STS-122 / 1E

FD 06 Execute Package

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047A	--	FD06 PAO Event Summary - CBS News, KDKA-TV, WPXI-TV **(pdf- Electronic Only)**
048	22 - 23	EVA 2 Summary Timeline and Egress Plan **(pdf)**
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Approved by FAO: *Jennifer Clevenger*

Last Updated: Feb 12 2008 8:25AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

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051	Bag A (BMRRM) Return Config

1. DUMP EQUIPMENT PREGATHER
   In preparation for the upcoming PWR water dump activities, you'll need to pregather the following equipment prior to the dumps:

   a. PWRs: S/N 1023, 1024, 1025, 1026, and 1027. Ref MSG 005 for locations.
   b. Contingency Hose and Cable Kit (CHCK) in the window shade bag: B-B hose, R-Y QD adapter
   c. Break out box locker (MF28O): Waste Water Dump (WWD) Filter

2. SUPPLY/WASTE WATER DUMP
   Perform a simo Supply/Waste Water Dump using SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) p. 5-2. MCC will TMBU limits in steps B and K.

   Prior to opening either dump valve, verify with MCC-H that ISS arrays are in proper config.

   Supply Dump will be 90 minutes.

   Dump the waste tank to 5%. Nozzle open time ~30 minutes. Once the Waste Dump is complete, proceed to PWR Dumps (can be worked simo with Supply Dump).

3. PWR DUMPS
   After completing the Waste Water Dump, dump PWR S/N 1023, 1024, 1025, 1026, and 1027 down the waste dumpline using PWR DUMP – WASTE LINE (ORB OPS, ECLS) p. 5-37. MCC will TMBU limits in steps 2 and 7.

   Dump the PWRs even if they appear empty. This will ensure that any residual air is removed prior to refilling the bags.

   After the 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. Stow the WWD filter in a separate ziplock bag in the BOB.

4. Rex, we believe have repeated the EMU C&W anomaly you experienced when you locked Airlock P on the EMU Display. At your convenience, please listen to the audio file *DCM lockup-depress.wav* located on the KFX machine in the following path C:\oca-up\Other and contact MCC-H to confirm this was the anomaly you experienced.

5. Yesterday the Ku radiated in high power for about a minute and a half pre-stow, which we did not intend for it to do. This was due to the Ku Radar Output switch on A1U being in High. No ISS or Shuttle structure appears to have been in the antenna's beam for that time. We're modifying the Ku Activation procedure to have that switch in Low for activation.

6. For your reference, MSG 051 supersedes MSG 038, Bag A (BMRRM) Return Config.

7. When viewing your e-mail, don't forget to move all messages that you want to keep from your INBOX, SENT ITEMS and WORK RELATED folders to your Personal Folders. This will keep your mail files smaller and will reduce the time required to uplink them following the mail synchs.

8. There are no exercise constraints for FD06.

9. REPLACE PAGES 2-18, 2-20, AND 3-56 THROUGH 3-65.

02/12/08 02:06:41 **REPLANNED**

FD06
GMT 02/12/08 (043)
MET Day 004

08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 005/00
12 13 14 15 16 17 18 19 20 21 22 23

STS-122	CDR FRICK	SLEEP; POST SLEEP; XFER OPS; IMU; PAO EVENT; EXERCISE; XFER OPS; MEAL; DUMP EQUIP GATHER; ICNT*; H/O; MDNVR; DUMP; SIMO INIT; XFER OPS; WASTE; TERM
STS-122	PLT POINDEXTER	SLEEP; CDM-D; POST SLEEP; WCS; FILTER INSPECT; XFER OPS; MEAL; EVA2 PROC REVIEW; XFER OPS; EXERCISE
STS-122	MS1 MELVIN	SLEEP; LOG; POST SLEEP; XFR; UPDAT; P/TV 05 S/U; SSRMS UNGRP COL-MNVR; PAO EVENT; KU*; KU$; EXERCISE; XFER OPS; MEAL; XFER OPS
STS-122	MS2/EV1 WALHEIM	SLEEP; LOG; ASPRN; POST SLEEP; EXERCISE; PAO EVENT; BSA-T; EMU INIT; EMU RCNFG/ SWAP; XFER OPS; BATT/ MTX; INSTL; METX@; MEAL; EVA2 PROC REVIEW; E-LK PREP; TOOL CONFIG
STS-122	MS3/EV2 SCHLEGEL	SLEEP #; POST SLEEP; DSK CVR RMV & STRAP; PJMPR; HARD WIRED; 1553 DATA; FWD & AFT CPA RMV; CBM BRKT; ITCS JMPR; MEAL; EVA2 PROC REVIEW; E-LK PREP; TOOL CONFIG
STS-122	MS4/EV3 LOVE	SLEEP; LOG; SLVA; ASPRN; POST SLEEP; SSRMS UNGRP COL-MNVR; PGSC^; PAO EVENT; KU*; KU$; EMU RCNFG/ SWAP; XFER OPS; MEAL; XFER OPS
DN	FE-2 TANI	SLEEP; S/U; SLVA; SLEEP; POST SLEEP; DPC; PREP; WORK; H/O; S/U; NODE2 QD DISCNCT; WINDW; SODF DPLY; EXERCISE RED; OVHD & DECK CPA RMV; MIDDAY-MEAL; XFER OPS; ♣
ISS	ISS CDR WHITSON	SLEEP; SLVA; POST SLEEP; PREP; WORK; DPC; LK CK T/D; DSK CVR RMV & STRAP; PJMPR; HARD WIRED; 1553 DATA; FWD & AFT CPA RMV; OVHD & DECK CPA RMV; MIDDAY-MEAL; OVHD & DECK CPA RMV; COND; JMPR; FIBER; ARS; SDS; RED
ISS	FE-1 MALENCHENKO	SLEEP; POST SLEEP; КРИОГ; ON; DPC; RS2; СРВК КАВ ФГС SMPL E; ИП-1; MNT; RS2; ИПД АК PREP; ИПД АК1 SMPL; МБИ-8-EXE-TVIS-FE; MIDDAY-MEAL; КПТ-2; С1-СПО-ИДЭ-MNT
UP	FE-2 EXP16 EYHARTS	SLEEP; SLVA; POST SLEEP; PREP; WORK; DPC; PREP; WORK; H/O; S/U; PARTL INGRS; NPRV SPLY; IMV VLV; ADAPT; IMV SPLY DCT; MIDDAY-MEAL; OVHD & DECK CPA RMV; NPRV RTRN; IMV VLV; IMV RTRN DUCT; PBA; PFEX

