STS-120 / 10A

FD 09 Execute Package

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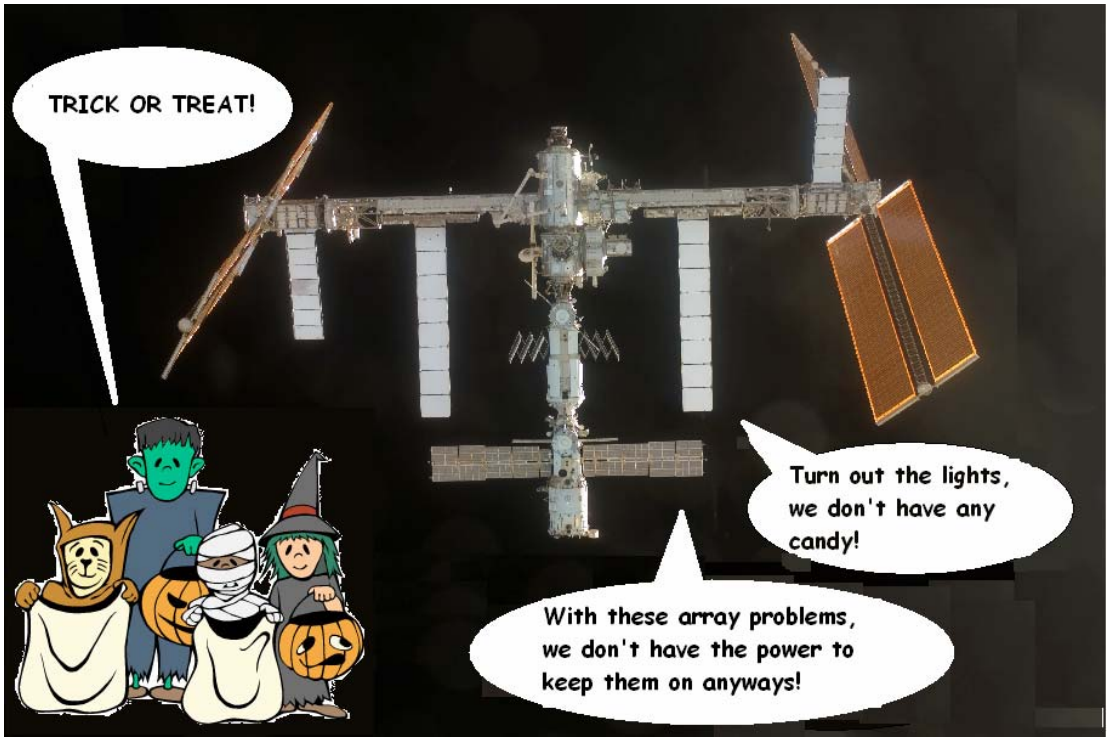
080	1-15	FD09 Flight Plan Revision **(pdf)**
081	---	FD09 EVA Deltas **(Not Distributed)**
082	16 – 17	FD09 Mission Summary **(pdf)**
083	18 – 20	FD09 Transfer Message **(pdf)**
084	---	FD09 HAM Pass with Liceo Scientifico G.Galilei **(pdf – Electronic Only)**
085	---	Event Summary Message – Discovery/Alpha Joint Crew News Conference **(pdf – Electronic Only)**
086	---	Event Summary Message – ESA-ASI VIP Call **(pdf – Electronic Only)**
087	---	10A EVA Tool Buildup **(Not Distributed)**
089	---	10A EVA 4 Detailed Timeline **(Not Distributed)**
090	---	10A EVA 4 SARJ Briefing Package **(Not Distributed)**
091	21	FD08 MMT Summary **(pdf)**
092	---	Photo Technique for SARJ EVA 4 **(Not Distributed)**
094	---	EMU Glove Recommendation for Parazynski **(Not Distributed)**

Approved by FAO: *Roger Smith*

Last Updated: Oct 31 2007 3:57AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*



MSG INDEX

MSG NO.	TITLE
080	FD09 Flight Plan Revision
081	FD9 EVA Deltas (16-0123)
082	FD09 Mission Summary (16-0125)
083	FD09 Transfer Message (16-0126)
084	FD09 HAM Pass with Liceo Scientifico G.Galilei (16-0127)
085	Event Summary Message – Discovery/Alpha Joint Crew News Conference (16-0128)
086	Event Summary Message – ESA-ASI VIP Call
087	10A EVA Tool Buildup (16-0130)
089	10A EVA 4 Detailed Timeline (16-0132)
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091	FD08 MMT Summary (16-0135)
092	Photo Technique for SARJ EVA 4 (16-0139)
094	EMU Glove Recommendation for Parazynski (16-0136)

1. The table below summarizes the Shuttle and ISS exercise constraints for today. These constraints are also denoted in your timelines for your reference.

Activity	Exercise Constraints	
	Shuttle	ISS
STS to CMG TA Attitude Control Handover - Following Water Dump - Following Shuttle mnvr to ISS +XVV attitude	Limit Orbiter ergometer frequency to 65 RPM (1.13 HZ)	None

2. For today's activities, we will need to ensure the ISS arrays are in a proper configuration prior to opening either the Supply or Waste Dump Valves as you did during the FD6 waste dump. We have added a note in the Flight Plan details to make sure MCC-H is in the proper configuration prior to performing these steps.

3. In preparation for the upcoming PWR and CWC water dump activities you'll need to pregather the following equipment prior to the dumps:

    a. PWRs: S/N 1025, 1026, and 2002 from the ISS (Reference MSG 29 for locations. PWR S/N 2002 should be back in its launch location)
    b. CWC: Condensate CWC S/N 5104
    c. Contingency Hose and Cable Kit (CHCK) in the window shade bag: B-B hose, R-Y QD Adapter, Y-Y hose (shorter one)
    d. Break out box locker (MF28E): Waste Water Dump (WWD) Filter

4. WASTE WATER DUMP
   Perform a waste water only dump using SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) p. 5-2. MCC will TMBU limits in steps B and K. Dump the waste tank to 5%. Nozzle open time will be ~20 minutes.

