
 NASA TELEVISION SCHEDULE
 STS-133
 ISS UTILIZATION LOGISTICS FLIGHT 5 / PERMANENT MULTI-PURPOSE MODULE (PMM)
 REV D
 2/28/11

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/shuttle/tv>
 Launch occurred at 3:53pm CT (4:53pm ET) on Thursday, February 24th, 2011.
 An asterisk (*) denotes changes made to the previous revision to the television schedule.

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>	<u>MET</u>	<u>CST</u>	<u>EST</u>	<u>GMT</u>
MONDAY, FEBRUARY 28						
FD 4 / FD 5						
61	EVA # 1 BEGINS (Bowen and Drew)		03/ 18:25	10:18 AM	11:18 AM	16:18
61	J612 CABLE INSTALLATION ON NODE 1		03/ 18:55	10:48 AM	11:48 AM	16:48
62	FAILED PUMP MODULE TRANSFER FROM MBS POA TO ESP-2		03/ 20:20	12:13 PM	01:13 PM	18:13
63	CP 3 CAMERA WEDGE INSTALLATION		03/ 22:25	02:18 PM	03:18 PM	20:18
64	STARBOARD CETA RAIL BOARD INSTALLATION		03/ 23:25	03:18 PM	04:18 PM	21:18
65	JAXA "MESSAGE IN A BOTTLE" SPACE SAMPLE CAPTURE		04/ 00:10	04:03 PM	05:03 PM	22:03
65	EVA #1 ENDS		04/ 00:55	04:48 PM	05:48 PM	22:48
65	MISSION STATUS BRIEFING	JSC	04/ 03:07	07:00 PM	08:00 PM	01:00
66	VIDEO FILE	HQ	04/ 04:07	08:00 PM	09:00 PM	02:00
67	ISS CREW SLEEP BEGINS		04/ 04:30	08:23 PM	09:23 PM	02:23

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68	DISCOVERY CREW SLEEP BEGINS		04/ 05:00	08:53 PM	09:53 PM	02:53
68	FLIGHT DAY 5 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	04/ 05:07	09:00 PM	10:00 PM	03:00
TUESDAY, MARCH 1						
FD 5 / FD 6						
71	ISS FLIGHT DIRECTOR UPDATE	JSC	04/ 10:47	02:40 AM	03:40 AM	08:40
72	ISS FLIGHT DIRECTOR UPDATE REPLAY	JSC	04/ 11:52	03:45 AM	04:45 AM	09:45
73	DISCOVERY / ISS CREW WAKE UP (begins FD 6)		04/ 13:00	04:53 AM	05:53 AM	10:53
74	SSRMS GRAPPLE OF PMM		04/ 15:15	07:08 AM	08:08 AM	13:08
75	PMM UNBERTH		04/ 15:50	07:43 AM	08:43 AM	13:43
75	* DISCOVERY / ISS TRANSFERS RESUME		04/ 16:05	07:58 AM	08:58 AM	13:58
75	PMM INSTALLATION BEGINS ON UNITY NADIR PORT		04/ 16:55	08:48 AM	09:48 AM	14:48
76	* PMM INSTALLATION COMPLETE		04/ 17:45	09:38 AM	10:38 AM	15:38
76	MISSION STATUS BRIEFING	JSC	04/ 18:37	10:30 AM	11:30 AM	16:30
77	VIDEO FILE	HQ	04/ 19:37	11:30 AM	12:30 PM	17:30
77	* PMM VESTIBULE PRESSURIZATION BEGINS		04/ 19:45	11:38 AM	12:38 PM	17:38
80	* KING-TV / KTRK-TV / KOMO-TV LIVE INTERVIEWS	ISS Ku	04/ 23:30	03:23 PM	04:23 PM	21:23
80	EVA # 2 PROCEDURE REVIEW		05/ 00:25	04:18 PM	05:18 PM	22:18
81	* PMM INGRESS		05/ 02:05	05:58 PM	06:58 PM	23:58
82	EVA # 2 CAMPOUT BEGINS (Bowen and Drew)		05/ 02:55	06:48 PM	07:48 PM	00:48
83	ISS CREW SLEEP BEGINS		05/ 04:00	07:53 PM	08:53 PM	01:53
83	DISCOVERY CREW SLEEP BEGINS		05/ 04:30	08:23 PM	09:23 PM	02:23