DAY/NIGHT

ORBIT: 72 73 74 75 76 77 78 79 80

TDRS: W -171.0; E -46.0; Z -275.0

ORB ATT: BIAS -XLV -ZVV — DUMP ATTITUDE

NOTES: ^CHECK; *DEPLOY $ACT; @TERM; *R OMS to RCS; ♣EXERCISE T

#SSRMS PWR LATCHES DISCONNECT

N2 DDCU PWRDN

02/12/08 02:06:41 **REPLANNED**

FD06
GMT 02/12/08 (043)
MET Day 005

20 21 22 23 02/13 01 02 03 04 05 06 07
005/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-122	CDR FRICK	N2* / STERM / PWR FILL #3 / MNVR / TEA / H/O / PAO EVENT / EVA2 PROC REVIEW / N2* / PMC A/G / PRE SLEEP / SLEEP
STS-122	PLT POINDEXTER	PWR DUMP / P/TV07 EVA S/U / COND CWC C/O / PAO EVENT / EVA2 PROC REVIEW / PWR FILL #4 / PRE SLEEP / SLEEP
STS-122	MS1 MELVIN	COLINGRESS / XFER OPS / PAO SETUP / XTFER TAG / BRIEF / ILUM* / EVA2 PROC REVIEW / PRE SLEEP / SLEEP
STS-122	MS2/EV1 WALHEIM	COLINGRESS / ♣ / XFER OPS / PRE SLEEP / EVA2 PROC REVIEW / PRE SLEEP / MASK PB/TOOL CONFIG / 10.2 DPRS / PRE SLEEP / SLEEP
STS-122	MS3/EV2 SCHLEGEL	COLINGRESS / ⊕ / EXERCISE / PRE SLEEP / MUS / PAO EVENT / EVA2 PROC REVIEW / PRE SLEEP / MASK PB/TOOL CONFIG / PRE SLEEP / SLEEP
STS-122	MS4/EV3 LOVE	COLINGRESS / XFER OPS / EXERCISE / PRE SLEEP / EVA2 PROC REVIEW / PRE SLEEP / SLEEP
DN	FE-2 TANI	EXERCISE TVIS / DCS TRN / DCS / PREP WORK / EVA2 PROC REVIEW / PW / DPC / PRE SLEEP-ISS / SLEEP
ISS	ISS CDR WHITSON	RED / EXERCISE TVIS / PREP WORK / EVA2 PROC REVIEW / PW / DPC / PRE SLEEP-ISS / SLEEP
ISS	FE-1 MALENCHENKO	KПТ-2 / AK PREP / COЖ MNT / PREP WORK / DWNLD / PREP WORK / EVA2 PROC REVIEW / PW / DPC / PRE SLEEP-ISS / SLEEP
UP	FE-2 EXP16 EYHARTS	♦ / INSTL PART POSTS / ETHER / ANT / TVIS / DCB / PREP WORK / PMC / PREP WORK / EVA2 PROC REVIEW / PW / DPC / PRE SLEEP-ISS / SLEEP

DAY/NIGHT

ORBIT 80 81 82 83 84 85 86 87 88

TDRS W -171.0 / E -46.0 / Z -275.0

ORB ATT — DUMP ATTITUDE — BIAS -XLV -ZVV

NOTES
♣TOOL CONFIG
⊕TOOL CONFIG
♦PBA PFEX
*RPRS INIT
*ON
*RPRS TERM
ISS EXTERNAL SURVEY

STS-122 FD (06)

GMT Date 02/12 (043) | W | TDRSE | Z | DORB | ORB | MET Day 004 | STS ATI

CDR FRICK | PLT POINDEXTER | MS1 MELVIN | NOTES

12:00 — 13:00 — 14:00 — 15:00 — 16:00

08:00 — 09:00 — 10:00 — 11:00

DORB: 14, 15, 1, 2

ORB: 72, 73, 74, 75

STS ATI: BIAS-XLV, -ZVV

CDR FRICK: SLEEP

PLT POINDEXTER: SLEEP

MS1 MELVIN: SLEEP

FD06 EZ ACTIVITIES:
OCAC FILTER INSPECTION
HARD REBOOT ALL PGSCs

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

CDM DEACTIVATION (ORB OPS, CDM DTO)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

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

STS-122 FD (06)

GMT Date 02/12 (043) | W | TDRSE | Z | DORB | ORB | MET Day 004 | STS ATT | MS2 WALHEIM | MS3 SCHLEGEL | MS4 LOVE | NOTES

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

12:00 | 13:00 | 14:00 | 15:00 | 16:00

14 72 | 15 73 | 1 74 | 2 75

BIAS-XLV-ZVV

MS2 WALHEIM	MS3 SCHLEGEL	MS4 LOVE
SLEEP	SLEEP	SLEEP
FLIGHT SLEEP LOG (ORB OPS, SDBI)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	FLIGHT SLEEP LOG (ORB OPS, SDBI)
EVA CREW: TAKE 1 ASPIRIN (325mg)		LIQUID SLVA SAMPLE(ORB OPS,SDBI)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)		EVA CREW: TAKE 1 ASPIRIN (325mg)
		POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

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STS-122 FD (06)

GMT Date 02/12 (043) | W | TDRSE | Z | DORB | ORB | MET Day 004 | STS ATT | CDR FRICK | PLT POINDEXTER | MS1 MELVIN | NOTES

12:00 13:00 14:00 15:00

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

BIAS-XLV-ZVV

CDR FRICK

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

TRANSFER OPS
Ref. Transfer List

IMU ALIGN - S TRK (ORB OPS, GNC)

PUBLIC AFFAIRS EVENT
ISS KU AVAIL: 18:07-18:52

EXERCISE

TRANSFER OPS
Ref. Transfer List

PLT POINDEXTER

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

[A] WCS CRADLE - AUTO INHIBIT
Inspect hose block filter, change if req'd
WCS CRADLE - AUTO

WCS FILTER CHECK [A]

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

TRANSFER OPS
Ref. Transfer List

MS1 MELVIN

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

DAILY TRANSFER LIST UPDATE
Ref. Transfer List & MSG 044

P/TV05 ISS INTERNAL OPS
(PHOTO/TV, SCENES)
Setup

ROBOTICS: 1.312 COLUMBUS UNGRAPPLE
Use CH 72 (DNLNK) vice 71 (MON2) for Orbiter camera view callouts

PUBLIC AFFAIRS EVENT
ISS KU AVAIL: 18:07-18:52

KU-BD ANT DEPLOY
(ORB OPS, COMM/INST)

KU-BD ACTIVATION
Ref. MSG 045

EXERCISE

NOTES

UPLINK
β21 + Mask
Box 20,21, 30

-7-

STS-122 FD (06)

GMT Date 02/12 (043) | W | TDRSE | Z | DORB | ORB | MET Day 004 | STS ATT

12:00 13:00 14:00 15:00

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

BIAS-XLV-ZVV

MS2 WALHEIM

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EXERCISE

PUBLIC AFFAIRS EVENT
ISS KU AVAIL: 18:07-18:52

EVA SYSTEMS: 1.605 BSA BATTERY RCHRG (TERM)
Ref: STS-122 CONSUMABLES TRACKING CC (EVA)

EVA SYSTEMS: 1.605 BSA BATTERY RECHARGE Perform INITIATE
Ref: STS-122 CONSUMABLES TRACKING CC (EVA)
Ref: STS-122 BATTERY RECHARGE CC

LV EMU RECONFIGURATION AND SWAP
(EVA, AIRLOCK CONFIG)
Ref. MSG 050

TRANSFER OPS
Ref. Transfer List

MS3 SCHLEGEL

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

COLUMBUS VESTIBULE OUTFITTING
(ASSY OPS, ACT&C/O)
Steps 1-4
Remove Disk and Thermal Covers,
Install Ground Straps

COLUMBUS VESTIBULE OUTFITTING (ASSY OPS, ACT&C/O)
Step 5,Install Power Jumpers & remove
CPA Power Jumpers on all CPAs (J1,J2,J3,J4)

COLUMBUS VESTIBULE OUTFITTING
(ASSY OPS, ACT&C/O)
Step 6, Install Hardwired Jumpers

COLUMBUS VESTIBULE OUTFITTING
(ASSY OPS, ACT&C/O)
Step 7, Install 1553 Jumpers

COLUMBUS VESTIBULE OUTFITTING
(ASSY OPS, ACT&C/O)
Step 8, Remove Fwd & Aft CPAs

MS4 LOVE

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

ROBOTICS: 1.312 COLUMBUS UNGRAPPLE
Use CH 72 (DNLNK) vice 71 (MON2) for
Orbiter camera view callouts

PGSC CHECK Verify all PGSCs are powered on
and KFX application running on KFX machine.

