STS-120 / 10A

FD 06 Execute Package

MSG	Page(s)	Title
054B	1 - 15	FD06 Flight Plan Revision **(pdf)**
055	16 - 17	FD06 Mission Summary **(pdf)**
056	18 - 21	FD05 MMT Summary **(pdf)**
057	22	FD06 Transfer Message **(pdf)**
058	23	FD6 EVA DELTAS **(pdf)**
059	24	SRMS Mnvr to Pre-Cradle Position **(pdf)**

Approved by FAO: *Roger Smith*

Last Updated: Oct 28 2007 2:29AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

MSG INDEX

MSG NO.	TITLE
054	FD06 Flight Plan Revision
055	FD06 Mission Summary (16-0083)
056	FD05 MMT Summary (16-0084)
057	FD06 Transfer Message (16-0085)
058	FD06 EVA Deltas (16-0090)
059	SRMS Mnvr to Pre-Cradle Position

1. Due to a combination of the current attitude and the high Beta angle, the SRMS Shoulder temperatures have been higher than expected. When the SRMS was taken to Pre-cradle on FD5, the temps started a rapid rise and the SP ABE temp came to within 7 deg of the operational limit before we had you maneuver back to the Node 2 Viewing position. Turning off the Port RMS Heaters had no effect on the temperatures (i.e. no heater failure). For today, we will have you maneuver back to Pre-cradle just prior to the start of SSRMS P6 operations and maneuver to the P6 Pre-grapple position as soon as the SSRMS is at P6 Handoff. This is to minimize the time spent at the Pre-cradle position and thus attempt to keep the SRMS Shoulder temps below their operational limits. The RMS MER has approved temps as high as 140 deg, but we do not expect them to get that high.

   Although the Shoulder is hot, please take the RMS heaters to Auto so that the rest of the arm does not get too cold:

   A8L PORT RMS HTR (two) - AUTO

2. At MET 4/15:15, perform a Waste H2O Dump using SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS), p.5-2. MCC will TMBU limits in steps B and K.

   For today's activities, we will need to ensure the ISS arrays are in a proper configuration prior to opening the waste dump nozzle in part G step 3. We have added a note in the flight plan details to make sure MCC-H is in the proper configuration prior to performing this step.

   Dump the waste tank to 5%. Nozzle open time will be approximately 20 minutes.

3. Since the cable replacement procedure appears to have taken care of the PGSC Network problem, we would like you to keep these cables for return. For return manifest purposes, we would like to know what the serial numbers are of the cables that you procured from ISS.

   Also, to help speed up the process of figuring out what happened with the network once you return, we would like to know the serial number of the faulty 3Com card you replaced on the KFX machine yesterday.

4. <u>SSPTS Deactivation Plan:</u>
   OPCU Converter 2A will be deactivated prior to the maneuver to the H2O dump attitude. The remaining two converters (1A, 1B) will be deactivated as part of the EVA2 Inhibit Pad. (Reference MSG 032)

   Expect corresponding “SPEC 179 OPCU CH VOLT” messages.

5. Peggy and Paolo,

   Thanks for your hard work during Node 2 ingress and ventilation setup. The measurements you took equate to 100 cfm IMV flow to Node 2. That's much more than the 70 cfm we expected. GREAT job, guys!

6. 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
ACS STS to CMG-Only Without RS SMTC Attitude Control Handover	No exercise	No exercise
<u>EVA 2</u> during APFR ops from a structure-mounted WIF: - P6 Detach - Node 2 PDGF Install	No exercise	Station IRED, HC-1, & Velo Ergometer not allowed
<u>RTAS Ops- Detach P6</u> from RTAS break torque to Capture latch fully open	No exercise	No exercise

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

10/27/07 21:23:52 **REPLANNED**

GMT 10/28/07 (301)
β = -61
MET Day 004

04 05 06 07 08 09 10 11 12 13 14 15
12 13 14 15 16 17 18 19 20 21 22 23 005/00

STS-120	**FD06** CDR MELROY	SLEEP; LOG; POST SLEEP; PMC A/G; POST SLEEP; FES*; POST SLEEP; IMU; INHBT; PNB; MNVR; TEVA*; ATT H/O*; P/TV EVA; MEAL; DAP; MNVR; UPDAT; CWC#3; INIT; CWC#3; TERM; CWCX
STS-120	PLT ZAMKA	SLEEP; LOG; POST SLEEP; H/O; MNVR; DUMP; WASTE; INIT; POST SLEEP; WASTE; TERM; POST SLEEP; P/TV 07 S/U; P/TV SSRMS; EXERCISE; MEAL; P/TV EVA/SSRMS; P/TV EVA
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; Z1/P6 UMB; DETACH P6; NODE 2 OUTFIT; NODE2 PDGF INSTL
STS-120	**M1,R1** MS2 WILSON	SLEEP; LOG; POST SLEEP; RMS MNVR; UNGRAP; P6 GRAPL; MEAL; P6 DEMATE; P6 GRAPL; TRANSFER
STS-120	**M2,R2** MS3 WHEELOCK	SLEEP; LOG; POST SLEEP; EXERCISE; UNGRAP; P6 GRAPL; MEAL; P6 DEMATE; P6 GRAPL; TRANSFER
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	FE-2 DN ANDERSON	SLEEP (8.5); POST SLEEP; PREP WORK; STOW; RMOV; EWIS NCU ACT&C/O; STOW; REPL; N1P GUIDE ASSY; N2A GUIDE ASSY; EXERCISE RED; OCA ROUTER INSTL; MIDDAY-MEAL; N2-C/O PNL BOLT-RMVL; ND2 PFE PBA INSTL; ND2 HYZOD CVR INST; ND2 CBCS INSTL
EXP 16	**IV2** ISS CDR WHITSON	SLEEP (8.5); IMMN*; POST SLEEP; HYG BRK/ HATCH CLS; CAMPOUT EVA PREP; EMU PURGE; EMU PBRTHE; C/L DPRS; PDPR; PFE CMO; MIDDAY-MEAL; N2 NPRV RMV/IMV INST; EXERCISE RED; EXERCISE CEVIS
EXP 16	FE-1 MALENCHENKO	SLEEP (8.5); POST SLEEP; DPC; HAM; PREP WORK; ORIENTATION; ИП-1; MNT; CMS PRE-EVA-PFE SUBJ; MIDDAY-MEAL; N2-C/O PNL BOLT-RMVL; EXERCISE VELO; ND2 HYZOD CVR INST; CтM FOTO FI-1; PHD/L
UP	**EV3** FE-2 UP TANI	SLEEP (A/L); IMMN*; POST SLEEP; HYGN BREAK/ PREBRTHE; CAMPOUT EVA PREP; EMU PURGE; EMU PBRTHE; C/L DPRS; PDPR; EGRSS; Z1/P6 UMB; DETACH P6; A/L OPS; SARJ-INSPECT; S1 SFU; MBSU; RPCM R&R; NODE2 PDGF INSTL

