STS-135/ULF7

FD 09 Execute Package

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075	---	ULF7 Unpack List **(Electronic Only)**
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Approved by FAO:
J. Mintz

Approved by OpsPlan:
K. Howell

Last Updated: Jul 16 2011 3:16 AM GMT
***JEDI** (**J**oint **E**xecute package **D**evelopment and **I**ntegration), v3.0*

What happens when you have Sim Sup working SPAN…

MSG INDEX

MSG NO.	TITLE
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076	FD09 Shuttle Stowage Notes

1. Mission margin remains at 11 hours. We are continuing to run ~500 watts under the predicted power level.

   For today's cryo config, O2 and H2 tanks 1 & 4 will be active. O2 tank 4 will likely deplete today, so expect a post-depletion cryo reconfig prior to the pre-sleep config tonight.

   R1 O2,H2 MANF VLV TK1 (two) - OP (tb-OP)

2. **Rex:** For today's RS EVA 29 Tool Config activity (MSG 073), if you have any questions with regard to the location of the Russian tools in Table C, speak with Mike. Mike was the last to stow the mesh bag of ULF-6 Russian Tools and the Russian Electrical Connector Trainer. Per request, Mike has been added to the last 30 minutes of the activity to assist you.

   Also, step 4 of MSG 073 directs you to MSG 072 to add Kapton tape to the REBA pull tabs. The pull tabs may already be taped from STS-134/ULF6.

3. The procedure for the ARS Door IFM is still in work. We will let you know when it is uplinked. If the procedure is not ready in time for you to execute at the scheduled time please get started on MPLM Transfer instead. In this case you should have time in the afternoon to execute the IFM procedure.

4. **Rex:** Please give us a call if you need to do the NLP Vaccine Activation at a different time than scheduled, since we have a ground control experiment planned.

5. Yesterday CWC s/n 1095 was emptied onboard ISS and is now available to be filled on Shuttle. We believe it was transferred to Shuttle and temp stowed, however if you or your ISS counterparts cannot locate this bag please let us know. We are planning to fill this CWC on FD10 and will send up detailed fill information in the FD10 execute package.

6. Below is information about the MILA (Merritt Island Launch Annex) ground station for the ground pass at MET 7/19:53

   The MILA ground station has provided the path for critical voice and data communications during the first minutes of launch for manned spaceflight vehicles since the Apollo program, being built in 1966. PDL was constructed in 1979 to supplement communications during the short period of ascent when the radio signal between the

shuttle and MILA is blocked by the SRB exhaust plume. MILA also provides the path for all critical voice and data communications during the last 13 minutes of space shuttle landings at KSC. The MILA site will be decommissioned following this mission. We wish to extend our eternal thanks to the personnel of MILA and PDL for their continual excellent support during ascent, orbit, and entry over the life of the shuttle program.

7. Below is information about the Dryden ground station for the ground pass at MET 7/23:01

   Initially known as "Buckhorn", the Dryden station has provided voice and data communications, plus radar tracking support, since the beginning of the Shuttle program. For all shuttle landings at Edwards AFB, Dryden provides the path for all critical communications with the spacecraft during the last 10 minutes of entry through wheels stop. Dryden's excellent support during the orbit and entry phases over the life of the program has been a huge contribution to mission success, and we are deeply appreciative of the personnel that provide this support.

8. Crew Choice Downlink KU Opportunities:

   Please allow 1-2 minutes to lock up on Ku-band. Check with MCC before starting playback.

   Pre-Sleep Evening of FD09

TDRS	AOS	LOS	Delta (min)	Notes
W-171	8/00:07	8/00:43	36	

9. Replace Pages 2-30 through 2-33 and 3-92 through 3-99.

REPLANNED

FD09

GMT 07/16/11 (197) — MET Day 007 — 008/00

STS-135

	12–15	15–17	17–20	20–23	23–008/00
CDR FERGUSON	POST SLEEP; IMU; CREW CHOICE RECORD	ARS-DOOR-IFM	G2 SET EXP; MPLM XFER	EXERCISE	MEAL (^ MILA 19:53)	MPLM XFER (^ DFRS 23:01)
PLT HURLEY	POST SLEEP	CREW CHOICE RECORD	ARS-DOOR-IFM	MPLM XFER; N2-I; CINCT #12	MEAL	CWC TERM; CWC #13; INIT; FILTER INSPECT; N2-T; CWC TERM; CWC XFER; MPLM XFER; EXERCISE
MS1 MAGNUS	POST SLEEP; TRANSFER; UPDATE; MDDK	CREW CHOICE RECORD	MPLM XFER	MICROBIAL AIR SAMPLE	MEAL	JRMS USB; JRMS CABLE; CK; JRMS MON*; JEM-FIRE; INDCT-C/O; JRMS MON DACT; MPLM XFER; CREW; CHOICE D/L; EXERCISE; AEM STATUS; CHECK
MS2 WALHEIM	LOG; POST SLEEP	CREW CHOICE RECORD	MPLM XFER	RS-EVA-29-TOOL-CNFG	MEAL	MPLM XFER; MPLM GLA SCAV; NLP; ACTIVATION