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83	FLIGHT DAY 6 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	05/ 05:07	09:00 PM	10:00 PM	03:00
WEDNESDAY, MARCH 2						
FD 6 / FD 7						
87	ISS FLIGHT DIRECTOR UPDATE	JSC	05/ 10:47	02:40 AM	03:40 AM	08:40
88	ISS FLIGHT DIRECTOR UPDATE REPLAY	JSC	05/ 11:52	03:45 AM	04:45 AM	09:45
88	DISCOVERY / ISS CREW WAKE UP (begins FD 7)		05/ 12:30	04:23 AM	05:23 AM	10:23
89	* EVA # 2 PREPARATIONS RESUME		05/ 14:20	06:13 AM	07:13 AM	12:13
91	EVA # 2 BEGINS (Bowen and Drew)		05/ 17:25	09:18 AM	10:18 AM	15:18
92	LWAPA RETRIEVAL AND REPLACEMENT		05/ 18:55	10:48 AM	11:48 AM	16:48
92	ELC-4 THERMAL INSULATION REMOVAL		05/ 18:55	10:48 AM	11:48 AM	16:48
93	P3 CETA LIGHT INSTALLATION		05/ 19:45	11:38 AM	12:38 PM	17:38
93	DEXTRE CAMERA LIGHT PAN AND TILT ASSEMBLY INSTALLATION		05/ 19:55	11:48 AM	12:48 PM	17:48
94	P1 RADIATOR TROUBLESHOOTING		05/ 21:05	12:58 PM	01:58 PM	18:58
95	TRANQUILITY THERMAL INSULATION REMOVAL		05/ 22:15	02:08 PM	03:08 PM	20:08
95	DEXTRE CAMERA COVER INSTALLATION		05/ 22:50	02:43 PM	03:43 PM	20:43
96	EVA# 2 ENDS		05/ 23:55	03:48 PM	04:48 PM	21:48
97	MISSION STATUS BRIEFING	JSC	06/ 02:07	06:00 PM	07:00 PM	00:00
98	VIDEO FILE	HQ	06/ 03:07	07:00 PM	08:00 PM	01:00
98	ISS CREW SLEEP BEGINS		06/ 03:30	07:23 PM	08:23 PM	01:23
98	DISCOVERY CREW SLEEP BEGINS		06/ 04:00	07:53 PM	08:53 PM	01:53
99	FLIGHT DAY 7 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	06/ 04:07	08:00 PM	09:00 PM	02:00

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THURSDAY, MARCH 3						
FD 7 / FD 8						
102	ISS FLIGHT DIRECTOR UPDATE	JSC	06/ 09:52	01:45 AM	02:45 AM	07:45
103	ISS FLIGHT DIRECTOR UPDATE REPLAY	JSC	06/ 10:52	02:45 AM	03:45 AM	08:45
104	DISCOVERY / ISS CREW WAKE UP (begins FD 8)		06/ 12:00	03:53 AM	04:53 AM	09:53
106	CNN / WTTG-TV / WTSP-TV / WBZ-TV LIVE INTERVIEWS	ISS Ku	06/ 15:20	07:13 AM	08:13 AM	13:13
106	DISCOVERY / ISS TRANSFERS RESUME		06/ 15:45	07:38 AM	08:38 AM	13:38
107	MSNBC / WXIA-TV / FOX NEWS RADIO LIVE INTERVIEWS	ISS Ku	06/ 17:40	09:33 AM	10:33 AM	15:33
108	VIDEO FILE	HQ	06/ 19:07	11:00 AM	12:00 PM	17:00
109	* DISCOVERY CREW OFF DUTY PERIOD		06/ 19:30	11:23 AM	12:23 PM	17:23
112	MISSION STATUS BRIEFING	JSC	07/ 01:07	05:00 PM	06:00 PM	23:00
114	ISS CREW SLEEP BEGINS		07/ 03:00	06:53 PM	07:53 PM	00:53
114	DISCOVERY CREW SLEEP BEGINS		07/ 03:30	07:23 PM	08:23 PM	01:23
114	FLIGHT DAY 8 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	07/ 04:07	08:00 PM	09:00 PM	02:00
FRIDAY, MARCH 4						
FD 8 / FD 9						
117	ISS FLIGHT DIRECTOR UPDATE	JSC	07/ 08:52	12:45 AM	01:45 AM	06:45
119	ISS FLIGHT DIRECTOR UPDATE REPLAY	JSC	07/ 10:52	02:45 AM	03:45 AM	08:45
119	DISCOVERY / ISS CREW WAKE UP (begins FD 9)		07/ 11:30	03:23 AM	04:23 AM	09:23
121	U.S. PAO EDUCATIONAL EVENT	ISS Ku	07/ 14:25	06:18 AM	07:18 AM	12:18
123	JOINT CREW NEWS CONFERENCE	ISS Ku	07/ 17:30	09:23 AM	10:23 AM	15:23

