105 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000015 | 2 | F |
| 54 | STS-55 | OV102 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000004 | 1 | F |
| 54 | STS-55 | OV102 | DC | RUDDER PEDAL | TRANSDUCER ASSY | -3440 | 000000005 | 2 | F |
| 36 | STS-41 | OV103 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000206 | F | F |
| 37 | STS-38 | OV104 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000104 | F | F |
| 38 | STS-35 | OV102 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 0000098203 | F | F |
| 39 | STS-37 | OV104 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000104 | F | F |
| 40 | STS-39 | OV103 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000206 | F | F |
| 41 | STS-40 | OV102 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 0000098203 | F | F |
| 42 | STS-43 | OV104 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000104 | F | F |
| 43 | STS-48 | OV103 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000206 | F | F |
| 44 | STS-44 | OV104 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000104 | F | F |
| 45 | STS-42 | OV103 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000206 | F | F |
| 46 | STS-45 | OV104 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000104 | F | F |
| 47 | STS-49 | OV105 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000206 | F | F |
| 48 | STS-50 | OV102 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 0000098203 | F | F |
| 49 | STS-46 | OV104 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000104 | F | F |
| 50 | STS-47 | OV105 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000206 | F | F |
| 51 | STS-52 | OV102 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 000000104 | F | F |
| 53 | STS-54 | OV105 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 0000098203 | F | F |
| 54 | STS-55 | OV102 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 0000006009 | F | F |
| 54 | STS-55 | OV102 | DC | RENDEZVOUS RADAR INDICATOR | | -0002 | 0000098203 | F | F |
| 36 | STS-41 | OV103 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000010 | 1 | F |
| 36 | STS-41 | OV103 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000009 | 2 | F |
| 37 | STS-38 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000011 | 1 | F |
| 37 | STS-38 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000001 | 2 | F |
| 38 | STS-35 | OV102 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000004 | 1 | F |
| 38 | STS-35 | OV102 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000012 | 2 | F |
| 39 | STS-37 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000011 | 1 | F |
| 39 | STS-37 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000001 | 2 | F |
| 40 | STS-39 | OV103 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000010 | 1 | F |
| 40 | STS-39 | OV103 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000009 | 2 | F |
| 41 | STS-40 | OV102 | DC | SPEED BRAKE THRUST CONTROLLER | | -3240 | 000000004 | 1 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | A T T |
|-------------|--------|-------|-----------|-------------------------------|----------------|----------------|------------------|------------------|-------------|
| 41 | STS-40 | OV102 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000012 | 2 | F |
| 42 | STS-43 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000011 | 1 | F |
| 43 | STS-43 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000001 | 2 | F |
| 43 | STS-48 | OV103 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000010 | 1 | F |
| 43 | STS-48 | OV103 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000009 | 2 | F |
| 44 | STS-44 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000011 | 1 | F |
| 45 | STS-42 | OV103 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000010 | 2 | F |
| 45 | STS-42 | OV103 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000009 | 2 | F |
| 46 | STS-45 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000011 | 1 | F |
| 46 | STS-45 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000010 | 2 | F |
| 47 | STS-49 | OV106 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000011 | 1 | F |
| 47 | STS-49 | OV106 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000010 | 2 | F |
| 48 | STS-50 | OV102 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000013 | 1 | F |
| 48 | STS-50 | OV102 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000014 | 2 | F |
| 49 | STS-46 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000012 | 2 | F |
| 49 | STS-46 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000011 | 1 | F |
| 49 | STS-46 | OV104 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000010 | 2 | F |
| 50 | STS-47 | OV105 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000013 | 1 | F |
| 51 | STS-52 | OV102 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000014 | 2 | F |
| 51 | STS-52 | OV102 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000012 | 2 | F |
| 53 | STS-54 | OV105 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000013 | 1 | F |
| 53 | STS-54 | OV105 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000014 | 2 | F |
| 54 | STS-54 | OV105 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000014 | 2 | F |
| 54 | STS-55 | OV102 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000004 | 1 | F |
| 54 | STS-55 | OV102 | DC | SPEED BRAKE THRUST CONTROLLER | MC621-0043 | -3240 | 000000012 | 2 | F |
| 36 | STS-41 | OV103 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0011 | 0007803006 | F | F |
| 37 | STS-38 | OV104 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008303010 | F | F |
| 38 | STS-35 | OV102 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008201008 | F | F |
| 39 | STS-37 | OV104 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008303010 | F | F |
| 40 | STS-39 | OV103 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0011 | 0007803006 | F | F |
| 41 | STS-40 | OV102 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008201008 | F | F |
| 42 | STS-43 | OV104 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008303010 | F | F |
| 43 | STS-48 | OV103 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0011 | 0007803006 | F | F |
| 44 | STS-44 | OV104 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008303010 | F | F |
| 45 | STS-42 | OV103 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0011 | 0007803006 | F | F |
| 46 | STS-45 | OV104 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008303010 | F | F |
| 47 | STS-49 | OV105 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008903001 | F | F |
| 48 | STS-50 | OV102 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008201008 | F | F |
| 49 | STS-46 | OV104 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008303010 | F | F |
| 50 | STS-47 | OV105 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008903001 | F | F |
| 51 | STS-52 | OV102 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008201008 | F | F |
| 53 | STS-54 | OV105 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0008903001 | F | F |
| 54 | STS-55 | OV102 | DC | SURFACE POSITION INDICATOR | MC432-0221 | -0031 | 0007605005 | F | F |
| 36 | STS-41 | OV103 | DC | METER-TAPE | MC432-0232 | -0017 | 0000000004 | F | F |
| 36 | STS-41 | OV103 | DC | METER-TAPE | MC432-0232 | -0012 | 0000000004 | F | F |
| 36 | STS-41 | OV103 | DC | METER-TAPE | MC432-0232 | -0008 | 0000000005 | F | F |
| 36 | STS-41 | OV103 | DC | METER-TAPE | MC432-0232 | -0009 | 000000006A | F | F |
| 36 | STS-41 | OV103 | DC | METER-TAPE | MC432-0232 | -0015 | 000000006A | F | F |
| 36 | STS-41 | OV103 | DC | METER-TAPE | MC432-0232 | -0018 | 000000006A | F | F |
| 36 | STS-41 | OV103 | DC | METER-TAPE | MC432-0232 | -0010 | 000000007A | F | F |
| 37 | STS-38 | OV104 | DC | METER-TAPE | MC432-0232 | -0017 | 000000005A | F | F |
| 37 | STS-38 | OV104 | DC | METER-TAPE | MC432-0232 | -0009 | 000000005A | F | F |
| 37 | STS-38 | OV104 | DC | METER-TAPE | MC432-0232 | -0015 | 000000005A | F | F |
| 37 | STS-38 | OV104 | DC | METER-TAPE | MC432-0232 | -0018 | 000000005A | F | F |
| 37 | STS-38 | OV104 | DC | METER-TAPE | MC432-0232 | -0012 | 000000006A | F | F |
| 37 | STS-38 | OV104 | DC | METER-TAPE | MC432-0232 | -0008 | 000000007A | F | F |

S T A T I S T I C S
 S L O T I

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

S T A T
S L O T

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SL | STA |
|----------|--------|-------|-----------|-----------------------------|-------------|-------------|---------------|----|-----|
| 37 | STS-38 | OV104 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000010 | 3 | F |
| 38 | STS-35 | OV102 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000002 | 1 | F |
| 38 | STS-35 | OV102 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000007 | 3 | F |
| 38 | 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 | 0000000010 | 3 | F |
| 49 | STS-46 | OV104 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000011 | 3 | F |
| 50 | STS-47 | OV105 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000014 | 1 | F |
| 50 | STS-47 | OV105 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000015 | 3 | F |
| 51 | STS-52 | OV102 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000002 | 1 | F |
| 51 | STS-52 | OV102 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000007 | 3 | F |
| 53 | STS-54 | OV105 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000014 | 1 | F |
| 53 | STS-54 | OV105 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000015 | 3 | F |
| 54 | STS-55 | OV102 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000002 | 1 | F |
| 54 | STS-55 | OV102 | DC | TRANSLATION HAND CONTROLLER | MC621-0043 | -3140 | 0000000007 | 3 | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0009 | 0380009105 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0010 | 0380010105 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0011 | 0380011105 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0012 | 0380012105 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0014 | 0380014111 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0014 | 0380014112 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0014 | 0380014113 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0016 | 0380016105 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0017 | 0380017105 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0024 | 0380024105 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0026 | 0380026101 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0028 | 0380028101 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0007 | 0790007105 | | F |
| 36 | STS-41 | OV103 | DC | METER-VERTICAL SCALE | MC432-0238 | -0008 | 0790008105 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0019 | 0790019104 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0011 | 0000011106 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0009 | 0380009106 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0010 | 0380010106 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0012 | 0380012106 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0014 | 0380014114 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0014 | 0380014115 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0014 | 0380014116 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0016 | 0380016106 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0017 | 0380017106 | | F |
| 37 | STS-38 | OV104 | DC | METER-VERTICAL SCALE | MC432-0238 | -0024 | 0380024106 | | F |

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | Y A T |
|-------------|--------|-------|-----------|--|----------------|----------------|------------------|------------------|-------------|
| 84 | STS-55 | OV102 | DC | ANNUNCIATOR CONTROL ASSEMBLY | MC434-0283 | -0003 | 9623098231 | 1 | F |
| 84 | STS-55 | OV102 | DC | ANNUNCIATOR CONTROL ASSEMBLY | MC434-0283 | -0003 | 9623098231 | 1 | F |
| 84 | STS-55 | OV102 | DC | ANNUNCIATOR CONTROL ASSEMBLY | MC434-0283 | -0003 | 9623098231 | 1 | F |
| 84 | STS-55 | OV102 | DC | ANNUNCIATOR CONTROL ASSEMBLY | MC434-0283 | -0003 | 9623098231 | 1 | F |
| 84 | STS-55 | OV102 | DC | ANNUNCIATOR CONTROL ASSEMBLY | MC434-0283 | -0003 | 9623098231 | 1 | F |
| 84 | STS-55 | OV102 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000009 | 1 | F |
| 84 | STS-55 | OV102 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000008 | 2 | F |
| 84 | STS-55 | OV102 | DC | ATTITUDE DIRECTOR INDICATOR | MC432-0235 | -0002 | 5351000010 | 3 | F |
| 84 | STS-55 | OV102 | DC | ANNUNCIATOR DISPLAY UNIT | MC434-0080 | -0012 | 9623067802 | | F |
| 84 | STS-55 | OV102 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0007803010 | 1 | F |
| 84 | STS-55 | OV102 | DC | ALPHA-MACH ELECTRONICS | MC432-0224 | -0022 | 0007603009 | 2 | F |
| 84 | STS-55 | OV102 | DC | ALPHA-MACH INDICATORS | MC432-0224 | -0011 | 0008302016 | 1 | F |
| 84 | STS-55 | OV102 | DC | ALPHA-MACH INDICATORS | MC432-0224 | -0011 | 0007603009 | 2 | F |
| 84 | STS-55 | OV102 | DC | FIRE WARNING ANNUNCIATOR | MC434-0073 | -0011 | 0000118004 | | F |
| 84 | STS-55 | OV102 | DC | ALTITUDE VERTICAL VELOCITY ELECTRONICS | MC432-0226 | -0022 | 3157803009 | 1 | F |
| 84 | STS-55 | OV102 | DC | ALTITUDE VERTICAL VELOCITY ELECTRONICS | MC432-0226 | -0022 | 3157803010 | 2 | F |
| 84 | STS-55 | OV102 | DC | ALTITUDE VERTICAL VELOCITY INDICATOR | MC432-0226 | -0011 | 9728302017 | 1 | F |
| 84 | STS-55 | OV102 | DC | ALTITUDE VERTICAL VELOCITY INDICATOR | MC432-0226 | -0011 | 3157803009 | 2 | F |
| 84 | STS-55 | OV102 | DC | COMPUTER I/F COND. UNIT | MC434-0080 | -0001 | 9623283014 | | F |
| 84 | STS-55 | OV102 | DC | CROSSPOINTER INDICATOR | MC432-0233 | -0001 | 000206006E | | F |
| 84 | STS-55 | OV102 | DC | CAUTION/WARNING ANNUNCIATOR | MC434-0069 | -0012 | 9623127805 | | F |
| 84 | STS-55 | OV102 | DC | CAUTION AND WARNING ELECTRONICS | MC409-0012 | -0031 | 0000000005 | | F |
| 84 | STS-55 | OV102 | DC | CAUTION AND WARNING LIMIT MODULE | MC409-0012 | -0113 | 0000000011 | | F |
| 84 | STS-55 | OV102 | DC | CAUTION WARNING STATUS | MC409-0012 | -0002 | 0000000004 | | F |
| 84 | STS-55 | OV102 | DC | DISPLAY DRIVER UNIT | MC409-0023 | -0002 | 0000000008 | 1 | F |
| 84 | STS-55 | OV102 | DC | DISPLAY DRIVER UNIT | MC409-0023 | -0004 | 0000000020 | 2 | F |
| 84 | STS-55 | OV102 | DC | DISPLAY DRIVER UNIT | MC409-0023 | -0004 | 0000000018 | 3 | F |
| 84 | STS-55 | OV102 | DC | LITE-EXTERIOR BULKHEAD FLOODLIGHT | MC434-0062 | -0033 | 0000000046U | | F |
| 84 | STS-55 | OV102 | DC | LITE-EXTERIOR ELECTRONICS 1 | MC434-0062 | -0011 | 00000000592 | | F |
| 84 | STS-55 | OV102 | DC | LITE-EXTERIOR ELECTRONICS NBR 2 | MC434-0062 | -0035 | 0000000060J | | F |
| 84 | STS-55 | OV102 | DC | LITE-EXTERIOR PAYLOAD | MC434-0062 | -0032 | 00000000582 | 1 | F |
| 84 | STS-55 | OV102 | DC | LITE-EXTERIOR PAYLOAD | MC434-0062 | -0022 | 00000000451 | 2 | F |
| 84 | STS-55 | OV102 | DC | LITE-EXTERIOR PAYLOAD | MC434-0062 | -0032 | 00000000449 | 3 | F |
| 84 | STS-55 | OV102 | DC | LITE-EXTERIOR PAYLOAD | MC434-0062 | -0032 | 00000000455 | 4 | F |
| 84 | STS-55 | OV102 | DC | LITE-EXTERIOR PAYLOAD | MC434-0062 | -0032 | 00000000583 | 5 | F |
| 84 | STS-55 | OV102 | DC | LITE-EXTERIOR PAYLOAD | MC434-0062 | -0032 | 00000000580 | 6 | F |
| 84 | STS-55 | OV102 | DC | EVENT TIMER | MC456-0053 | -0001 | 0000000002 | 1 | F |
| 84 | STS-55 | OV102 | DC | EVENT TIMER | MC456-0053 | -0002 | 0000000015 | 2 | F |
| 84 | STS-55 | OV102 | DC | FLOOD LITE | MC434-0078 | -0005 | 0000067805 | | F |

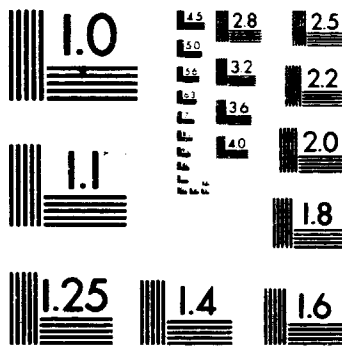
| MISS SEQ | STS | ORIG | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | S T A T E |
|-------------|--------|-------|-----------|--------------------------------|----------------|----------------|------------------|------------------|-----------------------|
| 54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

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

AVIONICS
ELECTRICAL POWER DISTRIBUTION AND CONTROL (EPDC) SUBSYSTEM

5 OF 7

N96-11129 UNCLAS



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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | ACTUATOR | POWER | ASSEMBLY | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SILO |
|----------|--------|-------|-----------|------------------|------------|-------|----------|-------------|-------------|---------------|------|
| 36 | STS-41 | OV103 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AD9162 | F |
| 36 | STS-41 | OV103 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000J76030 | F |
| 37 | STS-38 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0716 | F |
| 37 | STS-38 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0729 | F |
| 38 | STS-36 | OV102 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -003 | 0000A46408 | F |
| 38 | STS-35 | OV102 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -003 | 0000A46409 | F |
| 38 | STS-37 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0716 | F |
| 39 | STS-37 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0729 | F |
| 40 | STS-39 | OV103 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AD9162 | F |
| 40 | STS-39 | OV103 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000J76030 | F |
| 41 | STS-40 | OV102 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -003 | 0000A46408 | F |
| 41 | STS-40 | OV102 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -003 | 0000A46409 | F |
| 42 | STS-43 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0716 | F |
| 42 | STS-43 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0729 | F |
| 43 | STS-48 | OV103 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AD9162 | F |
| 43 | STS-48 | OV103 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000J76030 | F |
| 44 | STS-44 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0716 | F |
| 44 | STS-44 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0729 | F |
| 45 | STS-42 | OV103 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AD9162 | F |
| 45 | STS-42 | OV103 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000J76030 | F |
| 46 | STS-45 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0716 | F |
| 46 | STS-45 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0729 | F |
| 47 | STS-49 | OV105 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000ER112 | F |
| 47 | STS-49 | OV105 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000ER113 | F |
| 48 | STS-50 | OV102 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -003 | 0000A46408 | F |
| 48 | STS-50 | OV102 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -003 | 0000A46409 | F |
| 49 | STS-46 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0716 | F |
| 49 | STS-46 | OV104 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000AF0729 | F |
| 50 | STS-47 | OV105 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000ER112 | F |
| 50 | STS-47 | OV105 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000ER113 | F |
| 51 | STS-52 | OV102 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -003 | 0000A46408 | F |
| 51 | STS-52 | OV102 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -003 | 0000A46409 | F |
| 53 | STS-54 | OV105 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000ER112 | F |
| 53 | STS-54 | OV105 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -004 | 0000ER113 | F |
| 54 | STS-55 | OV102 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -003 | 0000A46408 | F |
| 54 | STS-55 | OV102 | EPDC | FLIGHT CONTROL | ACTUATOR | POWER | ASSEMBLY | V070-764350 | -003 | 0000A46409 | F |
| 36 | STS-41 | OV103 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0004 | F |
| 37 | STS-38 | OV104 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0003 | F |
| 38 | STS-35 | OV102 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0006 | F |
| 38 | STS-35 | OV102 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0003 | F |
| 39 | STS-37 | OV104 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0004 | F |
| 40 | STS-39 | OV103 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0006 | F |
| 41 | STS-40 | OV102 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0003 | F |
| 42 | STS-43 | OV104 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0004 | F |
| 43 | STS-48 | OV103 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0006 | F |
| 44 | STS-44 | OV104 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0003 | F |
| 45 | STS-42 | OV103 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0004 | F |
| 46 | STS-45 | OV104 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0006 | F |
| 47 | STS-49 | OV105 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0003 | F |
| 47 | STS-49 | OV105 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0004 | F |
| 48 | STS-50 | OV102 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0006 | F |
| 49 | STS-46 | OV104 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0003 | F |
| 49 | STS-46 | OV104 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0004 | F |
| 50 | STS-47 | OV105 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0006 | F |
| 51 | STS-52 | OV102 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0003 | F |
| 51 | STS-52 | OV102 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0004 | F |
| 53 | STS-54 | OV105 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0006 | F |
| 53 | STS-54 | OV105 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0003 | F |
| 54 | STS-55 | OV102 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0004 | F |
| 54 | STS-55 | OV102 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 1 | MC450-0057 | -0001 | 756MYD0006 | F |
| 36 | STS-41 | OV103 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 2 | MC450-0058 | -0001 | 756MYD0004 | F |
| 37 | STS-38 | OV104 | EPDC | AFT HYBRID LOAD | CONTROLLER | NBR | 2 | MC450-0058 | -0001 | 756MYD0003 | F |

0-5

ORIGINAL PAGE IS
OF POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SL | ST |
|----------|--------|-------|-----------|----------------------------------|-------------|-------------|---------------|----|----|
| 36 | STS-36 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0002 | 2 | F |
| 37 | STS-37 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0005 | 2 | F |
| 38 | STS-38 | OV103 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0004 | 2 | F |
| 39 | STS-39 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0002 | 2 | F |
| 40 | STS-40 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0005 | 2 | F |
| 41 | STS-41 | OV103 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0008 | 2 | F |
| 42 | STS-42 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0005 | 2 | F |
| 43 | STS-43 | OV103 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0006 | 2 | F |
| 44 | STS-44 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0005 | 2 | F |
| 45 | STS-45 | OV103 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0001 | 2 | F |
| 46 | STS-46 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0005 | 2 | F |
| 47 | STS-47 | OV108 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0001 | 2 | F |
| 48 | STS-48 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0002 | 2 | F |
| 49 | STS-49 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0005 | 2 | F |
| 50 | STS-50 | OV108 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0001 | 2 | F |
| 51 | STS-51 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0002 | 2 | F |
| 52 | STS-52 | OV106 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0001 | 2 | F |
| 53 | STS-53 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0002 | 2 | F |
| 54 | STS-54 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0002 | 2 | F |
| 55 | STS-55 | OV103 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0059 | -0001 | 756MYF0003 | 3 | F |
| 36 | STS-36 | OV103 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0059 | -0001 | 756MYF0003 | 3 | F |
| 37 | STS-37 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0059 | -0001 | 756MYF0004 | 3 | F |
| 38 | STS-38 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0059 | -0001 | 756MYF0004 | 3 | F |
| 39 | STS-39 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0059 | -0001 | 756MYF0004 | 3 | F |
| 40 | STS-40 | OV103 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0059 | -0001 | 756MYF0004 | 3 | F |
| 41 | STS-41 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0059 | -0001 | 756MYF0002 | 3 | F |
| 42 | STS-42 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0059 | -0001 | 756MYF0004 | 3 | F |
| 43 | STS-43 | OV103 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0059 | -0001 | 756MYF0004 | 3 | F |
| 44 | STS-44 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0059 | -0001 | 756MYF0004 | 3 | F |
| 45 | STS-45 | OV103 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYF0001 | 3 | F |
| 46 | STS-46 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYF0001 | 3 | F |
| 47 | STS-47 | OV105 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYF0004 | 3 | F |
| 48 | STS-48 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYF0006 | 3 | F |
| 49 | STS-49 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYF0002 | 3 | F |
| 50 | STS-50 | OV105 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYF0004 | 3 | F |
| 51 | STS-51 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYF0006 | 3 | F |
| 52 | STS-52 | OV105 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYF0006 | 3 | F |
| 53 | STS-53 | OV104 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYF0006 | 3 | F |
| 54 | STS-54 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYF0002 | 3 | F |
| 55 | STS-55 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000AM6518 | 1 | F |
| 36 | STS-36 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000AM6518 | 1 | F |
| 37 | STS-37 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000F71020 | 1 | F |
| 38 | STS-38 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765630 | -004 | 0000601094 | 1 | F |
| 39 | STS-39 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765630 | -002 | 0000F71020 | 1 | F |
| 40 | STS-40 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000AM6518 | 1 | F |
| 41 | STS-41 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765630 | -004 | 0000601094 | 1 | F |
| 42 | STS-42 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000F71020 | 1 | F |
| 43 | STS-43 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000AM6518 | 1 | F |
| 44 | STS-44 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000F71020 | 1 | F |
| 45 | STS-45 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000AM6518 | 1 | F |
| 46 | STS-46 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000F71020 | 1 | F |
| 47 | STS-47 | OV105 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -003 | 0000EK4209 | 1 | F |
| 48 | STS-48 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765630 | -002 | 0000601094 | 1 | F |
| 49 | STS-49 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000F71020 | 1 | F |
| 50 | STS-50 | OV105 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -003 | 0000EK4209 | 1 | F |
| 51 | STS-51 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000F71020 | 1 | F |
| 52 | STS-52 | OV105 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765630 | -003 | 0000EK4209 | 1 | F |
| 53 | STS-53 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -002 | 0000601094 | 1 | F |
| 54 | STS-54 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765410 | -003 | 0000EK9209 | 1 | F |
| 55 | STS-55 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 1 | V070-765630 | -002 | 0000601094 | 1 | F |
| 36 | STS-36 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000F71020 | 2 | F |
| 37 | STS-37 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000AM6266 | 2 | F |
| 38 | STS-38 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000UN19182 | 2 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLDT | STATUS |
|----------|--------|-------|-----------|------------------------------|-------------|-------------|---------------|------|--------|
| 40 | STS-39 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000F71036 | 2 | F |
| 41 | STS-40 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000N19382 | 2 | F |
| 42 | STS-43 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000AM6266 | 2 | F |
| 43 | STS-48 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000F71036 | 2 | F |
| 44 | STS-44 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000AM6266 | 2 | F |
| 45 | STS-42 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765620 | -003 | 0000G01276 | 2 | F |
| 46 | STS-45 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000AM6266 | 2 | F |
| 47 | STS-49 | OV105 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000EK9181 | 2 | F |
| 48 | STS-50 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000N19382 | 2 | F |
| 49 | STS-46 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000AM6266 | 2 | F |
| 50 | STS-47 | OV105 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000EK9181 | 2 | F |
| 51 | STS-52 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000N19382 | 2 | F |
| 53 | STS-54 | OV105 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000EK9181 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000N19382 | 2 | F |
| 36 | STS-41 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000N19381 | 3 | F |
| 37 | STS-38 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000AM3349 | 3 | F |
| 38 | STS-35 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000F71021 | 3 | F |
| 39 | STS-37 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000AM3349 | 3 | F |
| 40 | STS-39 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000N19381 | 3 | F |
| 41 | STS-40 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000F71021 | 3 | F |
| 42 | STS-43 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000AM3349 | 3 | F |
| 43 | STS-48 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000N19381 | 3 | F |
| 44 | STS-44 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000AM3349 | 3 | F |
| 45 | STS-42 | OV103 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000N19381 | 3 | F |
| 46 | STS-45 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000AM3349 | 3 | F |
| 47 | STS-49 | OV105 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000ER1007 | 3 | F |
| 48 | STS-50 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000F71021 | 3 | F |
| 49 | STS-46 | OV104 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000AM3349 | 3 | F |
| 50 | STS-47 | OV105 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000ER1007 | 3 | F |
| 51 | STS-52 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000F71021 | 3 | F |
| 53 | STS-54 | OV105 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000ER1007 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000F71021 | 3 | F |
| 36 | STS-41 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -005 | 0000F66220 | 1 | F |
| 37 | STS-38 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -003 | 0000AM6520 | 1 | F |
| 38 | STS-35 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -007 | 0000C09112 | 1 | F |
| 39 | STS-37 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -003 | 0000AM6520 | 1 | F |
| 40 | STS-39 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -005 | 0000F66220 | 1 | F |
| 41 | STS-40 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -007 | 0000C09112 | 1 | F |
| 42 | STS-43 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -003 | 0000AM6520 | 1 | F |
| 43 | STS-48 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -005 | 0000F66220 | 1 | F |
| 44 | STS-44 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -003 | 0000AM6520 | 1 | F |
| 45 | STS-42 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -005 | 0000F66220 | 1 | F |
| 46 | STS-45 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -003 | 0000AM6520 | 1 | F |
| 47 | STS-49 | OV105 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -005 | 0000F66220 | 1 | F |
| 48 | STS-50 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -007 | 0000C09112 | 1 | F |
| 49 | STS-46 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -003 | 0000AM6520 | 1 | F |
| 50 | STS-47 | OV105 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -005 | 0000F66220 | 1 | F |
| 51 | STS-52 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -007 | 0000C09112 | 1 | F |
| 53 | STS-54 | OV105 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -004 | 0000EN4416 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -007 | 0000C09112 | 1 | F |
| 36 | STS-41 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -005 | 0000F66220 | 2 | F |
| 37 | STS-38 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -007 | 0000C39415 | 2 | F |
| 38 | STS-35 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765220 | -010 | 0000155728 | 2 | F |
| 39 | STS-37 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -007 | 0000C39415 | 2 | F |
| 40 | STS-39 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -003 | 0000AM6521 | 2 | F |
| 41 | STS-40 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -010 | 0000155728 | 2 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SL | ST |
|----------|--------|-------|-----------|--------------------------------|-------------|-------------|---------------|----|----|
| 42 | STS-43 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -007 | 0000C39315 | 2 | F |
| 43 | STS-48 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -003 | 0000AM6521 | 2 | F |
| 44 | STS-44 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -007 | 0000C39315 | 2 | F |
| 45 | STS-42 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -003 | 0000AM6521 | 2 | F |
| 46 | STS-45 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -007 | 0000C39315 | 2 | F |
| 47 | STS-49 | OV105 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -004 | 0000E14407 | 2 | F |
| 48 | STS-60 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765220 | -011 | 000015728 | 2 | F |
| 49 | STS-46 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -007 | 0000C19315 | 2 | F |
| 50 | STS-47 | OV105 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -004 | 0000E14407 | 2 | F |
| 51 | STS-52 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765220 | -011 | 000015728 | 2 | F |
| 53 | STS-54 | OV105 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765320 | -004 | 0000E14407 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765220 | -011 | 0000155728 | 2 | F |
| 36 | STS-41 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -008 | 0000J41296 | 3 | F |
| 37 | STS-38 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -009 | 0000AM6519 | 3 | F |
| 38 | STS-35 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765240 | -011 | 0000265334 | 3 | F |
| 39 | STS-37 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -009 | 0000AM6519 | 3 | F |
| 40 | STS-39 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -008 | 0000J43496 | 3 | F |
| 41 | STS-40 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765240 | -011 | 0000265334 | 3 | F |
| 42 | STS-43 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -009 | 0000AM6519 | 3 | F |
| 43 | STS-46 | OV103 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -008 | 0000J43496 | 3 | F |
| 44 | STS-44 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -009 | 0000AM6519 | 3 | F |
| 45 | STS-42 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -008 | 0000J43296 | 3 | F |
| 46 | STS-45 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -009 | 0000AM6519 | 3 | F |
| 47 | STS-49 | OV105 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -004 | 0000EK9813 | 3 | F |
| 48 | STS-60 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765240 | -011 | 0000265334 | 3 | F |
| 49 | STS-46 | OV104 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -009 | 0000AM6519 | 3 | F |
| 50 | STS-47 | OV105 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -004 | 0000EK9813 | 3 | F |
| 51 | STS-52 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765240 | -011 | 0000265334 | 3 | F |
| 53 | STS-54 | OV105 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -004 | 0000EK9813 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -011 | 0000BBRR851 | 3 | F |
| 36 | STS-41 | OV103 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -026 | 0000155796 | 4 | F |
| 36 | STS-41 | OV103 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -026 | 0000155797 | 5 | F |
| 36 | STS-41 | OV103 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -028 | 0000E71704 | 6 | F |
| 37 | STS-38 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53758 | 4 | F |
| 37 | STS-38 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53760 | 5 | F |
| 37 | STS-38 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -026 | 0000155798 | 6 | F |
| 38 | STS-35 | OV102 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000F58293 | 4 | F |
| 38 | STS-35 | OV102 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53759 | 5 | F |
| 38 | STS-35 | OV102 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -028 | 0000E71705 | 6 | F |
| 39 | STS-37 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53758 | 4 | F |
| 39 | STS-37 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53760 | 5 | F |
| 39 | STS-37 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -026 | 0000155798 | 6 | F |
| 40 | STS-39 | OV103 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000F58293 | 4 | F |
| 40 | STS-39 | OV103 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53759 | 5 | F |
| 40 | STS-39 | OV103 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -028 | 0000E71705 | 6 | F |
| 41 | STS-40 | OV102 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53758 | 4 | F |
| 41 | STS-40 | OV102 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53760 | 5 | F |
| 41 | STS-40 | OV102 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -026 | 0000155798 | 6 | F |
| 42 | STS-43 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -026 | 0000155796 | 4 | F |
| 42 | STS-43 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -026 | 0000155797 | 5 | F |
| 42 | STS-43 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -028 | 0000E71704 | 6 | F |
| 42 | STS-43 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000F58293 | 4 | F |
| 43 | STS-44 | OV103 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53759 | 5 | F |
| 43 | STS-44 | OV103 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -028 | 0000E71705 | 6 | F |
| 43 | STS-44 | OV103 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53758 | 4 | F |
| 44 | STS-44 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -026 | 0000155796 | 4 | F |
| 44 | STS-44 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -026 | 0000155797 | 5 | F |
| 44 | STS-44 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -028 | 0000E71704 | 6 | F |
| 44 | STS-44 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000F58293 | 4 | F |
| 44 | STS-44 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -027 | 0000J53759 | 5 | F |
| 44 | STS-44 | OV104 | EPDC | AFT POWER CONTROL ASSY 4, 5, 6 | V070-765280 | -026 | 0000155798 | 6 | F |

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SL | ST |
|----------|--------|-------|-----------|--------------------------|-------------|-------------|---------------|----|----|
| 46 | STS-45 | OV104 | EPDC | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000JRU007 | 2 | F |
| 46 | STS-46 | OV104 | EPDC | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000JRU015 | 3 | F |
| 47 | STS-48 | OV105 | EPDC | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000JRU017 | 1 | F |
| 47 | STS-48 | OV105 | EPDC | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000JRU016 | 2 | F |
| 47 | STS-48 | OV105 | EPDC | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000JRU018 | 3 | F |
| 48 | STS-50 | OV102 | EPDC | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000JRU014 | 1 | F |
| 48 | STS-50 | OV102 | EPDC | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000JRU003 | 2 | F |
| 48 | STS-50 | OV102 | EPDC | BACKUP FLIGHT CONTROLLER | MC615-0023 | -0004 | 0000JRU002 | 3 | F |
| 36 | STS-41 | OV103 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000N16891 | 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 | 0000804570 | 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 | 0000N16891 | 1 | F |
| 40 | STS-39 | OV103 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000J75615 | 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 | 0000AC6146 | 4 | F |
| 41 | STS-40 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -020 | 0000280093 | 1 | F |
| 41 | STS-40 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -020 | 0000280092 | 2 | F |
| 41 | STS-40 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -019 | 0000AU4327 | 3 | F |
| 41 | STS-40 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -021 | 0000804570 | 4 | F |
| 42 | STS-43 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -021 | 0000R14570 | 4 | F |
| 42 | STS-43 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000J47318 | 1 | F |
| 42 | STS-43 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000J47317 | 2 | F |
| 42 | STS-43 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -019 | 0000AU4326 | 3 | F |
| 43 | STS-48 | OV103 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000N16891 | 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 | 0000AC6147 | 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 | 0000J47318 | 1 | F |
| 44 | STS-44 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000J47317 | 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 | 0000280093 | 1 | F |
| 45 | STS-42 | OV103 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000N16891 | 1 | F |
| 45 | STS-42 | OV103 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000J75615 | 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 | 0000AC6146 | 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 | 0000J47317 | 2 | F |
| 46 | STS-45 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -019 | 0000AU4326 | 3 | F |
| 46 | STS-45 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -021 | 0000280093 | 1 | F |
| 47 | STS-49 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -016 | 0000B14570 | 4 | F |
| 47 | STS-49 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -016 | 0000N16891 | 1 | F |
| 47 | STS-49 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -016 | 0000J75615 | 2 | F |
| 47 | STS-49 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -016 | 0000AC6147 | 3 | F |
| 47 | STS-49 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -016 | 0000AC6146 | 4 | F |
| 47 | STS-49 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000J47318 | 1 | F |
| 47 | STS-49 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000J47317 | 2 | F |
| 47 | STS-49 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -019 | 0000AU4326 | 3 | F |
| 48 | STS-50 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -017 | 0000B14570 | 4 | F |
| 48 | STS-50 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -017 | 0000N16891 | 1 | F |
| 48 | STS-50 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -017 | 0000J75615 | 2 | F |
| 48 | STS-50 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -017 | 0000AC6147 | 3 | F |
| 48 | STS-50 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -017 | 0000AC6146 | 4 | F |
| 48 | STS-50 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -020 | 0000280093 | 1 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SL | ST |
|----------|--------|-------|-----------|--------------------------------|-------------|-------------|---------------|----|----|
| 48 | STS-50 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -021 | 0000B04570 | 4 | F |
| 49 | STS-46 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000J47318 | 1 | F |
| 49 | STS-46 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000J47317 | 2 | F |
| 49 | STS-46 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -019 | 0000AU4326 | 3 | F |
| 49 | STS-46 | OV104 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -021 | 0000B04569 | 4 | F |
| 50 | STS-47 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -018 | 0000J76031 | 1 | F |
| 50 | STS-47 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -016 | 0000ER2880 | 2 | F |
| 50 | STS-47 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -017 | 0000GH9407 | 3 | F |
| 50 | STS-47 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -017 | 0000GH9406 | 4 | F |
| 51 | STS-52 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -020 | 0000G76327 | 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 | 0000GH9406 | 4 | F |
| 53 | STS-54 | OV105 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -017 | 0000GH9406 | 4 | F |
| 54 | STS-55 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -020 | 0000G76327 | 5 | F |
| 54 | STS-55 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -016 | 0000ER2880 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -019 | 0000AU4327 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -021 | 0000B04570 | 4 | F |
| 47 | STS-49 | OV105 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000EL8839 | 1 | F |
| 47 | STS-49 | OV105 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000EL8839 | 2 | F |
| 48 | STS-50 | OV102 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000GK2400 | 1 | F |
| 48 | STS-50 | OV102 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000GK2401 | 2 | F |
| 50 | STS-47 | OV105 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000FL8839 | 1 | F |
| 50 | STS-47 | OV105 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000EL8839 | 2 | F |
| 51 | STS-52 | OV102 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000GK2400 | 1 | F |
| 51 | STS-52 | OV102 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000GK2401 | 2 | F |
| 53 | STS-54 | OV105 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000EL8839 | 1 | F |
| 53 | STS-54 | OV105 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000EL8839 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000EL8839 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000GK2400 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000GK2401 | 2 | F |
| 38 | STS-35 | OV102 | EPDC | DFI POWER DISTRIBUTION ASSY | V070-783560 | -001 | 0000264641 | | F |
| 43 | STS-48 | OV103 | EPDC | DFI POWER DISTRIBUTION ASSY | V070-783560 | -001 | 0000264641 | | F |
| 45 | STS-42 | OV103 | EPDC | DFI POWER DISTRIBUTION ASSY | V070-783560 | -001 | 0000264641 | | F |
| 36 | STS-41 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43480 | 1 | F |
| 36 | STS-41 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43479 | 2 | F |
| 36 | STS-41 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43481 | 3 | F |
| 37 | STS-38 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 1 | F |
| 37 | STS-38 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 2 | F |
| 37 | STS-38 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 3 | F |
| 38 | STS-35 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 1 | F |
| 38 | STS-35 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 2 | F |
| 38 | STS-35 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 3 | F |
| 38 | STS-35 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 1 | F |
| 39 | STS-37 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 2 | F |
| 39 | STS-37 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 3 | F |
| 39 | STS-37 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 1 | F |
| 40 | STS-39 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43480 | 1 | F |
| 40 | STS-39 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43479 | 2 | F |
| 40 | STS-39 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43481 | 3 | F |
| 41 | STS-40 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 1 | F |
| 41 | STS-40 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 2 | F |
| 41 | STS-40 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0862 | 3 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DATA NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|-----------------------------|-------------|-------------|---------------|------|--------|
| 42 | STS-43 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5621 | 1 | F |
| 42 | STS-43 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5622 | 2 | F |
| 42 | STS-43 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5623 | 3 | F |
| 43 | STS-48 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43480 | 1 | F |
| 43 | STS-48 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43479 | 2 | F |
| 43 | STS-48 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43481 | 3 | F |
| 44 | STS-44 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5621 | 1 | F |
| 44 | STS-44 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5622 | 2 | F |
| 44 | STS-44 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5623 | 3 | F |
| 45 | STS-42 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43480 | 1 | F |
| 45 | STS-42 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000J43479 | 2 | F |
| 45 | STS-42 | OV103 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5621 | 1 | F |
| 46 | STS-45 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5622 | 2 | F |
| 46 | STS-45 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5623 | 3 | F |
| 47 | STS-49 | OV105 | EPDC | DIODE BOX ASSY | V070-765370 | -001 | 0000AM5621 | 1 | F |
| 47 | STS-49 | OV105 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5622 | 2 | F |
| 47 | STS-49 | OV105 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5623 | 3 | F |
| 47 | STS-49 | OV105 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000E9183 | 2 | F |
| 47 | STS-49 | OV105 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000E9184 | 3 | F |
| 48 | STS-50 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5621 | 1 | F |
| 48 | STS-50 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5622 | 2 | F |
| 48 | STS-50 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5623 | 3 | F |
| 49 | STS-46 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5621 | 1 | F |
| 49 | STS-46 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5622 | 2 | F |
| 49 | STS-46 | OV104 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5623 | 3 | F |
| 50 | STS-47 | OV105 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000E9182 | 1 | F |
| 50 | STS-47 | OV105 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000E9183 | 2 | F |
| 50 | STS-47 | OV105 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000E9184 | 3 | F |
| 51 | STS-52 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5621 | 1 | F |
| 51 | STS-52 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5622 | 2 | F |
| 51 | STS-52 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5623 | 3 | F |
| 53 | STS-54 | OV105 | EPDC | DIODE BOX ASSY | V070-765370 | -001 | 0000E9182 | 1 | F |
| 53 | STS-54 | OV105 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000E9183 | 2 | F |
| 53 | STS-54 | OV105 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000E9184 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5621 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5622 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM5623 | 3 | F |
| 36 | STS-41 | OV103 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 0000076207 | | F |
| 37 | STS-38 | OV104 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 00010R2009 | | 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 | 00010R2009 | | F |
| 40 | STS-39 | OV103 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 0000978207 | | 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 | 00010R2009 | | F |
| 43 | STS-48 | OV103 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 0000978207 | | F |
| 44 | STS-44 | OV104 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 00010R2009 | | F |
| 45 | STS-42 | OV103 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 0000982008 | | F |
| 46 | STS-45 | OV104 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 00010R2009 | | F |
| 47 | STS-49 | OV105 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 0000978207 | | F |
| 48 | STS-50 | OV102 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 00010R2009 | | F |
| 49 | STS-46 | OV104 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 0000982008 | | F |
| 50 | STS-47 | OV105 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 00010R2009 | | F |
| 51 | STS-52 | OV102 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 0000978207 | | F |
| 51 | STS-52 | OV102 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 00010R2009 | | F |
| 53 | STS-54 | OV105 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 0000982008 | | F |
| 53 | STS-54 | OV105 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 00010R2009 | | F |
| 54 | STS-55 | OV102 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 0000978207 | | F |
| 54 | STS-55 | OV102 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461 0032 | -0003 | 00010R2009 | | F |

ORIGINAL PAGE IS
OF POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | S T A T |
|-------------|--------|-------|-----------|----------------------------------|----------------|----------------|------------------|------------------|------------------|
| 37 | STS-38 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0001 | 756MXR0003 | 1 | F |
| 38 | STS-38 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0001 | 756MXR0004 | 1 | F |
| 39 | STS-37 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0005 | 1 | F |
| 40 | STS-39 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0004 | 1 | F |
| 41 | STS-40 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0003 | 1 | F |
| 42 | STS-43 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0005 | 1 | F |
| 43 | STS-48 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0003 | 1 | F |
| 44 | STS-44 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0005 | 1 | F |
| 45 | STS-42 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0003 | 1 | F |
| 46 | STS-45 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0005 | 1 | F |
| 47 | STS-49 | OV105 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0001 | 756MXR0001 | 1 | F |
| 48 | STS-50 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0004 | 1 | F |
| 49 | STS-46 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0005 | 1 | F |
| 50 | STS-47 | OV105 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0001 | 756MXR0001 | 1 | F |
| 51 | STS-52 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0004 | 1 | F |
| 53 | STS-54 | OV105 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0001 | 756MXR0001 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0004 | 1 | F |
| 56 | STS-41 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0004 | 2 | F |
| 37 | STS-38 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0005 | 2 | F |
| 38 | STS-35 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0006 | 2 | F |
| 39 | STS-37 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0005 | 2 | F |
| 40 | STS-39 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0004 | 2 | F |
| 41 | STS-40 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0006 | 2 | F |
| 42 | STS-43 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0005 | 2 | F |
| 43 | STS-48 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0004 | 2 | F |
| 44 | STS-44 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0005 | 2 | F |
| 45 | STS-42 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0004 | 2 | F |
| 46 | STS-45 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0005 | 2 | F |
| 47 | STS-49 | OV105 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0001 | 756MXV0001 | 2 | F |
| 48 | STS-50 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0006 | 2 | F |
| 49 | STS-46 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0005 | 2 | F |
| 50 | STS-47 | OV105 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0001 | 756MXV0001 | 2 | F |
| 51 | STS-52 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0006 | 2 | F |
| 53 | STS-54 | OV105 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0001 | 756MXV0001 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0006 | 2 | F |
| 36 | STS-41 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0003 | 3 | F |
| 37 | STS-38 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0004 | 3 | F |
| 38 | STS-35 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0001 | 756MXV0001 | 3 | F |
| 39 | STS-37 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0004 | 3 | F |
| 40 | STS-39 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0003 | 3 | F |
| 41 | STS-40 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0001 | 756MXV0001 | 3 | F |
| 42 | STS-43 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0004 | 3 | F |
| 43 | STS-48 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0003 | 3 | F |
| 44 | STS-44 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0004 | 3 | F |
| 45 | STS-42 | OV103 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0003 | 3 | F |
| 46 | STS-45 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0004 | 3 | F |
| 47 | STS-49 | OV105 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0005 | 3 | F |
| 48 | STS-50 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0001 | 756MXV0001 | 3 | F |
| 49 | STS-46 | OV104 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0004 | 3 | F |
| 50 | STS-47 | OV105 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0005 | 3 | F |
| 51 | STS-52 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0001 | 756MXV0001 | 3 | F |
| 53 | STS-54 | OV105 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0002 | 756MXV0005 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0001 | 756MXV0001 | 3 | F |
| 36 | STS-41 | OV103 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000J89217 | 1 | F |
| 37 | STS-38 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000A89457 | 1 | F |
| 38 | STS-35 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -001 | 0000B89184 | 1 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SL O T | STA T |
|-------------|--------|-------|-----------|------------------------------|----------------|----------------|------------------|--------------|----------|
| 36 | STS-37 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000AN5492 | 1 | F |
| 37 | STS-38 | OV103 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000J85217 | 1 | F |
| 38 | STS-39 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -001 | 0000608384 | 1 | F |
| 39 | STS-40 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000AN5492 | 1 | F |
| 40 | STS-43 | OV103 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000J85217 | 1 | F |
| 41 | STS-48 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000AN5492 | 1 | F |
| 42 | STS-44 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000J85217 | 1 | F |
| 43 | STS-42 | OV103 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000AN5492 | 1 | F |
| 44 | STS-48 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000J85217 | 1 | F |
| 45 | STS-46 | OV105 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000AN5492 | 1 | F |
| 46 | STS-48 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000ER6042 | 1 | F |
| 47 | STS-49 | OV105 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000AN5492 | 1 | F |
| 48 | STS-50 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -001 | 000060H384 | 1 | F |
| 49 | STS-46 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000AN5492 | 1 | F |
| 50 | STS-47 | OV105 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000ER6042 | 1 | F |
| 51 | STS-52 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -001 | 000060H384 | 1 | F |
| 52 | STS-54 | OV105 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000ER6042 | 1 | F |
| 53 | STS-54 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -002 | 0000608384 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -001 | 0000608384 | 1 | F |
| 36 | STS-41 | OV103 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000J85714 | 2 | F |
| 37 | STS-38 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000AU7745 | 2 | F |
| 38 | STS-35 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000F71097 | 2 | F |
| 39 | STS-37 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000AU7745 | 2 | F |
| 40 | STS-39 | OV103 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000J85714 | 2 | F |
| 41 | STS-40 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0003F71097 | 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 | 0000AU7745 | 2 | F |
| 46 | STS-45 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000J85714 | 2 | F |
| 47 | STS-49 | OV105 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000AU7745 | 2 | F |
| 48 | STS-50 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -004 | 0000ER3269 | 2 | F |
| 49 | STS-46 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000F71097 | 2 | F |
| 50 | STS-47 | OV105 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000AU7745 | 2 | F |
| 51 | STS-52 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -004 | 0000ER3269 | 2 | F |
| 52 | STS-54 | OV105 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000F71097 | 2 | F |
| 53 | STS-54 | OV102 | 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 | 000060H384 | 3 | F |
| 46 | STS-45 | OV104 | EPDC | FWD MOTOR CONTROL ASSY NBR 3 | V070-763630 | 003 | 0000AU6494 | 3 | F |
| 47 | STS-49 | OV105 | EPDC | FWD MOTOR CONTROL ASSY NBR 3 | V070-763630 | -003 | 0000F7791 | 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 | 0000F7791 | 3 | F |
| 51 | STS-52 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 3 | V070-763630 | -003 | 0000J25040 | 3 | F |
| 52 | STS-54 | OV105 | EPDC | FWD MOTOR CONTROL ASSY NBR 3 | V070-763630 | -003 | 0000F7791 | 3 | F |
| 53 | STS-54 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 3 | V070-763630 | -003 | 0000J25040 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 3 | V070-763630 | -003 | 0000F7791 | 3 | F |
| 36 | STS-41 | OV103 | EPDC | FWD POWER CONTROL ASSY NBR 1 | V070-763320 | -022 | 0000AX2019 | 1 | F |
| 37 | STS-38 | OV104 | EPDC | FWD POWER CONTROL ASSY NBR 1 | V070-763320 | -025 | 0000260775 | 1 | F |
| 38 | STS-35 | OV102 | EPDC | FWD POWER CONTROL ASSY NBR 1 | V070-763320 | -024 | 0000B35293 | 1 | F |
| 39 | STS-37 | OV104 | EPDC | FWD POWER CONTROL ASSY NBR 1 | V070-763320 | -025 | 0000F71775 | 1 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | ASSY NBR | CONTROL NBR | ASSY NBR | CONTROL NBR | ASSY NBR | CONTROL NBR | LRU PART NUMBER | PARM NUMBER | SERIAL NUMBER | ST T A | SL O T |
|-------------|--------|-------|-----------|--------------------------------|-------------|----------------|-------------|----------------|-------------|----------------|-----------------------|----------------|------------------|--------------|--------------|
| 41 | STS-40 | OV102 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | -024 | 0000834293 | F | 1 |
| 42 | STS-43 | OV104 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | -025 | 0000266775 | F | 1 |
| 43 | STS-46 | OV103 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | 022 | 0000A2618 | F | 1 |
| 44 | STS-44 | OV104 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | 025 | 0000266775 | F | 1 |
| 45 | STS-42 | OV103 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | -022 | 0000A2618 | F | 1 |
| 46 | STS-45 | OV104 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | -025 | 0000266775 | F | 1 |
| 47 | STS-49 | OV105 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | -015 | 0000834293 | F | 1 |
| 48 | STS-50 | OV102 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | 028 | 0000635293 | F | 1 |
| 49 | STS-46 | OV104 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | 025 | 0000266775 | F | 1 |
| 50 | STS-47 | OV105 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | -015 | 0000834293 | F | 1 |
| 51 | STS-52 | OV102 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | -023 | 0000F66117 | F | 1 |
| 53 | STS-54 | OV105 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | 028 | 0000635293 | F | 1 |
| 54 | STS-55 | OV102 | EPDC | FWD POWER CONTROL | 1 | 1 | | | | | V070-763320 | -023 | 0000F66117 | F | 1 |
| 36 | STS-41 | OV103 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -007 | 0000J12867 | F | 2 |
| 37 | STS-38 | OV104 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | 009 | 0000620303 | F | 2 |
| 38 | STS-35 | OV102 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | 009 | 0000620303 | F | 2 |
| 39 | STS-37 | OV104 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -010 | 0000F66179 | F | 2 |
| 40 | STS-39 | OV103 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -009 | 0000620303 | F | 2 |
| 41 | STS-40 | OV102 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -007 | 0000J12867 | F | 2 |
| 42 | STS-43 | OV104 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -009 | 0000AF5427 | F | 2 |
| 43 | STS-48 | OV103 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -010 | 0000J12867 | F | 2 |
| 44 | STS-44 | OV104 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | 009 | 0000620303 | F | 2 |
| 45 | STS-42 | OV103 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | 010 | 0000J12867 | F | 2 |
| 46 | STS-45 | OV104 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -009 | 0000620303 | F | 2 |
| 47 | STS-49 | OV105 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -009 | 0000620303 | F | 2 |
| 48 | STS-50 | OV102 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -014 | 0000AF5427 | F | 2 |
| 49 | STS-46 | OV104 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -009 | 0000620303 | F | 2 |
| 50 | STS-47 | OV105 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -006 | 0000ER3011 | F | 2 |
| 51 | STS-52 | OV102 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | 014 | 0000AF5427 | F | 2 |
| 53 | STS-54 | OV105 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -006 | 0000ER3011 | F | 2 |
| 54 | STS-55 | OV102 | EPDC | FWD POWER CONTROL | 2 | 2 | | | | | V070-763340 | -014 | 0000AF5427 | F | 2 |
| 36 | STS-41 | OV103 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -020 | 0000620749 | F | 3 |
| 37 | STS-38 | OV104 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | 021 | 0000J12866 | F | 3 |
| 38 | STS-35 | OV102 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -022 | 0000AX2618 | F | 3 |
| 39 | STS-37 | OV104 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -021 | 0000J12866 | F | 3 |
| 40 | STS-39 | OV103 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | 020 | 0000620749 | F | 3 |
| 41 | STS-40 | OV102 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -022 | 0000AX2618 | F | 3 |
| 42 | STS-43 | OV104 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -021 | 0000J12866 | F | 3 |
| 43 | STS-48 | OV103 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -020 | 0000620749 | F | 3 |
| 44 | STS-44 | OV104 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | 021 | 0000J12866 | F | 3 |
| 45 | STS-42 | OV103 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | 020 | 0000620749 | F | 3 |
| 46 | STS-45 | OV104 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -021 | 0000J12866 | F | 3 |
| 47 | STS-49 | OV105 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -019 | 0000J12866 | F | 3 |
| 48 | STS-50 | OV102 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | 022 | 0000AX2618 | F | 3 |
| 49 | STS-46 | OV104 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -021 | 0000J12866 | F | 3 |
| 50 | STS-47 | OV105 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -019 | 0000J12866 | F | 3 |
| 51 | STS-52 | OV102 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | -021 | 0000AX2618 | F | 3 |
| 53 | STS-54 | OV105 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | 021 | 0000F66180 | F | 3 |
| 54 | STS-55 | OV102 | EPDC | FWD POWER CONTROL | 3 | 3 | | | | | V070-763360 | 022 | 0000AX2618 | F | 3 |
| 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 | STATUS |
|----------|--------|-------|-----------|--|-------------|-------------|---------------|------|--------|
| 43 | STS-48 | OV103 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000004 | F | S |
| 44 | STS-44 | OV104 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000010 | F | F |
| 45 | STS-42 | OV103 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000004 | F | F |
| 46 | STS-45 | OV104 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000010 | F | F |
| 47 | STS-49 | OV105 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000005 | F | F |
| 48 | STS-50 | OV102 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000009 | F | F |
| 49 | STS-46 | OV104 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000010 | F | F |
| 50 | STS-47 | OV105 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000005 | F | F |
| 51 | STS-52 | OV102 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000009 | F | F |
| 52 | STS-54 | OV105 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000005 | F | F |
| 53 | STS-55 | OV102 | EPDC | GROUND CONTROL INTERFACE LOGIC | MC450-0051 | -0002 | 0000000009 | F | 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 | 0000F58661 | 1 | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000F58660 | 2 | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000F58659 | 3 | F |
| 44 | STS-44 | OV104 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000J48225 | 1 | F |
| 44 | STS-44 | OV104 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000J48224 | 2 | F |
| 44 | STS-44 | OV104 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000J48226 | 3 | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000F58661 | 1 | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000F58660 | 2 | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000F58659 | 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 |
| 48 | STS-46 | OV104 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000J48225 | 1 | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000J48224 | 2 | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000J48226 | 3 | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000EJ7796 | 1 | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000EJ7795 | 2 | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -005 | 0000EJ7792 | 3 | F |
| 51 | STS-52 | OV102 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -006 | 0000F58231 | 1 | F |