PUBLIC AFFAIRS EVENT
ISS KU AVAIL: 18:07-18:52

KU-BD ANT DEPLOY
(ORB OPS, COMM/INST)

KU-BD ACTIVATION
Ref. MSG 045

LV EMU RECONFIGURATION AND SWAP
(EVA, AIRLOCK CONFIG)
Ref. MSG 050

TRANSFER OPS
Ref. Transfer List

NOTES

STS-122 FD (06)

GMT Date 02/12 (043) | W | TDRSE | Z | DORB | ORB | MET Day 004 | STS ATT

CDR FRICK	PLT POINDEXTER	MS1 MELVIN	NOTES
TRANSFER OPS Ref. Transfer List	TRANSFER OPS Ref. Transfer List	TRANSFER OPS Ref. Transfer List	
MEAL	MEAL	MEAL	
GATHER DUMP EQUIPMENT Ref. MSG 41, Item 1	EVA2 PROCEDURE REVIEW Ref: EVA2 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 48 & 49	TRANSFER OPS Ref. Transfer List	
I'CNCT: R OMS TO RCS (OPCL, RCS) JOINT OPS: 3.110 HANDOVER ATTITUDE CONTROL CMG TA to ORBITER	TRANSFER OPS Ref. Transfer List		
MNVR (TRK) BIAS -XLV +YVV (Water Dump) TG=2 BV=5 P=161 Y=354 OM=197 A12/AUTO/VERN Init TRK			
SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Prior to dump valve open,verify with MCC-H that ISS arrays are in proper config Ref: MSG 041, Item 2			
TRANSFER OPS Ref. Transfer List	EXERCISE		
SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Waste Dump			

Time scale: 16:00, 17:00, 18:00, 19:00; Day 004: 20:00, 21:00, 22:00, 23:00, 00:00

BIAS -XLV -ZVV

DUMP ATTITUDE

5 7 8

6 7 9

7 8 0

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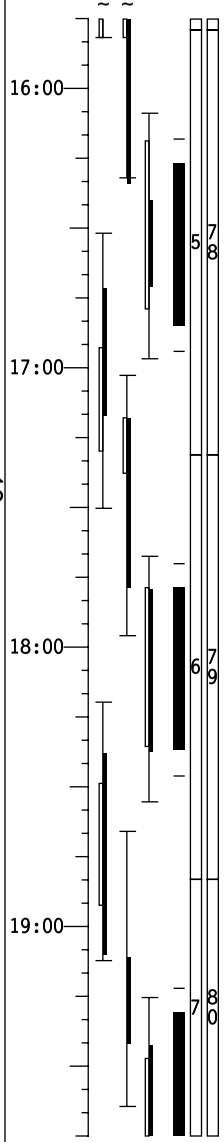
STS-122 FD (06)

GMT Date 02/12 (043) | W | TDRSE | Z | DORB | ORB | MET Day 004 | STS ATT | MS2 WALHEIM | MS3 SCHLEGEL | MS4 LOVE | NOTES



20:00 – 00:00

BIAS - XLV - ZVV

DUMP ATTITUDE

MS2 WALHEIM	MS3 SCHLEGEL	MS4 LOVE
TRANSFER OPS Ref. Transfer List	COLUMBUS VESTIBULE OUTFITTING (See 3-59) CENTER DISK COVER STANDOFF BRACKET REMOVAL Ref. MSG 010	TRANSFER OPS Ref. Transfer List
EVA SYSTEMS: 1.515 EMU METOX/LIOH/BATTERY REPLACEMENT Install METOX Canisters/batt Ref: STS-122 CONSUMABLES TRACKING CC (EVA) Stow used LiOH in EMU Systems Transfer Bag	COLUMBUS VESTIBULE OUTFITTING (ASSY OPS, ACT&C/O) Step 9, Install ITCS Jumpers Ref. MSG 018	
EVA SYSTEMS: 1.510 METOX REGENERATION (Terminate)		
MEAL	MEAL	MEAL
EVA2 PROCEDURE REVIEW Ref: EVA2 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 48 & 49	EVA2 PROCEDURE REVIEW Ref: EVA2 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 48 & 49	TRANSFER OPS Ref. Transfer List
EVA SYSTEMS: 1.305 EQUIPMENT LOCK PREP Ref. MSG 015 Ref: STS-122 CONSUMABLES TRACKING CC (EVA) Note: Observe 32oz cold H2O max bag capacity during DIDB fills.	EVA SYSTEMS: 1.305 EQUIPMENT LOCK PREP Ref. MSG 015 Ref: STS-122 CONSUMABLES TRACKING CC (EVA) Note: Observe 32oz cold H2O max bag capacity during DIDB fills.	
EVA TOOLS MANAGEMENT (EVA, TOOLS AND STOWAGE) Perform FD5 Steps	EVA TOOLS MANAGEMENT (EVA, TOOLS AND STOWAGE) Perform FD5 Steps	

STS-122 FD (06)

GMT Date 02/12 (043) | W | TDRSE | Z | DORB | ORB | MET Day 005 | STS ATT | CDR FRICK | PLT POINDEXTER | MS1 MELVIN | NOTES

20:00 | 21:00 | 22:00 | 23:00

7 | 80 | 8 | 81 | 9 | 82 | 10 | 83

00:00 | 01:00 | 02:00 | 03:00 | 04:00

DUMP ATTITUDE

BIAS -XLV -ZVV

CDR FRICK

On MCC GO:
R13L MMU GN2 SPLY ISOL VLV A-CL(tb-CL)
N2 REPRESS USING PAYLOAD N2 VLVS [A]

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

PWR FILL
(ORB OPS, ECLS)
Perform Water Fill #3
Ref. MSG 005

MNVR (TRK) BIAS -XLV -ZVV
TG=2 BV=5 P=161 Y=354 OM=192
A12/AUTO/VERN Init TRK

JOINT OPS: 3.111 HANDOVER ATTITUDE
CONTROL ORBITER to CMGTA

PUBLIC AFFAIRS EVENT
KU AVAIL: 01:48-02:17

EVA2 PROCEDURE REVIEW
Ref: EVA2 BRIEFING CARD
(EVA, TIMELINES)
Ref. MSG 48 & 49

[B] N2 REPRESS USING PAYLOAD N2 VLVS
(ORB OPS, ECLS)
On MCC GO, perform Steps 7-12
MCC will TMBU all S/W limits

N2 REPRESS USING PAYLOAD N2 VLVS [B]

PRIVATE MEDICAL CONFERENCE
Perform via A/G2

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PLT POINDEXTER

PWR DUMP - SUPPLY LINE
(ORB OPS, ECLS)
Ref. MSG 041, Item 3

[A] N2 REPRESS USING PAYLOAD N2 VLVS
(ORB OPS, ECLS)
Steps 1-5, On MCC Go, perform Step 6
MCC will TMBU all S/W limits

P/TV07 EVA
(PHOTO/TV, SCENES)
Setup

SHUTTLE CONDENSATE COLLECTION
(ORB OPS, ECLS) Perform CHANGEOUT
Use CWC S/N 5101 pregathered from
ISS (Item 2d)

PUBLIC AFFAIRS EVENT
KU AVAIL: 01:48-02:17

EVA2 PROCEDURE REVIEW
Ref: EVA2 BRIEFING CARD
(EVA, TIMELINES)
Ref. MSG 48 & 49

PWR FILL
(ORB OPS, ECLS)
Perform Water Fill #4
Ref. MSG 005

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MS1 MELVIN

TRANSFER OPS
Ref. Transfer List

ANALOG PAO CC
(PHOTO/TV, SONY PD100)

TRANSFER TAGUP
Coordinate with xfer counterpart

TRANSFER BRIEF
Call down status to MCC

ILLUMINATOR OPS (CUE CARD) ILLUM ON - A,D

EVA2 PROCEDURE REVIEW
Ref: EVA2 BRIEFING CARD
(EVA, TIMELINES)
Ref. MSG 48 & 49

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

STS-122 FD (06)