DAY/NIGHT

ORBIT: 119, 120, 121, 122, 123, 124, 125, 126

TDRS: W, E, Z

ORB ATT: BIAS -XLV -ZVV

ISS TDRS AVAIL: *ACT

Notes

FD09
GMT 07/16/11 (197)
MET Day 007

12 13 04 05 14 06 15 07 16 08 17 09 18 10 19 11 20 12 21 13 22 14 23 15 008/00

ISS	ISS CDR BORISENKO	POST SLEEP; PW; DPC; ♣; МБИ-21-EXE; DAK-VFY; ARED; ⊕; DAKON DNLD; MEAL; PFC; ♦; T2
	FE-1 SAMOKUTYAEV	POST SLEEP; PW; DPC; PW; СТИМУЛ; END; ®; M1-CB-C-MNT; ИП-1 MON; T2; MEAL; ♥; ♦; VELO; МП ФВ MNT; СОЖ; IMS
	FE-3 GARAN	SALIVA; POST SLEEP; DPC; PW; OGS SMPL; MPLM XFER; ARED; MEAL; ЕДВ SMPL; CEVIS; MPLM XFER
	FE-4 VOLKOV	POST SLEEP; PW; DPC; SKIRT; Δ; ♣; CMS-TVIS-REPLACE; ⊕; ♠; MEAL; ϕ; •; VELO; VIDCHK; EXERCISE; TVIS
	FE-5 FURUKAWA	SALIVA; POST SLEEP; DPC; PW; VCAN2; ∇; GHF; GHF; GHF; GHF; GHF; MEAL; MPLM XFER; ARED; CEVIS
	FE-6 FOSSUM	SALIVA; POST SLEEP; DPC; PW; ARED; MPLM XFER; ◊; MPLM XFER; RS EVA; MEAL; ЕДВ SMPL; MPLM XFER; T2

DAY/NIGHT

DAILY ORBIT: 16 | 1 | 2 | 3 | 4 | 5 | 6 | 7

TDRS AVAIL

ISS TLM: 122 — 113

ORBIT: 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126

NOTES
♣CMS-TVIS-RMV
®M1-CB-C-MNT
ΔCMS-TVIS-GYRO-T/S
∇PMM-VIDEO-TOUR
◊ICV-WATCH/HM2-DNLD
⊕CMS-TVIS-INSTL
♠CMS-TVIS-GYRO-T/S
♦M2-CB-ВД-R&R
♥M2-CB-ВД-MNT
ϕCMS-TVIS-SPEED-CHAR
•TVIS DNLK

FD09

GMT 07/16/11 (197) 16 17 18 19 20 21 22 23 07/17 01 02 03

MET Day 008 008/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-135		
	CDR FERGUSON	G2 SET; CNTRCT; MYCO RVW; PRE SLEEP; PMC A/G; PRE SLEEP; SLEEP; MYCO SMPL; POST SLEEP
	PLT HURLEY	EXERCISE; MYCO RVW; PRE SLEEP; SLEEP; MYCO SMPL; POST SLEEP
	MS1 MAGNUS	TRANSFER; BRIEF PREP; TRANSFER; BRIEF; MDK; PRE SLEEP; SLEEP; POST SLEEP
	MS2 WALHEIM	*NLP; TEMP*; EXERCISE; PRE SLEEP; SLEEP; LOG; POST SLEEP

DAY/NIGHT

ORBIT 126 127 128 129 130 131 132 133 134

TDRS W E Z

ORB ATT BIAS -XLV -ZVV

ISS TDRS AVAIL

Notes

*NLP ACTIVATION
*CHANGE

5

REPLANNED

FD09

GMT 07/16/11 (197) 16 17 18 19 20 21 22 23 07/17 01 02 03

MET Day 008 008/00 01 02 03 04 05 06 07 08 09 10 11 12

ISS	ISS CDR BORISENKO	PW			DPC	PRE SLEEP-ISS							SLEEP										POST SLEEP	
	FE-1 SAMOKUTYAEV	PW			DPC	PRE SLEEP-ISS			PIREN	CHRGINI			SLEEP										POST SLEEP	
	FE-3 GARAN		MYCO	RTNVCA	PW	DPC	PRE SLEEP-ISS						SLEEP								DRY	MYCO CLCT		MYCO INS
	FE-4 VOLKOV	EXERCISE TVIS			CAMTRDN	DPC	PRE SLEEP-ISS						SLEEP										POST SLEEP	
	FE-5 FURUKAWA	CEVIS	MYCO	♣	PW	DPC	PRE SLEEP-ISS						SLEEP								DRY	MYCO CLCT	DRY	⊕
	FE-6 FOSSUM	MYCO PREP	MYCO		PW	DPC	PRE SLEEP-ISS						SLEEP								DRY	MYCO CLCT	DRY	♦