DAY/NIGHT

ORBIT: 72 73 74 75 76 77 78 79

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

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

SSRMS: Lab/PDGF3 WS4; PDGF3 WS4

NOTES:
*Deactivation
*VRCS-CMG MM
*BIAS ISS -XVV
No Ex Detach P6
No RED/VELO/STS Exercise ND2 PDGF APFR
No Exercise during Att H/O

EVA 2 (6:30)

2-18

FLT PLN/120/FLIGHT

10/27/07 21:23:52 **REPLANNED**

GMT 10/28/07 (301)
β = −62
MET 005/00 Day 005

16 17 18 19 20 21 22 23 10/29 01 02 03 04 05 06 07 08 09 10 11 12

STS-120	FD06 CDR MELROY	CWCX; CWC#4 INIT; EXERCISE; CWC#4 TERM; CWC XFER; PRE SLEEP; PMC A/G; PRE SLEEP; SLEEP
STS-120	PLT ZAMKA	P/TV EVA; WCS*; FILTER INSPECT; PRE SLEEP; SLEEP
STS-120	MS1 PARAZYNSKI	NODGF2 PDGF INSTL; NOUDT EF2T; INGRS; P-RPR; REPRS; POST EVA W/H2O,METOX; PRE SLEEP; SLEEP
STS-120	MS2 WILSON	TRANSFER; EXERCISE; PRE SLEEP; SLEEP
STS-120	MS3 WHEELOCK	TRANSFER; XFER; BRIEF; PRE SLEEP; SLEEP
STS-120	MS4 NESPOLI	IV SUPPORT; P-RPR; REPRS; POST EVA W/H2O,MTX; TERM*; BSA BATT INIT; PRE SLEEP; CDM*; SLEEP
STS-120	FE-2 DN ANDERSON	NDB2 CSCS; INSTL; P/TV; EXERCISE TVIS; EXER; PREP WORK; DD/LL; DPC; PRE SLEEP; SLEEP (8.5)
EXP 16	ISS CDR WHITSON	♣; P-RPR; REPRS; POST EVA W/H2O,METOX; PRE SLEEP; SLEEP (8.5)
EXP 16	FE-1 MALENCHENKO	IMS EDIT; PREP WORK; COX MNT; DPC; PRE SLEEP; SLEEP (8.5)
UP	FE-2 UP TANI	NODGF2 PDGF INSTL; NOUDT EF2T; INGRS; P-RPR; REPRS; POST EVA W/H2O,METOX; PFC; PRE SLEEP; SLEEP (8.5)

DAY/NIGHT

ORBIT 80 81 82 83 84 85 86 87

TDRS W -171 E -46 Z -275

ORB ATT BIAS -XLV -ZVV

SSRMS PDGF3 WS4

NOTES
♣EXERCISE CEVIS *EMU *ACT
*FILTER CK
No RED/VELO/STS
Exercise
ND2 PDGF APFR

2-20 FLT PLN/120/FLIGHT

STS-120 FD06

REPLANNED

GMT Date 10/28 (301) | W | TDRSE | Z | ORB | MET Day 004 | STS ATI

CDR MELROY | PLT ZAMKA | EV1 MS1 PARAZYNSKI | Notes

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

72 | 73 | 74

BIAS -XLV -ZVV

SLEEP | SLEEP | SLEEP (A/L)

FD06 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

A14 RCS/OMS HTR L POD - B OFF - A AUTO
I'CNCT: L OMS to RCS (OPCL, RCS)
JNT OPS: 3.110 H/O ATT CNTL CMG TO ORB

MNVR (TRK) BIAS -XLV +YVV (H2O DUMP)
TG=2 BV=5 P=154 Y=358 OM=193
A15/AUTO/VERN Init TRK

SUPPLY/WASTE WATER DUMP [A] (ORB OPS, ECLS)
Ref. MSG 054, Item 2

EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP

UPDATE H2O WASTE DUMP QTY

L1 FLASH EVAP CNTLR PRI B - OFF
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

[A] Prior to Part G Step 3,verify with MCC that ISS arrays are in proper config

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

STS-120 FD06

REPLANNED

GMT Date 10/28 (301) | W | TDRSE | Z | ORB | MET Day 004 | STS ATI | M1,R1 MS2 WILSON | M2,R2 MS3 WHEELOCK | IV MS4 NESPOLI | EV3 FE-2 (UP) TANI | Notes

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

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

72 73 74

BIAS-XLV-ZVV

M1,R1	M2,R2	IV	EV3
SLEEP	SLEEP	SLEEP	SLEEP (A/L)
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)	SALIVA COLLECTION FOR INTEGRATED IMMUNE Perform Step 2 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-H will perform step 23	
		EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP	EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP

STS-120 FD06

REPLANNED

GMT Date 10/28 (301) | W | TDRSE | Z | ORB | MET Day 004 | STS ATI

CDR MELROY	PLT ZAMKA	EV1 MS1 PARAZYNSKI	Notes
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Waste Dump POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP	
IMU STAR OF OPPTY ALIGN (ORB OPS, GNC) EVA2 INHIBIT PAD (EVA, TIMELINES)			
MNVR (TRK) BIAS -XLV -ZVV (ISS -XVV) TG=2 BV=5 P=152.39 Y=358.33 OM=178.79 A15/AUTO/VERN Init TRK	P/TV07 EVA (PHOTO/TV, SCENES) Perform SETUP	EVA SYS: 1.220 EMU PURGE	UPLINK β0 Only + Boxes C1,C2,C3,E2
H/O ATTITUDE CONTROL ORBITER TO CMG-ONLY WITHOUT RS SMTC Ref. MSG 042	P/TV SUPPORT SSRMS Config Shuttle Cameras per ROBO: 1.611 & 1.410	EVA SYS: 1.225 EMU PREBREATHE Ref. MSG 025	No Exercise during Att H/O
		EVA SYS: CREWLOCK DEPRESS (CC)	
	EXERCISE	EVA SYS: CREWLOCK POST DPRS(CC) EVA 2 A/L EGRESS AND SETUP	
P/TV SUPPORT EVA		Z1 TO P6 UMBILICAL DISCONNECT	
		DETACH P6 FROM Z1 Ref: MSG 040	**No exercise Detach P6.**
	MEAL		

Time scale: 08:00, 09:00, 10:00, 11:00; 16:00, 17:00, 18:00, 19:00, 20:00

BIAS -XLV -ZVV

74, 75, 76, 77

STS-120 FD06

REPLANNED

GMT Date 10/28 (301) | W | TDRSE | Z | ORB | MET Day 004 | STS ATI

M1,R1 MS2 WILSON	M2,R2 MS3 WHEELOCK	IV MS4 NESPOLI	EV3 FE-2 (UP) TANI	Notes
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	
SRMS MNVR TO PRE-CRADLE POSITION Ref: MSG 059	EXERCISE			
		EVA SYS: 1.220 EMU PURGE	EVA SYS: 1.220 EMU PURGE	
ROBO: 1.611 LAB PDGF UNGRAPPLE	ROBO: 1.611 LAB PDGF UNGRAPPLE	EVA SYS: 1.225 EMU PREBREATHE Ref. MSG 025	EVA SYS: 1.225 EMU PREBREATHE Ref. MSG 025	
ROBO: 1.410 P6 PDGF GRAPPLE ON Z1	ROBO: 1.410 P6 PDGF GRAPPLE ON Z1			No Exercise during Att H/O
		EVA SYS: CREWLOCK DEPRESS (CC)	EVA SYS: CREWLOCK DEPRESS (CC)	
		EVA SYS: CREWLOCK POST DPRS(CC)	EVA SYS: CREWLOCK POST DPRS(CC)	
			EVA 2 A/L EGRESS AND SETUP	
			Z1 TO P6 UMBILICAL DISCONNECT	
		IVA SUPPORT EVA 2		
			DETACH P6 FROM Z1 Ref: MSG 040	**No ex Detach P6:**
MEAL	MEAL			

Time scale: 08:00, 09:00, 10:00, 11:00; 16:00, 17:00, 18:00, 19:00, 20:00

BIAS - XLV - ZVV

74, 75, 76, 77

STS-120 FD06

REPLANNED

GMT Date 10/28 (301) | W | TDRSE | Z | ORB | MET Day 004 | STS ATI

Time	CDR MELROY	PLT ZAMKA	EV1 MS1 PARAZYNSKI	Notes
20:00	P/TV SUPPORT EVA	MEAL	DETACH P6 FROM Z1 Ref: MSG 040	**No exercise Detach P6.**
12:00		P/TV SUPPORT EVA P/TV SUPPORT SSRMS Config Shuttle Cameras per ROBO 1.411	NODE 2 OUTFITTING Handrails, Trunnion/Keel Pin Covers, Gap Spanners, Caps, CBM Restraints WIFS Ref. MSG 048	
21:00	MEAL			
13:00	Post P6 Park, Permanently update DAP A15 - CNTL ACCL 6 MNVR (TRK) UPDATE (P6 H/O POSN) TG=2 BV=5 P=159 Y=353 OM=181 A15/FREE/VERN Init TRK	P/TV SUPPORT EVA		
22:00	BIAS-XLV-ZVV SHUTTLE/ISS H2O CONTAINER FILL (ORB OPS,ECLS) Perform CWC FILL #3 Fill duration ~50 min, Ref. MSG 029			
14:00				
23:00			PDGF INSTALL ON NODE 2 Ref: MSG 040	No Exercise Node 2 PDGF APFR
15:00	SHUTTLE/ISS H2O CONTAINER FILL (ORB OPS, ECLS) Perform FILL TERMINATION CWC TRANSFER Transfer CWC(s) to ISS			
00:00				

77 78 79 80

STS-120 FD06

REPLANNED

GMT Date 10/28 (301) | W | TDRSE | Z | ORB | MET Day 004 | STS ATI

M1,R1 MS2 WILSON	M2,R2 MS3 WHEELOCK	IV MS4 NESPOLI	EV3 FE-2 (UP) TANI	Notes
MEAL	MEAL		DETACH P6 FROM Z1 Ref: MSG 040	**No ex Detach P6.**
ROBO: 1.411 P6 DEMATE	ROBO: 1.411 P6 DEMATE		AIRLOCK OPS & CETA HANDRAIL INSPECTION Ref. MSG 048	
			SARJ INSPECTION Ref. MSG 048	
P6 HANDOFF FROM SSRMS TO SRMS (PDRS, P6 NOMINAL)Step 1 only, then PARAM - PORT TEMP JOINT - CRIT TEMP	P6 HANDOFF FROM SSRMS TO SRMS (PDRS, P6 NOMINAL)Step 1 only, then PARAM - PORT TEMP JOINT - CRIT TEMP			
TRANSFER Ref. MSG 057	TRANSFER Ref. MSG 057	IVA SUPPORT EVA 2	S1 SFU CONFIG FOR CINCH FIRING Ref: MSG 040	
			MBSU BYPASS JUMPER RECONFIG	
			RPCM SO4B-C R&R	
			PDGF INSTALL ON NODE 2 Ref: MSG 040	No Exercise Node 2 PDGF APFR

