STS-120 / 10A

FD 04 Execute Package

MSG	Page(s)	Title
026B	1 - 14	FD04 Flight Plan Revision **(pdf)**
027A	15 - 16	FD04 Mission Summary **(pdf)**
028	17-18	FD04 Transfer Message **(pdf - Electronic Only)**
029A	19	Water Ops Cue Card **(pdf)**
030	20	FD03 MMT Summary **(pdf)**
031	21	Background Information on the Naming of "Harmony" **(pdf)**
032A	22 – 23	FD04 EVA DELTAS **(pdf)**
033B	24 - 25	Manual WinDecom SpOC Update Procedure **(pdf)**

Approved by FAO: *Roger Smith*

Last Updated: Oct 26 2007 4:02AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

MSG INDEX

MSG NO.	TITLE
026	FD04 Flight Plan Revision
027	FD04 Mission Summary
028	FD04 Transfer Message
029	Water Ops Cue Card
030	FD03 MMT Summary
031	Background Information on the Naming of “Harmony”
032	FD04 EVA Deltas
033	Manual WinDecom SpOC Update Procedure

1. Node 2 Mate to Node 1 Port

   George and Clay: First of all, your CBM procedures have not changed. You will be happy to learn that, although there were some discussions about altering your capture or bolting commands, no changes were required.

   However, the Bolt Load PBIT on Bolt 1-4 has remained failed since PMA-3 demate. In response, we have changed the Bolt Loading commands OSO will be sending from the ground. These changes allow us to drive bolts that have failed the Bolt Load PBIT, since we believe the problem is that the load cell has a small, linear negative shift. Therefore, even if other bolts fail the Bolt Load PBIT during operations (which we do NOT expect), you can continue your commanding as written and we will deal with those bolts from the ground. The new bolt loading procedure the ground will run is on the Uplink shelf as ISS Message 16-0003 1.507 NODE 1 CBM Bolt Loading.

2. CDR Melroy indicated that Centerline camera recording was not possible due to a poor connection between the V10 and Monitor 1. Referencing PHOTO/TV pg. FS 1-14, which of the following cable(s) caused the problem?

   1. Mon 1 TV power cable (J2 AVIU port)
   2. AVIU-CC Video Cable (J3 AVIU port)
   3. Monitor 1 AVIU cable (J4 AVIU port)
   4. Digital CC Vid/Pwr cable (J7 AVIU port)

   Spare cables are located in the DTV camera bag labeled A17 - Spare P/TV cables.

3. 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
EVA 1 during APFR ops from a structure-mounted WIF: - SASA Retrieval - Z1 to P6 Umbilical Disconnect	No exercise	Station IRED, HC-1, & Velo Ergometer not allowed.
Node 2 Install from SSRMS Mnvr to RTL until CBM A-Bolts complete	No exercise	No exercise

4. REPLACE PAGES 2-10, 2-12, AND 3-32 THROUGH 3-41.

10/25/07 21:19:24 **REPLANNED**

GMT 10/26/07 (299)
β = -53
MET Day 002

04 05 06 07 08 09 10 11 12 13 14 15
12 13 14 15 16 17 18 19 20 21 22 23 003/00

STS-120	FD04 **R3** CDR MELROY	SLEEP; LOG; POST SLEEP; PMC A/G; POST SLEEP; INHBT; IPAD; EXERCISE; PWR FILL #1; CWC #1; INIT; N2 XFER INIT; CTC #1; TERM; MEAL; P/TV EVA; PRLA; CXFER	
STS-120	**R3** PLT ZAMKA	SLEEP; LOG; POST SLEEP; IWIS; MCIU*; P/TV 07 S/U; P/TV 06; SSRMS; EXERCISE; P/TV EVA/SSRMS; MEAL; P/TV EVA; P/TV EVA/SSRMS	**EVA 1 (6:30)**
STS-120	**EV1** MS1 PARAZYNSKI	SLEEP (A/L); POST SLEEP; HYGN BREAK/ PREBRTHE; CAMPOUT EVA PREP; EMU PURGE; EMU PBRTHE; C/L DPRS; PDPR; EGRSS; SASA RETRV; NODE PREP UBRTH; SASA STOW; NODE PREP FOR UNBRTH; DISCONN Z1/P6 FLUID; ♦	
STS-120	**M1,M2** MS2 WILSON	SLEEP; LOG; POST SLEEP; EXERCISE; XFER UPDATE; XFER; SASA STOW; MEAL; ND2 GRPL; ND2 UNBERTH INSTL	
STS-120	**EV2** MS3 WHEELOCK	SLEEP (A/L); POST SLEEP; HYGN BREAK/ PREBRTHE; CAMPOUT EVA PREP; EMU PURGE; EMU PBRTHE; C/L DPRS; PDPR; EGRSS; SASA RETRV; SASA STOW; NODE PREP FOR UNBRTH; P6 AFT RAD SHROUD	
STS-120	**IV** MS4 NESPOLI	SLEEP; POST SLEEP; HYG BRK/ HATCH CLS; CAMPOUT EVA PREP; EMU PURGE; EMU PBRTHE; C/L DPRS; PDPR; IV SUPPORT	
STS-120	**M3** FE-2 DN ANDERSON	SLEEP (8.5); POST SLEEP; PREP WORK; EXERCISE TVIS; SASA STOW; FFQ; MIDDAY-MEAL; ND2 GRPL; ND2 UNBERTH INSTL	
EXP 16	**IV2** ISS CDR WHITSON	SLEEP (8.5); POST SLEEP; HYG BRK/ HATCH CLS; CAMPOUT EVA PREP; EMU PURGE; EMU PBRTHE; C/L DPRS; PDPR; EXERCISE CEVIS; MIDDAY-MEAL; WDS FILL; ⊕; ♦	
EXP 16	FE-1 MALENCHENKO	SLEEP (8.5); POST SLEEP; PREP WORK; DPC; HAM; ORENT ATION; MNT-1; SOKOL LK CK; SORYOL; EXERCISE TVIS; N2 XFER INIT; GLOVE; ACY-RPLC; SOKOL; CLS; MIDDAY-MEAL; CBCS; PWRUP; CSA-CP C/O; VELO	
UP	**M2,M1** FE-2 UP TANI	SLEEP (8.5); POST SLEEP; PREP WORK; TVIS; HV/OS; ®; ADAPT; SOKOL LK CK; ADAPTATION; SASA STOW; CEVIS; HV/OS; MIDDAY-MEAL; ADAPT; ND2 GRPL; ND2 UNBERTH INSTL	