DAY/NIGHT

DAILY ORBIT: 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15

TDRS AVAIL

ISS TLM: 113 — 122

ORBIT: 126 | 127 | 128 | 129 | 130 | 131 | 132 | 133 | 134

NOTES

♣CMS-T2 SNBBR-INSPECT

⊕POST SLEE

♦POST SLEE

6

STS-135/ULF7 FD09

GMT Date 07/16 (197) | W | TDRS E | Z | D/N | ORB | MET Day 007 | STS ATI

CDR Ferguson | PLT Hurley | NOTES

12:00 — POST-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)

04:00

FD09 EZ ACTIVITIES:
- √MDDK DUCT SCREEN
- TEPC STATUS CHECK
  - Verify display is backlit
- HARD REBOOT STS-3(KFX)

13:00

05:00

BIAS -XLV -ZVV

14:00

06:00

IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)

15:00

CREW CHOICE PAO RECORDING Ref. MSG 068

CREW CHOICE PAO RECORDING Ref. MSG 068

07:00

ARS DOOR IFM Ref. MSG 074

ARS DOOR IFM Ref. MSG 074

16:00

119 120 121

7

STS-135/ULF7 FD09

GMT Date 07/16 (197) | W | TDRSE | Z | D/N | ORB | MET Day 007 | STS ATI

MS1 Magnus | MS2 Walheim | NOTES

12:00 — POST-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)

SLEEP LOGBOOK (SDBI 1634)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYSTEMS)

04:00

119

13:00

05:00

BIAS-XLV-ZVV

14:00

120

06:00

DAILY TRANSFER LIST UPDATE
Ref. Transfer Lists & MSG 071

CGBA UNIT #1,2 STATUS CHECK (CC), STL STATUS CHECK (CC)

15:00

CREW CHOICE PAO RECORDING
Ref. MSG 068

CREW CHOICE PAO RECORDING
Ref. MSG 068

07:00

121

TRANSFER OPS
Ref. MPLM Transfer Lists and MSG 071
For PMM Operations Ref. MSG 075

TRANSFER OPS
Ref. MPLM Transfer Lists and MSG 071
For PMM Operations Ref. MSG 075

16:00

8

STS-135/ULF7 FD09

GMT Date 07/16 (197) | W | T D R S E | Z | D/N | O R B | MET Day 007 | STS ATI

CDR Ferguson | PLT Hurley | NOTES

16:00

ARS DOOR IFM
Ref. MSG 074

ARS DOOR IFM
Ref. MSG 074

08:00

17:00

G2 SET EXPANSION (ORB OPS, DPS)
Dual G2, Target GPCs 1&4. Modify Target set only.
NBAT to remain 1111. Remain DAP FREE

09:00

BIAS-XLV-ZVV

TRANSFER OPS
Ref. MPLM Transfer Lists and MSG 071
For PMM Operations Ref. MSG 075

TRANSFER OPS
Ref. MPLM Transfer Lists and MSG 071
For PMM Operations Ref. MSG 075

18:00

10:00

A N2 REPRESS USING PAYLOAD N2 VALVES
(ORB OPS, ECLS)Steps 3-7, working parenthetical () steps. In step 1, H/W FDA already INH. MCC will TMBU S/W FDA.

EXERCISE

19:00

N2 REPRESS INIT A

SHUTTLE/ISS H2O CONTAINER FILL (HC)
(ORB OPS, ECLS)
Perform CWC FILL #12, Ref. MSG 031

11:00

MEAL

MEAL

<MILA, 19:53

20:00

STS-135/ULF7 FD09

GMT Date 07/16 (197) | W | TDRSE | Z | D/N | ORB | MET Day 007 | STS ATI

MS1 Magnus | MS2 Walheim | NOTES

16:00
17:00
18:00
19:00
20:00

08:00
09:00
10:00
11:00

121
122
123

BIAS-XLV-ZVV

TRANSFER OPS
Ref. MPLM Transfer Lists and MSG 071
For PMM Operations Ref. MSG 075

TRANSFER OPS
Ref. MPLM Transfer Lists and MSG 071
For PMM Operations Ref. MSG 075

RS EVA 29 TOOL GATHER
Ref. MSG 069, Item 2
Ref. MSG 073
In step 4, Ref. MSG 072

MED OPS: 2.6.300 MICROBIAL AIR SAMPLER KIT - SAMPLE COLLECTION
In step 28, check MCC-H for stowage location.