   Dump the waste tank and the PWR's simultaneously.

5. PWR DUMPS
   Dump PWR S/Ns 1025, 1026, and 2002 down the supply dumpline using PWR DUMP - SUPPLY LINE (ORB OPS, ECLS) p. 5-40. MCC will TMBU limits in steps 2 and 7.

   Dump the PWR's even if they appear empty. This will ensure any residual air is removed prior to refilling these.

   After these bags are dumped, temp stow them near the galley for future fills. Stow the B-B hose and the R-Y QD adapter in a ziplock bag. Stow the ziplock bag in the CHCK.

   The PWR dumps through the supply line must be complete prior to initiating the Condensate CWC dump. Simultaneous dumping of water containers through the waste and supply dump lines is prohibited.

   Additionally, PWR No. 5 (S/N 1027) will not be filled this flight. You can delete this PWR from MSG 029.

6. CWC DUMP
   Once the waste and PWR Dumps are complete, dump condensate CWC S/N 5104 using CWC OVERBOARD DUMP (ORB OPS, ECLS) p. 5-32. MCC will TMBU limits in steps B and H. Nozzle open time will be ~60 minutes. Temp stow the CWC in the middeck for use during the FD11 condensate changeout.

   Once the CWC dump is complete, stow the WWD in a separate ziplock bag in the BOB. Stow the Y-Y hose in a separate ziplock bag and stow in the CHCK.

7. You all have been really good about keeping the OSTs clean throughout the flight and your OCA team greatly appreciates the help. A few recent large e-mails that have been received have made your OSTs quite large. When you get a chance, it would help if you could do a quick clean up of your mail folders (Inbox, Sent Items, and Work Related).

8. The table below lists the EVA Camera Hardware that is needed on ISS to support the remaining ISS based EVA's. Please obtain the following hardware and place in the appropriate location.

Hardware	Serial Number	Obtain From	Place In
Action Viewfinder (EVA) SED33110611-327	2007187	Still Camera Bag in Locker A16	LAB1D3
EVA Camera Thermal Blanket SEZ33113449-301	1029	Still Camera Bag in Locker A16	LAB1D3
Lens Cap Assy, 28 mm, 35 mm, 50 mm SEZ33113449-303	1036 (Attached to EVA Camera Thermal Blanket S/N 1029)	Still Camera Bag in Locker A16	LAB1D3
Camera, DSC760 SEZ33113001-304	1012 or 1014 (report S/N) to ground	Shuttle	LAB1D3
Camera, DSC760 SEZ33113001-302	1013	ISS	Shuttle

9. In order to help the GNC team monitor IMU drift as well as to reset the attitude of all 3 IMUs to IMU #3, which is currently our best attitude source, please perform the steps below to recover IMU 1 early on FD 9 at your convenience. The addition of IMU 1 is particularly useful due to the fact that star data has been difficult to acquire with our current attitude and sun angle.

   1) SPEC 21
      Unmask IMU 1 BITE - ITEM 24 EXEC (no *)

      Note: may get IMU BITE/T 1 message when the BITE mask is removed. No action required if this occurs.

   2) Run GNC FRP-3 (MAL, <u>GNC</u>) p. 8-6, to recover IMU 1
      In Step 5, align <u>both</u> IMUs 1 and 2 to IMU 3
      In Step 6, do not reselect IMU 1

   Note: IMU 1 is being left deselected to prevent IMU switching which occurs at the 3-level and can effect mated active attitude control.

10. REPLACE PAGES 2-30, 2-32, AND 3-92 THROUGH 3-101.

10/30/07 23:01:22 **REPLANNED**

GMT 10/31/07 (304) β = −65 MET Day 007

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

FD09

STS-120	CDR MELROY	SLEEP; LOG; POST SLEEP; RPRS*; PAO^EVENT; EXERCISE; RPRS*; MEAL; CREW CONF; CRHEOWTO; HOATT*; MNVR DUMP; WISTE; WASTE; TERM; CWC DUMP; ♣H/O; IMU
STS-120	PLT ZAMKA	SLEEP; LOG; POST SLEEP; RMS; PWRDN; P/TV 05 S/U; CINCI#6; EXERCISE; CWCR#6; CWCXFER; P/TV 05 S/U; MEAL; CREW CONF; CRHEOWTO; *EQUUMIPP; PWR DUMP; PWR #2 FILL; FILTER INSPECT
STS-120	MS1 PARAZYNSKI	SLEEP; LOG; ASOGRN; POST SLEEP; EMU RESIZE; EVA TOOL CONFIG; EVA PROCEDURE REVIEW; MEAL; CREW CONF; CRHEOWTO; E/L PREP; EXERCISE; EVA PREP REVIEW; EVA CONFERENCE
STS-120	MS2 WILSON	SLEEP; LOG; POST SLEEP; RMS; PWRDN; EXERCISE; TRANSFER; MEAL; CREW CONF; CRHEOWTO; TRANSFER
STS-120	MS3 WHEELOCK	SLEEP; LOG; ASOGRN; POST SLEEP; EMU RESIZE; EVA TOOL CONFIG; EVA PROCEDURE REVIEW; MEAL; CREW CONF; CRHEOWTO; EXERCISE; METX*; EVA PREP REVIEW; EVA CONFERENCE
STS-120	MS4 NESPOLI	SLEEP; LOG; SLOGVA; CDM*; POST SLEEP; HAMRADIO; CDM BATT; PAO^EVENT; EVA TOOL CONFIG; EVA PROCEDURE REVIEW; MEAL; CREW CONF; CRHEOWTO; HPA EXP OPS; EXERCISE; EVA PREP REVIEW; EVA CONFERENCE
STS-120	FE-2 DN ANDERSON	SLEEP (8.5); POST SLEEP; DPC; PREP; WORK; S/U; HANDOVER; AMIA INSTALL; @ METX BATT; EXERCISE TVIS; MIDDAY-MEAL; CREW CONF; CRHEOWTO; E/L PREP; RED; JRNL; HAND OVER
EXP 16	ISS CDR WHITSON	SLEEP (8.5); POST SLEEP; DPC; PW; EXERCISE RED; EXERCISE TVIS; MWA S/U; HPA-EXP-S/U; TERM*; MIDDAY-MEAL; CREW CONF; CRHEOWTO; P/TV FLASH TRN; ND2 DDCU PP INST; HPA EXP STOW
EXP 16	FE-1 MALENCHENKO	SLEEP (8.5); POST SLEEP; DPC; PW; СГО-АСУ-Е-К-REPL; ИМП-1; MNT; ORIEN TATION; PAO TV; EXERCISE CEVIS; MIDDAY-MEAL; CREW CONF; CRHEOWTO; ORIENTON; ЕДВ PRIM1 MNT; СОЖ MNT; RED
UP	FE-2 UP TANI	SLEEP (8.5); POST SLEEP; DPC; PREP; WORK; S/U; HANDOVER; 4B PHOTO; @ METX BATT; EXERCISE RED; MIDDAY-MEAL; CREW CONF; CRHEOWTO; ND2 CCAA AVM RMV; A31P OCA T/S; TRNARND W/FLASH; HAND OVER

