
 NASA TELEVISION SCHEDULE
 STS-135
 ISS UTILIZATION LOGISTICS FLIGHT 7 / MPLM "RAFFAELLO"
 REV F
 07/12/11

NASA TV (Public, Education, Media Channels and HD programming) Digital Satellite C-Band Downlink coordinates for continental North America, Alaska and Hawaii:
 Satellite = AMC 3 / Transponder = 15C / 87 Degrees West / DVB-S, 4:2:0 / Downlink Frequency = 4000 Mhz / Downlink Polarity = Horizontal / FEC = 3/4 / Data Rate =
 38.860 MHz / Symbol Rate = 28.1115. Clients actively participating in Standard-Definition on-orbit interviews, interactive press briefings and satellite interviews must use the
 LIMO Channel: Satellite = AMC 3 / Transponder = 9C / 87 degrees West / DVB-S, 4:2:0 / Downlink Frequency = 3865.5 Mhz / Downlink Polarity = Horizontal / FEC = 3/4 /
 Data Rate = 6.0 Mbps / Symbol rate = 4.3404 Msps. A Digital Video Broadcast compliant Integrated Receiver Decoder is required for reception. Mission Audio is available
 at: <http://www.nasa.gov/ntv>.

ALL TIMES SUBJECT TO CHANGE

This TV schedule is available via the Internet. The address is: <http://www.nasa.gov/shuttletv>
 Launch occurred at 10:29am CT (11:29am ET) on Friday, July 8th, 2011.
 An asterisk (*) denotes changes made to the previous revision to the television schedule.

| ORBIT | SUBJECT | SITE | MET | CDT | EDT | GMT |
|---------------------------|--|--------|-----------|----------|----------|-------|
| WEDNESDAY, JULY 13 | | | | | | |
| FD 6 | | | | | | |
| 73 | ISS FLIGHT DIRECTOR UPDATE REPLAY | JSC | 04/ 14:16 | 12:45 AM | 01:45 AM | 05:45 |
| 73 | ATLANTIS / ISS CREW WAKE UP (begins FD 6) | | 04/ 15:00 | 01:29 AM | 02:29 AM | 06:29 |
| 75 | * ATLANTIS / ISS TRANSFERS RESUME | | 04/ 18:00 | 04:29 AM | 05:29 AM | 09:29 |
| 80 | WBNG-TV, Binghamton, NY / WICZ-TV, Binghamton, NY / KGO-TV, San Francisco, CA LIVE INTERVIEWS | ISS Ku | 05/ 01:25 | 11:54 AM | 12:54 PM | 16:54 |
| 81 | CREW DOWNLINK OF "FACE IN SPACE" TRIBUTE | ISS Ku | 05/ 01:45 | 12:14 PM | 01:14 PM | 17:14 |
| 82 | VIDEO FILE | HQ | 05/ 03:31 | 02:00 PM | 03:00 PM | 19:00 |
| 83 | ISS CREW SLEEP BEGINS | | 05/ 05:30 | 03:59 PM | 04:59 PM | 20:59 |
| 83 | MISSION STATUS BRIEFING | JSC | 05/ 05:31 | 04:00 PM | 05:00 PM | 21:00 |
| 83 | ATLANTIS CREW SLEEP BEGINS | | 05/ 06:00 | 04:29 PM | 05:29 PM | 21:29 |