DAY/NIGHT

ORBIT 40 41 42 43 44 45 46 47 48

TDRS W -171 E -46 Z -275

ORB ATT BIAS -XLV -ZVV

SSRMS Lab

NOTES

No Exercise
IWIS thuster test

®A31P-V10-RECOVERY
*FILTER CK

No RED/VELO/STS Exercise
SASA retrieve APFR
FLT PLN/120/FLIGHT

⊕ER1-DSCNT
No RED/VELO/STS Exercise
Z1/P6 fluid APFR

♦P6 SHRD
♦EXERCISE

10/25/07 21:19:24 **REPLANNED**

GMT 10/26/07 (299) β = -55 MET Day 003

16 17 18 19 20 21 22 23 10/27 01 02 03 003/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-120	FD04 CDR MELROY	DAP; MNVR; UPDAT; P/TV EVA/SSRMS; LC; PRE SLEEP; IMU; PRE SLEEP; PMC A/G; PRE SLEEP; SLEEP
STS-120	PLT ZAMKA	♣; VERIF; CBM 1ST STG; CBM 2ND STG *; PRE SLEEP; N 1/2 VEST LEAK CK; PRE SLEEP; SLEEP
STS-120	MS1 PARAZYNSKI	P6 SHRD; SSU SHRD; INGRS; P-RPR; REPRS; POST EVA W/H2O,METOX; PRE SLEEP; SLEEP
STS-120	MS2 WILSON	ND2 UNBERTH INSTL; LIMP; BRAKE; ND2 UNGRP; XFER; BREF; PRE SLEEP; SLEEP
STS-120	MS3 WHEELOCK	⊕; SSU SHRD; INGRS; P-RPR; REPRS; POST EVA W/H2O,METOX; PRE SLEEP; SLEEP
STS-120	MS4 NESPOLI	IV SUPPORT; P-RPR; REPRS; POST EVA W/H2O,METOX; BSA BATT INIT; PRE SLEEP; CDM*; SLEEP
STS-120	FE-2 DN ANDERSON	ND2 UNBERTH INSTL; CBM 1ST STG; CBM 2ND STG *; IMS EDIT; PREP WORK; N 1/2 VEST LEAK CK; PRE SLEEP; PFC; PRE SLEEP; SLEEP (8.5)
EXP 16	ISS CDR WHITSON	EXERCISE RED; FFQ/TV; P-RPR; REPRS; POST EVA W/H2O,METOX; D/L; PREP WORK; DPC; PREP WORK; PRE SLEEP; SLEEP (8.5)
EXP 16	FE-1 MALENCHENKO	VELO; ORENTATION; COX MNT; CBCS; EXER; PREP; WORK; CBCS RMVL; PREP WORK; DPC; PREP WORK; PRE SLEEP; SLEEP (8.5)
UP	FE-2 UP TANI	ND2 UNBERTH INSTL; LIMP; ADAPT; BRAKE; ND2 UNGRP; PREP WORK; DPC; PW; PRE SLEEP; SLEEP (8.5)

DAY/NIGHT

ORBIT: 48 49 50 51 52 53 54 55 56

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

ORB ATT: BIAS -XLV -ZVV

SSRMS: Lab

NOTES:
♣P/TV EVA/SSRMS *AND A BOLTS
⊕P6 AFT RAD SHROUD
No Exercise from mnvr to RTL to A-Bolts complete.
*ACT

STS-120 FD04

REPLANNED

GMT Date 10/26 (299) | W | T D R S E | Z | O R B | MET Day 002 | S T S A T I

R3 CDR MELROY | **R3** PLT ZAMKA | **EV1** MS1 PARAZYNSKI | Notes

12:00 | 13:00 | 14:00 | 15:00 | 16:00 | 04:00 | 05:00 | 06:00 | 07:00

ORB: 40, 41, 42, 43

BIAS-XLV-ZVV

SLEEP

SLEEP

SLEEP (A/L)

FD04 EZ ACTIVITIES
OCAC Filter Inspect
Hard Reboot PGSCs (Except WLES and RPOP 2)

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)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

PRIVATE MEDICAL CONFERENCE

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

EVA SYS: 2.315 HYGIENE BREAK
MCC-H will perform steps 1-4, 16-20 & 23

EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP

STS-120 FD04

REPLANNED

GMT Date 10/26 (299) | W | TDRSE | Z | ORB | MET Day 002 | STS ATI | BIAS-XLV-ZVV

M1,M2 MS2 WILSON	EV2 MS3 WHEELOCK	IV MS4 NESPOLI	Notes
SLEEP	SLEEP (A/L)	SLEEP	
FLIGHT SLEEP LOG (ORB OPS, SDBI)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
	EVA SYS: 2.315 HYGIENE BREAK MCC-H will perform steps 1-4, 16-20 & 23		
		EVA SYS: 2.315 HYGIENE BREAK Steps 21-29, MCC will perform Step 23	
	EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP	EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP	

Time scale: 04:00, 05:00, 06:00, 07:00; 12:00, 13:00, 14:00, 15:00, 16:00

40, 41, 42, 43

STS-120 FD04

REPLANNED

GMT Date 10/26 (299) | W | TDRSE | Z | ORB | MET Day 002 | STS ATI

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

43 | 44 | 45

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

BIAS - XLV - ZVV

R3 CDR MELROY

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA1 INHIBIT PAD
(EVA, TIMELINES)
Ref: MSG 032 Item 3

EXERCISE

PWR FILL
(ORB OPS, ECLS)
Perform WATER FILL #1
Ref MSG 029
PWR will be Partially filled.
Fill duration ~20 min. Terminate on MCC call.