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|------------------|-------------|-------------|---------------|------|--------|
| 41 | STS-40 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000M37 | 3A | F |
| 41 | STS-40 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000J41 | 3B | F |
| 41 | STS-40 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000Q47 | 3C | F |
| 42 | STS-43 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000SE58 | 1A | F |
| 42 | STS-43 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000TF62 | 1B | F |
| 42 | STS-43 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RE60 | 1C | F |
| 42 | STS-43 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000K42 | 2A | F |
| 42 | STS-43 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000SK33 | 2B | F |
| 42 | STS-43 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000MX18 | 2C | F |
| 42 | STS-43 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000XD54 | 3A | F |
| 42 | STS-43 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RD51 | 3B | F |
| 42 | STS-43 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RE61 | 3C | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000017 | 1A | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000024 | 1B | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000055 | 1C | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000ND50 | 2A | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000056 | 2B | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000021 | 2C | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000025 | 3A | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000UD53 | 3B | F |
| 43 | STS-48 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000057 | 3C | F |
| 44 | STS-44 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000JSE58 | 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 | 000000042 | 2A | F |
| 44 | STS-44 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000SX33 | 2B | F |
| 44 | STS-44 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000MX18 | 2C | F |
| 44 | STS-44 | OV 4 | EPDC | INVERTER | MC495-0012 | -0004 | 000000XD54 | 3A | F |
| 44 | STS-44 | OV 4 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RD51 | 3B | F |
| 44 | STS-44 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RE61 | 3C | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RE61 | 3C | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000017 | 1A | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000014 | 1B | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000012 | 1C | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000ND50 | 2A | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000056 | 2B | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000057 | 2C | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000025 | 3A | F |
| 45 | STS-42 | OV103 | EPDC | INVERTER | MC495-0012 | -0004 | 000000UD53 | 3B | F |
| 46 | STS-45 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000SE58 | 1A | F |
| 46 | STS-45 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000TE62 | 1B | F |
| 46 | STS-45 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RE60 | 1C | F |
| 46 | STS-45 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000042 | 2A | F |
| 46 | STS-45 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000SK33 | 2B | F |
| 46 | STS-45 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000MX18 | 2C | F |
| 46 | STS-45 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000XD54 | 3A | F |
| 46 | STS-45 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RD51 | 3B | F |
| 46 | STS-45 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RE61 | 3C | F |
| 47 | STS-49 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000ZC49 | 1A | F |
| 47 | STS-49 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000U73 | 1B | F |
| 47 | STS-49 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000U72 | 1C | F |
| 47 | STS-49 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000U48 | 2A | F |
| 47 | STS-49 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000MX23 | 2B | F |
| 47 | STS-49 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000PU52 | 2C | F |
| 47 | STS-49 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000U65 | 3A | F |
| 47 | STS-49 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000063 | 3B | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|--------------------------------|-------------|-------------|---------------|------|--------|
| 48 | STS-50 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000035 | 1C | F |
| 48 | STS-50 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000068 | 2A | F |
| 48 | STS-50 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000039 | 2B | F |
| 48 | STS-50 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000040 | 2C | F |
| 48 | STS-50 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000M237 | 3A | F |
| 48 | STS-50 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000041 | 3B | F |
| 48 | STS-50 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000047 | 3C | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000SE58 | 1A | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000TE62 | 1B | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RE60 | 1C | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000JU42 | 2A | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000SX33 | 2B | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000MX18 | 2C | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000XLU54 | 3A | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RD51 | 3B | F |
| 49 | STS-46 | OV104 | EPDC | INVERTER | MC495-0012 | -0004 | 000000RE61 | 3C | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000ZL49 | 1A | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000G73 | 1B | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000072 | 1C | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000048 | 2A | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000MX23 | 2B | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000PD52 | 2C | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000065 | 3A | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000063 | 3B | F |
| 50 | STS-47 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000067 | 3C | F |
| 51 | STS-52 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000036 | 1A | F |
| 51 | STS-52 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000238 | 1B | F |
| 51 | STS-52 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000035 | 1C | F |
| 51 | STS-52 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000UU68 | 2A | F |
| 51 | STS-52 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000039 | 2B | F |
| 51 | STS-52 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000040 | 2C | F |
| 51 | STS-52 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000M237 | 3A | F |
| 51 | STS-52 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000041 | 3B | F |
| 51 | STS-52 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000047 | 3C | F |
| 53 | STS-54 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000ZL49 | 1A | F |
| 53 | STS-54 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000073 | 1B | F |
| 53 | STS-54 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000072 | 1C | F |
| 53 | STS-54 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000048 | 2A | F |
| 53 | STS-54 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000MX23 | 2B | F |
| 53 | STS-54 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 000000PD52 | 2C | F |
| 53 | STS-54 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000065 | 3A | F |
| 53 | STS-54 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000063 | 3B | F |
| 53 | STS-54 | OV105 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000067 | 3C | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000036 | 1A | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000035 | 1B | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000039 | 1C | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000UU36 | 1A | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000038 | 1B | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000035 | 1C | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000068 | 2A | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000068 | 2A | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000039 | 2B | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000UU40 | 2C | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000M237 | 3A | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000UU41 | 3B | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000047 | 3C | F |
| 36 | STS-41 | OV103 | EPDC | MADS CONTROL ASSY'S | V408-76320 | -002 | 0000N12307 | | F |
| 37 | STS-38 | OV1C4 | EPDC | KADS CONTROL ASSY'S | V408-76320 | -002 | 0000BM2726 | | F |
| 37 | STS-38 | OV104 | EPDC | MADS POWER DISTRIBUTION ASSY'S | V408-764590 | -001 | 0000BM1972 | | F |
| 38 | STS-35 | OV102 | EPDC | MADS POWER DISTRIBUTION ASSY'S | V408-764590 | -001 | 0000BE7928 | | F |
| 39 | STS-37 | OV104 | EPDC | MADS CONTROL ASSY'S | V408-76320 | -002 | 0000BM7726 | | F |
| 39 | STS-37 | OV104 | EPDC | MADS POWER DISTRIBUTION ASSY'S | V408-764590 | -001 | 0000BM1972 | | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | ASSEMBLY | NBR | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|----------------------------------|----------|-----|-------------|-------------|---------------|------|--------|
| 40 | STS-39 | OV103 | EPDC | MADS CONTROL ASSY'S | ASSEMBLY | 1 | V408-763220 | -002 | 0000N12307 | | F |
| 41 | STS-40 | OV102 | EPDC | MADS POWER DISTRIBUTION ASSY'S | ASSEMBLY | 1 | V408-764590 | -001 | 0000BE7928 | | F |
| 42 | STS-43 | OV104 | EPDC | MADS CONTROL ASSY'S | ASSEMBLY | 1 | V408-763220 | -002 | 0000BH2726 | | F |
| 43 | STS-43 | OV104 | EPDC | MADS POWER DISTRIBUTION ASSY'S | ASSEMBLY | 1 | V408-764590 | -001 | 0000BW1972 | | F |
| 44 | STS-44 | OV103 | EPDC | MADS CONTROL ASSY'S | ASSEMBLY | 1 | V408-763220 | -002 | 0000N12307 | | F |
| 44 | STS-44 | OV104 | EPDC | MADS POWER DISTRIBUTION ASSY'S | ASSEMBLY | 1 | V408-764590 | -001 | 0000BW1972 | | F |
| 45 | STS-42 | OV103 | EPDC | MADS CONTROL ASSY'S | ASSEMBLY | 1 | V408-763220 | -002 | 0000N12307 | | F |
| 46 | STS-45 | OV104 | EPDC | MADS POWER DISTRIBUTION ASSY'S | ASSEMBLY | 1 | V408-764590 | -001 | 0000BH2726 | | F |
| 47 | STS-49 | OV105 | EPDC | MADS POWER DISTRIBUTION ASSY'S | ASSEMBLY | 1 | V408-764590 | -001 | 0000GT0389 | | F |
| 48 | STS-50 | OV102 | EPDC | MADS CONTROL ASSY'S | ASSEMBLY | 1 | V408-763220 | -002 | 0000BE7928 | | F |
| 49 | STS-48 | OV104 | EPDC | MADS POWER DISTRIBUTION ASSY'S | ASSEMBLY | 1 | V408-764590 | -001 | 0000BH2726 | | F |
| 50 | STS-47 | OV105 | EPDC | MADS POWER DISTRIBUTION ASSY'S | ASSEMBLY | 1 | V408-764590 | -001 | 0000BW1972 | | F |
| 51 | STS-52 | OV102 | EPDC | MADS POWER DISTRIBUTION ASSY'S | ASSEMBLY | 1 | V408-764590 | -001 | 0000GTU389 | | F |
| 53 | STS-54 | OV105 | EPDC | MADS POWER DISTRIBUTION ASSY'S | ASSEMBLY | 1 | V408-764590 | -001 | 0000BE7928 | | F |
| 54 | STS-55 | OV102 | EPDC | MADS POWER DISTRIBUTION ASSY'S | ASSEMBLY | 1 | V408-764590 | -001 | 0000GT0389 | | F |
| 36 | STS-41 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000J76604 | | F |
| 37 | STS-38 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000AU4313 | | F |
| 38 | STS-35 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -004 | 0000A07834 | | F |
| 39 | STS-37 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000AU4313 | | F |
| 40 | STS-39 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000J76604 | | F |
| 41 | STS-40 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -004 | 0000AU7834 | | F |
| 42 | STS-43 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000AU4313 | | F |
| 43 | STS-48 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000J76604 | | F |
| 44 | STS-44 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000AU4313 | | F |
| 45 | STS-42 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000J76604 | | F |
| 46 | STS-45 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000AU4313 | | F |
| 47 | STS-49 | OV105 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000F58229 | | F |
| 48 | STS-50 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -006 | 0000A07834 | | F |
| 49 | STS-46 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000AU4313 | | F |
| 50 | STS-47 | OV105 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000F58229 | | F |
| 51 | STS-52 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -006 | 0000A07834 | | F |
| 53 | STS-54 | OV105 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -002 | 0000F58229 | | F |
| 54 | STS-55 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 1 | V070-764200 | -006 | 0000A07834 | | F |
| 36 | STS-41 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -002 | 0000J78988 | | F |
| 37 | STS-38 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -002 | 0000AFU715 | | F |
| 38 | STS-35 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -003 | 0000665318 | | F |
| 39 | STS-37 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -002 | 0000AFU715 | | F |
| 40 | STS-39 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -002 | 0000J78988 | | F |
| 41 | STS-40 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -003 | 0000665318 | | F |
| 42 | STS-43 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -002 | 0000AFU715 | | F |
| 43 | STS-48 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -003 | 0000J78988 | | F |
| 44 | STS-44 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -002 | 0000AFU715 | | F |
| 45 | STS-42 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -003 | 0000J78988 | | F |
| 46 | STS-45 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -002 | 0000AFU715 | | F |
| 47 | STS-49 | OV105 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -008 | 0000F58221 | | F |
| 48 | STS-50 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -006 | 0000EJ3109 | | F/SP |
| 49 | STS-46 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -002 | 0000AFU715 | | F |
| 50 | STS-47 | OV105 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -008 | 0000F58221 | | F |
| 51 | STS-52 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -006 | 0000EJ3109 | | F/SP |
| 53 | STS-54 | OV105 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -008 | 0000F58221 | | F |
| 54 | STS-55 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 2 | VU70-764220 | -006 | 0000EJ3109 | | F/SP |
| 36 | STS-41 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 3 | VU70-764220 | -005 | 0000J78988 | | F |
| 37 | STS-38 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY | ASSEMBLY | 3 | VU70-764220 | -005 | 0000AFU715 | | F |

ORIGINAL PAGE IS
OF POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|--|-------------|-------------|---------------|------|--------|
| 36 | STS-35 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -007 | 0000665319 | 3 | F |
| 37 | STS-37 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000AX3420 | 3 | F |
| 38 | STS-39 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000J71912 | 3 | F |
| 39 | STS-40 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -007 | 0000665319 | 3 | F |
| 40 | STS-43 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000AX3420 | 3 | F |
| 41 | STS-48 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000J71912 | 3 | F |
| 42 | STS-44 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000AX3420 | 3 | F |
| 43 | STS-42 | OV103 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000J71912 | 3 | F |
| 44 | STS-45 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000AX3420 | 3 | F |
| 45 | STS-49 | OV105 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -007 | 0000665319 | 3 | F |
| 46 | STS-50 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000AX3420 | 3 | F |
| 47 | STS-46 | OV104 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000GD8004 | 3 | F |
| 48 | STS-47 | OV105 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000665319 | 3 | F |
| 49 | STS-52 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -007 | 0000665319 | 3 | F |
| 50 | STS-54 | OV105 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000GD8004 | 3 | F |
| 51 | STS-55 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -005 | 0000665319 | 3 | F |
| 52 | STS-41 | OV103 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV009 | 1 | F |
| 53 | STS-41 | OV103 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV002 | 2 | F |
| 54 | STS-38 | OV104 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV005 | 1 | F |
| 55 | STS-35 | OV104 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV004 | 2 | F |
| 56 | STS-35 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV001 | 1 | F |
| 57 | STS-35 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV008 | 2 | F |
| 58 | STS-35 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV005 | 1 | F |
| 59 | STS-37 | OV104 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV004 | 2 | F |
| 60 | STS-39 | OV103 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV009 | 1 | F |
| 61 | STS-4 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV001 | 1 | F |
| 62 | STS-40 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV008 | 2 | F |
| 63 | STS-43 | OV104 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV005 | 1 | F |
| 64 | STS-43 | OV104 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV004 | 2 | F |
| 65 | STS-48 | OV103 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV009 | 1 | F |
| 66 | STS-44 | OV104 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV001 | 1 | F |
| 67 | STS-44 | OV104 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV008 | 2 | F |
| 68 | STS-42 | OV103 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV005 | 1 | F |
| 69 | STS-42 | OV103 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV004 | 2 | F |
| 70 | STS-45 | OV104 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV009 | 1 | F |
| 71 | STS-49 | OV105 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV001 | 1 | F |
| 72 | STS-49 | OV105 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV008 | 2 | F |
| 73 | STS-50 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV005 | 1 | F |
| 74 | STS-50 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV004 | 2 | F |
| 75 | STS-46 | OV104 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV009 | 1 | F |
| 76 | STS-46 | OV104 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV001 | 1 | F |
| 77 | STS-47 | OV105 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV008 | 2 | F |
| 78 | STS-47 | OV105 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV005 | 1 | F |
| 79 | STS-52 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV004 | 2 | F |
| 80 | STS-52 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV009 | 1 | F |
| 81 | STS-52 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV001 | 1 | F |
| 82 | STS-54 | OV105 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV008 | 2 | F |
| 83 | STS-54 | OV105 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV005 | 1 | F |
| 84 | STS-55 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV004 | 2 | F |
| 85 | STS-55 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -006 | 0000LMV009 | 1 | F |
| 86 | STS-41 | OV103 | EPDC | MIDBODY JETTISON CONTROL ASSY | V082-764360 | -003 | 0000AU1175 | 1 | F |
| 87 | STS-38 | OV104 | EPDC | MIDBODY JETTISON CONTROL ASSY | V082-764360 | -003 | 0000BF0745 | 1 | F |
| 88 | STS-35 | OV102 | EPDC | MIDBODY JETTISON CONTROL ASSY | V082-764360 | -001 | 0000A7857 | 1 | F |
| 89 | STS-37 | OV104 | EPDC | MIDBODY JETTISON CONTROL ASSY | V082-764360 | -003 | 0000BF0745 | 1 | F |
| 90 | STS-39 | OV103 | EPDC | MIDBODY JETTISON CONTROL ASSY | V082-764360 | -003 | 0000AU1175 | 1 | F |

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|------------------------------|-------------|-------------|---------------|------|--------|
| 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 | V070-764630 | -005 | 0000A26452 | 3 | F |
| 49 | STS-46 | OV104 | EPDC | MID MOTOR CONTROL ASSY NBR 3 | V070-764630 | -004 | 0000AU0704 | 3 | F |
| 50 | STS-47 | OV105 | EPDC | MID MOTOR CONTROL ASSY NBR 3 | V070-764630 | -004 | 0000ER8169 | 3 | F |
| 51 | STS-52 | OV102 | EPDC | MID MOTOR CONTROL ASSY NBR 3 | V070-764630 | -005 | 0000A26452 | 3 | F |
| 53 | STS-54 | OV105 | EPDC | MID MOTOR CONTROL ASSY NBR 3 | V070-764630 | -004 | 0000ER8169 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | MID MOTOR CONTROL ASSY NBR 3 | V070-764630 | -005 | 0000A26452 | 3 | F |
| 36 | STS-41 | OV103 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764500 | -006 | 0000A01551 | 4 | F |
| 37 | STS-38 | OV104 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000F71028 | 4 | F |
| 38 | STS-35 | OV102 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000AU4139 | 4 | F |
| 39 | STS-37 | OV104 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000F71028 | 4 | F |
| 40 | STS-39 | OV103 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764500 | -006 | 0000AU1551 | 4 | F |
| 41 | STS-40 | OV102 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000AU4139 | 4 | F |
| 42 | STS-43 | OV104 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000F71028 | 4 | F |
| 43 | STS-48 | OV103 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764500 | -006 | 0000A01551 | 4 | F |
| 44 | STS-44 | OV104 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000F71028 | 4 | F |
| 45 | STS-45 | OV104 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000A01551 | 4 | F |
| 46 | STS-49 | OV105 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000G05443 | 4 | F |
| 47 | STS-50 | OV102 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000AU4139 | 4 | F |
| 48 | STS-46 | OV104 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000F71028 | 4 | F |
| 49 | STS-47 | OV105 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000G05443 | 4 | F |
| 50 | 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 | 0000G05443 | 4 | F |
| 54 | STS-55 | OV102 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000AU4139 | 4 | F |
| 36 | STS-41 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -016 | 0000AU3690 | 1 | F |
| 37 | STS-38 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -015 | 0000J43443 | 1 | F |
| 38 | STS-35 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -015 | 0000F71022 | 1 | F |
| 39 | STS-37 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -015 | 0000J43443 | 1 | F |
| 40 | STS-39 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -016 | 0000AU3690 | 1 | F |
| 41 | STS-40 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -015 | 0000F71022 | 1 | F |
| 42 | STS-43 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -014 | 0000J43443 | 1 | F |
| 43 | STS-48 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -016 | 0000AU1690 | 1 | F |
| 44 | STS-44 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -014 | 0000J43443 | 1 | F |
| 45 | STS-45 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -016 | 0000AU3690 | 1 | F |
| 46 | STS-49 | OV105 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -015 | 0000J41443 | 1 | F |
| 47 | STS-50 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -015 | 0000F71022 | 1 | F |
| 48 | STS-46 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -019 | 0000E61614 | 1 | F |
| 49 | STS-47 | OV105 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -015 | 0000J43443 | 1 | F |
| 50 | STS-52 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -015 | 0000F71022 | 1 | F |
| 51 | STS-54 | OV105 | 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 | 0000AW2430 | 2 | F |
| 37 | STS-38 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -015 | 0000J55046 | 2 | F |
| 38 | STS-35 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -015 | 0000F71049 | 2 | F |
| 39 | STS-37 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -015 | 0000J55046 | 2 | F |
| 40 | STS-39 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -016 | 0000AW2439 | 2 | F |
| 41 | STS-40 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -015 | 0000F71049 | 2 | F |
| 42 | STS-43 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -015 | 0000J55046 | 2 | F |
| 43 | STS-48 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -016 | 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 | STATUS |
|----------|--------|-------|-----------|------------------------------|-------------|-------------|---------------|------|--------|
| 45 | STS-42 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -016 | 0000AW2439 | 2 | F |
| 46 | STS-45 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -015 | 0000J55046 | 2 | F |
| 47 | STS-49 | OV105 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -015 | 0000F71099 | 2 | F |
| 48 | STS-50 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -019 | 0000ER1620 | 2 | F |
| 49 | STS-46 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -015 | 0000J55046 | 2 | F |
| 50 | STS-47 | OV105 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -015 | 0000F71099 | 2 | F |
| 51 | STS-52 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -019 | 0000ER1620 | 2 | F |
| 53 | STS-54 | OV105 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -015 | 0000F71099 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -019 | 0000ER1620 | 2 | F |
| 36 | STS-41 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -014 | 0000AZ2809 | 3 | F |
| 37 | STS-38 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -016 | 0000AU7720 | 3 | F |
| 38 | STS-35 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -015 | 0000F71023 | 3 | F |
| 39 | STS-37 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -016 | 0000AU7720 | 3 | F |
| 40 | STS-39 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -014 | 0000AZ2809 | 3 | F |
| 41 | STS-40 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -015 | 0000F71023 | 3 | F |
| 42 | STS-43 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -016 | 0000AZ2809 | 3 | F |
| 43 | STS-48 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -014 | 0000AZ2809 | 3 | F |
| 44 | STS-44 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -016 | 0000AZ2809 | 3 | F |
| 45 | STS-42 | OV103 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -014 | 0000AZ2809 | 3 | F |
| 46 | STS-45 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -016 | 0000AZ2809 | 3 | F |
| 47 | STS-49 | OV105 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -007 | 0000F71023 | 3 | F |
| 48 | STS-50 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -018 | 0000F71023 | 3 | F |
| 49 | STS-46 | OV104 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -016 | 0000AU7720 | 3 | F |
| 50 | STS-47 | OV105 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -007 | 0000F71023 | 3 | F |
| 51 | STS-52 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -018 | 0000F71023 | 3 | F |
| 53 | STS-54 | OV105 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -007 | 0000ER1620 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -018 | 0000F71023 | 3 | F |
| 37 | STS-38 | OV104 | EPDC | PAYLOAD POWER EQUIPMENT | V712-764700 | -001 | 0000P11841 | | F |
| 37 | STS-38 | OV104 | EPDC | PAYLOAD POWER EQUIPMENT | V712-764700 | -001 | 0000P12876 | | F |
| 38 | STS-35 | OV102 | EPDC | PAYLOAD POWER EQUIPMENT | V565-763200 | -003 | 0000B26480 | | F |
| 39 | STS-37 | OV104 | EPDC | PAYLOAD POWER EQUIPMENT | V712-764700 | -001 | 0000P11841 | | F |
| 39 | STS-37 | OV104 | EPDC | PAYLOAD POWER EQUIPMENT | V712-764700 | -001 | 0000P12876 | | F |
| 39 | STS-37 | OV104 | EPDC | PAYLOAD POWER EQUIPMENT | V773-714901 | -004 | 0000P06783 | | F |
| 40 | STS-39 | OV103 | EPDC | PAYLOAD POWER EQUIPMENT | V773-714901 | -004 | 0000P06230 | | F |
| 41 | STS-40 | OV102 | EPDC | PAYLOAD POWER EQUIPMENT | V565-763200 | -003 | 0000B26480 | | F |
| 41 | STS-40 | OV102 | EPDC | PAYLOAD POWER EQUIPMENT | V773-714901 | -004 | 0000P06784 | | F |
| 42 | STS-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 |

ORIGINAL PAGE IS
OF POOR QUALITY

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | S T A T |
|-------------|--------|-------|-----------|--|----------------|----------------|------------------|------------------|------------------|
| 54 | STS-55 | OV102 | EPDC | FLIGHT CONTROL ACTUATOR POWER ASSEMBLY | V070-764350 | -003 | 0000A46408 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | FLIGHT CONTROL ACTUATOR POWER ASSEMBLY | V070-764350 | -003 | 0000A46409 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 1 | MC450-0057 | -0001 | 756MYDU006 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 2 | MC450-0058 | -0001 | 756MYF0002 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | AFT HYBRID LOAD CONTROLLER NBR 3 | MC450-0059 | -0001 | 756MYH0002 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | AFT MOTOR CONTROL ASSY, NBR 1 | V070-765630 | -003 | 0000601094 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 2 | V070-765420 | -001 | 0000N19382 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | AFT MOTOR CONTROL ASSY NBR 3 | V070-765430 | -001 | 0000F71021 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 1 | V070-765310 | -007 | 0000C09112 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 2 | V070-765220 | -011 | 0000155728 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | AFT POWER CONTROL ASSY NBR 3 | V070-765330 | -011 | 0000888853 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | AFT POWER CONTROL ASSY 4,5,6 | V070-765280 | -028 | 0000S02384 | 4 | F |
| 54 | STS-55 | OV102 | EPDC | AFT POWER CONTROL ASSY 4,5,6 | V070-765280 | -027 | 0000J53759 | 5 | F |
| 54 | STS-55 | OV102 | EPDC | AFT POWER CONTROL ASSY 4,5,6 | V070-765280 | -028 | 0000E71705 | 6 | F |
| 54 | STS-55 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -020 | 0000280093 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -016 | 0000ER-871 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -019 | 0000A04333 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | CRYO HEATER CONTROL ASSY | V070-764470 | -021 | 0000B04309 | 4 | F |
| 54 | STS-55 | OV102 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000GK-300 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | DRAG CHUTE CONTROLLER ASSEMBLY | V070-765440 | -001 | 0000GK-301 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0662 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM1813 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | DIODE BOX ASSY | V070-765380 | -001 | 0000AM0664 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | EMU PWR SUP/BATTERY CHARGER | MC461-0032 | -0003 | 0000962008 | | F |
| 54 | STS-55 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 1 | MC450-0054 | -0002 | 756MXR0004 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 2 | MC450-0055 | -0002 | 756MXV0006 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | FWD HYBRID LOAD CONTROLLER NBR 3 | MC450-0056 | -0001 | 756MXX0006 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 1 | V070-763600 | -001 | 0000A08384 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 2 | V070-763620 | -003 | 0000F71097 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | FWD MOTOR CONTROL ASSY NBR 3 | V070-763630 | -003 | 0000J25040 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | FWD POWER CONTROL ASSY NBR 1 | V070-763320 | -023 | 0000F66117 | | F |
| 54 | STS-55 | OV102 | EPDC | FWD POWER CONTROL ASSY NBR 2 | V070-763340 | -014 | 0000AF5427 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | FWD POWER CONTROL ASSY NBR 3 | V070-763360 | -022 | 0000AX261H | 3 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | S T A T |
|-------------|--------|-------|-----------|--|----------------|----------------|------------------|------------------|------------------|
| 54 | STS-55 | OV102 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -006 | 0000F58231 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -004 | 0000151635 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER DISTRIBUTION AND CONTROL ASSY | V070-763380 | -004 | 0000151634 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0014 | 0000000036 | 1A | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000238 | 1B | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000035 | 1C | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000068 | 2A | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000039 | 2B | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000040 | 2C | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 000000M237 | 3A | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000041 | 3B | F |
| 54 | STS-55 | OV102 | EPDC | INVERTER | MC495-0012 | -0004 | 0000000047 | 3C | F |
| 54 | STS-55 | OV102 | EPDC | MADS POWER DISTRIBUTION ASSY'S | V408-764590 | -001 | 0000BE7928 | | F |
| 54 | STS-55 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 1 | V070-764200 | -006 | 0000AU7834 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 2 | V070-764220 | -006 | 0000EJ3109 | 2 | F/SP |
| 54 | STS-55 | OV102 | EPDC | MAIN POWER DISTRIBUTION ASSEMBLY NBR 3 | V070-764230 | -007 | 0000665319 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -0007 | 000073P002 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | MASTER EVENTS CONTROLLER | MC450-0016 | -0006 | 0000LMV002 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | MIDMOTOR JETTISON CONTROL ASSY | V082-764360 | -001 | 0000A78557 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | MID MOTOR CONTROL ASSY NBR 1 | V070-764520 | -005 | 0000A01625 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | MID MOTOR CONTROL ASSY NBR 2 | V070-764530 | -005 | 0000640859 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | MID MOTOR CONTROL ASSY NBR 3 | V070-764550 | -005 | 0000A26452 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | MID MOTOR CONTROL ASSY NBR 4 | V070-764640 | -005 | 0000AU4139 | 4 | F |
| 54 | STS-55 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 1 | V070-764400 | -020 | 0000671143 | 1 | F/SP |
| 54 | STS-55 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 2 | V070-764430 | -019 | 0000ER1620 | 2 | F |
| 54 | STS-55 | OV102 | EPDC | MID POWER CONTROL ASSY NBR 3 | V070-764450 | -018 | 0000F75023 | 3 | F |
| 54 | STS-55 | OV102 | EPDC | PAYLOAD POWER EQUIPMENT | V565-763200 | -003 | 0000R76450 | | F |
| 54 | STS-55 | OV102 | EPDC | PAYLOAD POWER EQUIPMENT | V773-714901 | -004 | 0000P06784 | | F |
| 54 | STS-55 | OV102 | EPDC | PROXIMITY SWITCH ELECTRONICS | MC452-0124 | -0009 | 8748060017 | 1 | F |
| 54 | STS-55 | OV102 | EPDC | PROXIMITY SWITCH ELECTRONICS | MC452-0124 | -0009 | 8748060010 | 2 | F |

AVIONICS
MODULAR AUXILIARY DATA (MADS) SUBSYSTEM

1-405

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|-------------|--------|-------|-----------|-------------------------------------|----------------|----------------|------------------|------|--------|
| 36 | STS-41 | OV103 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876007 | 1 | F |
| 36 | STS-41 | OV103 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0477012 | 2 | F |
| 37 | STS-38 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS1277018 | 1 | F |
| 37 | STS-38 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876009 | 2 | F |
| 38 | STS-35 | OV102 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876008 | 1 | F |
| 38 | STS-35 | OV102 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0576005 | 2 | F |
| 38 | STS-37 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS1277018 | 1 | F |
| 39 | STS-37 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876009 | 2 | F |
| 40 | STS-39 | OV103 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876007 | 1 | F |
| 40 | STS-39 | OV103 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876007 | 1 | F |
| 41 | STS-40 | OV102 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0777015 | 1 | F |
| 41 | STS-40 | OV102 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0777015 | 1 | F |
| 42 | STS-43 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0577014 | 2 | F |
| 42 | STS-43 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS1277018 | 1 | F |
| 43 | STS-48 | OV103 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876009 | 2 | F |
| 43 | STS-48 | OV103 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876007 | 1 | F |
| 44 | STS-44 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0278011 | 2 | F |
| 44 | STS-44 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876009 | 2 | F |
| 44 | STS-44 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0576005 | 1 | F |
| 45 | STS-42 | OV103 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876009 | 2 | F |
| 45 | STS-42 | OV103 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0777015 | 1 | F |
| 46 | STS-45 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0576005 | 1 | F |
| 46 | STS-45 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0576005 | 1 | F |
| 47 | STS-49 | OV105 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876009 | 2 | F |
| 47 | STS-49 | OV105 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0576010 | 1 | F |
| 47 | STS-49 | OV105 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0576010 | 1 | F |
| 48 | STS-50 | OV102 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | 000000000 | 2 | F |
| 48 | STS-50 | OV102 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876011 | 1 | F |
| 48 | STS-50 | OV102 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0577014 | 2 | F |
| 49 | STS-46 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0576005 | 1 | F |
| 49 | STS-46 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876009 | 2 | F |
| 49 | STS-46 | OV104 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876009 | 2 | F |
| 50 | STS-47 | OV105 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0578010 | 1 | F |
| 50 | STS-47 | OV105 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0578010 | 1 | F |
| 51 | STS-52 | OV102 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | 000000000 | 2 | F |
| 51 | STS-52 | OV102 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0876011 | 1 | F |
| 53 | STS-54 | OV105 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0577014 | 2 | F |
| 53 | STS-54 | OV105 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | AVS0576010 | 1 | F |
| 54 | STS-55 | OV102 | MADS | MADS FREQUENCY DIVISION MULTIPLEXER | MC409-0010 | -0003 | 000000000 | 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 | 00000003094 | 1 | F |
| 37 | STS-38 | OV104 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000307 | 1 | F |
| 38 | STS-35 | OV102 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000305 | 1 | F |
| 38 | STS-35 | OV102 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000306 | 2 | F |
| 39 | STS-37 | OV104 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000301 | 3 | F |
| 40 | STS-39 | OV103 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000307 | 1 | F |
| 41 | STS-40 | OV102 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000309 | 1 | F |
| 41 | STS-40 | OV102 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000305 | 1 | F |
| 41 | STS-40 | OV102 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000306 | 2 | F |
| 42 | STS-43 | OV104 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000307 | 1 | F |
| 43 | STS-48 | OV103 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000307 | 1 | F |
| 44 | STS-44 | OV104 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000309 | 1 | F |
| 45 | STS-42 | OV103 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000307 | 1 | F |
| 46 | STS-45 | OV104 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000305 | 1 | F |
| 47 | STS-49 | OV105 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000305 | 1 | F |
| 48 | STS-50 | OV102 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000304 | 1 | F |
| 48 | STS-50 | OV102 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000305 | 1 | F |
| 48 | STS-50 | OV102 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000306 | 2 | F |
| 48 | STS-50 | OV102 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000307 | 1 | F |
| 49 | STS-46 | OV104 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000307 | 1 | F |
| 50 | STS-47 | OV105 | MADS | MADS PULSE CODE MODULATION | MC476-0251 | -0004 | 0000000305 | 1 | F |

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

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

AVIONICS
OPERATIONAL INSTRUMENTATION (OI) SUBSYSTEM

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | S T A T |
|-------------|--------|-------|-----------|-------------------------------|----------------|----------------|------------------|------------------|------------------|
| 36 | STS-41 | OV103 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -5410 | 0000000055 | 1 | F |
| 36 | STS-41 | OV103 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -5410 | 0000000073 | 2 | F |
| 36 | STS-41 | OV103 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -6410 | 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 | 1 | 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 | -5410 | 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 | 0000000011 | 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 | -5410 | 0000000074 | 3 | F |
| 47 | STS-49 | OV105 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -7400 | 0000000150 | 1 | F/SP |
| 47 | STS-49 | OV105 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -6410 | 0000000206 | 2 | F |
| 47 | STS-49 | OV105 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -7400 | 0000000228 | 3 | 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 | 0000000011 | 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 | 0000000136 | 1 | F |
| 49 | STS-46 | OV104 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -6410 | 0000000127 | 2 | F |
| 49 | STS-46 | OV104 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -5410 | 0000000074 | 3 | F |
| 50 | STS-47 | OV105 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -7400 | 0000000150 | 1 | F/SP |
| 50 | STS-47 | OV105 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -6410 | 0000000206 | 2 | F |
| 50 | STS-47 | OV105 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -7400 | 0000000228 | 3 | F |
| 51 | STS-52 | OV102 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -5410 | 0000000011 | 1 | F |
| 51 | STS-52 | OV102 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -5410 | 0000000072 | 2 | F |
| 51 | STS-52 | OV102 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -6410 | 0000000137 | 3 | F |
| 53 | STS-54 | OV105 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -7400 | 0000000150 | 1 | F/SP |
| 53 | STS-54 | OV105 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -6410 | 0000000206 | 2 | F |
| 53 | STS-54 | OV105 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -7400 | 0000000228 | 3 | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -5410 | 0000000011 | 1 | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -5410 | 0000000072 | 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 | 0000000060 | 3 | F |

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | SLOT | STATUS |
|----------|--------|-------|-----------|-------------------------------|-------------|-------------|---------------|------|--------|
| 36 | STS-41 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5310 | 0000000118 | 4 | F |
| 37 | STS-38 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000052 | 1 | F |
| 37 | STS-38 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000148 | 2 | F |
| 37 | STS-38 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5300 | 0000000067 | 3 | F |
| 38 | STS-35 | OV102 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000144 | 1 | F |
| 38 | STS-35 | OV102 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000091 | 2 | F |
| 38 | STS-35 | OV102 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000115 | 3 | F |
| 39 | STS-37 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000146 | 4 | F |
| 39 | STS-37 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5310 | 0000000052 | 1 | F |
| 39 | STS-37 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000148 | 2 | F |
| 39 | STS-37 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5300 | 0000000067 | 3 | F |
| 40 | STS-39 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000158 | 4 | F |
| 40 | STS-39 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000144 | 1 | F |
| 40 | STS-39 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000115 | 3 | F |
| 40 | STS-39 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000146 | 4 | F |
| 41 | STS-40 | OV102 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5310 | 0000000052 | 1 | F |
| 41 | STS-40 | OV102 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000148 | 2 | F |
| 42 | STS-43 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5300 | 0000000067 | 3 | F |
| 42 | STS-43 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000158 | 4 | F |
| 43 | STS-48 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000145 | 1 | F |
| 43 | STS-48 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000116 | 2 | F |
| 43 | STS-48 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5310 | 0000000066 | 3 | F |
| 44 | STS-44 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5310 | 0000000118 | 4 | F |
| 44 | STS-44 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000052 | 1 | F |
| 44 | STS-44 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000148 | 2 | F |
| 44 | STS-44 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5300 | 0000000067 | 3 | F |
| 45 | STS-42 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000158 | 4 | F |
| 45 | STS-42 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000145 | 1 | F |
| 45 | STS-42 | OV103 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000116 | 2 | F |
| 46 | STS-45 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5310 | 0000000066 | 3 | F |
| 46 | STS-45 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000118 | 4 | F |
| 46 | STS-45 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5300 | 0000000067 | 3 | F |
| 47 | STS-49 | OV105 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000118 | 4 | F |
| 47 | STS-49 | OV105 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000066 | 3 | F |
| 47 | STS-49 | OV105 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -7300 | 0000000118 | 4 | F |
| 47 | STS-49 | OV105 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -7300 | 0000000066 | 3 | F |
| 48 | STS-50 | OV102 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -7500 | 0000000118 | 4 | F |
| 48 | STS-50 | OV102 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000144 | 1 | F |
| 48 | STS-50 | OV102 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000115 | 2 | F |
| 48 | STS-50 | OV102 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000146 | 4 | F |
| 49 | STS-46 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5310 | 0000000052 | 1 | F |
| 49 | STS-46 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000148 | 2 | F |
| 49 | STS-46 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5300 | 0000000067 | 3 | F |
| 49 | STS-46 | OV104 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6510 | 0000000158 | 4 | F |
| 50 | STS-47 | OV105 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -7300 | 0000000203 | 1 | F |
| 50 | STS-47 | OV105 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -7300 | 0000000202 | 2 | F |
| 50 | STS-47 | OV105 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -7300 | 0000000204 | 3 | F |
| 50 | STS-47 | OV105 | 01 | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -7500 | 0000000214 | 4 | F |

ORIGINAL PAGE IS
OF POOR QUALITY

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S | L | T | S |
|----------|--------|-------|-----------|-------------------------------|-------------|-------------|---------------|---|---|---|---|
| 51 | STS-52 | OV102 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000115 | 3 | F | F | F |
| 52 | STS-52 | OV102 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6510 | 0000000146 | 4 | F | F | F |
| 53 | STS-54 | OV105 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -7300 | 0000000203 | 1 | F | F | F |
| 53 | STS-54 | OV105 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -7300 | 0000000202 | 2 | F | F | F |
| 53 | STS-54 | OV105 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -730C | 0000000204 | 3 | F | F | F |
| 54 | STS-55 | OV105 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -7500 | 0000000214 | 4 | F | F | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000144 | 1 | F | F | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000091 | 2 | F | F | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6310 | 0000000115 | 3 | F | F | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -6510 | 0000000146 | 4 | F | F | F |
| 36 | STS-41 | OV103 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000005 | | F | F | F |
| 37 | STS-38 | OV104 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000007 | | F | F | F |
| 38 | STS-35 | OV102 | OI | MASTER TIMING UNIT | MC456-0051 | -0001 | 0000000002 | | F | F | F |
| 39 | STS-37 | OV104 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000007 | | F | F | F |
| 40 | STS-39 | OV103 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000005 | | F | F | F |
| 41 | STS-40 | OV102 | OI | MASTER TIMING UNIT | MC456-0051 | -0001 | 0000000002 | | F | F | F |
| 42 | STS-43 | OV104 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000007 | | F | F | F |
| 43 | STS-48 | OV103 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000004 | | F | F | F |
| 44 | STS-44 | OV104 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000007 | | F | F | F |
| 45 | STS-42 | OV103 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000005 | | F | F | F |
| 46 | STS-45 | OV104 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000007 | | F | F | F |
| 47 | STS-49 | OV105 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000004 | | F | F | F |
| 48 | STS-50 | OV102 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000007 | | F | F | F |
| 49 | STS-46 | OV104 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000002 | | F | F | F |
| 50 | STS-47 | OV105 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000008 | | F | F | F |
| 51 | STS-52 | OV102 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000006 | | F | F | F |
| 53 | STS-54 | OV105 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000004 | | F | F | F |
| 54 | STS-55 | OV102 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000006 | | F | F | F |
| 36 | STS-41 | OV103 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000012 | 1 | F | F | F |
| 36 | STS-41 | OV103 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000010 | 2 | F | F | F |
| 37 | STS-38 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000006 | 1 | F | F | F |
| 37 | STS-38 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000011 | 2 | F | F | F |
| 38 | STS-35 | OV102 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000004 | 1 | F | F | F |
| 38 | STS-35 | OV102 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000002 | 2 | F | F | F |
| 39 | STS-37 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000006 | 1 | F | F | F |
| 39 | STS-37 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000011 | 2 | F | F | F |
| 40 | STS-39 | OV103 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000007 | 1 | F | F | F |
| 40 | STS-39 | OV103 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000012 | 2 | F | F | F |
| 41 | STS-40 | OV102 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000002 | 1 | F | F | F |
| 41 | STS-40 | OV102 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000007 | 2 | F | F | F |
| 42 | STS-43 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000004 | 1 | F | F | F |
| 42 | STS-43 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000011 | 2 | F | F | F |
| 43 | STS-48 | OV103 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000007 | 1 | F | F | F |
| 43 | STS-48 | OV103 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000012 | 2 | F | F | F |
| 44 | STS-44 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000003 | 2 | F | F | F |
| 44 | STS-44 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000008 | 1 | F | F | F |
| 44 | STS-44 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000013 | 2 | F | F | F |
| 45 | STS-42 | OV103 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000006 | 1 | F | F | F |
| 45 | STS-42 | OV103 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000011 | 2 | F | F | F |
| 46 | STS-45 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000002 | 1 | F | F | F |
| 46 | STS-45 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000007 | 2 | F | F | F |
| 47 | STS-49 | OV105 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000004 | 1 | F | F | F |
| 47 | STS-49 | OV105 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000011 | 2 | F | F | F |
| 48 | STS-50 | OV102 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000002 | 1 | F | F | F |
| 48 | STS-50 | OV102 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000007 | 2 | F | F | F |
| 49 | STS-46 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000006 | 1 | F | F | F |
| 49 | STS-46 | OV104 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000011 | 2 | F | F | F |
| 50 | STS-47 | OV105 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000008 | 1 | F | F | F |

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

| MISS SEQ | STS | ORB | SUBSYSTEM | LRU NOMENCLATURE | PART NUMBER | DASH NUMBER | SERIAL NUMBER | S L O T | T A T |
|-------------|--------|-------|-----------|-----------------------|----------------|----------------|------------------|------------------|-------------|
| 61 | STS-82 | OV102 | 01 | PLB/ORB TIMING BUFFER | MC456-0060 | -0003 | 0000000003 | | F |
| 63 | STS-84 | OV105 | 01 | PLB/ORB TIMING BUFFER | MC456-0060 | -0003 | 0000000024 | | F |
| 63 | STS-84 | OV105 | 01 | PLB/ORB TIMING BUFFER | MC456-0060 | -0003 | 0000000025 | | F |
| 54 | STS-55 | OV102 | 01 | PLB/ORB TIMING BUFFER | MC456-0060 | -0003 | 0000000007 | | F |
| 54 | STS-55 | OV102 | 01 | 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 | LOT | STAT |
|-------------|--------|-------|-----------|-------------------------------|----------------|----------------|------------------|-----|------|
| 54 | STS-55 | OV102 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -5410 | 000000018 | 1 | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -5410 | 000000035 | 2 | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. AFT MULT./DEMULT. | MC615-0004 | -5410 | 0000000137 | 3 | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5310 | 0000000144 | 1 | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5310 | 000000081 | 2 | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5310 | 000000115 | 3 | F |
| 54 | STS-55 | OV102 | OI | OPER. INST. FWD MULT./DEMULT. | MC615-0004 | -5510 | 000000145 | 4 | F |
| 54 | STS-55 | OV102 | OI | MASTER TIMING UNIT | MC456-0051 | -0005 | 0000000006 | | F |
| 54 | STS-55 | OV102 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000003 | 1 | F |
| 54 | STS-55 | OV102 | OI | PULSE CODE MOD | MC476-0130 | -0709 | 0000000002 | 2 | F |
| 54 | STS-55 | OV102 | OI | PAYLOAD DATA INTERLEAVER | MC476-0136 | -0005 | 0000000007 | | F |
| 54 | STS-55 | OV102 | OI | PLB/ORB TIMING BUFFER | MC456-0060 | -0003 | 0000000007 | | F |
| 54 | STS-55 | OV102 | OI | PLB/ORB TIMING BUFFER | MC456-0060 | -0003 | 0000000008 | | F |

*** END OF REPORT ***

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCATION MATRIX

| PRIMARY SPEC: MC 467-0028-KXXX | | RCS FORWARD THRUSTERS | | | | | | | | | | | | | | | | VERNIER SPEC: MC 467-0029-KXXX | | * CAUSE OF POSTFLIGHT REPLACEMENT |
|--------------------------------|-------------------|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---------------------------------------|--|---|
| MSN SEQ NO. | STS ORB OV- | PRIMARY | | | | | | | | | | | | | | | | VERNIER | | |
| | | F1F | F2F | F3F | F1U | F2U | F3U | F2R | F4R | F2D | F4D | F1L | F3L | F1D | F3D | F5R | F5L | | | |
| 1 | 102 | 0112 | 0132 | 0122 | 0115 | 0135 | 0125 | 0134 | 0144 | 0136 | 0146 | 0113 | 0123 | 0116 | 0126 | 0158 | 0157 | | | |
| | | 102 | 103 | 101 | 109 | 110 | 108 | 114 | 113 | 106 | 107 | 112 | 111 | 104 | 105 | 106 | 105 | | | |
| 2 | 102 | 0112 | 0132 | 0122 | 0115 | 0135 | 0125 | 0134 | 0144 | 0136 | 0146 | 0113 | 0123 | 0116 | 0126 | 0158 | 0157 | | | |
| | | 102 | 103 | 101 | 109 | 110 | 108 | 114 | 113 | 106 | 107 | 112 | 111 | 104 | 105 | 106 | 105 | | | |
| 3 | 102 | 0112 | 0132 | 0122 | 0115 | 0135 | 0125 | 0134 | 0144 | 0136 | 0146 | 0113 | 0123 | 0116 | 0126 | 0158 | 0157 | OFFSPON COMMAN. | | |
| | | *102 | 103 | 101 | *109 | *110 | *108 | *114 | 113 | 106 | 107 | *112 | 111 | 104 | 105 | 106 | 105 | | | |
| 4 | 102 | 1112 | 0132 | 0122 | 2115 | 2135 | 1125 | 1134 | 0144 | 0136 | 0146 | 1113 | 0123 | 0116 | 0126 | 0158 | 0157 | FIL OR VLV LA. VERNI COATING PROB. | | |
| | | 202 | 103 | 101 | 209 | 210 | 208 | 214 | 113 | 106 | 107 | *212 | 111 | 104 | 105 | *106 | *105 | | | |
| 5 | 102 | 1112 | 0132 | 0122 | 2115 | 2135 | 1125 | 1134 | 0144 | 0136 | 0146 | 0413 | 0123 | 0116 | 0126 | 3158 | 3157 | FAR LOW PC. F4D OR VLV FAIL. | | |
| | | 202 | 103 | 101 | 209 | 210 | 208 | 214 | *113 | 106 | *107 | 112 | 111 | 104 | 105 | 204 | 203 | | | |
| 6 | 099 | 3112 | 1132 | 1122 | 4115 | 4135 | 3125 | 4134 | 1144 | 1136 | 1146 | 4113 | 1123 | 1116 | 1126 | 3158 | 3157 | | | |
| | | 302 | 203 | 201 | 309 | 310 | 308 | 314 | 213 | 206 | 207 | 312 | 211 | 204 | 205 | 304 | 303 | | | |
| 7 | 099 | 3112 | 1132 | 1122 | 4115 | 4135 | 3125 | 4134 | 1144 | 1136 | 1146 | 4113 | 1123 | 1116 | 1126 | 3158 | 3157 | | | |
| | | 302 | 203 | 201 | 309 | 310 | 308 | 314 | 213 | 206 | 207 | 312 | 211 | 204 | 205 | 304 | 303 | | | |
| 8 | 099 | 3112 | 1132 | 1122 | 4115 | 4135 | 3125 | 4134 | 1144 | 1136 | 1146 | 4113 | 1123 | 1116 | 1126 | 3158 | 3157 | OR VLV LA. | | |
| | | 302 | 203 | 201 | 309 | 310 | 308 | 314 | 213 | 206 | 207 | 312 | 211 | 204 | *205 | 304 | 303 | | | |
| 9 | 102 | 1112 | 0132 | 0122 | 2115 | 2135 | 2125 | 1134 | 0444 | 0136 | 0146 | 0413 | 0123 | 0116 | 0126 | 3158 | 3157 | | | |
| | | 202 | 103 | 101 | 209 | 210 | 208 | 214 | 113 | 106 | 407 | 112 | 111 | 104 | 105 | 204 | 203 | | | |
| 10 | 099 | 3112 | 1132 | 1122 | 4115 | 4135 | 3125 | 4134 | 1144 | 1136 | 1146 | 4113 | 1123 | 1116 | 1126 | 3158 | 3157 | | | |
| | | 302 | 203 | 201 | 309 | 310 | 308 | 314 | 213 | 206 | 207 | 312 | 211 | 204 | 405 | 304 | 303 | | | |
| 11 | 099 | 3112 | 1132 | 1122 | 4115 | 4135 | 3125 | 4134 | 1144 | 1136 | 1146 | 4113 | 1123 | 1116 | 1126 | 3158 | 3157 | | | |
| | | 302 | 203 | 201 | 309 | 310 | 308 | 314 | 213 | 206 | 207 | 312 | 211 | 204 | 405 | 304 | 303 | | | |
| 12 | 103 | 0412 | 4132 | 4122 | 0415 | 0435 | 0425 | 0434 | 0144 | 4136 | 4146 | 2113 | 4123 | 4116 | 4126 | 3158 | 3157 | | | |
| | | 102 | 303 | 301 | 109 | 110 | 108 | 114 | 313 | 306 | 307 | 212 | 311 | 304 | 305 | 404 | 403 | | | |
| 13 | 099 | 3112 | 1132 | 1122 | 4115 | 4135 | 3125 | 4134 | 1144 | 1136 | 1146 | 4113 | 1123 | 1116 | 1126 | 3158 | 3157 | | | |
| | | 302 | 203 | 201 | 309 | 310 | 308 | 314 | 213 | 206 | 207 | 312 | 211 | 204 | 405 | 304 | 303 | | | |
| 14 | 103 | 0412 | 4132 | 4122 | 0415 | 0435 | 0425 | 0434 | 0144 | 4136 | 4146 | 2113 | 4123 | 4116 | 4126 | 3158 | 3157 | | | |
| | | 102 | 303 | 301 | 109 | 110 | 108 | 114 | 313 | 306 | 307 | 212 | 311 | 304 | 305 | 404 | 403 | | | |

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCATION MATRIX

| PRIMARY SPEC: MC 467-0020-XXXX | | RCS FORWARD THRUSTERS | | | | | | | | | | | | | VERNIER SPEC: MC 467-0029-XXXX | | | * CAUSE OF POSTFLIGHT REPLACEMENT | |
|--------------------------------|-------------------|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------|------|------|---|-----------------------------------|
| MSN SEQ NO. | STS ORB OW- | PRIMARY | | | | | | | | | | | | | VERNIER | | | | |
| | | F1F | F2F | F3F | F1U | F2U | F3U | F2R | F4R | F2D | F4D | F1L | F3L | F1D | F3D | F5R | F5L | | |
| 15 | 51C | 103 | 0412 | 4132 | 4122 | 4122 | 0415 | 0435 | 0434 | 4144 | 4136 | 4146 | 2113 | 4123 | 4116 | 4126 | 3153 | 3157 | |
| | | | 102 | 303 | 301 | 109 | 110 | 106 | 114 | 313 | 306 | 307 | 212 | 311 | 304 | 305 | 404 | 403 | |
| 16 | 51D | 103 | 0412 | 4132 | 4122 | 4122 | 0415 | 0435 | 0434 | 4144 | 4136 | 4146 | 2113 | 4123 | 4116 | 4126 | 3158 | 3157 | |
| | | | 102 | 303 | 301 | 109 | 110 | 108 | 114 | 313 | 306 | 307 | 212 | 311 | 304 | 305 | 404 | 403 | |
| 17 | 51B | 099 | 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 | |
| 18 | 51G | 103 | 0412 | 4132 | 4122 | 4122 | 0415 | 0435 | 0434 | 4144 | 4136 | 4146 | 2113 | 4123 | 4116 | 4126 | 3158 | 3157 | |
| | | | 102 | 303 | 301 | 109 | 110 | 108 | 114 | 313 | 306 | 307 | 212 | 311 | 304 | 305 | 404 | 403 | |
| 19 | 51F | 099 | 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 | |
| 20 | 51I | 103 | 0412 | 4132 | 4122 | 4122 | 0415 | 0435 | 0434 | 4144 | 4136 | 4146 | 2113 | 4123 | 4116 | 4126 | 3158 | 3157 | |
| | | | *102 | 303 | 301 | 109 | 110 | 108 | 114 | 313 | 306 | 307 | 212 | 311 | 304 | 305 | 404 | 403 | |
| 21 | 51J | 104 | 4112 | 4132 | 4122 | 4115 | 4135 | 4125 | 4134 | 4144 | 4136 | 4146 | 4113 | 4123 | 4116 | 4126 | 4158 | 4157 | |
| | | | 402 | 403 | 401 | 409 | 410 | 408 | 414 | 413 | 406 | 107 | 412 | 411 | 404 | 455 | 453 | 452 | REPAIRED PC TUBE. REINSTALLED. |
| 22 | 61A | 099 | 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 | 4146 | 4113 | 4123 | 4116 | 4126 | 4158 | 4157 | |
| | | | 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 | 4136 | 4146 | 4113 | 4123 | 4116 | 4126 | 3158 | 4157 | |
| | | | 452 | 453 | 451 | 459 | 460 | 458 | 464 | 463 | 106 | 407 | 112 | 111 | 104 | 105 | 204 | 463 | |
| 25 | 51L | 099 | 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 | -07 | 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 | |

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCATION MATRIX

| PRIMARY SPEC: MC 467-0028-XXXX | | RCS FORWARD THRUSTERS | | | | | | | | | | | | | | VERNIER SPEC: MC 467-0029-XXXX | | * CAUSE OF POSTFLIGHT REPLACEMENT | |
|--------------------------------|-------------------|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------------|------|---|--|
| MSN SEQ NO. | STS ORB OV- | PRIMARY | | | | | | | | | | | | | | VERNIER | | | |
| | | F1F | F2F | F3F | F1U | F2U | F3U | F2R | F4R | F2D | F4D | F1L | F3L | F1D | F3D | F5R | F5L | | |
| 30 | 28 | 102 | 5112 | 5132 | 5122 | 5115 | 5135 | 5125 | 5134 | 5144 | 5136 | 5146 | 5113 | 5123 | 5116 | 5126 | 5158 | 4157 | F5R REMOVED DUE TO OX LEAK. F5L REMOVED TO REPAIR HEATER. |
| | | | 402 | 103 | 451 | 409 | 110 | 408 | 214 | 463 | 406 | 107 | 212 | 411 | 404 | 305 | *204 | *463 | |
| 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 | 4150 | 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 | 3150 | 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 | 4156 | 7157 | |
| | | | 452 | 403 | 301 | 459 | 410 | 458 | 414 | 313 | 106 | 407 | 112 | 461 | 304 | 455 | 453 | 105 | |

ORBITER PROPULSION SYSTEMS
COMPONENT S/A - LOCATION MATRIX

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

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCATION MATRIX

| PRIMARY SPEC: MC 467-0028-XXXX | | | LEFT HAND POD RCS THRUSTERS | | | | | | | | | | | | | VERNIER SPEC: MC 467-0029-XXXX | | | * CAUSE OF P. TFLIGHT REPLACEMENT | |
|--------------------------------|------------|------------------|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------------|-------------|-------------|---|--|
| MSN SEQ NO. | STS NO. | ORB OV- LH | POD S/N | PRIMARY | | | | | | | | | | | | | VERNIER | | | |
| | | | | L1L | L2L | L3L | L4L | L1U | L2U | L4U | L2D | L3D | L4D | L1A | L3A | L5A | L5D | | | |
| 1 | 1 | 102 | L102 | 0200 135 | 0200 138 | 0200 137 | 0200 136 | 0200 141 | 0001 125 | 0001 128 | 0001 126 | 0001 129 | 0001 127 | 0001 127 | 0300 155 | 0300 118 | 0200 108 | 0001 102 | | |
| 2 | 2 | 102 | L102 | 0200 135 | 0200 138 | 0200 137 | 0200 136 | 0001 141 | 0001 125 | 0001 128 | 0001 126 | 0001 129 | 0001 127 | 0001 127 | 0300 155 | 0300 118 | 0200 108 | 0001 102 | | |
| 3 | 3 | 102 | L102 | 0200 135 | 0200 138 | 0200 137 | 0200 136 | 0001 141 | 0001 125 | 0001 128 | 0001 126 | 0001 129 | 0001 127 | 0001 127 | 0300 155 | 0300 118 | 0200 108 | 0001 102 | L3L FAULTY HEATER GYPSUM CONTAMINATION | |
| 4 | 4 | 102 | L102 | 0200 135 | 0200 138 | 0200 137 | 0200 136 | 0001 141 | 0001 125 | 0001 128 | 0001 126 | 0001 129 | 0001 127 | 0001 127 | 0300 155 | 0300 118 | 0200 108 | 0001 102 | VERNIER COATING PROBLEM | |
| 5 | 5 | 102 | L102 | 0200 135 | 0200 138 | 0200 137 | 0200 136 | 0001 141 | 0001 125 | 0001 128 | 0001 126 | 0001 129 | 0001 127 | 0001 127 | 0300 155 | 0300 118 | 0200 108 | 0001 102 | | |
| 6 | 6 | 099 | L099 | 2200 231 | 2201 134 | 2200 236 | 2200 238 | 2001 224 | 2001 226 | 2001 227 | 2001 221 | 2001 228 | 2001 229 | 2001 229 | 2300 216 | 2300 218 | 3200 306 | 3001 302 | FUEL VLV LEAK | |
| 7 | 7 | 099 | L099 | 2200 231 | 2201 134 | 2200 236 | 2200 238 | 2001 224 | 2001 226 | 2001 227 | 2001 221 | 2001 228 | 2001 229 | 2001 229 | 2300 216 | 2300 218 | 3200 306 | 3001 302 | | |
| 8 | 8 | 099 | L099 | 2200 231 | 2201 134 | 2200 236 | 2200 238 | 2001 224 | 2001 226 | 2001 227 | 2001 221 | 2001 228 | 2001 229 | 2001 229 | 2300 216 | 2300 218 | 3200 306 | 3001 302 | FUEL VLV LEAK | |
| 9 | 9 | 102 | L102 | 0200 135 | 0200 138 | 0200 137 | 0200 136 | 0001 141 | 0001 125 | 0001 128 | 0001 126 | 0001 129 | 0001 127 | 0001 127 | 0300 155 | 0300 118 | 0200 108 | 3001 301 | | |
| 10 | 41B | 099 | L099 | 2200 231 | 2201 134 | 2200 236 | 2200 238 | 2001 224 | 2001 226 | 2001 227 | 2001 221 | 2001 228 | 2001 229 | 2001 229 | 2300 216 | 2300 218 | 3200 306 | 3001 302 | OX VLV LEAK 41C PREFLT | |
| 11 | 41C | 099 | L103 | 2202 137 | 3200 337 | 3200 336 | 3200 338 | 0401 141 | 0401 124 | 0401 120 | 0401 128 | 0401 125 | 0401 119 | 0401 119 | 3300 317 | 3300 318 | 3200 405 | 4001 461 | | |
| 12 | 41D | 103 | L103 | 2202 137 | 3200 337 | 3200 336 | 3200 338 | 0401 141 | 0401 124 | 0401 120 | 0401 128 | 0401 125 | 0401 119 | 0401 119 | 3300 317 | 3300 318 | 3200 405 | 4001 461 | | |
| 13 | 41G | 099 | L099 | 2200 231 | 2201 134 | 2200 236 | 2200 238 | 2001 224 | 2001 226 | 2001 227 | 2001 221 | 2001 228 | 2001 229 | 2001 229 | 2300 216 | 2300 218 | 3200 306 | 3001 302 | | |
| 14 | 51A | 103 | L103 | 2202 137 | 3200 337 | 3200 336 | 3200 338 | 0401 141 | 0401 124 | 0401 120 | 0401 128 | 0401 125 | 0401 119 | 0401 119 | 3300 317 | 3300 318 | 3200 405 | 4001 461 | | |

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCATION MATRIX

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

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCATION MATRIX

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

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCATION MATRIX

| MSN SEQ NO. | STS NO. | ORB OV- | POD S/N LH | PRIMARY | | | | | | | | | | | | | | | | VERNIER | | | * CAUSE OF POSTFLIGHT REPLACEMENT |
|-------------------|------------|------------|------------------|-----------------------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|---------------|-----|-------------------------------------|---------|-----|--|---|
| | | | | LEFT HAND POD RCS THRUSTERS | | | | | | | | | | | | | | | | RH/SN | | | |
| | | | | L1L | L2L | L3L | L4L | L1U | L2U | L3U | L4U | L2D | L3D | L4D | L1A | L3A | L5L | L5D | L5A | L5B | L5C | | |
| 44 | 44 | 104 | LP01 | 5200 432 | 5200 331 | 5200 337 | 5200 238 | 5001 330 | 5001 419 | 5001 141 | 5001 328 | 5001 228 | 5001 423 | 5300 215 | 5300 418 | 7200 108 | 7001 402 | | | | | | |
| 45 | 42 | 103 | LP04 | 5200 233 | 5200 235 | 5200 133 | 5200 134 | 5001 427 | 5001 428 | 5001 122 | 5001 219 | 5001 325 | 5001 422 | 5300 217 | 5300 176 | 4200 465 | 4001 451 | | | | | | |
| 46 | 45 | 104 | LP01 | 5200 432 | 5200 331 | 5200 337 | 5200 238 | 5001 330 | 5001 419 | 5001 141 | 5001 328 | 5001 228 | 5001 423 | 5300 215 | 5300 418 | 7200 108 | 7001 402 | | | | | | |
| 47 | 49 | 105 | LP03 | 5200 334 | 5200 438 | 5200 434 | 5200 237 | 5001 326 | 5001 420 | 5001 227 | 5001 229 | 5001 120 | 5001 230 | 5300 316 | 5300 318 | 7200 305 | 4001 461 | | | | | | |
| 48 | 50 | 102 | LP05 | 5200 636 | 5200 637 | 5200 638 | 5001 635 | 5001 625* | 5001 626 | 5001 630 | 5001 627 | 5001 629 | 5001 628 | 5300 617 | 5300 618 | 7200 606 | 7001 611 | | *Fail heater | | | | |
| 49 | 46 | 104 | LP01 | 5200 432 | 5200 331 | 5200 337 | 5200 238 | 5001 330 | 5001 419 | 5001 141 | 5001 328 | 5001 228 | 5001 423 | 5300 215 | 5300 418 | 7200 108 | 7001 402 | | | | | | |
| 50 | 47 | 105 | LP03 | 5200 334 | 5200 438 | 5200 434 | 5200 237 | 5001 326 | 5001 420 | 5001 227 | 5001 229 | 5001 120 | 5001 230 | 5300 316 | 5300 318* | 7200 305 | 4001 461** | | *Fail off **Low PC | | | | |
| 51 | 52 | 102 | LP05 | 5200 636 | 5200 637 | 5200 638 | 5001 635 | 5001 575 | 5001 626 | 5001 630 | 5001 627 | 5001 629 | 5001 628 | 5300 617 | 5300 618 | 7200 606 | 7001 611 | | | | | | |
| 52 | 53 | 103 | LP04* | 5200 437 | 5200 235 | 5200 133 | 5200 134 | 5001 424 | 5001 119 | 5001 122 | 5001 126 | 5001 325 | 5001 422 | 5300 574 | 5300 573 | 4200 456 | 4001 451 | | *Pod changed out because of leak | | | | |
| 53 | 54 | 105 | LP03 | 5200 334 | 5200 438 | 5200 434 | 5200 237 | 5001 326 | 5001 420 | 5001 227 | 5001 229 | 5001 120 | 5001 230 | 5300 316 | 5300 315 | 7200 305 | 7001 455 | | | | | | |
| 54 | 56 | 103 | LP01 | 5200 432 | 5200 331 | 5200 337 | 5200 238 | 5001 330 | 5001 419 | 5001 141 | 5001 328 | 5001 228 | 5001 423 | 5300 215 | 5300 418 | 7200 108 | 7001 402 | | | | | | |
| 55 | 55 | 102 | LP05 | 5200 636 | 5200 637 | 5200 638 | 5001 635 | 5001 575 | 5001 626 | 5001 630 | 5001 627 | 5001 629 | 5001 628 | 5300 617 | 5300 618 | 7200 606 | 7001 611 | | | | | | |

