
 NASA TELEVISION SCHEDULE
 STS-130 / ISS 20A
 TRANQUILITY NODE 3 / CUPOLA
 REV E
 02/11/10

NASA TV (Public, Education, Media Channels and occasional 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 3:14am CT (4:14am ET) on Monday, February 8th, 2010.
 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>
THURSDAY, FEBRUARY 11						
FD 4 / FD 5						
59	SSRMS GRAPPLES NODE 3		03/ 16:15	07:29 PM	08:29 PM	01:29
59	EVA # 1 BEGINS (Behnken and Patrick)		03/ 16:55	08:09 PM	09:09 PM	02:09
60	TRANQUILITY NODE 3 PREPARATIONS FOR UNBERTHING		03/ 17:35	08:49 PM	09:49 PM	02:49
60	NODE 3 MLI & JUMPER CABLE BAG STOWAGE		03/ 18:25	09:39 PM	10:39 PM	03:39
61	SSRMS UNBERTHS NODE 3 FROM ENDEAVOUR		03/ 18:35	09:49 PM	10:49 PM	03:49
61	OTP REMOVAL FROM SPDM & STOWAGE ON CETA CART		03/ 19:25	10:39 PM	11:39 PM	04:39
62	SSRMS INSTALLS TRANQUILITY NODE 3 ON UNITY PORT SIDE		03/ 20:30	11:44 PM	12:44 AM	05:44
FRIDAY, FEBRUARY 12						
FD 5 / FD 6						
62	NODE 3 AVIONICS & LTA CABLE INSTALLATION		03/ 21:20	12:34 AM	01:34 AM	06:34

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>	<u>MET</u>	<u>CST</u>	<u>EST</u>	<u>GMT</u>
63	NODE 3 VESTIBULE LEAK CHECKS BEGIN		03/ 23:20	02:34 AM	03:34 AM	08:34
64	EVA # 1 ENDS		03/ 23:25	02:39 AM	03:39 AM	08:39
65	MISSION STATUS BRIEFING	JSC	04/ 01:16	04:30 AM	05:30 AM	10:30
66	ISS CREW SLEEP BEGINS		04/ 03:30	06:44 AM	07:44 AM	12:44
67	ENDEAVOUR CREW SLEEP BEGINS		04/ 04:00	07:14 AM	08:14 AM	13:14
67	FLIGHT DAY 5 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	04/ 04:46	08:00 AM	09:00 AM	14:00
69	HIGH DEFINITION FLIGHT DAY 5 CREW HIGHLIGHTS (if available; on the NASA-TV HDTV Channel; replays at 4:00pm CT and 5:00pm CT)	JSC	04/ 06:46	10:00 AM	11:00 AM	16:00
69	VIDEO FILE	HQ	04/ 07:46	11:00 AM	12:00 PM	17:00
70	ISS FLIGHT DIRECTOR UPDATE	JSC	04/ 09:16	12:30 PM	01:30 PM	18:30
72	ISS FLIGHT DIRECTOR UPDATE REPLAY	JSC	04/ 11:46	03:00 PM	04:00 PM	21:00
72	ENDEAVOUR / ISS CREW WAKE UP (begins FD 6)		04/ 12:00	03:14 PM	04:14 PM	21:14
72	* POST-MMT BRIEFING		04/ 12:16	03:30 PM	04:30 PM	21:30
74	* TRANQUILITY OUTFITTING BEGINS		04/ 15:00	06:14 PM	07:14 PM	00:14
75	HATCH OPENING BETWEEN UNITY & TRANQUILITY		04/ 17:00	08:14 PM	09:14 PM	02:14
76	SSRMS BASE CHANGE		04/ 18:00	09:14 PM	10:14 PM	03:14
76	HATCH OPENING BETWEEN TRANQUILITY & CUPOLA		04/ 18:30	09:44 PM	10:44 PM	03:44
SATURDAY, FEBRUARY 13						
FD 6 / FD 7						
78	ARED AND ARS RACK TRANSFERS		04/ 21:45	12:59 AM	01:59 AM	06:59
79	MASSIMINO TWITTER Q AND A EVENT	ISS Ku	04/ 22:15	01:29 AM	02:29 AM	07:29
80	EVA # 2 PROCEDURE REVIEW		04/ 23:55	03:09 AM	04:09 AM	09:09