GMT Date 02/12 (043) | W | TDRSE | Z | DORB | ORB | MET Day 005 | STS ATT | MS2 WALHEIM | MS3 SCHLEGEL | MS4 LOVE | NOTES

20:00 | 21:00 | 22:00 | 23:00

00:00 | 01:00 | 02:00 | 03:00 | 04:00

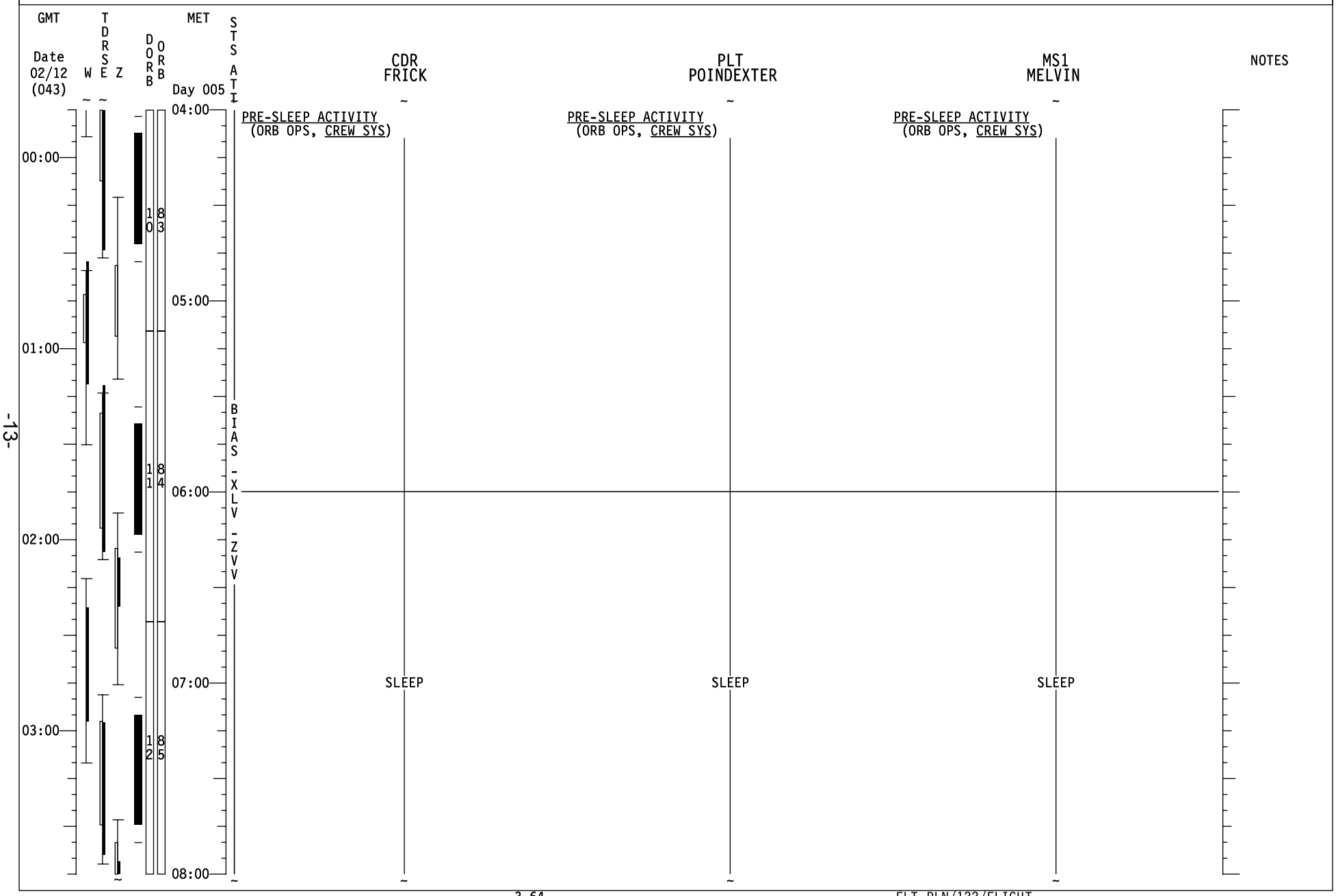
DUMP ATTITUDE

BIAS -XLV -ZVV

MS2 WALHEIM	MS3 SCHLEGEL	MS4 LOVE
EVA TOOLS MANAGEMENT (EVA, TOOLS AND STOWAGE) Perform FD5 Steps	EVA TOOLS MANAGEMENT (EVA, TOOLS AND STOWAGE) Perform FD5 Steps	TRANSFER OPS Ref. Transfer List
TRANSFER OPS Ref. Transfer List	EXERCISE	EXERCISE
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
	LBP-MUSCLE QSTION (ASSY PL, QSTION)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
	PUBLIC AFFAIRS EVENT KU AVAIL: 01:48-02:17	
EVA2 PROCEDURE REVIEW Ref: EVA2 BRIEFING CARD (EVA, TIMELINES) Ref: MSG 48 & 49	EVA2 PROCEDURE REVIEW Ref: EVA2 BRIEFING CARD (EVA, TIMELINES) Ref: MSG 48 & 49	EVA2 PROCEDURE REVIEW Ref: EVA2 BRIEFING CARD (EVA, TIMELINES) Ref: MSG 48 & 49
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

DORB: 7, 8, 9, 10 | ORB: 80, 81, 82, 83

STS-122 FD (06)


GMT
Date 02/12 (043)
W
TDRSE
Z
DORB
ORB
MET
Day 005
STS ATT
CDR FRICK
PLT POINDEXTER
MS1 MELVIN
NOTES
00:00
01:00
02:00
03:00
04:00
05:00
06:00
07:00
08:00
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
BIAS -XLV -ZVV
SLEEP
SLEEP
SLEEP
1 8 0 3
1 8 1 4
1 8 2 5

STS-122 FD (06)

GMT Date 02/12 (043) | W | TDRSE | Z | DORB | ORB | MET Day 005 | STS ATT | MS2 WALHEIM | MS3 SCHLEGEL | MS4 LOVE | NOTES

00:00 01:00 02:00 03:00

DORB: 10 83 / 11 84 / 12 85

04:00 05:00 06:00 07:00 08:00

STS ATT: BIAS-XLV-ZVV

MS2 WALHEIM

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA SYSTEMS: 2.305 10.2 PSIA CAMPOUT
MASK PREBREATHE

Ref: EVA TOOLS MANAGEMENT
(EVA, TOOLS AND STOWAGE)
Perform FD5 Steps

Ref: STS-122 CONSUMABLES
TRACKING CC (EVA)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SLEEP

MS3 SCHLEGEL

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA SYSTEMS: 2.305 10.2 PSIA CAMPOUT
MASK PREBREATHE

Ref: EVA TOOLS MANAGEMENT
(EVA, TOOLS AND STOWAGE)
Perform FD5 Steps

Ref: STS-122 CONSUMABLES
TRACKING CC (EVA)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SLEEP

MS4 LOVE

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SLEEP

Good Morning Atlantis!!!!

What a great day you had yesterday! Your teamwork was very impressive! And now today, as your reward, you get to move into a brand new laboratory!

Have another great day in space!

YOUR CURRENT ORBIT IS: 185 X 176 NM

NOTAMS:

EDW – LAKEBED RUNWAYS RED.
NOR – LAKEBED RUNWAYS GREEN.
NKT – RWYS 05L/23R + 14L/32R NOT USABLE.
HAW – RWY 31 CLOSED; RWY 13 TODA 8,994'.
WAK – NOT USABLE.
IKF – NOT USABLE.
DIW – TACAN OTS.
LAJ – TACAN CH 45 OTS.
NGU – TACAN CHANNEL CHANGED TO CH 22.
BEN – POLITICALLY NOT RECOMMENDED/NOT SUPPORTED.
DOV – 14/32 CLOSED.
ZZA – FIRST 600M (~2,000') OF RWY 30L NOT AVAILABLE. 10,200' REMAINING.