SHUTTLE/ISS H2O CONTAINER FILL
(ORB OPS,ECLS) Perform CWC FILL #1
Fill duration ~50 min, Ref: MSG 029.

JOINT OPS: 3.102 NITROGEN TRANSFER INIT

R3 PLT ZAMKA

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

IWIS INSTALLATION NEAR
SHUTTLE ERGOMETER
Ref: MSG 014, Steps 9-10
L17 Check MCIU filter screen

P/TV07 EVA
(PHOTO/TV, SCENES)
Perform SETUP

P/TV06 SSRMS
(PHOTO/TV, SCENES)
Perform Setup

EXERCISE

P/TV SUPPORT EVA
P/TV SUPPORT SSRMS
Config Shuttle Cameras per ROBO 1.220

EV1 MS1 PARAZYNSKI

EVA SYS: 2.320 10.2 PSIA
CAMPOUT EVA PREP

EVA SYS: 1.220 EMU PURGE

EVA SYS: 1.225 EMU PREBREATHE
Ref. MSG 025

EVA SYS: CREWLOCK DEPRESS (CC)

EVA SYS: CREWLOCK POST DEPRESS (CC)

EVA 1 A/L EGRESS AND SETUP

SASA RETRIEVE

Notes

UPLINK
β0 Only + Boxes
C1,C2,C3,E1

No Exercise
SASA Retrieve
APFR

STS-120 FD04

REPLANNED

GMT Date 10/26 (299) | W | T D R S E | Z | O R B | MET Day 002 | STS ATI

M1,M2 MS2 WILSON | **EV2** MS3 WHEELOCK | **IV** MS4 NESPOLI | Notes

16:00

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP

EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP

08:00

43

17:00

EXERCISE

EVA SYS: 1.220 EMU PURGE

EVA SYS: 1.220 EMU PURGE

09:00

EVA SYS: 1.225 EMU PREBREATHE Ref. MSG 025

EVA SYS: 1.225 EMU PREBREATHE Ref. MSG 025

BIAS_XLV_ZVV

44

TRANSFER UPDATE Ref: MSG 028

18:00

10:00

TRANSFER Ref: MSG 028

EVA SYS: CREWLOCK DEPRESS (CC)

EVA SYS: CREWLOCK DEPRESS (CC)

ROBO: 1.220 SASA STOW

EVA SYS: CREWLOCK POST DEPRESS(CC)

EVA SYS: CREWLOCK POST DEPRESS(CC)

EVA 1 A/L EGRESS AND SETUP

19:00

45

SASA RETRIEVE

11:00

IVA SUPPORT EVA 1

SASA STOW

20:00

STS-120 FD04

REPLANNED

GMT Date 10/26 (299) | W | T D R S E Z | ORB | MET Day 002 | STS ATI

R3 CDR MELROY | **R3** PLT ZAMKA | **EV1** MS1 PARAZYNSKI | Notes

20:00
JOINT OPS: 3.102 NITROGEN TRANSFER INIT
SHUTTLE/ISS H2O CONTAINER FILL
(ORB OPS, ECLS)
Perform FILL TERMINATION

P/TV SUPPORT EVA
P/TV SUPPORT SSRMS
Config Shuttle Cameras per ROBO 1.220

SASA RETRIEVE
NODE 2 PREP FOR UNBERTH

12:00

SASA STOW

MEAL

46

21:00

NODE 2 FINAL PREP FOR UNBERTH

13:00

P/TV SUPPORT EVA

BIAS-XLV-ZVV

MEAL

22:00

14:00

P/TV SUPPORT EVA

47

P/TV SUPPORT EVA
P/TV SUPPORT SSRMS
Config Shuttle Cameras per, ROBO 1.310 & 1.311

Z1-TO-P6 FLUID DISCONNECT

23:00

ROBO: 1.311 NODE 2 UNBERTH TO INSTALL
Steps 4-7

15:00

48

No Exercise
Z1/PR Fluid
APFR

CWC TRANSFER
Transfer CWC(s)to ISS

00:00

P6 AFT RADIATOR SHROUD DEPLOY

STS-120 FD04

REPLANNED

GMT Date 10/26 (299) | W | TDRSE | Z | ORB | MET Day 002 | STS ATI

M1,M2 MS2 WILSON | **EV2** MS3 WHEELOCK | **IV** MS4 NESPOLI | Notes

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

46
47
48

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

BIAS-XLV-ZVV

ROBO: 1.220 SASA STOW

SASA STOW

NODE 2 FINAL PREP FOR UNBERTH

MEAL

IVA SUPPORT EVA 1

ROBO: 1.310 BERTHED NODE 2 GRAPPLE

ROBO: 1.311 NODE 2 UNBERTH TO INSTALL
Steps 1-3, 8-19

P6 AFT RADIATOR SHROUD DEPLOY

STS-120 FD04

REPLANNED

GMT Date 10/26 (299) | W | TDRSE | Z | ORB | MET Day 003 | STS ATI

R3 CDR MELROY

R3 PLT ZAMKA

EV1 MS1 PARAZYNSKI

Notes

00:00

After ROBO: 1.311 Step 14,
DAP: A15/FREE/VERN

MNVR (TRK) UPDATE (NODE 2 Install)
TG=2 BV=5 P=154 Y=358 OM=180
A15/FREE/VERN Init TRK

P/TV SUPPORT EVA
P/TV SUPPORT SSRMS
Config Shuttle Cameras per
ROBO 1.311 & 1.312