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>		<u>MET</u>	<u>CST</u>	<u>EST</u>	<u>GMT</u>
80	ASSOCIATED PRESS / CBS NEWS/ REUTERS	ISS Ku		05/ 01:10	04:24 AM	05:24 AM	10:24
81	MISSION STATUS BRIEFING	JSC		05/ 01:46	05:00 AM	06:00 AM	11:00
81	EVA # 2 CAMPOUT BEGINS (Behnken and Patrick)			05/ 02:25	05:39 AM	06:39 AM	11:39
82	ISS CREW SLEEP BEGINS			05/ 03:30	06:44 AM	07:44 AM	12:44
82	ENDEAVOUR CREW SLEEP BEGINS			05/ 04:00	07:14 AM	08:14 AM	13:14
83	FLIGHT DAY 6 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC		05/ 04:46	08:00 AM	09:00 AM	14:00
85	HIGH DEFINITION FLIGHT DAY 6 CREW HIGHLIGHTS (if available; on the NASA-TV HDTV Channel; replays at 4:00pm CT and 5:00pm CT)	JSC		05/ 06:46	10:00 AM	11:00 AM	16:00
86	ISS FLIGHT DIRECTOR UPDATE	JSC		05/ 09:16	12:30 PM	01:30 PM	18:30
87	ISS FLIGHT DIRECTOR UPDATE REPLAY	JSC		05/ 11:46	03:00 PM	04:00 PM	21:00
88	ENDEAVOUR / ISS CREW WAKE UP (begins FD 7)			05/ 12:00	03:14 PM	04:14 PM	21:14
88	EVA # 2 PREPARATIONS RESUME			05/ 12:40	03:54 PM	04:54 PM	21:54
91	EVA # 2 BEGINS (Behnken and Patrick)			05/ 16:55	08:09 PM	09:09 PM	02:09
91	ISP 1 AND 2 NODE 3 TRANSFERS BEGIN			05/ 17:25	08:39 PM	09:39 PM	02:39
91	NODE 3 MLI INSTALLATION PREPARATIONS			05/ 17:35	08:49 PM	09:49 PM	02:49
91	NODE 3 FLUID JUMPER INSTALLATION BEGINS			05/ 17:55	09:09 PM	10:09 PM	03:09
92	NODE 3 AMMONIA LINE MLI INSTALLATION			05/ 19:20	10:34 PM	11:34 PM	04:34
93	NODE 3 FLUID JUMPER INSTALLATION CONTINUES			05/ 20:05	11:19 PM	12:19 AM	05:19
94	NODE 3 MLI CLOSURE			05/ 20:25	11:39 PM	12:39 AM	05:39
SUNDAY, FEBRUARY 14							
FD 7 / FD 8							
94	NODE 3 HANDRAIL INSTALL & OUTFITTING			05/ 20:55	12:09 AM	01:09 AM	06:09