DAY/NIGHT

ORBIT: 119 | 120 | 121 | 122 | 123 | 124 | 125 | 126 | 127

TDRS: W -171, E -46, Z -275

ORB ATT: BIAS -XLV -ZVV | BIAS -XLV +YVV

SSRMS: PDGF3 WS8

NOTES: *DEACT; *N2 INIT; ^VIP; *N2 TERM; *BSA; *GATHER; *TERM; ♣MNVR TEA*; *ISS -XVV

@ Ref: Consumables Tracking CC
EV2 Use LiOH
Ref MSG 081

NO ORB ERGO > 65 RPM

10/30/07 23:01:22 **REPLANNED**

GMT 10/31/07 (304) β = −65 MET Day 008

16 17 18 19 20 21 22 23 11/01 01 02 03 008/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-120	FD09 CDR MELROY	EVA PROCEDURE REVIEW; PMC A/G; PRE SLEEP; H/O; MNVR; TEA*; PRE; SLEEP; H/O; PRE SLEEP; ISS EXTERNAL SURVEY; SLEEP
STS-120	PLT ZAMKA	EVA PROCEDURE REVIEW; ILUM; PRE SLEEP; CREW CHOICE D/L; PRE SLEEP; SLEEP
STS-120	MS1 PARAZYNSKI	PRE SLEEP; EVA PROCEDURE REVIEW; PRE SLEEP; MASK PB/TOOL CONFIG; PRE SLEEP; SLEEP (A/L)
STS-120	MS2 WILSON	XFER; BREF; EVA PROCEDURE REVIEW; PRE SLEEP; SLEEP
STS-120	MS3 WHEELOCK	PRE SLEEP; EVA PROCEDURE REVIEW; PRE SLEEP; MASK PB/TOOL CONFIG; PRE SLEEP; SLEEP (A/L)
STS-120	MS4 NESPOLI	PRE SLEEP; EVA PROCEDURE REVIEW; PRE SLEEP; MASK PB/TOOL CONFIG; PRE SLEEP; SLEEP
STS-120	FE-2 DN ANDERSON	HANDOVER; PREP; WORK; EVA PROC REVIEW; PREP; WORK; DPC; PMC; PRE SLEEP; SLEEP (8.5)
EXP 16	ISS CDR WHITSON	MSTAW; SOW; CHRG; EXER; EVA PROC REVIEW; PREP; WORK; DPC; PRE SLEEP; SLEEP (8.5)
EXP 16	FE-1 MALENCHENKO	RED; PREP; WORK; EVA PROC REVIEW; PW; P/S; DPC; PRE SLEEP; МБИ; SLEEP (8.5)
UP	FE-2 UP TANI	HANDOVER; EVA PROC REVIEW; PREP; WORK; DPC; PRE SLEEP; SLEEP (8.5)

DAY/NIGHT

ORBIT: 127 128 129 130 131 132 133 134 135

TDRS: W -171, E -46, Z -275

ORB ATT: BIAS -XLV -ZVV — BIAS -XLV +ZVV

SSRMS: PDGF3 WS8

NOTES: *ISS +XVV; NO ORB ERGO > 65 RPM

FLT PLN/120/FLIGHT

STS-120 FD09

REPLANNED

GMT Date 10/31 (304) | W | T D R S E | Z | O R B | MET Day 007 | STS ATI

CDR MELROY | PLT ZAMKA | MS1 PARAZYNSKI | Notes

12:00 — 13:00 — 14:00 — 15:00 — 16:00

04:00 — 05:00 — 06:00 — 07:00

119 — 120 — 121 — 122

BIAS-XLV-ZVV

SLEEP (CDR)

SLEEP (PLT)

SLEEP (MS1)

FLIGHT SLEEP LOG (ORB OPS, SDBI)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

FLIGHT SLEEP LOG (ORB OPS, SDBI)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

FLIGHT SLEEP LOG (ORB OPS, SDBI)
TAKE 1 ASPIRIN (325mg)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

FD09 EZ ACTIVITIES
OCAC Filter Inspect
Hard Reboot PGSCs (Except RPOP and RPOP 2)

EVA EMU RESIZE
Ref: MSG 081

STS-120 FD09

REPLANNED

GMT Date 10/31 (304) | W | T D R S E | Z | O R B | MET Day 007 | STS ATI

MS2 WILSON | MS3 WHEELOCK | MS4 NESPOLI | Notes

04:00 — 05:00 — 06:00 — 07:00

119 — 120 — 121 — 122

12:00 — 13:00 — 14:00 — 15:00 — 16:00

BIAS-XLV-ZVV

MS2 WILSON: SLEEP

MS3 WHEELOCK: SLEEP

MS4 NESPOLI: SLEEP

13:00:

- FLIGHT SLEEP LOG (ORB OPS, SDBI)
- POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

FLIGHT SLEEP LOG (ORB OPS, SDBI)
TAKE 1 ASPIRIN (325mg)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

FLIGHT SLEEP LOG (ORB OPS, SDBI)
LIQ SALIVA SAMPLE(ORB OPS, SDBI)
CDM DEACT (ORB OPS, CDM DTO)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

EVA EMU RESIZE
Ref: MSG 081

HAM RADIO CONTACT
Ref MSG 084
7:33-7:43 GMT

STS-120 FD09

REPLANNED

GMT Date 10/31 (304) | TDRS W E Z | ORB | MET Day 007 | STS ATT

CDR MELROY

- N2 REPRESS USING PAYLOAD N2 VLVS (ORB OPS, ECLS) Steps 1-6. MCC will TMBU SM FDA
- PUBLIC AFFAIRS EVENT STS ASSETS KU: 16:30-16:58, TDRW Ref: MSG 086
- EXERCISE
- N2 REPRESS USING PAYLOAD N2 VLVS (ORB OPS, ECLS) Steps 7-12 MCC will TMBU SM FDA
- MEAL

PLT ZAMKA

- A8L RMS SELECT -PORT RMS PWRDWN (PDRS, RMS PWRDN) Note: Do not stow MPM's
- P/TV05 ISS INTERNAL OPS (HC) (PHOTO/TV, SCENES) Perform SETUP
- SHUTTLE/ISS H2O CONTAINER FILL (ORB OPS,ECLS) Perform CWC FILL #6 Ref MSG 029 Fill duration ~ 50 min
- EXERCISE
- SHUTTLE/ISS H2O CONTAINER FILL (ORB OPS, ECLS) Perform FILL TERMINATION
- CWC TRANSFER Transfer CWC(s) to ISS
- P/TV05 ISS INTERNAL OPS (PHOTO/TV, SCENES) Perform Setup for PAO
- MEAL

MS1 PARAZYNSKI

- EVA EMU RESIZE Ref: MSG 081
- POST EVA 3/PRE EVA 4 TOOL CONFIG PRE EVA 4 TOOL CONFIG (EVA, TIMELINES) Ref: MSGs 081, 087 & 089
- EVA PROCEDURE REVIEW Ref: MSGs 081, 089 & 090
- MEAL

Notes

BIAS-XLV-ZVV

STS-120 FD09

REPLANNED

GMT Date 10/31 (304) | TDRS W E Z | ORB | MET Day 007 | STS ATI

MS2 WILSON

- 16:00 — RMS PWRDWN (PDRS, RMS PWRDN) Note: Do not stow MPM's
- EXERCISE
- 17:00 — TRANSFER Ref: MSG 083
- 18:00
- 19:00
- MEAL
- 20:00

MS3 WHEELOCK

- EVA EMU RESIZE Ref: MSG 081
- POST EVA 3/PRE EVA 4 TOOL CONFIG
- POST EVA 4 TOOL CONFIOG (EVA, TIMELINES) Ref: MSGs 081, 087 & 089
- EVA PROCEDURE REVIEW Ref: MSGs 081, 089 & 090
- MEAL

MS4 NESPOLI

- HAM RADIO CONTACT Ref MSG 084 7:33-7:43 GMT
- CDM SETUP AND BATTERY CHANGEOUT (ORB OPS, CDM DTO) Attach CDM in Location 5
- PUBLIC AFFAIRS EVENT STS ASSETS KU: 16:30-16:58, TDRW Ref: MSG 086
- POST EVA 3/PRE EVA 4 TOOL CONFIG
- PRE EVA 4 TOOL CONFIG (EVA, TIMELINES) Ref: MSGs 081, 087 & 089
- EVA PROCEDURE REVIEW Ref: MSGs 081, 089 & 090
- MEAL

Notes

BIAS-XLV-ZVV

STS-120 FD09

REPLANNED

GMT Date 10/31 (304) | W E Z | ORB | MET Day 007 | STS ATT

CDR MELROY

MEAL

CREW CONFERENCE
ISS ASSETS
KU: 20:06-20:50, TDRE
Ref: MSG 085

CREW PHOTO

I'CNCT TK SWITCH: FROM L TO R OMS FEED (OPCL, RCS)

JNT OPS: 3.110 H/O ATT CNTRL
CMG TA TO ORB

MNVR (TRK) BIAS -XLV +YVV (H2O DUMP)
TG=2 BV=5 P=157 Y=352 OM=191
A12/AUTO/VERN Init TRK

SUPPLY/WASTE WATER DUMP
(ORB OPS, ECLS)
MCC will TMBU limits
Prior to waste dump valve open,
verify with MCC-H that ISS arrays
are in proper config.
Ref: MSG 080, Item 4

SUPPLY/WASTE WATER DUMP
(ORB OPS, ECLS)
Terminate Waste Dump

CWC OVERBOARD DUMP
(ORB OPS, ECLS)
MCC will TMBU Limits
Prior to wast dump valve open,
verify with PLT that PWR dumps
are complete.
Ref: MSG 080, Item 6

MNVR (TRK) BIAS -XLV -ZVV (ISS -XVV TEA)
TG=2 BV=5 P=157 Y=352 OM=178
A12/AUTO/VERN Init TRK

JNT OPS: 3.111 H/O ATT CNTRL TO ISS:
On MCC GO, DAP: FREE

IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)

PLT ZAMKA

MEAL

CREW CONFERENCE

CREW PHOTO

GATHER DUMP EQUIPMENT
Ref: MSG 080, Item 3

PWR DUMP-SUPPLY LINE
(ORB OPS, ECLS)
Dump S/Ns 1025,1026 & 2002,
Ref: MSG 080, Item 5