P/TV SUPPORT EVA
P/TV SUPPORT SSRMS
Config Shuttle Cameras per, ROBO 1.310 & 1.311

S&M: 1.505 NODE 1 CBM
VERIFY PRE-MATE STATUS

P6 AFT RADIATOR SHROUD DEPLOY

SSU MLI SHROUD INSTALL

EVA 1 CLEANUP AND A/L INGRESS

UPLINK
β21 Only
+ Boxes
C1,C2,C3

No Exercise
from mnvr to
RTL to
A-Bolts
Complete

16:00

01:00

S&M: 1.506 NODE 1 CBM CAPTURE/ABOLT
Steps 1-4
NOTE: No Exercise

S&M: 1.506 NODE 1 CBM CAPTURE/ABOLT
Steps 5-7
NOTE: No Exercise

17:00

EVA SYS: CREWLOCK PREREPRESS (CC)

EVA SYS: CREWLOCK REPRESS (CC)

EVA SYS: 1.240 POST EVA
With H2O and METOX
Omit Steps 37 & 67.
MCC-H performs Steps 43 & 68.
REF: CONSUMABLES TRACKING CC

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

02:00

BIAS-XLV-ZVV

18:00

LCC ACT
(LCS CUE CARD, PHOTO/TV) Step 2
LCC DEACT
(LCS CUE CARD, PHOTO/TV) Step 1

NODE 1/NODE 2 VEST PRESS & LEAK CK
(ASSY OPS, ACT & C/O)

03:00

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

19:00

IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

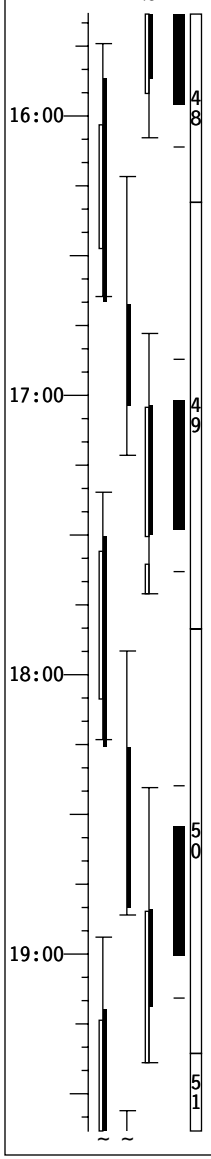
04:00

48 49 50 51

STS-120 FD04

REPLANNED

GMT Date 10/26 (299) | W | TDRSE | Z | ORB | MET Day 003 | STS ATI | M1,M2 MS2 WILSON | EV2 MS3 WHEELOCK | IV MS4 NESPOLI | Notes



00:00

01:00

02:00

03:00

04:00

BIAS-XLV-ZVV

M1,M2 MS2 WILSON

ROBO: 1.311 NODE 2 UNBERTH TO INSTALL
Steps 1-3, 8-19

ROBO: 1.311 NODE 2 UNBERTH TO INSTALL
Step 20

ROBO: 1.311 NODE 2 UNBERTH TO INSTALL
Steps 21-23
ROBO: 1.312 NODE 2 MATED UNGRAPPLE

TRANSFER BRIEF:
CALL DOWN STATUS TO MCC

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EV2 MS3 WHEELOCK

P6 AFT RADIATOR SHROUD DEPLOY

SSU MLI SHROUD INSTALL

EVA 1 CLEANUP AND A/L INGRESS

EVA SYS: CREWLOCK PREREPRESS (CC)

EVA SYS: CREWLOCK REPRESS (CC)

EVA SYS: 1.240 POST EVA
With H2O and METOX
Omit Steps 37 & 67.
MCC-H performs Steps 43 & 68.
REF: CONSUMABLES TRACKING CC

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

IV MS4 NESPOLI

IVA SUPPORT EVA 1

EVA SYS: CREWLOCK PREREPRESS (CC)

EVA SYS: CREWLOCK REPRESS (CC)

EVA SYS: 1.240 POST EVA
With H2O and METOX
Omit Steps 37 & 67.
MCC-H performs Steps 43 & 68.
REF: CONSUMABLES TRACKING CC