MEAL

MEAL

STS-135/ULF7 FD09

GMT Date 07/16 (197) | W | TDRS E | Z | D/N | ORB | MET Day 007 | STS ATI

CDR Ferguson | PLT Hurley | NOTES

20:00 — MEAL (CDR) / MEAL (PLT)

12:00 — 124

SHUTTLE/ISS H2O CONTAINER FILL (HC)
(ORB OPS, ECLS)
Perform FILL TERMINATION, Ref. MSG 031

SHUTTLE/ISS H2O CONTAINER FILL (HC)(ORB OPS, ECLS)
Perform CWC FILL #13, Ref. MSG 031

21:00

FILTER CLEANING
(IFM, SCHEDULED MAINTENANCE)
Inspect filters and clean as necessary

B N2 REPRESS USING PAYLOAD N2 VALVES
(ORB OPS, ECLS) Steps 8-12, working parenthetical () steps. MCC will TMBU S/W FDA.

13:00 — BIAS-XLV-ZVV

N2 REPRESS TERM (On MCC GO) B

22:00 — 125

SHUTTLE/ISS H2O CONTAINER FILL (HC)
(ORB OPS, ECLS)
Perform FILL TERMINATION, MSG 031

TRANSFER OPS
Ref. MPLM Transfer Lists and MSG 071
For PMM Operations Ref. MSG 075

CWC TRANSFER
Transfer 2 CWCs to ISS

14:00

TRANSFER OPS
Ref. MPLM Transfer Lists and MSG 071
For PMM Operations Ref. MSG 075

23:00 — <DFRS, 23:01

15:00 — 126

EXERCISE

00:00

STS-135/ULF7 FD09

GMT Date 07/16 (197) | W | TDRS E | Z | D/N | ORB | MET Day 007 | STS ATI

MS1 Magnus | MS2 Walheim | NOTES

20:00

MEAL

C JEMRMS USB MEMORY VIRUS CHECK
Connect USB Memory to SSC 15.
Then perform: POC:2.2.304 PERFORMING A SYMANTEC ANTIVIRUS SCAN

MEAL

JEMRMS USB MEMORY VIRUS CHECK C

12:00

JAXA SODF: 5.401 JEMRMS PERIPHERALS CONFIGURATION
Fig.1 & 3 Don Static Wrist Tthr. Cnnct Enhanced A31p 16V DC Pwr Cbl & ck other cbls per Fig.3. For UOP connctn,use UOP RMS J4.

124

On SSIPC Go, JAXA SODF: ROBO: 2.401 JEMRMS BUS MONITOR OPS
Perform steps 1-2 D

JAXA SODF: ECLSS: 2.001 JPM AND JLP
FIRE INDICATOR CHECKOUT - SLT

21:00

JAXA SODF: ROBO: 2.401 JEMRMS BUS MONITOR OPS
Perform Steps 3 to end. For step 4,data files as "20110716hhmmss-xxx.CAB" should be copied to SSC15 C:\JEMRMSdata. For step 5.2, deactivate UOP RMS.

TRANSFER OPS
Ref. MPLM Transfer Lists and MSG 071
For PMM Operations Ref. MSG 075

13:00

D For step 1.1, activate UOP RMS.
For step 1.2, adjust GMT on the second time scale.

BIAS-XLV-ZVV

TRANSFER OPS
Ref. MPLM Transfer Lists and MSG 071
For PMM Operations Ref. MSG 075

22:00

125

On MCC-H Go:
IFM: 1.2.406 MPLM GLA SCAVENGE
Steps 1-3, for MPL2PA1, MPL2PF1, MPL2PA4, MPL2PF4
Ref. MPLM Transfer List Item 103

14:00

CREW CHOICE DOWNLINK
ISS KU AVAIL: 13:52 - 14:22

23:00

EXERCISE

15:00

126

NLP ACTIVATION (ASSY OPS, PAYLOADS)
Activate Vaccine GAPs A-L in MF71E
Ref. MSG 069, Item 4

AEM UNIT #1,2,3 CHECK (Cue Card)

00:00

12

STS-135/ULF7 FD09

GMT Date 07/16 (197) | W | T D R S E | Z | D/N | O R B | MET Day 008 | STS ATI

CDR Ferguson | PLT Hurley | NOTES

00:00

G2 SET CONTRACTION (ORB OPS, DPS)
Single G2 with GPC 1, Freeze Dry GPC 4
Remain DAP FREE

EXERCISE

MYCO BODY SAMPLE COLLECTION(ASSY OPS, PAYLOADS)
Review Only; MYCO Kits located in MA9F.

MYCO BODY SAMPLE COLLECTION(ASSY OPS, PAYLOADS)
Review Only; MYCO Kits located in MA9F.