PWR FILL
(ORB OPS, ECLS)
Perform WATER FILL #02
Ref: MSG 029

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

MS1 PARAZYNSKI

MEAL

CREW CONFERENCE

CREW PHOTO

EVA SYS: 1.305 EQUIPMENT
LOCK PREP
Steps: 3-19, 24-25, 29-34

Ref: CONSUMABLES TRACKING CC

EXERCISE

EVA PREP REVIEW
Ref: MSGs 081,089,090 & 092

EVA CONFERENCE
ISS NETMEETING ASSETS
KU: 7/23:20-8/00:07 TDRE

Notes

NO ORB ERGO
> 65 RPM

STS-120 FD09

REPLANNED

GMT Date 10/31 (304) | TDRS W E Z | ORB 124 125 126 127 | MET Day 007 | STS ATI

BIAS -XLV -ZVV

BIAS -XLV +YVV

MS2 WILSON	MS3 WHEELOCK	MS4 NESPOLI	Notes
MEAL	MEAL	MEAL	
CREW CONFERENCE ISS ASSETS KU 20:06 - 20:50, TDRE Ref: MSG 085	CREW CONFERENCE	CREW CONFERENCE	
CREW PHOTO	CREW PHOTO	CREW PHOTO	
TRANSFER Ref: MSG 083		US PODF: 2.001 HAND POSTURE ANALYZER EXPERIMENT Steps 6-8	
	EXERCISE		
	EVA SYS: 1.510 METOX REGENERATION Perform TERMINATE		
	EVA PREP REVIEW Ref: MSGs 081,089,090 & 092	EXERCISE	
		EVA PREP REVIEW Ref: MSGs 081,089,090 & 092	
	EVA CONFERENCE ISS NETMEETING ASSETS KU: 7/23:20-8/00:07 TDRE	EVA CONFERENCE ISS NETMEETING ASSETS KU: 7/23:20-8/00:07 TDRE	

NO ORB ERGO > 65 RPM

STS-120 FD09

REPLANNED

GMT Date 10/31 (304) | TDRS W E Z | ORB | MET Day 008 | STS ATT

CDR MELROY

- EVA PROCEDURE REVIEW
  Ref: MSGs 081, 089 & 090
- PRIVATE MEDICAL CONFERENCE
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
- JNT OPS: 3.110 H/O ATT CNTRL CMG TO ORB
  MNVR (TRK) BIAS -XLV +ZVV (ISS +XVV TEA)
  TG=2 BV=5 P=158 Y=352 OM=007
  A12/AUTO/VERN Init TRK
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
- JNT OPS: 3.111 H/O ATT CNTRL ORB TO ISS: On MCC Go, DAP: FREE
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)

PLT ZAMKA

- EVA PROCEDURE REVIEW
  Ref: MSGs 081, 089 & 090
- ILLUMINATOR OPS (CUE CARD)
  ILLUMINATORS ON - A↓D
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
- PLAYBACK (DIGITAL)
  (PHOTO/TV, CUE CARD)
  Crew Choice
  KU TDRW (02:14-02:45)
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
  √HUM SEPs for H2O Accumulation

MS1 PARAZYNSKI

- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
- EVA PROCEDURE REVIEW
  Ref: MSGs 081, 089 & 090
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
- EVA SYS: 2.305 10.2 PSIA CAMPOUT
  MASK PREBREATHE
  REF: PRE EVA 4 TOOL CONFIG
  CONSUMABLES TRACKING CC

Notes

- NO ORB ERGO > 65 RPM

STS-120 FD09

REPLANNED

GMT Date 10/31 (304) | W | TDRS E | Z | ORB | MET Day 008 | STS ATI

MS2 WILSON | MS3 WHEELOCK | MS4 NESPOLI | Notes

16:00 — 17:00 — 18:00 — 19:00

ORB: 127 — 128 — 129

STS ATI: BIAS-XLV-ZVV

00:00 — 01:00 — 02:00 — 03:00 — 04:00

MS2 WILSON

TRANSFER BRIEF:
CALL DOWN STATUS TO MCC

EVA PROCEDURE REVIEW
Ref: MSGs 081, 089 & 090

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MS3 WHEELOCK

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA PROCEDURE REVIEW
Ref: MSGs 081, 089 & 090

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA SYS: 2.305 10.2 PSIA CAMPOUT
MASK PREBREATHE

REF: PRE EVA 4 TOOL CONFIG
CONSUMABLES TRACKING CC

MS4 NESPOLI

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA PROCEDURE REVIEW
Ref: MSGs 081, 089 & 090

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA SYS: 2.305 10.2 PSIA CAMPOUT
MASK PREBREATHE