NEXT 2 PLS OPPORTUNITIES:

EDW04 ORB 80 – 4/23:57 (SKC 070/6P9)
NOR17 ORB 95 – 5/22:44 (SKC 170/9P18)

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 = 35.0 R OMS OX = 35.4
FU = 35.3 FU = 35.2

SUBTRACT ICNCT COUNTER FOR CURRENT OMS QUANTITIES

DELTA V AVAILABLE:

OMS	361 FPS
ARCS (TOTAL ABOVE QTY1)	45 FPS
TOTAL IN THE AFT	406 FPS
ARCS (TOTAL ABOVE QTY2)	78 FPS
FRCS (ABOVE QTY 1)	25 FPS
AFT QTY 1	80 %
AFT QTY 2	42 %

SYSTEM	FAILURE	IMPACT	WORK AROUND
EMU	EV1, EMU 3017, Display lockup, sidetones annunciated	Recovered in step 1 of Post Depress: Power to Batt	This occurred because EMU1 attempted to lock the 'AIRLK P' parameter at the same time the DCM default display was toggling from 'O2 POS EVA' to 'AIRLK P'. Was resolved with power cycle.
EMU	EMU 3017 Purge: O2 Pressure dropped to 712 psi	3 minute impact to timeline	Purge time at 14.7 psia was extended from 3 minutes to 6 minutes
EVA	EV1 reported MWS End Effector cord is frayed	May have difficulty retracting final ~3 inches of tether cord	The short pigtail noted by the crew is the end of the cord splice. It is a known condition that this pigtail may protrude. The MWS End Effector is considered GO for EVA - use as is.

FD05 MMT Summary

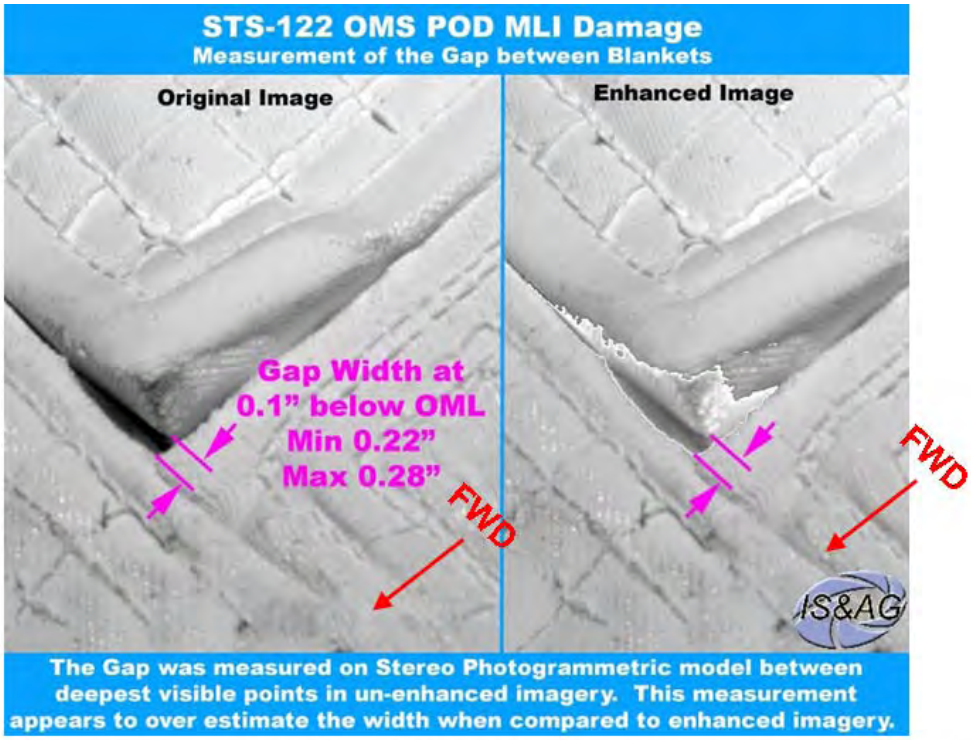
The MMT met to review mission progress and TPS assessment status. The mission is progressing extremely well, and Atlantis' systems continue to perform in an outstanding manner. The ISS/Shuttle video issue is thought to be on the ISS side, and additional troubleshooting is being considered. The MMT was extremely pleased with the excellent team effort on FD04 to generate and execute the ROMS blanket Focused Inspection so quickly and successfully. EVA 1 was in progress during the MMT.

Ascent Imagery - The right SRB video has been reviewed by the imagery analysis experts. This review provided no usable data to the cause of the ROMS blanket issue, but it did reveal an additional debris impact to the orbiter belly at MET 27.4 seconds (Figure 1). The RPM pictures show no signs of damage in the observed area, so there is no concern with this new observation. The left SRB video was acquired later and was still being reviewed. Also, the previously reported impact at MET 2:13 was reviewed futher and is now regarded as inconclusive. Regardless, the RPM pictures demonstrate the belly of the orbiter is in great shape for entry.

Damage Assessment Team - The DAT continues to assess the four open items from yesterday. The ROMS pod blanket (Figure 2) and window tile assessments are expected to be completed and reviewed tonight. Those damage areas should be presented at the FD06 MMT. The modeling of the stinger tile is presenting some challenges to the team since this area has not been evaluated previously. It is still believed that the ascent heating is more severe than the entry heating; however, due diligence requires that this area be analyzed fully. The teams are very optimistic that all four areas will be cleared for entry, but it is important that the rigorous analysis techniques and peer reviews follow the established guidelines.

BMRRM Stowage - The details on the BMRRM packing and stowage (JEDI Msg 38) were reviewed by the MMT. Since this item requires some additional packaging and was added late to the return manifest, the plan was presented to the MMT for informational purposes.

Figure 1 - Debris impacts orbiter at 27.4 sec MET



Measurement performed 0.1" from OML into gap. Additional analysis in work on new images to look deeper into gap

Figure 2 - ROMS Pod Blanket Focused Inspection Imagery

END OF PAGE 2 OF 2, MSG 043

Good morning Leland & Stan,

We realized we forgot to add 26,627 lbs of hardware to the Transfer List. You'll see this is now Resupply Item 804, and thanks for remembering to transfer it!

We wanted to let you know that, unfortunately, we are unable to accommodate Dan's crew preference or any additional ISS foam for return. Even though there may be open volume in the Ext A/L, 10MLE and 5MLE bags, we are unable to add any more items as the bags are at max weight. In fact, compared to past flights, your 5MLE bags are the heaviest we've ever returned.

Finally, we updated the Bag A BMRRM return message (MSG 051) to include additional details for orientation and bag strapping.

The Transfer List Excel file, FD06_TransferList_STS122.xls, is located on the KFX machine in **C:\OCA-up\transfer**.

For ISS, the Transfer List Excel file, FD06_TransferList_STS122.xls, is located in **K:\OCA-up\transfer**.

Q&As:

- **Foam for item 616 (LiOH):** We understand you were unable to locate the PFE cover foam in 10MLE Bag A (ref step 3 in MSG 037A: Bag G Return Config). In place of foam, you may wrap the LiOH in clothing or towels.
- **LiOH relocation from Bag G to Bag D:** We uplinked the Bag D Return Config drawing for your reference. Additionally, you'll have to remove Dan's ACES suit, parachute harness, and seat rail assembly in order to accommodate the LiOH. Temp stow these items on the Middeck until landing day.