Time scale: 12:00, 13:00, 14:00, 15:00; 20:00, 21:00, 22:00, 23:00, 00:00

ORB: 77, 78, 79, 80

BIAS-XLV-ZVV

STS-120 FD06

REPLANNED

GMT Date 10/28 (301) | W | TDRSE | Z | ORB | MET Day 005 | STS ATI | CDR MELROY | PLT ZAMKA | EV1 MS1 PARAZYNSKI | Notes

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

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

80 | 81 | 82

BIAS-XLV-ZVV

CDR MELROY

CWC TRANSFER Transfer CWC(s) to ISS

SHUTTLE/ISS H2O CONTAINER FILL
(ORB OPS,ECLS) Perform CWC FILL #4
Fill duration ~50 min, Ref. MSG 029

EXERCISE

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

CWC TRANSFER
Transfer CWC(s) to ISS

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRIVATE MEDICAL CONFERENCE

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PLT ZAMKA

P/TV SUPPORT EVA

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

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

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EV1 MS1 PARAZYNSKI

PDGF INSTALL ON NODE 2
Ref: MSG 040

NODE 2 OUTFITTING (CONT)
Ref. MSG 048

EVA 2 CLEANUP AND A/L INGRESS
Ref: MSG 040

EVA SYS: CREWLOCK PREREPRESS (CC)

EVA SYS: CREWLOCK REPRESS (CC)

EVA SYS: 1.240 POST EVA
With H2O and METOX
Omit Steps 37 & 67
REF: CONSUMABLES TRACKING CC

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

Notes

No Exercise
Node 2 PDGF
APFR

UPLINK
β21 ONLY + Boxes
C2,C3,W2

STS-120 FD06

REPLANNED

GMT Date 10/28 (301) | W | TDRSE | Z | ORB | MET Day 005 | STS ATI

M1 MS2 WILSON	M2 MS3 WHEELOCK	IV MS4 NESPOLI	EV3 FE-2 (UP) TANI	Notes
TRANSFER Ref. MSG 057	TRANSFER Ref. MSG 057		PDGF INSTALL ON NODE 2 Ref: MSG 040	No Ex Node 2 PDGF APFR
		IVA SUPPORT EVA 2	NODE 2 OUTFITTING (CONT) Ref. MSG 048	
			EVA 2 CLEANUP AND A/L INGRESS Ref: MSG 040	
		EVA SYS: CREWLOCK PREREPRESS (CC)	EVA SYS: CREWLOCK PREREPRESS (CC)	
		EVA SYS: CREWLOCK REPRESS (CC)	EVA SYS: CREWLOCK REPRESS (CC)	
		EVA SYS: 1.240 POST EVA With H2O and METOX Omit Steps 37 & 67 REF: CONSUMABLES TRACKING CC	EVA SYS: 1.240 POST EVA With H2O and METOX Omit Steps 37 & 67 REF: CONSUMABLES TRACKING CC	
EXERCISE				
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	TRANSFER BRIEF: CALL DOWN STATUS TO MCC	EVA SYS: 1.605 BSA BATTERY RECHARGE (TERM)		
	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	EVA SYS: 1.605 BSA BATTERY RECHARGE (INIT) REF: BATTERY RECHARGE PLAN CC		
		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PFC	
			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	

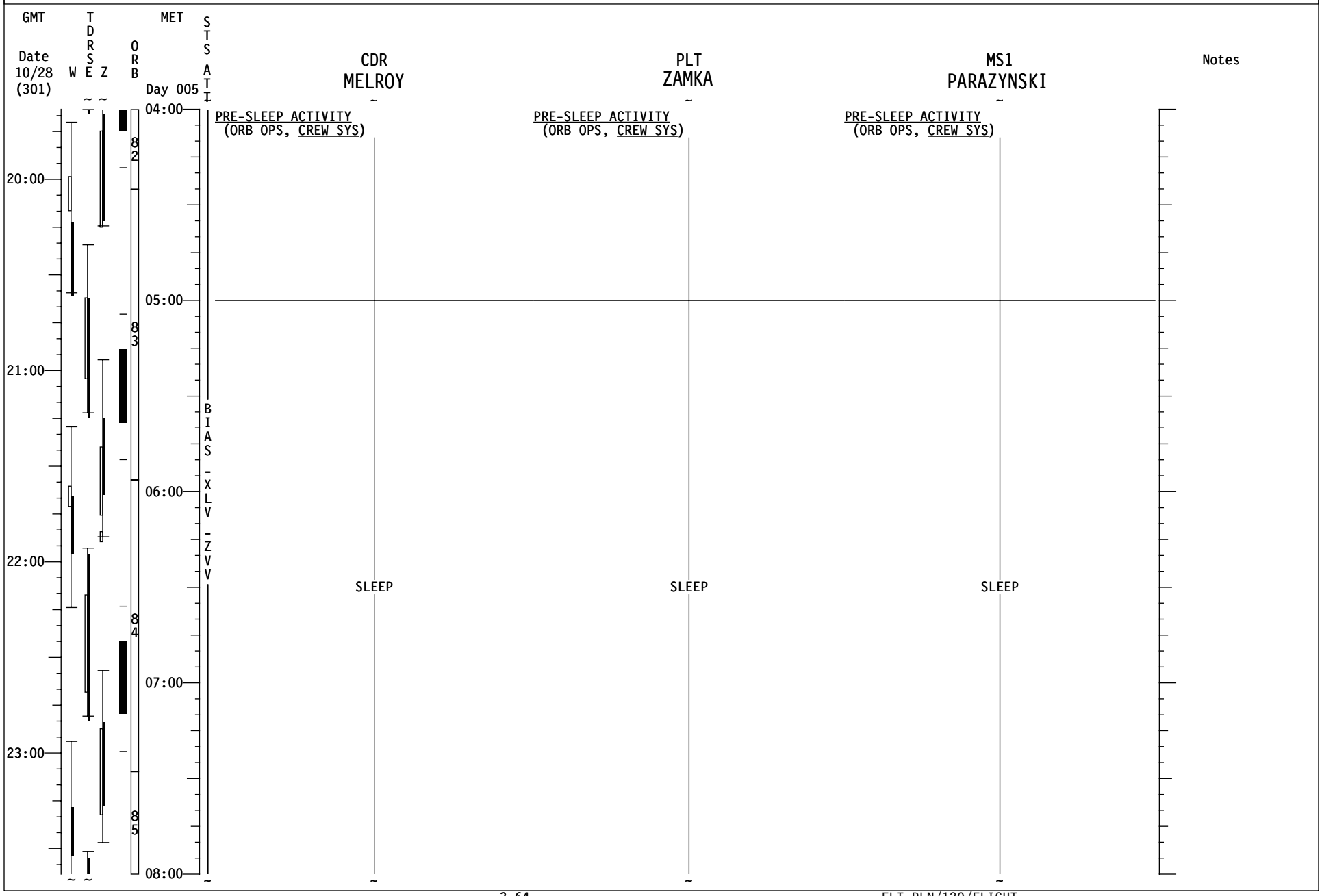
Time scale: 16:00, 17:00, 18:00, 19:00; 00:00, 01:00, 02:00, 03:00, 04:00