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYSTEMS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYSTEMS)

16:00

01:00

17:00

CHECK ISS AIRLOCK ATU CONFIG
L9 PAYLOAD STATION A/G (two) - OFF
PRIVATE MEDICAL CONFERENCE VIA A/G 2

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYSTEMS)

BIAS-XLV-ZVV

02:00

18:00

03:00

CREW WAKE @ 08/11:30

19:00

SLEEP

SLEEP

04:00

STS-135/ULF7 FD09

GMT Date 07/16 (197) | W | TDRS E | Z | D/N | ORB | MET Day 008 | STS ATI

MS1 Magnus | MS2 Walheim | NOTES

00:00
NLP ACTIVATION (ASSY OPS, PAYLOADS)
Activate Vaccine GAPs A-L in MF71E Ref. MSG 069, Item 4
CGBA ADJUST SET TEMP (ASSY OPS, PAYLOADS)
Set temperature to 37C (MF71E)
TRANSFER BRIEF PREP
126

16:00
TRANSFER BRIEF
Call down status to MCC
EXERCISE
CGBA UNIT #1 STATUS CHECK (CC) (MA16D), STL STATUS CHECK (CC)
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYSTEMS)

01:00
127
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYSTEMS)

17:00
BIAS-XLV-ZVV

02:00

18:00
128

03:00
CREW WAKE @ 08/11:30

19:00
129
SLEEP
SLEEP

04:00

Good Morning, Atlantis!

Since you are enjoying the mission so much, the EECOM and EGIL teams were ~~throwing darts~~ calculating some consumables numbers to gain additional margin if you'd like some extra time on orbit. Right now we do not have MMT approval to execute these excellent ideas but we wanted to let you know that your EECOM and EGIL Teams are looking ahead!*

Here are some of the ideas we were thinking about. We could turn off all the lights (flashlights work fine so don’t panic) , PGSCs, IMUs, MDMs, and the GPCs as well (they do that on their own anyway). We could turn off the APU and OMS engine heaters since they won’t be used until later in the flight. We can always do BBQ rolls to warm those things up. If you took turns holding your breath that would further reduce metabolic O2 usage and CO2 generation. This may come in handy if we can’t get the ARS servicing door fixed to install LiOH (no pressure though). We also thought we could put Rex in an EVA suit to further reduce Orbiter consumables consumption (just remember to check for the “R” and “L” on the boots). Finally we have set up a rotation plan to minimize use of the WCS fan sep. CDR and PLT would get 2 uses on EVEN days, while MS1 and MS2 would be allotted 1 use on ODD days. Due to a lack of CWCs for water offload during any additional days, Fergie we may need you to drink 7 Gallons of water on FD10. We hope that isn’t an issue for you. We would make sure this activity fell on your WCS usage day.

In order to fill the extra time on orbit, we will plan on adding the following timeline activities: a CWC water balloon fight, LiOH dust angel competition, circuit breaker Whac-A-Mole, and H/W C/W memory reset race.

- Your EECOM and EGIL TEAMS

*results not guaranteed, not valid in TX, FL, or outside the solar system.

YOUR CURRENT ORBIT IS: 213 X 206 NM

NOTAMS (TWO CHANGES - EXTENDED BEJ AND ADDED YHZ).

EDW -	EDW 22L/04R IN USE. EDT 22R/04L EMERGENCY DAY USE ONLY
EDW -	LAKEBED RWYS GREEN
EDW	RWY 22L MLS AZIMUTH SINGLE STRING
NOR -	LAKEBED RWYS GREEN
NTU -	RWY 05L/23R AND 14R/32L CLSD
MRN -	RWY 20 ALS OUT OF SERVICE
FMI -	TACAN NIM53 DECOMMISSIONED
BEJ -	CLOSED UNTIL **18 JULY**
ESN -	RWY 03R/21L CLSD
ESN -	TACAN BAG78 OUT OF SERVICE
GUA -	TACAN UNZ105 OUT OF SERVICE
FFA -	NOT USABLE. IN CARETAKER STATUS
YHZ	**TACAN UAW38 OUT OF SERVICE**
YQX -	TACAN YQX74 DME ONLY
YYR -	TACAN UYR40 DME ONLY
YYT -	TACAN UYT23 DME ONLY
YJT -	TACAN YJT78 DME ONLY
BEN -	NOT USABLE. NOT SUPPORTED
IKF -	NOT USABLE. NO AGREEMENT

<u>NEXT 2 PLS OPPORTUNITIES:</u>

EDW22 ORB 125 – 7/22:13 SKC 7 220/06P10
NOR05 ORB 140 – 8/21:17 FEW060 7 VRB06

<u>OMS TANK FAIL CAPABILITY:</u>

NO

<u>LEAKING OMS PRPLT BURN:</u>

ALWAYS BURN RETROGRADE

<u>OMS QUANTITIES(%):</u>

L OMS OX = 37.90 R OMS OX = 37.74
FU = 37.97 FU = 37.32

DELTA V AVAILABLE:	
OMS	370 FPS
ARCS (TOTAL ABOVE QTY1)	34 FPS
TOTAL IN THE AFT	404 FPS
ARCS (TOTAL ABOVE QTY2)	64 FPS
FRCS (ABOVE QTY 1)	35 FPS
AFT QTY 1	84 %
AFT QTY 2	46 %

THERE ARE NO FAILURE/IMPACT/WORK AROUNDS FOR TODAY.