FD06 Choreography

- Items 37 and 717 (Peggy): Swap Multimeters after LK CK T/D
- Item 702 (Dan): Transfer CTB containing CPAs to STS for return after Hans and Peggy's FWD & AFT CPA RMV.
- Item 703 (Dan): Transfer CTB containing CPAs to STS for return after OVHD & DECK CPA RMV
- Item 700.6 (Leo): Pack GSC for return after Columbus PARTL INGRS
- Item 700.9 and 700.10 (Yuri): Pack Russian sample for return after Columbus ingress

<u>Please update the Transfer List as follows:</u>

In **LAYOUTS** tab:	Replace page L-3 Add page L-6
In **RESUPPLY** tab:	Replace page Resupply-12
In **RETURN** tab:	Replace page Resupply-4
In **REFERENCE** tab:	Replace MSG 038 with MSG 051

Call us with any questions.

- The Transfer Team

On MCC GO,

R14:C	cb MNB KU ELEC	-cl	
	MNC KU SIG PROC	-cl	

A1U	SIGNAL STRENGTH		- KU
	√SLEW RATE		- SLOW
	√KU BAND	SCAN WARN tb	- bp
		√TRACK tb	- bp
		√SEARCH tb	- bp
		√sel	- MAN SLEW
		√RADAR OUTPUT	- LOW
		√SIG PROC HIGH DATA RATE sel	- TV
		√LOW DATA RATE sel	- MMU 1
		√MODE	- RDR PASSIVE
		POWER	- ON
		√CONTROL	- PANEL

SM ANTENNA

CRT	I/O RESET KU – ITEM 8 EXEC (*)	

NOTE

Wait 4 minutes to allow system warm-up prior to next steps

A1U	KU BAND	POWER	- STBY
		MODE	- COMM
		sel	- GPC DESIG
		CONTROL	- COMMAND

END OF PAGE 1 OF 1, MSG 045A

16-1021 (MSG 048) – EVA 2 Summary Timeline and Egress Plan
Page 1 of 2

TASK TIME (PET TIME) HR : MIN	IV/SSRMS	EV1 (SSRMS)	EV2 (FF)
00:00 ---	SSRMS: At APFR Ingress Posn	POST DEPRESS (00:05)	POST DEPRESS (00:05)
		A/L EGRESS (00:15)	A/L EGRESS (00:15)
		NTA REMOVAL FROM PLB (02:25) ❑ Translate to PLB; set up SSRMS	NTA REMOVAL FROM PLB (02:25) ❑ Translate to COL; stow fish stringer
	IV: ICC-lite Power – OFF SSRMS: GCA to PLB NTA RMVL Posn	❑ Release PLB NTA from FSE	❑ Assist with PLB NTA Release
01:00 --			❑ Translate to P1
	SSRMS: Mnvr to P1 NTA Install Posn	❑ Maneuver to P1	❑ Disconnect P1 NTA Fluid QDs
02:00 --			❑ Config CETA cart for arm clearance
	IV: ICC-lite Power – ON		
		P1 NTA INSTALL (01:55)	P1 NTA INSTALL (01:55)
	SSRMS: GCA to CETA cart zenith SSRMS: GCA to P1 NTA	❑ GCA SSRMS for NTA stow on CETA cart zenith ❑ GCA SSRMS to P1 NTA;release NTA electrical connectors	❑ Assist with NTA swaps
03:00 --		❑ GCA SSRMS Release NTA from Truss	
	SSRMS: GCA to CETA cart nadir SSRMS: GCA to CETA cart zenith NTA SSRMS: GCA to P1 NTA Install	❑ GCA SSRMS for NTA stow on CETA cart nadir ❑ GCA SSRMS to CETA cart zenith NTA; release ❑ GCA SSRMS to install NTA in P1; secure bolts	❑ Mate N2 Lines
		❑ Mate NTA electricals	
04:00 --	MCC-H: NTA Power up SSRMS: GCA to CETA cart nadir NTA SSRMS: Mnvr to PLB NTA Install Posn	❑ GCA SSRMS to CETA cart nadir NTA; release ❑ Maneuver to PLB	❑ Assist with NTA release ❑ Retrieve MBM, MB; translate to Airlock ❑ Stow items at Airlock; translate to PLB
	IV: ICC-lite Power – OFF	NTA STOW IN PLB (00:50) ❑ GCA SSRMS for NTA Install on FSE; secure bolts	NTA STOW IN PLB (00:50) ❑ Translate to PLB ❑ Reinstall PLB NTA MLI
05:00 ---	SSRMS: GCA to PLB APFR Egress Posn IV: ICC-lite Power – ON	❑ GCA SSRMS for Egress ❑ Egress; reconfig APFR	
		GET-AHEADS (00:25) ❑ Lab MMOD shield	GET-AHEADS (00:25) ❑ Install COL trunnion covers ❑ Lab MMOD shield
06:00 ---		CLEAN UP and A/L INGRESS (00:30) ❑ Translate to Airlock with NTA bag; ingress	CLEAN UP and A/L INGRESS (00:30) ❑ Translate to Airlock; ingress
	EVA Time 06:30	PRE REPRESS (00:05)	PRE REPRESS (00:05)

IV/SSRMS	EV1	EV2
	Initial Config: Left waist tether on EVA hatch D-ring extender EGRESS (00:15) 1. Thermal cover – open 2. Egress Airlock 3. Retrieve Node 2 safety tether (aft; port routed) inspect load alleviating strap for damage 4. Attach safety tether load strap to right D-ring ext 5. Engage load strap hook slide lock – L • √Safety tether reel unlocked 6. Receive left waist tether; stow 7. Receive NTA crewlock bag from EV2:temp stow 8. Retrieve Node 2 safety tether (fwd; stbd routed); inspect load alleviating strap for damage 9. Transfer safety tether to EV2	Initial Config: Left waist tether on fwd UIA tether point EGRESS (00:15) 1. Release EV2 waist tether; transfer to EV1 2. Transfer NTA crewlock bag (w/fish stringer) to EV1 3. Receive Node 2 safety tether from EV1(fwd; stbd routed); 4. Attach safety tether load strap to right D-ring ext 5. Engage load strap hook slide lock – L • √Safety tether reel unlocked 6. Retrieve waist tether; stow 7. Extend bag RETs to airlock D-ring extender 8. Egress Airlock
IV: WVS Software: Select page – RF camera Select "Advanced Controls" S-Band Level (two) – Max	11. Check EV2 tether and SAFER config • √SAFER MAN ISOL vlv – Open (dn) • √SAFER HCM – Closed (dn) 12. Close thermal cover	9. Check EV1 tether and SAFER config • √SAFER MAN ISOL vlv – Open (dn) • √SAFER HCM – Closed (dn) 10. Stow NTA crewlock bag (w/fish stringer) on BRT

Great Job on the EVA yesterday Gentlemen! Your hard work put you in great shape for EVA2.

The EVA ground team has been able to re-create the caution and warning lock-up that Rex experienced during depress for EVA 1. It appears that the C&W is susceptible to the lock up when the C&W is toggling from 'O2 POS' to 'AIRLK P', and the depress is slow (5 psi to vacuum). Attempting to lock the 'AIRLK P' parameter at this time may cause the C&W to lockup, freeze the display, ignore display switch inputs, repeatedly enunciate input acknowledgement tone, and lose telemetry. A power cycle recovers the system as you demonstrated. We will have an audio recording from the ground test that re-created the tones, and we will uplink that file for Rex later today, to verify that this is the same tone signature that he heard when he experienced the lock-up.

In order to prepare for Hans to go EVA, you'll have to bring his EMU back into the airlock. Message16-1022 (MSG 050) contains the details for the new EMU swap activity on today's plan.

EV1's MWS EE cord is go for continued use. EVA Tools looked at the photos you sent, checked the history on that item, and noted the splice that you found is a known condition which is acceptable for EVA.