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>	<u>MET</u>	<u>CST</u>	<u>EST</u>	<u>GMT</u>
95	EVA # 2 ENDS		05/ 23:25	02:39 AM	03:39 AM	08:39
95	CUPOLA VESTIBULE DEPRESSURIZATION BEGINS		05/ 23:40	02:54 AM	03:54 AM	08:54
96	MISSION STATUS BRIEFING	JSC	06/ 01:16	04:30 AM	05:30 AM	10:30
96	SSRMS GRAPPLES CUPOLA		06/ 01:25	04:39 AM	05:39 AM	10:39
98	ISS CREW SLEEP BEGINS		06/ 03:30	06:44 AM	07:44 AM	12:44
98	ENDEAVOUR CREW SLEEP BEGINS		06/ 04:00	07:14 AM	08:14 AM	13:14
99	FLIGHT DAY 7 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	06/ 04:46	08:00 AM	09:00 AM	14:00
100	HIGH DEFINITION FLIGHT DAY 7 CREW HIGHLIGHTS (if available; on the NASA-TV HDTV Channel; replays at 4:00pm CT and 5:00pm CT)	JSC	06/ 06:46	10:00 AM	11:00 AM	16:00
102	ISS FLIGHT DIRECTOR UPDATE	JSC	06/ 09:16	12:30 PM	01:30 PM	18:30
103	ISS FLIGHT DIRECTOR UPDATE REPLAY	JSC	06/ 11:46	03:00 PM	04:00 PM	21:00
103	ENDEAVOUR / ISS CREW WAKE UP (begins FD 8)		06/ 12:00	03:14 PM	04:14 PM	21:14
105	SSRMS DEMATES CUPOLA FROM TRANQUILITY FORWARD SIDE BEGINS		06/ 14:05	05:19 PM	06:19 PM	23:19
106	SSRMS INSTALLS CUPOLA ON TRANQUILITY NADIR PORT		06/ 15:50	07:04 PM	08:04 PM	01:04
107	EDUCATIONAL QUESTIONS EVENT	ISS Ku	06/ 18:20	09:34 PM	10:34 PM	03:34
108	CUPOLA OUTFITTING BEGINS		06/ 19:40	10:54 PM	11:54 PM	04:54
MONDAY, FEBRUARY 15						
FD 8 / FD 9						
110	* MISSION STATUS BRIEFING	JSC	07/ 22:16	01:30 AM	02:30 AM	07:30
112	SSRMS GRAPPLES PMA 3		07/ 00:40	03:54 AM	04:54 AM	09:54

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>	<u>MET</u>	<u>CST</u>	<u>EST</u>	<u>GMT</u>
113	* WOR RADIO, NEW YORK, NY/ KTVI-TV, ST.LOUIS, MO / WREG-TV, MEMPHIS, TN INTERVIEWS	ISS Ku	07/ 01:50	05:04 AM	06:04 AM	11:04
114	ISS CREW SLEEP BEGINS		07/ 03:30	06:44 AM	07:44 AM	12:44
114	ENDEAVOUR CREW SLEEP BEGINS		07/ 04:00	07:14 AM	08:14 AM	13:14
114	FLIGHT DAY 8 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	07/ 04:46	08:00 AM	09:00 AM	14:00
116	HIGH DEFINITION FLIGHT DAY 8 CREW HIGHLIGHTS (if available; on the NASA-TV HDTV Channel; replays at 4:00pm CT and 5:00pm CT)	JSC	07/ 06:46	10:00 AM	11:00 AM	16:00
117	ISS FLIGHT DIRECTOR UPDATE	JSC	07/ 09:16	12:30 PM	01:30 PM	18:30
119	ISS FLIGHT DIRECTOR UPDATE REPLAY	JSC	07/ 11:46	03:00 PM	04:00 PM	21:00
119	ENDEAVOUR / ISS CREW WAKE UP (begins FD 9)		07/ 12:00	03:14 PM	04:14 PM	21:14
121	SSRMS DEMATES PMA 3 FROM HARMONY		07/ 14:45	05:59 PM	06:59 PM	23:59
121	CUPOLA OUTFITTING RESUMES		07/ 14:55	06:09 PM	07:09 PM	00:09
122	SSRMS INSTALLS PMA 3 ON TRANQUILITY FORWARD SIDE		07/ 16:20	07:34 PM	08:34 PM	01:34
124	ENDEAVOUR / ISS OFF DUTY PERIOD		07/ 19:25	10:39 PM	11:39 PM	04:39