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|--------------------------|---|-------------|------------|------------|------------|------------|
| 84 | "LAUNCHING OUR DREAMS" VIDEO FEATURE PLAYBACK | JSC | 05/ 06:31 | 05:00 PM | 06:00 PM | 22:00 |
| 84 | FLIGHT DAY 6 HIGHLIGHTS (replayed on the hour during crew sleep) | JSC | 05/ 07:31 | 06:00 PM | 07:00 PM | 23:00 |
| 86 | "THE SPACE SHUTTLE" NARRATED BY WILLIAM SHATNER | JSC | 05/ 10:31 | 09:00 PM | 10:00 PM | 02:00 |
| 88 | ISS FLIGHT DIRECTOR UPDATE | JSC | 05/ 13:16 | 11:45 PM | 12:45 AM | 04:45 |
| THURSDAY, JULY 14 | | | | | | |
| FD 7/ FD 8 | | | | | | |
| 88 | ATLANTIS / ISS CREW WAKE UP (begins FD 7) | | 05/ 14:00 | 12:29 AM | 01:29 AM | 05:29 |
| 89 | ISS FLIGHT DIRECTOR UPDATE REPLAY | JSC | 05/ 14:16 | 12:45 AM | 01:45 AM | 05:45 |
| 90 | MPLM TRANSFERS RESUME | | 05/ 16:35 | 03:04 AM | 04:04 AM | 08:04 |
| 92 | * FOX NEWS RADIO/ KTVI-TV St. Louis, MO / KSDK-TV St. Louis, MO LIVE INTERVIEWS | ISS Ku | 05/ 19:30 | 05:59 AM | 06:59 AM | 10:59 |
| 94 | * WBBM-TV, Chicago, IL // KTVU-TV, Oakland, CA / WTXF-TV, Philadelphia, PA LIVE INTERVIEWS | ISS Ku | 05/ 21:50 | 08:19 AM | 09:19 AM | 13:19 |
| 94 | ATLANTIS / ISS CREW OFF DUTY PERIOD | | 05/ 22:15 | 08:44 AM | 09:44 AM | 13:44 |
| 95 | VIDEO FILE | HQ | 06/ 00:31 | 11:00 AM | 12:00 PM | 16:00 |
| 98 | ISS CREW SLEEP BEGINS | | 06/ 04:30 | 02:59 PM | 03:59 PM | 19:59 |
| 98 | ATLANTIS CREW SLEEP BEGINS | | 06/ 05:00 | 03:29 PM | 04:29 PM | 20:29 |
| 99 | MISSION STATUS BRIEFING | JSC | 06/ 05:31 | 04:00 PM | 05:00 PM | 21:00 |
| 99 | FLIGHT DAY 7 HIGHLIGHTS (replayed on the hour during crew sleep) | JSC | 06/ 06:31 | 05:00 PM | 06:00 PM | 22:00 |
| 101 | "THE SPACE SHUTTLE" NARRATED BY WILLIAM SHATNER | JSC | 06/ 09:31 | 08:00 PM | 09:00 PM | 01:00 |

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|------------------------|--|-------------|------------|------------|------------|------------|
| 102 | "LAUNCHING OUR DREAMS" VIDEO FEATURE PLAYBACK | JSC | 06/ 11:31 | 10:00 PM | 11:00 PM | 03:00 |
| 103 | ATLANTIS / ISS CREW WAKE UP (begins FD 8) | | 06/ 13:00 | 11:29 PM | 12:29 AM | 04:29 |
| 104 | ISS FLIGHT DIRECTOR UPDATE | JSC | 06/ 13:16 | 11:45 PM | 12:45 AM | 04:45 |
| FRIDAY, JULY 15 | | | | | | |
| FD 8 / FD 9 | | | | | | |
| 105 | MPLM TRANSFERS RESUME | | 06/ 15:10 | 01:39 AM | 02:39 AM | 06:39 |
| 107 | CBS Radio / KYW-TV, Philadelphia, PA / Associated Press LIVE INTERVIEWS | ISS Ku | 06/ 19:15 | 05:44 AM | 06:44 AM | 10:44 |
| 108 | REUTERS / ABC Radio / WPVI-TV, Philadelphia, PA LIVE INTERVIEWS | ISS Ku | 06/ 20:35 | 07:04 AM | 08:04 AM | 12:04 |
| 109 | JOINT CREW NEWS CONFERENCE | ISS Ku | 06/ 21:55 | 08:24 AM | 09:24 AM | 13:24 |
| 110 | INTERPRETED REPLAY OF JOINT CREW NEWS CONFERENCE | JSC | 06/ 23:31 | 10:00 AM | 11:00 AM | 15:00 |
| 111 | VIDEO FILE | HQ | 07/ 00:31 | 11:00 AM | 12:00 PM | 16:00 |
| 113 | ISS CREW SLEEP BEGINS | | 07/ 03:30 | 01:59 PM | 02:59 PM | 18:59 |
| 113 | ATLANTIS CREW SLEEP BEGINS | | 07/ 04:00 | 02:29 PM | 03:29 PM | 19:29 |
| 113 | MISSION STATUS BRIEFING | JSC | 07/ 04:31 | 03:00 PM | 04:00 PM | 20:00 |
| 114 | FLIGHT DAY 8 HIGHLIGHTS (replayed on the hour during crew sleep) | JSC | 07/ 05:31 | 04:00 PM | 05:00 PM | 21:00 |
| 116 | "THE SPACE SHUTTLE" NARRATED BY WILLIAM SHATNER | JSC | 07/ 08:31 | 07:00 PM | 08:00 PM | 00:00 |
| 117 | "LAUNCHING OUR DREAMS" VIDEO FEATURE PLAYBACK | JSC | 07/ 10:31 | 09:00 PM | 10:00 PM | 02:00 |