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCAT N MATRIX

| PRIMARY SPEC: MC 467-0028-XXXX | | | RIGHT HAND POD RCS THRUSTERS | | | | | | | | | | | | | VERNIER | | | REC: MC 467-0029-XXXX |
|--------------------------------|------------|------------------|------------------------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|-------------|--------------|-------------|-------------|--------------|--------------|--------------------------|--|---|
| MSN SEQ NO. | STS NO. | ORB OV- RH | POD S/N RH | PRIMARY | | | | | | | | | | | | | VERNIER | | * CAUSE OF POSTFLIGHT REPLACEMENT |
| | | | | R1R | R2R | R3R | R4R | R1U | R2U | R4U | R2D | R3D | R4D | R1A | R3A | R5R | R5D | | |
| 1 | 1 | 102 | R102 | 0200 131 | 0200 133 | *134 142 | 0200 142 | 0001 119 | 0001 120 | 0001 124 | 0001 122 | 0001 123 | 0001 115 | 0300 116 | 0200 109 | 0001 101 | OX VLV LK. | | |
| 2 | 2 | 102 | R102 | 0200 131 | 0200 133 | 232 232 | 0200 142 | 0001 119 | 0001 120 | 0001 124 | 0001 122 | 0001 123 | 0001 115 | 0300 116 | 0200 109 | 0001 101 | | | |
| 3 | 3 | 102 | R102 | 0200 131 | 0200 133 | 232 232 | 0200 142 | *119 142 | 0001 *120 | 0001 *124 | 0001 122 | 0001 123 | 0001 115 | 0300 116 | 0200 109 | 0001 101 | GYPSUM CONTAMINATION. | | |
| 4 | 4 | 102 | R102 | 0200 131 | 0200 133 | 232 232 | 0200 142 | 3001 322 | 3001 323 | 3001 324 | 0001 122 | 0001 123 | 0001 115 | 0300 116 | 0200 *109 | 0001 *101 | VERNIER COATING PROBLEM. | | |
| 5 | 5 | 102 | R102 | 0200 131 | 0200 133 | 232 232 | 0700 142 | 3001 322 | 3001 323 | 3001 324 | 0001 122 | 0001 *123 | 0001 115 | 0300 116 | 3200 205 | 3001 202 | HTR/CNTRLR FAILED. | | |
| 6 | 6 | 099 | R099 | 1200 234 | 1200 235 | 233 237 | 2200 237 | 1001 225 | 1001 219 | 1001 220 | 1001 223 | 1001 230 | 1300 215 | 2300 217 | 3200 108 | 3001 102 | | | |
| 7 | 7 | 099 | R099 | 1200 234 | 1200 235 | 233 237 | 2200 237 | 1001 225 | 1001 219 | 1001 220 | 1001 223 | 1001 230 | 1300 215 | 2300 217 | 3200 108 | 3001 102 | | | |
| 8 | 8 | 099 | R099 | 1200 234 | 1200 235 | 233 237 | 2200 237 | 1001 225 | 1001 219 | 1001 220 | 1001 223 | 1001 230 | 1300 215 | 2300 217 | 3200 108 | 3001 102 | | | |
| 9 | 9 | 102 | R102 | 0200 131 | 0200 133 | 232 232 | 0200 142 | 3001 322 | 3001 323 | 3001 324 | 0001 122 | 0001 123 | 0300 115 | 0300 116 | 3200 205 | 3001 202 | | | |
| 10 | 41B | 099 | R099 | 1200 234 | 1200 235 | 233 237 | 2200 237 | 1001 225 | 1001 219 | 1001 220 | 1001 223 | 1001 230 | 1300 215 | 2300 217 | 3200 108 | 3001 *102 | COATING DEFECT. | | |
| 11 | 41C | 099 | R099 | 1200 234 | 1200 235 | 233 237 | 2200 237 | 1001 225 | 1001 219 | 1001 220 | 1001 223 | 1001 230 | 1300 215 | 2300 217 | 3200 *108 | 4001 451 | COATING DAMAGE. | | |
| 12 | 41D | 103 | R103 | 3200 335 | 3200 334 | 331 332 | 3200 332 | 3001 329 | 3001 325 | 3001 330 | 3001 327 | 3001 328 | 3300 315 | 3300 316 | 3200 406 | 3001 402 | | | |
| 13 | 41G | 099 | R099 | 1200 234 | 1200 235 | 233 *233 | 2200 237 | 1001 225 | 1001 219 | 1001 220 | 1001 223 | 1001 230 | 1300 215 | 2300 217 | 4200 466 | 4001 451 | OX VLV FAILED OPEN. | | |
| 14 | 51A | 103 | R103 | 3200 335 | 3200 334 | 331 332 | 3200 332 | 3001 329 | 3001 325 | 3001 330 | 3001 327 | 3001 328 | 3300 315 | 3300 316 | 3200 406 | 3001 402 | | | |

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCATION MATRIX

| MSN SEQ NO. | STS NO. | ORB OV- RH | POD S/N RH | PRIMARY | | | | | | | | | | | | | | | | VERNIER | | | * CAUSE OF POSTFLIGHT REPLACEMENT |
|-------------------|------------|------------------|------------------|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------------------------------|---------|-----|-----|---|
| | | | | RIGHT HAND POD RCS THRUSTERS PW/SM | | | | | | | | | | | | | | | | R3A | R5R | R5D | |
| | | | | R1R | R2R | R3R | R4R | R1U | R2U | R4U | R2D | R3D | R4D | R1A | R3A | R5R | R5D | | | | | | |
| 15 | 51C | 103 | R103 | 3200 335 | 3200 334 | 3200 331 | 3200 332 | 3200 332 | 3200 329 | 3001 329 | 3001 325 | 3001 330 | 3001 327 | 3001 328 | 3001 326 | 3001 315 | 3300 316 | 3200 406 | 3001 402 | | | | |
| 16 | 51D | 103 | R103 | 3200 335 | 3200 334 | 3200 331 | 3200 332 | 3200 332 | 3200 329 | 3001 329 | 3001 325 | 3001 330 | 3001 327 | 3001 328 | 3001 326 | 3001 315 | 3300 316 | 3200 406 | 3001 402 | | | | |
| 17 | 51B | 099 | R104 | 3200 435 | 3200 434 | 3200 431 | 3200 432 | 3200 432 | 3200 423 | 3001 423 | 3001 425 | 3001 420 | 3001 422 | 3001 424 | 3001 419 | 3001 465 | 3300 417 | 4200 454 | 4001 455 | | | | |
| 18 | 51G | 103 | R103 | 3200 335 | 3200 334 | 3200 331 | 3200 332 | 3200 332 | 3200 329 | 3001 329 | 3001 228 | 3001 330 | 3001 327 | 3001 328 | 3001 326 | 3001 315 | 3300 316 | 3200 406 | 3001 402 | | | | |
| 19 | 51F | 099 | R104 | 3200 435 | 3200 434 | 3200 431 | 3200 432 | 3200 432 | 3200 423 | 3001 423 | 3001 425 | 3001 420 | 3001 422 | 3001 424 | 3001 419 | 3001 465 | 3300 417 | 4200 454 | 4001 455 | | | | |
| 20 | 51I | 103 | R103 | 3200 335 | 3200 334 | 3200 331 | 3200 332 | 3200 332 | 3200 329 | 3001 329 | 3001 228 | 3001 330 | 3001 327 | 3001 328 | 3001 326 | 3001 315 | 3300 316 | 3200 406 | 3001 402 | | | | |
| 21 | 51J | 104 | R099 | 1200 234 | 1200 235 | 1200 438 | 2200 237 | 2200 237 | 2200 225 | 1001 225 | 1001 219 | 1001 220 | 1001 223 | 1001 230 | 1001 222 | 1300 215 | 2300 217 | 4200 466 | 4001 451 | | | | |
| 22 | 61A | 099 | RP03 | 3200 335 | 3200 334 | 3200 331 | 3200 332 | 3200 332 | 3200 329 | 3001 329 | 3001 228 | 3001 330 | 3001 327 | 3001 328 | 3001 326 | 3001 315 | 3300 316 | 4200 406 | 4001 402 | | | | |
| 23 | 61B | 104 | R099 | 1200 234 | 1200 235 | 1200 438 | 2200 237 | 2200 237 | 2200 225 | 1001 225 | 1001 219 | 1001 220 | 1001 223 | 1001 230 | 1001 222 | 1300 215 | 2300 217 | 4200 466 | 4001 451 | | | | |
| 24 | 61C | 102 | R104 | 3200 435 | 3200 434 | 3200 431 | 3200 432 | 3200 432 | 3200 423 | 3001 423 | 3001 425 | 3001 420 | 3001 422 | 3001 424 | 3001 419 | 3001 465 | 3300 417 | 4200 454 | 4001 455 | | | | |
| 25 | 51L | 099 | R102 | 0200 131 | 0200 475 | 1200 232 | 0200 142 | 0200 142 | 0200 322 | 3001 322 | 3001 323 | 3001 324 | 3001 474 | 0001 121 | 0401 123 | 3300 416 | 3200 472 | 3001 205 | 3001 202 | | | | |
| 26 | 26 | 103 | RP1 | 5200 467 | 5200 476 | 5200 335 | 5200 235 | 5200 235 | 5200 220 | 5001 221 | 5001 221 | 5001 429 | 5001 466 | 5001 228 | 5001 226 | 5300 116 | 3200 218 | 3001 405 | 3001 401 | | | | |
| 27 | 27 | 104 | RP01 | 5200 436 | 5200 332 | 5200 338 | 5200 236 | 5200 236 | 5200 419 | 5001 419 | 5001 224 | 5001 124 | 5001 428 | 5001 327 | 5001 225 | 5300 315 | 4200 466 | 7001 101 | | | | | |
| 28 | 29 | 103 | RP03 | 5200 467 | 5200 476 | 5200 335 | 5200 235 | 5200 235 | 5200 220 | 5001 221 | 5001 221 | 5001 429 | 5001 466 | 5001 228 | 5001 226 | 5300 417 | 3200 405 | 3001 401 | * Oxidiser valve failed to open. | | | | |
| 29 | 30 | 104 | RP01 | 5200 436 | 5200 332 | 5200 338 | 5200 236 | 5200 236 | 5200 419 | 5001 419 | 5001 224 | 5001 124 | 5001 428 | 5001 327 | 5001 225 | 5300 315 | 4200 466 | 7001 101 | * Oxidiser valve failed to open. | | | | |

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCATION MATRIX

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

ORBITER PROPULSION SYSTEMS
COMPONENT S/N - LOCATION MATRIX

| PRIMARY SPEC: MC 467-0028-XXXX | | | RIGHT HAND POD RCS THRUSTERS | | | | | | | | | | | | | VERIFIER SPEC: MC 467-0029-XXXX | | |
|--------------------------------|-------------------|------------------|------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|---------------------------------|-----|---|
| MSN SEQ NO. | STS ORB NO. | POD S/N RH | PRIMARY | | | | | | | | | | | | | VERIFIER | | * CAUSE OF POSTFLIGHT REPLACEMENT |
| | | | R1R | R2R | R3R | R4R | R1U | R2U | R4U | R2D | R3D | R4D | R1A | R2A | R3A | R4A | R5R | |
| 43 | 103 | RP03 | 520 467 | 520 476 | 520 335 | 520 433 | 500 497 | 500 221 | 500 429 | 500 466 | 500 220 | 500 496 | 5300 417 | 5300 216 | 3200 405 | 3001 401 | | |
| 44 | 104 | RP01 | 520 436 | 520 332 | 520 338 | 520 236 | 500 222 | 500 224 | 500 124 | 500 425 | 500 327 | 500 225 | 5300 495 | 5300 415 | 4200 466 | 7001 101 | | |
| 45 | 103 | RP03 | 520 467 | 520 476 | 520 335 | 520 433 | 500 497 | 500 221 | 500 429 | 500 466 | 500 220 | 500 496 | 5300 417 | 5300 216 | 3200 405 | 3001 401 | | |
| 46 | 104 | RP01 | 520 436 | 520 332 | 520 338 | 520 236 | 500 222 | 500 224 | 500 124 | 500 425 | 500 327 | 500 225 | 5300 495 | 5300 415 | 4200 466 | 7001 101 | | |
| 47 | 105 | RP04 | 520 137 | 520 431 | 520 336 | 520 234 | 500 426 | 500 430 | 500 329 | 500 125 | 500 421 | 500 223 | 5300 465 | 5300 317 | 7200 109 | 7001 201 | | |
| 48 | 102 | RP05 | 520 632 | 520 633 | 520 631 | 500 634 | 500 619 | 500 620 | 500 623 | 500 621 | 500 624 | 500 622 | 5300 615 | 5300 616 | 7200 605 | 7001 602 | | |
| 49 | 104 | RP01 | 520 436 | 520 332 | 520 338 | 520 236 | 500 222 | 500 224 | 500 124 | 500 425 | 500 327 | 500 225 | 5300 495 | 5300 415 | 4200 466 | 7001 101 | | |
| 50 | 105 | RP04 | 520 137 | 520 431 | 520 336 | 520 234 | 500 426 | 500 430 | 500 329 | 500 125 | 500 421 | 500 223 | 5300 465 | 5300 317 | 7200 109 | 7001 201 | | |
| 51 | 102 | RP05 | 520 632 | 520 633 | 520 631 | 520 634 | 500 619 | 500 620 | 500 623 | 500 621 | 500 624 | 500 622 | 5300 615 | 5300 616 | 7200 605 | 7001 602 | | |
| 52 | 103 | RP03 | 520 467 | 520 498 | 520 335 | 520 433 | 500 497 | 500 221 | 500 226 | 500 428 | 500 220 | 500 496 | 5300 417 | 5300 216 | 3200 405 | 3001 401 | | |
| 53 | 105 | RP04 | 520 137 | 520 431 | 520 336 | 520 234 | 500 426 | 500 430 | 500 329 | 500 125 | 500 421 | 500 223 | 5300 465 | 5300 317 | 7200 109 | 7001 201 | | |
| 54 | 103 | RP03 | 520 467 | 520 498 | 520 335 | 520 433 | 500 497 | 500 221 | 500 226 | 500 428 | 500 220 | 500 496 | 5300 417 | 5300 216 | 3200 405 | 3001 401 | | |
| 55 | 102 | RP05 | 520 632 | 520 633 | 520 631 | 520 634 | 500 619 | 500 620 | 500 623 | 500 621 | 500 624 | 500 622 | 5300 615 | 5300 616 | 7200 605 | 7001 602 | | |

QUAD CHECK VALVE FLIGHT SUMMARY

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

Notes are found on following page.

QUAD CHECK VALVE FLIGHT SUMMARY

| MEM | SEQ | STS | ORB | FORWARD REACTION CONTROL | | LEFT-HAND POD | | RIGHT-HAND POD | | POD | CV401 | CV402 | CV301 | CV302 | CV501 | CV502 |
|-----|-----|-----|------|--------------------------|---------|---------------|---------|----------------|---------|------|---------|---------|---------|---------|---------|---------|
| | | | | MO | NO | CV101 | CV102 | CV701 | CV702 | | | | | | | |
| 42 | 43 | 104 | FRCA | 4911233 | 4917555 | 4911234 | 4914104 | 4914099 | 4914106 | RP01 | 4105726 | 4914107 | 4911247 | 4914107 | 4911248 | 4914103 |
| 43 | 44 | 103 | FRC3 | 4914634 | 4911250 | 4917552 | 4914632 | 4917553 | 4917558 | RP04 | 4911247 | 4914630 | 4911247 | 4914107 | 4105757 | 4103988 |
| 44 | 44 | 104 | FRCA | 4911235 | 4917555 | 4911234 | 4914104 | 4914099 | 4914106 | RP01 | 4105726 | 4914107 | 4105726 | 4914107 | 4911248 | 4914103 |
| 45 | 44 | 103 | FRC3 | 4914634 | 4911250 | 4917652 | 4914632 | 4917553 | 4917556 | RP03 | 4911247 | 4914630 | 4911247 | 4914630 | 4105757 | 4103988 |
| 46 | 45 | 104 | FRCA | 4911235 | 4917555 | 4911234 | 4914104 | 4914099 | 4914106 | RP01 | 4105726 | 4914107 | 4105726 | 4914107 | 4911248 | 4104103 |
| 47 | 49 | 105 | FRCS | 2083044 | 2572004 | 4914100 | 4917559 | 4914636 | 4107155 | RP04 | 4105777 | 4917557 | 4105776 | 4917557 | 4105776 | 4107158 |
| 48 | 50 | 102 | FRC2 | 4911233 | 4911229 | 2083047 | 2083042 | 4105778 | 4914631 | RP05 | 2803045 | 4911237 | 2803045 | 4911237 | 4914101 | 4105756 |
| 49 | 46 | 104 | FRCA | 4911235 | 4917555 | 4911234 | 4914104 | 4914099 | 4914106 | RP01 | 4105726 | 4914107 | 4105726 | 4914107 | 4911248 | 4104103 |
| 50 | 47 | 105 | FRCS | 2083044 | 2572004 | 4914100 | 4917559 | 4914636 | 4107155 | RP04 | 4105777 | 4917557 | 4105777 | 4917557 | 4105776 | 4107158 |
| 51 | 52 | 102 | FRC2 | 4911233 | 4911229 | 2083047 | 2083042 | 4105778 | 4914631 | RP05 | 2083045 | 4911237 | 2083045 | 4911237 | 4914101 | 4103988 |
| 52 | 53 | 103 | FRCA | 4914634 | 4911250 | 4917552 | 4914632 | 2187401 | 4917556 | RP03 | 4911247 | 2083045 | 4911247 | 2083045 | TBD | 4107158 |
| 53 | 54 | 105 | FRCS | 2083044 | 2572004 | 4914100 | 4917559 | 4914636 | 4107155 | RP04 | 4105777 | 4917557 | 4105777 | 4917557 | 4105776 | 4103988 |
| 54 | 56 | 103 | FRCA | 4914634 | 4911250 | 4911234 | 4914104 | 4914099 | 4914106 | RP03 | 4911247 | 2083045 | 4911247 | 2083045 | TBD | 4103988 |
| 55 | 55 | 102 | FRC2 | 4911233 | 4911229 | 2083047 | 2083042 | 4105778 | 4914631 | RP05 | 2083045 | 4911237 | 2083045 | 4911237 | 4914101 | 4105756 |

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

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 = BRCS fuel quad check valve
 CV302 = BRCS oxid quad check valve
 CV401 = LRWS fuel quad check valve
 CV402 = LRWS oxid quad check valve
 CV501 = RWWS fuel quad check valve
 CV502 = RWWS oxid quad check valve

LV01 = E112; Originally delivered with OV102
 LV01 = E122; Originally delivered with OV102
 RP01 = E111; Originally delivered with OV099
 RP01 = E121; Originally delivered with OV099
 RP03 = E113; Originally delivered with OV103
 RP03 = E123; Originally delivered with OV103
 RP04 = E114; Originally delivered with OV104
 RP04 = E124; Originally delivered with OV104
 RP05 = E115; Delivered with OV105
 RP05 = E125; Delivered with OV105

a S/W 4911247 replaced with S/W 4911248 in 1984 (excessive reverse leakage). (Ref CAR# AC8256)
 b Destroyed 51-L 1/28/86
 c Destroyed 51-L 1/28/86. S/W 4911234 replaced with S/W 4100920 in 1985 (excessive reverse leakage). (Ref CAR# AD0380)
 d S/W 4914101 replaced with S/W 4911247 in 1986 (excessive reverse leakage). (Ref CAR# AD0858)
 e S/W 4105727 replaced with S/W 4100988 in 1986 (excessive reverse leakage). (Ref CAR# AD0920)
 f S/W 4914100 replaced with S/W 4911234 in 1988 (high cracking pressure). (Ref CAR# AD1956)
 g S/W 4914107 replaced with S/W 4914104 in 1988 (excessive reverse leakage). (Ref CAR# KB0182)
 h S/W 4917559 replaced with S/W 4105727 in 1988 (excessive reverse leakage). (Ref CAR# KB0390)
 i S/W 4103990 replaced with S/W 4914098 in 1989 (excessive reverse leakage). (Ref CAR# KB03XX)
 j S/W 4917560 replaced with S/W 4914100 in 1991 (excessive reverse leakage). (Ref PR LP03-AD018)
 k S/W 4105727 replaced with S/W 4917559 in 1991 (low cracking pressure). (Ref PR LP03-12-0316)
 l S/W 4914098 replaced with S/W 4914636 in 1991 (excessive reverse leakage). (Ref PR LP03-12-0318)

OPRSD FILE IX REQUIREMENT HISTORY

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

Data provided by VF5/MIP Group

DATA SOURCES

NASA/JSC

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

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

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

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

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

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

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

Landing Performance Chart -
Mechanical Systems Branch/ES6

NASA/MSFC

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

Rockwell International Corporation, Downey, CA.

Postflight Summaries, STS-1 and subsequent missions

STS Press Information Book with Mission Supplements

Lockheed Support Operations Company, KSC, FL.

Tire/Wheel and Brake Serial Number Data

Lockheed Engineering and Sciences Company, Houston, TX

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

SHUTTLE IN-FLIGHT ANOMALY LIST

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

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

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

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

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

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

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

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

ORBITER SYSTEMS WORK UNIT CODE INDEX

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

ORBITER IN-FLIGHT ANOMALIES FOR THE FLEET

(a) OV-102 Vehicle - Columbia

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

(d) OV-104 Vehicle - Atlantis

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

(b) OV-099 Vehicle - Challenger

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

(e) OV-105 Vehicle - Endeavour

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

(c) OV-103 Vehicle - Discovery

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

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

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

**INFLIGHT ANOMALY LIST
BY WUC**

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

**INFLIGHT ANOMALY LIST
BY WUC**

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

INFLIGHT ANOMALY LIST
BY WUC

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

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

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

^aAppears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

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

^aAppears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

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

^aAppears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

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

^aAppears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

| <u>FLIGHT/ELEMENT/NUMBER</u> | <u>NOMENCLATURE</u> |
|------------------------------|---|
| STS-7/SSME/1 | ME-3 OPOV LOX supply line skin temp drift |
| STS-7/SSME/2 | Cracks found in HPFT bolt-hole circle |
| STS-8/ET/1 | Low LO ₂ ullage pressure transducer readings |
| STS-8/MPS/1 | LO ₂ 99.85-percent level meas failure |
| STS-8/MPS/2 ^a | ME-2 GH ₂ press supply press failure |
| STS-8/MPS/3 | ME-2 LH ₂ 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 frustu release |
| STS-8/SRB/7 | RGA yaw inconsistencies during flight |
| STS-8/SRB/8 | Low frequency longitudinal vibration exceedance on the aft IEA during boost |
| STS-8/SRB/9 | LH SRB flashing light failed before impac |
| STS-8/SSME/1 | ME-1 LOX ASI supply line failure |
| STS-8/SSME/2 | ME-1 HPFTP turbine disc temp decay |
| STS-8/SSME/3 ^a | ME-1 MFV skin temp meas failure |
| STS-8/SSME/4 | Fuel flow oscillations at lower power levels |
| STS-9/ET/1 | Nose cone temp meas failure |
| STS-9/MPS/1 ^a | H ₂ leakage at T-0 umbilical disconnect |
| STS-9/MPS/2 ^a | GH ₂ FCV no. 1 did not fully open |
| STS-9/MPS/3 | LO ₂ tank ullage press slump |
| STS-9/MPS/4 | LH ₂ ET/Orbiter interface temperature exceedance |
| STS-9/SRB/1 | Aft BSM heat seal rings broken away |
| STS-9/SRB/2 | Main chute canopy damage |
| STS-9/SRB/3 | Aft skirt shoe shim ejected at lift-off |
| STS-9/SRB/4 | SRM violation of thrust imbalance design limits (waiver RWW-099 R1) |
| STS-9/SRB/5 | Three APU's experienced hydrazine line failure during descent |
| STS-9/SRB/6 | Eight O-rings on electrical cable connectors missing causing saltwater damage |
| STS-9/SSME/1 | ME-1 LPOTP disc press Ch B meas failure |

^aAppears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

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

^aAppears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

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

^aAppears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

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

^aAppears in JSC list also.

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

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

MSFC FLIGHT PROBLEMS (Continued)

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

MSFC FLIGHT PROBLEMS (Continued)

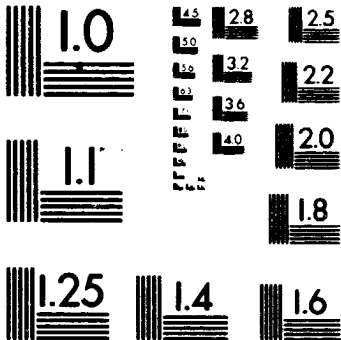
FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

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

MSFC FLIGHT PROBLEMS (Continued)

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



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

HSFC FLIGHT PROBLEMS (Continued)

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

MSFC FLIGHT PROBLEMS (Continued)

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

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

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

MSFC FLIGHT PROBLEMS (Continued)

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

MSFC FLIGHT PROBLEMS (Continued)

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

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

| | |
|------------|--|
| STS-34-M-2 | Left SRM factory joint weatherseal forward edge unbonds. Postflight operations at KSC revealed on left SRM indications of forward edge unbonds in two locations: forward segment dome-to-cylinder factory joint and the forward center segment factory joint weatherseals. |
| STS-34-M-3 | Putty on right SRM igniter outer gasket and left SRM igniter outer gasket retainer. Putty was found up to the aft face of the outer primary gasket and into the seal void/gland area, between 234 and 5 degrees of the right SRM igniter. Also, putty was found on the aft face of the gasket retainer (0.11" max) and under the retainer from 262 to 297 deg of the left SRM. |
| STS-34-M-4 | Left SRM center field joint aft side unbond of K5NA closeout. A 5" circumferential unbond of the K5NA closeout (located at the 0 deg radial location) was noted on the aft edge of the left SRM center field joint. The unbond is from the JPS cork as well as the motor case wall. |
| STS-34-M-5 | Left and right SRM aft dome EPDM blisters. Blisters were found on the aft dome carbon-filled EPDM of both SRMs to varying levels. |
| STS-33-B-1 | Right SRB missing epon shim material from HDP 3. An area of epon shim material, from the bottom of the right SRB HDP 3, was observed falling off during the launch. |
| STS-33-B-2 | Right SRB HDP 3 stud hang up and broaching. The right SRB holddown stud at HDP 3 hung up during liftoff, resulting in broaching and thread impressions on the bore inside diameter. |
| STS-33-B-3 | Left SRB ETA ring aft IEA end cover and cables sooted. The left SRB ETA ring aft IEA end cover experienced hot gas flow (aft to forward) through its interior from the tunnel side, resulting in sooting and varying degrees of heat exposure to 16 operational flight reusable cables. |

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

| | |
|------------|--|
| STS-33-B-4 | During postflight deservicing of the right SRB TVC, a loose fuel isolation valve mounting fastener was found. The fastener has backed out 3/16 inch. |
| STS-32-B-1 | During postflight inspection at KSC, both left and right SRB's were noted as missing some of their EPDM and Q3-6077 materials from the upper strut location. |
| STS-32-B-2 | During postflight inspection of the left SRB ETA Ring, six of the Hi-Lok fasteners which connect the web to cap were found protruding into the ETA Ring cover for the aft IEA. |
| STS-32-B-3 | During postflight disassembly, the left SRB strut fairing (milk-can) was found with a broken fastener following TPS removal. The broken fastener is one of four that are used to install the SRB end of the upper strut. |
| STS-32-E-1 | During postflight inspection of ME-2 (S/N 2022), a 5/64" diameter MCC debond was located in the aft region between adjacent feedslots and in line with nozzle tube number 664. |
| STS-32-E-2 | During postflight inspection of ME-3 (S/N 2022), a 5/64" diameter MCC debond was noted 2" out from the throat area at the 6:00 o'clock position. |
| STS-32-E-3 | During postflight inspection of ME-1 (S/N2024), a MCC gouge was noted 6 inches out from the throat area at the 6:00 o'clock position. |
| STS-32-M-1 | During postflight inspection of the right SRM safe and arm gasket, a small depression was found in the crown of the secondary seal aft face. |
| STS-32-M-2 | During the postflight assessment of the right SRM igniter inner gasket, raised areas of rubber were found along both sides of the gasket on the outer primary seals. |
| STS-32-T-1 | Photographic review of the umbilical well camera film identified an unusual TPS pattern (18" X 24") as missing from the left forward bipod strut attach point on the intertank. |

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

| | |
|------------|---|
| STS-36-B-1 | During postflight inspection of the left SRB, a frustum separation pin from the ordnance ring was found embedded in the forward side of the ETA Ring instafoam between the -Y and -Z axes. |
| STS-36-B-2 | During removal of the main parachute 3 deployment bag from the left SRB frustum, a nut was noted missing from the third restraint link bolt (from inboard) along the top of the Main Parachute Support Structure (MPSS) isogrid panel nearest the -Z axis. |
| STS-36-B-3 | During postflight inspection of the right SRB aft skirt, a missing safety wire was found from a "B" nut on the GN2 purge tube assembly. |
| STS-36-B-4 | The first stage (7-second) reefing line cutter, located at gore 45 of the left SRB drogue parachute (S/N 3036) did not fire. |
| STS-36-B-5 | During postflight inspection of both the left and right SRB ETA Rings, several cable tie-wraps were found disengaged from the electrical cable assemblies. |
| STS-36-B-6 | During postflight inspection of the right SRB ETA Ring, an area of cork approximately 5.5" X 3.0" was noted as missing from the aft side, located at the center of the web (+Z axis). |
| STS-36-B-7 | During postflight inspection of the right SRB frustum, the MSFC Trowellable Ablator 2 (MTA-2) was found with voids at 16 ramp locations. |
| STS-36-M-1 | During postflight inspection of the right SRM igniter outer joint, a small area of pitting was observed on the I.D. of the forward dome boss and on the O.D. of the igniter chamber at 175 degrees. Also, cadmium plating was damaged on the gask-o-seal at the same location. |
| STS-36-M-2 | During postflight inspection of the left SRM igniter, a material separation was observed on the I.D. of the igniter adapter plug secondary o-ring. The separation measured approximately 0.700" in length (33% of o-ring circumference), by 0.045" in depth, at a 45 degree angle from the tangential plane of the surface. |

MSFC FLIGHT PROBLEMS (Continued)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

| | |
|------------|---|
| STS-31-B-1 | The left SRB aft IEA was dislocated from ETA Ring at water impact. |
| STS-31-B-2 | A varying reduction of preload in fasteners existed at the frustum-to-ordnance ring interface on the left (20 of 296) and right (all) SRB's. |
| STS-31-B-3 | The RSS crossover bracket on both SRB's is sooted around the P2 connector jam nut. Also, ballooning of the heat shrink tubing was observed on one cable in the right SRB RSS transition housing. |
| STS-31-B-4 | The left SRB aft skirt was missing several areas of K5NA over MTA-2 and MTA-2 over MTA-2 (ranging from 4" X 10" to 5/8" X 5/8"). |
| STS-31-E-1 | During the STS-31 launch (hard-line data), three HPOTP strain gages indicated erroneous data. |
| STS-31-E-2 | During the postflight boroscope inspection of main engine 2, the pump-end turbine outboard static seal was determined to be broken and protruding from the seal groove at the 10:30-0-clock position. |
| STS-31-M-1 | During the postflight inspection of the right SRM nozzle, the cowl/outer boot ring joint was separated, showing a gap of 1.8" at 216 degrees decreasing to 0" at 120 degrees. |
| STS-41-E-1 | During a postflight leak check on the main engine 1 powerhead, a Class II leak was found in the main injector ASI system. |
| STS-41-M-1 | During the postflight inspection of both the left and right SRM igniters, the outer joints were found to have a blow-hole in the putty. Also, cadmium plating damage and sooting was observed. |
| STS-41-M-2 | Abnormal erosion of the internal insulation (at the forward edge) was observed in both the left and right SRM aft dome-to-stiffener and stiffener-to-stiffener factory joints. |
| STS-38-B-1 | Photographic analysis identified debris exiting from the base region of both SRB's during the period from lift-off + 26 to 40 seconds. |
| STS-38-B-2 | The forward face of the right SRB ETA attachment ring had two areas of Instafoam missing. |

MSFC FLIGHT PROBLEMS (Continued)

| <u>FLIGHT/ELEMENT/NUMBER</u> | <u>NOMENCLATURE</u> |
|------------------------------|---|
| STS-35-B-1 | The three right SRB main parachutes failed to disconnect at water impact. |
| STS-35-M-1 | During the follow-on postflight inspection of the left RSRM nozzle joint 3 at TC, a 1.5-inch gas path was observed through an RTV void at 195°, resulting in heat effects to the CCP surface and sooting to the primary O-ring. |
| STS-35-T-1 | During photographic review of the STS-35 astronaut's pictures of the ET in-flight, 10 circular TPS divots were observed on the Intertank-to-Hydrogen flange. |
| STS-37-B-1 | Left SRB forward skirt skin panel (aft end) buckled on both sides of the systems tunnel (-Y axis). |
| STS-37-M-1 | Postflight inspection of right RSRM S&A gasket revealed missing cadmium plating in several areas (aft and forward faces) from the retainer inside diameter to the primary seal cushion. |
| STS-37-M-2 | Postflight inspection revealed case wall of the forward RSRM segment deflected inward. |
| STS-39-E-1 | Main engine 3 HPOTP secondary seal cavity pressure transducer anomaly (LCC violation). |
| STS-39-M-1 | Excess erosion on right RSRM nozzle cowl and outer boot ring. |
| STS-40 | No anomalies. |
| STS-43-B-1 | The left SRB holddown stud at HDP 7 hung up during lift-off, resulting in broaching along the aft edge of the aft skirt hole (on the inboard side) and thread impressions on the bore inside diameter. |
| STS-43-E-1 | During the first launch countdown attempt of STS-43 (07-24-91), the ME-3 controller (F21) experienced a DCU channel A hold without a power loss prior to LO ₂ replenish. |
| STS-43-E-2 | During the post STS-43 disassembly inspections at Canoga Park, a first stage turbine blade stop tab fracture was found on ME-2 (engine 2012) HPFTP 4007R3. |
| STS-48-B-1 | During SRB recovery operations, retrieval personnel noticed that the BSM aeroheat shield/hinge assembly and cover (located on the upper right position of the BSM cluster) was missing from the left SRB. |

MSFC FLIGHT PROBLEMS

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

| | |
|------------|---|
| STS-48-B-2 | During postflight inspection of the right SRB lower strut, a black mark with flow lines was observed at the ET/SRB strut segment interface. |
| STS-44-B-1 | During the SRB recovery operations, the retrieval team reported structural damage to the left SRB forward skirt, systems tunnel, and ETA ring. |
| STS-44-B-2 | During lift-off of the STS-44 mission, tensile strains were recorded from the right SRB aft skirt post 4 critical welds which measured outside the maximum tensile strain data base. |
| STS-44-B-3 | During postflight inspection of the left SRB ETA ring, the aft BSM system A firing line cable connector was found with two recessed socket contacts. |
| STS-44-E-1 | An MCC pressure measurement bias (Ch A - Ch B = -35 psi) existed on ME-2 (Engine 2030) over the mainstage interval between engine start command (ESC) and 270 seconds. |
| STS-44-M-1 | During the retrieval and postflight assessment of the left RSRM, varying degrees of structural damage were observed on the forward and forward center segments, as well as the aft and forward flanges |
| STS-42-T-1 | After E1 separation from the Orbiter, the crew took pictures exhibiting two possible divots in the intertank foam acreage. |
| STS-42-M-1 | During postflight inspection of both the left and right RSRM nozzle-to-case joints, gas paths were observed through the polysulfide adhesive with erosion and sooting of the wiper o-rings. Gas penetration on the left side was more extensive as blowby was observed at the wiper o-ring. |
| STS-45 | None. |
| STS-49 | None. |
| STS-50-M-1 | During the postflight inspection of the left RSRM center forward segment TPS, three areas of cork were recorded as missing on the aft Ground Environment Instrumentation (GEI) cork run (station 1099) at the 180, 186, and 192 degree locations. |

MSFC FLIGHT PROBLEMS (Concluded)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

| | |
|------------|---|
| STS-50-E-1 | During the SSME postflight data review of ME-3 (Engine 2011), it was determined that the HPFTP discharge pressure spiked to -10,600 psia at engine start + 219.46 seconds and immediately recovered. |
| STS-50-T-1 | During postflight review of the ET-50 umbilical film and photographs, two areas of damage were observed at the forward bipod. |
| STS-46 | No IFA's |
| STS-47-T-1 | During postflight review of the Orbiter umbilical camera film, a 14 to 16 inch divot was observed on the intertank TPS between the left and right bipods. |
| STS-47-E-1 | During the STS-47 SSME start and mainstage phases, the ME-1 (E-2026) HPOTP secondary turbine seal cavity pressure (Channel A) exhibited numerous downward spikes. |
| STS-52 | No IFA's. |
| STS-53-E-1 | At engine start + approx 18.14 seconds, SSME-1 (E-2024) registered a Failure Identification (FID) on Channel B of the HPOTP SSC pressure measurement. Data spiking of the measurement was first observed at engine start + 5 seconds and continued until engine shutdown. |
| STS-53-E-2 | At engine start + 2.9 seconds, the SSME-1 (E-2024) LPFTP discharge temperature channel A exhibited a single negative spike. |
| STS-54-M-1 | During the postflight data evaluation of the right RSRM, a spike was observed in the measured chamber pressure at 67.5 seconds after T-zero. |
| STS-54-E-1 | During the postflight data evaluation of SSME-1 (E-2019), HPOTP (U/N 9409) indicated higher levels of vibration than expected. |
| STS-54-E-2 | At engine start + 85.6 seconds, channel A of SSME-3 (E-2018) HPOTP SSC pressure measurement exhibited a single negative spike of 0.6 psia. |
| STS-56-T-1 | A postflight review of the astronauts' hand-held camera film revealed approximately 10 rather large and unique divots of the E-54 intertank acreage (-Z axis). |

MSFC FLIGHT PROBLEMS (Concluded)

FLIGHT/ELEMENT/NUMBER

NOMENCLATURE

| | |
|------------|--|
| STS-56-M-1 | During postflight inspection of the left RSRM nozzle-to-case joint, a small, axial scratch was observed on the aft dome bass primary sealing surface at 55.8 degrees. |
| STS-56-B-1 | The left SRB aft skirt HDP5 plunger and spring escaped from the debris containment device (DCD) at lift-off. |
| STS-56-E-1 | During the propellant loading on 4-6-93 and 4-8-93, both of the SSME-1 (E-2024) anti-flood valve (AFV) skin temperature measurements read 60 to 70 °F warmer than usual. |
| STS-55-E-1 | During the first launch attempt (3-24-93), a redline exceedance of the oxidizer preburner purge system occurred at engine start + 1.44 seconds on SSME-3 (E-2011). The anomaly resulted in an on-pad abort of the mission by the RSLs. |
| STS-55-E-2 | During ascent, the SSME-3 (E-2011) HPFTP MCC coolant liner pressure exhibited unusual fluctuation of up to 110 psid. |

ORBITER ATTITUDE TIMELINE

This section consists of data derived from the as-flown Orbiter attitude timelines and crew activity plans for each mission. The data are presented in chart form that show the progression of the mission from launch to entry interface with the varying Orbiter attitudes (roll, pitch, and yaw) and the time duration in each attitude. The chart also shows the Orbiter's velocity vector, i.e. which of the Orbiter's body axes is pointing forward along the orbital path.

The Beta angle, the angle between the sun vector and the orbital plane, is also shown for each 12-hour period of the mission.

The attitude data are omitted for certain Orbiter attitudes, such as passive thermal control (PTC) and solar inertial (SI), because during these maneuvers the Orbiter's attitude is constantly changing. Maneuvers that are generally of short duration, e.g. inertial measurement unit alignments, are also omitted from this chart.

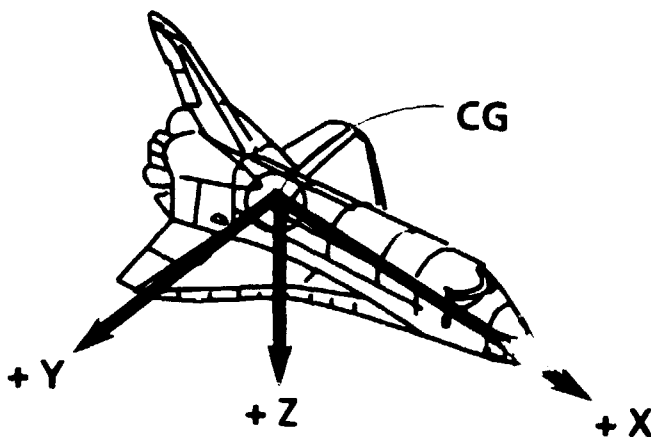
The deployment of satellites is noted on the timeline as are certain other activities.

Charts for the STS-9, STS 41-G, and STS 51-F missions are not available for this issue, but will be added in the next revision.

The attitudes in this section are defined with respect to the Shuttle Orbiter body axes, as opposed to the Shuttle Orbiter structural dimensional axes.

- a. The origin is at the Orbiter's center of gravity (c.g.).
- b. The positive X-axis extends from the c.g. forward through the nose of the vehicle parallel to the structural X-axis.
- c. The Z-axis is parallel to the Orbiter plane of symmetry and is perpendicular to the X-axis. The Z-axis is positive down with respect to the Orbiter fuselage.
- d. The Y-body axis completes the right-hand orthogonal system, +Y is to the right.

BODY AXES



The following is a list of abbreviations and acronyms used in this section:

ATT Attitude

DUR Duration

LV Local Vertical

MET Mission Elapsed Time

SI Solar Inertial

VV Velocity Vector

$\beta \Delta$ Beta angle, angle between the sun vector and the orbital plane.

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.

BOLDOUT FRAME

| | | | | | | | | |
|-----------------|-----|-------|-------|-------|-------|-------|-------|-------------------|
| MISSION SEQ NO. | 1 | PTC | -25.1 | -23.8 | -22.4 | -20.8 | -19.4 | -18.5 |
| STS NO. | 1 | ATT | -ZLV | | +XLV | PTC | -ZLV | -XS1 -ZS1 E153 42 |
| ORBITER OV- | 102 | VV | -X | | +Z | | -X | |
| OMS PODS | | DUR | 21 25 | 3 20 | 2 15 | 14 40 | 1 59 | 3 02 |
| PORT | 102 | ROLL | 0 | 185 | | 0 | 163 | 0 5 0 |
| STBD | 102 | PITCH | 180 | 267 | | 180 | | 0 5 68 |
| | | YAW | 0 | 2 | | 0 | | |

| | | | | | | | | | |
|-----------------|-----|-------|-----------------|-------|-------|-------|-------|-------|------|
| MISSION SEQ NO. | 3 | PTC | -34.0 | -34.9 | -35.5 | -35.9 | -36.1 | -36.1 | -35. |
| STS NO. | 3 | ATT | -X SUN ORB RATE | | PTC | | METS | | |
| ORBITER OV- | 102 | VV | -ZLV +X +Y | | | | | | |
| OMS PODS | | DUR | 1 33 4 09 | 2 15 | 2 17 | 11 27 | | | |
| PORT | 102 | ROLL | 180 | 238 | 0 180 | | | | |
| STBD | 102 | PITCH | 0 | 266 | 0 0 | | | | |
| | | YAW | 0 | 358 | | | | | |

| | | | | | | | | |
|-----------------|--|-------|-------|-------|-------|-----------|----------|--|
| MISSION SEQ NO. | | PTC | -27.7 | -26.0 | | | | |
| STS NO. | | ATT | -ZS1 | | PTC | -XS1 -ZS1 | E1191 34 | |
| ORBITER OV- | | VV | | | | | | |
| OMS PODS | | DUR | | | 2 48 | 2 45 | | |
| PORT | | ROLL | 0 90 | | 0 176 | 0 90 | | |
| STBD | | PITCH | 0 0 | | 0 175 | 0 0 | | |
| | | YAW | | | | | | |

| | | | | | | | | | | | | |
|-----------------|-----|-------|------|------|-------|-----------|------|-----------|------|-------|-------|-------|
| MISSION SEQ NO. | 4 | PTC | -1.1 | +0.2 | +0.8 | +1.9 | +3.2 | +4.7 | +6. | | | |
| STS NO. | 4 | ATT | -ZLV | +XLV | +ZS1 | -ZLV -ZS1 | +XSV | -ZLV -ZS1 | +XS1 | +ZS1 | | |
| ORBITER OV- | 102 | VV | -Y | +Y | +Y | | +Y | +Y | | | | |
| OMS PODS | | DUR | 4 15 | 2 32 | 10 51 | 3 06 | 6 46 | 12 00 | 4 18 | 7 01 | 22 47 | |
| PORT | 102 | ROLL | 0 | 249 | 0 90 | 0 | 245 | 0 | 0 90 | 0 90 | 0 90 | |
| STBD | 102 | PITCH | 192 | 268 | 0 145 | 192 | 30 | 268 | 192 | 0 180 | 0 180 | 0 180 |
| | | YAW | 90 | 358 | | 90 | | 358 | 90 | | | |

MI
SE
ST
OR
C
PC
ST

BOEING FRAME

2

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.

1 (STS-1), 2 (STS-2), 3 (STS-3) AND 4 (STS-4)

| | | | | | | |
|------------|-------|-------|-------|-------|---------|------|
| | -51.4 | -50.2 | -48.7 | -47.1 | -45.3 | |
| TIME | 12 | 24 | 36 | 48 | 60 | |
| ROLL | -ZLV | | | | -XS1 | -ZS1 |
| PITCH | | | | | E153+35 | |
| YAW | -X | | | | | |
| ROLL RATE | 46.06 | | | | 3.07 | 2.31 |
| PITCH RATE | 180 | | | | 0.178 | 90 |
| YAW RATE | 0 | | | | 0.166 | 0 |
| ROLL ACC | 0 | | | | | |

| | | | | | | |
|------------|-------|-------|-------|-------|-------|-------|
| | -34.9 | -34.2 | -33.3 | -32.2 | -30.9 | -29.3 |
| TIME | 96 | 108 | 120 | 132 | 144 | 156 |
| ROLL | | | | -ZS1 | PTC | |
| PITCH | | | | | | -ZS1 |
| YAW | | | | 27.16 | 11.19 | 0.30 |
| ROLL RATE | | | | 0.90 | | 0.90 |
| PITCH RATE | | | | 0.0 | | 0.0 |
| YAW RATE | | | | | | |
| ROLL ACC | | | | | | |

| | | | | | | |
|------------|-------|-------|-------|-------|-------|--------|
| | +9.6 | +11.2 | +12.9 | +15.0 | +16.9 | +20.5 |
| TIME | 96 | 108 | 120 | 132 | 144 | 156 |
| ROLL | -XS1 | | | | PTC | |
| PITCH | | | | | -XS1 | -ZS1 |
| YAW | | | | | | 116.40 |
| ROLL RATE | 60.42 | | | | 12.19 | 4.34 |
| PITCH RATE | 0.177 | | | | | 0.176 |
| YAW RATE | 0.352 | | | | | 0.178 |
| ROLL ACC | | | | | | 0 |

FOLDOUT FRAME

| | | | | | | | | | | |
|-----------------|-----|--------------------|-------|-------|-------|---------|-------|-------------------|-------|-------|
| MISSION SEQ NO. | 5 | # ₁ MET | | -25.9 | -24.1 | -22.3 | -20.3 | -18.4 | -16.5 | -14.7 |
| STS NO. | 5 | ATT | -ZLV | -ZLV | -ZLV | | | +YSI | | |
| ORBITER OV- | 102 | VV | +X | +X | +X | | | | | |
| OHS PODS | | DUR | 2h 05 | 3h 56 | 2h 22 | | | 4h 49 | | |
| PORT | 102 | ROLL | 210 | 180 | 180 | | | 0 _s 90 | | |
| STBD | 1C2 | PITCH | 0 | 0 | 0 | | | 0 _s 90 | | |
| | | YAW | 0 | 0 | 0 | | | | | |
| | | DEPLOYS | SBS | | | TELESAT | | | | |

| | | | | | | | | | | |
|-----------------|-----|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| MISSION SEQ NO. | 6 | # ₁ MET | | -21.6 | -21.9 | -21.7 | -21.9 | -21.9 | -21.8 | -21.5 |
| STS NO. | 6 | ATT | -ZLV | -ZLV | -ZLV | | | -ZLV | | -ZLV |
| ORBITER OV- | 099 | VV | +Y | +X | +X | | | +Y | | +X |
| OHS PODS | | DUR | 4h 24 | 4h 07 | 4h 45 | | | 2h 50 | | 6h 1 |
| PORT | 099 | ROLL | 180 | 180 | 180 | | | 180 | | 180 |
| STBD | 099 | PITCH | 0 | 0 | 0 | | | 0 | | 0 |
| | | YAW | 0 | 0 | 0 | | | 270 | | 0 |
| | | DEPLOYS | TORS | | | | | | | |

| | | | | | | | | | | |
|-----------------|-----|--------------------|-------------|-------|-------|-------|-------|-------|-------|-------|
| MISSION SEQ NO. | 7 | # ₁ MET | | +17.5 | +19.1 | +21.1 | +23.2 | +25.2 | +27.2 | +29.3 |
| STS NO. | 7 | ATT | -ZLV | -ZLV | | -ZLV | | | | |
| ORBITER OV- | 099 | VV | +X | +X | | +X | | | | |
| OHS PODS | | DUR | 3h 02 | 3h 39 | | 5h 24 | | | | |
| PORT | 099 | ROLL | 180 | 180 | | 180 | | | | |
| STBD | 099 | PITCH | 0 | 0 | | 0 | | | | |
| | | YAW | 0 | 0 | | 0 | | | | |
| | | DEPLOYS | ANIK PALAPA | | | | | | | |

| | | | | | | | | | | |
|-----------------|-----|--------------------|-------|-------|--|-------|--------------------|--|-------|--|
| MISSION SEQ NO. | 8 | # ₁ MET | | +36.4 | | +37.0 | | | +36.6 | |
| STS NO. | 8 | ATT | | -ZLV | | -ZLV | -XSI | | -ZLV | |
| ORBITER OV- | 099 | VV | | +X | | +X | ORB RATE | | +X | |
| OHS PODS | | DUR | | 2h 36 | | 7h 53 | 1h 50 | | 3h 30 | |
| PORT | 099 | ROLL | | 180 | | 180 | 0 _s 180 | | 180 | |
| STBD | 099 | PITCH | | 0 | | 0 | 0 _s 0 | | 0 | |
| | | YAW | | 0 | | 0 | | | 0 | |
| | | DEPLOYS | INSAT | | | | | | | |

BOLDOUT FRAME

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.

5 (STS-5), 6 (STS-6), 7 (STS-7) AND 8 (STS-8)

| -10.9 | | -9.1 | | -7.4 | |
|-------|--------------------|------|----------|------|--|
| 108 | | 120 | | 132 | |
| PTC | -XS1 | -ZS1 | E1121-44 | | |
| 11:12 | 3:35 | 2:17 | | | |
| | 0 _S 176 | 70 | | | |
| | 0 _S 175 | 0 | | | |

| -20.4 | | -19.7 | | -18.8 | |
|-------|--------------------|----------|--|-------|--|
| 108 | | 120 | | 132 | |
| | -XS1 | E1119-43 | | | |
| | 2:39 | | | | |
| | 0 _S 172 | | | | |
| | 0 _S 152 | | | | |

| +33.3 | | +35.3 | | +37.2 | | +39.1 | | +40.9 | |
|-------|-------|-------|-------|--------------------|--------------------|----------|--|-------|--|
| 108 | | 120 | | 132 | | 144 | | 156 | |
| -XLV | -ZLV | -ZLV | -ZLV | -XS1 | -YS1 | E1148-48 | | | |
| +Z | +X | +X | +X | | | | | | |
| 8:27 | 18:28 | 4:48 | 10:09 | 4:54 | 2:45 | | | | |
| 0 | 180 | 0 | 180 | 0 _S 176 | 0 _S 47 | | | | |
| 90 | 0 | 180 | 0 | 0 _S 179 | 0 _S 296 | | | | |
| 0 | 0 | 0 | 0 | | | | | | |

| +33.4 | | | +30.9 | | | +29.4 | | |
|-------|-------|------|-------|--------------------|----------|-------|--|--|
| 108 | | | 120 | | | 132 | | |
| -ZLV | -XLV | -ZLV | +XLV | SI | E1148-38 | | | |
| +X | -Z | +X | -Z | -X | | | | |
| 11:47 | 11:48 | 3:13 | 21:08 | 2:56 | | | | |
| 180 | 0 | 180 | 0 | 0 _S 188 | | | | |
| 0 | 270 | 0 | 270 | 0 _S 0 | | | | |
| 0 | 0 | 0 | 0 | | | | | |

FOLDOUT FRAME

| | | | | | | | | | | | | | | | |
|-----------------|------|---------|-------|------|-------|------|-------|--------|-------|---------------|-----------------|--|-------|--|-----|
| MISSION SEQ NO. | 9 | MET | -41.8 | | -44.2 | | -46.6 | | -49.1 | | -51.6 | | -54.0 | | -56 |
| STS NO. | 9 | ATT | 12 | | 24 | | 36 | | 48 | | 60 | | 72 | | |
| ORBITER OV- | 102 | VV | -XLV | -ZLV | -XLV | -ZLV | | ROTR | | COLD TEST ROT | MISC. ATTITUDES | | | | |
| OMS PODS | | DUR | Y | X | Z | -X | | | | | | | | | |
| PORT | LV01 | ROLL | 7:30 | 5:04 | 5:27 | 5:11 | | 6:42 | | 13:05 | | | | | |
| STBD | RV01 | PITCH | 90 | 100 | 0 | 0 | | 335.78 | | 267 | | | | | |
| | | YAW | 90 | 0 | 90 | 100 | | 66 | | 66 | | | | | |
| | | DEPLOYS | 0 | 0 | 0 | 0 | | 22 | | 22 | | | | | |

*MISCELLANEOUS SHORT TERM ATTITUDES TO COMPLETE DTO'S. SEE REAL TIME

| | | | | | | | | | | | | | | | |
|--|---------|--------|--|-----------------|--|-------|--|-------|--|-------|--|-------|--|------|---------|
| | MET | -76.5 | | -78.0 | | -79.0 | | -79.5 | | -79.4 | | -78.7 | | | |
| | ATT | 180 | | 192 | | 204 | | 216 | | 228 | | 240 | | 252 | |
| | VV | -Z SUN | | MISC. ATTITUDES | | | | | | -ZS | | PTC | | TAIL | DEORBIT |
| | DUR | 6:22 | | | | | | | | 4:00 | | 6:15 | | 3:20 | |
| | ROLL | 331.7 | | | | | | | | 213 | | 313 | | 113 | |
| | PITCH | 144.6 | | | | | | | | 9 | | 6 | | 76 | |
| | YAW | 323.0 | | | | | | | | 315 | | 293 | | 18 | |
| | DEPLOYS | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | |
|-----------------|-----|---------|-------|--|-------|--|-------|------|-------|-------|-------|--|----|
| MISSION SEQ NO. | 10 | MET | -26.8 | | -24.9 | | -22.8 | | -20.6 | | -18.5 | | -1 |
| STS NO. | 418 | ATT | 12 | | 24 | | 36 | | 48 | | 60 | | 72 |
| ORBITER OV- | 099 | VV | -ZLV | | -ZLV | | | +XLV | | -ZLV | | | |
| OMS PODS | | DUR | +X | | +X | | | -Z | | +X | | | |
| PORT | 099 | ROLL | 6:06 | | 37:30 | | | 5:38 | | 19:40 | | | |
| STBD | 099 | PITCH | 100 | | 100 | | | 0 | | 100 | | | |
| | | YAW | 0 | | 0 | | | 270 | | 0 | | | |
| | | DEPLOYS | 0 | | 0 | | | 0 | | 0 | | | |

| | | | | | | | |
|--|---------|-------|--|-------|--|----------|--|
| | MET | 0.2 | | 1.5 | | 3.1 | |
| | ATT | 180 | | 192 | | 204 | |
| | VV | -ZLV | | -XS | | E1190:40 | |
| | DUR | +X | | | | | |
| | ROLL | 17:04 | | 3:00 | | | |
| | PITCH | 100 | | 0:100 | | | |
| | YAW | 0 | | 0:0 | | | |
| | DEPLOYS | 0 | | | | | |

VESTAR

PALAPA

WALDOUT FRAME

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.
9 (STS-9), AND 10 (STS-41B)

| 9 | -61.3 | -63.7 | -66.1 | -68.4 | -70.6 | -72.7 | -74.7 |
|----|-----------------|-------|-----------------|-------|-------|-------|---------------|
| | | | | | | | |
| LV | MISC. ATTITUDES | -ZLV | MISC. ATTITUDES | | | -ZLV | HOT TEST COOL |
| X | | -X | | | | -X | |
| 17 | | 607 | | | | 6051 | 7016 5028 |
| 0 | | 0 | | | | 0 | 202.7 158 |
| 80 | | 180 | | | | 180 | 338.1 173 |
| 0 | | 0 | | | | 0 | 9.2 0 |

IDE TIMELINE PRINTOUT.

| 96 | -276 | -286 |
|----|------|------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

| 1.2 | -12.0 | -9.9 | -7.9 | -5.9 | -3.8 | -2.0 |
|------|-------|-------|------|-------------------|-------------------|-------|
| | | | | | | |
| -ZLV | -XLV | -ZLV | | -ZSI | -YS | -ZLV |
| -X | +Z | +X | | | | -X |
| 3037 | 10019 | 33013 | | 10034 | 2033 | 18033 |
| 0 | 0 | 180 | | 0 ₅ 00 | 0 ₅ 00 | 0 |
| 180 | 90 | 0 | | 0 ₅ 20 | 0 ₅ 00 | 180 |
| 0 | 120 | 0 | | | | 0 |

BOLDOUT FRAME

| | | | | | | | | | | |
|-----------------|-----|---------|-------|--|-------|--|-------|--|----|--|
| MISSION SEQ NO. | 11 | MET | -12 | | -9 | | -5 | | -2 | |
| STS NO. | 41C | ATT | -ZLV | | -ZLV | | +XLV | | | |
| ORBITER OV- | 099 | VV | +X | | +X | | -Z | | | |
| OMS PODS | | DUR | 25:24 | | 14:41 | | 51:50 | | | |
| PORT | 103 | ROLL | 180 | | 180 | | 0 | | | |
| STBD | 103 | PITCH | 0 | | 0 | | 270 | | | |
| | | YAW | 0 | | 0 | | 0 | | | |
| | | DEPLOYS | LDEF | | | | | | | |

| | | | | | | | | | | | | |
|-----------------|-----|---------|------|------|-------|--------|-------|------|--------------|-------|------------|------|
| MISSION SEQ NO. | 12 | MET | -2. | | +1. | | 2. | | 4.6 | | 8. | |
| STS NO. | 41D | ATT | -ZLV | | -ZLV | | -ZLV | | -ZLV TAIL 06 | | TAIL 06 -Z | |
| ORBITER OV- | 103 | VV | +X | +Y | -Y | +X | -Y | +X | -Y | +X | -Y | -Z |
| OMS PODS | | DUR | 1:46 | 4:28 | 15:16 | 8:45 | 13:48 | 1:44 | 4:02 | 13:09 | 7:06 | 1:36 |
| PORT | 103 | ROLL | 180 | 180 | 180 | 180 | 180 | 180 | 300 | 180 | 300 | 0:30 |
| STBD | 103 | PITCH | 0 | 0 | 0 | 0 | 0 | 0 | 90 | 0 | 90 | 0:50 |
| | | YAW | 0 | 270 | 270 | 0 | 270 | 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 | |
| STS NO. | 41G | ATT | -ZLV | | -ZLV | | -ZLV | | -ZLV | | -ZLV | | -ZLV | | -ZLV | |
| ORBITER OV- | 099 | VV | +X | | +X | | -X | | +X | | +X | | +X | | +X | |
| OMS PODS | | DUR | 2:55 | | 10:22 | | 3:32 | | 13:9 | | 10:07 | | 10:07 | | 10:07 | |
| PORT | LP01 | ROLL | 180 | | 180 | | 180 | | 180 | | 180 | | 180 | | 180 | |
| STBD | RP01 | PITCH | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| | | YAW | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | | 0 | |
| | | DEPLOYS | | | | | | | | | | | | | | |

*MISCELLANEOUS SHORT TERM ATTITUDES TO COMPLETE DTO'S. SEE REAL TIME A

| | | | | | | | | | | | | | | | |
|--|---------|-----------------------|--|-------|--|--|--|--|--|--|--|--|--|--|--|
| | MET | -24.5 | | -22.2 | | | | | | | | | | | |
| | ATT | DEORBIT BURN 19:18:00 | | | | | | | | | | | | | |
| | VV | EI 19:47:06 | | | | | | | | | | | | | |
| | DUR | | | | | | | | | | | | | | |
| | ROLL | | | | | | | | | | | | | | |
| | PITCH | | | | | | | | | | | | | | |
| | YAW | | | | | | | | | | | | | | |
| | DEPLOYS | | | | | | | | | | | | | | |

BOLDOUT FRAME

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.

11 (STS 41-C), 12 (STS 41-D), AND 13 (STS-41G)

| | +2 | +3 | +6 | +10 | +13 | +14 |
|----|-------|------|--------------------|------|-------|--------------------|
| SI | -ZLV | -ZLV | TAIL SUN | -XLV | -ZLV | -XS |
| | -Y | +X | SI | +Z | -X | |
| 30 | 14 07 | 5 20 | 20 18 | 8 57 | 10 48 | 3 02 |
| 60 | 180 | 180 | 0 _S 170 | 0 | 0 | 0 _S 180 |
| 90 | 0 | 0 | 0 _S 270 | 90 | 180 | 0 _S 0 |
| | 270 | 0 | | 0 | 270 | |

| | 16. | | 19. | |
|----------|-----------------------|-------------------|------|----------------------|
| -X SI | TAIL SI | -ZLV | -ZLV | -XS |
| | -Y | +X | -X | |
| 36 | 3 02 1 36 | 16 41 | 5 19 | 9 29 3 14 |
| 60 | 300 0 _S 90 | 0 _S 30 | 180 | 0 0 _S 180 |
| 90 | 90 0 _S 0 | 0 _S 90 | 0 | 180 0 _S 0 |
| | 0 | | 0 | 0 |

| | -39.0 | -37.7 | -35.6 | -33.4 | -31.2 | -29.0 | -26.7 |
|--|-------|-------|-------|-------|-------|-------|-------|
| | -ZLV | | -ZLV | | -ZLV | | |
| | +X | | +X | | +X | | |
| | 8 56 | | 9 04 | | 9 21 | | |
| | 180 | | 180 | | 180 | | |
| | 0 | | 0 | | 0 | | |
| | 0 | | 0 | | 0 | | |

TIMELINE PRINTOUT.