TUESDAY, FEBRUARY 16

FD 9 / FD 10

128	EVA # 3 PROCEDURE REVIEW		07/ 23:55	03:09 AM	04:09 AM	09:09
128	MISSION STATUS BRIEFING	JSC	08/ 01:16	04:30 AM	05:30 AM	10:30
129	EVA # 3 CAMPOUT BEGINS (Behnken and Patrick)		08/ 02:25	05:39 AM	06:39 AM	11:39
129	ISS CREW SLEEP BEGINS		08/ 03:30	06:44 AM	07:44 AM	12:44
130	ENDEAVOUR CREW SLEEP BEGINS		08/ 04:00	07:14 AM	08:14 AM	13:14
130	FLIGHT DAY 9 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	08/ 04:46	08:00 AM	09:00 AM	14:00

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>	<u>MET</u>	<u>CST</u>	<u>EST</u>	<u>GMT</u>
131	HIGH DEFINITION FLIGHT DAY 9 CREW HIGHLIGHTS (if available; on the NASA-TV HDTV Channel; replays at 4:00pm CT and 5:00pm CT)	JSC	08/ 06:46	10:00 AM	11:00 AM	16:00
132	VIDEO FILE	HQ	08/ 07:46	11:00 AM	12:00 PM	17:00
133	ISS FLIGHT DIRECTOR UPDATE	JSC	08/ 09:16	12:30 PM	01:30 PM	18:30
135	ISS FLIGHT DIRECTOR UPDATE REPLAY	JSC	08/ 11:46	03:00 PM	04:00 PM	21:00
135	ENDEAVOUR / ISS CREW WAKE UP (begins FD 10)		08/ 12:00	03:14 PM	04:14 PM	21:14
135	EVA #3 PREPARATIONS RESUME		08/ 12:40	03:54 PM	04:54 PM	21:54
138	EVA #3 BEGINS (Behnken and Patrick)		08/ 16:55	08:09 PM	09:09 PM	02:09
139	NODE 3 FLUID AND CABLE ROUTING / PMA 3-TO-TRANQUILITY CABLE CONNECTIONS		08/ 17:25	08:39 PM	09:39 PM	02:39
139	CUPOLA MLI REMOVAL		08/ 18:25	09:39 PM	10:39 PM	03:39
140	CUPOLA LAUNCH LOCK RELEASE / NODE 3 WORKSITE INTERFACE & HANDRAIL INSTALL		08/ 19:35	10:49 PM	11:49 PM	04:49
140	VIDEO SIGNAL CONVERTER CABLE ROUTING		08/ 20:35	11:49 PM	12:49 AM	05:49
WEDNESDAY, FEBRUARY 17						
FD 10 / FD 11						
141	P1 TRUSS P-CLAMP RELEASE		08/ 21:55	01:09 AM	02:09 AM	07:09
142	EVA #3 ENDS		08/ 23:25	02:39 AM	03:39 AM	08:39
144	MISSION STATUS BRIEFING	JSC	09/ 01:16	04:30 AM	05:30 AM	10:30
145	ISS CREW SLEEP BEGINS		09/ 03:30	06:44 AM	07:44 AM	12:44
145	ENDEAVOUR CREW SLEEP BEGINS		09/ 04:00	07:14 AM	08:14 AM	13:14
146	FLIGHT DAY 10 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	09/ 04:46	08:00 AM	09:00 AM	14:00