80, 81, 82

BIAS - XLV - ZVV

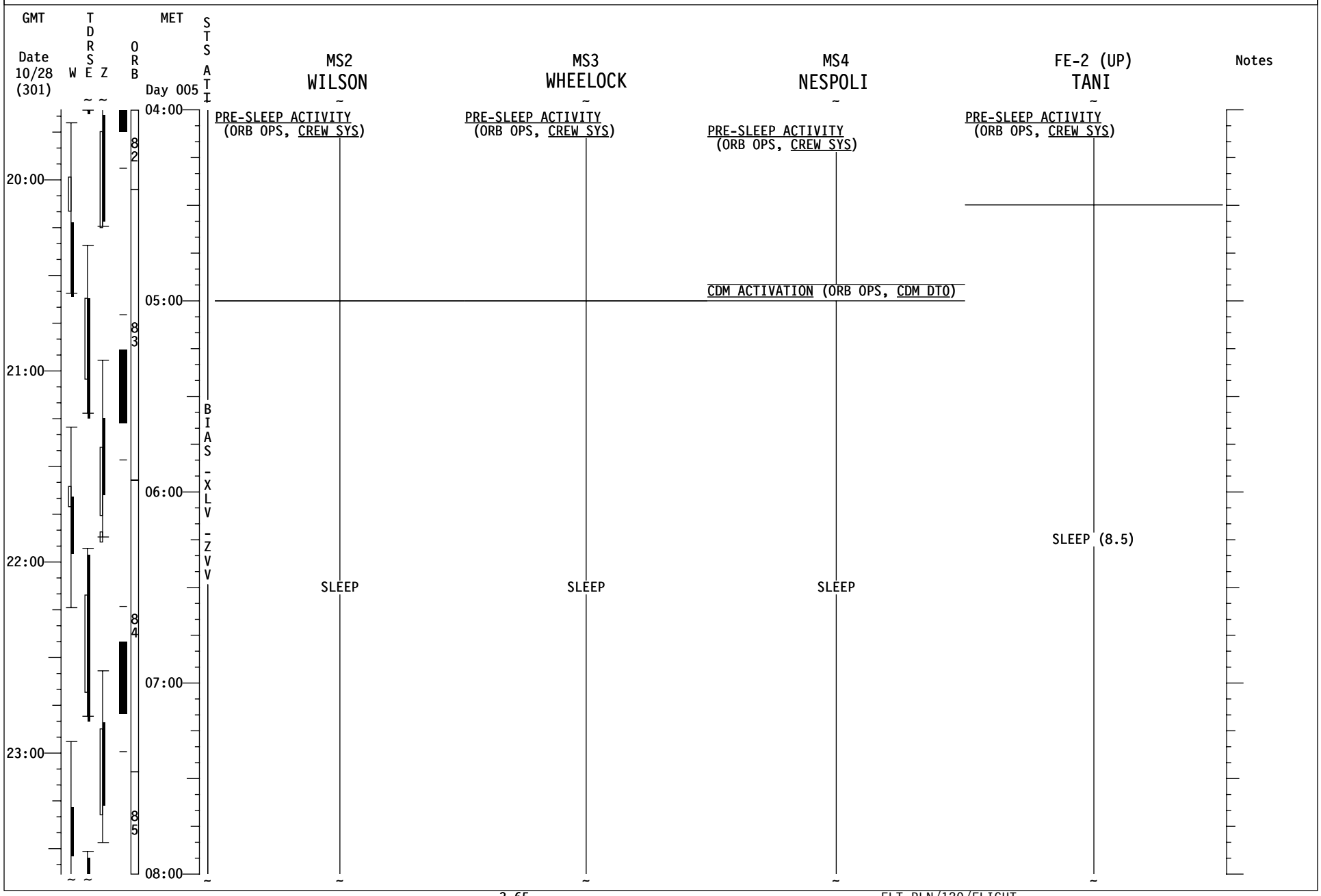
STS-120 FD06

REPLANNED



STS-120 FD06

REPLANNED



Good Morning Discovery!!!

And the really “Happy Words” for you this morning are that we do not have any PGSC troubleshooting for you today!!!! Let’s just hope that it stays that way for the rest of the flight (we are keeping our fingers crossed)!!!! Thanks for your patience in getting the network up and running!

The timeline for today is basically the same as you had on board last night, except that a few arm maneuvers have been added. These were added because of PDRS thermal concerns.

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.
WAL – RWY 04/22 CLOSED.
NKT – FIRST 1000’ OF RWY 23L CLOSED.
YHZ – RWY 05/23 CLOSED 29 OCT 1100 – 1900Z.
FFA - ASCENT ONLY.
ZZA - FIRST 600M OF RWY 30L NOT AVAILABLE. 10,200’ REMAINING.
WAK - UNUSABLE
AMB - UNUSABLE
JDG – DIEGO GARCIA: CLOSED UNTIL 29 OCTOBER 0100Z.
IKF – NO AGREEMENT FOR USE
AWG – NO AGREEMENT FOR USE.
HAO – DME OUT
BEN – POLITICALLY NOT RECOMMENDED/NOT SUPPORTED.