Good morning, Sandy!

The MPLM is looking great! Considering we have a small surplus of MPLM transfer time for the remainder of the mission, the ISS crew has been informed to use their scheduled MPLM transfer at their discretion to work on PMM cleanup activities. However, we are protecting enough time to accommodate the additional items we are expecting to be added to the MPLM return plan tomorrow.

Transfer Status:

- Middeck: 73% complete
- MPLM: 82% complete
- TOTAL: 78% complete

The Transfer List Excel file, FD09_Transfer_List_STS135.xls, locations are:

- Shuttle: **C:\OCA-up\transfer** (KFX machine)
- Station: **K:\OCA-up\transfer**

<u>Transfer Notes</u>

- **CsPIN Return:** Due to some issues with CsPIN activities on FD07, we will be returning an ambient sample in the middeck. This sample should be stowed with other samples in MF14E. Your transfer list has been updated to reflect this.

- **3/16 Hex Head, 3/8" Drive:** Please stow this tool for return in the EMU Servicing Kit in Volume H.

- **Pivot Pins:** We'd like you to leave the pivot pin brackets installed today, since there are still decisions being made about returning additional hardware that may need to be stowed on the RSP back sides.

- **Return Bag 445:** It has been identified that the VIS Controller currently stowed in MPLM Return Bag 445 (1.0 CTB) at P4_B1 needs to be retrieved early upon landing. Therefore we need you to retrieve the entire CTB out of the MPLM and stow it in Bag A in the middeck for return.

- **G1 Camcorder Return (Middeck Return Item 801):** We've spoken with P/TV, and they would like you to return any one G1 Camcorder with a part number ending in "-801". Your transfer list has been updated to reflect this.

<u>FD09 Choreography</u>

- **MPLM Resupply Item 103:** Scavenge Bay 1 and 4 GLAs
- **MPLM Return Item 757:** Uninstall and transfer ORCA to MPLM; relocate PBA bottles
- Continue packing MPLM for return

Please incorporate uplink pages as follows (we've listed the updates in the order they printed out for you):

MIDDECK TRANSFER LIST BOOK

In the Middeck Transfer List **RESUPPLY** tab
Replace the following pages:
Resupply 6
Resupply 9

In the Middeck Transfer List **RETURN** tab
Replace the following pages:
Return 4
Return 11

MPLM RETURN TRANSFER LIST BOOK

In the MPLM Return Transfer List **RETURN** tab
Pen & Ink on the following pages:
Return 21 - Item 600: item deleted - strikethrough entire line
Return 26 - Item 648: item moved to Middeck - strikethrough entire line
Return 29 - Item 763: item deleted - strikethrough entire line

Replace the following pages:
Return 23
Return 38
Return 39

<u>FD10 Choreography</u>

- Swap Glaciers between middeck and ISS
- Uninstall pivot pin brackets and stow in MPLM for return (one set will remain on ISS).
- Scavenge MPLM Bay 2 and 3 GLAs
- Prepare MPLM racks for entry
- Move MPLM Tool Page back to ISS
- Transfer CDR and PLT Myco samples to ISS to pack for return

Have a great day!

- STS-135 Transfer Team

28-0584 (MSG 072) REBA PULL TAB EXTENSION
Page 1 of 2 pages

OBJECTIVE:
Create an on-orbit extension of the REBA Pull Tab for use on the ORLAN.

DURATION:
15 minutes

MATERIALS:
- ☐ REBA battery
- ☐ Kapton tape 1”
- ☐ Tape Measure
- ☐ Scissors
- ☐ Sharpie

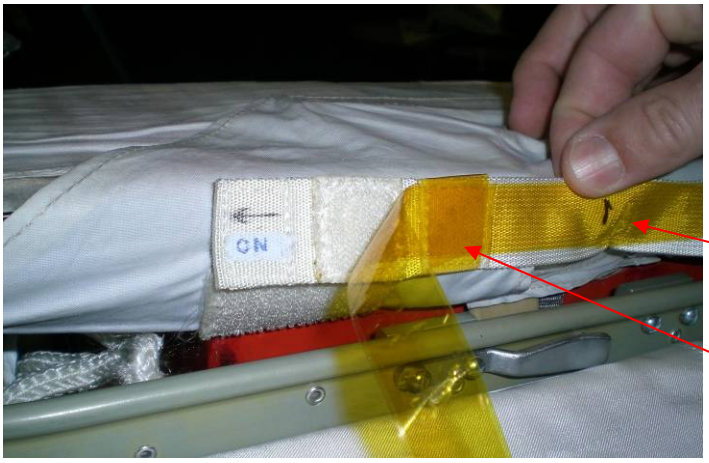
1. Measure a ~64 inch strip of Kapton tape and fold it over itself, sticky sides together, to create a ~32 inch Kapton REBA Pull Tab Extension.