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>	<u>MET</u>	<u>CST</u>	<u>EST</u>	<u>GMT</u>
147	HIGH DEFINITION FLIGHT DAY 10 CREW HIGHLIGHTS (if available; on the NASA-TV HDTV Channel; replays at 3:00pm CT and 4:00pm CT)	JSC	09/ 06:46	10:00 AM	11:00 AM	16:00
148	VIDEO FILE	HQ	09/ 07:46	11:00 AM	12:00 PM	17:00
149	ISS FLIGHT DIRECTOR UPDATE	JSC	09/ 09:16	12:30 PM	01:30 PM	18:30
150	ISS FLIGHT DIRECTOR UPDATE REPLAY	JSC	09/ 11:46	03:00 PM	04:00 PM	21:00
151	ENDEAVOUR / ISS CREW WAKE UP (begins FD 11)		09/ 12:00	03:14 PM	04:14 PM	21:14
153	ENDEAVOUR / ISS TRANSFERS RESUME		09/ 15:00	06:14 PM	07:14 PM	00:14
155	JOINT CREW NEWS CONFERENCE	ISS Ku	09/ 18:25	09:39 PM	10:39 PM	03:39
156	RENDEZVOUS TOOLS CHECKOUT		09/ 20:45	11:59 PM	12:59 AM	05:59

THURSDAY, FEBRUARY 18

FD 11 / FD 12

157	ISS REBOOST (if required)		09/ 21:35	12:49 AM	01:49 AM	06:49
157	MISSION STATUS BRIEFING	JSC	09/ 21:46	01:00 AM	02:00 AM	07:00
158	ENDEAVOUR / ISS FAREWELL AND HATCH CLOSURE		09/ 22:50	02:04 AM	03:04 AM	08:04
158	CENTERLINE CAMERA INSTALLATION		09/ 23:20	02:34 AM	03:34 AM	08:34
160	ISS CREW SLEEP BEGINS		10/ 02:30	05:44 AM	06:44 AM	11:44
161	ENDEAVOUR CREW SLEEP BEGINS		10/ 03:00	06:14 AM	07:14 AM	12:14
161	FLIGHT DAY 11 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	10/ 03:46	07:00 AM	08:00 AM	13:00
162	HIGH DEFINITION FLIGHT DAY 11 CREW HIGHLIGHTS (if available; on the NASA-TV HDTV Channel; replays at 3:00pm CT and 4:00pm CT)	JSC	10/ 05:46	09:00 AM	10:00 AM	15:00
164	VIDEO FILE	HQ	10/ 07:46	11:00 AM	12:00 PM	17:00
166	ENDEAVOUR / ISS CREW WAKE UP (begins FD 12)		10/ 11:00	02:14 PM	03:14 PM	20:14

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>	<u>MET</u>	<u>CST</u>	<u>EST</u>	<u>GMT</u>
169	ENDEAVOUR UNDOCKS FROM ISS		10/ 15:21	06:35 PM	07:35 PM	00:35
169	ENDEAVOUR FLYAROUND OF ISS BEGINS		10/ 15:46	07:00 PM	08:00 PM	01:00
169	ENDEAVOUR FINAL SEPARATION FROM ISS		10/ 17:04	08:18 PM	09:18 PM	02:18
170	SHUTTLE VTR PLAYBACK OF UNDOCKING		10/ 18:00	09:14 PM	10:14 PM	03:14
171	RMS / OBSS LATE INSPECTION OF ENDEAVOUR'S TPS BEGINS		10/ 19:45	10:59 PM	11:59 PM	04:59
FRIDAY, FEBRUARY 19						
FD 12 / FD 13						
172	MISSION STATUS BRIEFING	JSC	10/ 21:16	12:30 AM	01:30 AM	06:30
177	ENDEAVOUR CREW SLEEP BEGINS		11/ 03:00	06:14 AM	07:14 AM	12:14
177	FLIGHT DAY 12 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	11/ 03:46	07:00 AM	08:00 AM	13:00
178	HIGH DEFINITION FLIGHT DAY 12 CREW HIGHLIGHTS (if available; on the NASA-TV HDTV Channel; replays at 2:00pm CT and 3:00pm CT)	JSC	11/ 05:46	09:00 AM	10:00 AM	15:00
179	VIDEO FILE	HQ	11/ 07:46	11:00 AM	12:00 PM	17:00
182	ENDEAVOUR CREW WAKE UP (begins FD 13)		11/ 11:00	02:14 PM	03:14 PM	20:14
182	POST-MMT BRIEFING	JSC	11/ 12:16	03:30 PM	04:30 PM	21:30
182	OBSS BERTH		11/ 13:00	04:14 PM	05:14 PM	22:14
184	CABIN STOWAGE BEGINS		11/ 14:05	05:19 PM	06:19 PM	23:19
185	FCS CHECKOUT		11/ 15:40	06:54 PM	07:54 PM	00:54
185	RCS HOT-FIRE TEST		11/ 16:50	08:04 PM	09:04 PM	02:04
186	ABC NEWS/ CNN NEWS / CNN ESPANOL/ UNIVISION INTERVIEWS	TDRE	11/ 18:05	09:19 PM	10:19 PM	03:19