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|--------------------------|--|-------------|------------|------------|------------|------------|
| 118 | ATLANTIS / ISS CREW WAKE UP (begins FD 9) | | 07/ 12:00 | 10:29 PM | 11:29 PM | 03:29 |
| 119 | ISS FLIGHT DIRECTOR UPDATE | JSC | 07/ 12:16 | 10:45 PM | 11:45 PM | 03:45 |
| SATURDAY, JULY 16 | | | | | | |
| FD 9 / FD 10 | | | | | | |
| 120 | * MPLM TRANSFERS RESUME | | 07/ 15:05 | 01:34 AM | 02:34 AM | 06:34 |
| 128 | ISS CREW SLEEP BEGINS | | 08/ 03:00 | 01:29 PM | 02:29 PM | 18:29 |
| 128 | ATLANTIS CREW SLEEP BEGINS | | 08/ 03:30 | 01:59 PM | 02:59 PM | 18:59 |
| 129 | MISSION STATUS BRIEFING | JSC | 08/ 04:01 | 02:30 PM | 03:30 PM | 19:30 |
| 130 | FLIGHT DAY 9 HIGHLIGHTS (replayed on the hour during crew sleep) | JSC | 08/ 05:31 | 04:00 PM | 05:00 PM | 21:00 |
| 132 | "THE SPACE SHUTTLE" NARRATED BY WILLIAM SHATNER | JSC | 08/ 08:31 | 07:00 PM | 08:00 PM | 00:00 |
| 133 | "LAUNCHING OUR DREAMS" VIDEO FEATURE PLAYBACK | JSC | 08/ 10:31 | 09:00 PM | 10:00 PM | 02:00 |
| 134 | ATLANTIS / ISS CREW WAKE UP (begins FD 10) | | 08/ 11:30 | 09:59 PM | 10:59 PM | 02:59 |
| 134 | ISS FLIGHT DIRECTOR UPDATE | JSC | 08/ 12:01 | 10:30 PM | 11:30 PM | 03:30 |
| SUNDAY, JULY 17 | | | | | | |
| FD 10 / FD 11 | | | | | | |
| 135 | * MPLM TRANSFERS RESUME | | 08/ 13:45 | 12:14 AM | 01:14 AM | 05:14 |
| 139 | * NASA EXPLORER SCHOOLS EDUCATIONAL EVENT | ISS Ku | 08/ 19:40 | 06:09 AM | 07:09 AM | 11:09 |
| 140 | * ATLANTIS / ISS CREW OFF DUTY PERIOD | | 08/ 21:15 | 07:44 AM | 08:44 AM | 12:44 |
| 143 | ISS CREW SLEEP BEGINS | | 09/ 02:30 | 12:59 PM | 01:59 PM | 17:59 |
| 144 | ATLANTIS CREW SLEEP BEGINS | | 09/ 03:00 | 01:29 PM | 02:29 PM | 18:29 |
| 144 | MISSION STATUS BRIEFING | JSC | 09/ 04:01 | 02:30 PM | 03:30 PM | 19:30 |

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|--------------|---|-------------|--|------------|------------|------------|------------|
| 146 | FLIGHT DAY 10 HIGHLIGHTS (replayed on the hour during crew sleep) | JSC | | 09/ 05:31 | 04:00 PM | 05:00 PM | 21:00 |
| 148 | "THE SPACE SHUTTLE" NARRATED BY WILLIAM SHATNER | JSC | | 09/ 08:31 | 07:00 PM | 08:00 PM | 00:00 |
| 149 | "LAUNCHING OUR DREAMS" VIDEO FEATURE PLAYBACK | JSC | | 09/ 10:31 | 09:00 PM | 10:00 PM | 02:00 |
| 149 | ATLANTIS / ISS CREW WAKE UP (begins FD 11) | | | 09/ 11:00 | 09:29 PM | 10:29 PM | 02:29 |
| 150 | ISS FLIGHT DIRECTOR UPDATE | JSC | | 09/ 12:01 | 10:30 PM | 11:30 PM | 03:30 |