The big picture plan for EVA 2 is to carry the Lab MMOD shield and Columbus trunnion covers as get-aheads and focus on completing the P1 NTA in a 6:30 EVA. The relative priorities of the two get-ahead tasks is still being assessed and we'll discuss that with you later today, but the tool config plan is built such that you can do either. Hans will leave the payload bay as soon as he can to go directly to the P1 NTA to work on QDs while Rex flies the tank to the CETA cart. Rex will demate the NTA electricals after he has stowed the new NTA on the ballstack and has GCAed to the truss NTA. See message 16-1021 (MSG 048) EVA 2 Summary Timeline and Egress Plan.

Specific timeline deltas:

1) We have uplinked a new Egress procedure that mimics the egress plan for EVA1 since this will be Hans's first EVA [message 16-1021 (MSG 048)]. We left the Ingress plan unchanged to give Hans an opportunity to work the EV hatch.
2) We left the Payload NTA TM ops in Hans's column, but you may want to discuss having Rex do this so Hans can get to P1 faster to demate the QDs. Hans, you will need to retrieve the QD booties prior to leaving the PLB. Rex, be thinking about whether or not you require Hans to remain in the payload bay for NTA removal.
3) EV2 can skip trunnion cover install steps on page 7-51. If time remains, they may be done as a get ahead at the end of the EVA.
4) Insert Fluid QD demate and associated IV inhibit/MCC-H steps on page 7-51 after step 7 and EV2 step 18.

5) Insert Electrical connector steps (page 7-32) on page 7-53 prior to IV step 1 and EV 1 step 7.
6) If trunnion covers are the higher priority get-ahead, we will work to install all four of the trunnion covers at the end of the EVA.

Tool Config Deltas

- During EVA 2 Tool Config, you need to add the QD thermal booties (2) to your tool complement. We recommend putting them in the NTA bag, but you may have other suggestions.

Other Notes:

- We are looking at leaving the fish stringer outside on Columbus if we don't get all the covers installed. That way they are standing by for EVA3. We'll have more words for you later today on whether that is acceptable.

EMU RECONFIGURATION AND SWAP FOR EVA 2

Assumptions: EMU BSA Battery Recharge Init is complete.

EMU 3018 1. Remove and temp stow EMU TV, helmet lights, Sg's STS-122 ISS EVA Cuff Checklist, and wrist mirrors
2. Remove Lv EMU from FWD EDDA, temp stow in Node

EMU 3015 3. Install Sg EMU in FWD EDDA
Install previously temp stowed EMU TV, helmet lights, Sg's STS-122 ISS EVA Cuff Checklist, and wrist mirrors
4. Rotate EDDA open
5. Unzip PLSS thermal cover and velcro to top
6. Install REBA s/n 1005
7. Verify REBA connected to power harness with pull test (upper left-hand corner, P1-J1 connector)
8. √All latches locked, zip thermal cover closed
9. Reconfigure ISS EMU Equipment Bag Crew Specific Compartment (1 of 2) with items from Sg's ECOK:
   - ☐ Comfort Gloves ☐ Sock Liners ☐ Croakie
   - ☐ Wristlets ☐ TCUs

EMU 3015 10. √REBA sw – OFF (toward left arm of suit)
11. √Upper arm connections mated (located under TMG covering; unzip shoulder TMG as reqd for access, then reconfigure)
12. √Glove heater sw – OFF
13. Connect lower arm pwr harness to gloves (remove Kapton as reqd)

NOTE

To avoid excessive battery consumption and heat buildup, deactivate heaters once heat detected at fingertips

14. REBA sw – ON, pull tab toward right arm of suit
15. Glove heater sw (one per glove) – ON

When heat detected on all outside fingertips:

16. Glove heater sw (one per glove) – OFF
17. REBA sw – OFF, pull tab toward left arm of suit
18. Disconnect lower arm pwr harness from gloves
19. Stow lower arm and glove pwr harness connectors under TMG
20. As comm permits, report completion to **MCC-H**

Leland, below are instructions to stow the BMRRM for return. We understand you will be unable to strap this bag down until after hatch closure, but we've included the steps as a preview. We'll re-uplink the strapping plan after undock.

Objectives:

- Retrieve packing materials to configure around the BMRRM (Step 2).
- Transfer and pack BMRRM in 10MLE Bag A (Steps 3-10).
- Review plan to strap bag down in Middeck after hatch closure (Steps 11-12).

NOTE: Keep Bag A and non-nomexed foam in Middeck.

Step 1: Verify MSG 051 – Bag G Return Config is complete (Bag A emptied).

Step 2: Retrieve:

- Two blue panel covers from the lower window shade bag
- All IELK Foam from MD CEIL STBD 2 (Bag H) – or temp stowed on MDDK
- ISS foam from NOD1P4 (to be used in Step 9)
- Gray Tape

Step 3: Center and tape the blue panel covers from window shade bag to the IELK foam lid per Figure 1.

Step 4: Place foam lid in the bottom of 10MLE Bag A

Step 5: Place IELK foam box on top of the panels.

Step 6: Tape gray foam wedges in IELK foam box per Figure 2.

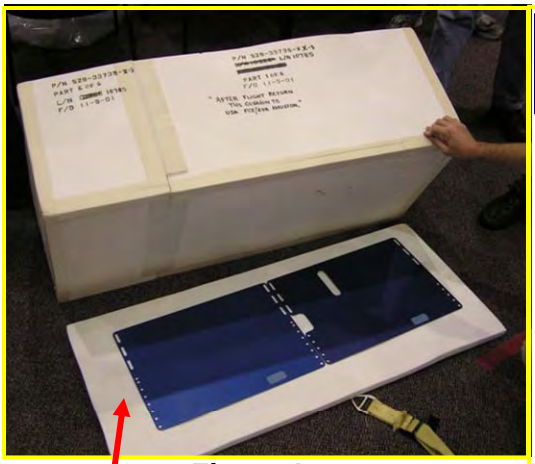


Figure 1

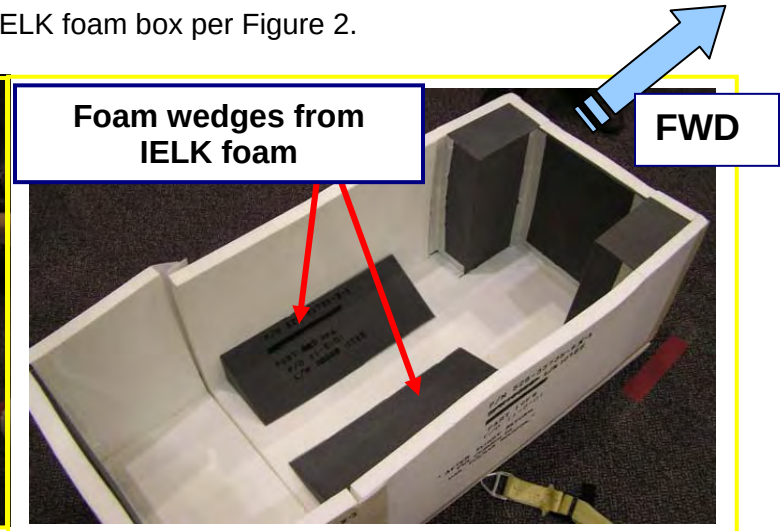


Figure 2

Blue panel covers facing up

Step 7: Retrieve the BMRRM from NOD2D2 (Transfer List Item # 626)

Step 8: Stow BMRRM in IELK foam per Figures 3 & 4.

END OF PAGE 1 OF 3, MSG 051

Step 9: Place ISS foam wedges (from step 2) to fill open volume around BMRRM per Figure 4.