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>	<u>MET</u>	<u>CST</u>	<u>EST</u>	<u>GMT</u>
SATURDAY, FEBRUARY 20						
FD 13 / FD 14						
188	MISSION STATUS BRIEFING	JSC	11/ 21:16	12:30 AM	01:30 AM	06:30
189	KU-BAND ANTENNA STOWAGE		11/ 22:30	01:44 AM	02:44 AM	07:44
191	ENDEAVOUR CREW SLEEP BEGINS		12/ 02:00	05:14 AM	06:14 AM	11:14
192	FLIGHT DAY 13 HIGHLIGHTS (replayed on the hour during crew sleep)	JSC	12/ 02:46	06:00 AM	07:00 AM	12:00
193	HIGH DEFINITION FLIGHT DAY 12 CREW HIGHLIGHTS (if available; on the NASA-TV HDTV Channel; replays at 2:00pm CT and 3:00pm CT)	JSC	12/ 04:46	08:00 AM	09:00 AM	14:00
197	ENDEAVOUR CREW WAKE UP (begins FD 14)		12/ 10:00	01:14 PM	02:14 PM	19:14
198	DEORBIT PREPARATIONS BEGIN		12/ 12:45	03:59 PM	04:59 PM	21:59
199	PAYLOAD BAY DOOR CLOSING		12/ 14:05	05:19 PM	06:19 PM	23:19
201	ENDEAVOUR DEORBIT BURN		12/ 16:45	07:59 PM	08:59 PM	01:59
202	MILA C-BAND RADAR ACQUISITION OF ENDEAVOUR		12/ 17:34	08:48 PM	09:48 PM	02:48
202	ENDEAVOUR LANDING	KSC	12/ 17:47	09:01 PM	10:01 PM	03:01
	POST-LANDING NEWS CONFERENCE	KSC		NET L+2 HRS.		
SUNDAY, FEBRUARY 21						
	ENTRY FLIGHT CONTROL TEAM VIDEO REPLAY (replayed after Post-Landing News Conference)	JSC		~ L+3 HRS.		
	STS-130 MISSION HIGHLIGHTS VIDEO REPLAY	JSC		~ L+3.5 HRS.		

<u>ORBIT</u>	<u>SUBJECT</u>	<u>SITE</u>	<u>MET</u>	<u>CST</u>	<u>EST</u>	<u>GMT</u>
SSRMS:	Space Station Remote Manipulator System (Canadarm2 ISS Robotic Arm)					
STS:	Space Transportation System					
TI:	Terminal Initiation Rendezvous Maneuver					
TDRE, W:	Tracking and Data Relay Satellite, East and West Longitudes					
TPS:	Thermal Protection System					
Tranquility:	Node 3 on ISS					
Unity:	Node 1 on ISS					
VTR:	Videotape Recorder					
WLE:	Wing Leading Edge					
WPA:	Water Processing Assembly on ISS					
WRS:	Water Recovery System on ISS					