EVA SYS: 1.605 BSA BATTERY RECHARGE
(INIT)
Ref: BATTERY RECHARGE PLAN CC

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

STS-120 FD04

REPLANNED

GMT Date 10/26 (299) | W | TDRSE | Z | ORB | MET Day 003 | STS ATI | CDR MELROY | PLT ZAMKA | MS1 PARAZYNSKI | Notes

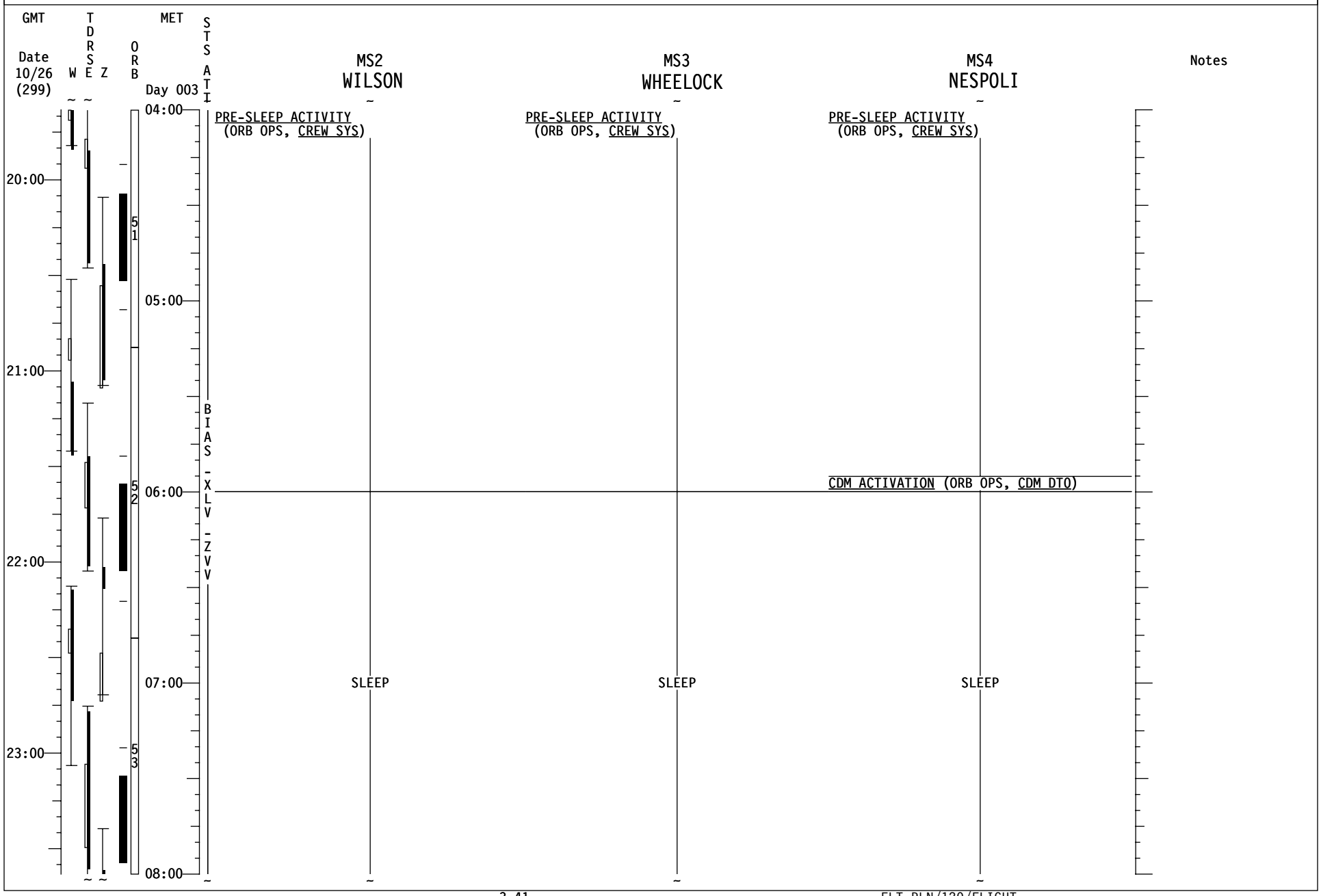
GMT	MET	CDR MELROY	PLT ZAMKA	MS1 PARAZYNSKI
20:00	04:00	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
		PRIVATE MEDICAL CONFERENCE		
		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
21:00	05:00			
22:00	06:00			
23:00	07:00	SLEEP	SLEEP	SLEEP
	08:00			

ORB: 51, 52, 53

STS ATI: BIAS-XLV-ZVV

STS-120 FD04

REPLANNED



Good Morning Discovery!!!!

The rendezvous yesterday was outstanding! Thank you so much for the great job all of you are doing!

Most of the Planning shift watched the ISS-shuttle complex fly over this evening. It was a spectacular sight, the brightest that anyone ever remembers seeing!

Have a great EVA day!

YOUR CURRENT ORBIT IS: 188 X 180 NM

NOTAMS:

EDW – RWY 15/33 ELS ONLY. RWY 18L – CLOSED.
NOR – GREEN.
NTU - RWY 05R/23L CLOSED.
WAL – RWY 04/22 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.
HAO – DME OUT
BEN – POLITICALLY NOT RECOMMENDED/NOT SUPPORTED.

NEXT 2 PLS OPPORTUNITIES:

EDW22 ORB 48 – 3/00:00 (SKC 210/05P10)
EDW22 ORB 64 – 4/00:22 (SCT200 060/07P12)

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:

	w/ Node2	Node 2 Deployed
OMS	301 FPS	346 FPS
ARCS (TOTAL ABOVE QTY1)	37 FPS	43 FPS
TOTAL IN THE AFT	338 FPS	389 FPS
ARCS (TOTAL ABOVE QTY2)	66 FPS	76 FPS
FRCS (ABOVE QTY 1)	28 FPS	32 FPS
AFT QTY 1	82 %	82 %
AFT QTY 2	44 %	44 %

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

Good morning crew,

Stephanie, we understand you didn't have time to incorporate all the change-pages into the hardcopy Transfer Book yesterday, so today we've revised the entire uplink package for incorporation today. Please note that the 'change-pages' you received in the FD03 Transfer Message (016 not printed onboard) should be disregarded in favor of the new pages attached to this FD4 Transfer Message. You will be replacing ALL the pages in your hard-copy Transfer Book. To give you time to incorporate all the pages and review the changes to the Transfer List, we've converted 30 minutes of your 1 hour of transfer time today into XFER UPDATE time. Based on your call last night, we'll uplink the message and you can print the pages at your leisure. You'll notice we've marked all the items you transferred yesterday as complete. Great work!