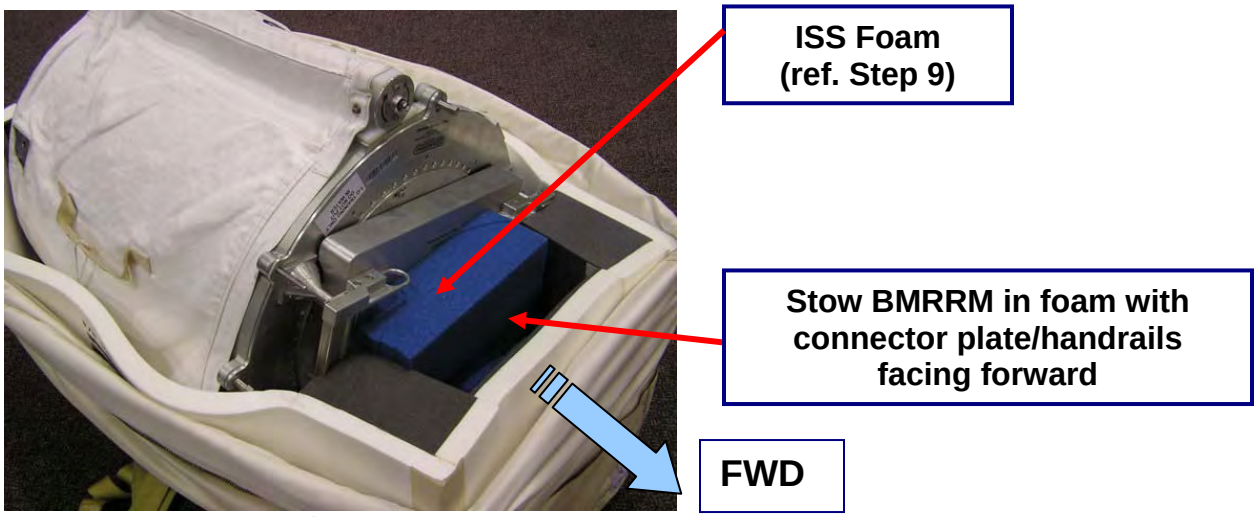


Figure 3

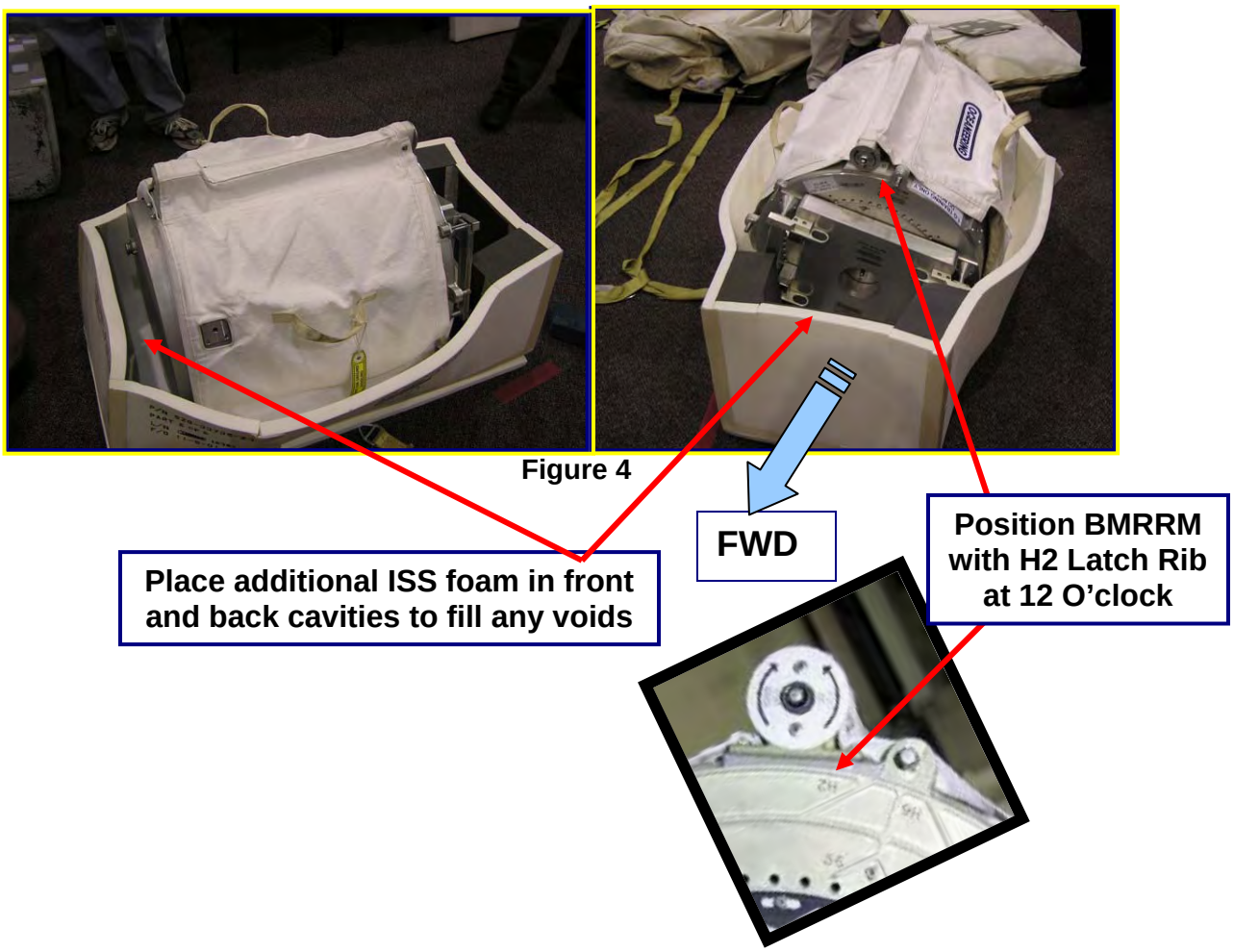


Figure 4

Step 10: Report to MCC-H (ACO Transfer) when BMRRM is packed in 10MLE Bag A.

END OF PAGE 2 OF 3, MSG 051

Strap Down BMRRM in Middeck

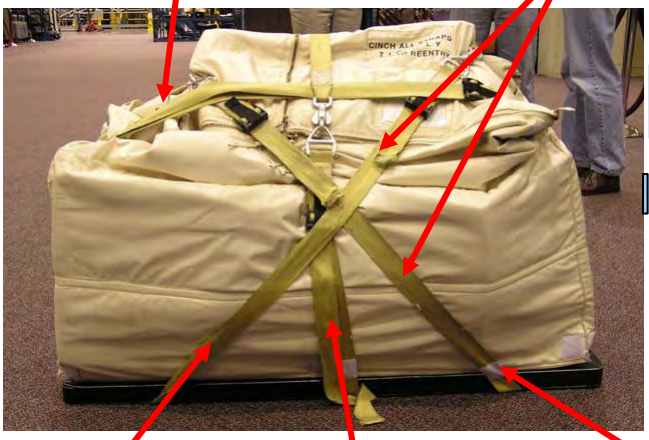
Step 11: Ensure BMRRM connector plate/handrails are facing forward (away from the hatch), properly clocked per figure 4, and strap down 10MLE Bag A per below figures.

NOTE: Connect and cinch all straps as shown, ensuring straps are not twisted.

FORWARD END (View Looking Aft)

3rd Cinch X Straps (2)

Fwd & Aft Y Straps Overlap Middle Y Strap



AFT

2nd Cinch Aft Y Strap

1st Cinch Fwd Y Strap to Preload BMRRM in Fwd Direction

4th Middle Y Strap Overlaps X Straps (2) Cinch Middle Y Strap

AFT

Orbiter Floor

Key Configuration

Step 11: Report when complete and any deltas to MCC-H (MMACS).

END OF PAGE 3 OF 3, MSG 051