OUT FRAME

| | | | | | | | | | | |
|-----------------|-----|---------|--------|------|----------|------|--------|------|-------|-------|
| MISSION SEQ NO. | 14 | MET | -27.7 | | -23.8 | | -20 | | -16.5 | |
| STS NO. | 51A | ATT | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV |
| ORBITER OV- | 103 | VV | +X | +X | -Y | +X | -Y | -X | +X | -Y |
| OMS PODS | | DUR | 1+17 | 7+19 | 13+36 | 8+14 | 10+22 | 4+28 | 5+08 | 18+47 |
| PORT | 103 | ROLL | 212 | 180 | 180 | 180 | 180 | 0 | 180 | 265 |
| STBD | 103 | PITCH | 0 | 0 | 0 | 0 | 0 | 180 | 0 | 282 |
| | | YAW | 0 | 0 | 270 | 0 | 270 | 0 | 0 | 79 |
| | | DEPLOYS | TELSAT | | | | SYNCOM | | | |
| | | MET | -0.6 | | | | | | | |
| | | ATT | +XLV | | E1191+15 | | | | | |
| | | VV | -Z | | | | | | | |
| | | DUR | 1+03 | | | | | | | |
| | | ROLL | 0 | | | | | | | |
| | | PITCH | 270 | | | | | | | |
| | | YAW | 0 | | | | | | | |
| | | DEPLOYS | | | | | | | | |

MISSION SEQUENCE NO. 15 - DEPARTMENT OF DEFENSE MISSION - DATA

| | | | | | | | | | | | | |
|-----------------|-----|---------|---------|------|-------|--|--------|--|-------|--|-------|--|
| MISSION SEQ NO. | 16 | MET | -9.0 | | | | -2.4 | | +.06 | | +1.7 | |
| STS NO. | 51D | ATT | -ZLV | -ZLV | -ZLV | | +XLV | | | | +XLV | |
| ORBITER OV- | 103 | VV | +X | +X | -Y | | +Z | | | | +Z | |
| OMS PODS | | DUR | 1+53 | 6+04 | 11+32 | | 2+13 | | | | 36+53 | |
| PORT | 102 | ROLL | 180 | 180 | 0 | | 180 | | | | 180 | |
| STBD | 102 | PITCH | 0 | 0 | 180 | | 270 | | | | 270 | |
| | | YAW | 0 | 0 | 270 | | 0 | | | | 0 | |
| | | DEPLOYS | TELESAT | | | | SYNCOM | | IMAGE | | | |

| | | | | | | | | | | |
|-----------------|-----|---------|---------------------|------|-------|--|-------|--|-------|-----|
| MISSION SEQ NO. | 17 | MET | -28.0 | | -29.0 | | -30.3 | | -31.7 | |
| STS NO. | 51B | ATT | -ZLV | | | | | | | |
| ORBITER OV- | 099 | VV | +X | | | | | | | |
| OMS PODS | | DUR | 3+32 | 4+15 | | | | | | 126 |
| PORT | 102 | ROLL | 180 | | | | | | | |
| STBD | 102 | PITCH | 0 | | | | | | | |
| | | YAW | 0 | | | | | | | |
| | | DEPLOYS | TDRS ATMOS ATTITUDE | | | | | | | |

FOLDOUT FRAME ²

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NOS.

14 (STS-51A), 16 (STS-51D) AND 17 (STS-51B)

| -12.4 | | | -9.2 | | | -5.3 | | | -2.7 | | | |
|-------|------|-------------------|-------------------|--|--|-------------------|--|--|------|-------------------|-------------------|--|
| | | | | | | | | | | | | |
| -ZLV | +XLV | SYSD/ TOP SI | STBD/ TOP SI | | | STBD/ TOP SI | | | +XLV | STBD/ TOP SI | STBD/ TOP SI | |
| -Y | -Z | | | | | | | | -Z | | | |
| 12:38 | 4:25 | 5:18 | 22:40 | | | 13:27 | | | 6:57 | 4:32 | 24:44 | |
| 180 | 0 | 0 _S 90 | 0 _S 90 | | | 0 _S 06 | | | 0 | 0 _S 90 | 0 _S 06 | |
| 0 | 270 | 0 _S 60 | 0 _S 50 | | | 0 _S 51 | | | 270 | 0 _S 50 | 0 _S 51 | |
| 270 | 0 | 0M130 | 0M110 | | | 0M179 | | | 0 | 0M122 | 0M179 | |

ILABLE

| +5.6 | | | +9.8 | | | +17.0 | | |
|----------------|-------|------|-------|--|------------------|-------|--|--------------------|
| | | | | | | | | |
| -XLV | -XLV | -XLV | -ZLV | | | -ZLV | | +XS |
| +Z | +Z | -Z | +X | | | +X | | E1167:20 |
| 6:59 | 17:36 | 4:26 | 19:53 | | | 13:59 | | 3:13 |
| 0 | 180 | 0 | 180 | | | 180 | | 0 _S 180 |
| 90 | 270 | 280 | 270 | | | 0 | | 0 _S 0 |
| 0 | 0 | 0 | 0 | | | 0 | | |
| SYNCH APPROACH | | | | | PRESS CONFERENCE | | | |

| -33.0 | | -34.4 | | -35.8 | | -36.5 | | -38.0 | |
|-------|--|-------|--|-------|--|-------|--|-----------------------|--------------------|
| | | | | | | | | | |
| | | | | | | | | NOSE SI - NOSE UP 10° | -XS |
| | | | | | | | | E1167:38 | |
| | | | | | | | | 19:06 | 2:30 |
| | | | | | | | | 0 _S 10 | 0 _S 180 |
| | | | | | | | | 0 _S 180 | 0 _S 0 |

LOADOUT FRAME

| | | | | | | | | | | | | | | | |
|-----|---------|---------|------|-------|--|---------|--|-------|--|---------|--|------|--|---------|--|
| 18 | MET | +18.4 | | | | +22.5 | | | | +30.2 | | | | | |
| 51G | ATT | -ZLV | -ZLV | -ZLV | | -ZLV | | -ZLV | | -ZLV | | -ZLV | | | |
| | VV | +X | +Y | +Y | | -X | | +Y | | -X | | +Y | | | |
| 103 | DUR | 4:43 | 4:23 | 16:43 | | 3:51 | | 15:58 | | 12:46 | | 7:13 | | | |
| OS | ROLL | 145 | 180 | 180 | | 0 | | 180 | | 0 | | 100 | | | |
| 104 | PITCH | 0 | 0 | 0 | | 180 | | 0 | | 180 | | 0 | | | |
| 103 | YAW | 0 | 90 | 90 | | 0 | | 90 | | 0 | | 90 | | | |
| | DEPLOYS | MORELOS | | | | ARABSAT | | | | TELSTAR | | | | SPARTAN | |

| | | | | | | | | | | | | | | | | | |
|-----|---------|---|--|--------|------|--------|--------|--------|------|--------|---|---------|---|--------|--|--------|--|
| 19 | MET | | | +29.4° | | +26.8° | | +24.3° | | +21.8° | | +19.3° | | +16.8° | | +14.3° | |
| 51F | ATT | ① | | PERS | -XLV | ① | -2 ROT | ① | PERS | ① | ① | PERSEUS | ① | | | | |
| | VV | | | +Y | | | | | | +X ROT | | | | | | +X ROT | |
| 099 | DUR | | | 4:47 | 3:54 | 3:08 | | 3:05 | | 5:17 | | 6:02 | | 3:04 | | | |
| OS | ROLL | | | 55° | 90° | 107° | | 53° | | 0° | | 53° | | 0° | | | |
| P99 | PITCH | | | 180° | 90° | 190° | | 162° | | 3° | | 162° | | 3° | | | |
| P04 | YAW | | | 348° | 0° | 15° | | 1° | | 0° | | 1° | | 0° | | | |
| | DEPLOYS | | | | | POP | | | | POP | | | | | | | |

CELLANEOUS SHORT-TERM ATTITUDES TO COMPLETE DTOS. SEE REAL TIME ATTITUDE

| | | | | | | | | | | | | | | | |
|-----|---------|------------|------|-------|--|---------------|--|-------|--|-------|--|-------|--|------|--|
| 20 | MET | +6.4 | | +10.0 | | | | +13.8 | | | | +17.2 | | | |
| 511 | ATT | -ZLV | -ZLV | -ZLV | | -ZLV | | -ZLV | | -ZLV | | -ZLV | | -ZLV | |
| | VV | -X | -Y | +X | | +X | | +X | | -Y | | +Y | | +Y | |
| 103 | DUR | 4:30 | 3:02 | 33:16 | | | | 6:25 | | 14:13 | | 22:56 | | | |
| OS | ROLL | 20 | 0 | 180 | | 180 | | 180 | | 0 | | 0 | | | |
| 104 | PITCH | 180 | 180 | 0 | | 0 | | 0 | | 180 | | 180 | | | |
| 103 | YAW | 0 | 270 | 0 | | 0 | | 0 | | 270 | | 90 | | | |
| | DEPLOYS | AUSSAT ASC | | | | SYNCOM DEPLOY | | | | | | | | | |

ON SEQUENCE NO. 21 - DEPARTMENT OF DEFENSE MISSION DATA NOT AVAILABLE.

| | | | | | | | | | | | | | | | |
|-----|---------|-------|------|------|------|------|------|-------|------|------|-------|-------|-------|-------|-------|
| 22 | MET | | | | | | | | | | | | | | |
| 61A | ATT | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | +ZLV | -YSL | +XLV | -ZLV | +XLV | -ZLV | +XLV | -ZLV |
| | VV | +X | +Y | +Y | +Y | +X | +Y | +X | +Y | +Y | -Y | +Y | -Y | +Y | +Y |
| 099 | DUR | 2:59 | 8:06 | 4:56 | 9:07 | 4:22 | 9:06 | 10:36 | 4:39 | 9:59 | 11:56 | 10:51 | 10:51 | 12:12 | 12:12 |
| OS | ROLL | 180 | 0 | 0 | 264 | 0 | 264 | 0 | 264 | 0 | 264 | 0 | 264 | 0 | 264 |
| 099 | PITCH | 0 | 180 | 0 | 270 | 180 | 270 | 180 | 270 | 180 | 270 | 180 | 270 | 180 | 270 |
| 104 | YAW | 0 | 90 | 0 | 360 | 0 | 360 | 0 | 360 | 0 | 360 | 90 | 360 | 0 | 360 |
| | DEPLOYS | GLOWR | | | | | | | | | | | | | |

2
WALDOUT FRAME

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO

18 (STS-51G), 19 (STS-51F), 20 (STS-51I) AND 22 (STS-61)

| +37.6 | | +41.2 | | +44.0 | | |
|--------------|-----------|-------|-----------------------|-------|--------------------|----------|
| 108 | 120 | 132 | 144 | 156 | 168 | 180 |
| -ZLV | +XLV -X | -ZLV | -XLV | -ZLV | -XSI | E1169 03 |
| +Y | -Z +Z | +X | +Z | +X | | |
| 5:05 | 5:31 1:44 | 16:49 | 1:58 | 17:16 | 2:59 | |
| 0 | 0 0 | 180 | 0 | 180 | 0 _S 180 | |
| 180 | 270 90 | 0 | 90 | 0 | 0 _S 0 | |
| 270 | 0 0 | | 0 | 0 | | |
| ORBIT ADJUST | | | CREW PRESS CONFERENCE | | | |

| +9.6° | | +7.2° | | +4.8° | | +2.4° | | 0.0° | | -2.2° | | -4.5° | |
|-------|------------|--------|-------------|-------------|---------------|--------------|------|----------|------|-------|--|-------|----------------------------|
| 108 | 120 | 132 | 144 | 156 | 168 | 180 | 192 | 204 | | | | | |
| | CCPD VIRGO | ① VELA | ① THERMAL 1 | MOD PERSEUS | MOD CENTAURUS | 11:30 AR OBS | -ZLV | TAIL SUN | | | | | DEORBIT BURN MET 21:0:10:4 |
| | | | | | | | +X | | | | | | LANDING EAPB MET 21:0:19:4 |
| | 10:22 | 4:33 | 8:10 | 13:32 | 7:21 | 2:11 | 5:15 | 4:40 | | | | | |
| | 103° | 112° | 233° | 53° | 155° | 18° | 146° | 180° | 3° | | | | |
| | 22° | 298° | 174° | 180° | 265° | 87° | 338° | 0.00° | 17° | | | | |
| | 64° | 17° | 34° | 0° | 14° | 28° | 23° | 0.00° | 318° | | | | |

E PRINTOUT.

| +23.7 | | +26.6 | | +28.8 | | |
|----------------|-----|-------|-----|--------------------|-----|----------|
| 108 | 120 | 132 | 144 | 156 | 168 | 180 |
| -ZLV | | -ZLV | | -XSI | | E1169 55 |
| -Y | | +X | | | | |
| 24:51 | | 33:16 | | 3:02 | | |
| 0 | | 180 | | 0 _S 180 | | |
| 180 | | 0 | | 0 _S 0 | | |
| 270 | | 0 | | | | |
| SYNCH REDEPLOY | | | | | | |

| +44.0 | | | | | | | |
|-------|------|------|------|-------------------|-------|--------------------|----------|
| 108 | 120 | 132 | 144 | 156 | 168 | 180 | |
| -ZLV | | +XLV | -ZLV | -YSI | PTC | -XSI | E1169 34 |
| +Y | | +Y | -X | | | | |
| 11:01 | 5:49 | 7:20 | 8:36 | 5:07 | 10:14 | 3:36 | |
| 0 | | 285 | 0 | 0 _S 90 | | 0 _S 180 | |
| 180 | | 270 | 180 | 0 _S 90 | | 0 _S 0 | |
| 90 | | 358 | 0 | | | | |

FOLDDOUT FRAME

| | | | | | | | | | | |
|-----------------|-----|---------|----------------|-------|-------|--------|-------|--------|-------|--|
| MISSION SEQ NO. | 23 | MET | -9.4 | -11.4 | -13.4 | -15.3 | -17.3 | -19.3 | | |
| STS NO. | 61B | ATT | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | |
| ORBITER OV- | 104 | VV | +X | -X | +X | -X | +X | | +X | |
| OMS PODS | | DUR | 3:12 | 1:48 | 5:09 | 10:40 | 3:14 | | 50:11 | |
| PORT | 099 | ROLL | 180 | 0 | 180 | 0 | 180 | | 180 | |
| STBD | 104 | PITCH | 0 | 180 | 0 | 180 | 0 | | 0 | |
| | | YAW | 0 | 0 | 0 | 0 | 0 | | 0 | |
| | | DEPLOYS | MORELOS DEPLOY | | | AUSSAT | | SATCOM | | |

| | | | | | | | | | | |
|-----------------|-----|---------|---------------|-------|---------------------|-------|-------|-------|-------|--|
| MISSION SEQ NO. | 24 | MET | -26.3 | -24.3 | -22.3 | -20.3 | -18.4 | -16.5 | | |
| STS NO. | 61C | ATT | -ZLV | -ZLV | +YSI | UVX | -ZLV | UVX | -ZLV | |
| ORBITER OV- | 102 | VV | +X | +X | | | -Y | | -Y | |
| OMS PODS | | DUR | 3:18 | 4:24 | 11:19 | | 15:45 | | 12:33 | |
| PORT | 103 | ROLL | 215 | 180 | $\theta_s 90^\circ$ | | 180 | | 180 | |
| STBD | 099 | PITCH | 0 | 0 | $\theta_s 90^\circ$ | | 0 | | 0 | |
| | | YAW | 0 | 0 | | | 270 | | 270 | |
| | | DEPLOYS | SATCOM DEPLOY | | | | | | UVX | |

MISSION SEQUENCE NO. 25 - DATA NOT APPLICABLE.

| | | | | | | | | | | |
|-----------------|-----|---------|-------|--------|--------|--------|------|-------|--------|--|
| MISSION SEQ NO. | 26 | MET | -30° | -27° | -25° | | | | | |
| STS NO. | 26R | ATT | -ZLV | -ZLV | -ZLV | -ZLV | +XLV | -ZLV | -ZLV | |
| ORBITER OV- | 103 | VV | -Y | +X | +Y | +Y | -Z | -X | +X | |
| OMS PODS | | DUR | 3:10' | 10:10' | 11:50' | 11:40' | 2' | 6:35' | 11:44' | |
| PORT | 109 | ROLL | 180 | 180 | 180 | 180 | 50 | 180 | 180 | |
| STBD | 114 | PITCH | 0 | 0 | 0 | 0 | 283 | 0 | 0 | |
| | | YAW | 81 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | DEPLOYS | TORS | | | | | | | |

MISSION SEQUENCE NO. 27 - DEPARTMENT OF DEFENSE MISSION - DATA NOT APPLICABLE.

HOLDOUT FRAME 2

ORBITER ATTITUDE TIMELINE FOR MISSION SEQUENCE NOS. 23 (STS 61B) AND 24 (STS 61C) 25 (STS 51-L) STS-26, AND STS-27

| -23.3 | -25.4 | -27.4 | -29.5 | -31.5 | -33.5 | -35.4 | | | |
|--|-------|-------|------------------------|-------|-------|-------|-------|------------------|---------|
| <div style="display: flex; justify-content: space-between; font-size: small;"> 96 108 120 132 144 156 168 180 </div> | | | | | | | | | |
| | -ZLV | -ZLV | +ZSI | -ZLV | -YLV | +XLV | -ZLV | -XSI | E116434 |
| | -X | +X | | +X | +X | +Y | -X | | |
| | 12:34 | 12:09 | 12:49 | 4:04 | 2:57 | 3:05 | 10:47 | 3:35 | |
| | 0 | 180 | $\theta_{S 90^\circ}$ | 180 | 270 | 270 | 0 | $\theta_{S 180}$ | |
| | 180 | 0 | $\theta_{S 120^\circ}$ | 0 | 0 | 270 | 180 | $\theta_{S 0}$ | |
| | 0 | 0 | | 0 | 0 | 0 | 0 | | |
| PHANTOM TARGET | | | | | | | | | |

| -12.7 | -10.9 | -9.2 | -7.5 | -5.8 | -4.1 | | | | |
|--|-----------------|-------|------------------|------|------|-------|------------------|---------|--|
| <div style="display: flex; justify-content: space-between; font-size: small;"> 96 108 120 132 144 156 </div> | | | | | | | | | |
| -XSI | SI | -ZLV | -XSI | -ZLV | +XLV | -ZLV | -XSI | E114528 | |
| | | -Y | | -Y | +Z | +X | | | |
| 3:15 | 7:15 | 12:13 | 3:10 | 2:30 | 1:38 | 12:26 | 3:13 | | |
| $\theta_{S 90}$ | $\theta_{S 80}$ | 180 | $\theta_{S 180}$ | 180 | 180 | 180 | $\theta_{S 180}$ | | |
| $\theta_{S 90}$ | $\theta_{S 40}$ | 0 | $\theta_{S 0}$ | 0 | 270 | 0 | $\theta_{S 0}$ | | |
| | | 0 | | 0 | | 0 | | | |
| CHAMP | | | | | | | DEORBIT ATTITUDE | | |

| -21° | | | | | | |
|--|--------|--------------|--|--|--|--|
| <div style="display: flex; justify-content: space-between; font-size: small;"> 96 108 120 132 144 156 168 180 </div> | | | | | | |
| -XSI | DE-ORB | E1-96' + 30' | | | | |
| | | | | | | |
| 2:40' | | | | | | |
| 30 | 61 | | | | | |
| 350 | 179 | | | | | |
| 12 | 332 | | | | | |

ABLE.

BOEING FRAME

| | | | | | | | | | |
|-----------------|------|---------|-------------|-------|-------|-------|-----------|-------|------|
| MISSION SEQ NO. | 28 | MET | -25.1 | -23.2 | -21.1 | -19.0 | -16.9 | -15.7 | -12 |
| STS NO. | 29R | ATT | -ZLV | -ZLV | | -ZLV | -ZLV -XS1 | | -ZLV |
| ORBITER OV- | 103 | VV | +Y | +X | | +X | +Y | | +X |
| OMS POOS | | DUR | 2:35 | 3:25 | | 1:10 | 2:20 | | 4:20 |
| PORT | LP04 | ROLL | +180 | +180 | | +180 | +180 | | +180 |
| STBD | RP03 | PITCH | 0 | 0 | | 0 | 0 | | 0 |
| | | YAW | +90 | 0 | | 0 | +90 | | 0 |
| | | DEPLOYS | TDRS DEPLOY | | IMAX | | IMAX | | |

| | | | | | | | | | | | |
|-----------------|------|---------|----------|------|-------|-------|-------|-------|------|------|------|
| MISSION SEQ NO. | 29 | MET | -8.7 | -9.8 | -10.6 | -11.4 | -12.1 | -12.6 | -13 | | |
| STS NO. | 30R | ATT | -ZLV | -ZLV | IMU | -ZLV | TDRS | -ZLV | TDRS | -ZLV | -ZLV |
| ORBITER OV- | 104 | VV | -X | -Y | | +X | | -Y | +X | | +X |
| OMS POOS | | DUR | 2:05 | 1:20 | 4:10 | 1:10 | 6:10 | 1:30 | 1:10 | 1:10 | |
| PORT | LP99 | ROLL | 350 | 0 | 180 | 0 | 180 | 0 | 180 | 0 | 180 |
| STBD | RP99 | PITCH | 180 | 180 | 0 | 180 | 0 | 180 | 0 | 180 | 0 |
| | | YAW | 0 | 270 | 0 | 270 | 0 | 270 | 0 | 270 | 0 |
| | | DEPLOYS | MAGELLAN | | | | | | | | |

MISSION SEQUENCE NO. 30 - DEPARTMENT OF DEFENSE MISSION - DATA NOT

| | | | | | | | | | |
|-----------------|------|---------|---------|-------|-------|-------|-------|-------|------|
| MISSION SEQ NO. | 31 | MET | -30.8 | -32.6 | -34.4 | -36.1 | -37.7 | -39.1 | -40 |
| STS NO. | 34R | ATT | +ZS1 | | | -ZLV | | | -ZLV |
| ORBITER OV- | 104 | VV | | | | +XVV | | | +XVV |
| OMS POOS | | DUR | 2:30 | | | 4:40 | | | 2:40 |
| PORT | LP99 | ROLL | 182 | 12 | | 180 | | | 180 |
| STBD | RP99 | PITCH | 83 | 272 | | 0 | | | 0 |
| | | YAW | 2 | 27 | | 0 | | | 0 |
| | | DEPLOYS | GALILEO | | | IMAX | | | |

MISSION SEQUENCE NO. 32 - DEPARTMENT OF DEFENSE MISSION - DATA NOT

2

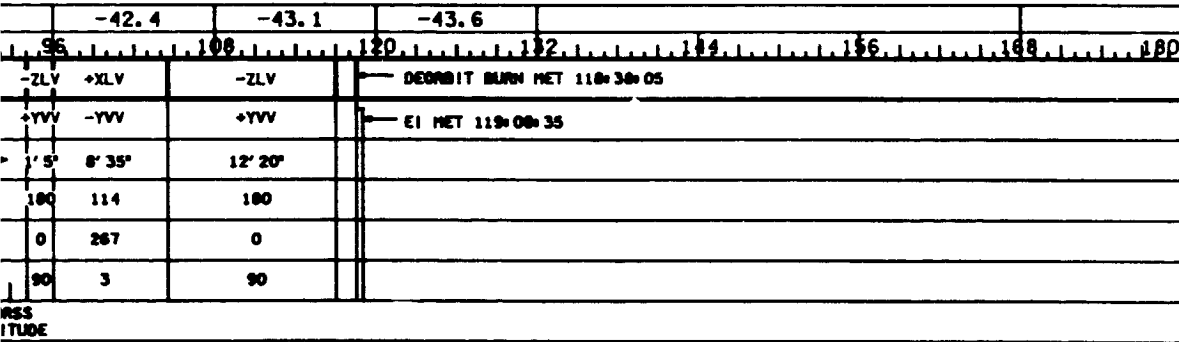
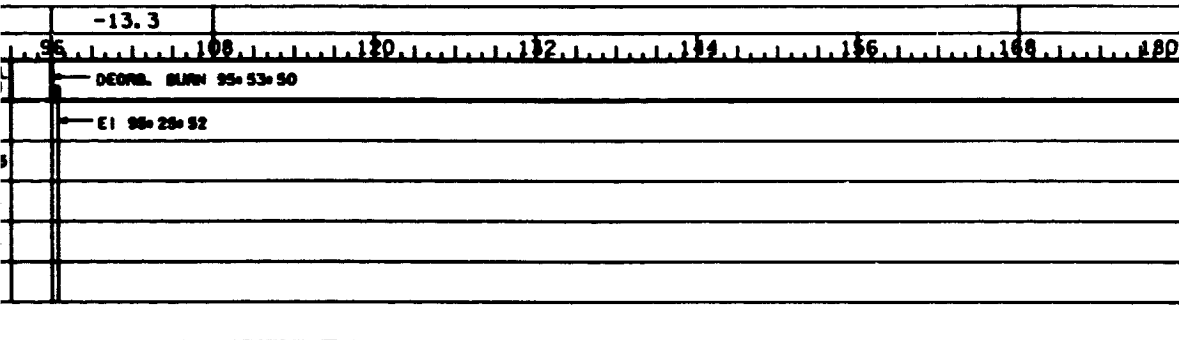
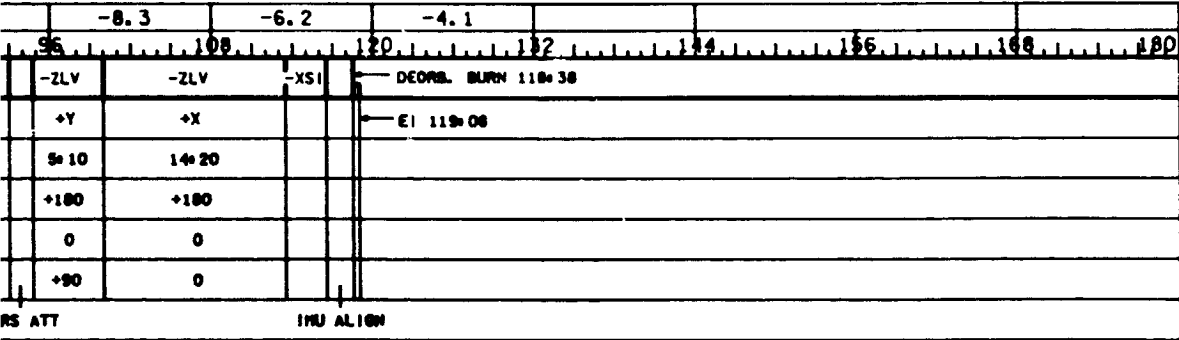
FOLDOUT FRAME

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.

28 (STS-29R), 29 (STS 30R)

30 (STS-28R), 31 (STS-34R) AND 32 (STS-33R)



FOLDOUT FRAME

| | | | | | | | | | | | |
|-----------------|------|---------|--------------------------|-------|-------|-------|-------|-------|------|------|------|
| MISSION SEQ NO. | 33 | MET | -33.6 | -31.7 | -29.7 | -27.9 | -25.8 | -23.5 | | | |
| STS NO. | 32 | ATT | -ZLV | | -ZLV | -ZLV | +XLV | -ZLV | -ZLV | +XLV | |
| ORBITER OV- | 102 | VV | +Y | +Y | +Y | -Y | +X | +Y | -Z | | |
| OMS PODS | | DUR | 23:12 | 23:34 | 13:42 | 7:55 | 2:07 | 15:06 | 4:33 | | |
| PORT | LP03 | ROLL | 100 | | 100 | PLB | | 100 | | | |
| STBD | RP04 | PITCH | 0 | | 0 | SOUTH | | 0 | | | |
| | | YAW | 90 | | 90 | | | 90 | | | |
| | | DEPLOYS | SYNCH MC2 BURH | | | | | | | | |
| MISSION SEQ NO. | 34 | MET | -4.1 | -2.5 | -1.0 | .5 | 1.8 | 3.0 | | | |
| STS NO. | 36 | ATT | ZLV | -ZLV | -ZLV | -ZLV | +XLV | +XSI | -ZLV | -ZLV | +XLV |
| ORBITER OV- | 104 | VV | -Y | -Y | -Y | -Y | -Y | | -Y | -Y | -Y |
| OMS PODS | | DUR | 12:30 | 9:36 | 6:32 | 1:33 | 11:24 | 4:50 | 1:50 | 5:34 | 6:49 |
| PORT | LP01 | ROLL | 0 | 0 | 0 | 0 | 90 | CBLD | | 0 | 90 |
| STBD | RP03 | PITCH | 100 | 100 | 100 | 1000 | 270 | 20AK | | 100 | 270 |
| | | YAW | 270 | 270 | 270 | 300 | 336 | | | 270 | 336 |
| | | DEPLOYS | BIASD BIASD INU BIASD IN | | | | | | | | |

| | | | | | | | | | |
|-----------------|------|---------|--|--|--|--|--|--|--|
| MISSION SEQ NO. | 34 | MET | | | | | | | |
| STS NO. | 36 | ATT | | | | | | | |
| ORBITER OV- | 104 | VV | | | | | | | |
| OMS PODS | | DUR | | | | | | | |
| PORT | LP01 | ROLL | DEPARTMENT OF DEFENSE MISSION - DATA NOT A | | | | | | |
| STBD | RP03 | PITCH | | | | | | | |
| | | YAW | | | | | | | |
| | | DEPLOYS | | | | | | | |

| | | | | | | | | | | | |
|-----------------|------|---------|-----------------------------------|-------|-----------------|---------|------|-----------|------|------|-------|
| MISSION SEQ NO. | 35 | MET | 2.5 | 4.3 | 6.1 | 7.9 | 9.8 | 11.6 | | | |
| STS NO. | 31 | ATT | -ZLV | -ZLV | HST DEPLOY ATT. | -YLV | -XLV | +XLV | -ZLV | -ZLV | +XLV |
| ORBITER OV- | 103 | VV | +Y | -Y | (0:46.067) | -Z | -Y | +Y | -Y | -Y | +Y |
| OMS PODS | | DUR | 5:56 | 13:20 | 7:40 | 12:24 | 1:25 | 9:27 | 9:29 | 1:57 | 3:19 |
| PORT | LP04 | ROLL | 100 | 100 | | PLB FWD | 110 | PLB NORTH | 100 | 100 | PLB |
| STBD | RP01 | PITCH | 0 | 0 | | | 270 | | 0 | 0 | NORTH |
| | | YAW | 90 | 270 | | | 0 | | 270 | 200 | |
| | | DEPLOYS | HUBBLE SPACE TELESCOPE NOSE NORTH | | | | | | | | |

ORBITER ATTITUDE TIMELINE

FOR MISSION SEQUENCE NO.
33 (STS-32), 34 (STS 36),
AND 35 (STS-31)

| | | | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|------|-------|
| | -19.6 | -17.3 | -15.3 | -13.3 | -11.4 | -9.5 | -7.6 | -5.9 |
| | 95 | 100 | 120 | 132 | 144 | 156 | 168 | 180 |
| LV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV |
| Y | -Y | -Y | -Y | -Y | -Y | -Y | -Y | -Y |
| 27 | 3:05 | 5:24 | 8:44 | 12:52 | 9:45 | 11:13 | 9:31 | 10:01 |
| NORTH | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 180 | 180 | 180 | 180 | 180 | 180 | 180 | 180 |
| | 270 | 270 | 270 | 270 | 270 | 270 | 270 | 270 |

CREW CONF. CREW CONF.

| |
|---------|
| 276 |
| L. BURR |
| 10:22 |
| 27:20 |
| |
| |
| |
| |
| |

| | | | | | |
|----|------|------|------|------|------|
| | 15.2 | 17.0 | 18.9 | 20.8 | |
| | 95 | 100 | 120 | 132 | 144 |
| V | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV |
| Y | +Y | +X | +Y | +Y | +Y |
| 13 | 2:12 | 4:20 | 1:45 | 2:47 | 2:47 |
| S | 180 | | 180 | | |
| | 0 | | 0 | | |
| 0 | 90 | | 90 | | |

CREW CONF. CREW CONF. CREW CONF. CREW CONF. CREW CONF.

RADIATOR COOLD SBAK

1.
FOLDOUT FRAMES

| | | | | | | | | | |
|-----------------|------|---------|----------------|---------|----------|---------|--------|--------|---------|
| MISSION SEQ NO. | 36 | MET | -10 | -8.5 | -7 | -5 | -3 | -1 | +1 |
| STS NO. | 41 | ATT | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV | -ZLV |
| ORBITER OV- | 103 | VV | +X | +X | +X | +X | +X | +X | +X |
| OHS PODS | | DUR | 2' 10" | 11' 43" | 4' 23" | 11' 47" | 1' 47" | 2' 52" | 13' 14" |
| PORT | LPO4 | ROLL | 210 | 180 | 180 | 180 | 180 | 180 | 180 |
| STBD | RPO1 | PITCH | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | YAW | 0 | 330 | 330 | 330 | 330 | 330 | 330 |
| | | DEPLOYS | ULYSSES DEPLOY | | OHS BURN | | SSBUV | | IMU/HUD |

| | | | | | | | | | |
|-----------------|------|---------|-----------------------------------|----|----|----|----|----|--|
| MISSION SEQ NO. | 37 | MET | 12 | 24 | 36 | 48 | 60 | 72 | |
| STS NO. | 38 | ATT | | | | | | | |
| ORBITER OV- | 104 | VV | | | | | | | |
| OHS PODS | | DUR | DOD MISSION - DATA NOT AVAILABLE. | | | | | | |
| PORT | LPO1 | ROLL | | | | | | | |
| STBD | RPO3 | PITCH | | | | | | | |
| | | YAW | | | | | | | |
| | | DEPLOYS | | | | | | | |

| | | | | | | | | | |
|-----------------|------|---------|--|----|----|----|----|----|--|
| MISSION SEQ NO. | 38 | MET | 12 | 24 | 36 | 48 | 60 | 72 | |
| STS NO. | 35 | ATT | | | | | | | |
| ORBITER OV- | 102 | VV | BECAUSE OF THE MANY ATTITUDE CHANGES REQUIRED BY ASTRO-1 AND BBXRT PAYLOADS, GRAPHICAL DISPLAY IS NOT FEASIBLE. AS FLOWN BETA ANGLES AND ATTITUDES ARE PRESENTED IN TABLES 3-I AND 3-II. | | | | | | |
| OHS PODS | | DUR | | | | | | | |
| PORT | LPO3 | ROLL | | | | | | | |
| STBD | RPO4 | PITCH | | | | | | | |
| | | YAW | | | | | | | |
| | | DEPLOYS | | | | | | | |

2

FOLDOUT FRAME ORBITER ATTITUDE TIMELINE
FOR MISSION SEQUENCE NOS.
36 (STS-41), 37 (STS-38), AND 38 (STS-35)

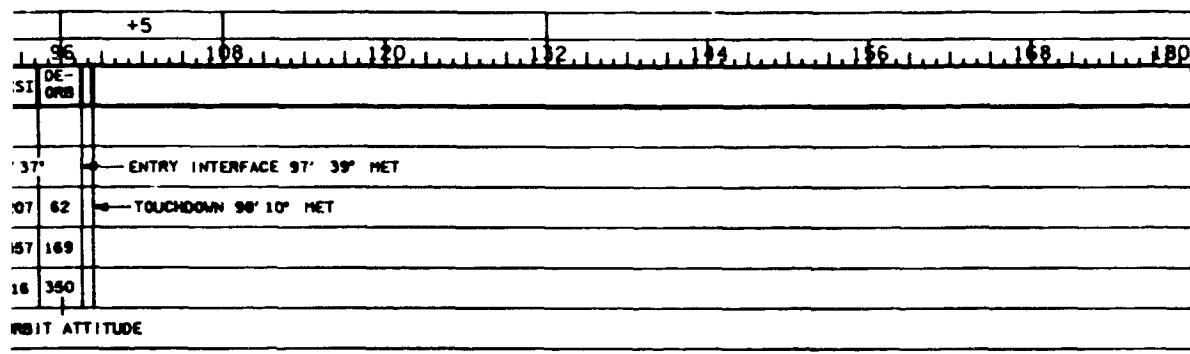


TABLE 3-I.- STS-35 BETA ANGLE RANGE

| Mission elapsed time, day:hour | Beta angle, deg |
|--------------------------------|-----------------|
| 0:00 | +5 |
| 0:12 | +5.5 |
| 1:00 | +6 |
| 1:12 | +6.5 |
| 2:00 | +7 |
| 2:12 | +7 |
| 3:00 | +7 |
| 3:12 | +6.5 |
| 4:00 | +6 |
| 4:12 | +5.5 |
| 5:00 | +5 |
| 5:12 | +4 |
| 6:00 | +3 |
| 6:12 | +2 |
| 7:00 | +1 |
| 7:12 | 0 |
| 8:00 | -1 |
| 8:12 | -2 |
| Entry | -3 |

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|------------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 1 | STS-35 Flight | 336:00:00:00 0:06:49:01 | LVLH | | 0.00 | 0.00 | C.00 |
| 2 | OMS-2 | 336:07:17:01 0:00:28:08 | IH | MIR601 | 119.00 | 9.00 | 348.00 |
| 3 | Bias -ZLV | 336:08:11:01 0:01:22:00 | LVLH | | 180.00 | 9.00 | 75.00 |
| 4 | IMU -Z COAS | 336:09:39:14 0:02:50:13 | IH | MIR601 | 86.00 | 192.00 | 11.00 |
| 5 | +X COAS | 336:09:56:26 0:03:07:25 | IH | MIR601 | 141.00 | 122.00 | 70.00 |
| 6 | BBXRT BRIGHT EARTH | 336:10:23:01 0:03:34:00 | LVLH | | 0.00 | 180.00 | 309.00 |
| 7 | BBXRT ALIGN #1 | 336:10:53:40 0:04:04:39 | IH | MIR601 | 75.00 | 302.00 | 6.00 |
| 8 | OSPCAL #1 | 336:12:28:01 0:05:39:00 | IH | MIR601 | 18.00 | 205.00 | 58.00 |
| 9 | BBXRT ALIGN #2 | 336:15:12:26 0:08:23:25 | IH | MIR601 | 128.00 | 197.00 | 12.00 |
| 10 | FREE DRIFT | 336:15:38:01 0:08:41:00 | IH | MIR601 | 131.00 | 212.00 | 33.00 |
| 11 | FREE DRIFT | 336:15:55:01 0:09:06:00 | IH | MIR601 | 141.00 | 160.00 | 349.00 |
| 12 | FREE DRIFT | 336:15:59:31 0:09:10:30 | IH | MIR601 | 141.00 | 160.00 | 342.00 |
| 13 | FREE DRIFT | 336:16:05:01 0:09:16:00 | IH | MIR601 | 140.00 | 155.00 | 320.00 |
| 14 | FREE DRIFT | 336:16:11:01 0:09:22:00 | IH | MIR601 | 128.00 | 129.00 | 300.00 |
| 15 | FREE DRIFT | 336:16:16:01 0:09:27:00 | IH | MIR601 | 78.00 | 80.00 | 295.00 |
| 16 | RETURN TO ATT | 336:16:26:01 0:09:37:00 | IH | MIR601 | 128.00 | 197.00 | 12.00 |
| 17 | BBXRT BRIGHT OBJECT | 336:16:42:40 0:09:53:39 | IH | MIR601 | 242.00 | 186.00 | 351.00 |
| 18 | OSP CAL | 336:17:24:03 0:10:35:02 | IH | MIR601 | 47.00 | 267.00 | 283.00 |
| 19 | J-F&A | 336:19:32:01 0:12:43:00 | IH | MIR601 | 157.00 | 169.00 | 340.00 |
| 20 | IMU ALIGN | 336:21:51:01 0:15:02:08 | IH | MIR601 | 145.00 | 176.00 | 353.00 |
| 21 | J-F&A | 336:21:59:01 0:15:10:00 | IH | MIR601 | 157.00 | 169.00 | 340.00 |
| 22 | 2001-11 | 337:02:38:01 0:19:49:00 | IH | MIR601 | 124.00 | 0.00 | 351.00 |
| 23 | BBXRT ALIGN #4 | 337:03:12:40 0:20:23:39 | IH | MIR601 | 112.00 | 99.00 | 300.00 |

TABLE 3-II.-- STS-35 AS-FLOWN ATTITUDE TIMELINE (CONT'D)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 24 | 2001-12 | 337:03:51:01 0:06:49:01 | IH | MIR601 | 94.00 | 96.00 | 35.00 |
| 25 | OSP CAL | 337:04:44:50 0:21:55:57 | IH | MIR601 | 18.00 | 205.00 | 50.00 |
| 26 | 0301-11U | 337:06:13:45 0:23:24:44 | LVLH | | 180.00 | 0.00 | 30.00 |
| 27 | OSP CAL | 337:06:49:33 1:00:00:32 | IH | MIR601 | 18.00 | 205.00 | 50.00 |
| 28 | 3804-10B | 337:07:58:59 1:01:09:58 | IH | MIR601 | 61.00 | 56.00 | 290.00 |
| 29 | 0608-10N | 337:08:37:10 1:01:40:09 | IH | MIR601 | 84.00 | 236.00 | 279.00 |
| 30 | 9306-12B | 337:09:31:34 1:02:42:33 | IH | MIR601 | 169.00 | 69.00 | 296.00 |
| 31 | 0001-1GH | 337:10:16:14 1:03:27:13 | IH | MIR601 | 345.00 | 121.00 | 302.00 |
| 32 | OSP CAL | 337:11:16:19 1:04:27:18 | IH | MIR601 | 18.00 | 205.00 | 50.00 |
| 33 | 0658-10M | 337:12:22:44 1:05:33:43 | IH | MIR601 | 62.00 | 259.00 | 301.00 |
| 34 | 8623-19B | 337:13:51:05 1:07:02:04 | IH | MIR601 | 228.00 | 165.00 | 314.00 |
| 35 | 4410-16H | 337:14:47:31 1:07:58:30 | IH | MIR601 | 55.00 | 83.00 | 307.00 |
| 36 | 2302-10M | 337:15:36:00 1:08:46:59 | IH | MIR601 | 95.00 | 129.00 | 334.00 |
| 37 | INERTIAL HOLD | 337:16:03:01 1:09:14:00 | IH | MIR601 | 90.00 | 113.00 | 320.00 |
| 38 | RETURN TO ATT | 337:16:08:26 1:09:29:25 | IH | MIR601 | 95.00 | 129.00 | 334.00 |
| 39 | 9301-11U | 337:17:17:55 1:10:28:54 | IH | MIR601 | 119.00 | 14.00 | 312.00 |
| 40 | 8116-40B | 337:17:49:50 1:11:00:49 | IH | MIR601 | 357.00 | 186.00 | 351.00 |
| 41 | OSP CAL | 337:18:49:01 1:12:00:00 | IH | MIR601 | 171.00 | 48.00 | 280.00 |
| 42 | 4416-41B | 337:19:52:01 1:13:03:00 | IH | MIR601 | 69.00 | 50.00 | 290.00 |
| 43 | CRAB ATT | 337:20:38:01 1:13:49:00 | IH | MIR601 | 98.00 | 87.00 | 22.00 |
| 44 | 8424-11H | 337:21:33:01 1:14:44:00 | IH | MIR601 | 23.00 | 124.00 | 290.00 |
| 45 | 4414-21B | 337:21:57:13 1:15:08:12 | IH | MIR601 | 108.00 | 93.00 | 16.00 |
| 46 | 2717-13H | 337:23:07:45 1:16:18:44 | IH | MIR601 | 268.00 | 130.00 | 307.00 |

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|--------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 47 | OSP CAL | 337:23:39:01 1:16:50:00 | IH | MIR601 | 2.00 | 238.00 | 321.00 |
| 48 | 3227-30H | 338:00:22:13 1:17:33:12 | IH | MIR601 | 269.00 | 129.00 | 295.00 |
| 49 | 2609-11W | 338:01:18:41 1:18:29:40 | IH | MIR601 | 340.00 | 176.00 | 203.00 |
| 50 | 2417-11W | 338:01:52:24 1:19:03:23 | IH | MIR601 | 268.00 | 129.00 | 307.00 |
| 51 | FREE DRIFT-IH | 338:03:41:01 1:20:52:00 | IH | MIR601 | 283.00 | 141.00 | 304.00 |
| 52 | 8202-40B | 338:04:05:01 1:21:16:00 | IH | MIR601 | 107.00 | 36.00 | 316.00 |
| 53 | 5116-10U | 338:05:01:28 1:22:12:27 | IH | MIR601 | 142.00 | 171.00 | 277.00 |
| 54 | 8415-11H | 338:05:46:37 1:22:57:36 | IH | MIR601 | 308.00 | 126.00 | 302.00 |
| 55 | 4416-20B | 338:06:54:50 2:00:05:49 | IH | MIR601 | 131.00 | 132.00 | 297.00 |
| 56 | 2111-20B | 338:07:47:00 2:00:57:59 | IH | MIR601 | 94.00 | 127.00 | 311.00 |
| 57 | 5102-10U | 338:08:19:56 2:01:30:55 | IH | MIR601 | 149.00 | 140.00 | 296.00 |
| 58 | 4503-10W | 338:09:02:40 2:02:13:39 | IH | MIR601 | 97.00 | 126.00 | 312.00 |
| 59 | 3749-11B | 338:10:03:28 2:03:14:27 | IH | MIR601 | 272.00 | 128.00 | 307.00 |
| 60 | 9106-10B | 338:10:43:49 2:03:54:48 | IH | MIR601 | 339.00 | 158.00 | 290.00 |
| 61 | 2881-I | 338:11:20:33 2:04:31:32 | IH | MIR601 | 46.00 | 208.00 | 343.00 |
| 62 | IDIN HEATING | 338:12:42:11 2:05:53:10 | IH | MIR601 | 280.00 | 189.00 | 316.00 |
| 63 | 2881-1 | 338:13:26:11 2:06:37:10 | IH | MIR601 | 46.00 | 288.00 | 343.00 |
| 64 | 3749-12B | 338:14:11:55 2:07:22:54 | IH | MIR601 | 240.00 | 87.00 | 314.00 |
| 65 | -ZLV NOSE SOUTH | 338:15:22:11 2:08:33:10 | LVLH | | 180.00 | 0.00 | 90.00 |
| 66 | OSP CAL | 338:16:05:50 2:09:16:49 | IH | MIR601 | 18.00 | 205.00 | 58.00 |
| 67 | 3805-16B | 338:17:13:55 2:10:24:54 | IH | MIR601 | 125.00 | 125.00 | 299.00 |
| 68 | 0606-10W | 338:17:44:42 2:10:55:41 | IH | MIR601 | 102.00 | 334.00 | 347.00 |
| 69 | 3206-23H | 338:18:56:39 2:12:07:38 | IH | MIR601 | 141.00 | 135.00 | 296.00 |

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 70 | 2107-20V | 338:19:24:47 2:12:35:46 | IH | MIR601 | 50.00 | 234.00 | 300.00 |
| 71 | 5108-10U | 338:20:17:39 2:13:20:38 | IH | MIR601 | 291.00 | 114.00 | 310.00 |
| 72 | 4414-25B | 338:21:01:05 2:14:12:04 | IH | MIR601 | 100.00 | 340.00 | 345.00 |
| 73 | 2307-21V | 338:21:56:31 2:15:07:30 | IH | MIR601 | 129.00 | 155.00 | 279.00 |
| 74 | IDOP TEST | 338:22:25:31 2:15:36:30 | IH | MIR601 | 97.00 | 211.00 | 29.00 |
| 75 | 4412-10H | 338:23:16:53 2:16:27:52 | IH | MIR601 | 234.00 | 92.00 | 312.00 |
| 76 | 8002-11M | 339:00:35:02 2:17:46:01 | IH | MIR601 | 340.00 | 76.00 | 296.00 |
| 77 | 9305-12U | 339:01:28:11 2:18:39:10 | IH | MIR601 | 128.00 | 356.00 | 316.00 |
| 78 | 3804-11B | 339:02:24:18 2:19:35:09 | IH | MIR601 | 134.00 | 134.00 | 295.00 |
| 79 | 2509-10H | 339:03:09:44 2:20:20:43 | IH | MIR601 | 122.00 | 304.00 | 304.00 |
| 80 | 4405-20B | 339:04:03:58 2:21:14:57 | IH | MIR601 | 60.00 | 55.00 | 293.00 |
| 81 | INERTIAL HOLD | 339:04:16:01 2:21:27:00 | IH | MIR601 | 95.00 | 99.00 | 300.00 |
| 82 | ILOP TEST | 339:04:34:01 2:21:45:00 | IH | MIR601 | 97.00 | 211.00 | 29.00 |
| 83 | 4207-11V | 339:05:24:26 2:22:35:24 | IH | MIR601 | 125.00 | 148.00 | 290.00 |
| 84 | 6106-10U | 339:05:51:03 2:23:02:02 | IH | MIR601 | 149.00 | 140.00 | 294.00 |
| 85 | 8113-10U | 339:06:25:38 2:23:36:37 | IH | MIR601 | 66.00 | 135.00 | 306.00 |
| 86 | 4414-26B | 339:07:20:00 3:00:31:07 | IH | MIR601 | 69.00 | 176.00 | 9.00 |
| 87 | 4557-10W | 339:08:34:49 3:01:45:48 | IH | MIR601 | 217.00 | 350.00 | 84.00 |
| 88 | 6216-10U | 339:09:26:19 3:02:37:18 | IH | MIR601 | 124.00 | 287.00 | 283.00 |
| 89 | 4557-11W | 339:10:10:03 3:03:21:02 | IH | MIR601 | 307.00 | 153.00 | 280.00 |
| 90 | 2302-20W | 339:10:53:07 3:04:04:06 | IH | MIR601 | 75.00 | 82.00 | 337.00 |
| 91 | -ZLV +YVV | 339:11:45:36 3:04:56:35 | LVLH | | 270.00 | 270.00 | 0.00 |
| 92 | 8307-11U | 339:12:21:15 3:05:32:14 | IH | MIR601 | 22.00 | 132.00 | 300.00 |

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 93 | 2102-10W | 339:13:23:07 3:06:34:06 | IH | MIR601 | 288.00 | 135.00 | 289.00 |
| 94 | 4419-10B | 339:14:22:39 3:07:33:38 | IH | MIR601 | 105.00 | 127.00 | 298.00 |
| 95 | 5104-11U | 339:15:08:38 3:08:19:37 | IH | MIR601 | 92.00 | 228.00 | 4.00 |
| 96 | 2217-11M | 339:16:02:01 3:09:13:00 | IH | MIR601 | 35.00 | 53.00 | 295.00 |
| 97 | IDOP TEST | 339:16:34:26 3:09:45:25 | IH | MIR601 | 97.00 | 211.00 | 29.00 |
| 98 | 4416-21B | 339:17:22:16 3:10:33:15 | IH | MIR601 | 160.00 | 161.00 | 0.00 |
| 99 | 3705-20B | 339:18:10:34 3:11:21:33 | IH | MIR601 | 90.00 | 70.00 | 355.00 |
| 100 | 4416-50B ON PRCS | 339:19:10:46 3:12:21:45 | IH | MIR601 | 129.00 | 129.00 | 297.00 |
| 101 | 4201-10M | 339:19:44:38 3:12:55:37 | IH | MIR601 | 116.00 | 20.00 | 330.00 |
| 102 | FREE DRIFT | 339:20:05:01 3:13:16:00 | IH | MIR601 | 116.00 | 20.00 | 330.00 |
| 103 | ATT HOLD | 339:20:11:31 3:13:22:30 | IH | MIR601 | 137.00 | 6.00 | 330.00 |
| 104 | RTN TO ATT | 339:20:22:01 3:13:33:00 | IH | MIR601 | 116.00 | 20.00 | 330.00 |
| 105 | 9304-11U | 339:20:41:37 3:13:52:36 | IH | MIR601 | 304.00 | 176.00 | 305.00 |
| 106 | 6314-24H | 339:21:32:56 3:14:43:55 | IH | MIR601 | 122.00 | 95.00 | 321.00 |
| 107 | 2133-10M | 339:22:13:27 3:15:24:26 | IH | MIR601 | 268.00 | 125.00 | 306.00 |
| 108 | 8424-13H | 339:23:19:56 3:16:30:55 | IH | MIR601 | 12.00 | 108.00 | 297.00 |
| 109 | 2801-13H | 340:00:24:53 3:17:35:52 | IH | MIR601 | 139.00 | 29.00 | 7.00 |
| 110 | 4530-10X | 340:01:14:14 3:18:25:13 | IH | MIR601 | 137.00 | 147.00 | 287.00 |
| 111 | 2122-10M | 340:01:53:28 3:19:04:27 | IH | MIR601 | 92.00 | 123.00 | 346.00 |
| 112 | 7310-10U | 340:02:49:21 3:20:00:20 | IH | MIR601 | 353.00 | 110.00 | 290.00 |
| 113 | 6205-10U | 340:03:20:09 3:20:31:00 | IH | MIR601 | 152.00 | 47.00 | 299.00 |
| 114 | 3814-10H | 340:04:17:19 3:21:28:18 | IH | MIR601 | 311.00 | 112.00 | 315.00 |
| 115 | 8415-13H | 340:04:55:28 3:22:06:19 | IH | MIR601 | 299.00 | 114.00 | 307.00 |

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 116 | 4413-10H | 340:05:55:05 3:23:06:04 | IH | MIR601 | 213.00 | 43.00 | 8.00 |
| 117 | 9202-11U | 340:06:55:14 4:00:06:13 | IH | MIR601 | 37.00 | 148.00 | 291.00 |
| 118 | 3805-11B | 340:07:33:23 4:00:44:22 | IH | MIR601 | 127.00 | 134.00 | 298.00 |
| 119 | 4448-10U | 340:08:34:50 4:01:45:49 | IH | MIR601 | 86.00 | 395.00 | 57.00 |
| 120 | 2235-11W | 340:09:03:11 4:02:14:10 | IH | MIR601 | 342.00 | 244.00 | 312.00 |
| 121 | 7205-10U | 340:09:47:56 4:02:58:55 | IH | MIR601 | 130.00 | 293.00 | 284.00 |
| 122 | 4211-10W | 340:10:35:23 4:03:46:22 | IH | MIR601 | 354.00 | 197.00 | 329.00 |
| 123 | 0752-18B | 340:11:48:08 4:04:59:07 | IH | MIR601 | 272.00 | 126.00 | 306.00 |
| 124 | TDRS COMM | 340:12:47:01 4:05:58:00 | IH | MIR601 | 303.00 | 171.00 | 46.00 |
| 125 | 3115-10M | 340:13:37:01 4:06:48:00 | IH | MIR601 | 335.00 | 171.00 | 280.00 |
| 126 | 3805-15B | 340:14:24:01 4:07:35:00 | IH | MIR601 | 168.00 | 186.00 | 31.00 |
| 127 | -ZLV NS H2O DUMP | 340:15:22:01 4:08:33:00 | LVLH | | 100.00 | 9.00 | 90.00 |
| 128 | 3752-17B | 340:17:01:07 4:10:12:06 | IH | MIR601 | 258.00 | 121.00 | 296.00 |
| 129 | 8424-26B | 340:17:30:30 4:10:49:29 | IH | MIR601 | 344.00 | 78.00 | 296.00 |
| 130 | BBXRT | 340:18:44:01 4:11:55:00 | IH | MIR601 | 106.00 | 57.00 | 8.00 |
| 131 | 0010-11H | 340:19:42:01 4:12:53:00 | IH | MIR601 | 258.00 | 125.00 | 298.00 |
| 132 | 8117-22B | 340:20:27:26 4:13:38:25 | IH | MIR601 | 180.00 | 315.00 | 343.00 |
| 133 | 6682-11U | 340:21:21:32 4:14:32:31 | IH | MIR601 | 153.00 | 157.00 | 340.00 |
| 134 | 8415-23H | 340:23:25:45 4:16:36:44 | IH | MIR601 | 336.00 | 172.00 | 350.00 |
| 135 | 8623 | 341:00:24:01 4:17:35:20 | IH | MIR601 | 295.00 | 242.00 | 299.00 |
| 136 | 2533-10H | 341:01:39:23 4:18:50:22 | IH | MIR601 | 201.00 | 315.00 | 314.00 |
| 137 | 2609-12M | 341:02:18:01 4:19:29:00 | IH | MIR601 | 356.00 | 200.00 | 23.00 |
| 138 | 6232-10U | 341:03:09:01 4:20:20:00 | IH | MIR601 | 343.00 | 127.00 | 326.00 |

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 139 | 6314-11U | 341:03:45:01 4:20:56:00 | IH | MIR601 | 40.00 | 347.00 | 334.00 |
| 140 | 8318-11U | 341:04:41:38 4:21:52:37 | IH | MIR601 | 3.00 | 480.00 | 327.00 |
| 141 | 6314-12U | 341:05:17:53 4:22:28:52 | IH | MIR601 | 45.00 | 340.00 | 340.00 |
| 142 | 8310-12U | 341:06:13:53 4:23:24:52 | IH | MIR601 | 3.00 | 48.00 | 327.00 |
| 143 | 6314-13U | 341:06:51:07 5:00:02:06 | IH | MIR601 | 42.00 | 319.00 | 2.00 |
| 144 | 8512-11H | 341:09:21:40 5:02:32:39 | IH | MIR601 | 335.00 | 171.00 | 355.00 |
| 145 | 8606-11M | 341:12:13:32 5:05:24:31 | IH | MIR601 | 89.00 | 241.00 | 341.00 |
| 146 | THERMAL ATT | 341:15:32:43 5:08:43:42 | IH | MIR601 | 323.00 | 114.00 | 301.00 |
| 147 | 2801-14B | 341:16:04:43 5:09:15:42 | IH | MIR601 | 116.00 | 336.00 | 319.00 |
| 148 | 9502-1B | 341:16:57:19 5:10:08:18 | IH | MIR601 | 201.00 | 121.00 | 290.00 |
| 149 | 4116-32B | 341:18:00:12 5:11:11:11 | IH | MIR601 | 151.00 | 198.00 | 43.00 |
| 150 | 6105-13U | 341:18:59:10 5:12:10:09 | IH | MIR601 | 166.00 | 37.00 | 303.00 |
| 151 | 0301-13 -ZLV XX | 341:19:53:33 5:13:04:32 | LVLH | | 180.00 | 0.00 | 270.00 |
| 152 | 6105-14U | 341:20:26:28 5:13:37:27 | IH | MIR601 | 166.00 | 37.00 | 303.00 |
| 153 | 2533-1H | 341:21:20:57 5:14:31:56 | IH | MIR601 | 196.00 | 304.00 | 350.00 |
| 154 | 1204-40H | 341:22:05:26 5:15:16:24 | IH | MIR601 | 42.00 | 118.00 | 350.00 |
| 155 | THERMAL RECOVERY | 341:23:14:21 5:16:25:20 | IH | MIR601 | 38.00 | 110.00 | 291.00 |
| 156 | 4104-1H | 341:23:41:07 5:16:52:06 | IH | MIR601 | 118.00 | 79.00 | 341.00 |
| 157 | 0658-20W | 342:02:42:21 5:17:43:20 | IB | MIR601 | 140.00 | 47.00 | 50.00 |
| 158 | 4416-33B | 342:02:07:11 5:19:10:10 | IH | MIR601 | 45.00 | 38.00 | 300.00 |
| 159 | 0658-21M | 342:02:42:11 5:19:53:10 | IH | MIR601 | 140.00 | 47.00 | 50.00 |
| 160 | 6203-19B | 342:03:56:06 5:21:07:05 | IH | MIR601 | 170.00 | 117.00 | 5.00 |
| 161 | 8116-19B | 342:04:33:42 5:21:44:41 | IH | MIR601 | 185.00 | 305.00 | 71.00 |

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 162 | 2111-11B | 342:05:48:41 5:22:59:40 | IH | MIR601 | 37.00 | 27.0 | 9.00 |
| 163 | 4212-13H | 342:07:08:09 6:00:19:08 | IH | MIR601 | 8.00 | 204.00 | 32.00 |
| 164 | THERMAL ATT | 342:08:10:01 6:01:21:00 | IH | MIR601 | 277.00 | 116.00 | 321.00 |
| 165 | 8282-33H | 342:08:42:47 6:01:53:46 | IH | MIR601 | 59.00 | 222.00 | 42.00 |
| 166 | 2209-11M | 342:09:36:16 6:02:47:15 | IH | MIR601 | 70.00 | 217.00 | 352.00 |
| 167 | -ZLV NOSE SOUTH | 342:11:25:01 6:04:36:00 | LVLH | | 180.00 | 0.00 | 90.00 |
| 168 | 2189-12M | 342:11:59:17 6:05:10:16 | IH | MIR601 | 93.00 | 310.00 | 353.00 |
| 169 | 3817-19B | 342:12:55:56 6:06:06:55 | IH | MIR601 | 236.00 | 71.00 | 330.00 |
| 170 | 6602-13U | 342:13:17:00 6:06:28:07 | IH | MIR601 | 48.00 | 265.00 | 305.00 |
| 171 | 4503-11M | 342:15:50:01 6:09:01:00 | IH | MIR601 | 139.00 | 195.00 | 349.00 |
| 172 | 2107-21M | 342:17:43:59 6:10:54:58 | IH | MIR601 | 144.00 | 339.00 | 311.00 |
| 173 | 8623-14H | 342:18:52:37 6:12:03:36 | IH | MIR601 | 206.00 | 125.00 | 0.00 |
| 174 | 3218-10H | 342:19:35:31 6:12:46:30 | LVLH | | 195.00 | 330.00 | 340.00 |
| 175 | 0010-14H GALILEO | 342:20:40:18 6:13:51:17 | IH | MIR601 | 214.00 | 58.00 | 350.00 |
| 176 | 3218-20H | 342:21:06:48 6:14:17:47 | IH | MIR601 | 190.00 | 317.00 | 11.00 |
| 177 | 8623-11B | 342:22:23:29 6:15:34:20 | IH | MIR601 | 270.00 | 35.00 | 64.00 |
| 178 | 4421-22B | 342:23:01:06 6:16:12:05 | IH | MIR601 | 114.00 | 155.00 | 313.00 |
| 179 | 8282-41B | 342:23:50:51 6:17:01:50 | IH | MIR601 | 146.00 | 106.00 | 26.00 |
| 180 | 6308-13B | 343:00:58:51 6:18:09:50 | IH | MIR601 | 194.00 | 266.00 | 60.00 |
| 181 | 5103-21U | 343:01:41:27 6:18:52:26 | IH | MIR601 | 107.00 | 103.00 | 322.00 |
| 182 | 5107-12U | 343:02:32:42 6:19:43:41 | IH | MIR601 | 267.00 | 253.00 | 46.00 |
| 183 | 5103-22U | 343:03:23:01 6:20:34:00 | IH | MIR601 | 67.00 | 41.00 | 321.00 |
| 184 | 9385-13U | 343:06:25:17 6:23:36:16 | IH | MIR601 | 67.00 | 155.00 | 52.00 |