REF: PRE EVA 4 TOOL CONFIG
CONSUMABLES TRACKING CC

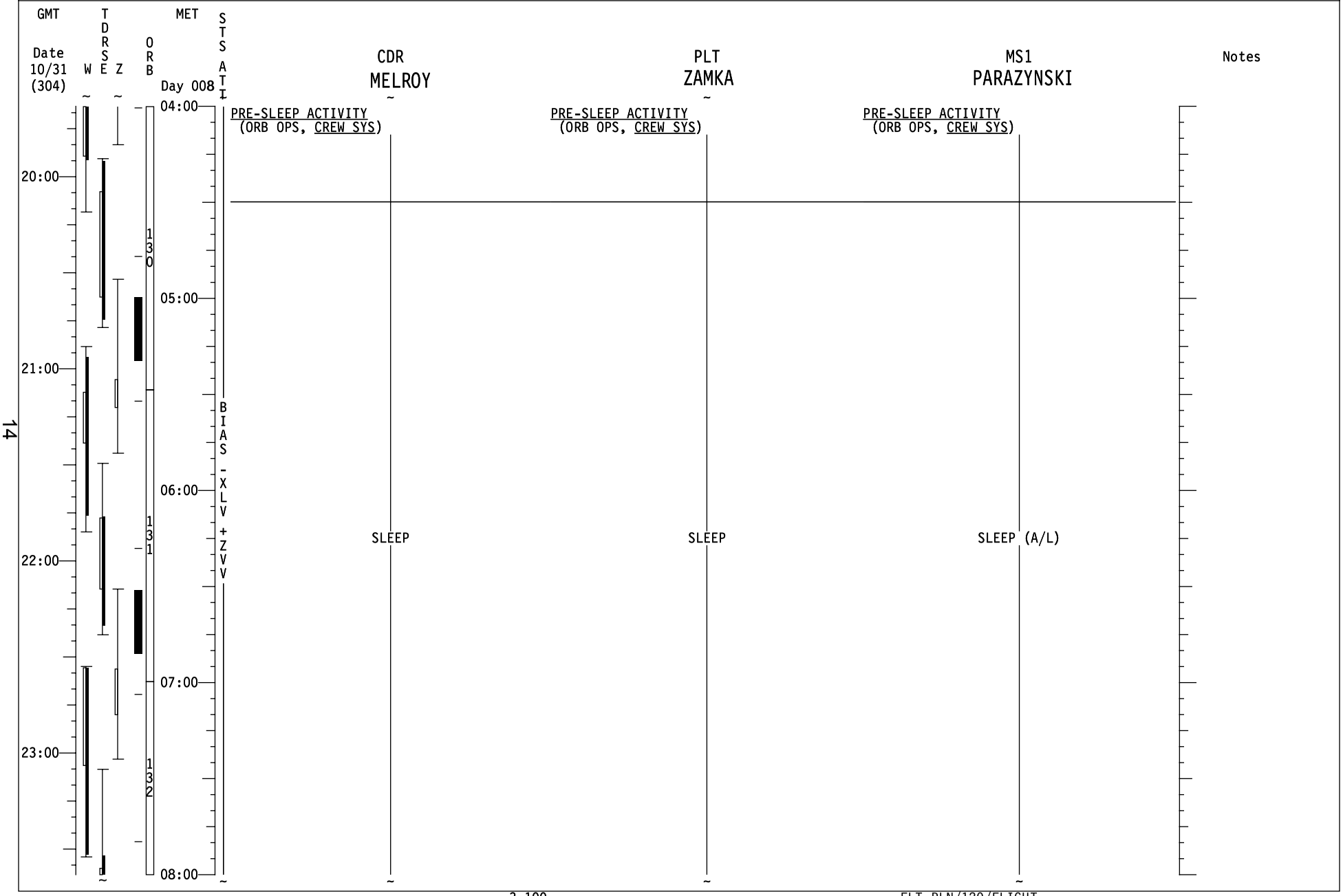
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

Notes

NO ORB ERGO
> 65 RPM

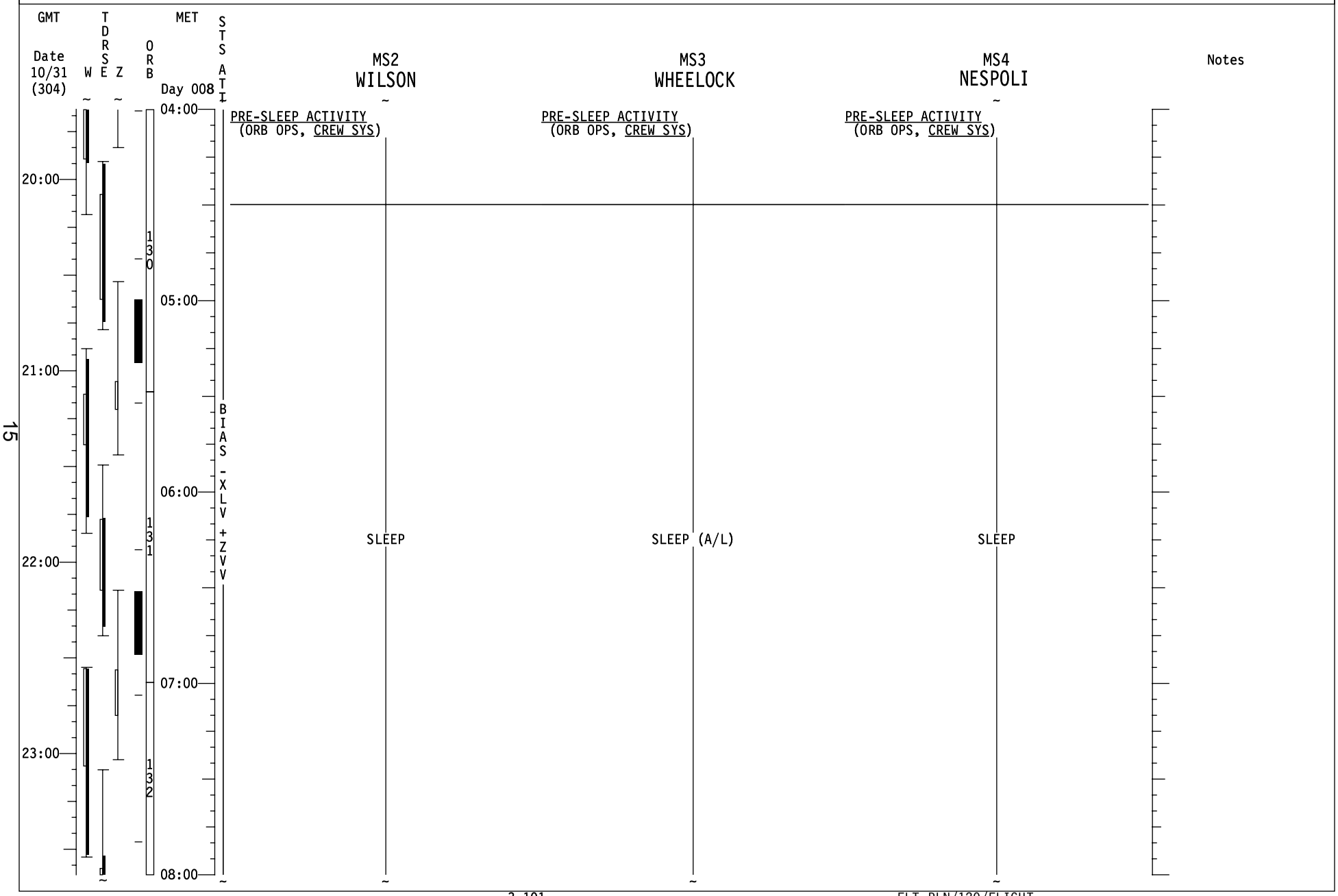
STS-120 FD09

REPLANNED



STS-120 FD 09

REPLANNED



A Ghoulish Good Morning Discovery!!!