MONDAY, JULY 18

FD 11 / FD 12

| | | | | | | | |
|-----|--|-----|--|-----------|----------|----------|-------|
| 151 | * MPLM EGRESS | | | 09/ 13:20 | 11:49 PM | 12:49 AM | 04:49 |
| 151 | * MPLM VESTIBULE DEMATING | | | 09/ 13:55 | 12:24 AM | 01:24 AM | 05:24 |
| 152 | * MPLM VESTIBULE DEPRESSURIZATION | | | 09/ 15:25 | 01:54 AM | 02:54 AM | 06:54 |
| 154 | * SSRMS GRAPPLES MPLM | | | 09/ 18:05 | 04:34 AM | 05:34 AM | 09:34 |
| 154 | * SSRMS UNBERTHS MPLM FROM ISS & INSTALLS IN ATLANTIS' PAYLOAD BAY | | | 09/ 19:15 | 05:44 AM | 06:44 AM | 10:44 |
| 155 | MISSION STATUS BRIEFING | JSC | | 09/ 20:31 | 07:00 AM | 08:00 AM | 12:00 |
| 156 | * ATLANTIS / ISS FAREWELL AND HATCH CLOSURE | | | 09/ 21:50 | 08:19 AM | 09:19 AM | 13:19 |
| 157 | * CENTERLINE CAMERA INSTALLATION | | | 09/ 22:40 | 09:09 AM | 10:09 AM | 14:09 |
| 157 | * RENDEZVOUS TOOLS CHECKOUT | | | 09/ 23:20 | 09:49 AM | 10:49 AM | 14:49 |
| 159 | ISS CREW SLEEP BEGINS | | | 10/ 02:00 | 12:29 PM | 01:29 PM | 17:29 |
| 159 | ATLANTIS CREW SLEEP BEGINS | | | 10/ 02:30 | 12:59 PM | 01:59 PM | 17:59 |
| 160 | "LAUNCHING OUR DREAMS" VIDEO FEATURE PLAYBACK | JSC | | 10/ 03:31 | 02:00 PM | 03:00 PM | 19:00 |

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|---------------------------|---|-------------|------------|------------|------------|------------|
| 160 | FLIGHT DAY 11 HIGHLIGHTS (replayed on the hour during crew sleep) | JSC | 10/ 04:31 | 03:00 PM | 04:00 PM | 20:00 |
| 164 | ATLANTIS / ISS CREW WAKE UP (begins FD 12) | | 10/ 10:30 | 08:59 PM | 09:59 PM | 01:59 |
| TUESDAY, JULY 19 | | | | | | |
| FD 12 / FD 13 | | | | | | |
| 167 | ATLANTIS UNDOCKS FROM ISS | | 10/ 14:59 | 01:28 AM | 02:28 AM | 06:28 |
| 168 | ATLANTIS FLYAROUND OF ISS BEGINS | | 10/ 15:58 | 02:27 AM | 03:27 AM | 07:27 |
| 168 | ATLANTIS FINAL SEPARATION FROM ISS | | 10/ 16:49 | 03:18 AM | 04:18 AM | 08:18 |
| 170 | * RMS / OBSS LATE INSPECTION OF ATLANTIS' TPS | | 10/ 19:05 | 05:34 AM | 06:34 AM | 10:34 |
| 170 | MISSION STATUS BRIEFING | JSC | 10/ 20:01 | 06:30 AM | 07:30 AM | 11:30 |
| 173 | * OBSS BERTH | | 10/ 23:20 | 09:49 AM | 10:49 AM | 14:49 |
| 173 | * SHUTTLE VTR PLAYBACK OF UNDOCKING | | 11/ 00:00 | 10:29 AM | 11:29 AM | 15:29 |
| 174 | MMT BRIEFING | JSC | 11/ 01:31 | 12:00 PM | 01:00 PM | 17:00 |
| 175 | ATLANTIS CREW SLEEP BEGINS | | 11/ 02:30 | 12:59 PM | 01:59 PM | 17:59 |
| 175 | VIDEO FILE | HQ | 11/ 02:31 | 01:00 PM | 02:00 PM | 18:00 |
| 175 | FLIGHT DAY 12 HIGHLIGHTS (replayed on the hour during crew sleep) | JSC | 11/ 03:31 | 02:00 PM | 03:00 PM | 19:00 |
| 177 | "LAUNCHING OUR DREAMS" VIDEO FEATURE PLAYBACK | JSC | 11/ 06:31 | 05:00 PM | 06:00 PM | 22:00 |
| 180 | ATLANTIS CREW WAKE UP (begins FD 13) | | 11/ 10:30 | 08:59 PM | 09:59 PM | 01:59 |
| WEDNESDAY, JULY 20 | | | | | | |
| FD 13 | | | | | | |
| 183 | * FCS CHECKOUT | | 11/ 14:55 | 01:24 AM | 02:24 AM | 06:24 |
| 184 | * PICOSAT DEPLOYMENT | | 11/ 16:15 | 02:44 AM | 03:44 AM | 07:44 |