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

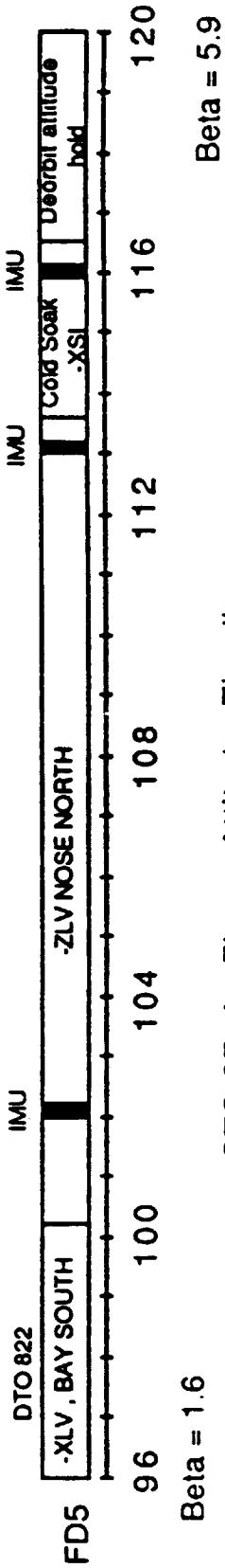
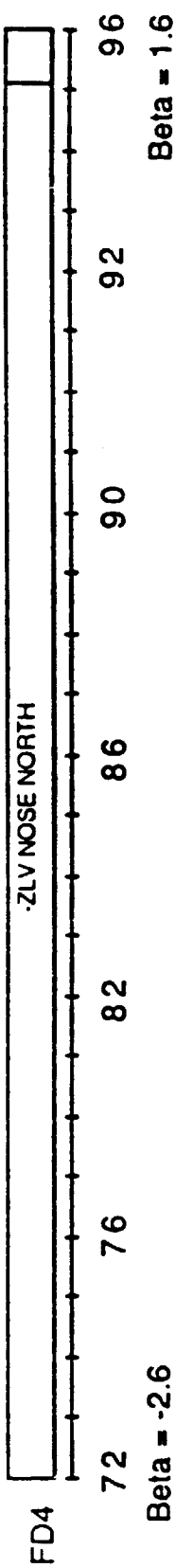
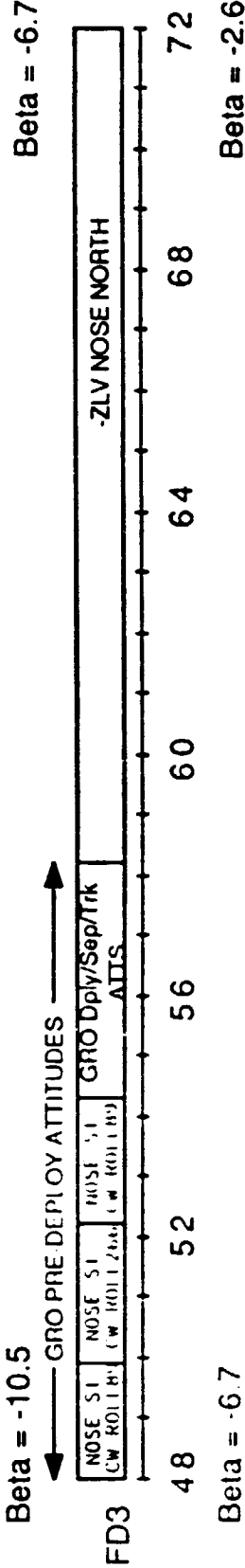
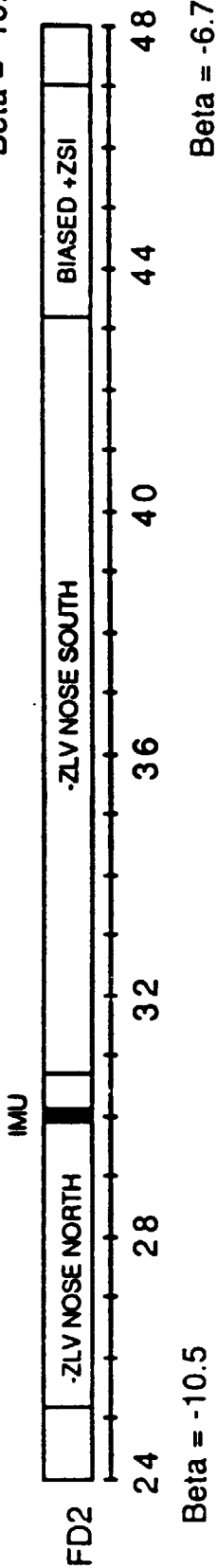
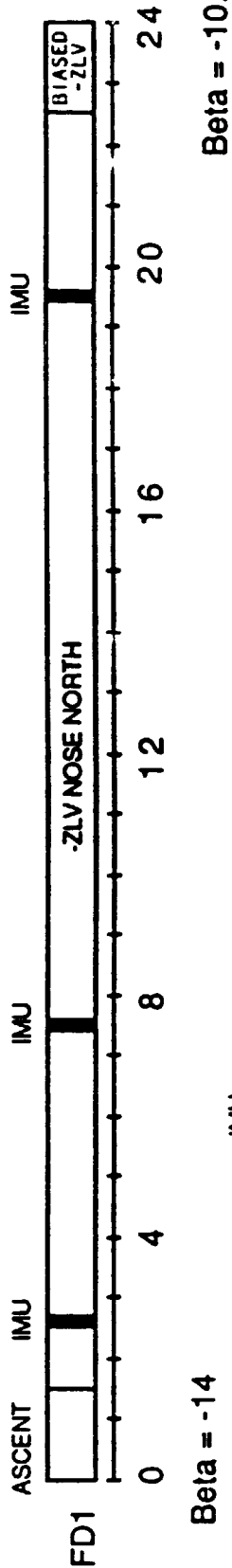
| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 185 | THERMAL RECOVERY | 343:07:01:58 7:00:12:49 | IH | MIR601 | 301.00 | 90.00 | 14.00 |
| 186 | 9319-18B | 343:07:43:40 7:00:54:39 | IH | MIR601 | 20.00 | 158.00 | 20.00 |
| 187 | 4518-13M | 343:09:05:33 7:02:16:32 | IH | MIR601 | 93.00 | 172.00 | 5.00 |
| 188 | 0658-23M | 343:10:41:13 7:03:52:12 | IH | MIR601 | 24.00 | 198.00 | 353.00 |
| 189 | 0510-19B | 343:11:32:09 7:04:43:08 | IH | MIR601 | 340.00 | 105.00 | 336.00 |
| 190 | 3888-19B | 343:13:12:21 7:06:23:28 | IH | MIR601 | 173.00 | 284.00 | 320.00 |
| 191 | 3213-20H | 343:13:48:38 7:06:59:29 | IH | MIR601 | 74.00 | 244.00 | 284.00 |
| 192 | 6119-11U | 343:14:40:22 7:07:51:21 | IH | MIR601 | 78.00 | 292.00 | 306.00 |
| 193 | 6308-14B | 343:16:13:01 7:09:24:00 | IH | MIR601 | 205.00 | 304.00 | 287.00 |
| 194 | 6424-14H | 343:16:37:01 7:09:48:00 | IH | MIR601 | 187.00 | 273.00 | 351.00 |
| 195 | 6148-11U | 343:18:13:32 7:11:24:31 | IH | MIR601 | 55.00 | 286.00 | 280.00 |
| 196 | 5105-10U | 343:19:06:34 7:12:17:33 | IH | MIR601 | 206.00 | 316.00 | 317.00 |
| 197 | 6119-11U | 343:19:42:35 7:12:53:34 | IH | MIR601 | 101.00 | 339.00 | 290.00 |
| 198 | 2235-12W | 343:20:39:58 7:13:50:57 | IH | MIR601 | 205.00 | 78.00 | 12.00 |
| 199 | 2217-10W | 343:21:56:59 7:15:07:58 | IH | MIR601 | 110.0 | 137.00 | 281.00 |
| 200 | 2102-11W | 343:22:53:02 7:16:04:01 | IH | MIR601 | 176.00 | 29.00 | 25.00 |
| 201 | 6308-15B | 343:23:47:07 7:16:58:06 | IH | MIR601 | 346.00 | 86.00 | 300.00 |
| 202 | 8101-24B | 344:00:14:30 7:17:25:29 | IH | MIR601 | 350.00 | 241.00 | 298.00 |
| 203 | 3212-13H | 344:01:11:44 7:18:22:43 | IH | MIR601 | 66.00 | 86.00 | 307.00 |
| 204 | 1284-50U | 344:01:42:01 7:18:53:00 | IH | MIR601 | 47.00 | 138.00 | 336.00 |
| 205 | 8303-11U | 344:03:19:01 7:20:30:00 | IH | MIR601 | 45.00 | 341.00 | 329.00 |
| 206 | 5116-11U | 344:04:22:38 7:21:33:37 | IH | MIR601 | 1.00 | 42.00 | 327.00 |
| 207 | 3288-11U | 344:04:59:38 7:22:10:37 | IH | MIR601 | 64.00 | 91.00 | 24.00 |

TABLE 3-II.- STS-35 AS-FLOWN ATTITUDE TIMELINE (Concluded)

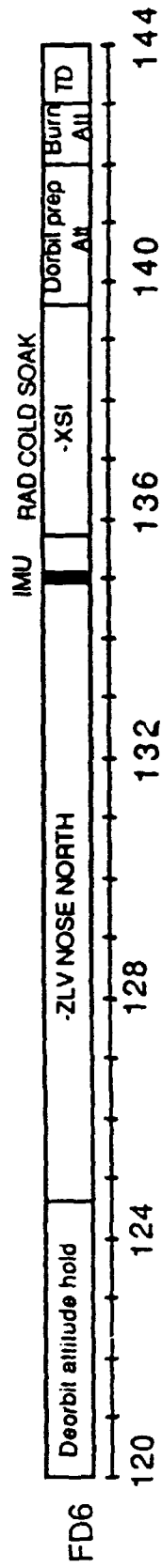
| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 208 | DTO 902 START | 344:05:55:38 7:23:06:37 | LVLH | | 188.00 | 250.00 | 0.00 |
| 209 | DTO 902 ROT INIT | 344:06:01:01 7:23:12:00 | ROTR | MIR601 | 113.00 | 320.00 | 44.00 |
| 210 | DTO 902 ROT STOP | 344:06:13:33 7:23:24:32 | LVLH | | 180.00 | 90.00 | 0.00 |
| 211 | 7434-11U | 344:06:30:57 7:23:41:56 | IH | MIR601 | 28.00 | 15.00 | 65.00 |
| 212 | 6216-11U | 344:00:04:08 8:01:15:07 | IH | MIR601 | 13.00 | 156.00 | 30:00 |
| 213 | 2109-13M | 344:09:26:00 8:02:36:59 | IH | MIR601 | 83.00 | 100.00 | 2.00 |
| 214 | 3115-11M | 344:10:42:50 8:03:53:49 | IH | MIR601 | 339.00 | 176.00 | 335.00 |
| 215 | -ZLV NOSE SOUTH | 344:11:59:01 8:05:10:00 | LVLH | | 180.00 | 0.00 | 30.00 |
| 216 | 4405-21B | 344:12:49:57 8:06:00:56 | IH | MIR601 | 158.00 | 168.00 | 336.00 |
| 217 | 8227-31H | 344:14:00:53 8:07:11:52 | IH | MIR601 | 280.00 | 144.00 | 297.00 |
| 218 | 1112-IOH | 344:14:45:39 8:07:56:30 | IH | MIR601 | 183.00 | 227.00 | 49.00 |
| 219 | 4419-10B | 344:15:57:01 8:09:00:00 | IH | MIR601 | 163.00 | 227.00 | 19.00 |
| 220 | 8337-10D | 344:10:39:01 8:11:50:00 | IH | MIR601 | 280.00 | 0.00 | 277.00 |
| 221 | -ZLV THERMAL | 344:19:47:01 8:12:58:00 | LVLH | | 100.00 | 0.00 | 70.00 |
| 222 | INERTIAL HOLD | 344:20:33:31 8:13:08:30 | IH | MIR601 | 313.00 | 78.00 | 29.00 |
| 223 | RETURNED TO -ZLV | 344:21:05:29 8:14:16:28 | LVLH | | 100.00 | 0.00 | 70.00 |
| 224 | TAIL SUN | 345:00:47:01 8:17:50:00 | IH | MIR601 | 45.00 | 292.00 | 61.00 |
| 225 | DEORBIT ALIGN | 345:01:57:01 8:19:00:00 | IH | MIR601 | 344.00 | 321.00 | 352.00 |
| 226 | IMU VERIF | 345:02:09:01 8:19:20:00 | IH | MIR601 | 15.00 | 283.00 | 44.00 |
| 227 | VERIF - PAIR A1 | 345:02:16:01 8:19:27:00 | IH | MIR601 | 86.00 | 192.00 | 11.00 |
| 228 | DEORBIT BURN ATT | 345:02:30:01 8:19:41:00 | IH | MIR601 | 124.00 | 120.00 | 56.00 |
| 229 | 183 ENTRY | 345:04:54:22 8:22:05:21 | IH | CURI01 | 285.00 | 334.36 | 357.15 |
| 230 | 184 ENTRY | 345:05:18:09 8:22:29:00 | LVLH | | 1.09 | 30.47 | 358.63 |

TABLE 3-III - STS-37 AS-FLOWN TIMELINE

| <u>MET</u> <u>(HRS:MIN)</u> | <u>DURATION</u> <u>(HRS:MIN)</u> | <u>ATTITUDE/EVENT</u> |
|--------------------------------|-------------------------------------|---------------------------------------|
| 0:00 - 1:30 | 1:30 | Ascent |
| 1:30 - 19:47 | 18:17 | -ZLV Nose North |
| 19:47 - 20:10 | :23 | +X COAS CAL |
| 20:10 - 22:37 | 2:27 | -ZLV Nose North |
| 22:37 - 24:40 | 2:03 | Biased -ZLV (Nose Pitched Down 6°) |
| 24:40 - 25:03 | :23 | AMOS HES Attitudes (Biased Nose SI) |
| 25:03 - 30:44 | 5:41 | -ZLV Nose North |
| 30:44 - 43:17 | 12:23 | -ZLV Nose South (Water Dump Attitude) |
| 43:17 - 47:04 | 3:47 | Biased +ZSI |
| 47:04 - 49:50 | 2:46 | Nose SI (Rolled CW 89°) |
| 49:50 - 52:13 | 2:23 | Nose SI (Rolled CW 266°) EVA Attitude |
| 52:13 - 54:15 | 2:02 | Nose SI (Rolled CW 89°) |
| 54:15 - 54:43 | :28 | GRO Deploy Attitude |
| 54:43 - 56:50 | 2:07 | GRO Separation Attitude |
| 56:50 - 57:00 | :10 | -XLV -ZVV Target Track |
| 57:00 - 58:10 | 1:10 | Biased ZLV XVV (Water Dump Att) |
| 58:10 - 95:14 | 37:04 | -ZLV Nose North |
| 95:14 - 100:32 | 5:18 | DTO 822 (Tail Earth, Bay South) |
| 100:32 - 113:37 | 13:05 | -ZLV Nose North |
| 113:37 - 116:22 | 2:45 | -XSI (Radiator Cold Soak) |
| 116:22 - 124:30 | 7:08 | Deorbit Burn Att (Waived Off) |
| 124:30 - 134:32 | 10:02 | -ZLV Nose North |
| 134:32 - 135:45 | 1:13 | -ZLV Biased -YVV |
| 135:45 - 139:42 | 3:57 | -XSI (Radiator Cold Soak) |
| 139:42 - 142:13 | 2:31 | Deorbit Burn Attitude |
| 143:01 | | Entry Interface |
| 143:02 | | Touchdown |



STS-37 As-Flown Attitude Timeline



Beta = 5.9

Beta = 10.3

STS-37 As-Flown Altitude Timeline (cont.)

TABLE 3-IV. - STS-39 BETA ANGLE RANGE

| Mission elapsed time, day:hour | Beta angle, deg |
|--------------------------------|-----------------|
| 0:00 | -40 |
| 1:00 | -38 |
| 2:00 | -35 |
| 3:00 | -32 |
| 4:00 | -29 |
| 5:00 | -25 |
| 6:00 | -21 |
| 7:00 | -17 |
| 8:00 | -13 |

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | Yaw |
|-----|--------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | |
| 1 | STS-39 FIN CYC | 118:00:00:00 0:11:33:14 | LVLH | | 0.00 | 0.00 | 0.00 |
| 2 | OMS-2 | 118:12:08:14 0:00:35:00 | IH | MIR601 | 254.00 | 124.00 | 356.00 |
| 3 | -ZLV +YVV | 118:12:56:32 0:01:23:18 | LVLH | | 180.00 | 0.00 | 90.00 |
| 4 | IMU ALIGN A1 | 118:14:17:13 0:02:43:59 | IH | MIR601 | 312.00 | 151.00 | 43.00 |
| 5 | +ZSI | 118:14:37:54 0:03:04:40 | IH | MIR601 | 257.00 | 328.00 | 305.00 |
| 6 | -ZSI | 118:16:23:14 0:04:50:00 | IH | MIR601 | 103.00 | 147.00 | 55.00 |
| 7 | +ZSI | 118:17:33:10 0:05:59:56 | IH | MIR601 | 256.00 | 327.00 | 305.00 |
| 8 | -ZLV +YVV | 118:20:07:58 0:08:34:44 | LVLH | | 180.00 | 0.00 | 90.00 |
| 9 | -ZSI | 118:21:02:59 0:09:29:45 | IH | MIR601 | 105.00 | 145.00 | 55.00 |
| 10 | IMU ALIGN A1 | 118:21:35:33 0:10:02:19 | IH | MIR601 | 312.00 | 151.00 | 43.00 |
| 11 | P002 QRAM | 118:22:42:51 0:11:09:37 | LVLH | | 25.00 | 180.00 | 90.00 |
| 12 | FREE DRIFT | 118:22:48:14 0:11:15:00 | LVLH | MIR601 | 25.00 | 180.00 | 90.00 |
| 13 | -ZLV +YVV | 118:23:50:19 0:12:17:05 | LVLH | | 180.00 | 0.00 | 90.00 |
| 14 | PU03 CRAB NEB 1 | 119:01:24:01 0:13:50:47 | IH | MIR601 | 17.81 | 334.07 | 341.03 |
| 15 | CRAB NEB 2 | 119:01:27:21 0:13:54:07 | IH | MIR601 | 17.69 | 333.67 | 342.31 |
| 16 | CRAB NEB 3 | 119:01:30:21 0:13:57:07 | IH | MIR601 | 17.57 | 333.27 | 343.59 |
| 17 | CRAB NEB 4 | 119:01:33:21 0:14:00:07 | IH | MIR601 | 17.46 | 332.88 | 344.87 |
| 18 | CRAB NEB 5 | 119:01:36:21 0:14:03:07 | IH | MIR601 | 17.37 | 332.49 | 346.15 |
| 19 | CRAB NEB 6 | 119:01:39:33 0:14:06:19 | IH | MIR601 | 14.90 | 333.27 | 343.59 |
| 20 | CRAB NEB 7 | 119:01:42:21 0:14:09:07 | IH | MIR601 | 16.24 | 333.27 | 343.59 |
| 21 | CRAB NEB 8 | 119:01:45:21 0:14:12:07 | IH | MIR601 | 17.57 | 333.27 | 343.59 |
| 22 | CRAB NEB 9 | 119:01:48:21 0:14:15:07 | IH | MIR601 | 18.90 | 333.27 | 343.59 |
| 23 | CRAB NEB 10 | 119:01:51:21 0:14:18:07 | IH | MIR601 | 20.24 | 333.27 | 343.59 |

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | Yaw |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | |
| 24 | PUO2A GAL CTR | 119:02:19:54 0:14:46:40 | IH | MIR601 | 207.18 | 34.15 | 13.82 |
| 25 | CRAB NEB 3 | 119:03:01:07 0:15:27:53 | IH | MIR601 | 17.57 | 333.27 | 343.59 |
| 26 | PFU02B SCO-X1 | 119:03:35:39 0:16:02:25 | IH | MIR601 | 172.27 | 165.14 | 27.65 |
| 27 | PUO2B PERSCL | 119:04:27:14 0:16:54:00 | IH | MIR601 | 56.42 | 34.04 | 356.36 |
| 28 | PUO2B CYG X-2 | 119:05:22:14 0:17:49:00 | IH | MIR601 | 128.42 | 73.83 | 317.17 |
| 29 | -ZLV -YVV | 119:05:57:54 0:18:24:40 | LVLH | | 180.00 | 0.00 | 270.00 |
| 30 | PC10 GGS | 119:07:33:14 0:20:00:00 | LVLH | | 121.00 | 268.00 | 2.00 |
| 31 | | 119:09:42:06 0:22:08:52 | LVLH | | 25.00 | 180.00 | 90.00 |
| 32 | PC10 GGS | 119:10:34:03 0:23:00:49 | LVLH | | 120.00 | 268.00 | 2.00 |
| 33 | PF07 WIGHT PRCS | 119:12:20:26 1:00:47:12 | LVLH | | 0.00 | 135.00 | 0.00 |
| 34 | PLO2G CYG X-1 | 119:14:07:30 1:02:34:16 | IH | MIR601 | 149.53 | 75.94 | 327.22 |
| 35 | | 119:14:58:14 1:03:25:00 | LVLH | | 180.00 | 267.00 | 0.00 |
| 36 | | 119:18:03:04 1:06:29:50 | LVLH | | 121.00 | 268.00 | 2.00 |
| 37 | | 119:20:18:14 1:08:45:00 | LVLH | | 25.00 | 180.00 | 90.00 |
| 38 | IMU ALGN +X COAS | 119:21:26:09 1:09:52:55 | IH | MIR601 | 320.00 | 333.00 | 300.00 |
| 39 | | 119:23:13:27 1:11:40:13 | LVLH | | 180.00 | 0.00 | 90.00 |
| 40 | | 119:23:48:14 1:12:15:00 | LVLH | | 238.00 | 266.00 | 358.00 |
| 41 | | 120:04:41:54 1:17:08:40 | LVLH | | 25.00 | 180.00 | 90.00 |
| 42 | -ZLV +YVV | 120:05:20:24 1:17:47:10 | LVLH | | 180.00 | 0.00 | 90.00 |
| 43 | PC11F-B GGN | 120:07:13:14 1:19:40:00 | LVLH | | 239.00 | 268.00 | 358.00 |
| 44 | PCS: BIAS -ZLV | 120:12:49:14 2:01:16:00 | LVLH | | 90.00 | 90.00 | 74.00 |
| 45 | PC3GA +ZLV MM | 120:13:58:14 2:02:25:00 | LVLH | | 0.00 | 0.00 | 270.00 |
| 46 | PQ04 QRAM | 120:14:33:14 2:03:00:00 | LVLH | | 25.00 | 180.00 | 90.00 |

TABLE 3-V - STS-39 A3-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | Yaw |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | |
| 47 | PC11A-D GGN | 120:16:15:14 2:04:42:00 | LVLH | | 239.00 | 268.00 | 358.00 |
| 48 | PC36B | 120:20:02:14 2:08:29:00 | IH | MIR601 | 274.61 | 32.19 | 292.47 |
| 49 | -ZLV +YVV | 120:20:37:14 2:09:04:00 | LVLH | | 180.00 | 0.00 | 90.00 |
| 50 | PC13-11E GGN | 120:22:12:24 2:10:39:10 | LVLH | | 239.00 | 268.00 | 358.00 |
| 51 | PC61 +ZLV NN | 121:01:50:34 2:14:17:20 | LVLH | | 0.00 | 0.00 | 270.00 |
| 52 | PC37 -ZSI | 121:02:42:14 2:15:09:00 | IH | MIR601 | 49.91 | 273.29 | 339.15 |
| 53 | P004 QRAM | 121:03:12:04 2:15:38:50 | LVLH | | 25.00 | 180.00 | 90.00 |
| 54 | IMU ALIGN B1 | 121:05:03:14 2:17:30:00 | IH | MIR601 | 291.00 | 304.00 | 21.00 |
| 55 | SPAS PRE- DEPLOY | 121:05:23:14 2:17:50:00 | IH | MIR601 | 0.00 | 180.00 | 0.00 |
| 56 | IBSS DEPLOY | 121:07:14:14 2:19:41:00 | LVLH | | 0.00 | 90.00 | 0.00 |
| 57 | DEPLOY-SEP | 121:08:24:14 2:20:51:00 | LVLH | | 0.00 | 90.00 | 0.00 |
| 58 | -Z TGT TRACK | 121:08:48:14 2:21:15:00 | LVLH | | 0.00 | 270.00 | 0.00 |
| 59 | MC1F | 121:08:54:14 2:21:21:00 | LVLH | | 0.00 | 270.00 | 0.00 |
| 60 | MC2F | 121:09:34:14 2:22:01:00 | LVLH | | 0.00 | 270.00 | 0.00 |
| 61 | | 121:10:33:14 2:23:00:00 | LVLH | | 0.00 | 270.00 | 270.00 |
| 62 | | 121:12:43:00 3:01:09:46 | LVLH | | 0.00 | 270.00 | 270.00 |
| 63 | | 121:12:53:00 3:01:19:46 | LVLH | | 0.00 | 270.00 | 270.00 |
| 64 | | 121:13:13:14 3:01:40:00 | LVLH | | 0.00 | 270.00 | 90.00 |
| 65 | | 121:16:33:14 3:05:00:00 | IH | MIR601 | 353.00 | 316.00 | 45.00 |
| 66 | | 121:16:48:14 3:05:15:00 | LVLH | | 0.00 | 270.00 | 90.00 |
| 67 | | 121:18:51:14 3:07:18:00 | IH | MIR601 | 212.00 | 270.00 | 65.00 |
| 68 | | 121:18:59:14 3:07:26:00 | LVLH | | 0.00 | 270.00 | 90.00 |
| 69 | | 121:20:23:00 3:08:49:46 | LVLH | | 0.00 | 270.00 | 90.00 |

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | Yaw |
|-----|--------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | |
| 70 | | 121:20:42:14 | LVLH | | 52.00 | 320.00 | 289.00 |
| 71 | | 3:09:09:00 121:21:02:14 | IH | MIR601 | 277.00 | 311.00 | 287.00 |
| 72 | | 3:09:29:00 121:21:17:14 | LVIH | | 52.00 | 320.00 | 289.00 |
| 73 | | 3:09:44:00 121:21:23:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 74 | CP1 | 3:09:49:46 121:21:30:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 75 | | 3:09:56:46 121:21:34:14 | LVLH | | 308.00 | 320.00 | 71.00 |
| 76 | MCP1 | 3:10:01:00 121:21:46:14 | LVLH | | 52.00 | 320.00 | 289.00 |
| 77 | VNP1 | 3:10:13:00 121:21:57:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 78 | OP3 | 3:10:23:46 121:22:04:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 79 | NOP3 | 3:10:30:46 121:22:08:14 | LVLH | | 308.00 | 320.00 | 71.00 |
| 80 | PRCS OBS ATT | 3:10:35:00 121:22:17:14 | LVLH | | 52.00 | 320.00 | 289.00 |
| 81 | MCP3 | 3:10:44:00 121:22:21:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 82 | VNP3 | 3:10:47:46 121:22:31:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 83 | GP2 | 3:10:57:46 121:22:38:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 84 | NOP2 | 3:11:04:46 121:22:43:00 | LVLH | | 308.00 | 320.00 | 71.00 |
| 85 | MCP2 | 3:11:09:46 121:22:55:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 86 | VNP2 | 3:11:21:46 121:23:05:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 87 | PRCS BURN | 3:11:31:46 121:23:12:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 88 | -YLV -ZVV | 3:11:38:46 121:23:32:14 | LVLH | | 0.00 | 270.00 | 90.00 |
| 89 | | 3:11:59:00 122:02:00:14 | IH | MIR601 | 180.00 | 113.00 | 2.00 |
| 90 | -YLV -ZVV | 3:14:27:00 122:02:05:44 | LVLH | | 0.00 | 270.00 | 90.00 |
| 91 | NCCNF | 3:14:32:30 122:05:29:54 | IH | MIR601 | 132.00 | 322.00 | 58.00 |
| 92 | -Z TGT TRK | 3:17:56:40 122:05:48:04 | LVLH | | 0.00 | 270.00 | 0.00 |
| | | 3:18:14:50 | | | | | |

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | Yaw |
|-----|-------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | |
| 93 | TNF | 122:06:27:44 3:18:54:30 | IH | MIR601 | 96.00 | 105.00 | 340.00 |
| 94 | -Z TGT TRK | 122:06:35:34 3:19:02:20 | LVLH | | 0.00 | 270.00 | 0.00 |
| 95 | +YLV -ZVV | 122:07:27:34 3:19:54:20 | LVLH | | 0.00 | 270.00 | 270.00 |
| 96 | OMS OBS ATT | 122:07:42:24 3:20:09:10 | LVLH | | 52.00 | 320.00 | 289.00 |
| 97 | NNF | 122:07:57:14 3:20:24:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 98 | OP4 | 122:08:04:14 3:20:31:00 | LVLH | | 52.00 | 320.00 | 289.00 |
| 99 | NOP4 | 122:08:08:25 3:20:35:11 | LVLH | | 308.00 | 320.00 | 71.00 |
| 100 | VNP4 | 122:08:10:04 3:20:36:50 | LVLH | | 52.00 | 320.00 | 289.00 |
| 101 | GPS | 122:08:29:00 3:20:55:46 | LVLH | | 52.00 | 320.00 | 289.00 |
| 102 | NOP5 | 122:08:33:24 3:21:00:10 | LVLH | | 308.00 | 320.00 | 71.00 |
| 103 | +YLV -ZVV | 122:08:44:14 3:21:11:00 | LVLH | | 0.00 | 270.00 | 270.00 |
| 104 | NSR5 | 122:08:55:14 3:21:22:00 | LVLH | | 0.00 | 270.00 | 270.00 |
| 105 | CIV OBS ATT | 122:10:24:38 3:22:51:21 | LVLH | | 250.00 | 180.00 | 290.00 |
| 106 | -YLV -ZVV | 122:12:04:57 4:00:31:43 | LVLH | | 0.00 | 270.00 | 90.00 |
| 107 | OPC MPC | 122:13:05:27 4:01:32:00 | IH | MIR601 | 37.00 | 33.00 | 59.00 |
| 108 | -YLV -ZVV | 122:13:22:19 4:01:49:05 | LVLH | | 0.00 | 270.00 | 90.00 |
| 109 | | 122:13:41:14 4:02:08:00 | IH | MIR601 | 155.00 | 276.00 | 296.00 |
| 110 | -YLV -ZVV | 122:13:53:14 4:02:20:00 | LVLH | | 0.00 | 270.00 | 90.00 |
| 111 | NOPC | 122:15:19:34 4:03:46:20 | IH | MIR601 | 216.00 | 19.00 | 349.00 |
| 112 | -YLV -ZVV | 122:15:24:14 4:03:51:00 | LVLH | | 0.00 | 270.00 | 90.00 |
| 113 | MCC | 122:19:35:44 4:08:02:30 | IH | MIR601 | 65.00 | 148.00 | 69.00 |
| 114 | -Z TGT TRK | 122:19:56:44 4:08:23:30 | LVLH | | 0.00 | 270.00 | 0.00 |
| 115 | TI | 122:20:33:00 4:09:59:46 | LVLH | | 0.00 | 268.50 | 0.00 |

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | Yaw |
|-----|----------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | |
| 116 | SPAS RETRIEVE | 122:22:11:14 4:10:38:00 | LVLH | | 0.00 | 90.00 | 0.00 |
| 117 | -ZLV -YVV | 122:23:33:14 4:12:00:00 | LVLH | | 180.00 | 0.00 | 270.00 |
| 118 | PV10 | 123:01:36:14 4:14:03:00 | LVLH | | 90.00 | 270.00 | 0.00 |
| 119 | PFO6 | 123:01:58:14 4:14:25:00 | IH | MIR601 | 249.00 | 327.00 | 10.00 |
| 120 | | 123:03:27:54 4:15:54:40 | LVLH | | 25.00 | 0.00 | 270.00 |
| 121 | PFO20 | 123:04:17:24 4:16:44:10 | IH | MIR601 | 201.20 | 178.39 | 47.80 |
| 122 | PQ04 | 123:05:13:14 4:17:40:00 | LVLH | | 25.00 | 180.00 | 90.00 |
| 123 | PF10 | 123:06:13:14 4:18:40:00 | LVLH | | 90.00 | 270.00 | 0.00 |
| 124 | PFO2B | 123:07:22:04 4:19:48:50 | IH | MIR601 | 357.90 | 85.65 | 61.64 |
| 125 | -ZLV +YVV | 123:08:01:54 4:20:28:40 | LVLH | | 180.00 | 0.00 | 90.00 |
| 126 | HA2 | 123:10:32:44 4:22:59:30 | IH | MIR601 | 73.00 | 286.00 | 321.00 |
| 127 | CIRC2 | 123:11:25:14 4:23:52:00 | IH | MIR601 | 282.00 | 110.00 | 23.00 |
| 128 | CRO A DEPLOY | 123:11:43:14 5:00:10:00 | LVLH | | 0.00 | 270.00 | 90.00 |
| 129 | SPAS ACS INIT | 123:12:36:14 5:01:03:00 | IH | MIR601 | 0.00 | 180.00 | 0.00 |
| 130 | BORESIGHT B | 123:14:03:14 5:02:30:00 | IH | MIR601 | 86.54 | 56.83 | 37.17 |
| 131 | HWIR EARTH- SWEEP | 123:15:13:14 5:03:40:00 | LVLH | | 312.00 | 106.00 | 341.00 |
| 132 | EARTHSCAN SSP | 123:15:48:14 5:04:15:00 | LVLH | | 23.00 | 161.00 | 352.00 |
| 133 | NO EARTHLIMB | 123:16:28:14 5:04:55:00 | LVLH | | 283.00 | 80.00 | 10.00 |
| 134 | AURORA | 123:16:43:14 5:05:10:00 | LVLH | | 286.00 | 180.00 | 10.00 |
| 135 | STRAPDOWN | 123:17:28:14 5:05:55:00 | IH | MIR601 | 173.10 | 332.65 | 358.63 |
| 136 | SPATIAL RES | 123:17:53:14 5:06:20:00 | IH | MIR601 | 35.88 | 55.08 | 332.05 |
| 137 | GROUND TRUTH | 123:18:33:14 5:07:00:00 | IH | MIR601 | 262.33 | 118.77 | 31.39 |
| 138 | GROUND TRUTH | 123:19:01:14 5:07:28:00 | IH | MIR601 | 261.81 | 109.82 | 323.10 |

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | Yaw |
|-----|----------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | |
| 139 | -ZLV -YVV | 123:19:19:44 5:07:46:30 | LVLH | | 180.00 | 0.00 | 270.00 |
| 140 | EARTHSCAN SSP | 123:20:15:14 5:08:42:00 | LVLH | | 23.00 | 151.00 | 346.00 |
| 141 | RAD POINT | 123:21:03:14 5:09:30:00 | IH | MIR601 | 342.00 | 23.00 | 358.00 |
| 142 | CRO A OBS ATT | 123:21:43:14 5:10:10:00 | LVLH | | 179.00 | 268.00 | 0.00 |
| 143 | -ZLV NS | 123:22:16:14 5:10:43:00 | LVLH | | 180.00 | 0.00 | 90.00 |
| 144 | HA2 BURN ATT | 123:23:12:14 5:11:39:00 | IH | MIR601 | 253.00 | 140.00 | 71.00 |
| 145 | LVLH HOLD HA2 | 123:23:16:14 5:11:43:00 | LVLH | | 178.00 | 355.00 | 348.00 |
| 146 | CIRC 2 BURN ATT | 123:23:57:14 5:12:24:00 | IH | MIR601 | 106.00 | 319.00 | 289.00 |
| 147 | STRAPDOWN | 124:00:18:14 5:12:45:00 | IH | MIR601 | 96.20 | 49.78 | 4.46 |
| 148 | EARTHLIMB | 124:01:33:14 5:14:00:00 | LVLH | | 282.00 | 180.00 | 10.00 |
| 149 | BORESIGHT B ATT | 124:04:23:34 5:16:50:20 | IH | MIR601 | 212.76 | 175.77 | 55.18 |
| 150 | OFVR | 124:05:16:34 5:17:43:20 | IH | MIR601 | 54.88 | 292.56 | 319.51 |
| 151 | OFVR SCAN MNR | 124:05:51:54 5:18:18:40 | IH | MIR601 | 198.37 | 107.40 | 37.50 |
| 152 | MWIR ELMB TERM | 124:06:01:44 5:18:28:30 | LVLH | | 282.00 | 180.00 | 10.00 |
| 153 | MWIR EARTH- SWEEP | 124:07:16:44 5:19:43:30 | LVLH | | 310.00 | 105.00 | 340.00 |
| 154 | CIV OPS | 124:08:51:14 5:21:18:00 | LVLH | | 339.00 | 290.00 | 0.00 |
| 155 | STRAPDOWN RMS | 124:09:53:14 5:22:20:00 | IH | MIR601 | 135.24 | 284.55 | 28.50 |
| 156 | IMU ALIGN A1 | 124:10:28:14 5:22:55:00 | IH | MIR601 | 312.00 | 151.00 | 43.00 |
| 157 | ORBITER ENVIRON | 124:10:53:14 5:23:20:00 | LVLH | | 100.00 | 272.00 | 346.00 |
| 158 | TAILGLOW | 124:11:28:14 5:23:55:00 | LVLH | | 270.00 | 285.00 | 0.00 |
| 159 | -ZLV +YVV | 124:12:23:14 6:00:50:00 | LVLH | | 180.00 | 0.00 | 90.00 |
| 160 | RAM VIEWING | 124:13:58:14 6:02:25:00 | LVLH | | 270.00 | 270.00 | 0.00 |
| 161 | PFO3 AURORA | 124:16:13:14 6:04:40:00 | LVLH | | 180.00 | 270.00 | 0.00 |

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | Yaw |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | |
| 162 | SCO X-1 | 124:17:28:14 6:05:55:00 | IH | MIR601 | 204.00 | 93.09 | 18.27 |
| 163 | PUO2A CENX-3 | 124:18:51:14 6:07:18:00 | IH | MIR601 | 86.04 | 210.10 | 9.51 |
| 164 | PUO2A GAL CENTER | 124:19:33:14 6:08:00:00 | IH | MIR601 | 190.64 | 78.37 | 27.79 |
| 165 | PUO2A CENX-2 | 124:20:18:34 6:08:45:20 | IH | MIR601 | 81.32 | 217.71 | 59.01 |
| 166 | PFUO2B SCO-X1 | 124:22:14:44 6:10:41:30 | IH | MIR601 | 163.54 | 185.15 | 23.33 |
| 167 | PUO2A GS1124 | 124:23:17:14 6:11:44:00 | IH | MIR601 | 87.66 | 202.57 | 18.50 |
| 168 | PFUO2B CYG X-1 | 124:23:55:14 6:12:22:00 | IH | MIR601 | 224.79 | 205.79 | 351.47 |
| 169 | PFUO2B GAL CTR | 125:01:18:14 6:13:45:00 | IH | MIR601 | 179.27 | 274.22 | 330.82 |
| 170 | PUO2B | 125:02:20:14 6:14:47:00 | IH | MIR601 | 87.77 | 202.19 | 12.38 |
| 171 | PFUO2B | 125:02:58:14 6:15:25:00 | IH | MIR601 | 244.78 | 225.59 | 358.20 |
| 172 | PFO2A | 125:03:50:14 6:16:17:00 | IH | MIR601 | 87.74 | 202.28 | 13.85 |
| 173 | GGN | 125:04:38:14 6:17:05:00 | LVLH | | 240.00 | 268.00 | 358.00 |
| 174 | PFO2B | 125:05:45:44 6:18:12:30 | IH | MIR601 | 275.07 | 120.50 | 67.38 |
| 175 | PFUO2B | 125:06:49:14 6:19:16:00 | IH | MIR601 | 276.32 | 28.15 | 12.20 |
| 176 | PQOS | 125:08:16:14 6:20:43:00 | LVLH | | 295.00 | 270.00 | 0.00 |
| 177 | PQO4 | 125:09:05:44 6:21:32:30 | LVLH | | 25.00 | 180.00 | 90.00 |
| 178 | IMU ALIGN B1 | 125:10:43:14 6:23:10:00 | IH | MIR601 | 291.00 | 304.00 | 21.00 |
| 179 | PF14 | 125:11:03:14 6:23:30:00 | IH | MIR601 | 296.52 | 152.24 | 329.79 |
| 180 | GGG | 125:11:38:14 7:00:05:00 | LVLH | | 120.00 | 260.00 | 2.00 |
| 181 | PQO4 QRAM | 125:13:23:14 7:01:50:00 | LVLH | | 25.00 | 180.00 | 90.00 |
| 182 | PF13 | 125:14:55:14 7:03:22:00 | IH | MIR601 | 211.01 | 38.33 | 354.88 |
| 183 | AIS THRSTR -Z | 125:15:33:14 7:04:00:00 | LVLH | | 90.00 | 100.00 | 350.00 |
| 184 | TDRS ATT | 125:16:08:14 7:04:35:00 | IH | MIR601 | 352.00 | 302.00 | 42.00 |

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matri | Attitude | | Yaw |
|-----|---------------------|-------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | |
| 185 | PQ04 QRAM | 125:18:03:14 | LVLH | | 25.00 | 180.00 | 90.00 |
| | | 7:06:30:00 | | | | | |
| 186 | PFO2B CHAMLN | 125:19:07:14 | IH | MIR601 | 230.60 | 138.25 | 35.26 |
| | | 7:07:34:00 | | | | | |
| 187 | PQ04 QRAM | 125:19:58:14 | LVLH | | 295.00 | 270.00 | 0.00 |
| | | 7:08:25:00 | | | | | |
| 188 | -ZLV MS | 125:20:43:14 | LVLH | | 180.00 | 0.00 | 90.00 |
| | | 7:09:10:00 | | | | | |
| 189 | ORB ADJUST BURN | 125:22:25:44 | IH | MIR601 | 70.00 | 290.00 | 314:00 |
| | | 7:10:52:30 | | | | | |
| 190 | UVLIM SCAN START | 125:22:43:14 | LVLH | | 5.00 | 55.00 | 0.00 |
| | | 7:11:10:00 | | | | | |
| 191 | UVLIM SCAN ROTR | 125:22:53:35 | ROTR | MIR601 | 261.00 | 504.00 | 0.00 |
| | | 7:11:20:21 | | | | | |
| 192 | UVLIM SCAN CNCL | 125:23:40:14 | IH | MIR601 | 106.00 | 110.00 | 57.00 |
| | | 7:12:07:00 | | | | | |
| 193 | SKIRT CVF AIRGLW | 125:23:53:32 | LVLH | | 187.00 | 104.00 | 274.00 |
| | | 7:12:20:18 | | | | | |
| 194 | SKIRT CVF CANCEL | 125:23:54:14 | IH | MIR601 | 290.00 | 210.00 | 13.00 |
| | | 7:12:21:00 | | | | | |
| 195 | UVLIM SCAN START | 126:00:10:10 | LVLH | | 10.00 | 55.00 | 0.00 |
| | | 7:12:44:56 | | | | | |
| 196 | UVLIM SCAN ROTR | 126:00:23:17 | ROTR | MIR601 | 266.00 | 305.00 | 1.00 |
| | | 7:12:58:03 | | | | | |
| 197 | UVLIM SCAN CNCL | 126:01:09:14 | IH | MIR601 | 97.00 | 118.00 | 57.00 |
| | | 7:13:36:00 | | | | | |
| 198 | MOON CAL | 126:01:25:42 | IH | MIR601 | 235.00 | 144.00 | 340.00 |
| | | 7:13:52:28 | | | | | |
| 199 | UVLIM SCAN START | 126:01:43:54 | LVLH | | 5.00 | 55.00 | 0.00 |
| | | 7:14:10:40 | | | | | |
| 200 | UVLIM SCAN ROTR | 126:01:52:59 | ROTR | MIR601 | 268.00 | 389.00 | 18.00 |
| | | 7:14:19:45 | | | | | |
| 201 | SKIRT CVF START | 126:02:50:03 | LVLH | | 0.00 | 345.00 | 0.00 |
| | | 7:15:16:49 | | | | | |
| 202 | SKIRT CVF ROT | 126:02:58:44 | LVLH | | 15.00 | 45.00 | 270.00 |
| | | 7:15:25:30 | | | | | |
| 203 | SKIRT CVF ROT | 126:03:06:19 | LVLH | | 180.00 | 165.00 | 0.00 |
| | | 7:15:33:05 | | | | | |
| 204 | GGN | 126:03:22:43 | LVLH | | 240.00 | 268.00 | 358.00 |
| | | 7:15:49:29 | | | | | |
| 205 | SKIRT CVF LVLH | 126:03:32:44 | LVLH | | 180.00 | 100.00 | 0.00 |
| | | 7:15:59:30 | | | | | |
| 206 | UVLIM LIMB SCAN | 126:06:25:54 | LVLH | | 180.00 | 235.00 | 10.00 |
| | | 7:18:52:40 | | | | | |
| 207 | UVLIM LIMB ROTR | 126:06:29:14 | ROTR | MIR601 | 282.89 | 119.96 | 336.70 |
| | | 7:18:56:00 | | | | | |

TABLE 3-V - STS-39 AS-FLOWN ATTITUDE TIMELINE (Concluded)

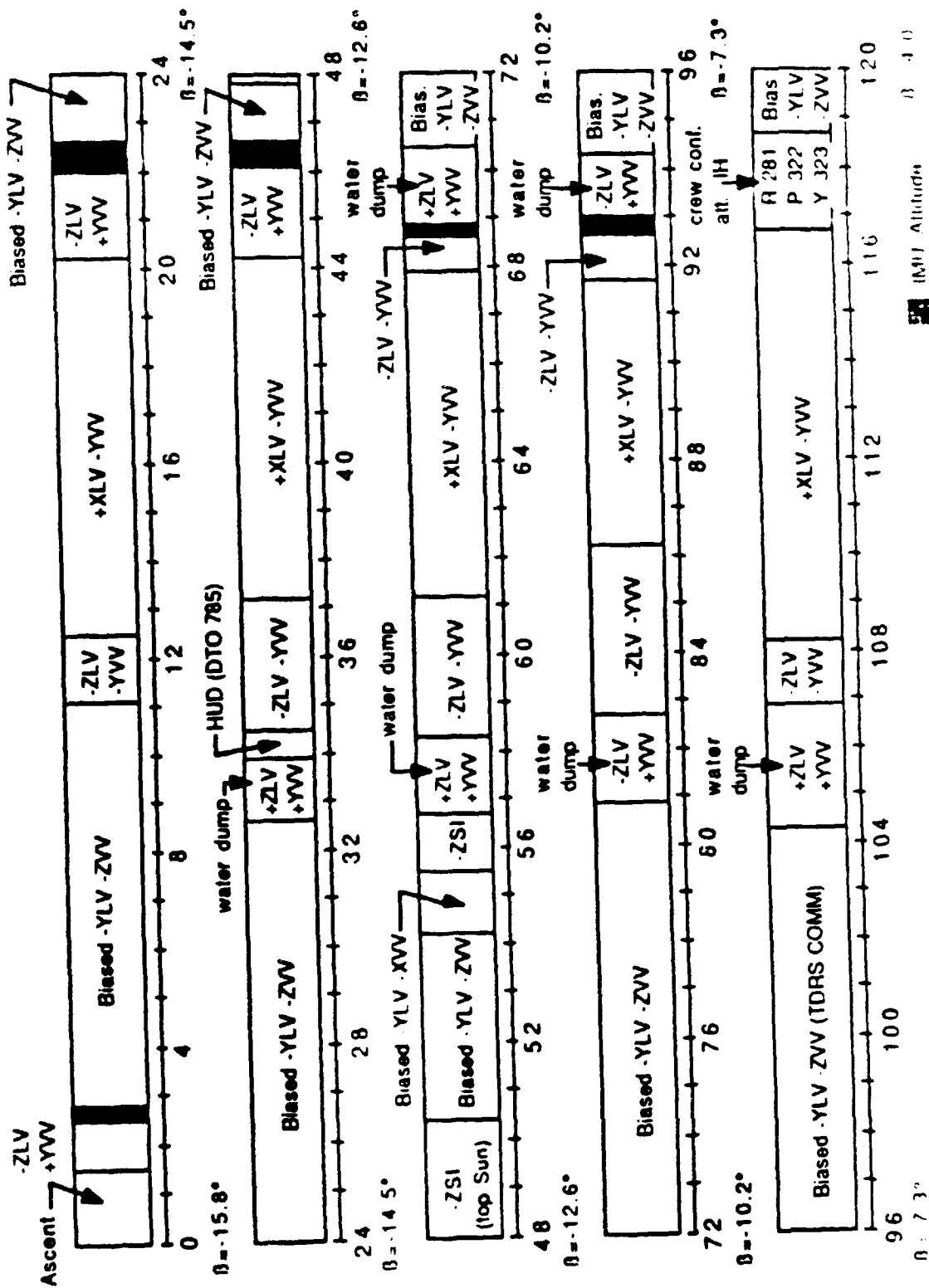
| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | Yaw |
|-----|-------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | |
| 208 | CANCEL | 126:07:09:14 7:19:36:00 | IN | MIR601 | 71.00 | 279.00 | 305.00 |
| 209 | SKIRT NOON CAL | 126:07:33:14 7:20:00:00 | IN | MIR601 | 284.00 | 227.00 | 319.00 |
| 210 | MPEC DEPLOY | 126:08:08:14 7:20:35:00 | LVLH | | 0.00 | 270.00 | 270.00 |
| 211 | MPEC SEP | 126:08:46:04 7:21:12:50 | IH | MIR601 | 293.00 | 108.00 | 46.00 |
| 212 | -ZLV +YVV | 126:09:13:14 7:21:40:00 | LVLH | | 180.00 | 0.00 | 90.00 |
| 213 | TAIL SUN | 126:12:43:14 8:01:10:00 | IH | MIR601 | 217.00 | 163.00 | 322.00 |
| 214 | D-0 IMU ALIGN | 126:14:59:14 8:03:26:00 | IH | MIR601 | 291.00 | 304.00 | 21.00 |
| 215 | D-0 IMU VERIF | 126:15:14:14 8:03:41:00 | IH | MIR601 | 113.00 | 312.00 | 319.00 |
| 216 | COMM ATT | 126:15:33:14 8:04:00:00 | IH | MIR601 | 127.00 | 91.00 | 61.00 |
| 217 | DEORBIT | 126:17:25:14 8:05:52:00 | IH | MIR601 | 112.00 | 110.00 | 40.00 |
| 218 | MM 303 ENTRY | 126:17:57:59 8:06:24:45 | IH | CUR101 | 254.26 | 75.18 | 5.30 |
| 219 | MM 304 ENTRY | 126:18:18:30 8:06:45:16 | LVLH | | 1.00 | 38.89 | 358.66 |

TABLE 3-VI - STS-40 AS-FLOWN TIMELINE

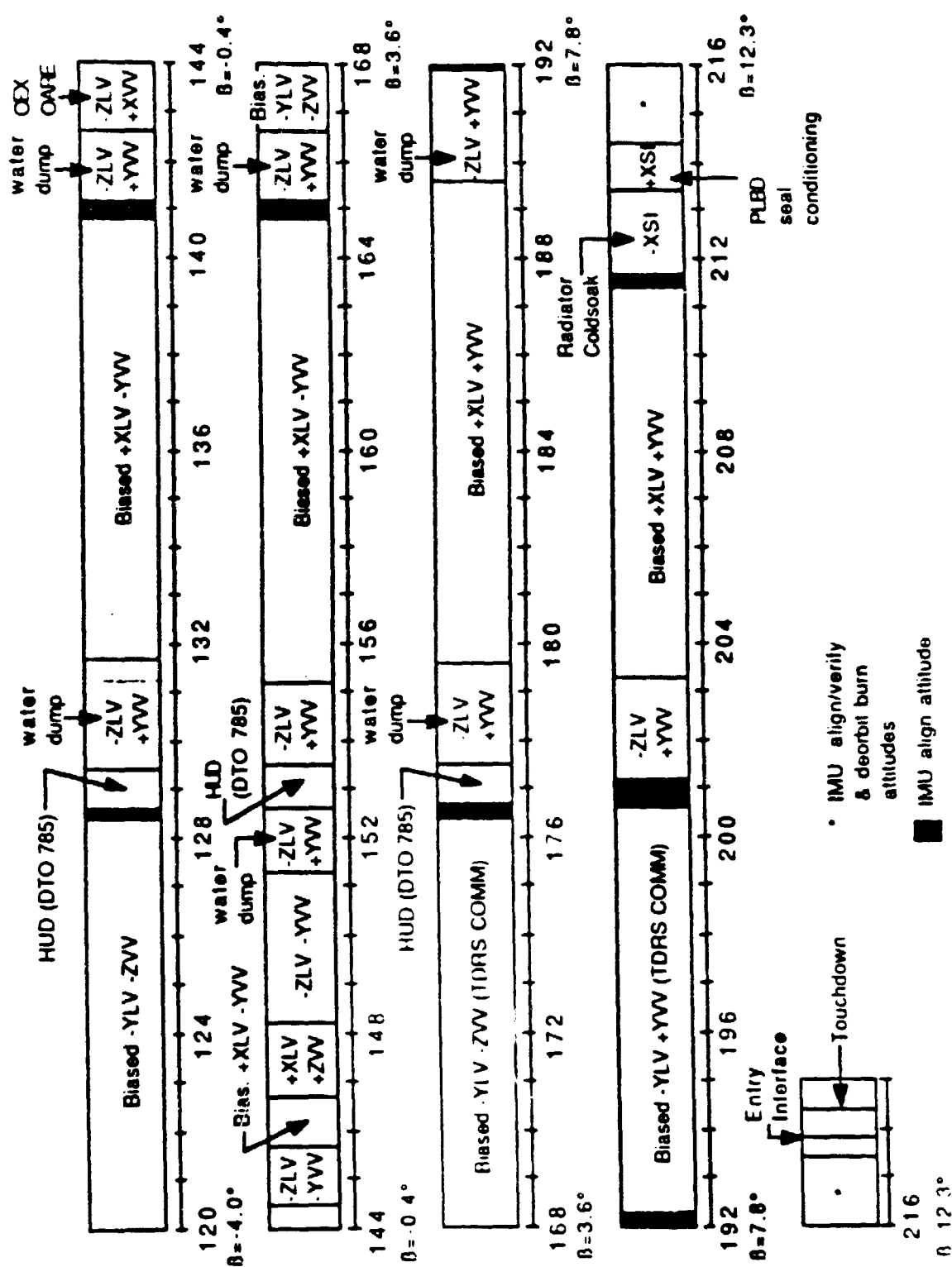
| <u>MET</u> <u>(HRS:MIN)</u> | <u>DURATION</u> <u>(HRS:MIN)</u> | <u>ATTITUDE/EVENT</u> |
|--------------------------------|-------------------------------------|------------------------------------|
| 0:00:00 - 0:01:28 | 1:28 | Ascent |
| 0:01:28 - 0:02:55 | 1:27 | -ZLV +YVV (Top Earth, Nose South) |
| 0:02:55 - 0:11:04 | 8:09 | Biased -YLV -ZVV (R=90,P=180,Y=60) |
| 0:11:04 - 0:12:27 | 1:23 | -ZLV -YVV |
| 0:12:27 - 0:20:05 | 7:38 | +XLV -YVV |
| 0:20:05 - 0:22:37 | 2:32 | -ZLV +YVV |
| 0:22:37 - 1:08:35 | 9:58 | Biased -YLV -ZVV |
| 1:08:35 - 1:09:56 | 1:21 | +ZLV -YVV (Water Dump) |
| 1:09:56 - 1:10:30 | 0:34 | HUD (DTO 785) |
| 1:10:30 - 1:13:07 | 2:37 | -ZLV -YVV |
| 1:13:07 - 1:20:05 | 6:58 | +XLV -YVV |
| 1:20:05 - 1:22:41 | 2:36 | -ZLV +YVV |
| 1:22:41 - 1:23:54 | 1:13 | Biased -YLV -ZVV |
| 1:23:54 - 2:02:19 | 2:25 | -ZSI (Top Sun) |
| 2:02:19 - 2:06:07 | 3:48 | Biased -YLV -ZVV |
| 2:06:07 - 2:07:23 | 1:16 | Biased -YLV -XVV |
| 2:07:23 - 2:08:41 | 1:18 | -ZSI |
| 2:08:41 - 2:10:15 | 1:34 | +ZLV +YVV (Water Dump) |
| 2:10:14 - 2:13:07 | 2:52 | -ZLV -YVV |
| 2:13:07 - 2:19:57 | 6:50 | +XLV -YVV |
| 2:19:57 - 2:20:55 | 0:58 | -ZLV -YVV |
| 2:20:55 - 2:22:28 | 1:33 | +ZLV +YVV (Water Dump) |
| 2:22:28 - 3:08:58 | 10:30 | Biased -YLV -ZVV |
| 3:08:58 - 3:10:47 | 1:49 | -ZLV +YVV |
| 3:10:47 - 3:14:07 | 3:20 | -ZLV -YVV |
| 3:14:07 - 3:19:43 | 5:36 | +XLV -YVV |
| 3:19:43 - 3:20:59 | 1:16 | -ZLV -YVV |
| 3:20:59 - 3:22:17 | 1:17 | -ZLV +YVV (WATER DUMP) |
| 3:22:17 - 4:08:15 | 9:58 | BIASED -YLV -ZVV (TDRS COMM) |
| 4:08:15 - 4:10:54 | 2:39 | +ZLV +YVV (WATER DUMP) |
| 4:10:54 - 4:12:05 | 1:11 | -ZLV -YVV |
| 4:12:05 - 4:20:44 | 8:39 | +XLV -YVV |
| 4:20:44 - 4:22:44 | 2:00 | CREW CONF ATT (R281 P322 Y323) IH |
| 4:22:44 - 5:08:37 | 9:53 | BIASED -YLV -ZVV |
| 5:08:37 - 5:09:22 | 0:45 | HUD (DTO 785) |
| 5:09:22 - 5:11:43 | 2:21 | -ZLV +YVV (WATER DUMP) |
| 5:11:43 - 5:21:06 | 9:23 | BIASED +XLV -YVV |
| 5:21:06 - 5:22:37 | 1:31 | -ZLV +YVV (WATER DUMP) |
| 5:22:37 - 6:00:30 | 1:53 | -ZLV -XVV (OEX OARE) |
| 6:00:30 - 6:01:42 | 1:12 | -ZLV -YVV |
| 6:01:42 - 6:02:45 | 1:03 | BIASED +XLV -YVV |
| 6:02:45 - 6:04:05 | 1:20 | +XLV +ZVV |
| 6:04:05 - 6:07:10 | 3:05 | -ZLV -YVV |
| 6:07:10 - 6:08:34 | 1:24 | -ZLV +YVV (WATER DUMP) |
| 6:08:34 - 6:09:32 | 0:58 | HUD (DTO 785) |
| 6:09:32 - 6:11:05 | 1:33 | -ZLV +YVV |
| 6:11:05 - 6:21:09 | 10:04 | BIASED +XLV -YVV |

TABLE 3-VI - STS-40 AS-FLOWN TIMELINE (concluded)