The Transfer List Excel file, FD04_TransferList_STS120.xls, is located on the KFX machine in **C:\OCA-up\transfer**.

For ISS, the Transfer List Excel file, FD04_TransferList_STS120.xls, is located in **K:\OCA-up\transfer**.

<u>Choreography (items for transfer today)</u>

- **Item 123 –** Initial Ingress and DDCU Rack Prep Ziplocks
- **Item 708 –** Silver Biocide Kit for CWC Fills
- **Any additional items as time permits**

Please incorporate uplink pages as follows:

In **LAYOUTS** tab
Replace All Pages:

In **RESUPPLY** tab
Replace All Pages:

In **RSPLY REALTIME ADDITIONS** Tab
Replace All Pages:

In **SWAP** Tab
Replace All Pages:

In **RETURN** tab
Replace All Pages:

In **RTN REALTIME ADDITIONS** Tab
Replace All Pages:

In **REFERENCES** Tab
Replace All Pages:

Changes to the Transfer List are detailed below.

<u>RESUPPLY</u>
Item 107: Updated Item name

Item 108: Updated Stowage at Undock, added constraint
Item 110: Corrected Typo
Item 112: Corrected Typo, Updated Initial Stowage
Item 113: Updated Initial Stowage
Item 122: Updated Stowage at Undock, Updated constraints
Item 125: Updated Stowage at Undock, Updated constraints
Item 131: Updated Stowage at Undock
Item 132: Updated Stowage at Undock
Item 135: Updated Stowage at Undock, Updated constraints
Item 137: Updated Stowage at Undock
Item 139: Added Serial Number, Updated Initial Stowage
Item 145: Corrected Typo
Item 151: Updated Stowage at Undock

RSPLY REALTIME ADDITIONS
Item 801: New Item
Item 802: New Item
Item 803: New Item

SWAP
Item 707: Corrected Item Number, Corrected Typo
Item 103: Updated Constraints
Item 720: Corrected Item Number, Updated Constraints
Item 715: Corrected Item Number, Updated Constraints
Item 126: Updated Constraints
Item 718: Corrected Item Number
Item 803: New Item
Item 804: New Item
Item 127: Updated Comments
Item 717: Corrected Item Number, Updated Initial Location
Item 139: Updated Item Name, Initial Location, Stowage at Undock, and Constraints
Item 400.1: Added Serial Number
Item 143: Updated Quantity
Item 706: Corrected Item Number, Updated Quantity, Updated Comments

RETURN
Item 400 through 412: New Items
Item 600 through 613: New Items
Item 700 through 723: New Items

RTN REALTIME ADDITIONS
Item 804: New Item
Item 805: New Item

Call us with any questions and have a great day!

- The Transfer Team

MSG 029A - WATER OPS CUE CARD

CWC FILLS

	CWC No.	Input S/N Used	Sample?	Additives	CWC Label	CWC Launch Location
☐	1		Sample (Note A)	Ag Biocide	Green (Tech)	Ref Note B
☐	2		Sample (Note A)	Ag Biocide	Green (Tech)	Ref Note B
☐	3		Sample (Note A)	Ag Biocide	Green (Tech)	Ref Note B
☐	4		Sample (Note A)	Ag Biocide	Green (Tech)	Ref Note B
☐	5		Sample (Note A)	Ag Biocide	Green (Tech)	Ref Note B
☐	6		Sample (Note A)	Ag Biocide	Green (Tech)	Ref Note B
☐	7		Sample (Note A)	Ag Biocide, Minerals	Blue (Pot)	Ref Note C
☐	8		Sample (Note A)	Ag Biocide, Minerals	Blue (Pot)	Ref Note C
☐	9		Sample (Note A)	Ag Biocide	Green (Tech)	Ref Note B, E

Post-Fill Checklist:

- Check correct label is in CWC window
  1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐ 8☐ 9☐
- Check correct decal on CWC end
  1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐ 8☐ 9☐
- Check correct CWC S/N on end decal
  1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐ 8☐ 9☐
- Report S/N to MCC
  1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐ 8☐ 9☐
- Transfer CWC to NOD1D2
  1☐ 2☐ 3☐ 4☐ 5☐ 6☐ 7☐ 8☐ 9☐

CWC Fill Notes:

A. Stow filled purge bags and filled sample bags in MF14H

B. In Pregathered Mesh Bag; Available Technical S/Ns: 1021 ☐ 1073 ☐ 1077 ☐ 1051 ☐ 1066 ☐ 1065 ☐ 1068 ☐

C. In Pregathered Mesh Bag; Available Potable S/N: 1006 ☐ 1004 ☐

D. Also contained in Pregathered Mesh Bag are Ag Biocide Kit S/N 1005, and Condensate CWC S/N 5057 (do not use for CWC fills)

E. Bag will be filled provided sufficient water available

Kit	S/N	Launch Location	Undock Location	Notes
Ag Biocide Kit	1005	Pregathered Mesh Bag	MF43G	Use for CWC Fills #1-6 and stow in Middeck
Ag Biocide Kit	1006	MF43G	NOD1D2 M-02 Bag	Use for remaining CWC Fills and transfer to ISS
Mineralization Kit	1003	MF43G	MF43G	Use for potable fill
Sample/Purge Kit	1006	MF43G	MF43G	Transfer any remaining empty sample bags to ISS per the transfer list, Item 130.