2. Use the Sharpie to mark the center on the Kapton REBA Pull Tab Extension.

3. ATTACH THE KAPTON REBA PULL TAB EXTENSION TO THE REBA PULL TAB

   3.1 Align the center mark of KAPTON REBA Pull Tab Extension to the REBA ON/OFF switch.

   3.2 Hold the KAPTON REBA Pull Tab Extension in place on the original REBA Pull Tab by wrapping 3 inches of Kapton tape around both. Tape before the Velcro on each side of the pull tab. Refer to Figure 1.



Center Mark

3 inch wrap of Kapton Tape location

Figure 1.- Holding REBA Pull Tab Extension in place

3.3 Starting from the REBA ON/OFF switch and working towards one end, wrap Kapton tape around both the REBA Pull Tab and the Kapton REBA Pull Tab Extension. Stop wrapping when you get to the end of the REBA Pull Tab.
Refer to Figures 2, 3.

Figure 2. Attaching the REBA Pull Tab Extension to the REBA Pull Tab

3.4 Repeat for the other side of Pull Tab.

Figure 3. REBA Pull Tab Extension complete

4. Use the Sharpie to label the ON/OFF ends. Allow to dry ~30 seconds before handling.

5. Restow all materials

OVERVIEW: This message gathers all of the US EVA hardware required to support RS EVA 29. In addition 3 items are being returned to the Russians time permitting.

PROCEDURE:

1. **RETRIEVE** an empty mesh bag and **LABEL** it: **"RS EVA 29 US Hardware"**
2. **INSPECT** all RETs for fraying or damage
3. **COMPLETE** Tables A - C.
4. **EXECUTE** Uplinked Procedures: US SODF: EVA Systems: 28-0584 (MSG 072) REBA PULL TAB EXTENSION for REBA S/N 1007 & 1009
5. **REPORT** to MCC-H when activity is complete, the requested S/N information, and any deltas.
6. **LEAVE** in US Airlock. **TRANSFER** of mesh bag to Russian Segment will occur in later activity

For help identifying the correct S/N's, reference 2.220.100 EVA Tool Serial Number Reference (SODF: EVA TASK).

Table A: Gather the EVA Systems Hardware

Item #	☑	Location	Item	QTY	P/N	S/N	B/C	Final Location	Notes
1		**A/L1 Deployed A/L1F1 & A/L1A1 Installed on EMUs**	EHIP Light	2	SEG39130226-306	1008 1007	-	**A/L Deployed** Mesh Bag: RS EVA 29 US Hardware	
2			EMU RF Camera Assembly	2	SED33111710-307	18 20	-		
3		**A/L1O1** M-02 Bag, S/N 1038, B/C 003019J	REBA	2	SEG33112213-302	1007 1009	-		S/N 1009 will be charged in a later activity.
4		**A/L1O1** M-02 Bag, S/N 1038, B/C 003019J, (Orange mesh Bag)	EHIP Battery Pack	4	SEG39130223-304	1029 1030 1031 1035	-		
5		**NOD1O4_B1** Office Supply Pantry	Kapton Tape 1"	1	-	-	-	**Return to original location**	For use during 28-0584 (MSG 072) REBA PULL TAB EXTENSION procedure
6		**Crew Preference**	Scissors Tape Measure Sharpie		-	-	-		