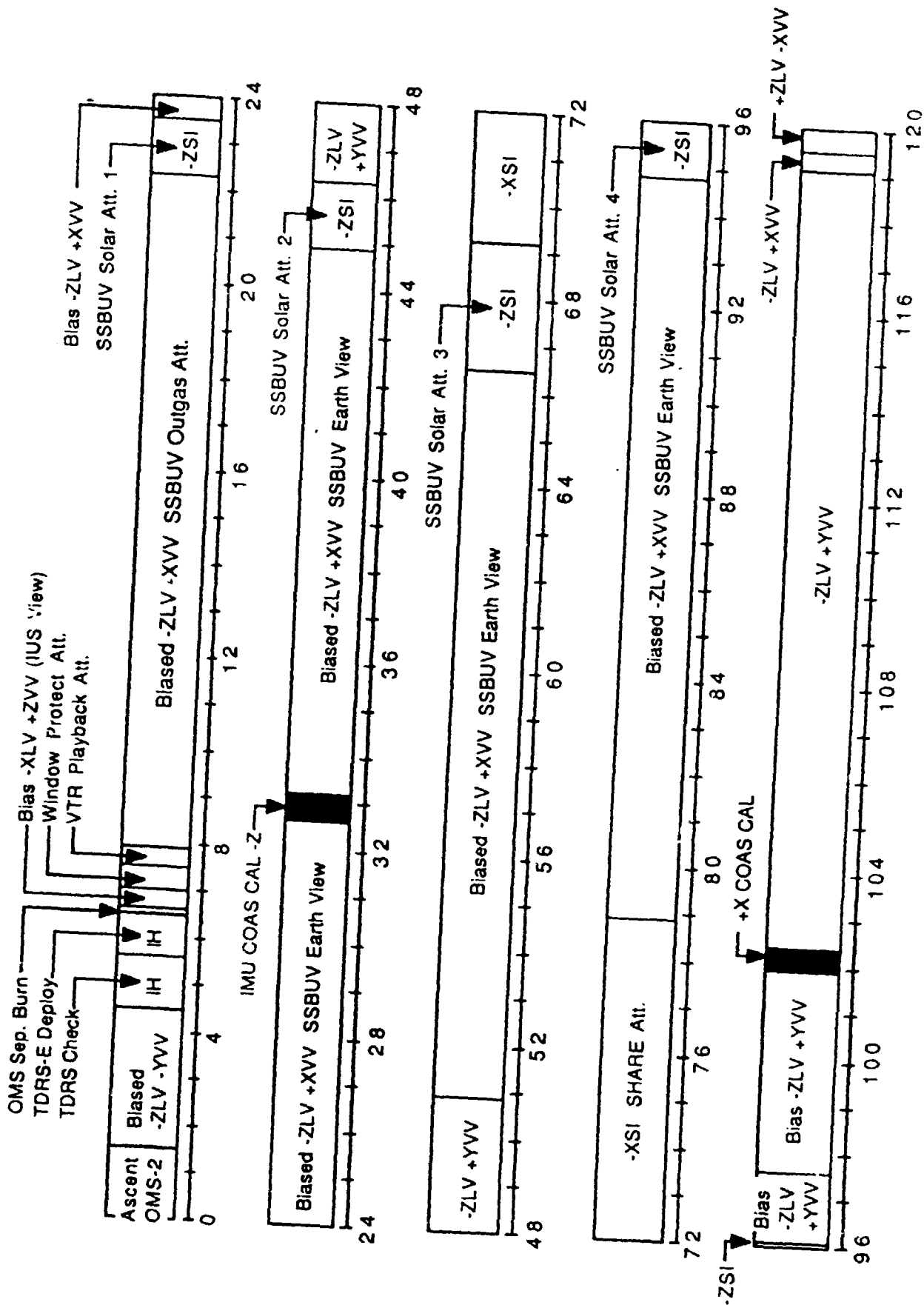
| <u>MET</u> <u>(HRS:MIN)</u> | <u>DURATION</u> <u>(HRS:MIN)</u> | <u>ATTITUDE/EVENT</u> |
|--------------------------------|-------------------------------------|---|
| 6:21:09 - 6:22:37 | 1:28 | -ZLV +YVV (WATER DUMP) |
| 6:22:37 - 7:08:38 | 10:01 | BIASED -YLV -ZVV (TDRS COMM) |
| 7:08:38 - 7:09:29 | 0:51 | HUD (DTO 785) |
| 7:09:29 - 7:11:37 | 2:08 | -ZLV +YVV (WATER DUMP) |
| 7:11:37 - 7:21:34 | 9:57 | BIASED +XLV +YVV |
| 7:21:34 - 8:00:14 | 2:40 | -ZLV +YVV (WATER DUMP) |
| 8:00:14 - 8:09:06 | 8:52 | BIASED -YLV -ZVV (TDRS COMM) |
| 8:09:06 - 8:11:07 | 2:01 | -ZLV +YVV |
| 8:11:07 - 8:19:41 | 8:34 | BIASED +XLV +YVV |
| 8:19:41 - 8:21:17 | 1:36 | -XSI (RADIATOR COLD SOAK) |
| 8:21:17 - 8:22:16 | 0:59 | +XSI (PLBD SEAL CONDITIONING) |
| 8:22:16 - 9:01:17 | 3:01 | IMU ALIGN AND VERIFY/DECRBIT BURN ATT. |
| 9:01:43 | | ENTRY INTERFACE |
| 9:01:15 | | TOUCHDOWN |



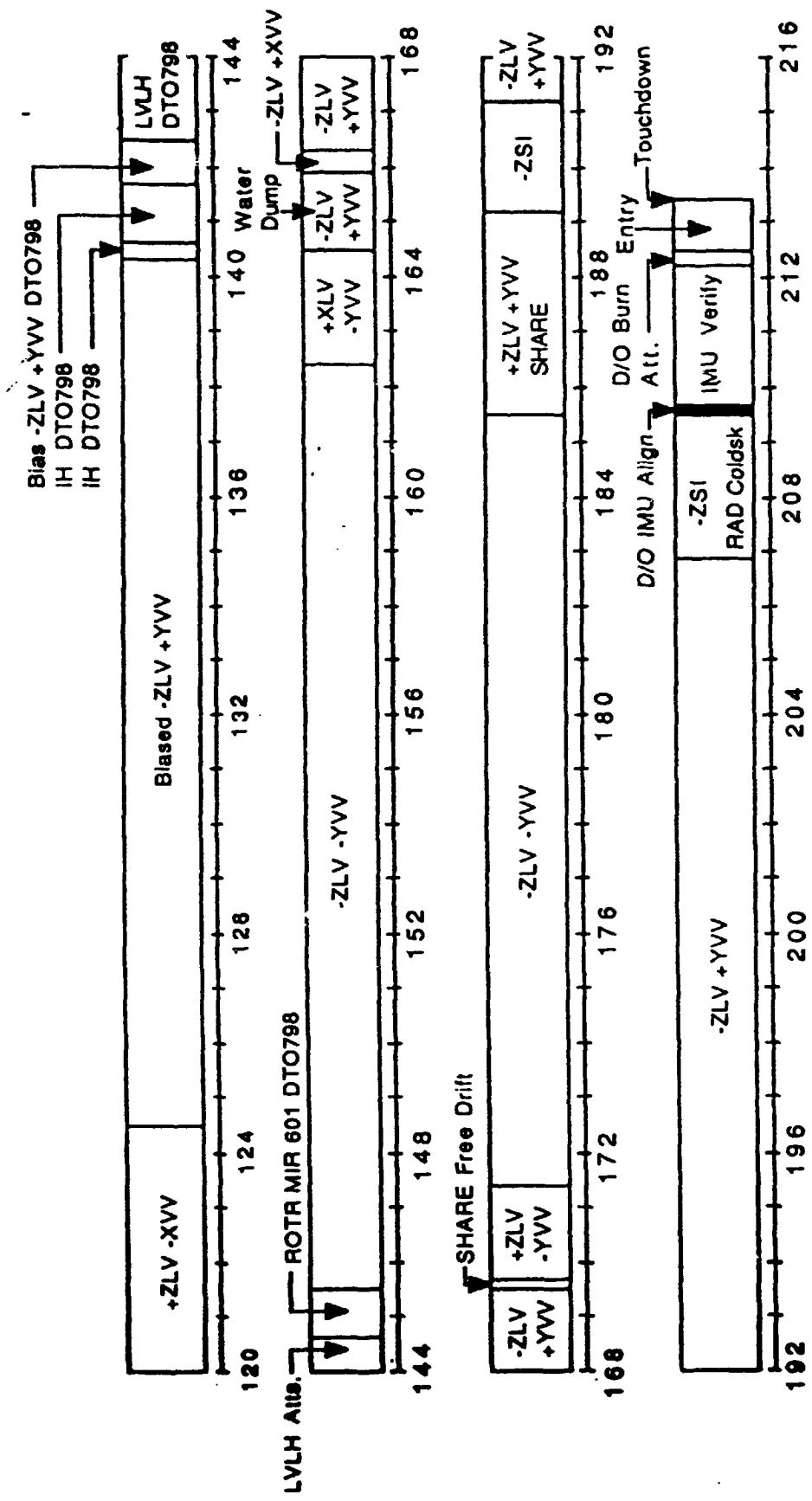
STS-40 As-Flown Attitude Timeline



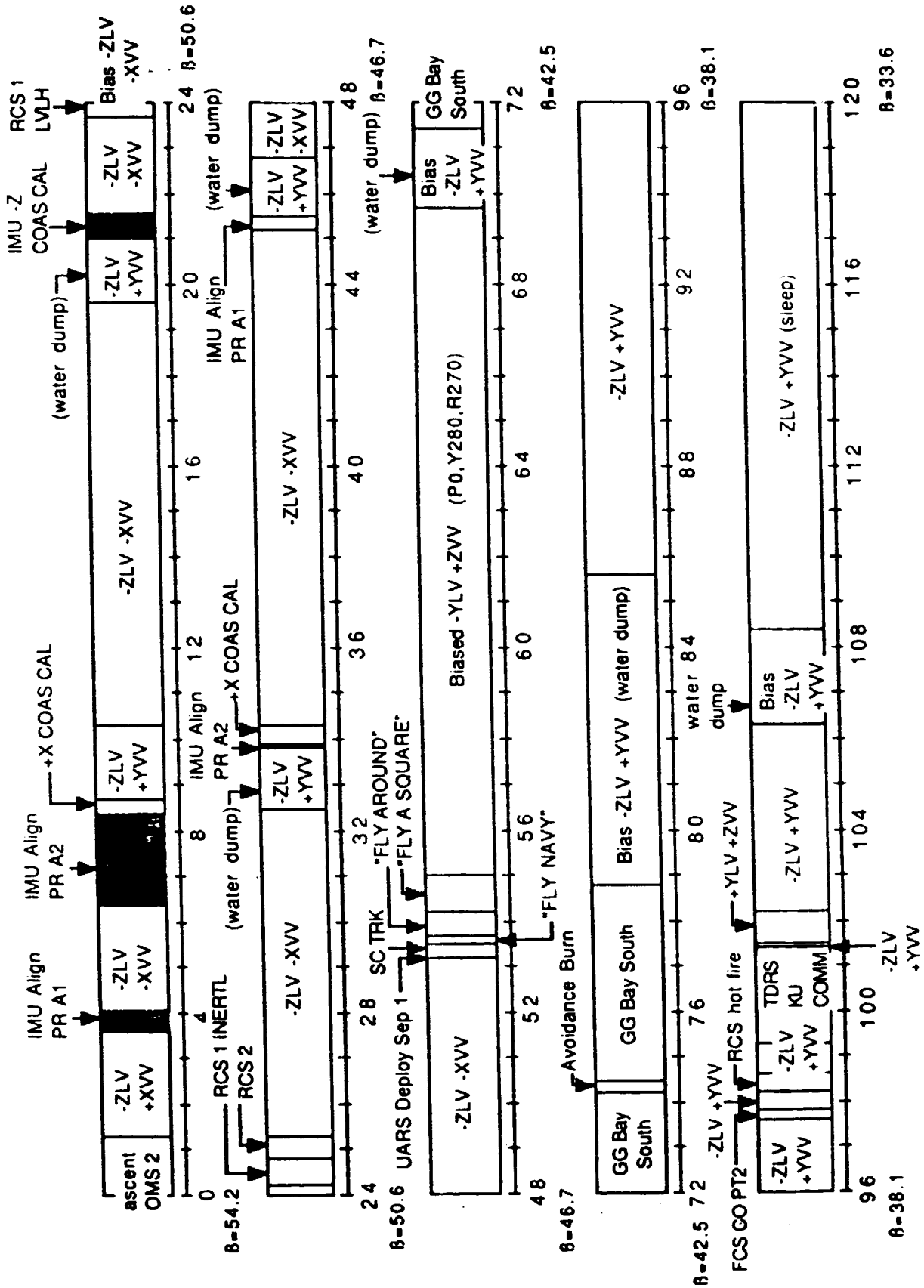
STS-40 As-flown Attitude Timeline (continued)



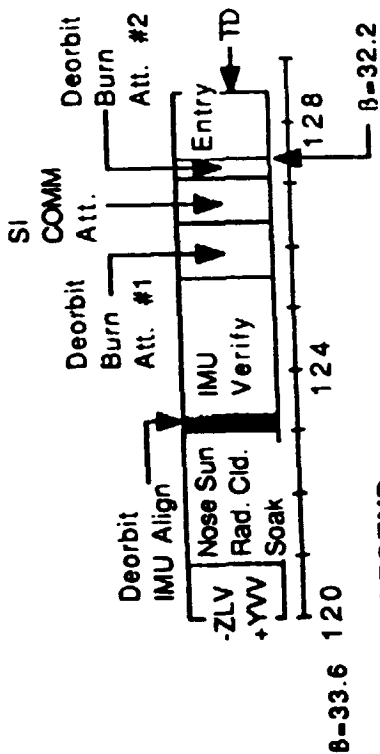
STS-43 As-Flown Attitude Timeline



STS-43 As-Flown Attitude Timeline (Cont.)



STS-48 AS-FLOWN ATTITUDE TIMELINE



B-33.6 120

LEGEND:

■ IMU Aligns

- +X COAS CAL: IH (P122,Y70,R164)
- IMU Align PR A1: IH (P312,Y319,R113)
- IMU Align PR A2: IH (P119,Y56,R167)
- IMU -Z COAS CAL: IH (P312,Y319,R113)
- RCS 1: LVLH (P166,Y0,R0)
- RCS 1 INERTIAL: IH (P199,Y301,R162)
- RCS 2: IH (P210,Y299,R352)
- UARS Deploy Sep 1: ROTR Rate 0.82 (P267,Y314,R219)
- SC TRK: ROTR Rate 0.012 (P323,Y194,R235)
- "FLY NAVY": ROTR Rate 0.02 (P314,Y6,R237)
- "FLY AROUND": IH (P297,Y338,R236)
- "FLY A SQUARE": ROTR Rate 0.038 (P290,Y331,R232)
- Avoidance Burn: IH (P313,Y1,R235); Performed to avoid a "van-sized" piece of a Soviet rocket stage.
- FCS CO PT2: IH (P44,Y321,R54)
- RCS hot fire: IH (P44,Y321,R287)
- TDRS COMM: IH (P40,Y15,R210)
- NOSE SUN radiator coldsoak: IH (P164,Y359,R200)
- Deorbit IMU Align: (P152,Y349,R13)
- IMU Verify: IH (P211,Y2,R8)
- Deorbit Burn ATT. #1: IH (P15,Y44,R203)
- COMM Attitude: IH (P41,Y47,R185)
- Deorbit Burn Att. #2: IH (P1,Y38,R212)
- Burn not performed. Landing waved off at KSC due to clouds/visibility. Landing diverted to Edwards AFB on next revolution.

STS-48 AS-FLOWN ATTITUDE TIMELINE (Cont'd.)

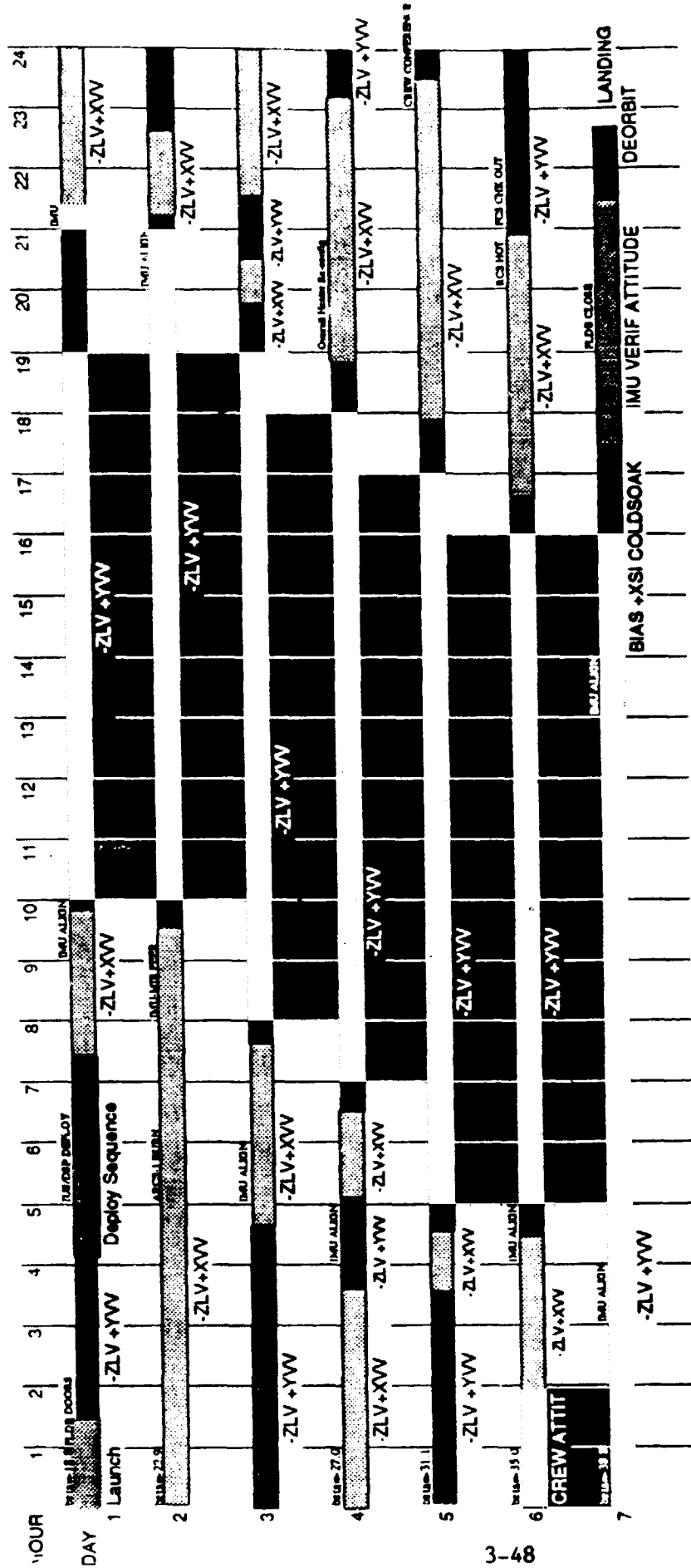
TABLE 3-VII.- STS-48 AS-FLOWN ATTITUDE TIMELINE

| Mission elapsed time, day:hour:minute | Duration, hr:min | Attitude/Event |
|--|---------------------|-------------------------------|
| 0:00:00 - 0:00:28 | 0:28 | Ascent |
| 0:00:28 - 0:01:18 | 0:50 | OMS-2 maneuver attitude |
| 0:01:18 - 0:03:40 | 2:22 | -ZLV +XVV |
| 0:03:40 - 0:04:01 | 0:21 | IMU align PR A1 |
| 0:04:01 - 0:06:19 | 2:18 | -ZLV -XVV |
| 0:06:19 - 0:08:21 | 2:02 | IMU align PR A2 |
| 0:08:21 - 0:08:53 | 0:32 | +X COAS calibration |
| 0:08:53 - 0:10:15 | 1:22 | -ZLV +YVV |
| 0:10:15 - 0:19:42 | 9:27 | -ZLV -XVV |
| 0:19:42 - 0:21:00 | 1:18 | -ZLV +YVV (water dump) |
| 0:21:00 - 0:21:35 | 0:35 | IMU -Z COAS calibration |
| 0:21:35 - 0:23:46 | 2:11 | -ZLV -XVV |
| 0:23:46 - 1:00:09 | 0:23 | RCS 1 LVLH |
| 1:00:09 - 1:00:53 | 0:44 | RCS 1 inertial |
| 1:00:53 - 1:01:15 | 0:22 | RCS 2 |
| 1:01:15 - 1:08:35 | 7:20 | -ZLV -XVV |
| 1:08:35 - 1:09:48 | 1:13 | -ZLV +YVV (water dump) |
| 1:09:48 - 1:09:54 | 0:06 | IMU align PR A2 |
| 1:09:54 - 1:10:18 | 0:24 | +X COAS calibration |
| 1:10:18 - 1:21:10 | 10:52 | -ZLV -XVV |
| 1:21:10 - 1:21:29 | 0:19 | IMU align PR A1 |
| 1:21:29 - 1:22:53 | 1:24 | -ZLV +YVV (water dump) |
| 1:22:53 - 2:05:13 | 6:20 | -ZLV -XVV |
| 2:05:13 - 2:05:14 | 0:01 | UARS Deploy Sep 1 |
| 2:05:14 - 2:05:30 | 0:16 | SC TRK to RBAR |
| 2:05:30 - 2:05:45 | 0:15 | "FLY NAVY" ROTR |
| 2:05:45 - 2:06:07 | 0:22 | "FLY AROUND" IH |
| 2:06:07 - 2:07:00 | 0:53 | "FLY A SQUARE" ROTR |
| 2:07:00 - 2:21:45 | 14:45 | Biased -ZLV +ZVV |
| 2:21:45 - 2:23:22 | 1:37 | -ZLV +YVV (water dump) |
| 2:23:22 - 3:02:07 | 2:45 | GG Bay South |
| 3:02:07 - 3:02:30 | 0:23 | Avoidance burn |
| 3:02:30 - 3:06:48 | 4:18 | GG Bay South |
| 3:06:48 - 3:13:38 | 6:50 | Biased -ZLV +YVV (water dump) |
| 3:13:38 - 4:01:39 | 12:01 | -ZLV +YVV |
| 4:01:39 - 4:01:45 | 0:06 | FCS Checkout PT2 |
| 4:01:45 - 4:02:10 | 0:25 | -ZLV +YVV |
| 4:02:10 - 4:02:35 | 0:25 | RCS Hot fire |
| 4:02:35 - 4:03:12 | 0:37 | -ZLV +YVV |
| 4:03:12 - 4:05:21 | 2:09 | TDRS KU-band communications |
| 4:05:21 - 4:05:30 | 0:09 | -ZLV +YVV |
| 4:05:30 - 4:06:07 | 0:37 | +ZLV +ZVV |
| 4:06:07 - 4:10:15 | 4:08 | -ZLV +YVV |
| 4:10:15 - 4:12:20 | 2:05 | Biased -ZLV +YVV (water dump) |
| 4:12:20 - 5:00:58 | 12:38 | -ZLV +YVV |

TABLE 3-VII.- STS-48 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| Mission elapsed time, day:hour:minute | Duration, hr:min | Attitude/Event |
|--|---------------------|--|
| 5:00:58 - 5:03:01 | 2:03 | Nose Sun (SI) Radiator Cold Soak |
| 5:03:01 - 5:03:15 | 0:14 | Deorbit IMU Align |
| 5:03:15 - 5:05:33 | 2:18 | IMU Verify |
| 5:05:33 - 5:06:25 | 0:52 | Deorbit maneuver attitude no. 1 (no burn) |
| 5:06:25 - 5:07:03 | 0:38 | Communications attitude |
| 5:07:03 - 5:07:23 | 0:20 | Deorbit maneuver attitude no. 2 (Burn to Edwards AFB) |
| 5:07:23 - 5:08:21 | 0:58 | Entry |
| 5:08:21 - 5:08:28 | 0:07 | Terminal area energy management (TAEM) |
| 5:08:28 | -- | Touchdown |

Note: * Landing was delayed one revolution due to clouds/visibility at KSC.
Landing was at Edwards AFB on the next revolution.



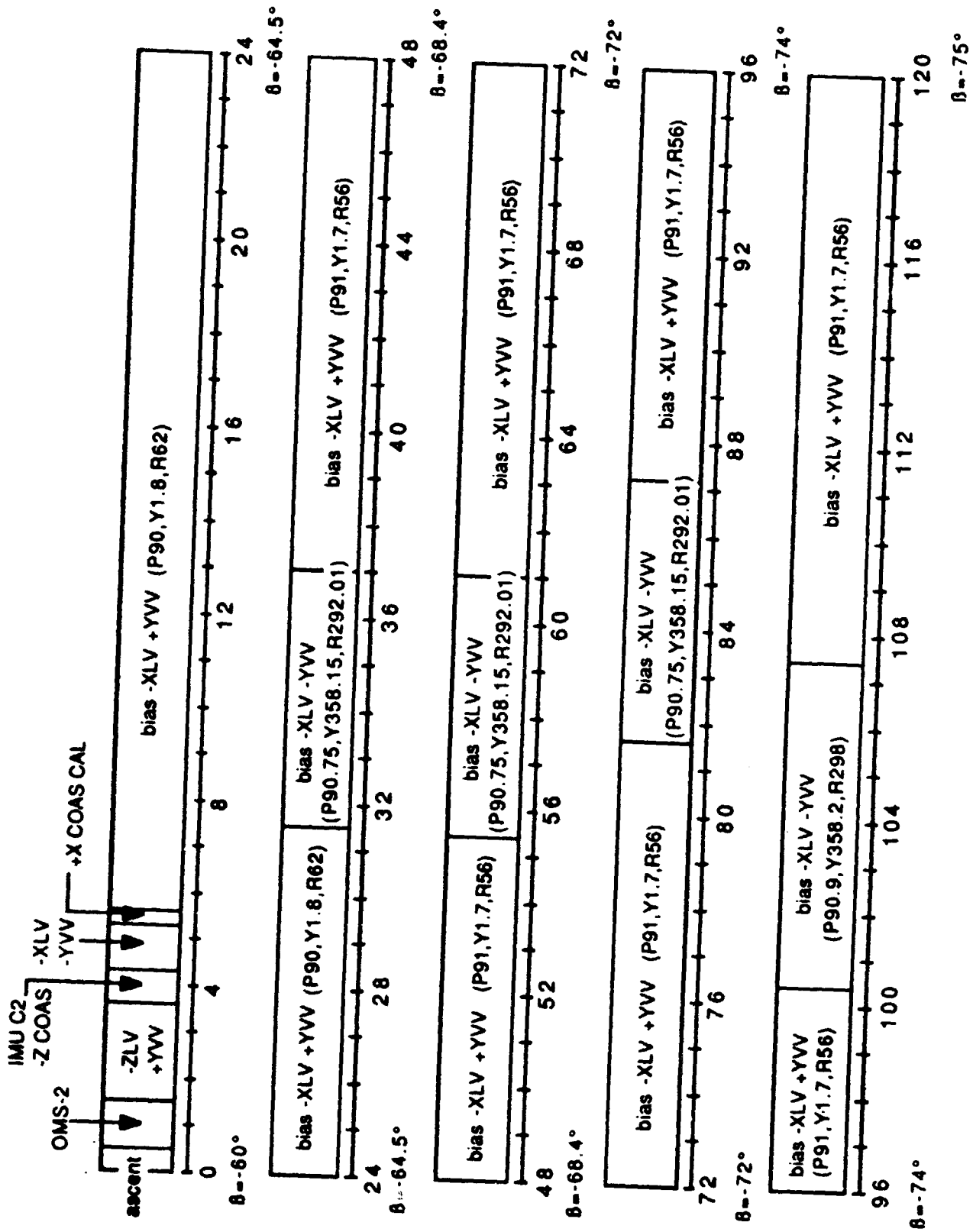
STS-44 Simplified As-Flown Attitude Timeline

TABLE 3-VIII.- STS-44 AS-FLOWN ATTITUDE TIMELINE

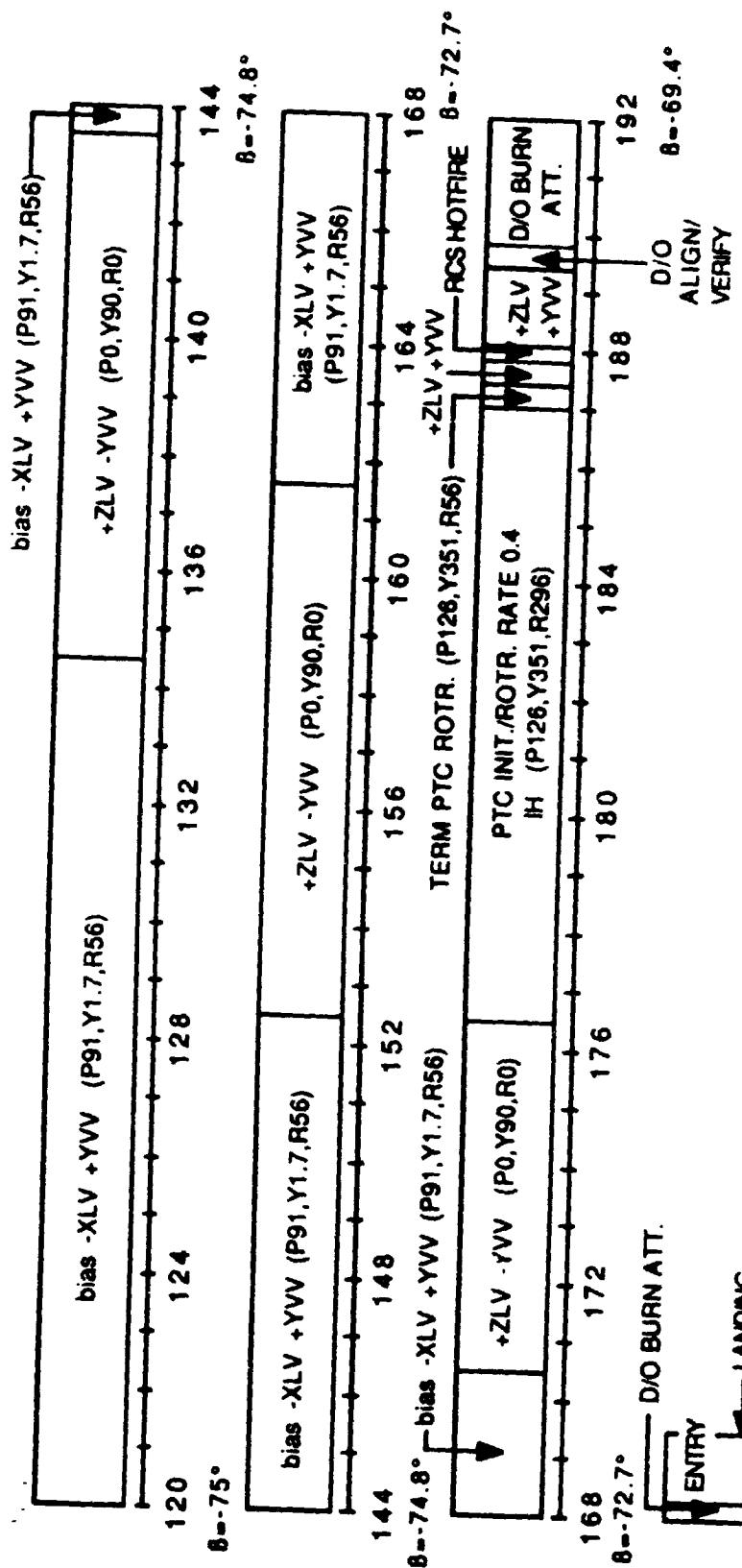
| Mission elapsed time, day:hour:minute | Duration, hr:min | Attitude/Event |
|--|---------------------|-----------------------------|
| 0:00:00 - 0:00:30 | 0:30 | Launch |
| 0:00:30 - 0:01:22 | 0:52 | OMS-2 Manuever attitude |
| 0:01:22 - 0:04:13 | 2:51 | -ZLV Nose South |
| 0:04:13 - 0:07:45 | 3:32 | DSP/IUS Deployment attitude |
| 0:07:45 - 0:09:40 | 2:03 | -ZLV Nose forward |
| 0:09:48 - 0:21:42 | 11:54 | -ZLV Nose South |
| 0:21:42 - 0:22:10 | 0:28 | IMU -Z COAS calibration |
| 0:22:10 - 1:05:30 | 7:20 | -ZLV Nose forward |
| 1:05:30 - 1:06:00 | 0:30 | Aft RCS-1 manuever |
| 1:06:00 - 1:06:51 | 0:51 | -ZLV Nose forward |
| 1:06:51 - 1:07:17 | 0:26 | Forward RCS-2 LVLH EQV |
| 1:07:17 - 1:08:24 | 1:07 | -ZLV Nose forward |
| 1:08:24 - 1:09:28 | 1:04 | IMU-MIR PEER |
| 1:09:28 - 1:20:50 | 11:22 | -ZLV Nose South |
| 1:20:50 - 1:21:12 | 0:22 | +X COAS calibration |
| 1:21:12 - 1:22:38 | 1:26 | -ZLV Nose forward |
| 1:22:38 - 2:04:38 | 6:00 | -ZLV Nose South |
| 2:04:38 - 2:05:55 | 1:17 | -ZLV Nose forward |
| 2:05:55 - 2:07:38 | 1:43 | -ZLV Nose forward |
| 2:07:38 - 2:19:53 | 12:15 | -ZLV Nose South |
| 2:19:53 - 2:20:28 | 0:35 | -ZLV Nose forward |
| 2:20:28 - 2:21:23 | 0:55 | -ZLV Nose South |
| 2:21:23 - 3:03:38 | 6:15 | -ZLV Nose forward |
| 3:03:38 - 3:05:09 | 1:31 | -ZLV Nose South |
| 3:05:09 - 3:06:30 | 1:21 | -ZLV Nose forward |
| 3:06:30 - 3:18:53 | 12:23 | -ZLV Nose South |
| 3:18:53 - 3:23:05 | 4:12 | -ZLV Nose forward |
| 3:23:05 - 4:00:18 | 1:13 | -ZLV Nose forward |
| 4:00:18 - 4:03:37 | 3:19 | -ZLV Nose South |
| 4:03:37 - 4:04:37 | 1:00 | -ZLV Nose forward |
| 4:04:37 - 4:17:58 | 13:21 | -ZLV Nose South |
| 4:17:58 - 4:23:26 | 5:28 | -ZLV Nose forward |
| 4:23:26 - 5:01:55 | 2:29 | Crew conference |
| 5:01:55 - 5:04:25 | 2:30 | -ZLV Nose forward |
| 5:04:25 - 5:16:38 | 12:13 | -ZLV Nose South |
| 5:16:38 - 5:20:53 | 4:15 | -ZLV Nose forward |
| 5:20:53 - 5:21:10 | 0:17 | -ZLV Nose South |
| 5:21:10 - 5:21:52 | 0:42 | RCS hot fire |
| 5:21:52 - 6:03:31 | 5:39 | -ZLV Nose South |
| 6:03:31 - 6:14:02 | 10:31 | -ZLV Nose South |
| 6:14:02 - 6:17:30 | 3:28 | Bias +XSI coldsoak |
| 6:17:30 - 6:21:27 | 3:57 | IMU Verification |
| 6:21:27 - 6:21:49 | 0:22 | Deorbit manuever and entry |
| 6:21:49 | -- | Landing |

TABLE 3-IX.- STS-42 AS-FLOWN ATTITUDE TIMELINE

| Mission elapsed time days:hr:min | Duration hr:min | Attitude/Event |
|-------------------------------------|--------------------|---------------------------|
| 0:00:00 - 0:00:24 | 0:24 | Ascent |
| 0:00:24 - 0:01:24 | 1:00 | OMS - 2 Operations |
| 0:01:24 - 0:03:38 | 2:14 | -ZLV Nose South |
| 0:03:38 - 0:04:12 | 0:34 | IMU Align and COAS CAL |
| 0:04:12 - 0:05:12 | 1:00 | -XLV -YVV |
| 0:05:12 - 0:05:35 | 0:23 | +X COAS CAL |
| 0:05:35 - 1:07:28 | 25:53 | -XLV Bay South |
| 1:07:28 - 1:13:00 | 5:32 | -XLV Bay North |
| 1:13:00 - 2:07:20 | 18:20 | -XLV Bay South |
| 2:07:20 - 2:13:00 | 5:40 | -XLV Bay North |
| 2:13:00 - 3:09:40 | 20:40 | -XLV Bay South |
| 3:09:40 - 3:15:10 | 5:30 | -XLV Bay North |
| 3:15:10 - 4:04:20 | 13:10 | -XLV Bay South |
| 4:04:20 - 4:11:20 | 7:00 | -XLV Bay North |
| 4:11:20 - 5:14:26 | 27:06 | -XLV Bay South |
| 5:14:26 - 5:23:26 | 9:00 | +ZLV -YVV |
| 5:23:26 - 6:08:26 | 9:00 | -XLV Bay South |
| 6:08:26 - 6:17:26 | 9:00 | +ZLV -YVV |
| 6:17:26 - 7:02:26 | 9:00 | -XLV Bay South |
| 7:02:26 - 7:08:26 | 6:00 | +ZLV -YVV |
| 7:08:26 - 7:19:00 | 10:34 | PTC |
| 7:19:00 - 7:21:26 | 2:26 | Biased Tail SI (coldsoak) |
| 7:21:26 - 7:21:48 | 0:22 | Deorbit Alignment/Verify |
| 7:21:48 - 8:00:17 | 2:29 | Deorbit Maneuver/Burn |
| 8:00:17 - 8:01:15 | 0:58 | Entry/TAEM |
| 8:01:15 | | Touchdown |



STS-42 AS-FLOWN ATTITUDE TIMELINE



ATTITUDE LEGEND:

- OMS-2 : IH P120, Y16, R292
- IMU C2 -Z COAS : IH P341, Y359, R101
- +X COAS CAL : IH P122, Y70, R102
- RCS HOT FIRE : IH P19, Y347, R227
- D/O IMU ALIGN : IH P42, Y41, R53 (189:26 to 199:38 MET)
- D/O IMU VERIFY : IH P146, Y29, R12 (189:38 to 189:48 MET)
- D/O BURN : IH P303.5, Y19.9, R219.6

STS-42 AS-FLOWN ATTITUDE TIMELINE

TABLE 3-X. - STS-45 BETA ANGLE vs.
MISSION ELAPSED TIME

| Mission elapsed time, hours | Beta angle, deg |
|--------------------------------|-----------------|
| 0:00 | -55 |
| 24:00 | -55 |
| 48:00 | -54 |
| 72:00 | -53 |
| 96:00 | -51 |
| 120:00 | -48.5 |
| 144:00 | -45.5 |
| 168:00 | -42 |
| 192:00 | -38.2 |
| 204:00 | -36 |

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|--------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 1 | UPLD RTL: 45MOC | 084:00:00:00 0:13:13:40 | LVLH | | 0.00 | 0.00 | 0.00 |
| 2 | OMS-2 BURN ATT | 084:13:53:40 0:00:40:00 | IH | MIR601 | 25.00 | 122.00 | 348.00 |
| 3 | PLBD OPEN ATT | 084:14:40:40 0:01:27:00 | LVLH | | 0.00 | 180.00 | 90.00 |
| 4 | IMU ALIGN | 084:15:33:00 0:02:19:20 | IH | MIR601 | 329.00 | 105.00 | 46.00 |
| 5 | +X COAS CAL | 084:15:39:40 0:02:26:00 | IH | MIR601 | 335.63 | 94.34 | 37.12 |
| 6 | L OMS BURN | 084:16:02:10 0:02:48:30 | IH | MIR601 | 102.00 | 315.00 | 357.00 |
| 7 | WATER DUMP | 084:16:13:40 0:03:00:00 | LVLH | | 90.00 | 100.00 | 20.00 |
| 8 | -YLV +ZVV | 084:17:34:19 0:04:20:39 | LVLH | | 0.00 | 90.00 | 270.00 |
| 9 | -ZLV +XVV | 084:19:07:40 0:05:54:00 | LVLH | | 180.00 | 0.00 | 0.00 |
| 10 | FAUST STARE | 084:20:02:56 0:06:49:16 | IH | MIR601 | 353.20 | 186.00 | 0.00 |
| 11 | -ZLV +XVV | 084:20:24:47 0:07:11:07 | LVLH | | 100.00 | 0.00 | 0.00 |
| 12 | FAUST STARE | 084:21:33:44 0:08:20:04 | IH | MIR601 | 324.90 | 333.80 | 1.40 |
| 13 | -ZLV +XVV | 084:22:14:40 0:09:01:00 | LVLH | | 180.00 | 0.00 | 0.00 |
| 14 | IMU ALIGN | 084:23:04:11 0:09:50:31 | IH | MIR601 | 329.00 | 105.00 | 46.00 |
| 15 | -ZLV -XVV | 084:23:43:40 0:10:30:00 | LVLH | | 0.00 | 100.00 | 0.00 |
| 16 | BIAS -ZLV -XVV | 085:01:19:10 0:12:05:30 | LVLH | | 0.00 | 100.00 | 30.00 |
| 17 | -ZLV -XVV | 085:01:44:10 0:12:30:30 | LVLH | | 0.00 | 180.00 | 0.00 |
| 18 | -ZLV +XVV | 085:02:41:40 0:13:20:00 | LVLH | | 180.00 | 0.00 | 0.00 |
| 19 | +ZLV -XVV | 085:03:26:40 0:14:13:00 | LVLH | | 100.00 | 100.00 | 0.00 |
| 20 | FAUST STARE | 085:00:07:30 0:18:53:50 | IH | MIR601 | 64.20 | 302.90 | 0.00 |
| 21 | IS814 | 085:00:25:12 0:19:11:32 | LVLH | | 180.00 | 284.20 | 0.00 |
| 22 | -ZLV -XVV | 085:09:30:40 0:20:17:00 | LVLH | | 0.00 | 180.00 | 0.00 |
| 23 | -ZLV +XVV | 085:11:57:40 0:22:44:00 | LVLH | | 180.00 | 0.00 | 0.00 |

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|-----------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 24 | AEP1 | 085:12:39:40 0:23:26:00 | LVLH | | 98.40 | 1.00 | 34.20 |
| 25 | -ZSI | 085:12:59:40 0:23:46:00 | IH | MIR601 | 167.90 | 99.60 | 69.70 |
| 26 | SOL CON-MOTU ATT 1 | 085:13:17:40 1:00:04:00 | IH | MIR601 | | | |
| 27 | SOL CON-MOTU ATT 2 | 085:13:30:40 1:00:17:00 | IH | MIR601 | | | |
| 28 | SOL CON-MOTU ATT 3 | 085:13:32:40 1:00:19:00 | IH | MIR601 | 171.90 | 99.60 | 69.70 |
| 29 | SOL CON-MOTU ATT 4 | 085:13:42:40 1:00:29:00 | IH | MIR601 | 163.90 | 99.60 | 69.70 |
| 30 | -Z ATLAS | 085:13:49:40 1:00:36:00 | IH | MIR601 | 167.90 | 99.60 | 69.70 |
| 31 | AEP 1 | 085:14:05:15 1:00:51:35 | LVLH | | 57.14 | 90.25 | 11.69 |
| 32 | AEPSLIM | 085:14:19:49 1:01:06:09 | LVLH | | 90.00 | 90.00 | 20.00 |
| 33 | -ZSI | 085:14:37:47 1:01:24:07 | IH | MIR601 | 171.60 | 95.50 | 59.90 |
| 34 | AEP 1 | 085:15:35:46 1:02:22:06 | LVLH | | 59.04 | 81.20 | 17.29 |
| 35 | AEPSLIM | 085:15:50:20 1:02:36:40 | LVLH | | 90.00 | 90.00 | 20.00 |
| 36 | -ZSI | 085:16:18:16 1:02:56:36 | IH | MIR601 | 171.40 | 95.60 | 59.90 |
| 37 | AEP 1 | 085:17:06:43 1:03:53:03 | LVLH | | 58.79 | 81.70 | 17.07 |
| 38 | AEPSLIM | 085:17:21:02 1:04:07:22 | LVLH | | 90.00 | 90.00 | 20.00 |
| 39 | -ZSI | 085:17:43:09 1:04:29:29 | IH | MIR601 | 169.70 | 97.40 | 64.00 |
| 40 | AEP 1 | 085:18:37:11 1:05:23:31 | LVLH | | 57.59 | 86.50 | 14.11 |
| 41 | IMU ALIGN 02 | 085:18:53:22 1:05:39:42 | IH | MIR601 | 143.00 | 119.00 | 334.00 |
| 42 | -ZSI | 085:19:10:27 1:05:56:47 | IH | MIR601 | 169.60 | 97.50 | 64.00 |
| 43 | AEP 1 | 085:20:00:47 1:06:55:07 | LVLH | | 57.04 | 89.35 | 12.28 |
| 44 | AEPSLIM | 085:20:23:00 1:07:09:20 | LVLH | | 90.00 | 90.00 | 20.00 |
| 45 | -ZSI | 085:20:45:20 1:07:31:40 | IH | MIR601 | 171.10 | 96.20 | 62.00 |
| 46 | AEP 1 | 085:21:38:58 1:08:25:18 | LVLH | | 58.40 | 82.96 | 16.31 |

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|-------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 47 | AEPSLIM | 085:21:53:32 | LVLH | | 90.00 | 90.00 | 20.00 |
| | | 1:08:39:52 | | | | | |
| 48 | -Z ATLAS SUNTAN | 085:22:14:58 | IH | MIR601 | 171.10 | 96.00 | 61.90 |
| | | 1:09:01:18 | | | | | |
| 49 | AEP 1 | 085:23:09:49 | LVLH | | 58.26 | 83.43 | 16.06 |
| | | 1:09:56:09 | | | | | |
| 50 | AEPSLIM | 085:23:24:05 | LVLH | | 90.00 | 90.00 | 20.00 |
| | | 1:10:10:25 | | | | | |
| 51 | -ZSI SUSIM | 085:23:43:40 | IH | MIR601 | 170.90 | 95.90 | 59.90 |
| | | 1:10:30:00 | | | | | |
| 52 | AEP 1 | 086:00:39:59 | LVLH | | 58.00 | 83.90 | 15.70 |
| | | 1:11:26:19 | | | | | |
| 53 | +ZLV -XVV | 086:01:05:04 | LVLH | | 180.00 | 180.00 | 0.00 |
| | | 1:11:51:24 | | | | | |
| 54 | ISO | 086:03:44:07 | LVLH | | 151.60 | 180.00 | 0.00 |
| | | 1:14:30:27 | | | | | |
| 55 | -ZLV +XVV | 086:04:21:09 | LVLH | | 180.00 | 0.00 | 0.00 |
| | | 1:15:07:29 | | | | | |
| 56 | -ZLV -XVV | 086:05:44:40 | LVLH | | 0.00 | 180.00 | 0.00 |
| | | 1:16:31:00 | | | | | |
| 57 | ISO13A B ROT | 086:07:11:40 | LVLH | | 0.00 | 90.00 | 90.00 |
| | | 1:17:58:00 | | | | | |
| 58 | 13A END ATT | 086:07:49:40 | LVLH | | 0.00 | 186.30 | 90.00 |
| | | 1:18:36:00 | | | | | |
| 59 | -Z STAR | 086:08:02:40 | IH | MIR601 | 32.00 | 66.00 | 21.00 |
| | | 1:18:49:00 | | | | | |
| 60 | ISO13A B ROT | 086:08:42:29 | LVLH | | 0.00 | 90.00 | 90.00 |
| | | 1:19:28:49 | | | | | |
| 61 | 13A END ATT | 086:09:22:40 | LVLH | | 0.00 | 186.30 | 90.00 |
| | | 1:20:09:00 | | | | | |
| 62 | MSFC COM ATT | 086:09:35:40 | IH | MIR601 | 130.00 | 0.00 | 60.00 |
| | | 1:20:22:00 | | | | | |
| 63 | -ZLV -XVV | 086:10:03:10 | LVLH | | 0.00 | 180.00 | 0.00 |
| | | 1:20:49:30 | | | | | |
| 64 | SEP C SCAN | 086:12:49:57 | LVLH | | 170.47 | 269.74 | 277.00 |
| | | 1:23:35:57 | | | | | |
| 65 | SCAN MNVR | 086:12:57:34 | LVLH | | 180.21 | 269.79 | 277.09 |
| | | 1:23:43:54 | | | | | |
| 66 | -ZLV -XVV | 086:13:09:07 | LVLH | | 0.00 | 180.00 | 0.00 |
| | | 1:23:55:27 | | | | | |
| 67 | AEPSB | 086:14:20:50 | LVLH | | 50.00 | 100.00 | 0.00 |
| | | 2:01:07:10 | | | | | |
| 68 | -ZLV -XVV | 086:14:37:50 | LVLH | | 0.00 | 180.00 | 0.00 |
| | | 2:01:24:10 | | | | | |
| 69 | INTERMEDIATE ATT | 086:23:58:40 | LVLH | | 0.00 | 180.00 | 64.00 |
| | | 2:10:45:00 | | | | | |

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|----------------------------|------|--------|----------|--------|-------|
| | | | | | Roll | Pitch | Yaw |
| 70 | -ZLV +XVV | 087:00:10:40 2:10:57:00 | LVLH | | 180.00 | 0.00 | 0.00 |
| 71 | INTERMEDIATE ATT | 087:01:01:40 2:11:48:00 | LVLH | | 180.00 | 0.00 | 36.00 |
| 72 | SEPS | 087:01:13:40 2:12:00:00 | LVLH | | 0.00 | 210.00 | 0.00 |
| 73 | BIAS -YLV -ZVV | 087:01:26:34 2:12:12:54 | LVLH | | 0.00 | 270.00 | 60.00 |
| 74 | -ZLV +XVV | 087:03:03:13 2:13:49:33 | LVLH | | 180.00 | 0.00 | 0.00 |
| 75 | FAUST SCAN | 087:03:57:15 2:14:43:35 | IH | MIR601 | 319.30 | 89.10 | 48.40 |
| 76 | SCAN MNVR | 087:04:16:47 2:15:03:07 | IH | MIR601 | 345.00 | 81.50 | 51.00 |
| 77 | -ZLV +XVV | 087:04:30:20 2:15:16:40 | LVLH | | 180.00 | 0.00 | 0.00 |
| 78 | FAUST SCAN | 087:05:27:18 2:16:13:30 | IH | MIR601 | 210.10 | 220.10 | 30.20 |
| 79 | SCAN MNVR | 087:05:46:48 2:16:33:00 | IH | MIR601 | 191.90 | 242.50 | 37.40 |
| 80 | -ZLV +XVV | 087:06:00:19 2:16:46:39 | LVLH | | 180.00 | 0.00 | 0.00 |
| 81 | FAUST STARE | 087:06:54:39 2:17:40:59 | IH | MIR601 | 280.70 | 263.20 | 70.40 |
| 82 | -ZLV +XVV | 087:07:29:00 2:18:15:20 | LVLH | | 180.00 | 0.00 | 0.00 |
| 83 | FAUST STARE | 087:08:29:41 2:19:16:01 | IH | | | | |
| 84 | ISO ROT | 087:08:50:56 2:19:37:16 | LVLH | | 0.00 | 90.00 | 90.00 |
| 85 | ISO END ATT | 087:09:30:40 2:20:17:00 | LVLH | | | | |
| 86 | ISO INIT ATT | 087:09:32:40 2:20:19:00 | LVLH | | 0.00 | 90.00 | 90.00 |
| 87 | ISO END | 087:09:50:40 2:20:37:00 | LVLH | | | | |
| 88 | WATER DUMP | 087:10:01:51 2:20:40:11 | LVLH | | 85.11 | 105.79 | 8.67 |
| 89 | FAUST STARE | 087:11:35:42 2:22:22:02 | IH | MIR601 | 81.60 | 337.80 | 31.10 |
| 90 | ISO14 | 087:11:51:40 2:22:38:00 | LVLH | | 224.30 | 279.90 | 9.80 |
| 91 | -ZLV -XVV | 087:12:49:40 2:23:36:00 | LVLH | | 0.00 | 180.00 | 0.00 |
| 92 | AEP58 | 087:14:27:50 3:01:14:10 | LVLH | | 50.00 | 180.00 | 0.00 |

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 93 | -ZLV -XVV | 087:14:44:50 3:01:31:10 | LVLH | | 0.00 | 180.00 | 0.00 |
| 94 | SPECIAL | 087:19:00:40 3:05:55:00 | IH | MIR601 | 200.90 | 250.30 | 61.50 |
| 95 | -ZLV -XVV | 087:19:25:40 3:06:12:00 | LVLH | | 0.00 | 180.00 | 180.00 |
| 96 | SEP C SCAN | 087:23:29:06 3:10:15:26 | LVLH | | 156.00 | 270.00 | 302.20 |
| 97 | SCAN MNVR | 087:23:37:38 3:10:23:58 | LVLH | | 168.10 | 270.00 | 298.10 |
| 98 | -ZLV -XVV | 087:23:49:33 3:10:35:53 | LVLH | | 0.00 | 180.00 | 0.00 |
| 99 | +ZLV -XVV | 088:00:19:40 3:11:06:00 | LVLH | | 180.00 | 180.00 | 0.00 |
| 100 | SRP6 | 088:01:13:40 3:12:00:00 | LVLH | | 0.00 | 150.00 | 0.00 |
| 101 | -YLV -ZVV | 088:01:30:13 3:12:16:33 | LVLH | | 0.00 | 270.00 | 40.00 |
| 102 | -ZLV +XVV | 088:03:13:28 3:13:59:40 | LVLH | | 180.00 | 0.00 | 0.00 |
| 103 | FAUST STARE | 088:04:05:24 3:14:51:44 | IH | MIR601 | 358.60 | 109.20 | 69.80 |
| 104 | -ZLV +XVV | 088:04:37:26 3:15:23:46 | LVLH | | 180.00 | 0.00 | 0.00 |
| 105 | FAUST STARE | 088:05:36:19 3:16:22:39 | IH | MIR601 | 214.40 | 325.60 | 286.60 |
| 106 | -ZLV +XVV | 088:06:03:07 3:16:49:27 | LVLH | | 100.00 | 0.00 | 0.00 |
| 107 | FAUST STARE | 088:07:03:07 3:17:49:27 | IH | MIR601 | 170.90 | 170.90 | 30.60 |
| 108 | FAUST STARE II | 088:07:12:40 3:17:59:00 | IH | MIR601 | 176.00 | 163.90 | 20.40 |
| 109 | ISO13A B ROT | 088:07:29:01 3:18:15:21 | LVLH | | 0.00 | 90.00 | 90.00 |
| 110 | ISO 13A END ATT | 088:08:07:40 3:18:54:00 | LVLH | | 0.00 | 186.30 | 90.00 |
| 111 | ISO 13B INIT ATT | 088:08:13:40 3:19:00:00 | LVLH | | 0.00 | 90.00 | 90.00 |
| 112 | ISO 13B END ATT | 088:08:31:10 3:19:17:30 | LVLH | | 0.00 | 253.20 | 90.00 |
| 113 | FAUST STARE | 088:08:45:15 3:19:31:35 | IH | MIR601 | 200.60 | 260.40 | 70.00 |
| 114 | ISO14 | 088:09:06:04 3:19:52:24 | LVLH | | 224.00 | 281.00 | 10.00 |
| 115 | +XLV +ZVV | 088:10:03:40 3:20:50:00 | LVLH | | 180.00 | 270.00 | 0.00 |

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|--------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 116 | -ZLV -XVV | 088:10:25:40 3:21:12:00 | LVLH | | 0.00 | 180.00 | 0.00 |
| 117 | AEPSB | 088:14:34:50 4:01:21:10 | LVLH | | 50.00 | 180.00 | 0.00 |
| 118 | -ZLV -XVV | 088:14:51:50 4:01:30:10 | LVLH | | 0.00 | 180.00 | 0.00 |
| 119 | SPECIAL | 088:19:17:02 4:06:03:22 | IH | MIR601 | 66.00 | 92.00 | 5.00 |
| 120 | -ZLV -XVV | 088:19:31:56 4:06:18:16 | LVLH | | 0.00 | 180.00 | 0.00 |
| 121 | SEP C SCAN | 088:23:36:23 4:10:22:43 | LVLH | | 160.10 | 270.00 | 303.00 |
| 122 | SCAN MNVR | 088:23:44:57 4:10:31:17 | LVLH | | 172.17 | 270.00 | 298.93 |
| 123 | -ZLV -XVV | 088:23:56:44 4:10:43:04 | LVLH | | 0.00 | 180.00 | 0.00 |
| 124 | -ZSI | 089:01:39:57 4:12:26:17 | IH | MIR601 | 172.60 | 86.00 | 0.40 |
| 125 | AEP 1 | 089:02:34:15 4:13:20:35 | LVLH | | 70.00 | 45.90 | 36.30 |
| 126 | -ZSI | 089:03:10:30 4:13:56:50 | IH | MIR601 | 172.60 | 86.80 | 0.50 |
| 127 | AEP 1 | 089:04:04:43 4:14:51:03 | LVLH | | 70.50 | 46.40 | 36.30 |
| 128 | FAUST STARE | 089:04:27:54 4:15:14:14 | IH | MIR601 | 273.00 | 107.70 | 22.10 |
| 129 | -ZSI | 089:04:41:38 4:15:27:58 | IH | MIR601 | 172.50 | 86.00 | 0.50 |
| 130 | FAUST STARE | 089:05:42:00 4:16:20:20 | IH | MIR601 | 209.40 | 165.30 | 11.10 |
| 131 | -ZSI | 089:06:12:07 4:16:58:27 | IH | MIR601 | 172.50 | 86.00 | 0.50 |
| 132 | AEP 1 | 089:07:05:42 4:17:52:02 | LVLH | | 69.00 | 47.28 | 36.33 |
| 133 | ISO13A B ROT | 089:07:22:18 4:18:08:38 | LVLH | | 0.00 | 90.00 | 90.00 |
| 134 | ISO 13A SCAN | 089:08:14:37 4:19:00:57 | LVLH | | 0.00 | 186.30 | 90.00 |
| 135 | ISO INIT ATT | 089:08:16:18 4:19:02:30 | LVLH | | 0.00 | 90.00 | 90.00 |
| 136 | ISO 13B SCAN | 089:08:35:38 4:19:21:58 | LVLH | | 0.00 | 186.30 | 90.00 |
| 137 | FAUST STARE | 089:00:49:48 4:19:36:00 | IH | MIR601 | 264.30 | 154.30 | 69.60 |
| 138 | ISO14 | 089:09:07:48 4:19:54:06 | LVLH | | 224.30 | 279.12 | 8.87 |

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|----------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 139 | BIAS -ZLV -XVV | 089:10:03:42 4:20:50:02 | LVLH | | 0.00 | 180.00 | 1.00 |
| 140 | -ZLV -YVV | 089:11:48:15 4:22:34:35 | LVLH | | 0.00 | 180.00 | 270.00 |
| 141 | BIAS -ZLV -XVV | 089:12:10:15 4:22:56:35 | LVLH | | 0.00 | 180.00 | 1.00 |
| 142 | SMK EX-MIR- FAUST | 089:13:13:15 4:23:59:35 | IH | MIR601 | 100.00 | 251.40 | 30.50 |
| 143 | BIAS -ZLV -XVV | 089:13:40:06 5:00:26:26 | LVLH | | 0.00 | 180.00 | 1.00 |
| 144 | AEP5B | 089:14:40:50 5:01:27:10 | LVLH | | 50.00 | 180.00 | 0.00 |
| 145 | BIAS -ZLV -XLV | 089:14:57:50 5:01:44:10 | LVLH | | 0.00 | 180.00 | 2.00 |
| 146 | IMU ALM-FAUST | 089:19:28:22 5:06:14:42 | IH | MIR601 | 129.10 | 162.90 | 22.40 |
| 147 | BIAS -ZLV -XVV | 089:19:42:22 5:06:28:42 | LVLH | | 0.00 | 180.00 | 2.00 |
| 148 | SEP5 | 090:01:19:18 5:12:05:30 | LVLH | | 0.00 | 210.00 | 0.00 |
| 149 | BIAS -YLV -ZVV | 090:01:30:49 5:12:17:09 | LVLH | | 0.00 | 270.00 | 45.00 |
| 150 | FAUST STARE | 090:03:04:49 5:13:51:09 | IH | MIR601 | 23.00 | 7.90 | 328.90 |
| 151 | FAUST STARE | 090:03:10:53 5:13:57:13 | IH | MIR601 | 23.70 | 8.89 | 331.50 |
| 152 | -ZLV +XVV | 090:03:24:31 5:14:10:51 | LVLH | | 180.00 | 0.00 | 0.00 |
| 153 | FAUST SCAN- STRT | 090:04:13:23 5:14:59:43 | IH | MIR601 | 34.40 | 59.90 | 29.40 |
| 154 | FAUST SCAN- END | 090:04:37:47 5:15:24:07 | IH | MIR601 | 9.90 | 64.60 | 31.00 |
| 155 | WATER DUMP | 090:04:44:27 5:15:30:47 | LVLH | | 240.00 | 250.00 | 345.00 |
| 156 | -ZLV +XVV | 090:06:24:20 5:17:10:40 | LVLH | | 180.00 | 0.00 | 0.00 |
| 157 | FAUST STARE | 090:07:20:18 5:18:06:30 | IH | MIR601 | 337.90 | 180.70 | 385.28 |
| 158 | ISO13A B ROT | 090:07:44:27 5:18:30:47 | LVLH | | 0.00 | 90.00 | 90.00 |
| 159 | ISO 13A END ATT | 090:08:22:40 5:19:09:08 | LVLH | | 0.00 | 186.30 | 90.00 |
| 160 | ISO 13B INIT ATT | 090:08:24:10 5:19:09:30 | LVLH | | 0.00 | 90.00 | 90.00 |
| 161 | ISO 13B END ATT | 090:08:44:10 5:19:30:30 | LVLH | | 0.00 | 186.80 | 90.00 |