NEXT 2 PLS OPPORTUNITIES:

EDW04 ORB 79 – 4/23:10 (FEW070 SCT250 060/07P12)
EDW04 ORB 95 – 5/23:33 (SCT250 050/05P09)

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	343 FPS
ARCS (TOTAL ABOVE QTY1)	42 FPS
TOTAL IN THE AFT	385 FPS
ARCS (TOTAL ABOVE QTY2)	75 FPS
FRCS (ABOVE QTY 1)	27 FPS
AFT QTY 1	80 %
AFT QTY 2	43 %

SYSTEM	FAILURE	IMPACT	WORK AROUND
EPS	Data received by the FCMS application is intermittent.	The recording of FCMS data will take longer than expected (up to an hour). The data recorded is still usable.	If recording using full rate, wait the additional time needed for the application to run, or a data rate of 1 sample every **10 sec** for a duration of **2 min.** may be utilized to minimize runtime.

The MMT met today to review mission progress, orbiter system status, EVA glove inspection results, and TPS status. The mission is progressing extremely well, and Discovery's systems continue to perform in an outstanding manner. The anticipated all clear for the TPS was not given today because of open analysis on a LOMS Pod blanket pull (see Figure 1). Although there are no concerns with the status of the OMS pod blanket, the complete analysis process will be followed, and the results will be presented at tomorrow's MMT. All of the rest of the TPS is clear for entry.

OMS Pod Blanket Pull - Yesterday's independent verification process uncovered an omission in the analysis performed to clear the OMS pod blanket. Since these blankets are bonded to the tile, it is possible to induce stresses onto the tile during the latter part of entry. These potential stresses were not accounted for in the initial analysis. RPM imagery shows the top 1/2" of the blanket is slightly pulled back. By design, the top 1/2" of the OMS pod blankets are not bonded to the tile. The underlying blanket/gap filler/tile bond is intact.

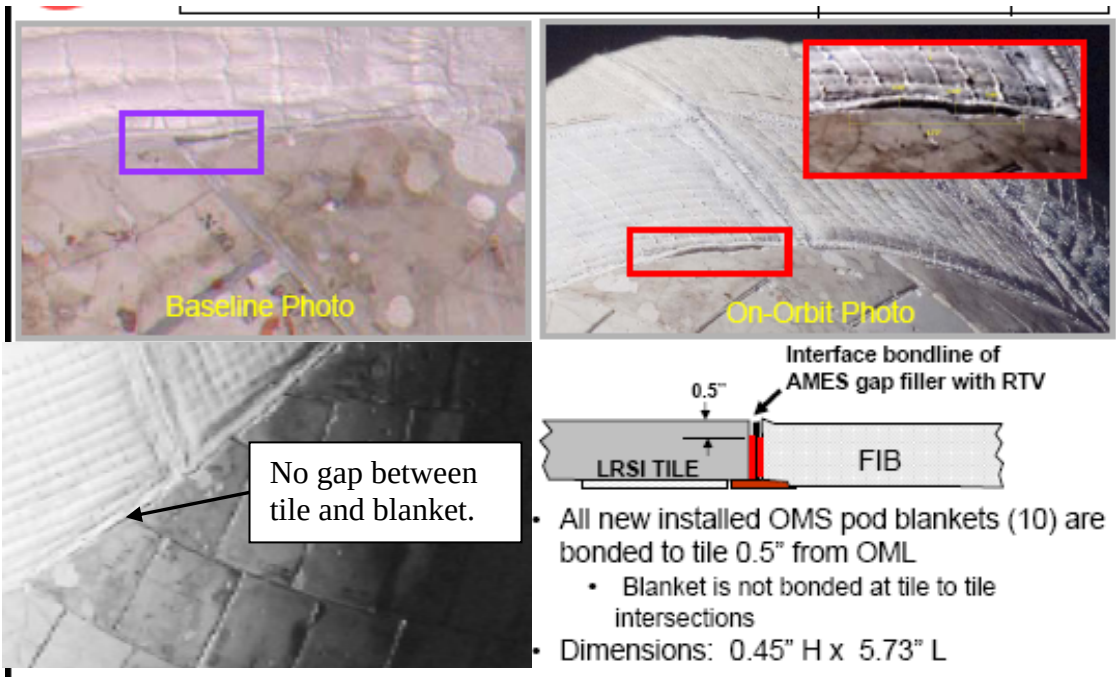


Figure 1 - OMS pod blanket pull

EVA Glove analysis results - The lost RTV on Wheelock's right glove is within the experience base for single EVAs, but it is recommended that the backup glove be used for the next EVA. The glove with the lost RTV is considered GO if needed for a contingency EVA.

Stockpile LiOH Cans - Preliminary findings of the STS 118 stockpile LiOH cans were discussed at the MMT. The preliminary data affirms that your plan for handling the stockpile LiOH cans is a good plan.

SRB Video - The SRB video was reviewed yesterday. An additional debris release from the ET acreage outboard of the Xo 1873 LO2 feedline bracket is identified. This release occurs at 1:58 MET and does impact the orbiter near the main landing gear door. The video and RPM pictures confirm that no tile damage resulted from this impact. See Figure 2.