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|--------------|---|--|-------------|--|------------|------------|------------|------------|
| 184 | * | RCS HOT-FIRE TEST | | | 11/ 16:50 | 03:19 AM | 04:19 AM | 08:19 |
| 185 | * | CABIN STOWAGE BEGINS | | | 11/ 17:30 | 03:59 AM | 04:59 AM | 08:59 |
| 185 | | ABC News / CBS News / CNN / FOX News / NBC News LIVE INTERVIEWS | TDRE | | 11/ 18:25 | 04:54 AM | 05:54 AM | 09:54 |
| 186 | | MISSION STATUS BRIEFING | JSC | | 11/ 20:31 | 07:00 AM | 08:00 AM | 12:00 |
| 189 | | VIDEO FILE | HQ | | 12/ 00:31 | 11:00 AM | 12:00 PM | 16:00 |
| 189 | | KU-BAND ANTENNA STOWAGE | | | 12/ 00:40 | 11:09 AM | 12:09 PM | 16:09 |
| 190 | | ATLANTIS CREW SLEEP BEGINS | | | 12/ 02:30 | 12:59 PM | 01:59 PM | 17:59 |
| 191 | | "LAUNCHING OUR DREAMS" VIDEO FEATURE PLAYBACK | JSC | | 12/ 03:31 | 02:00 PM | 03:00 PM | 19:00 |
| 192 | | FLIGHT DAY 13 HIGHLIGHTS (replayed on the hour during crew sleep) | JSC | | 12/ 04:31 | 03:00 PM | 04:00 PM | 20:00 |
| 195 | | ATLANTIS CREW WAKE UP (begins FD 14) | | | 12/ 10:30 | 08:59 PM | 09:59 PM | 01:59 |
| 197 | | ATLANTIS DEORBIT PREPARATIONS BEGIN | | | 12/ 13:25 | 11:54 PM | 12:54 AM | 04:54 |

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|--------------------------|--|-------------|------------|----------------|------------|------------|
| THURSDAY, JULY 21 | | | | | | |
| FD 14 | | | | | | |
| 198 | PAYLOAD BAY DOOR CLOSING | | 12/ 14:45 | 01:14 AM | 02:14 AM | 06:14 |
| 200 | ATLANTIS DEORBIT BURN | | 12/ 17:25 | 03:54 AM | 04:54 AM | 08:54 |
| 200 | MILA C-BAND RADAR ACQUISITION OF ATLANTIS | | 12/ 18:16 | 04:45 AM | 05:45 AM | 09:45 |
| 200 | KSC LANDING | KSC | 12/ 18:29 | 04:58 AM | 05:58 AM | 09:58 |
| | ENTRY FLIGHT DIRECTOR TONY CECCACCI SIGN-OFF TO FLIGHT CONTROL TEAM | JSC | | ~ L+45 MIN. | | |
| | POST-LANDING NEWS CONFERENCE | KSC | | NET L+2 HRS. | | |
| | ENTRY FLIGHT CONTROL TEAM VIDEO REPLAY (replayed after Post-Landing News Conference) | JSC | | ~ L+3 HRS. | | |
| | STS-135 MISSION HIGHLIGHTS VIDEO REPLAY (replayed after Entry Flight Control Team Video) | JSC | | ~ L+3.5 HRS. | | |
| | STS-135 CREW NEWS CONFERENCE (may be postponed or cancelled) | KSC | | NET L+4.5 HRS. | | |
| | ATLANTIS TOWBACK & EMPLOYEE APPRECIATION EVENT | KSC | | NET L+5.5 HRS. | | |

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|--------------|---|-------------|------------|------------|------------|------------|
| SSRMS: | Space Station Remote Manipulator System (Canadarm2 ISS Robotic Arm) | | | | | |
| STBD: | Starboard | | | | | |
| STS: | Space Transportation System | | | | | |
| TI: | Terminal Initiation Rendezvous Maneuver | | | | | |
| TDRE, W: | Tracking and Data Relay Satellite, East and West Longitudes | | | | | |
| TPS: | Thermal Protection System | | | | | |
| Unity: | Connecting Node 1 on International Space Station | | | | | |
| VTR: | Videotape Recorder | | | | | |
| ZSR: | Zero-G Stowage Rack | | | | | |