NASA TELEVISION SCHEDULE STS-135 ISS UTILIZATION LOGISTICS FLIGHT 7 / MPLM "RAFFAELLO" REV M 07/19/11

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.

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>		<u>MET</u>	<u>CDT</u>	<u>EDT</u>	<u>GMT</u>		
TUESDAY, JULY 19									
FD 12 / FD 13									
181	STS-135 ASCENT IMAGERY HIGHLIGHTS REPLAY	JSC	11/	11:31	10:00 PM	11:00 PM	03:00		
WEDNESDAY, JULY 20									
FD 13									
182	* CABIN STOWAGE BEGINS		11/	13:00	11:29 PM	12:29 AM	04:29		
183	FCS CHECKOUT		11/	14:45	01:14 AM	02:14 AM	06:14		
183	PICOSAT DEPLOYMENT		11/	16:25	02:54 AM	03:54 AM	07:54		
184	RCS HOT-FIRE TEST		11/	16:35	03:04 AM	04:04 AM	08:04		
184	* ABC News / CBS News / CNN / FOX News / NBC News LIVE INTERVIEWS	TDRE	11/	17:25	03:54 AM	04:54 AM	08:54		
186	SHUTTLE VTR PLAYBACK OF UNDOCKING		11/	20:30	06:59 AM	07:59 AM	11:59		
186	MISSION STATUS BRIEFING	JSC	11/	20:31	07:00 AM	08:00 AM	12:00		
188	STS-135 ASCENT IMAGERY HIGHLIGHTS REPLAY	JSC	11/	22:31	09:00 AM	10:00 AM	14:00		

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188		STS-135 ASCENT IMAGERY HIGHLIGHTS REPLAY	JSC	11/	23:31	10:00 AM	11:00 AM	15:00	
189	*	KU-BAND ANTENNA STOWAGE		11/	23:50	10:19 AM	11:19 AM	15:19	l
189		VIDEO FILE	HQ	12/	00:31	11:00 AM	12:00 PM	16:00	l
190	*	ATLANTIS CREW SLEEP BEGINS		12/	02:00	12:29 PM	01:29 PM	17:29	
191	*	"LAUNCHING OUR DREAMS" VIDEO FEATURE PLAYBACK	JSC	12/	02:31	01:00 PM	02:00 PM	18:00	
192	*	FLIGHT DAY 13 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	12/	03:31	02:00 PM	03:00 PM	19:00	
196	*	ATLANTIS CREW WAKE UP (begins FD 14)		12/	10:00	08:29 PM	09:29 PM	01:29	
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/	14:39	01:08 AM	02:08 AM	06:08		
200	ATLANTIS DEORBIT BURN 1st OPPORTUNITY		12/	17:19	03:48 AM	04:48 AM	08:48		
200	MILA C-BAND RADAR ACQUISITION OF ATLANTIS 1st OPPORTUNITY		12/	18:14	04:43 AM	05:43 AM	09:43		
200	KSC LANDING 1st OPPORTUNITY	KSC	12/	18:27	04:56 AM	05:56 AM	09:56		
200	ATLANTIS DEORBIT BURN 2ND KSC OPPORTUNITY		12/	18:56	05:25 AM	06:25 AM	10:25		
201	MILA C-BAND RADAR ACQUISITION OF ATLANTIS 2nd KSC OPPORTUNITY		12/	19:50	06:19 AM	07:19 AM	11:19		
201	KSC LANDING 2nd OPPORTUNITY	KSC	12/	20:03	06:32 AM	07:32 AM	11:32		
	ENTRY FLIGHT DIRECTOR TONY CECCACCI SIGN-OFF TO FLIGHT CONTROL TEAM	JSC			~ L+45 MIN.				
	STS-135 MISSION HIGHLIGHTS VIDEO REPLAY (replayed after Entry Flight Control Team Video)	JSC			~ L+2.5 HRS.				
	ENTRY FLIGHT CONTROL TEAM VIDEO REPLAY (replayed after Post-Landing News Conference)	JSC			~ L+3.5 HRS.				
	POST-LANDING NEWS CONFERENCE	KSC			NET L+4 HRS.				
	ATLANTIS TOWBACK & EMPLOYEE APPRECIATION EVENT	KSC			NET L+5:45 HRS.	!			
	STS-135 CREW NEWS CONFERENCE (may be postponed or cancelled)	KSC			NET L+6 HRS.				
	STS-135 CREW REMARKS TO KSC EMPLOYEES AND NASA	KSC			NET L+6:30 HRS.	 - 			

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u> FRIDAY, JUL	<u>МЕТ</u> .Y 22	<u>CDT</u>	<u>EDT</u>	<u>GMT</u>
*	STS-135 CREW RETURN TO ELLINGTON FIELD, HOUSTON. TX	JSC		4:00PM	5:00PM	

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DEFINITION OF TERMS

AMC: Americom Satellite
CDT: Central Daylight Time
Destiny: U.S. Laboratory on ISS

Dextre: Special Purpose Dextrous Manipulator on ISS

ELC-4: Express Logistics Carrier #4
EMU: Extravehicular Mobility Unit

EOTP Enhanced ORU Temporary Platform

EDT: Eastern Daylight Time

ESP2: External Stowage Platform #2 on ISS

EVA: Extravehicular Activity FCS: Flight Control System

FD: Flight Day

GMT: Greenwich Mean Time

Harmony: Node 2

HD: High Definition Television
HQ: NASA Headquarters
ISLE: In-suit Light Exercise
ISS: International Space Station
JPL: Jet Propulsion Laboratory
JSC: Johnson Space Center
KSC: Kennedy Space Center

L: Launch or Landing time
LIMO: Live Interview Media Outlet channel
LMC: Lightweight Multipurpose Carrier

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

MISSE: Materials International Space Station Experiment

MMT: Mission Management Team

MS: Mission Specialist NET: No Earlier Than

OBSS: Orbiter Boom Sensor System
ODS: Orbiter Docking System
OMS: Orbital Maneuvering System
ORU: Orbital Replacement Unit

PAO: Public Affairs office

PDGF: Power and Data Grapple Fixture

RCS: Reaction Control System R&R: Return and Replace

RRM: Robotics Refueling Mission RSS: Rotating Servicing Structure

S1: Starboard One truss segment on ISS

ORBIT SUBJECT SITE MET CDT EDT GMT

SRMS: Shuttle Remote Manipulator System on ATLANTIS

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