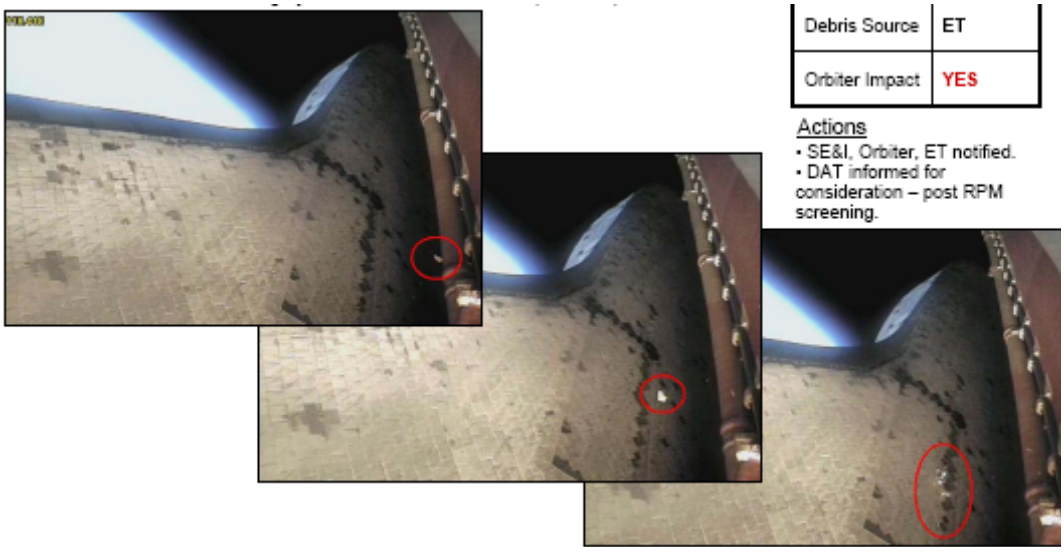


Figure 2 - 1:58 MET ET Acreage Debris Release

Debris Assessment Team - The DAT presented a summary of the completed tile and thermal blanket analysis. Overall, the TPS is in great shape. On the lower surface of the orbiter, 2 minor tile dings, 2 gap fillers, and 2 slight protrusions near the nose landing gear were presented. All of these sites were completely analyzed and cleared for entry. See Figure 3, 4 and 5. On the upper surface of the orbiter, 6 gap fillers were noted on the OMS pods and one shallow ding was noted on the OMS pod. All of these were completely analyzed, well within our experience base, and are not a concern for entry.