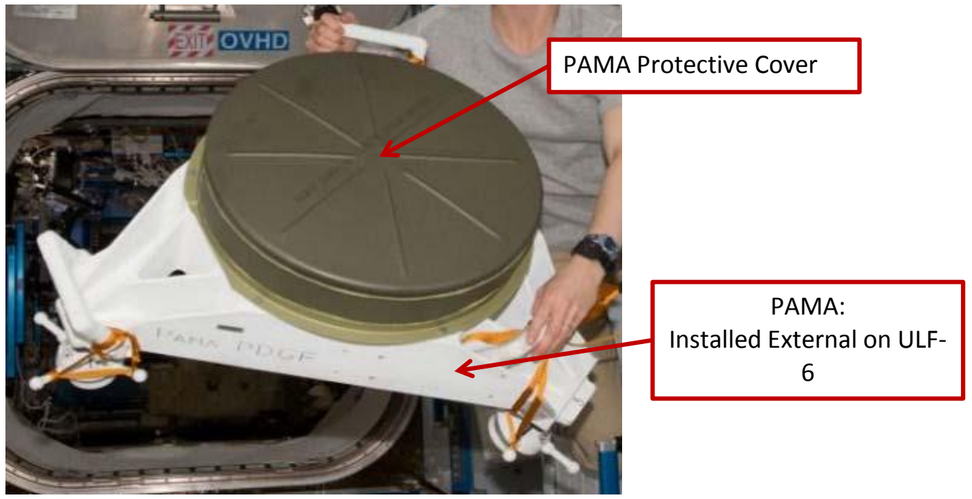
Table B: Gather the EVA Tools

Item #	☑	Location	Item	QTY	P/N	S/N	B/C	Final Location	Notes
7		**A/L1O0** 0.5 CTB: ORLAN Tools, S/N 1387, B/C CTB00293J	ORLAN TETHER ADAPTER	2	SEG33112326-301	1006 1007	-	**A/L Deployed** Mesh Bag: RS EVA 29 US Hardware	
8			Swing Arm Assy, LH	2	SEG33110491-308	1012 1013	-		
9			TOOL CADDY ASSEMBLY [AKA Bungee Caddy]	2	SEG33106936-303	1003 1004	-		
10		**A/L Deployed** EV1 MWS	Small EVA Trash Bag	1	SEG33106678-301	1005	-		**VERIFY** empty and zipped
11		**A/L Deployed**	Lg-Eq RET [Lg-Sm]	2	SEG33106164-385	-	-		**USE GREEN** RETs, **REPORT** S/N of RETs to **MCC-H**
12			Eq Hk RET [Sm-Sm]	10	SEG33106164-381	-	-		**USE GREEN** RETs, **REPORT** S/N of RETs to **MCC-H**
13			General Purpose Cutter [AKA Large Cutter]	1	SEG33106915-303	1008	-		

Table C: Gather Russian Hardware for Return to RSOS

Item #	☑	Location	Item	QTY	P/N	S/N	B/C	Final Location	Notes
14		**A/L 1D0** Behind Closeout	PAMA Protective Cover	1	-	-	-	**A/L Deployed** Mesh Bag: RS EVA 29 US Hardware	These items are being retrieved for return to the Russian Segment. **LOCATE** time permitting. **REPORT** to MCC-H if additional Russian items were used for the ULF-7 EVA Reviews and gather those items as well
15		**A/L Deployed**	Russian Electrical Connector Trainer	1	-	-	-		
16			**Mesh Bag:** Russian Tools	1	-	-	-		This is the Mesh Bag Mike called about earlier containing Russian Tools used on ULF-6

Reference Images



EHS-MAS-SAMPLE (MS1) - 197/09:09

#	Location	Item Name	P/N	S/N	B/C	Notes
Type: Standard						
1	**LAB1D4_G2** ISS Microbial Air Sampler Kit, S/N 1004, B/C 00079867J	Microbial Air Sampler	SEG46115814-301	1002	00011931J	
2		Biocide Wipes	D35100			
3		Petri Dish Packet [QTY: 6]	WLSK270385-301			
4	**LAB1D4_G2**	Incubation Bag	WLSK270378-301			
5	**Ziplock Pantry**	Large Ziplock [QTY: 2]				To act as the Petri Dish Stowage Bags (one for red dot, one for white dot)
Type: Restow						
6	**Temp stow for possible Return on ULF7**	Incubation Bag	WLSK270378-301			Contact MCC-H for stowage location.

JRMS-BUS MON-DEACT (MS1,S-BD) - 197/12:39

#	Location	Item Name	P/N	S/N	B/C	Notes
Type: Standard						
1	**Connected on SSC15** JPM1_Deployed	JEM USB Memory Stick	JMX-2009451-1	01	130194N	Virus checked USB
Type: Restow						
2	**JPM1O5_B1**	EDS Bubble Wrap Ziplock "JEM USB Memory Stick"				
3		JEM USB Memory Stick	JMX-2009451-1	01	130194N	

JRMS-CABLE-CK (MS1) - 197/11:59

#	Location	Item Name	P/N	S/N	B/C	Notes
Type: Standard						
1	**LAB1_Deployed** Ziplock Bag	Static Wrist Tether				
2	**NOD1S4_C1** 0.5 CTB: A31p Spare H/W #2: S/N 1260	Enhanced A31p 16V DC Power Cable	SEG33116459-301	1204	POC10558J	

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JRMS-USB-CK (MS1) - 197/11:54

#	Location	Item Name	P/N	S/N	B/C	Notes
Type: Standard						
1	**JPM1O5_B1**	EDS Bubble Wrap Ziplock "JEM USB Memory Stick"				Keep for Restow
2		JEM USB Memory Stick	JMX-2009451-1	01	130194N	

MPLM-GLA-SCAVNGE-PT1 (MS2) - 197/13:54

#	Location	Item Name	P/N	S/N	B/C	Notes
Type: Standard						
1	**NOD1D4_G2** Drawer 2	1/8" Hex Head, 1/4" Drive	SKG33117562-740			
2		Driver Handle, 1/4" Drive	SKG33117562-941			
3	**MPLM Tool Page**	Static Wrist Tether	SKG33117562-335			
Type: Restow						
4	**Ref ULF7 Return Transfer List Item #103**	Lamp Housing Assembly [QTY: 4]	219010			LHA and BBA will remain assembled. Qty 4 each. Transfer Item #103
5		Baseplate Ballast Assembly [QTY: 4]	219011			

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