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 162 | SEP10A | 090:08:53:10 5:19:39:30 | LVLH | | 147.00 | 270.00 | 90.00 |
| 163 | IS014 | 090:09:21:16 5:20:07:36 | LVLH | | 224.09 | 200.50 | 10.30 |
| 164 | FAUST SCAN | 090:10:24:22 5:21:10:42 | IH | MIR601 | 134.90 | 294.30 | 46.00 |
| 165 | -ZLV +XVV | 090:10:47:51 5:21:34:17 | LVLH | | 180.00 | 0.00 | 0.00 |
| 166 | FAUST STARE | 090:11:49:05 5:22:35:25 | IH | MIR601 | 280.70 | 120.00 | 5.10 |
| 167 | -ZLV -XVV | 090:12:18:32 5:23:04:52 | LVLH | | 0.00 | 180.00 | 0.00 |
| 168 | AEP5B | 090:14:46:50 6:01:33:10 | LVLH | | 50.00 | 180.00 | 0.00 |
| 169 | -ZLV -XVV | 090:15:03:50 6:01:50:10 | LVLH | | 0.00 | 180.00 | 0.00 |
| 170 | SEP6 | 091:01:26:10 6:12:12:30 | LVLH | | 0.00 | 150.00 | 0.00 |
| 171 | -ZLV +XVV | 091:01:46:40 6:12:33:00 | LVLH | | 180.00 | 0.00 | 0.00 |
| 172 | IS013A B ROT | 091:07:52:26 6:18:38:46 | LVLH | | 0.00 | 90.00 | 90.00 |
| 173 | ISO 13A END ATT | 091:08:29:40 6:19:16:00 | LVLH | | 0.00 | 186.30 | 90.00 |
| 174 | ISO 13B INIT ATT | 091:08:31:18 6:19:17:30 | LVLH | | 0.00 | 90.00 | 90.00 |
| 175 | ISO 13B END ATT | 091:08:51:10 6:19:37:30 | LVLH | | 0.00 | 186.80 | 90.00 |
| 176 | SEP10A | 091:08:59:33 6:19:45:53 | LVLH | | 147.00 | 270.00 | 0.00 |
| 177 | IS014 | 091:09:26:15 6:20:12:35 | LVLH | | 224.10 | 280.10 | 9.90 |
| 178 | -ZLV -YVV SEPAC | 091:10:23:44 6:21:18:04 | LVLH | | 0.00 | 180.00 | 270.00 |
| 179 | IS014 | 091:10:45:48 6:21:32:00 | LVLH | | 224.40 | 278.10 | 0.00 |
| 180 | +XLV +ZVV | 091:12:03:48 6:22:50:08 | LVLH | | 180.00 | 270.00 | 0.00 |
| 181 | -ZSI | 091:12:26:40 6:23:13:08 | LVLH | | | | |
| 182 | BIAS -XLV BAY SO | 091:13:23:40 7:00:10:00 | LVLH | | | | |
| 183 | -ZSI | 091:13:51:40 7:00:38:08 | LVLH | | | | |
| 184 | | | | | | | |

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Cont'd)

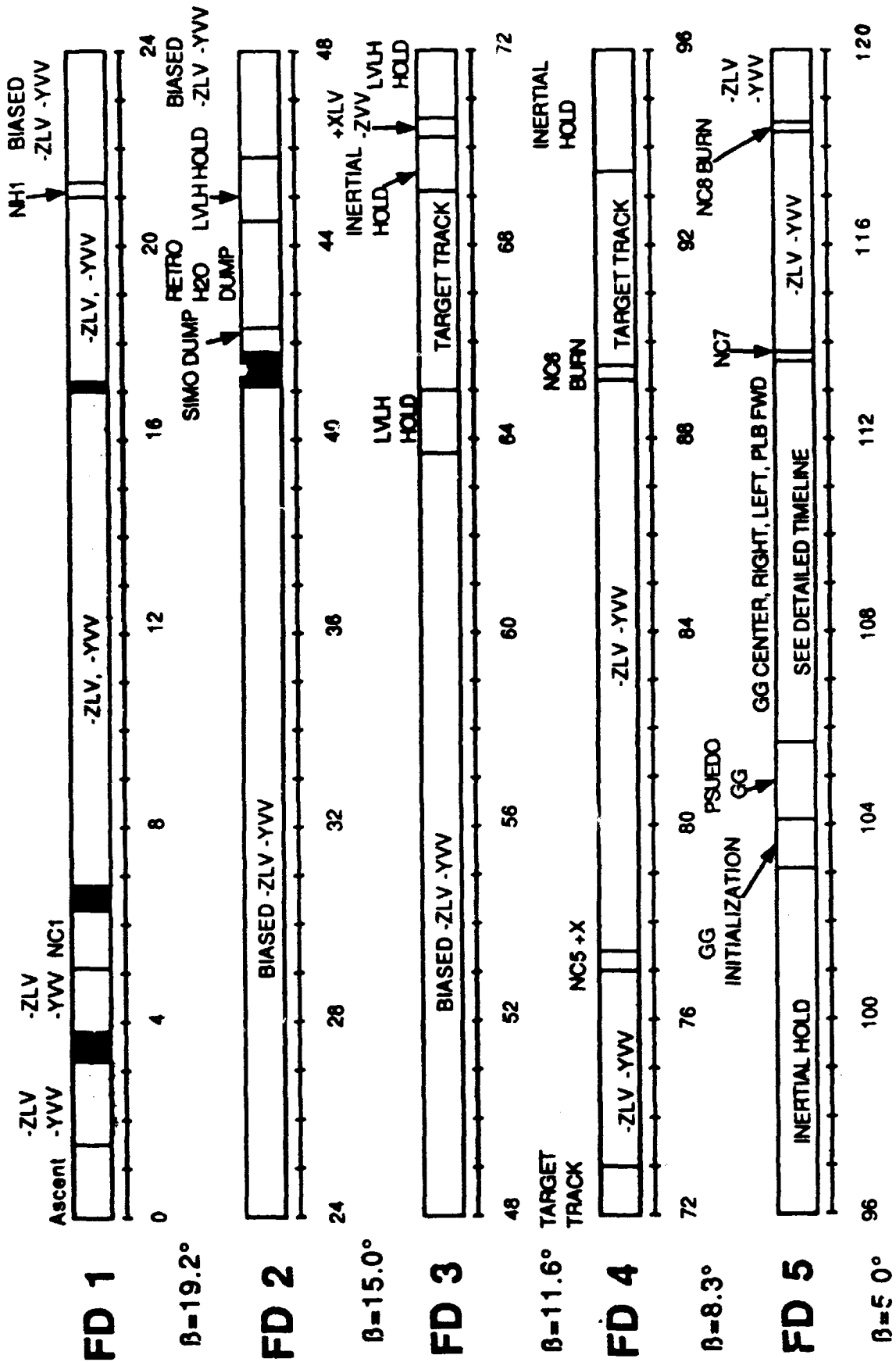
| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|---------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 185 | -ZSI | 091:15:06:40 7:01:53:00 | LVLH | | | | |
| 186 | BIAS -XLV BAY SO | 091:16:22:40 7:03:09:00 | LVLV | | | | |
| 187 | -ZSI | 091:16:56:40 7:03:43:00 | IH | MIR601 | | | |
| 188 | BIAS -XLV BS | 091:17:51:40 7:04:38:00 | LVLH | | | | |
| 189 | -ZSI | 091:18:13:40 7:05:00:00 | LVLH | | | | |
| 190 | BIAS YLV BS | 091:19:21:40 7:06:08:00 | LVLH | | 110.00 | 0.00 | 0.00 |
| 191 | -ZSI | 091:19:55:48 7:06:42:00 | IH | MIR601 | 160.00 | 103.00 | 59.00 |
| 192 | BIAS -XLV BS | 091:20:53:40 7:07:40:00 | LVLH | | 41.00 | 114.00 | 354.00 |
| 193 | -ZSI | 091:21:26:40 7:08:13:00 | IH | MIR601 | 165.00 | 98.00 | 50.00 |
| 194 | -ZLV -XVV | 091:22:31:40 7:09:18:00 | LVLH | | 0.00 | 180.00 | 0.00 |
| 195 | -ZSI | 091:22:58:40 7:09:45:00 | IH | MIR601 | | | |
| 196 | -ZLV +XVV | 092:00:04:36 7:10:30:52 | LVLH | | 180.00 | 0.00 | 0.00 |
| 197 | INTERMEDIATE | 092:00:36:10 7:11:22:30 | LVLH | | 180.00 | 270.00 | 0.00 |
| 198 | +ZLV -XVV | 092:00:43:40 7:11:30:00 | LVLH | | 180.00 | 180.00 | 0.00 |
| 199 | -YLV -XVV | 092:02:03:40 7:12:50:00 | LVLH | | 000 | 96.00 | 270.00 |
| 200 | ISOMESO | 092:03:43:13 7:14:29:33 | IH | | 228.50 | 10.80 | 356.40 |
| 201 | AEP 7 | 092:04:55:34 7:15:41:54 | LVLH | | 180.00 | 284.40 | 0.00 |
| 202 | ISO14 | 092:05:12:25 7:15:58:45 | LVLH | | 224.00 | 280.30 | 10.16 |
| 203 | -ZLV -XVV | 092:06:30:14 7:17:16:34 | LVLH | | 0.00 | 180.00 | 0.00 |
| 204 | BIASED -ZLV -XVV | 092:10:34:55 7:21:21:15 | LVLH | | 75.00 | 180.00 | 0.00 |
| 205 | -ZLV -XVV | 092:10:58:55 7:21:45:15 | LVLH | | 0.00 | 180.00 | 0.00 |
| 206 | BIASED -ZLV -XVV | 092:12:04:55 7:22:51:15 | LVLH | | 75.00 | 180.00 | 0.00 |
| 207 | -ZLV -XVV | 092:12:29:55 7:23:16:15 | LVLH | | 0.00 | 180.00 | 0.00 |

TABLE 3-XI - STS-45 AS-FLOWN ATTITUDE TIMELINE (Concluded)

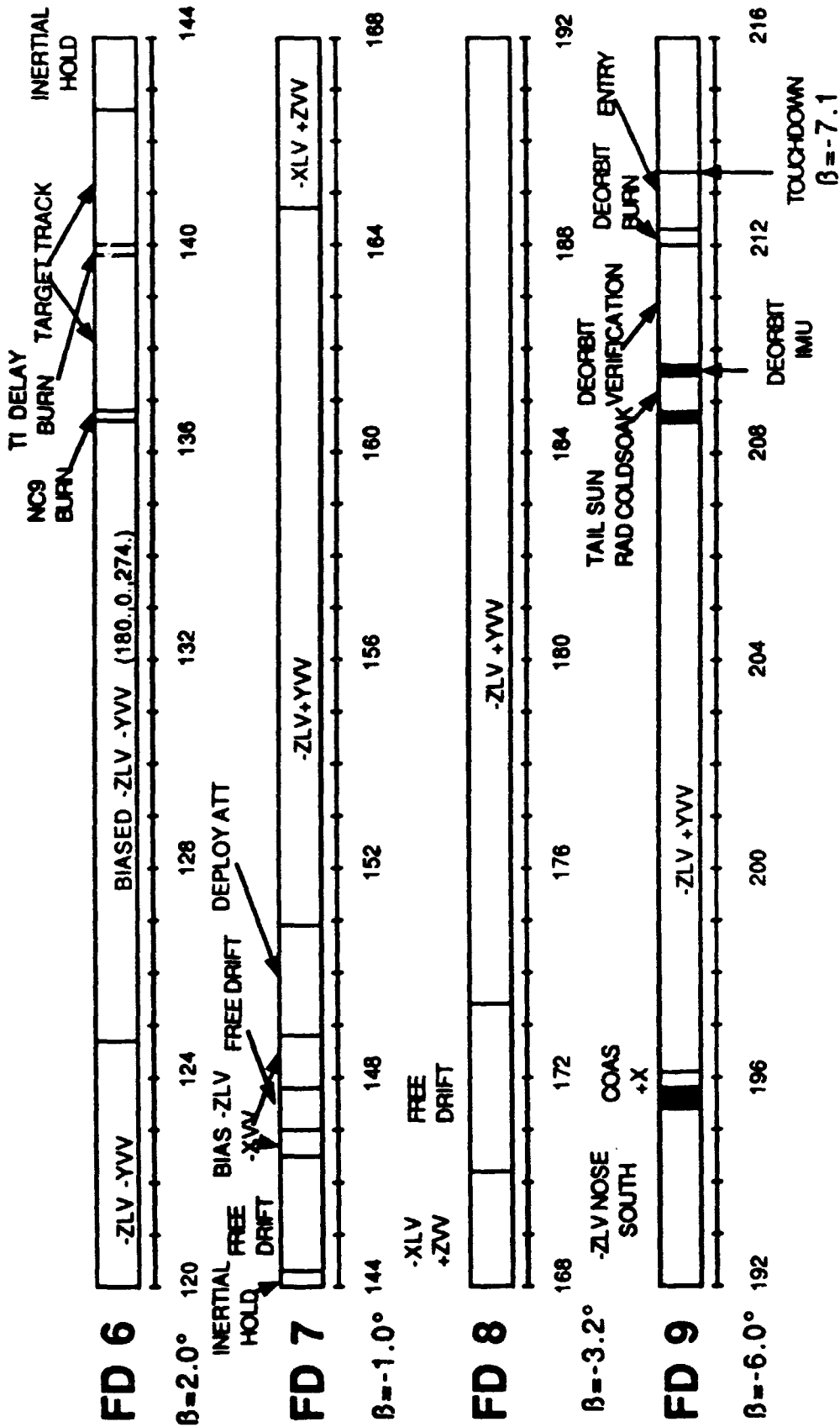
| No. | Comment | Time, G.m.t./ M.E.T. | Mode | Matrix | Attitude | | |
|-----|----------------------|----------------------------|------|--------|----------|--------|--------|
| | | | | | Roll | Pitch | Yaw |
| 208 | INTERMEDIATE | 092:15:07:10 8:01:53:38 | LVLH | | 0.00 | 180.00 | 0.00 |
| 209 | -ZLV +XVV | 092:15:14:40 8:02:01:00 | LVLH | | 180.00 | 0.00 | 0.00 |
| 210 | H2O DUMP | 092:16:37:16 8:03:23:36 | LVLH | | 90.00 | 90.00 | 74.00 |
| 211 | IMU ALIGN | 092:18:15:30 8:05:01:58 | IH | MIR601 | 282.00 | 119.00 | 320.00 |
| 212 | -ZSI | 092:18:33:03 8:05:19:23 | IH | MIR601 | 149.92 | 113.56 | 68.22 |
| 213 | AEPSLIM | 092:19:25:51 8:06:12:11 | LVLH | | 90.00 | 90.00 | 20.00 |
| 214 | -ZSI | 092:19:49:46 8:06:36:06 | IH | MIR601 | 169.23 | 85.44 | 1.00 |
| 215 | ISO100 | 092:20:58:50 8:07:45:10 | LVLH | | 48.52 | 73.68 | 36.72 |
| 216 | -ZSI | 092:21:33:08 8:08:19:28 | IH | MIR601 | 169.17 | 85.42 | 8.92 |
| 217 | ISO100 | 092:22:29:17 8:09:15:37 | LVLH | | 48.14 | 73.93 | 36.72 |
| 218 | +YLV -XVV | 092:23:06:20 8:09:52:40 | LVLH | | | | |
| 219 | BIAS -ZLV +YVV | 093:00:10:12 8:10:56:32 | LVLH | | 0.00 | 100.00 | 55.00 |
| 220 | +ZSI FOR PTC | 093:03:13:40 8:14:00:00 | IH | MIR601 | 191.07 | 265.42 | 358.49 |
| 221 | INITIATE PTC | 093:03:13:50 8:14:00:10 | ROTR | MIR601 | 191.07 | 265.42 | 358.49 |
| 222 | -XSI TAIL SUN | 093:06:18:37 8:17:04:57 | IH | MIR601 | 41.20 | 172.00 | 346.20 |
| 223 | D O IMU ALIGN | 093:07:34:48 8:18:21:00 | IH | MIR601 | 53.00 | 42.00 | 41.00 |
| 224 | D O VERIF ALIGN | 093:07:43:18 8:18:29:38 | IH | MIR601 | 289.00 | 184.00 | 55.00 |
| 225 | D O BURN ATT- KSC | 093:07:53:40 8:18:40:00 | IH | MIR601 | 261.20 | 260.10 | 27.60 |
| 226 | MM 303 ENTRY | 093:10:26:37 8:21:12:57 | IH | CUR101 | 154.34 | 187.94 | 301.16 |
| 227 | MM 304 ENTRY | 093:10:46:51 8:21:33:11 | LVLH | | 1.28 | 38.79 | 358.41 |

TABLE 3-XII.- STS-49 AS-FLOWN ATTITUDE TIMELINE

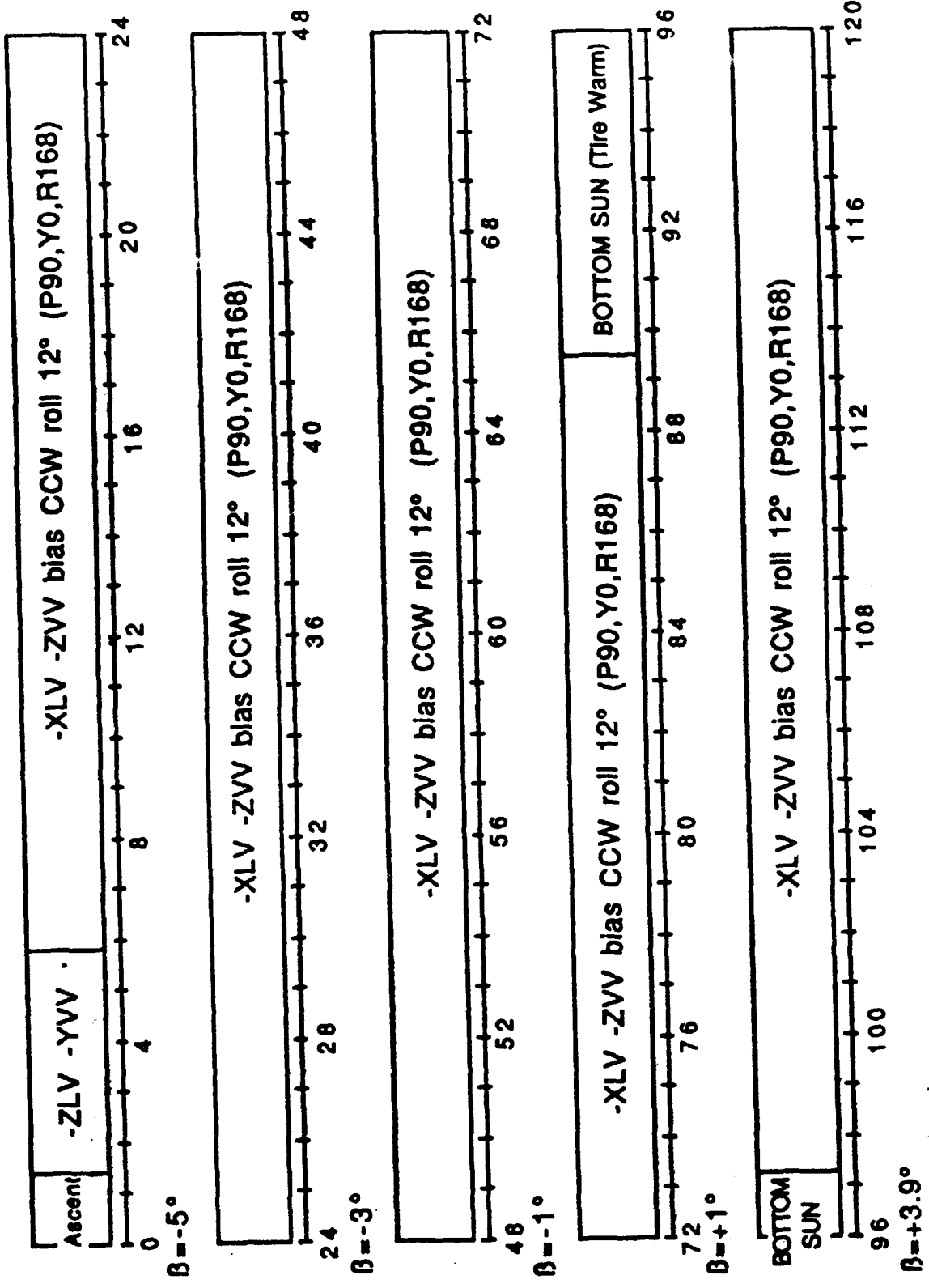
| Mission elapsed time days:hr:min | Duration hr:min | Attitude/Event |
|-------------------------------------|--------------------|---|
| 6:00:05 - 6:00:19 | 0:14 | Inertial Hold (279.,265.,20.) |
| 6:00:19 - 6:01:25 | 1:06 | Free Drift (Various IH) |
| 6:01:25 - 6:02:28 | 1:03 | Free Drift (Various LVLH) |
| 6:02:28 - 6:03:00 | 0:32 | Bias -ZLV -XVV (4.,175.,0.) |
| 6:03:00 - 6:03:48 | 0:48 | Free Drift (Various LVLH) |
| 6:03:48 - 6:04:45 | 0:57 | Bias -ZLV -XVV (5., 175.,0.) |
| 6:04:45 - 6:05:55 | 1:10 | Intelsat Deploy Att. (IH 263.,125.,345.) |
| 6:05:55 - 6:06:20 | 0:25 | SEP 2 (IH 335.,193.,341.) |
| 6:06:20 - 6:06:49 | 0:29 | Viewing Att. (Various LVLH) |
| 6:06:49 - 6:20:45 | 13:56 | -ZLV +YVV (180.,0.,90.) |
| 6:20:45 - 7:02:04 | 5:19 | -XLV +ZVV (0.90.,0.) |
| 7:02:04 - 7:02:09 | 0:05 | Free Drift (LVLH 340.,90.,358.) |
| 7:02:09 - 7:02:15 | 0:06 | -XLV +ZVV (0.,90.,0.) |
| 7:02:15 - 7:04:20 | 2:05 | Free Drift (Various LVLH) |
| 7:04:20 - 7:05:19 | 0:59 | Free Drift (LVLH 228.,102.,353.) |
| 7:05:19 - 8:03:32 | 19:13 | -ZLV, +YVV (180.,0.,90.) |
| 8:03:32 - 8:03:44 | 0:12 | IMU Align A1 (IH 349.,23.,338.) |
| 8:03:44 - 8:04:06 | 0:22 | COAS +X (IH 319.,341.,298.) |
| 8:04:06 - 8:15:36 | 9:30 | -ZLV +YVV (180.,90.,0.) |
| 8:15:36 - 8:15:53 | 0:17 | IMU Align A1 (IH 349.,23., 338.) |
| 8:15:53 - 8:17:26 | 1:33 | Tail Sun Rad Coldsoak IH 320.,145.,313.) |
| 8:17:26 - 8:17:38 | 0:18 | Deorbit IMU (IH 238.,78., 309.) |
| 8:17:38 - 8:20:00 | 2:22 | Deorbit Verif (IH 132.,348., 339.) |
| 8:20:00 - 8:20:20 | 0:20 | Deorbit Burn (IH 54.6,197.3, 36.5) |
| 8:20:20 - 8:20:42 | 0:22 | MM 303 Entry (IH 302.,340., 22.7) |
| 8:20:42 - 8:21:17 | 0:35 | MM 304 Entry (IH 1.,38.5,359.) |



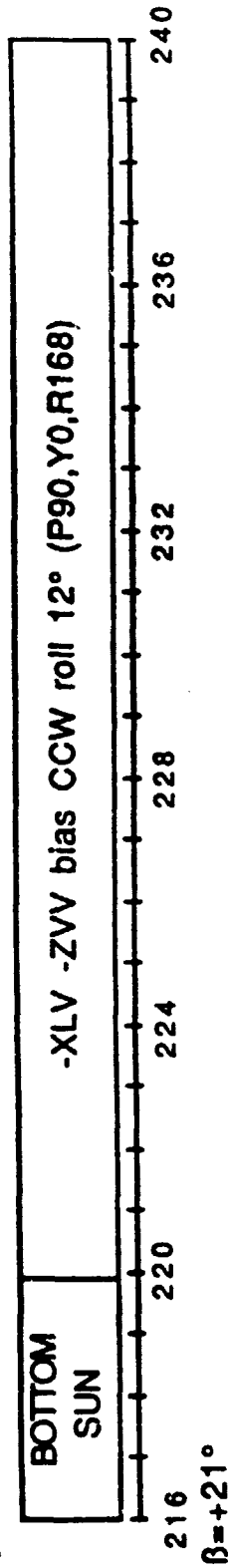
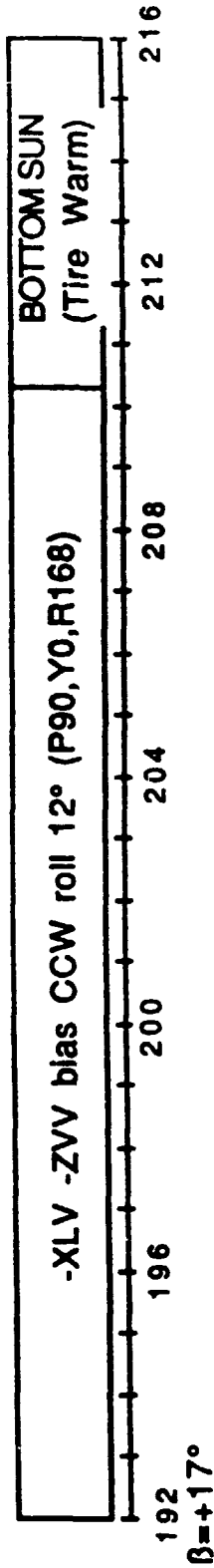
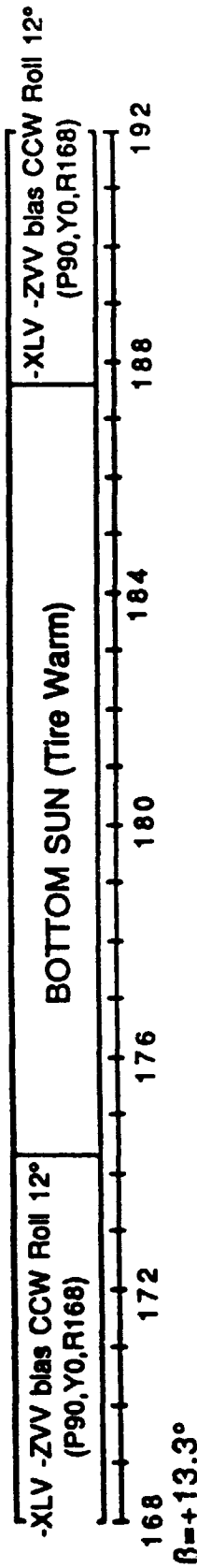
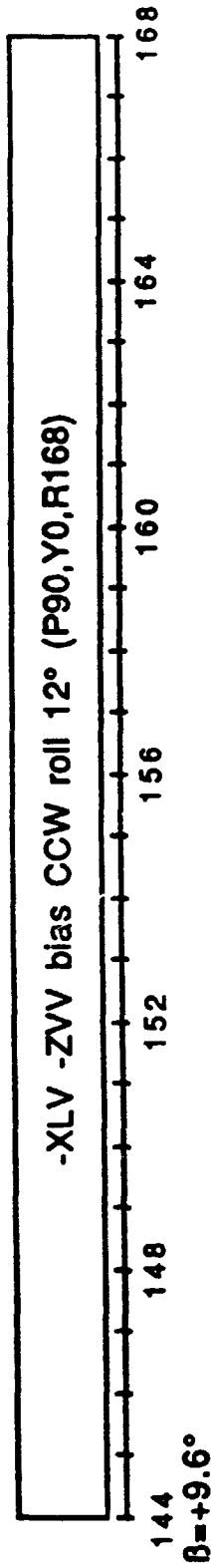
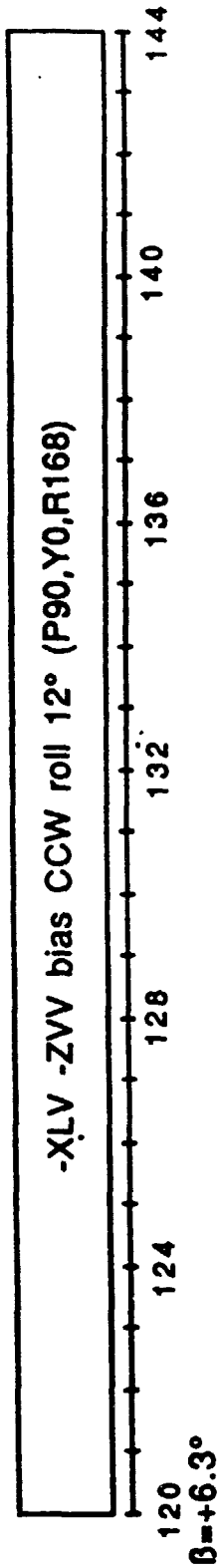
STS-49 As-Flown Attitude Timeline



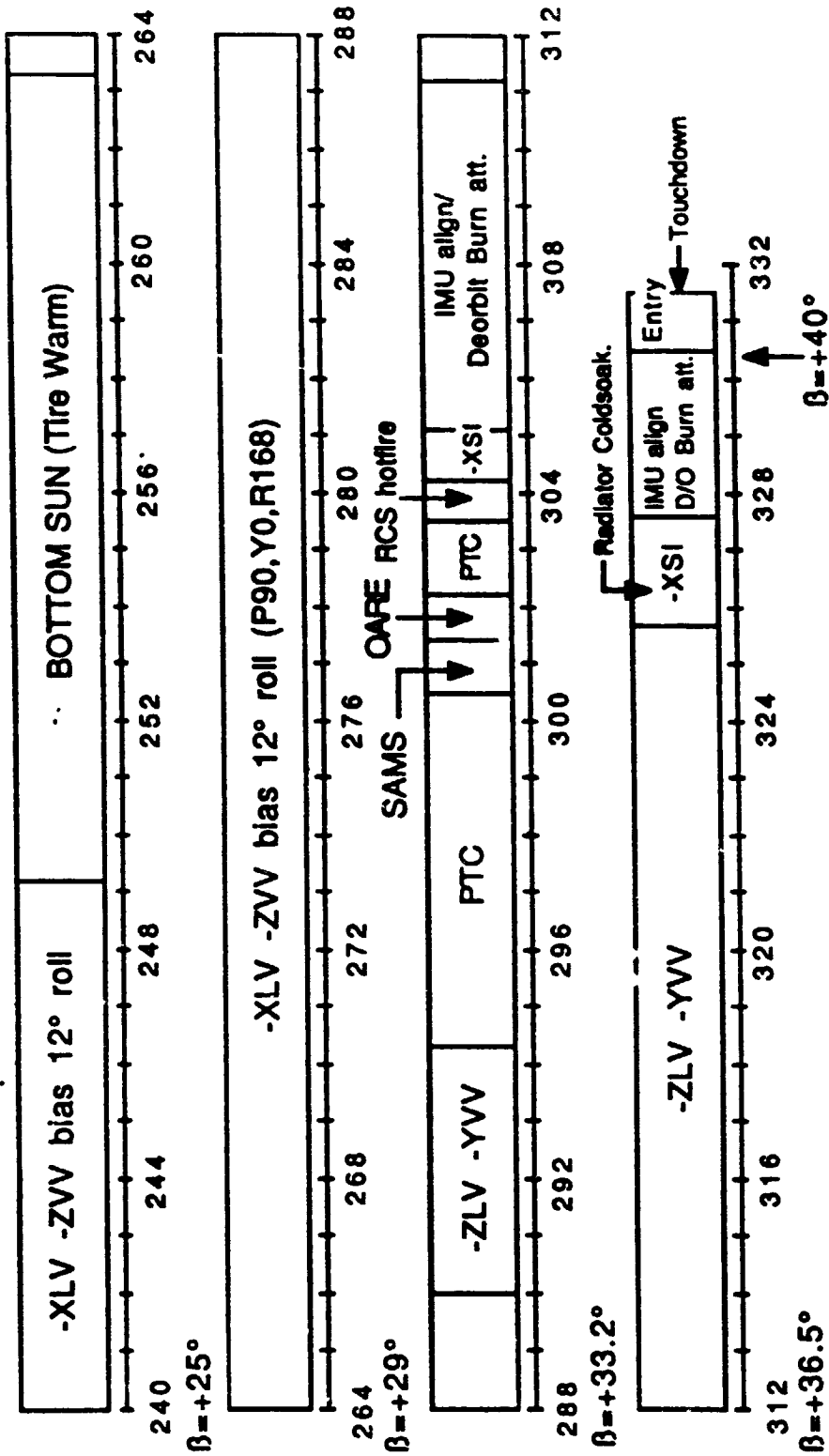
STS-49 As-Flown Attitude Timeline (CONTINUED)



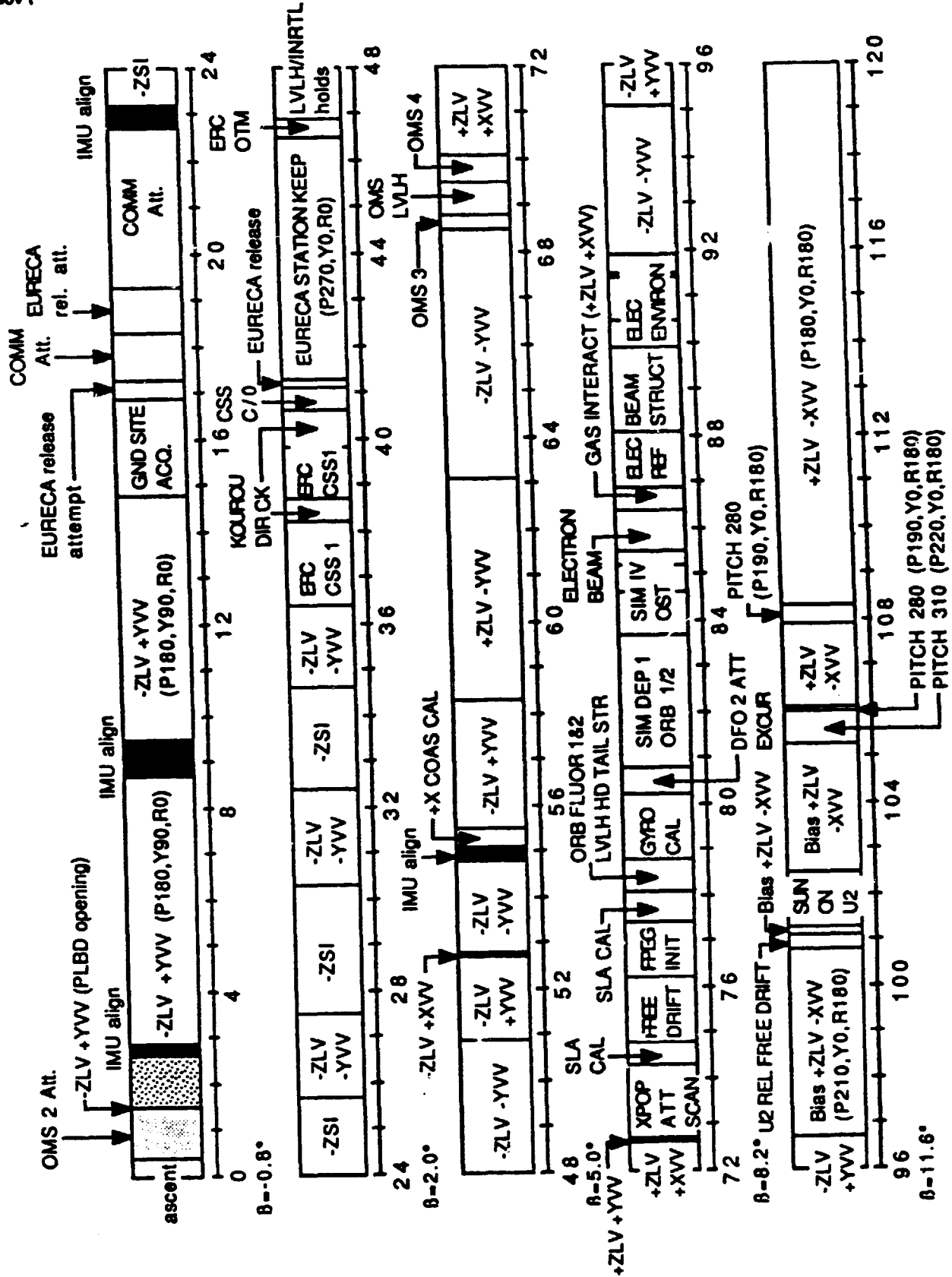
STS-50 AS-FLOWN ATTITUDE TIMELINE



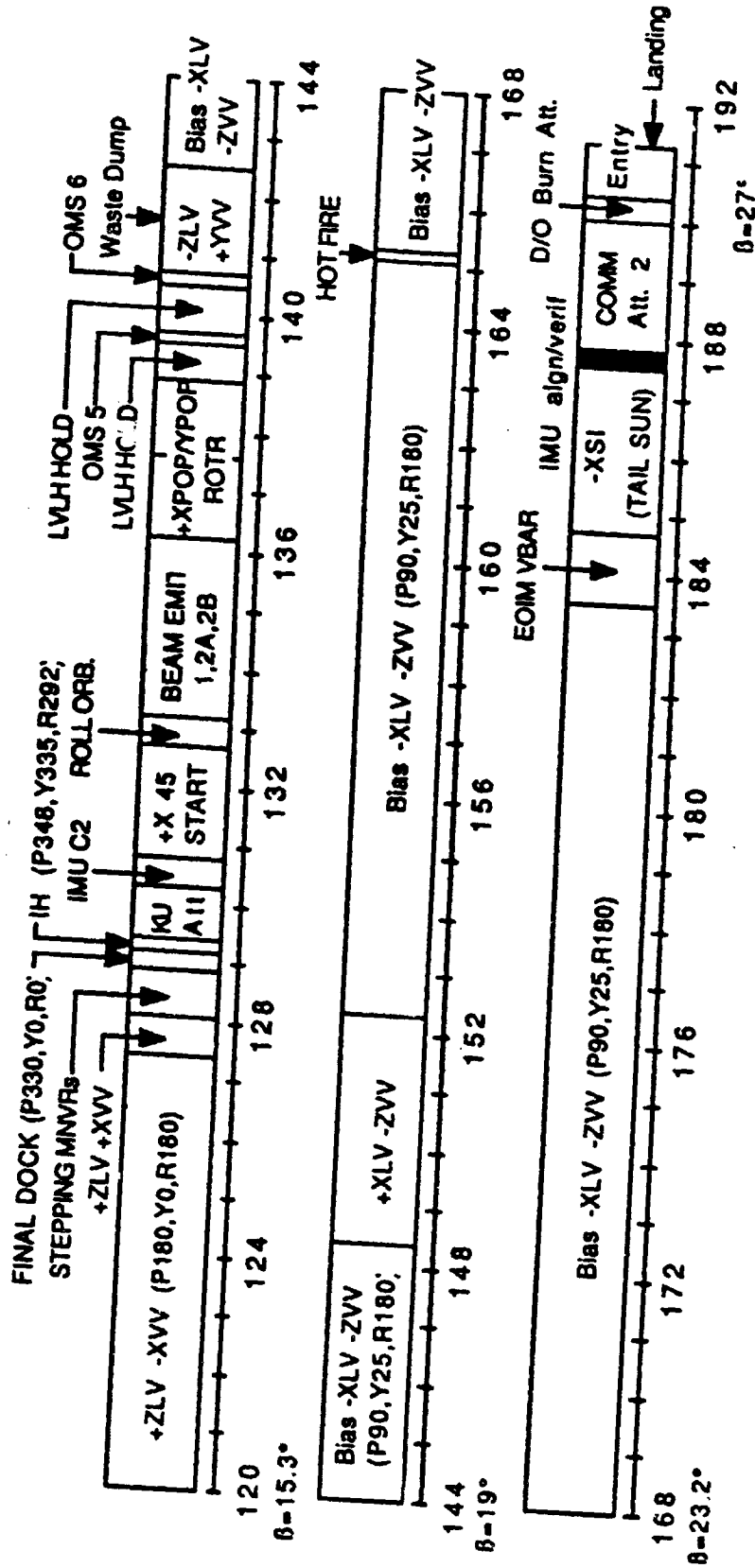
STS-50 AS-FLOWN ATTITUDE TIMELINE (CONT.)



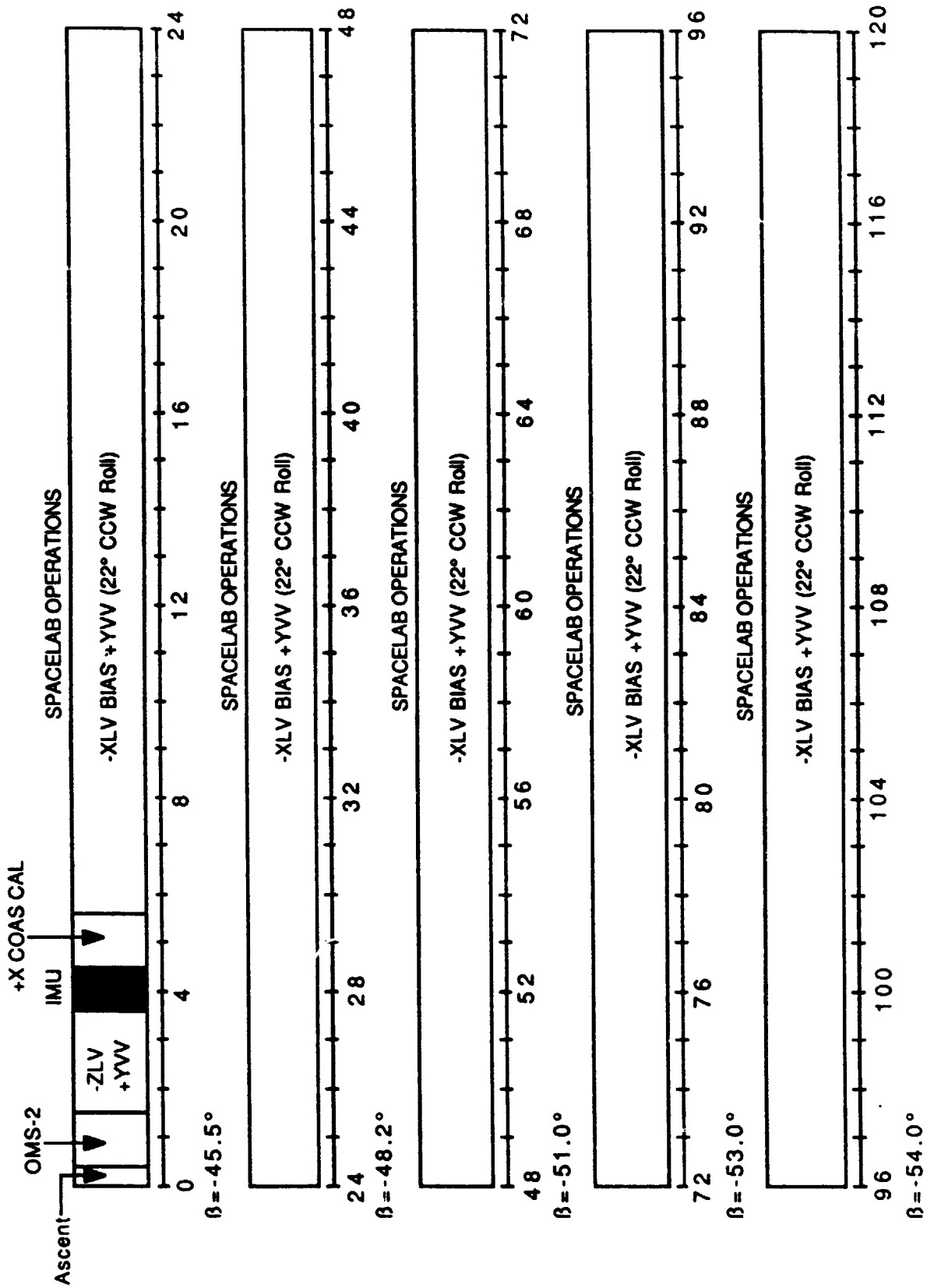
STS-50 AS-FLOWN ATTITUDE TIMELINE (CONT.)



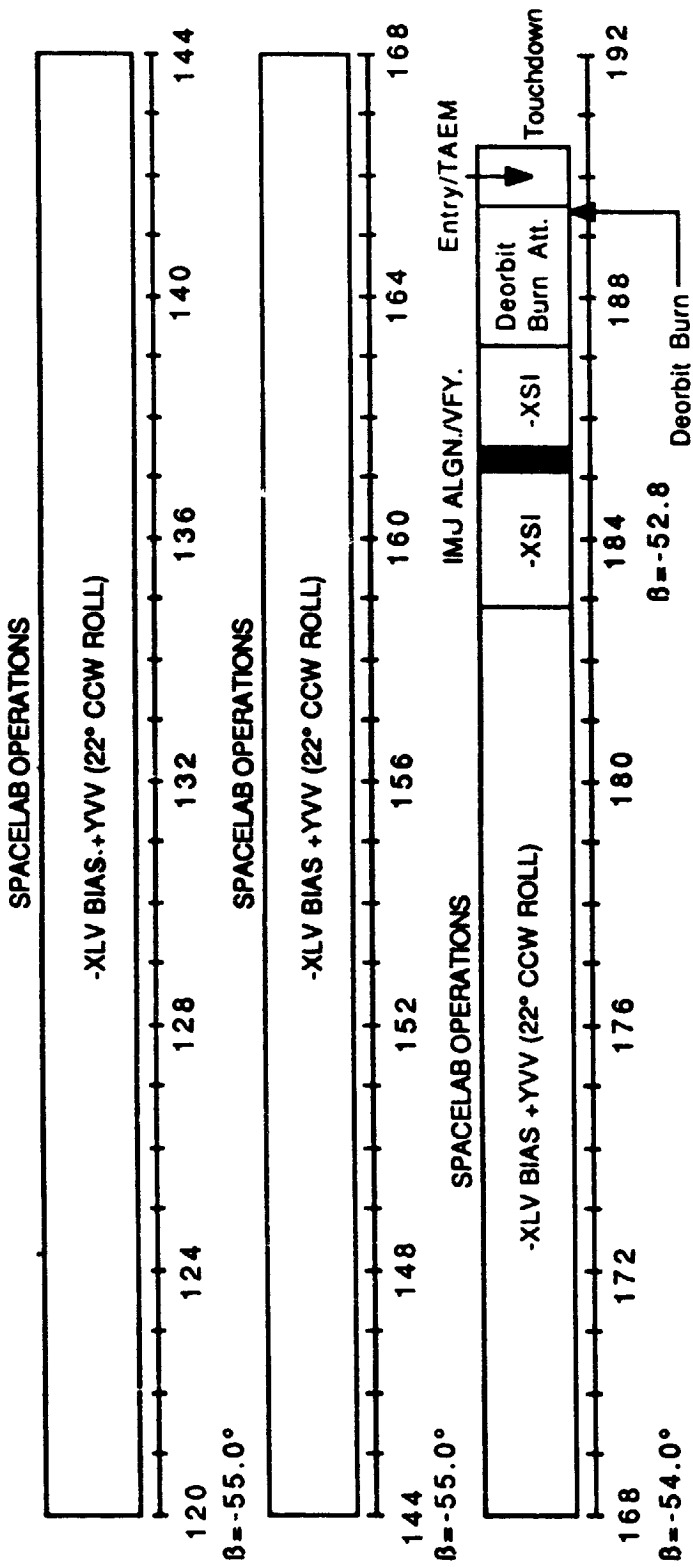
STS-46 AS-FLOWN ATTITUDE TIMELINE



STS-46 AS-FLOWN ATTITUDE TIMELINE (CONT'D.)



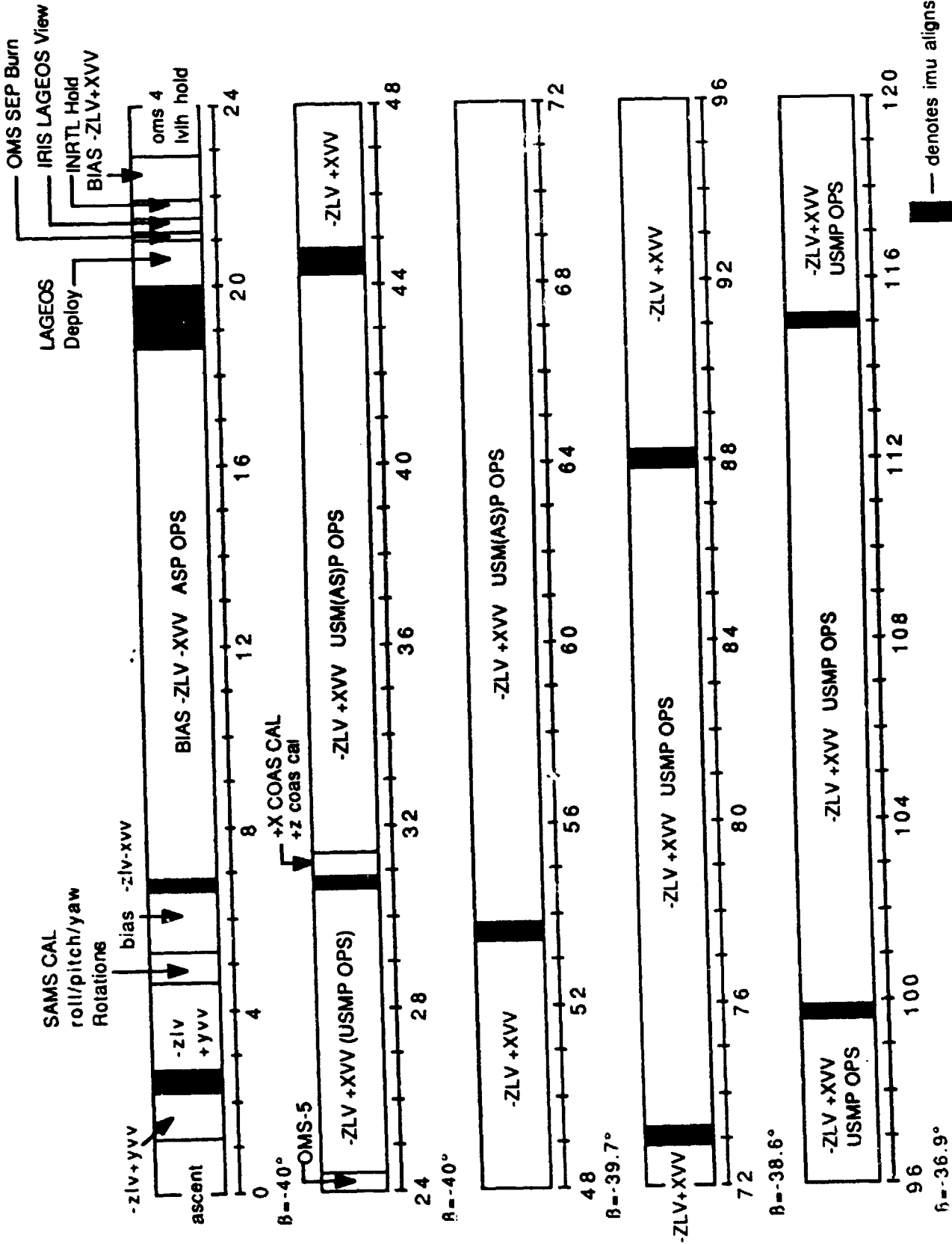
STS-47 AS-FLOWN ATTITUDE TIMELINE



ATTITUDE LEGEND:

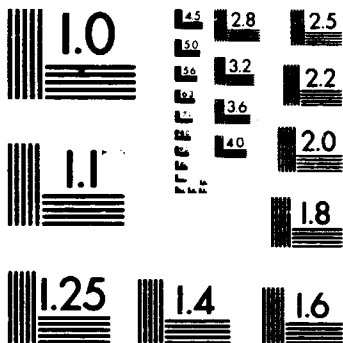
- OMS-2: IH (P58,Y9,R76)
- IMU ALIGN: IH (P291,Y316,R347)
- +X COAS CAL: IH (P30.91,Y345.94,R319.56)
- SPACELAB OPERATIONS: LVLH (P89.92,Y2.23,R67.99)
- TAIL SUN (-XSI): IH (P357.5,Y355.69,R21.36)
- Deorbit Align: IH (P91,Y307,R163)
- Deorbit Verify: IH (P59,Y16,R183)
- TAIL SUN (-XSI): IH (P57.4,Y56,R22.5)
- Deorbit Burn: IH (P204,Y345,R73)

STS-47 AS-FLOWN ATTITUDE TIMELINE (CONTINUED)

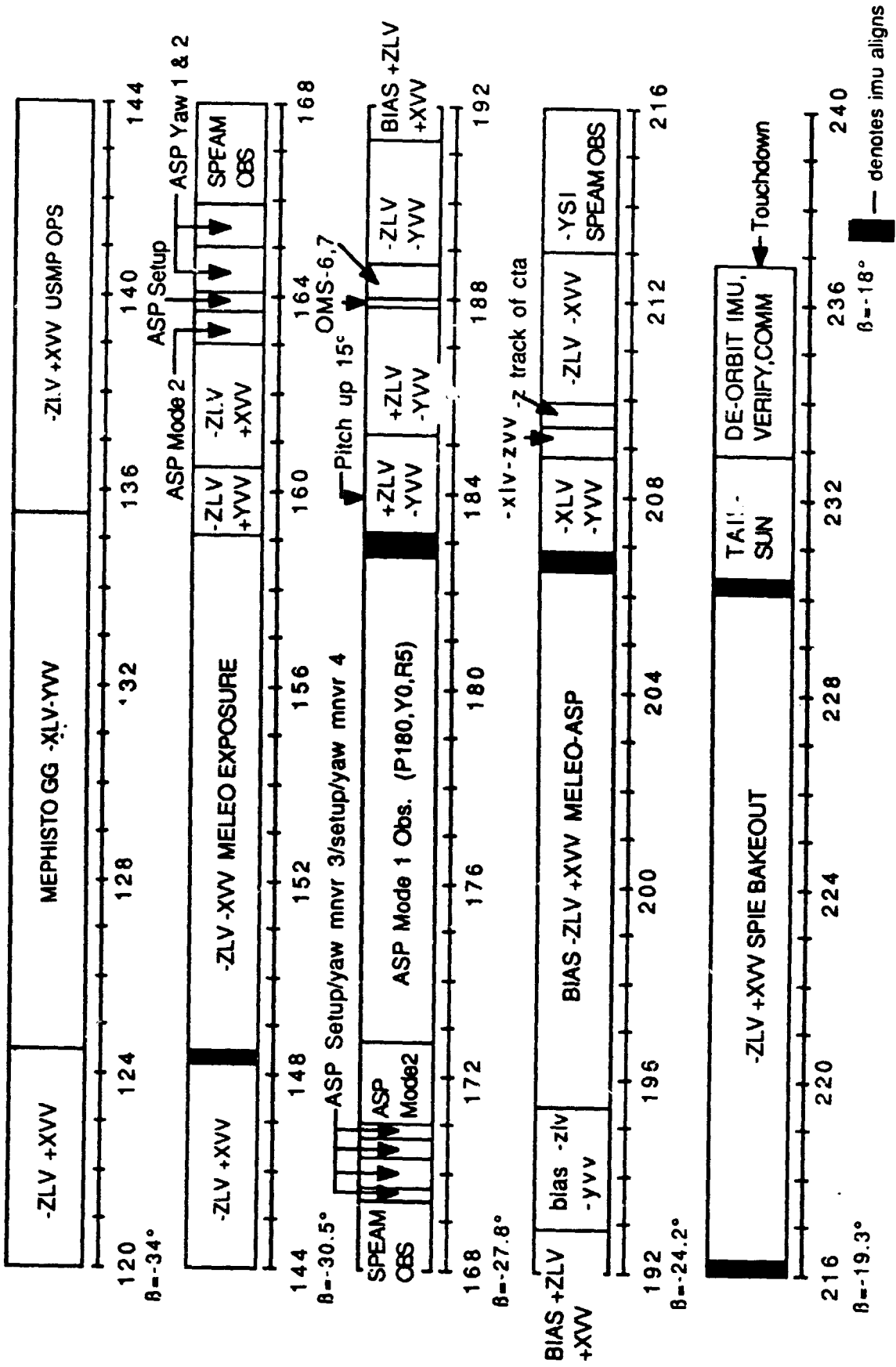


STS-52 As-Flown Attitude Timeline

3-11129 UN



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

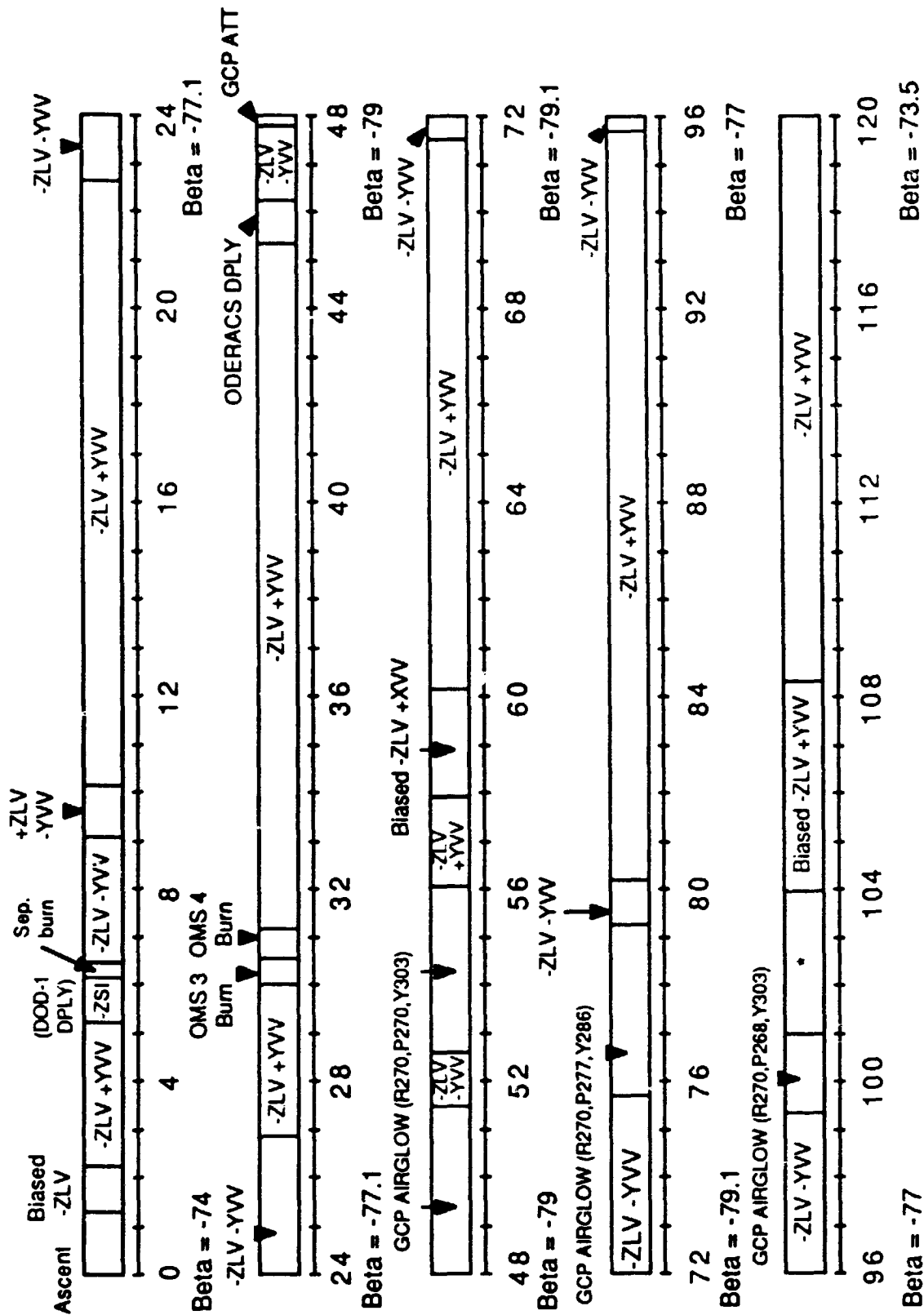


STS-52 As-Flown Attitude Timeline (Continued)

TABLE 3-XIII - STS-53 AS-FLOWN ATTITUDE TIMELINE

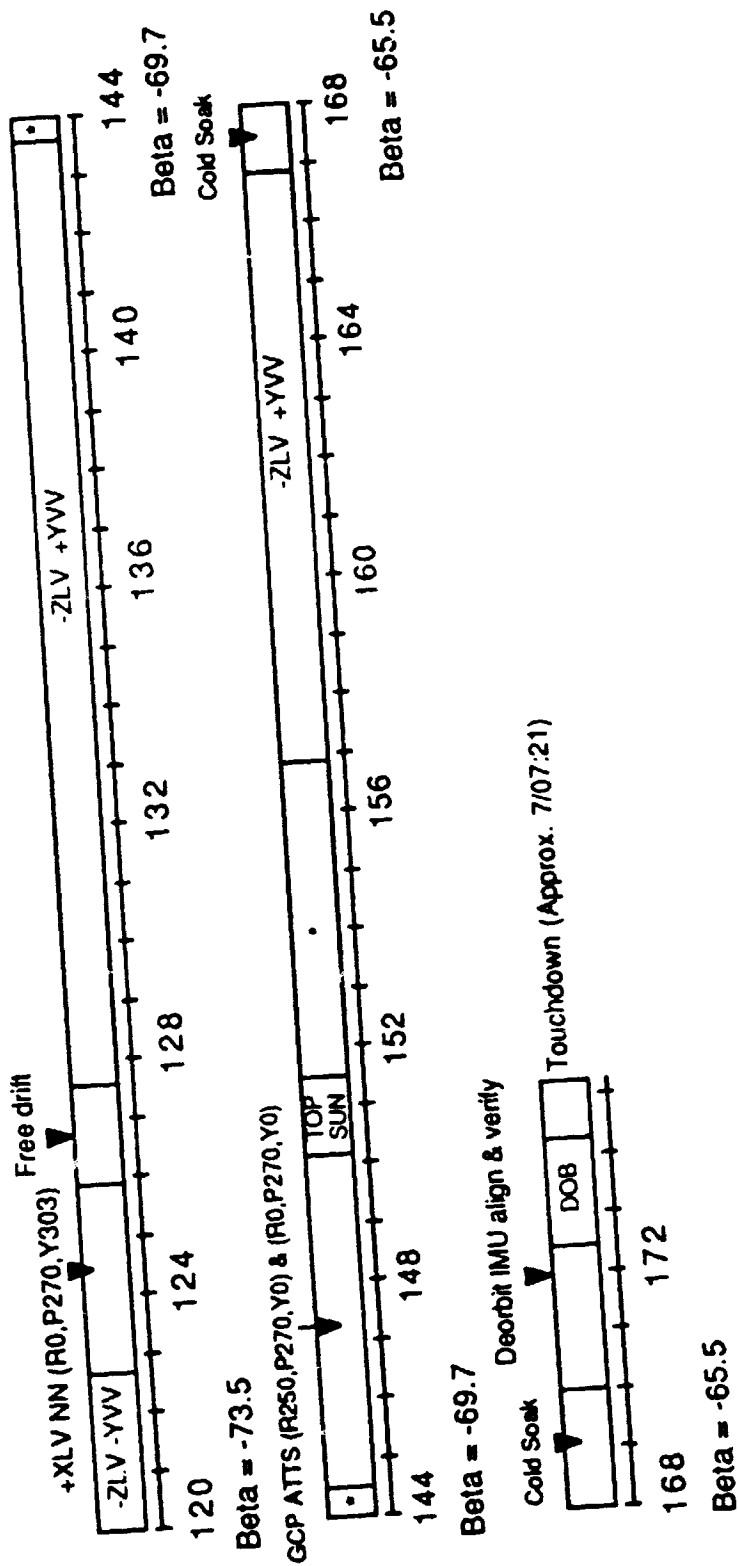
| Mission elapsed time days:hr:min | Duration hr:min | Attitude/Event |
|-------------------------------------|--------------------|---|
| 0:00:00 - 0:01:12 | 1:12 | Ascent |
| 0:01:12 - 0:02:08 | 0:56 | PLBD OPS/Biased -ZLV +YVV |
| 0:02:08 - 0:05:03 | 2:55 | -ZLV +YVV |
| 0:05:03 - 0:06:06 | 1:03 | -ZSI/Payload Deploy |
| 0:06:06 - 0:06:17 | 0:11 | Separation Burn |
| 0:06:17 - 0:09:05 | 2:48 | -ZLV -YVV |
| 0:09:05 - 0:10:22 | 1:17 | +ZLV -YVV |
| 0:10:22 - 0:22:48 | 12:26 | -ZLV +YVV |
| 0:22:48 - 1:02:50 | 4:02 | -ZLV -YVV |
| 1:02:50 - 1:06:00 | 3:10 | -ZLV +YVV |
| 1:06:00 - 1:06:23 | 0:23 | OMS 3 Burn |
| 1:06:23 - 1:07:05 | 0:43 | OMS 4 Burn |
| 1:07:05 - 1:21:23 | 14:18 | -ZLV +YVV |
| 1:21:23 - 1:22:18 | 0:55 | ODERACS Deploy (R180,P270,Y0) |
| 1:22:18 - 1:23:30 | 1:12 | -ZLV -YVV |
| 1:23:30 - 2:03:40 | 4:10 | GCP AIRGLOW (R270,P268,Y303) |
| 2:03:40 - 2:04:18 | 0:38 | -ZLV -YVV |
| 2:04:18 - 2:08:05 | 3:43 | GCP AIRGLOW (R270,P268,Y303) |
| 2:08:05 - 2:09:55 | 1:50 | -ZLV +YVV |
| 2:09:55 - 2:12:17 | 2:22 | Biased -ZLV +XVV |
| 2:12:17 - 2:23:25 | 11:08 | -ZLV +YVV |
| 2:23:25 - 3:03:35 | 4:10 | -ZLV -YVV |
| 3:03:35 - 3:07:10 | 3:35 | GCP AIRGLOW (R270,P277,Y286) |
| 3:07:10 - 3:08:12 | 1:12 | -ZLV -YVV |
| 3:08:12 - 3:23:40 | 15:28 | -ZLV +YVV |
| 3:23:40 - 4:03:05 | 3:25 | -ZLV -YVV |
| 4:03:05 - 4:05:00 | 1:55 | GCP AIRGLOW (R270,P268,Y303) |
| 4:05:00 - 4:08:00 | 3:00 | *Yaw Axis Rotr |
| 4:08:00 - 4:12:25 | 4:25 | Biased -ZLV +YVV |
| 4:12:25 - 5:00:00 | 11:35 | -ZLV +YVV |
| 5:00:00 - 5:02:30 | 2:30 | -ZLV -YVV |
| 5:02:30 - 5:05:56 | 3:26 | +XLV NN (R90,P270,Y303) |
| 5:05:56 - 5:07:25 | 1:29 | Free Drift |
| 5:07:25 - 5:23:40 | 16:15 | -ZLV +YVV |
| 5:23:40 - 6:00:25 | 0:45 | *Yaw Axis Rotr |
| 6:00:25 - 6:06:05 | 5:40 | GCP ATT's {(R250,P270,Y0 R0,P270,Y0) |
| 6:06:05 - 6:07:20 | 1:15 | Top Sun (R296,P34,Y1) |
| 6:07:20 - 6:12:50 | 6:30 | *Yaw Axis Rotr |
| 6:12:50 - 6:22:55 | 10:05 | -ZLV +YVV |
| 6:22:55 - 7:01:49 | 2:54 | Cold Soak (R0,P0,Y270) |
| 7:01:49 - 7:04:30 | 2:41 | Deorbit IMU Align |
| 7:04:30 - 7:06:20 | 1:50 | Deorbit Burn Attitude |
| 7:07:21 | | Touchdown |

* The rotation was not continuous, but rather a series of attitudes with incremental YAW. The θ, ϕ combination (with respect to the Earth) was held constant at $\theta 90, \phi 180$.