PWR OPS

	PWR No.	PWR S/N	Launch Location	Actions
☐	1	2002 (OGS)	ISS A/L1D1_B1	Fill and temp stow at OGS rack, LAB1P1. Will return to Shuttle for refill.
☐	2	1025	ISS A/L1D1_B2	Vent, fill and transfer to ISS A/L1D1_B2.
☐	3	1026	ISS A/L1D1_B2(A2)	Vent, fill and transfer to ISS A/L1D1_B2 post EVA2.
☐	4	2002 (OGS)	ISS A/L1D1_B1	Vent, fill and temp stow at OGS rack, LAB1P1.
☐	5	1027	ISS A/L1D1_A2	If sufficient water available, vent, fill and transfer to ISS A/L1D1_A2 post EVA 4.

PWR Fill Notes:

- Post fill, gently squeeze each bag and inspect for potential leaks. If found, report to MCC
- Do not detach PWR (EMU H2O Recharge Bag) QD restraint during PWR ops

The MMT met to review mission progress. There were only a few items of discussion including a continuing review of ascent imagery and inspection data, WLE sensor data, ascent trajectory data, and propulsion systems performance. The MMT congratulated the crew on a successful rendezvous.

Ascent Data Review - The ascent data review indicates that ascent was nominal. There were no SRB hold down post stud hang ups indicated in the orbiter acceleration data. Additionally, the SSME, ET, SRB and ascent trajectory data (alpha, beta, q-bar, altitude, and altitude rates), all indicate that powered flight was nominal with no issues.

Imagery/Debris Assessment Team - The imagery and debris assessment teams continue to process the FD 2 inspection and FD 3 RPM photography data, but at this point, there are no concerns with the Thermal Protection System. The details of these reviews will be presented to the FD 4 MMT. Additionally, radar data and ascent imagery continue to be assessed, but there are currently no new items of interest.

Wing Leading Edge Sensor data - There have been four orbit indications noted, but these were all less than 1.15 Grms, and the team is not concerned.

Starboard SARJ - The ISS team is still assessing possible causes for the Starboard SARJ vibration, and as a result, the Flight Control Team has been asked to assess the potential for an EVA inspection of the SARJ. No decisions have been made and the Flight Control Team will keep you apprised of any possible changes to the timeline.

Node 2 Window Cover - Pictures of Node 2 in the payload bay show that one of the hatch window covers is open. The team is considering if that should be secured on one of the upcoming EVAs and, if so, which EVA could easily accommodate this simple task.

NASA announced the new name for Node 2 at a special event at Kennedy Space Center, Fla. in March.

The name was chosen from an academic competition involving more than 2,200 kindergarten through high school students from 32 states. The Node 2 Challenge required students to learn about the space station, build a scale model and write an essay explaining their proposed name for the module that will serve as a central hub for science labs.

"With this competition and similar ones, NASA continues its tradition of investing and engaging in the nation's education programs. These types of academic competitions involve students, educators, families and the general public and help them participate in our nation's space exploration program," said Joyce Winterton, assistant administrator for Education.

Six different schools submitted "Harmony." A panel of NASA educators, engineers, scientists and senior agency management selected "Harmony" because the name symbolizes the spirit of international cooperation embodied by the space station, as well as the module's specific role in connecting the international partner modules.

The winning schools are:
-- Paul Cummins' 8th Grade class at Browne Academy, Alexandria, Va.
-- Sue Wilson's 3rd grade class at Buchanan Elementary School, Baton Rouge, La.
-- Brigette Berry's 8th grade class at League City Intermediate School, League City, Texas
-- Bradley Neu's 9th grade science class at Lubbock High School, Lubbock, Texas
-- Russell Yocum's 3rd Grade class at West Navarre Intermediate School, Navarre, Fla.
-- David Dexheimer's students at the World Group Home School, Monona, Wis.

Who's ready for EVA 1?! We're looking forward to getting the SASA in the bay to come home, getting Harmony out of the bay and starting the preparation for P6's big move! We have a couple of small items for you today:

1. The stbd Node 2 CBM hatch flap is open (the one that Scott nominally opens/closes on EVA 2), and Wheels should be passing by the area on his way aft to the PCBM covers (page FS 7-29). If he can see the condition of the snap and receptacle, we'd appreciate a quick report (no need to alter your translation path - a couple quick words are sufficient).

Attached is the best photo we have of the open flap (the ISS crew snapped the photo after RPM). We can't tell if the snap is broken in the photo - it's possible that the 'ball' of the snap (on the flap side) has broken off into the receptacle or that the receptacle has bent a little out of shape.

2. During 2.305 10.2 PSIA Campout Mask Prebreathe procedure, our telemetry indicated that the EV crew was likely "helping" the O2 concentration by introducing O2 via the prebreathe mask. The final O2 concentration values were a little higher than we would have liked. We are concerned that similar levels of O2 introduction for subsequent Campout procedures could impact the overall station O2 concentration. Our suggestion is for the EV crew to not introduce O2 if CSA-O2s are reading greater than 25.5%.