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124	INTERPRETED REPLAY OF JOINT CREW NEWS CONFERENCE	JSC	07/ 18:37	10:30 AM	11:30 AM	16:30
124	DISCOVERY CREW OFF DUTY PERIOD		07/ 19:35	11:28 AM	12:28 PM	17:28
125	VIDEO FILE	HQ	07/ 19:37	11:30 AM	12:30 PM	17:30
125	MISSION STATUS BRIEFING	JSC	07/ 20:37	12:30 PM	01:30 PM	18:30
126	RENDEZVOUS TOOL CHECKOUT		07/ 21:35	01:28 PM	02:28 PM	19:28
127	FAREWELL AND HATCH CLOSURE		07/ 23:05	02:58 PM	03:58 PM	20:58
127	CENTERLINE CAMERA INSTALLATION		08/ 00:05	03:58 PM	04:58 PM	21:58
129	ISS CREW SLEEP BEGINS		08/ 02:30	06:23 PM	07:23 PM	00:23
129	DISCOVERY CREW SLEEP BEGINS		08/ 03:00	06:53 PM	07:53 PM	00:53
129	FLIGHT DAY 9 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	08/ 03:07	07:00 PM	08:00 PM	01:00

SATURDAY, MARCH 5

FD 10

135	DISCOVERY / ISS CREW WAKE UP (begins FD 10)		08/ 11:00	02:53 AM	03:53 AM	08:53
137	DISCOVERY UNDOCKS FROM ISS		08/ 14:48	06:41 AM	07:41 AM	12:41
137	DISCOVERY FLYAROUND OF ISS BEGINS		08/ 15:18	07:11 AM	08:11 AM	13:11
138	DISCOVERY FINAL SEPARATION FROM ISS		08/ 16:31	08:24 AM	09:24 AM	14:24
139	SHUTTLE VTR PLAYBACK OF UNDOCKING		08/ 18:05	09:58 AM	10:58 AM	15:58
140	RMS/OBSS LATE INSPECTION OF DISCOVERY'S TPS		08/ 19:00	10:53 AM	11:53 AM	16:53
142	MISSION STATUS BRIEFING	JSC	08/ 20:37	12:30 PM	01:30 PM	18:30
142	MMT BRIEFING	JSC	08/ 23:07	03:00 PM	04:00 PM	21:00
143	OBSS BERTH		08/ 23:20	03:13 PM	04:13 PM	21:13