Yesterday all of you performed such a beautiful EVA!!!! It was a real pleasure to witness such great teamwork!

On today's timeline, there is scheduled a lot of time for EVA review and discussion with the ground on EVA 4 content.

Tool configuration and EVA 4 overview are in the execute package and we will be uplinking you further information about EVA 4 as it becomes available.

We will all be watching you on the crew conference today!

YOUR CURRENT ORBIT IS: 188 X 180 NM

NOTAMS:

EDW – RWY 15/33 ELS ONLY. RWY 18L – CLOSED.
NOR – GREEN.
WAL – RWY 04/22 CLOSED.
NTU – RWY 23L CLOSED 1100-2100Z.
NKT – FIRST 1000' OF RWY 23L & 32R CLOSED.
FFA – ASCENT ONLY.
ZZA – FIRST 600M OF RWY 30L NOT AVAILABLE. 10,200' REMAINING.
WAK – UNUSABLE.
AMB – UNUSABLE.
JDG – DIEGO GARCIA: CLOSED 1800 - 0100Z.
IKF – NO AGREEMENT FOR USE.
AWG – NO AGREEMENT FOR USE.
BEN – POLITICALLY NOT RECOMMENDED/NOT SUPPORTED.

NEXT 2 PLS OPPORTUNITIES:

EDW22 ORB 126 – 7/22:44 (FEW250 050/07P13)
EDW04 ORB 141 – 8/21:31 (SKC 050/06P12)

OMS TANK FAIL CAPABILITY:

L OMS FAIL: NO R OMS FAIL: NO

LEAKING OMS PRPLT BURN:

L OMS LEAK: ALWAYS BURN RETROGRADE
R OMS LEAK: ALWAYS BURN RETROGRADE

OMS QUANTITIES(%)

L OMS OX = 33.5 R OMS OX = 33.5
FU = 33.1 FU = 33.4

SUBTRACT I'CNCT COUNTER FOR CURRENT OMS QUANTITIES

DELTA V AVAILABLE:

OMS	337 FPS
ARCS (TOTAL ABOVE QTY1)	45 FPS
TOTAL IN THE AFT	382 FPS
ARCS (TOTAL ABOVE QTY2)	78 FPS
FRCS (ABOVE QTY 1)	20 FPS
AFT QTY 1	78 %
AFT QTY 2	40 %

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

END OF PAGE 2 OF 2, MSG 082

Good morning Doug, Stephanie, and Dan,

Trick or Treat? Time for another Monstrous day of transfer, just in time for Halloween! We sure hope the costumes and candy got transferred over to ISS! We know you're up for the challenge of transferring all those wily CT**Boo**'s. We just hope Wheels doesn't get overrun by all the transfer ~~drones~~ zombies!

The Transfer List Excel file, FD09_TransferList_STS120.xls, is located on the KFX machine in **C:\OCA-up\transfer**.

For ISS, the Transfer List Excel file, FD09_TransferList_STS120.xls, is located in **K:\OCA-up\transfer**.

Transfer Notes

- Several Items on the Transfer List have been reported as 'complete' with 'temp stowage' on the middeck or awaiting further actions. Because of the outstanding actions, we've left these items marked as 'incomplete' on the Transfer List and updated their 'Temp Stowage' locations. These items will be considered complete when they are in their 'Stowage at Undock' location per the Transfer List.
- A Russian Pump Separator has been added to the return plan (Item 806). To accommodate the addition of this hardware, the 5 bundles of empty US food containers have been deleted from return (Items 601 through 605). Hopefully these food containers didn't already make their way off the aft bulkhead of the Shuttle Middeck and into Bag F. As a result, please make sure the 5 bundles of US food containers are returned to ISS. The Transfer List has been updated to reflect this change.

Questions/Answers for the crew

- **A:** We've confirmed you are GO to use jettison stowage bags to return up to 20 lbs of foam in the A/L retention net. This is in addition to the returning 2.0 CTB full of foam (Item 721) being stowed for return on the A/L deck. We'd prefer that you do keep some foam in the return 5MLE bags to help the bags keep their shape during return. If you happen to take any foam from the ISS, please let us know where the foam came from (i.e. CTB S/N, Locker location) so we don't take any more ISS crew time to try to discard the foam in the future. For your reference, one MLE (CTBE) of foam is approximately ~4 lbs.
- **A:** You asked about hardware removed from Item 124 (0.5 CTB Tools/PIVT) on FD02 per EVA procedures. We've verified that EVA procedures will reflect all EVA hardware to remain on orbit, including hardware removed from transfer bags on FD02.
- **Q:** There was an error on the transfer list regarding a quantity for Item 126 Foam Applicators. The line item on the Resupply tab for Item 126 shows a QTY of 1; however the Swap and Return tab indicate the correct QTY of 2 for the swap. Can you please confirm that QTY 2 Foam Applicators were swapped as intended?