* - YAW AXIS ROTR (Incremental Rotation about the YAW axis)

STS-53 As Flown Attitude Timeline



• - YAW AXIS ROTR (Incremental Rotation about the YAW axis)

STS-53 As Flown Attitude Timeline (cont.)

TABLE XIV STS-54 AS-FLOWN TIMELINE

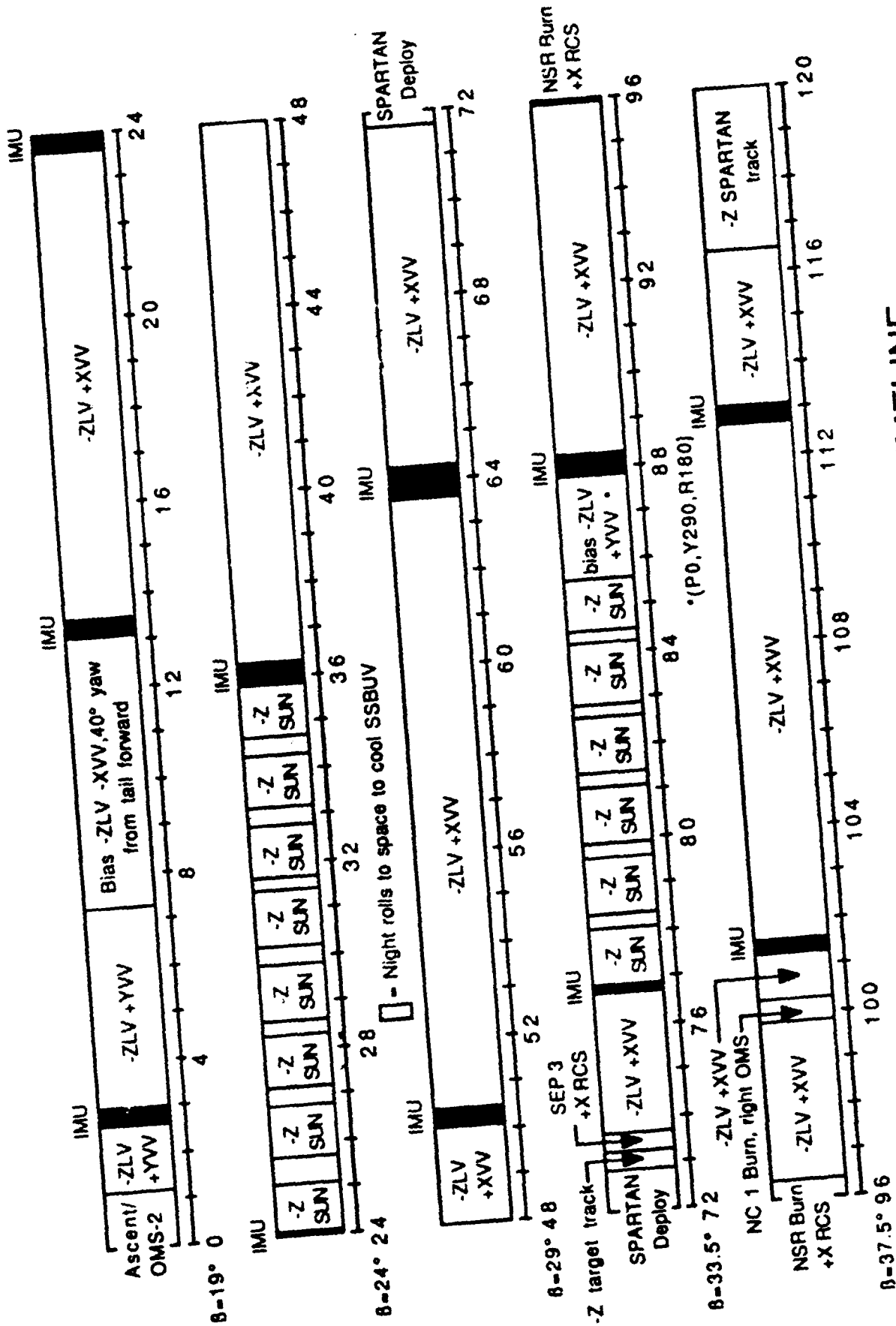
| Attitude Start | Attitude Complete | MET (hrs.) | Duration hr:min | Reference | Attitude (roll, pitch, yaw) | Attitude (Description) |
|----------------|-------------------|------------|-----------------|-----------|-----------------------------|------------------------|
| 0:00:00:00 | 0:01:12:00 | 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) | OPS SEP |
| 0:06:31:16 | 0:06:35:00 | 6.52 | 0.06 | LVLH | (353.18, 102.91, 358.43) | IUS VIEWING |
| 0:06:35:00 | 0:06:40:01 | 6.58 | 0.08 | LVLH | (354.78, 126.03, 358.68) | IUS VIEWING |
| 0:06:40:01 | 0:06:45:02 | 6.67 | 0.08 | LVLH | (356.87, 154.04, 0.42) | IUS VIEWING |
| 0:06:45:02 | 0:06:50:00 | 6.75 | 0.08 | LVLH | (358.01, 185, 339.83) | IUS VIEWING |
| 0:06:50:00 | 0:06:57:56 | 6.83 | 0.13 | LVLH | (359.1, 206, 359.56) | IUS VIEWING |
| 0:06:57:56 | 0:07:02:00 | 6.97 | 0.07 | LVLH | (15.06, 355.04, 11.74) | WINDOW PROJECT |
| 0:07:02:00 | 0:07:07:01 | 7.03 | 0.08 | LVLH | (15.14, 3.95, 13.07) | WINDOW PROJECT |
| 0:07:07:01 | 0:07:12:56 | 7.12 | 0.10 | LVLH | (14.84, 10.79, 13.03) | WINDOW PROJECT |
| 0:07:12:56 | 0:07:25:00 | 7.22 | 0.20 | SI | (126.93, 200.03, 316.72) | IUS SRW-1 |
| 0:07:25:00 | 0:08:15:00 | 7.42 | 0.83 | LVLH | (0, 180, 270) | -ZLV NOSE NORTH |
| 0:08:15:00 | 0:08:30:00 | 8.25 | 0.25 | SI | (132, 24, 24) | IMU ALIGN |
| 0:08:30:00 | 0:08:58:00 | 8.50 | 0.47 | SI | (134.08, 29.39, 18.62) | -Z COAS CAL |
| 0:08:58:00 | 0:09:53:00 | 8.97 | 0.92 | SI | (237.86, 124.72, 5.17) | -ZSI |
| 0:09:53:00 | 0:10:33:00 | 9.88 | 9.67 | SI | (109.17, 203.76, 341.4) | DXS (Bias Bottom SI) |
| 0:10:33:00 | 0:20:20:00 | 19.55 | 0.78 | SI | (237.46, 125.35, 4.44) | -ZSI |
| 0:20:20:00 | 0:20:43:31 | 20.33 | 0.39 | SI | -139, 203, 354 | IMU ALIGN |
| 0:20:43:31 | 0:21:02:45 | 20.73 | 0.32 | SI | (97, 195, 33) | CDR HUD CAL |
| 0:21:02:45 | 0:21:59:00 | 21.05 | 0.94 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 0:21:59:00 | 1:01:00:00 | 21.98 | 3.02 | LVLH | (226.8, 329.1, 83.38) | DTO 700-3 N.S. |
| 1:01:00:00 | 1:01:56:00 | 25.00 | 0.93 | LVLH | (270, 286, 87) | DTO 700-3 N.S. |
| 1:01:56:00 | 1:02:32:00 | 25.93 | 0.60 | SI | -108, 203, 319 | OMS-4 CIRC |
| 1:02:32:00 | 1:04:39:00 | 26.53 | 2.12 | SI | (109.61, 205.17, 341.87) | DXS (Bias Bottom SI) |
| 1:04:39:00 | 1:05:33:00 | 28.65 | 0.90 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 1:05:33:00 | 1:06:07:30 | 29.55 | 0.57 | SI | (109.69, 205.41, 341.95) | DXS (Bias Bottom SI) |
| 1:06:07:30 | 1:06:53:00 | 30.13 | 0.76 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 1:06:53:00 | 1:07:38:30 | 30.88 | 0.76 | SI | (109.72, 205.51, 341.99) | DXS (Bias Bottom SI) |
| 1:07:38:30 | 1:18:12:30 | 31.64 | 0.93 | SI | (237.02, 125.91, 3.7) | -ZSI |
| 1:18:12:30 | 1:18:57:00 | 32.58 | 9.63 | SI | (109.76, 205.64, 342.03) | DXS (Bias Bottom SI) |
| 1:18:57:00 | 1:19:17:00 | 42.21 | 0.74 | SI | (236.66, 126.27, 3.12) | -ZSI |
| 1:19:17:00 | 1:19:42:00 | 43.28 | 0.33 | SI | -139, 203, 354 | IMU ALIGN |
| 1:19:42:00 | 1:20:38:00 | 43.70 | 0.42 | SI | (110, 206.44, 342.31) | DXS (Bias Bottom SI) |
| 1:20:38:00 | 1:21:13:30 | 44.63 | 0.93 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 1:21:13:30 | 1:22:08:00 | 45.23 | 0.91 | LVLH | (110.02, 206.51, 342.33) | DXS (Bias Bottom SI) |
| 1:22:08:00 | 1:22:44:00 | 46.13 | 0.60 | SI | (0, 180, 270) | -ZLV NOSE NORTH |
| 1:22:44:00 | 1:23:39:00 | 46.73 | 0.92 | LVLH | (110.05, 206.61, 342.37) | DXS (Bias Bottom SI) |
| 1:23:39:00 | 2:00:14:00 | 47.65 | 0.58 | SI | (0, 180, 90) | -ZLV NOSE SOUTH |
| | | | | | (110.09, 206.71, 342.4) | DXS (Bias Bottom SI) |

TABLE XIV STS-54 AS-FLOWN TIMELINE

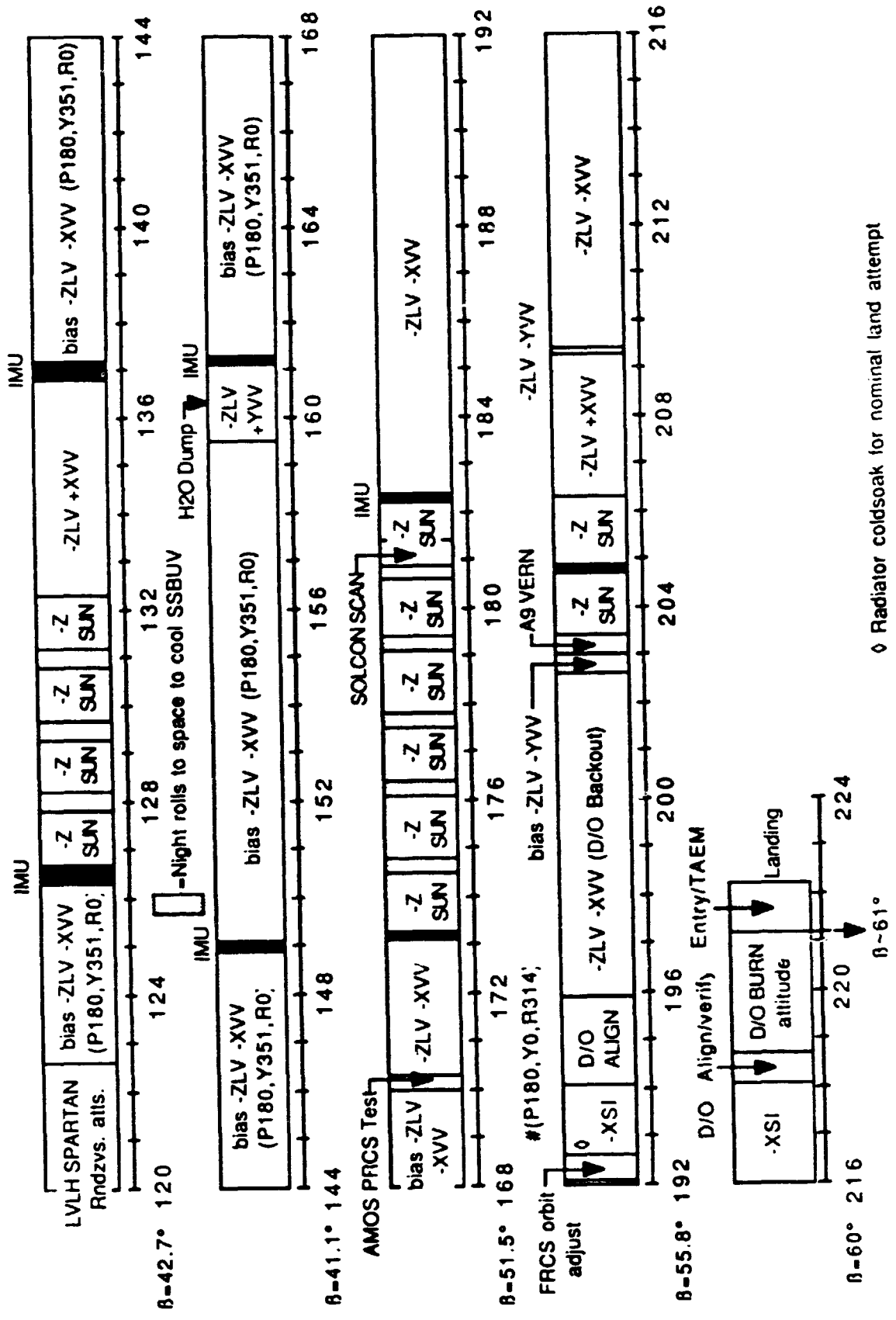
| Attitude Start | Attitude Complete | MET (hrs.) | Duration hr:min | Reference | Attitude (roll, pitch, yaw) | Attitude (Description) |
|----------------|-------------------|------------|-----------------|-----------|-----------------------------|------------------------|
| 2:00:14:00 | 2:01:09:00 | 48.23 | 0.92 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 2:01:09:00 | 2:01:44:30 | 49.15 | 0.59 | SI | (110.11, 206.81, 342.44) | DXS (Bias Bottom SI) |
| 2:01:44:30 | 2:02:40:00 | 49.74 | 0.92 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 2:02:40:00 | 2:03:16:00 | 50.67 | 0.60 | SI | (110.14, 206.91, 342.47) | DXS (Bias Bottom SI) |
| 2:03:16:00 | 2:04:10:00 | 51.27 | 0.90 | SI | (236.36, 126.49, 2.67) | -ZSI |
| 2:04:10:00 | 2:04:46:00 | 52.17 | 0.60 | SI | (110.17, 207, 342.51) | DXS (Bias Bottom SI) |
| 2:04:46:00 | 2:05:41:30 | 52.77 | 0.93 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 2:05:41:30 | 2:06:17:00 | 53.69 | 0.59 | SI | (110.2, 207.1, 342.54) | DXS (Bias Bottom SI) |
| 2:06:17:00 | 2:07:10:00 | 54.28 | 0.88 | SI | (236.26, 126.54, 2.53) | -ZSI |
| 2:07:10:00 | 2:16:51:30 | 55.17 | 9.69 | 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 | 0.56 | SI | (110.48, 208.05, 342.87) | DXS (Bias Bottom SI) |
| 2:22:53:00 | 2:23:48:00 | 70.88 | 0.92 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 2:23:48:00 | 3:00:24:00 | 71.80 | 0.60 | SI | (110.51, 208.12, 342.9) | DXS (Bias Bottom SI) |
| 3:00:24:00 | 3:01:19:00 | 72.40 | 0.60 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 3:01:19:00 | 3:01:55:00 | 73.32 | 0.60 | SI | (110.53, 208.2, 342.93) | DXS (Bias Bottom SI) |
| 3:01:55:00 | 3:02:49:00 | 73.92 | 0.90 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 3:02:49:00 | 3:03:24:00 | 74.82 | 0.58 | SI | (110.55, 208.27, 342.96) | DXS (Bias Bottom SI) |
| 3:03:24:00 | 3:04:20:00 | 75.40 | 0.93 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 3:04:20:00 | 3:04:56:00 | 76.33 | 0.60 | SI | (110.57, 208.45, 342.98) | DXS (Bias Bottom SI) |
| 3:04:56:00 | 3:05:50:00 | 76.93 | 0.90 | LVLH | (0, 180, 90) | -ZLV NOSE SOUTH |
| 3:05:50:00 | 3:06:26:00 | 77.83 | 0.60 | SI | (110.59, 208.41, 343.01) | DXS (Bias Bottom SI) |
| 3:06:26:00 | 3:07:21:00 | 78.43 | 0.92 | SI | (235.49, 126.68, 1.62) | -ZSI |
| 3:07:21:00 | 3:15:30:00 | 79.35 | 8.15 | SI | (110.61, 208.49, 343.03) | DXS (Bias Bottom SI) |
| 3:15:30:00 | 3:16:23:00 | 87.50 | 0.88 | SI | (235.2, 126.6, 1.37) | -ZSI |
| 3:16:23:00 | 3:17:00:00 | 88.38 | 0.62 | SI | (110.72, 208.87, 343.17) | DXS (Bias Bottom SI) |
| 3:17:00:00 | 3:17:53:00 | 89.00 | 0.88 | SI | (234.15, 126.58, 1.33) | -ZSI |
| 3:17:53:00 | 3:18:31:00 | 89.88 | 0.63 | SI | (110.74, 208.93, 343.19) | DXS (Bias Bottom SI) |
| 3:18:31:00 | 3:19:14:00 | 90.52 | 0.72 | SI | (235.11, 126.56, 1.29) | -ZSI |
| 3:19:14:00 | 3:19:34:00 | 91.23 | 0.33 | SI | -139, 203, 354 | IMU ALIGN |
| 3:19:34:00 | 3:20:00:00 | 91.57 | 0.43 | SI | (110.77, 209.01, 343.22) | DXS (Bias Bottom SI) |
| 3:20:00:00 | 3:20:35:00 | 92.00 | 0.58 | LVLH | (0, 180, 35) | BIAS -ZLV -XVV |
| 3:20:35:00 | 3:21:35:00 | 92.58 | 1.00 | LVLH | (180, 0, 45) | BIAS -ZLV +XVV |
| 3:21:35:00 | 4:01:26:00 | 93.58 | 3.85 | LVLH | (0, 180, 25) | BIAS -ZLV -XVV |
| 4:01:26:00 | 4:02:03:00 | 97.43 | 0.62 | SI | (110.82, 209.2, 343.29) | DXS (Bias Bottom SI) |
| 4:02:03:00 | 4:02:56:00 | 98.05 | 0.88 | SI | (234.87, 126.43, 1.12) | -ZSI |
| 4:02:56:00 | 4:03:34:00 | 98.93 | 0.63 | SI | (110.83, 209.25, 343.31) | DXS (Bias Bottom SI) |

TABLE XIV STS-54 AS-FLOWN TIMELINE

| Attitude Start | Attitude Complete | MET (hrs.) | Duration hr:min | Reference | Attitude (roll, pitch, yaw) | Attitude (Description) |
|----------------|-------------------|------------|-----------------|-----------|-----------------------------|----------------------------------|
| 4:03:34:00 | 4:04:27:00 | 99.57 | 0.88 | SI | (234.82, 126.4, 1.09) | -ZSI |
| 4:04:27:00 | 4:05:04:00 | 100.45 | 0.62 | SI | (110.85, 209.3, 343.33) | DXS (Bias Bottom SI) |
| 4:05:04:00 | 4:05:57:00 | 101.07 | 0.88 | SI | (234.78, 126.38, 1.07) | -ZSI |
| 4:05:57:00 | 4:15:38:00 | 101.95 | 9.68 | SI | (110.86, 209.34, 343.34) | DXS (Bias Bottom SI) |
| 4:15:38:00 | 4:16:21:00 | 111.63 | 0.72 | SI | (234.45, 126.08, 0.9) | -ZSI |
| 4:16:21:00 | 4:16:41:00 | 112.35 | 0.33 | SI | (-139, 203, 354) | INU ALIGN |
| 4:16:41:00 | 4:17:08:00 | 112.68 | 0.95 | SI | (110.95, 209.65, 343.46) | DXS (Bias Bottom SI) |
| 4:17:08:00 | 4:19:24:00 | 113.13 | 2.27 | LVLH | (128.16, 292.11, 273.11) | BIAS -ZLV -YVV |
| 4:19:24:00 | 4:20:10:00 | 115.40 | 0.77 | SI | (110.96, 209.68, 343.47) | DXS (Bias Bottom SI) |
| 4:20:10:00 | 4:21:02:00 | 116.17 | 0.87 | SI | (234.3, 125.93, 0.85) | -ZSI |
| 4:21:02:00 | 4:21:40:00 | 117.03 | 0.63 | SI | (110.97, 209.73, 343.48) | DXS (Bias Bottom SI) |
| 4:21:40:00 | 4:22:33:00 | 117.67 | 0.88 | SI | (234.26, 125.88, 0.83) | -ZSI |
| 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 | 0.8 | SI | (234.07, 125.66, 0.78) | -ZSI |
| 5:04:35:00 | 5:05:13:00 | 124.58 | 0.63 | SI | (111.01, 209.86, 349.53) | DXS (Bias Bottom SI) |
| 5:05:13:00 | 5:05:55:00 | 125.22 | 0.70 | SI | (234.02, 125.6, 0.78) | -ZSI |
| 5:05:55:00 | 5:14:15:00 | 125.92 | 8.33 | SI | (111.01, 209.87, 343.54) | DXS (Bias Bottom SI) |
| 5:14:15:00 | 5:14:59:00 | 134.25 | 0.73 | SI | (233.74, 125.22, 0.74) | -ZSI |
| 5:14:59:00 | 5:15:19:00 | 134.98 | 0.33 | SI | (-139, 203, 354) | INU ALIGN |
| 5:15:19:00 | 5:15:47:00 | 135.32 | 0.47 | SI | (111.05, 210.01, 343.59) | DXS (Bias Bottom SI) |
| 5:15:47:00 | 5:16:40:00 | 135.78 | 0.88 | SI | (233.69, 125.15, 0.74) | -ZSI |
| 5:16:40:00 | 5:18:40:00 | 136.67 | 2.00 | SI | (173.35, 222.83, 53.38) | BIASED -XSI |
| 5:18:40:00 | 5:19:40:45 | 138.67 | 1.01 | SI | (233.6, 125.02, 0.74) | -ZSI |
| 5:19:40:45 | 5:19:57:45 | 139.68 | 0.28 | SI | (170, 195, 11) | DEORBIT ALIGN |
| 5:19:57:45 | 5:22:29:00 | 139.96 | 2.52 | SI | (-177, 279, 324) | ALIGN VERIF |
| 5:22:29:00 | 5:23:38:17 | 142.48 | 0.17 | SI | (257.2, 18.5, 317.3) | DEORBIT BURN |
| 5:23:38:17 | | 143.64 | | EOM | | KSC Landing |



STS-56 AS-FLOWN ATTITUDE TIMELINE



STS-56 AS-FLOWN ATTITUDE TIMELINE (CONT'D.)

TABLE XV.- STS-55 ATTITUDE TIMELINE SUMMARY

| Mission Elapsed Time, day:hour:minute | Duration, hour:minute | Attitude/Event |
|--|--------------------------|-----------------------------|
| 0:00:00 - 0:01:16 | 1:16 | Ascent |
| 0:01:16 - 0:02:44 | 1:28 | +ZSI, Nose South |
| 0:02:44 - 0:05:41 | 2:57 | Bias Bottom Sun (0107 0187) |
| 0:05:41 - 0:08:20 | 2:39 | Bias Bottom Sun (096 0168) |
| 0:08:20 - 0:08:37 | 0:17 | HUD Calibration (0152 083) |
| 0:08:37 - 0:10:19 | 1:42 | Bias Bottom Sun (052 0172) |
| 0:10:19 - 0:10:46 | 1:27 | -ZLV +XVV |
| 0:10:46 - 0:11:49 | 1:03 | Bias Bottom Sun (052 0172) |
| 0:11:49 - 0:12:21 | 0:32 | -ZLV +XVV |
| 0:12:21 - 0:13:19 | 0:58 | Bias Bottom Sun (052 0172) |
| 0:13:19 - 0:13:58 | 0:39 | -ZLV +XVV |
| 0:13:58 - 0:14:50 | 0:52 | Bias Bottom Sun (052 0172) |
| 0:14:50 - 0:15:41 | 0:51 | Bias -ZLV +XVV |
| 0:15:41 - 0:16:24 | 0:43 | Bias Bottom Sun (096 0169) |
| 0:16:24 - 0:17:09 | 0:45 | -ZLV -XVV |
| 0:17:09 - 0:17:58 | 0:49 | Bias Bottom Sun (086 0169) |
| 0:17:58 - 0:18:38 | 0:40 | -ZLV +XVV |
| 0:18:38 - 0:19:34 | 0:56 | Bias Bottom Sun (096 0169) |
| 0:19:34 - 0:20:13 | 0:39 | -ZLV +XVV |
| 0:20:13 - 0:23:58 | 3:45 | Bias Bottom Sun (096 0169) |
| 0:23:58 - 1:00:31 | 0:33 | -ZLV +XVV |
| 1:00:31 - 1:02:35 | 2:04 | Bias Bottom Sun (045 0170) |
| 1:02:35 - 1:04:09 | 1:34 | Bias +ZLV +YVV |
| 1:04:09 - 1:05:52 | 1:43 | Bias Bottom Sun (0128 0153) |
| 1:05:52 - 1:09:42 | 3:50 | Bias Bottom Sun (097 0169) |
| 1:09:42 - 1:15:10 | 5:28 | Bias Bottom Sun (0106 0186) |
| 1:15:10 - 1:15:43 | 0:33 | -ZLV +XVV |
| 1:15:43 - 1:16:35 | 0:52 | Bias Bottom Sun (0106 0186) |
| 1:16:35 - 1:17:04 | 0:29 | -ZLV +XVV |
| 1:17:04 - 1:18:06 | 2:02 | Bias Bottom Sun (0106 0186) |
| 1:18:06 - 1:18:49 | 0:43 | -ZLV +XVV |
| 1:18:49 - 1:19:41 | 0:52 | Bias Bottom Sun (0100 0187) |
| 1:19:41 - 1:20:23 | 0:42 | -ZLV +XVV |
| 1:20:23 - 1:21:47 | 1:24 | Bias Bottom Sun (0100 0187) |
| 1:21:47 - 2:02:42 | 4:55 | Bias Bottom Sun (045 0171) |
| 2:02:42 - 2:04:14 | 1:32 | Bias +ZLV +YVV |
| 2:04:14 - 2:10:34 | 6:20 | Bias Bottom Sun (098 0169) |
| 2:10:34 - 2:11:23 | 0:49 | Bias -XLV +YVV |
| 2:11:23 - 2:12:07 | 0:44 | Bias Bottom Sun (098 0169) |
| 2:12:07 - 2:12:33 | 0:26 | -ZLV +XVV |
| 2:12:33 - 2:13:44 | 1:11 | Bias Bottom Sun (0105 0185) |
| 2:13:44 - 2:14:06 | 0:22 | -ZLV +XVV |
| 2:14:06 - 2:16:36 | 2:20 | Bias Bottom Sun (0105 0185) |
| 2:16:36 - 2:18:11 | 1:35 | Bias -XLV +YVV |
| 2:18:11 - 2:18:55 | 0:44 | -ZLV +XVV |

TABLE XV.- STS-55 ATTITUDE TIMELINE SUMMARY

| Mission Elapsed Time, day:hour:minute | Duration, hour:minute | Attitude/Event |
|--|--------------------------|-----------------------------|
| 2:18:55 - 2:23:21 | 4:26 | Bias Bottom Sun (0101 0188) |
| 2:23:21 - 3:00:30 | 1:09 | Bias Bottom Sun (098 0169) |
| 3:00:30 - 3:01:17 | 0:47 | Bias Bottom Sun (049 0166) |
| 3:01:17 - 3:02:47 | 1:30 | Bias +ZLV +YVV |
| 3:02:47 - 3:05:29 | 2:42 | Bias +ZLV +XVV |
| 3:05:29 - 3:09:05 | 3:36 | Bias Bottom Sun (099 0168) |
| 3:09:05 - 3:12:23 | 3:18 | Bias Bottom Sun (046 0174) |
| 3:12:23 - 3:13:40 | 1:17 | Bias +ZLV +YVV |
| 3:13:40 - 3:14:28 | 0:48 | -ZLV +XVV |
| 3:14:28 - 3:15:12 | 0:44 | Bias +ZLV +XVV |
| 3:15:12 - 3:17:22 | 2:10 | Bias -ZLV +XVV |
| 3:17:22 - 3:18:08 | 0:46 | Bias +ZLV +XVV |
| 3:18:08 - 3:19:02 | 0:54 | -ZLV +XVV |
| 3:19:02 - 3:19:42 | 0:40 | Bias +ZLV +XVV |
| 3:19:42 - 3:20:36 | 0:54 | -ZLV +XVV |
| 3:20:36 - 3:22:15 | 1:39 | Bias Bottom Sun (046 0174) |
| 3:22:15 - 3:23:49 | 1:34 | Bias Bottom Sun (099 0168) |
| 3:23:49 - 4:09:18 | 9:29 | Bias +ZLV +YVV |
| 4:09:18 - 4:12:28 | 3:10 | Bias Bottom Sun (0104 0184) |
| 4:12:28 - 4:12:46 | 0:18 | -ZLV +XVV |
| 4:12:46 - 4:15:16 | 2:30 | Bias Bottom Sun (0104 0184) |
| 4:15:16 - 4:16:21 | 1:05 | -ZLV +XVV |
| 4:16:21 - 4:18:27 | 2:06 | Bias +ZLV +YVV |
| 4:18:27 - 4:19:08 | 0:41 | -ZLV +XVV |
| 4:19:08 - 5:00:03 | 4:55 | Bias Bottom Sun (046 0174) |
| 5:00:03 - 5:02:04 | 2:01 | Bias +ZLV +YVV |
| 5:02:04 - 5:02:47 | 0:43 | -ZLV +XVV |
| 5:02:47 - 5:09:28 | 6:41 | Bias +ZLV +XVV |
| 5:09:28 - 5:12:30 | 3:02 | Bias +ZLV +YVV |
| 5:12:30 - 5:13:05 | 0:35 | -ZLV +XVV |
| 5:13:05 - 5:15:25 | 2:20 | Bias +ZLV +YVV |
| 5:15:25 - 5:16:04 | 0:39 | Bias -ZLV +XVV |
| 5:16:04 - 5:19:05 | 3:01 | Bias Bottom Sun (0103 0190) |
| 5:19:05 - 5:22:44 | 3:39 | Bias Bottom Sun (046 0174) |
| 5:22:44 - 6:00:32 | 1:48 | Bias +ZLV +YVV |
| 6:00:32 - 6:01:21 | 0:49 | -ZLV +XVV |
| 6:01:21 - 6:02:15 | 0:54 | Bias -ZLV -XVV |
| 6:02:15 - 6:02:56 | 0:41 | -ZLV +XVV |
| 6:02:56 - 6:05:59 | 3:03 | Bias +ZLV +XVV |
| 6:05:59 - 6:07:37 | 1:38 | Bias +ZLV +YVV |
| 6:07:37 - 6:12:28 | 4:51 | Bias Bottom Sun (049 0166) |
| 6:12:28 - 6:13:01 | 0:33 | Bias -ZLV +XVV |
| 6:13:01 - 6:14:30 | 1:29 | Bias Bottom Sun (099 0168) |
| 6:14:30 - 6:16:00 | 1:30 | Bias +ZLV +YVV |
| 6:16:00 - 6:16:35 | 0:35 | -ZLV +XVV |

TABLE XV.- STS-55 ATTITUDE TIMELINE SUMMARY

| Mission Elapsed Time, day:hour:minute | Duration, hour:minute | Attitude/Event |
|--|--------------------------|-----------------------------|
| 6:16:35 - 6:22:44 | 6:09 | Bias Bottom Sun (099 #168) |
| 6:22:44 - 7:02:25 | 3:41 | Bias +ZLV +YVV |
| 7:02:25 - 7:03:01 | 0:36 | -ZLV +XVV |
| 7:03:01 - 7:04:00 | 0:59 | Bias Bottom Sun (046 #174) |
| 7:04:00 - 7:04:36 | 0:36 | -ZLV +XVV |
| 7:04:36 - 7:11:06 | 6:30 | Bias +ZLV +YVV |
| 7:11:06 - 7:11:42 | 0:36 | -ZLV +XVV |
| 7:11:42 - 7:14:05 | 2:23 | Bias +ZLV +YVV |
| 7:14:05 - 7:15:07 | 1:02 | -ZLV +XVV |
| 7:15:07 - 7:17:10 | 2:03 | Bias Bottom Sun (099 #168) |
| 7:15:07 - 7:17:49 | 0:39 | -ZLV +XVV |
| 7:17:49 - 7:20:26 | 2:37 | Bias Bottom Sun (099 #168) |
| 7:20:26 - 7:21:07 | 0:41 | -ZLV +XVV |
| 7:21:07 - 7:22:16 | 1:09 | Bias Bottom Sun (0104 #192) |
| 7:22:16 - 8:04:07 | 11:51 | Bias +ZLV +YVV |
| 8:04:07 - 8:04:51 | 0:44 | -ZLV +XVV |
| 8:04:51 - 8:07:27 | 2:36 | Bias Bottom Sun (0104 #192) |
| 8:07:27 - 8:09:51 | 2:24 | Bias +ZLV +YVV |
| 8:09:51 - 8:13:09 | 3:18 | Top Sun (090 #0) |
| 8:13:09 - 8:13:38 | 0:29 | -ZLV +XVV |
| 8:13:38 - 8:23:39 | 10:01 | Bias Bottom Sun (0105 #191) |
| 8:23:39 - 9:00:47 | 1:08 | Bias +ZLV +YVV |
| 9:00:47 - 9:02:46 | 1:59 | -XLV +ZVV |
| 9:02:46 - 9:03:10 | 0:24 | -ZLV +XVV |
| 9:03:10 - 9:04:19 | 1:09 | Bias +ZLV +YVV |
| 9:04:19 - 9:05:08 | 0:49 | -ZLV +XVV |
| 9:05:08 - 9:06:22 | 1:14 | -XLV +ZVV |
| 9:06:22 - 9:08:12 | 1:50 | Bias Bottom Sun (049 #166) |
| 9:08:12 - 9:08:46 | 0:34 | -ZLV +XVV |
| 9:08:46 - 9:11:20 | 2:34 | Bias Bottom Sun (049 #166) |
| 9:11:20 - 9:11:35 | 0:15 | -ZLV +XVV |
| 9:11:35 - 9:13:15 | 1:40 | Bias Bottom Sun (049 #166) |
| 9:13:15 - 9:13:34 | 0:19 | -ZLV +XVV |
| 9:13:34 - 9:17:10 | 3:36 | Bias -ZLV -YVV |
| 9:17:10 - 9:18:24 | 1:14 | Tail Sun Radiator Coldsoak |
| 9:18:24 - 9:18:39 | 0:21 | Deorbit IMU Align/Verify |
| 9:18:39 - 9:22:10 | 3:31* | Deorbit Comm Att (077 #262) |
| 9:22:10 - 9:22:39 | 0:29 | Deorbit Burn Att (030 #292) |
| 9:23:40 | | Touchdown |

* This attitude was extended 1:22 (HR:MIN) due to a 1 rev wave off.

INDEX

Aft Fuselage;
Gas samples analysis.....1-191
Anomalies for fleet 2-3
Auxiliary Power Unit Data;
Serial number.....1-99
Mission run time.....1-94
Cumulative run time.....1-94
Serial no./part no. matrix.....1-99
Astronauts; crew members.....1-8,1-14
Flight experienced.....1-14
Total hours flown.....1-14
Affiliation.....1-14
EVA Assignments,.....1-139
flight hours,.....1-8,1-14
flights flown,.....1-8,1-14
flight position.....1-8,1-14
Brakes;
Energies from landing.....1-72
Initiation.....1-67
Maximum pressures.....1-72
Cargo;
Lift-off weight.....1-22
Deployed weight.....1-22
Retrieved weight.....1-22
Summary,.....1-22,1-27
Crew compartment payloads...1-27 thru 1-56
Crew members1-8
Data sources,.....1-431
Dates;
EVA,.....1-139
ferry flights,.....1-79
KSC processing,.....1-203
landing,.....1-2
launch,.....1-2
Distance;
cross range,.....1-63
from threshold;
MGTD,.....1-67
NGTD,.....1-67
Brake initiated,.....1-67
rollout,.....1-67
Drag Chute1-71
Duration;
EVA,.....1-139
ferry flight preparations,.....1-79
flight,.....1-2, 1-86
KSC processing,.....1-203
OMS 1 & 2 burns,.....1-57,1-126
OMS burns,.....1-126
on-orbit.....1-86
rollout,.....1-67
SRB burns,.....1-210
Electrical energy;
average power,.....1-110
average daily energy,.....1-110
total electrical energy,.....1-110
Orbiter ground power,.....1-203
Entry;
Conditions;.....1-63
EVA Summary.....1-139
Events Altering.....1-259
Mission Duration;
Ferry;
Departure.....1-79
Arrival.....1-79
Flight;
Altitude.....1-2
Durations.....1-2, 1-86
Revolutions.....1-2
Fuel Cells;
Average electrical loads1-110
Part no./Serial no. matrix.....1-116
Run time.....1-110
Getaway Specials (GAS).....1-27 thru 1-56
Launch;
Date.....1-2
Site.....1-2
Time.....1-2
Landing;
Date.....1-2
Sink rates.....1-67
Site.....1-2
Time.....1-2
Winds.....1-79
MSFC Element Anomalies,.....2-36
OMRSD File IX Requirements1-430
OMS;
burn summary.....1-126
fuel,.....1-133
oxidizer,.....1-133
Propellant usage1-133
RCS interconnect,.....1-133
Serial no. of engines.....1-126
OMS/RCS Pods and Flight Assignments ..1-138
Orbiter Mass Properties
entry interface,.....1-89
ferry,.....1-89
landing,.....1-89
lift-off,.....1-89
Lift 3,.....1-89
RMS;
mass handled,.....1-144
Usage matrix1-144

INDEX

- Payloads;
 - cargo weight,.....1-22,1-27
 - deployed weight,.....1-22,1-27
 - retrieved weight,.....1-22
 - return weight,.....1-22
- Shuttle;
 - lift-off,.....1-57
 - In-flight anomaly list.....2-1
- Solid rocket booster;
 - ignition weight,.....1-210
 - separation weight,.....1-210
 - usable propellant,.....1-210
- Orbital data;
 - highest altitude,.....1-2
 - apogee/perigee after OMS 1 & 2,....1-57
 - inclination,.....1-2
 - landing orbit,.....1-2
- Orbiter;
 - In-flight anomaly list.....2-4
 - In-flight anomalies for fleet.....2-3
 - names,.....1-1
 - times flown,.....1-2
 - tires.....1-120
 - Work unit code index.....2-2
- Part/serial numbers;
 - Avionics1-275
 - APU,.....1-94,1-99
 - brakes,.....1-72
 - check valves.....1-428
 - communications.....1-318
 - drag chute.....1-71
 - display and control.....1-341
 - electrical power.....1-381
 - EMU,.....1-139
 - External tank,.....1-217
 - fuel cells,.....1-110,1-116
 - Modular Auxiliary Data System.....1-405
 - MMU,.....1-139
 - Operational instrumentation.....1-409
 - OMS engines,.....1-126
 - OMS pods,.....1-126, 1-138
 - Propulsion1-416
 - RMS,.....1-144
 - SSME,.....1-222,1-233,1-244, 1-255
 - Tires,.....1-120
 - DPS,.....1-275
 - GN&C,.....1-289
 - RCS,.....1-137,1-416,1-420,1-424
 - Water spray boiler...1-103, 1-105,
1-107, 1-108
- Payloads;
 - Deployable,.....1-22
 - Attached,.....1-22
 - Getaway Special,.....1-22, 1-27
 - Crew Compartment,.....1-22
- Maximum Q during ascent;.....1-57
- RCS;
 - Burn times,.....1-137
 - Check valve summary.....1-428
 - Configuration and usage data.....1-137
 - Component and location
 - matrix.....1-416,1-420,1-424
 - RCS/OMS pod assignments ...1-126, 1-138
- Runway data1-79
- Run Time;
 - APU,.....1-94
 - fuel cells,.....1-110
 - EMU,.....1-139
 - MMU,.....1-139
- Satellites;
 - Names.....1-22,1-27
 - Weights.....1-22,1-27
- Site;
 - ferry flight stops,.....1-27
 - landing,.....1-2
 - launch,.....1-2
- Specifications;
 - Avionics,.....1-273
- Supply water.....1-187
- Temperatures;
 - Cabin air,.....1-183
 - FES start out/in,.....1-174
 - Maximum structural temperature
 - from entry,.....1-150
 - Maximum temp rise during entry,...1-154
 - Radiator freon,.....1-179
- Thermal Protection System;
 - Entry Temperatures.....1-150
 - Damage,.....1-158
 - Significant problems,.....1-162
- Thrust;
 - SRB,.....1-210
- Time;
 - ferry departure,.....1-79
 - ferry arrival,.....1-79
- Time,G.m.t. ;
 - landing,.....1-2
 - main gear TD,.....1-79
 - nose gear TD,.....1-79
 - wheels stop,.....1-79
 - launch,.....1-2
- Time, MET;
 - ABS start,.....1-174
 - ET separation,.....1-57
 - FES start,.....1-174
 - MECO,.....1-57
 - OMS Ignition,.....1-57
 - PLBD open,.....1-174
 - Radiator deploy,.....1-174

INDEX

- Time, MET (Continued);
 - Radiator flow start,.....1-174
 - SRB separation,.....1-57
 - SSME:
 - maximum throttle, 1-222, 1-233
1-244
 - maximum g throttle,.....1-222, 1-233
1-244
 - re-attained maximum throttle,. 1-222
1-233, 1-244
 - 3g throttle,. 1-222, 1-233, 1-244
- Timelines;
 - Mission,.....3-1,3-2
- Tires;
 - Part nos., and usage matrix.....1-120
- Velocity;
 - Orbiter:
 - approach and landing;
 - brake initiation,keas,.....1-67
 - drag chute.....1-71
 - MGTD,kgs,.....1-67
 - MGTD,keas,.....1-67
 - maximum,keas,.....1-67
 - NGTD,kgs,.....1-67
 - over threshold,keas,.....1-63
 - pitch rate,deg/sec,.....1-67
 - sink rate,fps,.....1-67
 - entry interface,fps,.....1-63
 - ET sep,fps;.....1-57
 - first roll reversal,fps;.....1-63
 - MECO,fps;.....1-57
 - SRB sep,fps;.....1-57
- Waste;
 - dumps,.....1-187
- Water;
 - crew use, lb,.....1-187
 - dumped, lb,.....1-187
 - fuel cell production,lb,.....1-187
 - FES Usage,.....1-187
- Water Spray Boiler;
 - OV-102.....1-108
 - OV-103.....1-103
 - OV-104.....1-105
 - OV-105.....1-107
 - Serial nos...1-108, 1-103, 1-105, 1-107
- Weights;
 - External tank
 - LH₂;
 - engine start command,.....1-217
 - MECO,.....1-217
 - residual,.....1-217
 - T-0,.....1-217
 - External tank (continued);
 - LO₂;
 - engine start command,.....1-217
 - MECO,.....1-217
 - residual,.....1-217
 - T-0,.....1-217
 - Impact after entry.....1-217
 - Orbiter.....1-89
 - SRB;
 - burn time.....1-210
 - ignition characteristics.....1-210
 - separation data.....1-210
 - Wind, landing;
 - direction,.....1-79
 - speed,.....1-79
 - Windloads;
 - topload indicator,.....1-57
 - Window;
 - damage location.....1-168
 - disposition,.....1-168
 - Work Unit Code;
 - listing,.....2-2

SHUTTLE FLIGHT DATA AND INFLIGHT ANOMALY LIST - JSC 19413

| NASA Hqs. | EC6/J. Granahan | ES2/A. Levine | SP4/J. W. Bohannon |
|---------------------|--------------------------|-------------------------|---------------------------|
| AE/G. W. S. Abbey | EC7/L. A. Trevino | ES2/G. J. Miller (2) | SP2/R. L. Bond |
| RZ/L. Stern | EE6/L. Leonard | ES2/C. T. Modlin | SP2/B. Beck |
| ME/W. Green | EE2/R. W. Richards | ES2/T. E. Pellischek | SP4/R. Garcia |
| ME/D. Hedin | EE4/C. L. Ritterhouse | ES2/G. Overstreet | SP4/P. T. Mongan |
| ME/K. Hudkins | EE/C. K. Land | ES2/K. Nagy | SP4/T. A. Pletcher |
| ME/O. Ulrich | EE2/G. Nealls | ES2/P. D. Smith | SP4/J. H. Ragan |
| DA/J. Carlton (2) | EE2/M. F. LaFluer (2) | ES23/S. Weiss | SP4/T. W. Rathjen |
| DI/R. Lopez | EE2/A. Morrison | ES3/R. G. Brown | SP4/J. B. Thomas |
| DN/G. Kier | DF6/R. Dutton | ES3/D. Curry | SP4/L. Vasquez |
| ME/E. Oliver | DF62/GNEC Library | ES3/H. Chang | SP4/F. A. Pearce |
| ME/H. Smith | DF7/J. E. Saultz | ES3/J. Kowal | SP4/H. D. Yeates |
| ME/S. Denton | DT45/R. Bush | ES3/P. E. Shack | SP5/J. O. Rippey |
| ME/J. Bose | DT45/M. Sadowski | EE/J. W. Griffin | SP5/H. L. Roberts |
| ME/C. F. Petry | DT46/Sim Supervisors | EE6/R. W. Mus | SP54/J. Huhn |
| ME/N. Starkey | DT47/J. E. James | EE7/C. C. Sham | TA/C. H. Lambert |
| ME/J. Morian | DT48/M. Truly | EE74/M. Glorioso | TC/D. S. Grissom (17) |
| ME/O. T. Bungardner | DT65/A. J. Burge | EG/Library | TC12/Customer Service (2) |
| Q/D. Greenly | DT66/J. Sims | EG/T. J. Blucker | TC3/M. Lewis |
| D/A. D. Aldrich | DT67/DPS/Nav Section | EG2/M. M. Hammerschmidt | TC4/R. M. Swalin |
| DS/R. W. Moorehead | DT46/R. Banfield | EG2/M. G. Lav, III | TJ/L. E. Bell |
| JSC | DH4/J. Whiteley | EG2/R. W. Loffi | TJ2/G. Sanders |
| AB/P. J. Weitz | DH43/A. Canada | EG2/E. T. Kubiak | TJ2/A. Reubens |
| AC5/J. W. ... | DH6/A. Alfonso | EG2/A. L. Lindsay | TM/E. W. Hoskins |
| AP/H. S. ... | DH6/Library | EG2/M. H. Levy | TM2/G. Nield |
| AP/D. Ward | DK/R. W. Russell | EG2/G. G. McSwain | TM4/R. W. Matthews |
| AP3/J. E. Carr (15) | DK21/R. Smith | EG2/L. Bains | TM4/S. Hutchins |
| AP3/K. Fluegel | DM/R. C. Harpold | EG3/S. Derry | TM6/L. Pogue |
| AP4/S. A. Nesbitt | DM/R. Schmedgal | EG3/R. Meyerson | VA/D. M. Germany |
| AP4/B. Dean | DM/Library | EG4/T. Saulletis | VA/P. C. Glyn |
| AR/D. R. Puddy | DM2/G. Ricks | EG4/M. L. Jackson | VF/D. W. Camp |
| AR/J. P. Loftus | DM2/Library | EG4/M. E. Jones | VF2/E. R. Hischke |
| BY4/J. Kovacevich | DM2/J. Oberg | EG4/M. E. Jones | VF2/M. Gaylor |
| CA/D. C. Leesta | DM22/J. Siders | EK/PDS Library | VF31/M. Suffredini (6) |
| CA3/M. Pestana | DM22/J. Montalbano (2) | EK13/D. E. Tedlock | VF32/All Personnel (13) |
| CA4/R. Mastrecchio | DM3/D. Rank | EK24/R. W. Dunn | VG/M. Kolkhorst |
| CA4/M. B. D. Jones | DM43/G. Pogue | EK2/M. N. Trahan | VG/Library |
| CA4/Library | DM46/M. Hale | EK2/R. I. Macias | VG3/M. L. Hernandez |
| CB/R. L. Gibson (8) | DT/P. E. Hughes | EK2/J. D. Miller | VG4/J. Norris |
| CB/L. B. Hammond | DT34/M. Rodriggs | EK2/A. T. Helmer | VG4/G. Galbreath |
| CB/J. B. Wetherbee | DT3/S. Kelly | EK6/J. F. Melugin | VM2/D. T. Hamilton |
| CB/E. M. Collins | DT47/B. Pearson | EK6/R. M. Williams | VM2/O. C. Critzos (2) |
| CB/C. Kieb | EA/W. Brasher | EP2/H. J. Brasseaux | VK/E. Wright (2) |
| CB/C. Meade | EC/M. E. Ellis | EP2/P. E. Cota | VN/L. O. Corcoran |
| CB/S. Oswald | EC/F. Samonski | EP2/J. Seriale-Grush | GA2/C. E. McCullough |
| CB/K. Colgan | EC3/B. Winkler | EP2/S. Jones | GA24/F. T. Burns |
| CB/M. F. Readdy | EC3/D. F. Hughes | EP2/L. R. Rhodes (2) | GA23/H. J. McMann |
| CB/T. Jones | EC3/H. J. Brasseaux, Jr. | EP2/D. Rigby | GA25/J. Peck |
| CB6/J. Apt | EC3/P. Ouellette | EP2/P. M. Plauche' | GA25/D. Fitts |
| CC42/L. E. Guidry | EC3/D. M. Hoy | EP2/J. Applewhite | VG5/J. R. Goodman |
| CC5/C. F. Hayes (3) | EC3/N. Cerna | EP2/M. Mamos | VR/D. D. Ewart |
| DA/Library | EC5/R. J. Marak | EP4/R. S. Baird | WA/L. G. Williams |
| DA4/J. Bantle | EC5/C. C. Hoffman | EP5/P. Alanis | WE4/Library |
| DA4/P. Maley | EC6/B. Counts | EP5/M. C. Hoffman | WE4/M. R. Rother |
| DA4/R. D. Legler | EC6/B. Sausser | EP5/D. Gaston | ZR/Lt. Col. J. McLafay |
| DA4/E. M. Henderson | EC6/G. Lutz | ES/D. C. Wade | ZR1/Dual Library |
| | | ES12/M. G. McMullen | Z58/W0AA/G. G. Rigdon |
| | | | Bldg 225/S. A. Martin |

Capt. J. Behling, Jr.
6555 ASTG/SMSF
Cape Canaveral AFS,
FL 32925

Hamilton Standard
1 Hamilton Road
Windsor Locks, Conn.
06096-1010
Attention: T. Beck
MSIA-2-X65/S. Ruel

U. S. Air Force
P. O. Box 92960
Los Angeles Air Force Base
Los Angeles, CA. 90009
Attn: SSD/CLFPC/D
Lt. Kaneshiro

Dryden Flight Research
Facility
P. O. Box 273
Edwards, CA 91253
D-ODS/J. D'Agostino

White Sands Test Facility
R. A. Colonna/RA
Manager, White Sands
Test Facility
White Sands, NM. 88004

Space Industries
711 W. Bay Area Blvd.
Suite 300
Webster, TX 77598-4001
Attn: M. Quinn

CALSPAN
1816 Space Park Drive
Houston, TX 77058
Attn: F6505/J. Roach
F6505/G. Stezes

Technical Analysis Inc.
977 Explorer Blvd NW
Huntsville, AL 35806-2807
Attn: J. Helmstetter

E. Priselac
EA/ROCC
CCFP Building 81-900 (RM 146)
CCAFS
Patrick Air Force Base, FL
32925

Honeywell Incorporated
13350 U. S. Highway 19
Clearwater, Florida 34624
ATTN: MS737-5/G. McGuire

Lockheed Missiles and Space
Company
6767 Old Madison Pike
Suite 220
Huntsville, AL 35806

Dr. Darren McKnight
Kaman Sciences Corp.
Suite 200
2560 Huntington Ave
Alexandria, VA 22303

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)

END

DATE

FILME

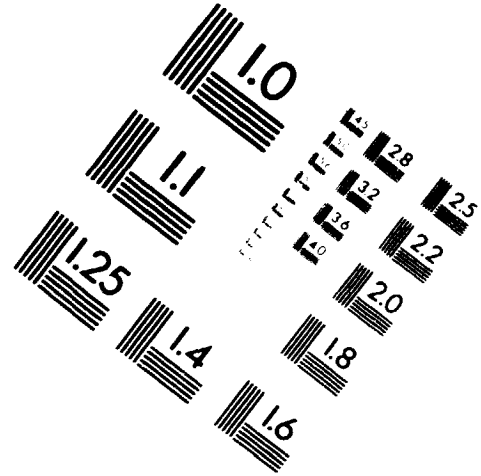
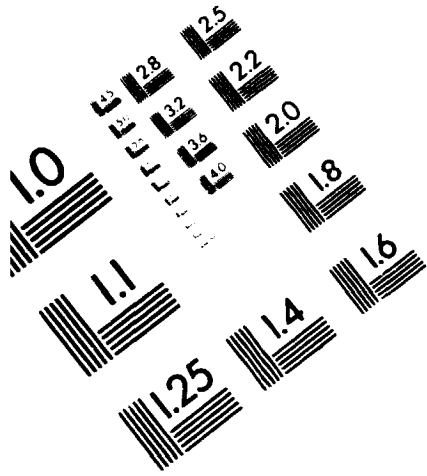
OCT 20 199



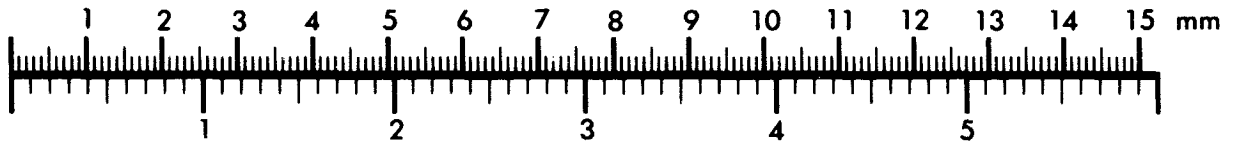
AIM

Association for Information and Image Management

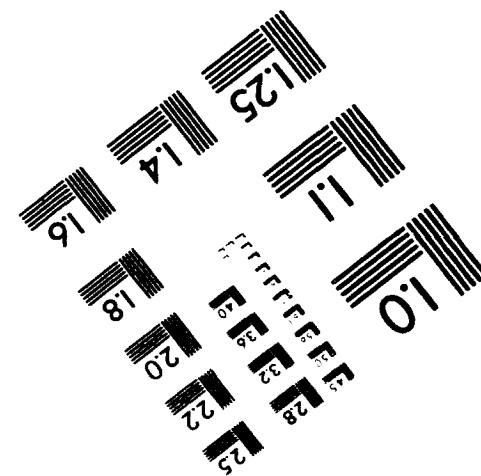
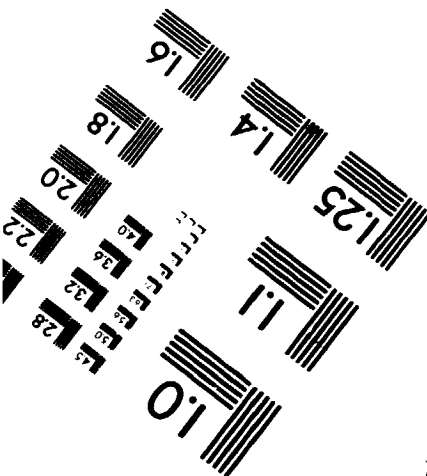
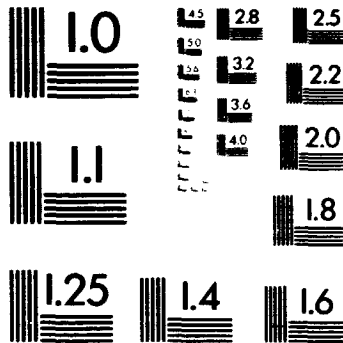
1100 Wayne Avenue, Suite 1100
Silver Spring, Maryland 20910
301/587-8202



Centimeter



Inches



MANUFACTURED TO AIM STANDARDS
BY APPLIED IMAGE, INC.