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145	DISCOVERY CREW SLEEP BEGINS		09/ 03:00	06:53 PM	07:53 PM	00:53
145	FLIGHT DAY 10 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	09/ 03:07	07:00 PM	08:00 PM	01:00
SUNDAY, MARCH 6						
FD 11						
150	DISCOVERY CREW WAKE UP (begins FD 11)		09/ 11:00	02:53 AM	03:53 AM	08:53
152	FCS CHECKOUT		09/ 14:00	05:53 AM	06:53 AM	11:53
152	CABIN STOWAGE BEGINS		09/ 14:05	05:58 AM	06:58 AM	11:58
153	RCS HOT-FIRE TEST		09/ 15:10	07:03 AM	08:03 AM	13:03
156	ABC NEWS / CBS NEWS / ASSOCIATED PRESS LIVE INTERVIEWS	TDRE	09/ 19:00	10:53 AM	11:53 AM	16:53
156	DISCOVERY CREW TRIBUTE EVENT	TDRE	09/ 19:45	11:38 AM	12:38 PM	17:38
157	MISSION STATUS BRIEFING	JSC	09/ 21:07	01:00 PM	02:00 PM	19:00
159	KU-BAND ANTENNA STOWAGE		10/ 00:10	04:03 PM	05:03 PM	22:03
161	DISCOVERY CREW SLEEP BEGINS		10/ 03:00	06:53 PM	07:53 PM	00:53
161	FLIGHT DAY 11 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	10/ 03:07	07:00 PM	08:00 PM	01:00

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MONDAY, MARCH 7						
FD 12						
166	DISCOVERY CREW WAKE UP (begins FD 12)		10/ 11:00	02:53 AM	03:53 AM	08:53
168	DISCOVERY DEORBIT PREPARATIONS BEGIN		10/ 14:40	06:33 AM	07:33 AM	12:33
169	PAYLOAD BAY DOOR CLOSING		10/ 16:03	07:56 AM	08:56 AM	13:56
171	DISCOVERY DEORBIT BURN		10/ 18:43	10:36 AM	11:36 AM	16:36
172	MILA C-BAND RADAR ACQUISITION OF DISCOVERY		10/ 19:33	11:26 AM	12:26 PM	17:26
172	KSC LANDING	KSC	10/ 19:46	11:39 AM	12:39 PM	17:39
	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-133 MISSION HIGHLIGHTS VIDEO REPLAY (replayed after Entry Flight Control Team Video)	JSC		~ L+3.5 HRS.		
	STS-133 CREW NEWS CONFERENCE (may be postponed or cancelled)	KSC		NET L+4.5 HRS.		

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DEFINITION OF TERMS

AMC: Americom Satellite
 CDT: Central Daylight Time
 CETA: Crew and Equipment Translation Aid
 CLPA: Camera Light Pan Tilt Assembly
 Destiny: U.S. Laboratory on ISS
 ELC-4: Express Logistics Carrier #4
 EMU: Extravehicular Mobility Unit
 EOTP: Enhanced ORU Temporary Platform
 EDT: Eastern Daylight Time
 EVA: Extravehicular Activity
 FCS: Flight Control System
 FD: Flight Day
 GMT: Greenwich Mean Time
 Harmony: Node 2
 HD: High Definition Television
 HQ: NASA Headquarters
 ISS: International Space Station
 JAXA: Japan Aerospace Exploration Agency
 JSC: Johnson Space Center
 KSC: Kennedy Space Center
 L: Launch or Landing time
 LIMO: Live Interview Media Outlet channel
 LWAPA: Lightweight Adaptor Plate Assembly
 MECO: Main Engine Cut-Off
 MET: Mission Elapsed Time, which begins at the moment of launch and is read: DAYS/HOURS:MINUTES. LAUNCH=00/00:00
 MILA: Merritt Island, Florida Tracking Station
 MMT: Mission Management Team
 MS: Mission Specialist
 NET: No Earlier Than
 OBSS: Orbiter Boom Sensor System
 ODS: Orbiter Docking System
 OMS: Orbital Maneuvering System
 PAO: Public Affairs office
 PMM: Permanent Multipurpose Module
 RCS: Reaction Control System
 R&R: Return and Replace
 RPM: Rendezvous Pitch Maneuver
 RSS: Rotate Servicing Structure
 S1: Starboard One truss segment on ISS
 SPDM: Special Purpose Dexterous Manipulator
 SRMS: Shuttle Remote Manipulator System on Discovery
 SSRMS: Space Station Remote Manipulator System (Canadarm2 ISS Robotic Arm)

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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					
VAFB:	Vandenberg Air Force Base					
VTR:	Videotape Recorder					