Please incorporate uplink pages as follows:

In **RESUPPLY** tab
Replace Page(s):
Resupply – 1
Resupply – 12

In **SWAP** tab
Replace Page(s):
Swap – 6
Swap – 7

In **RETURN** tab
Replace Page(s):
Return – 1
Return – 3
Return – 4
Return – 6
Return – 7
Return – 8
Return – 9
Return – 12
Return – 13
Return – 14

In **RTN REALTIME ADDITIONS** tab
Replace Page(s):
Return – 16

Changes to the Transfer List are detailed below

In **RESUPPLY** tab
Item 104: Updated **Constraints**
Item 105: Updated **Constraints**
Item 141: Updated **Constraints**
Item 142: Updated **Constraints**

In **SWAP** tab
Item 400.1: Updated 'Temp Stowage' location
Item 143: Updated **Constraints**
Item 706: Updated **Constraints**

In **RETURN** tab
Item 400.1: Updated 'Temp Stowage' location
Item 403.5: **New Item** – item needs to be removed from Return Bag 403
Item 404.3: Updated **Comments
Item 412.2: Updated 'Temp Stowage' location, Updated **Constraints**
Item 601: Updated 'Temp Stowage' location, Updated 'Stowage at Undock' Location, Updated **Constraints** (Item will NOT return on 10A)

Item 602: Updated ‘Temp Stowage’ location, Updated ‘Stowage at Undock’ Location, Updated **Constraints** (Item will NOT return on 10A)
Item 603: Updated ‘Temp Stowage’ location, Updated ‘Stowage at Undock’ Location, Updated (Item will NOT return on 10A)
Item 604: Updated ‘Temp Stowage’ location, Updated ‘Stowage at Undock’ Location, Updated **Constraints** (Item will NOT return on 10A)
Item 605: Updated ‘Temp Stowage’ location, Updated ‘Stowage at Undock’ Location, Updated **Constraints** (Item will NOT return on 10A)
Item 612: Updated ‘Temp Stowage’ location
Item 705: Updated **Constraints**
Item 709: Updated **Constraints**
Item 710: Updated **Constraints**
Item 711: Updated **Constraints**
Item 712: Updated **Constraints**
Item 713: Updated **Constraints**
Item 714: Updated **Constraints**
Item 716: Updated **Constraints**

In **RTN REALTIME ADDITIONS** tab
Item 806: **New Item**

Call us with any questions and have a Happy Halloween!
- The 10A Transfer Team

The MMT met briefly for 25 minutes to review mission priorities, mission progress and orbiter status. The MMT was pleased with the successful relocation of P6 and congratulated the team for another successful EVA. It was acknowledged that the recent anomalies with the 4B array required the attention of the team. The MMT declared that EVA 4 will be a full duration EVA; however, the content of EVA 4 and the timeline leading up to it, is certainly under review.

WLEIDS: In the vicinity of the Shuttle/ISS stack maneuver to and from the +XVV attitude, two new wing leading edge sensor indications were collected on the port wing. These new indications bring the total to six of the seven wing leading edge indications that remain to be cleared with late inspection. (Figure 1).

Case	GMT				Location (Wing, RCC)	Criteria				G	Comments
	Day	Hour	Minute	Second		Transient	Local	Spectral	Shock		
O1	297	09	43	46	Port, 5:6	+	+	+	+	1.15	Seen on 2 sensors upper & lower of 5/6 interface
O2	297	16	39	23	Starboard, 6:7	+	+	+	+	0.63	
O3	297	17	28	28	Starboard, 6:7	+	+	+	+	0.57	
O4	297	18	36	28	Port, 16	+	+	+	+	0.64	Seen on 2 lower sensors on 15/16 & 16/17 interfaces
O5	298	07	16	20	Port, 1	+	+	+	+	1.01	Seen on 2 sensors upper & lower of chine/1 interface
O6	303	03	00	05	Port, 1	+	+	+	+	2.74	
O7	303	05	55	00	Port, 6:7	+	+	+	+	0.95	

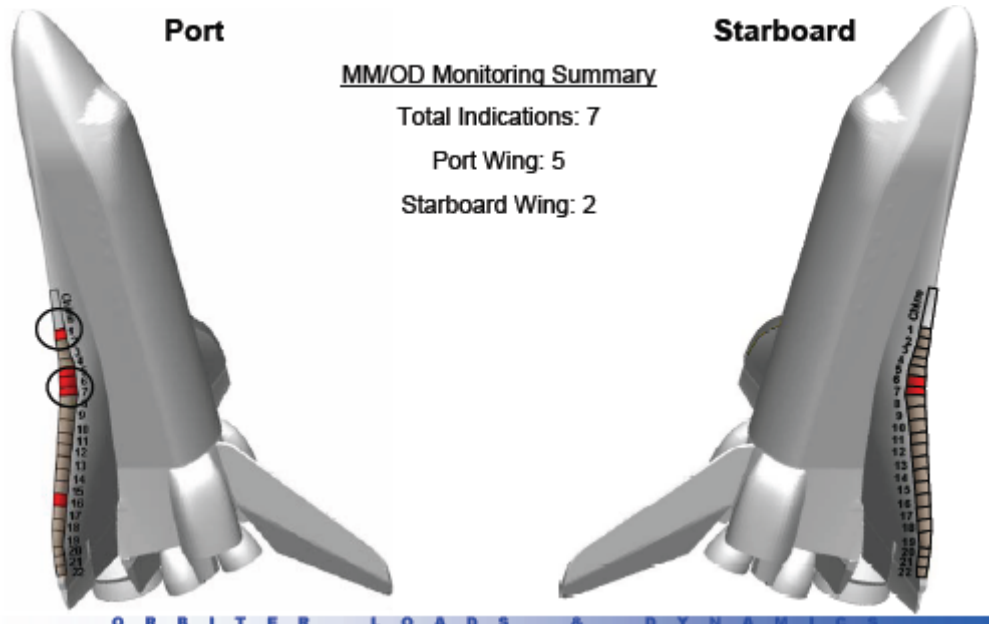


Figure 1 WLEIDS Summary