3. A note to the EVA timeline:

EVA, <u>TIMELINES</u>, FS 7-5, EVA 1 INHIBIT PAD

LOCATION DEPENDENT INHIBITS

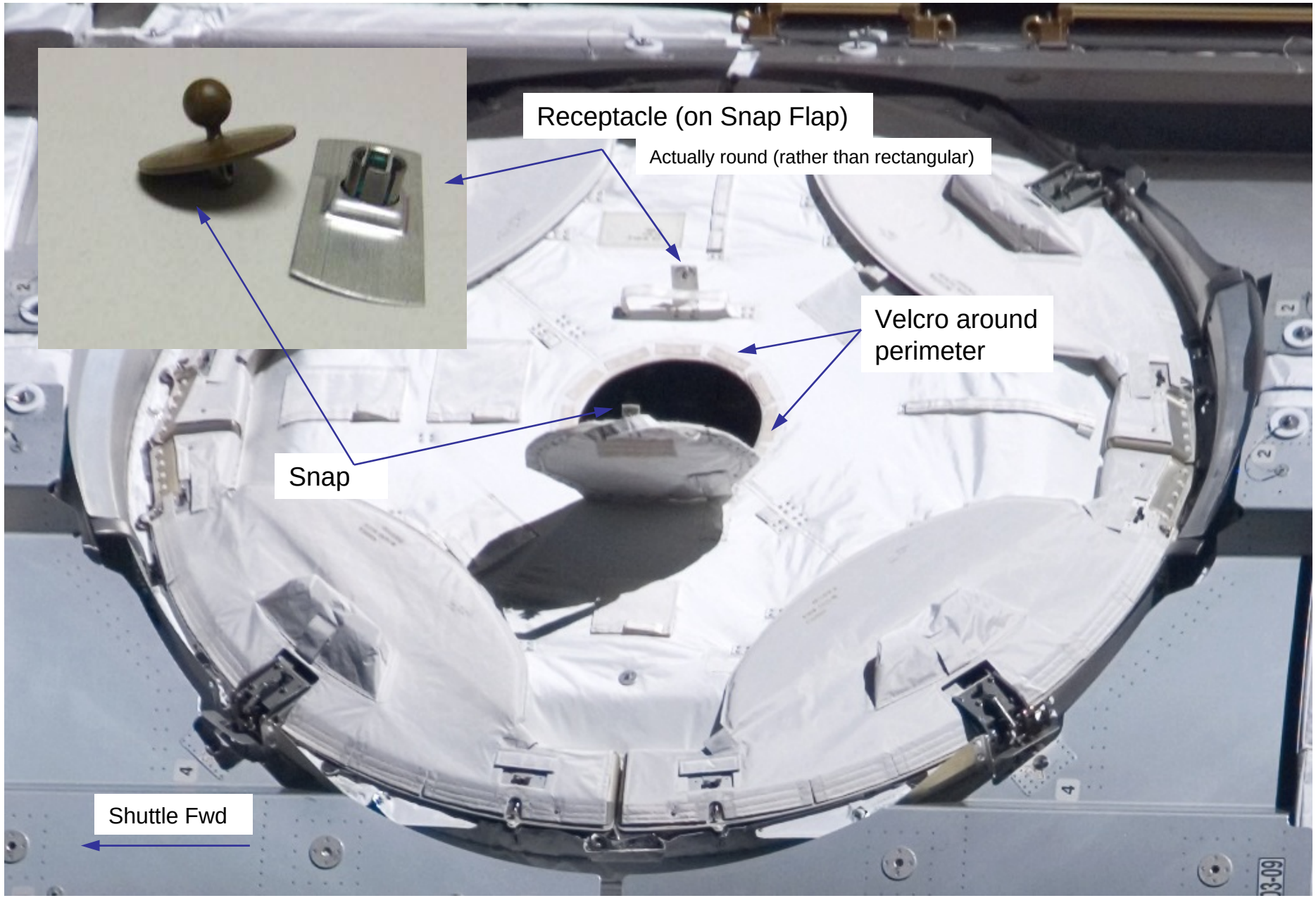
The Lab window shutter is closed and will remain that way during the entire mission. This also completes that inhibit for the rest of the EVAs (Inhibit Pads on pages FS 7-47, FS 7-93, FS 7-149, and FS 7-151)

EVA, <u>TIMELINES</u>, FS 7-6, EVA 1 INHIBIT PAD

EVA 1 SPECIFIC INHIBITS - SSPTS DEACTIVATION

Expect "SPEC 179 OPCU CH VOLTS" messages after MCC performs SSPTS Deactivation. (This will occur for all EVA's).

Stbd Orbiter Sill just out of view (watch the monkey fur)



Due to network problems, the WinDecom machine may not be on the network during the mission, therefore SPOC files cannot be updated (these files are normally updated daily). In order to to use the functions on the WinDecom machine that use the SPOC Updates, such as World Map, these files must be manually transferred. To transfer the files, follow the procedure below. MCC will inform you when you need to perform this procedure. If you do not perform this procedure, it is not recommended to use the WinDecom PGSC for Worldmap and other SPOC applications.

1. Copy all files from \\KFX\C\oca-up\Spoc to a PCMCIA Card and transfer the card to the WinDecom machine.

2. Copy the files from the PCMCIA card to the following locations:

Files:
CGMNGR32.INI
DEORBIT.INI
Copy to:
\\WINDECOM\C\SPOCAPPS\DEORBIT

Files:
CONSUM.CGM
PROP.CGM
CARGO.CGM
Copy to:
\\WINDECOM\C\SPOCAPPS\DEORBIT\MASSPROP

Files:
LATESTGLOBALCLOUDCOVER.JPG
Copy to:
\\WINDECOM\C\SPOCAPPS\WORLDMAP\DATA\PRIV\LAYERS\CLOUDCOVER

Files:
TVASERVERUPDATE.DAT
Copy to:
\\WINDECOM\C\SPOCAPPS\TVASERVER

Files:
TVASERVER.OCA
Copy to:
\\WINDECOM\C\COMNDATA

Files:
LAUNCH.MDB
RETURN.MDB
Copy to:
\\WINDECOM\C\SPOCAPPS\LOCKERSTOW

Files:
NAVO16B.DATAFILE.ASC
NAVO16B.DESCRIPT.ASC
Copy to:
\\WINDECOM\C\SPOCAPPS\DEORBIT\ISFILES\NAVO16B

Note: Not all the files mentioned above will be available for transfer (not every file is updated every day).