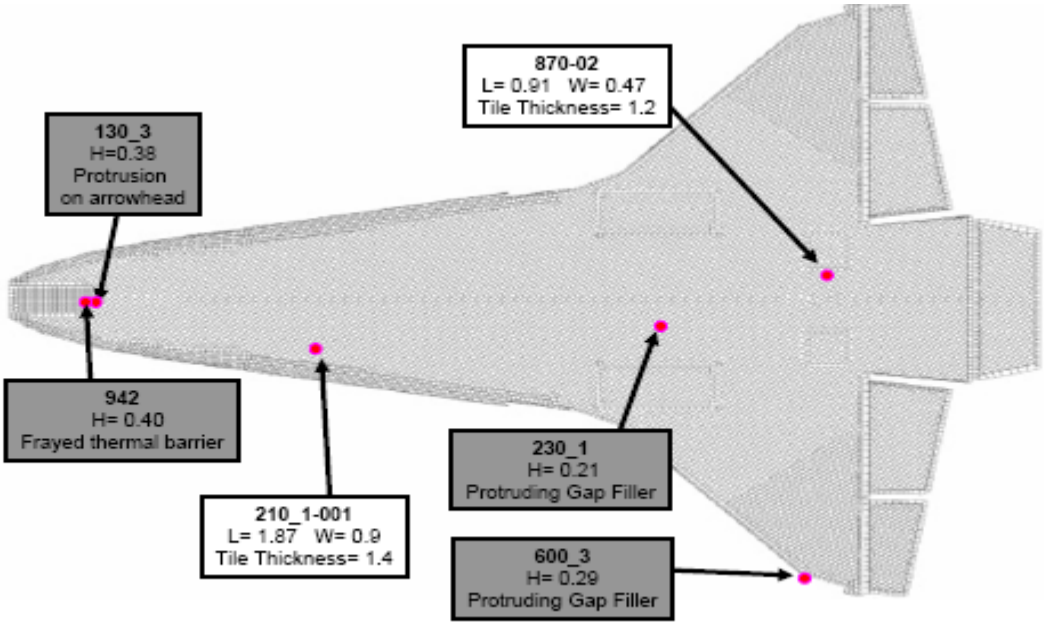


Figure 3 -Orbiter Lower Surface

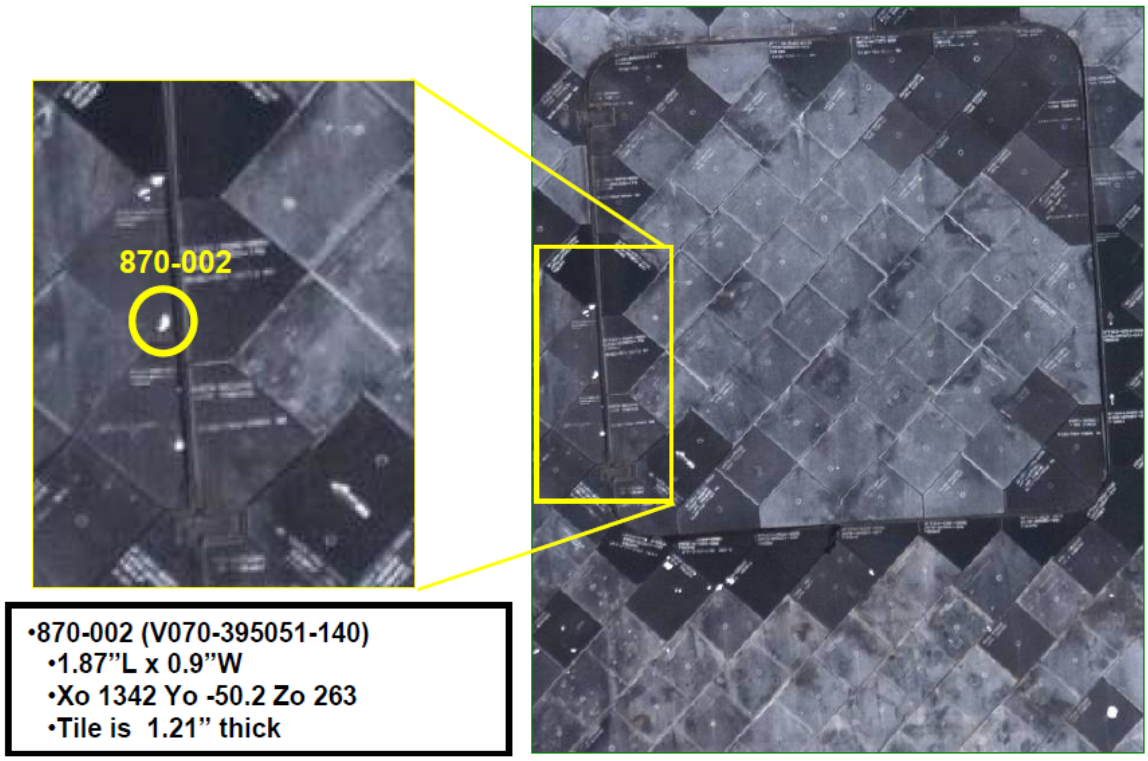


Figure 4 - Tile Ding Inboard of Port ET Door

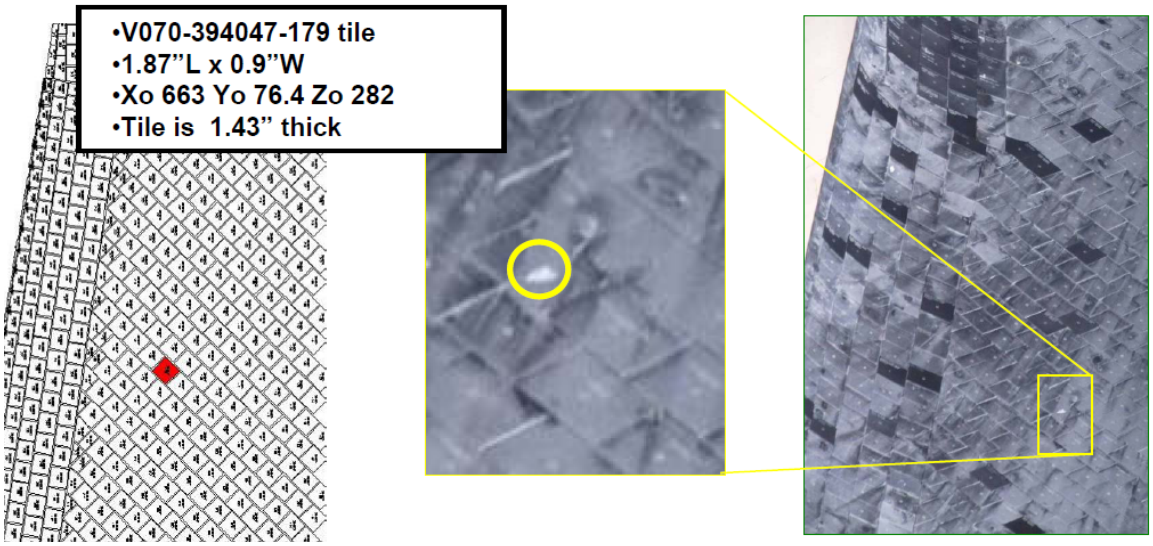


Figure 5 - Tile Ding on Starboard Chine

ET Umbilical Doors - The RPM imagery was evaluated and lighting was acceptable for paint stripe evaluation. There is no evidence of off nominal thermal barrier protrusions, off-nominal steps, and no part of the paint stripe is visible. The RPM Imagery clearly confirms that the ET umbilical doors are fully closed and latched (See Figure 6).

Figure 6 - RPM Imagery Confirms ET Doors Closed/Latched

Good morning Doug, Stephanie, and Dan,

Congratulations on the successful transfer of NODE 2! Don't forget to remove the yellow transfer tag.

The Transfer List Excel file, FD06_TransferList_STS120.xls, is located on the KFX machine in **C:\OCA-up\transfer**.

For ISS, the Transfer List Excel file, FD06_TransferList_STS120.xls, is located in **K:\OCA-up\transfer**.

Transfer Notes

- We're still evaluating the return foam plan and hope to have you an answer to your question on limitations to returning foam in the A/L.

Please incorporate uplink pages as follows:

In **RETURN** tab
Replace Page(s):
Return – 6
Return – 8
Return - 13

Changes to the Transfer List are detailed below:

In **RETURN** tab:

Item 412:	Updated **Comments
Item 412.1:	Updated **Constraints**
Item 412.2:	Updated 'Temp Stow' location
Item 605:	Updated **Comments, Updated **Constraints**
Item 712:	Updated **Constraints**

Call us with any questions and have a great day!

- The Transfer Team

EMU Glove Photos

Great job taking all of those pictures of the EMU gloves Post EVA 1. They were extremely useful. Wheels, after review of the photos, your prime right glove should not be used on EVA 3. You can swap just your right glove or both gloves. We will have more words on that tomorrow.

STS-120/10A Consumables Tracking and Battery Recharge Plan Cue Card Pen and Inks

Due to the difference in the REBA battery locations you called down yesterday, we'd like you to update the Consumables Tracking Cue Card and the Battery Recharge Plan Cue Card as follows:

Row **EVA 2 - FD6 REBA (s/n)**
Was: EV3: s/n 1011
Is: EV3: s/n 1005

Row **EVA5 - FD11 REBA (s/n)**
Was: EV4: s/n 1011
EV5: s/n 1005
Is: EV4: s/n 1005
EV5: s/n 1011

STS-120/10A Battery Recharge Plan Cue Card:

FD 6 - Post EVA 2

Replace REBA Battery s/n 1011 with s/n 1005.

While you are changing the Consumables CC, here is another delta for EVA 3. To support the long EVA, we are going to have Wheels use a LiOH canister with more capacity for EVA 3 (FD8).

Row **EVA3 – FD8**, *Column* **LiOH/Metox (s/n)**
Was: EV1: s/n 2023
EV2: s/n 2025
Is: EV1: s/n 2025
EV2: s/n 2018

When MS1 and MS3 are performing LiOH/Battery Install on FD7, you can retrieve LiOH s/n 2018 from the MO-2 Bag located at A/L1O1 and swap it with s/n 2023. LiOH s/n 2023 will remain on station.

The following is an OCAS maneuver from the Node 2 Viewing position to the SRMS Pre-Cradle position. This gets the SRMS in a good config for SSRMS P6 Ops.

SM 94 PDRS CONTROL

END POS – ITEM 18 -1 2 6 1 -1 4 6 -5 5 1 EXEC
ATT – ITEM 21 +5 +2 +0 EXEC
CMD CK – ITEM 25 EXEC (GOOD)

RHC RATE – VERN (RATE MIN tb-ON)

BRAKES – OFF (tb-OFF)
MODE – OPR CMD, ENTER (READY lt on)

AUTO SEQ – PROCEED (IN PROG lt on)

When AUTO SEQ IN PROG lt – off:
BRAKES – ON (tb-ON)

PRE-CRADLE posn:

	X	Y	Z	PITCH	YAW	ROLL	PL ID
√	-1261	-146	-551	5	2	0	0
	SY	SP	EP	WP	WY	WR	
√	0	25	-25	5	0	0	

END OF PAGE 1 OF 1, MSG 059