STS-115/12A

FD 10 Execute Package

MSG	Page(s)	Title
110	1 - 2	FD10 Summary Timeline **(pdf)**
107A	3 - 12	FD10 Flight Plan Revision **(pdf)**
109	13 - 14	FD10 Mission Summary **(pdf)**
111A	15 - 16	FD10 Water Summary Message **(pdf)**
112	17 - 20	MICROBE/Yeast - GAP Updates **(pdf)**
113	21 - 23	PLBD Troubleshooting for Loss of Port FWD CL A Indication **(pdf)**
114	---	FD09 MMT Summary **(pdf - Electronic Only)**

Approved by FAO: *M. Scheib*

Last Updated: Sep 18 2006 1:46AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

09/17/06 20:01:14 **REPLANNED**

FD10

GMT 09/18/06 (261) 04 05 06 07 08 09 10 11 12 13 14 15

MET Day 008 12 13 14 15 16 17 18 19 20 21 22 23 009/00

STS-115

CDR JETT	POST SLEEP; MNVR; IMU; I-CNCT; POST SLEEP; MULT AXIS RCS BURN; NC6; REG*; POST SLEEP; REG*; MNVR STBD; EXERCISE; MNVR NOSE; CABIN STOW; MEAL; MNVR PORT; M-ZLV; PWR DUMP-I; PWR DUMP-T; COND INIT; COND*
PLT FERGUSON	POST SLEEP; MULT AXIS RCS BURN; OBSS UNBERTH; OBSS STBD SURVEY; NOSE CAP SURVEY; MEAL; OBSS PORT SURVEY; OBSS BERTH; RMS PWRDN; EXERCISE; HTR*; PRE SLP
MS1 TANNER	SLVA; LOG; POST SLEEP; SSV; CABIN STOW; MEAL; EXERCISE; COMM1
MS2 BURBANK	LOG; POST SLEEP; SIMO INIT; POST SLEEP; SIMO TERM; OBSS UNBERTH; FLAT*; OBSS STBD SURVEY; NOSE CAP SURVEY; MEAL; OBSS PORT SURVEY; OBSS BERTH; RMS PWRDN; FES*; PRE SLEEP; PFC A/G
MS3 PIPER	SLVA; LOG; POST SLEEP; MICROBE ACT; YEAST ACT; CABIN STOW; MEAL; EXERCISE; LDRI DNLK; LDRI DNLK
MS4 MACLEAN	SLVA; LOG; POST SLEEP; OBSS UNBERTH; FLAT*; OBSS STBD SURVEY; NOSE CAP SURVEY; MEAL; OBSS PORT SURVEY; OBSS BERTH; EXER CISE

DAY/NIGHT	
ORBIT	135; 136; 137; 138; 139; 140; 141; 142
DAILY ORBIT	16; 1; 2; 3; 4; 5; 6; 7; 8
TDRS	W -171.0; E -46.0; Z -275.0
ORB ATT	BIAS -ZLV -YVV; NC6; STBD SURVEY; NOSE CAP SURVEY; PORT SURVEY; BIAS -ZLV -YVV
GND	MLA; DFR; MLA; DFR
NOTES	*OPEN; *CLOSE; *FIELD; *DUMP INIT; *TERM; *CONFIG

09/17/06 20:01:14 **REPLANNED**

FD10

GMT 09/18/06 (261)

MET Day 009

16 17 18 19 20 21 22 23 09/19 01 02 03

009/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-115

Crew	Activities
CDR JETT	COND* / MULT AXIS RCS BURN (NC7) / MNVR / ZLV / PMC A/G / PRE SLEEP / SLEEP / LOG / POST SLEEP
PLT FERGUSON	PRESLP / MULT AXIS RCS BURN / PRE SLEEP / SLEEP / LOG / POST SLEEP
MS1 TANNER	PRE SLEEP / SLEEP / SLVA / LOG / POST SLEEP
MS2 BURBANK	EXERCISE / FES* / PRE SLEEP / SLEEP / LOG / POST SLEEP
MS3 PIPER	LDRI DNLK / PRE SLEEP / SLEEP / SLVA / LOG / POST SLEEP
MS4 MACLEAN	EXERCISE / PRE SLEEP / SLEEP / SLVA / LOG / POST SLEEP

DAY/NIGHT

ORBIT	143	144	145	146	147	148	149	150
DAILY ORBIT	8	9	10	11	12	13	14	15

TDRS W -171.0 E -46.0 Z -275.0

ORB ATT: NC7 — -ZLV -XVV

GND: DFR DFR DFR MLA DFR MLA DFR DFR

NOTES: *TERM *DUMP TERM

MSG INDEX

MSG NO.	TITLE
107	FD10 Flight Plan Revision
109	FD10 Mission Summary
110	FD10 Summary Timeline
111	FD10 Water Summary Message
112	Microbe/Yeast – GAP Updates
113	PLBD Troubleshooting for Loss of Port FWD CL A Indication
114	FD09 MMT Summary

1. Please configure the cryo system as follows for post-sleep:

   R1 CRYO O2,H2 MANF VLV TK1 (two) - OP (tb-OP)
   TK2 HTRS A, B (four) - AUTO
   TK3 HTRS A, B (four) - OFF

   A11 CRYO TK4 HTRS O2 A - AUTO
   H2 A, B (two) - AUTO

2. Shuttle EMU Stowage On AAP

   The following config should be corrected prior to landing to provide proper loads transfer to the Airlock Adapter Plate (AAP).

   The LTA restraint bag straps (4 spring hooks per EMU) should be reattached to the AAP D-rings. This is step 3 of EMU INSTALLATION, pg 2-4 (EVA, AIRLOCK CONFIG). Refer to drawing on pg 2-6 as required.

3. On FD 2 we gave you a change to the OBSS UNBERTH procedure for a camera pushbutton callout. This change is also needed for the Late Inspection today.

   OBSS UNBERTH (PDRS, OBSS NOM OPS), step 9b on FS 3-8 should be updated as follows:

   WAS: VIDEO OUT MON 1 pb - push
   IS: VIDEO OUT MUX 1 L pb - push (MIDDECK lt on)

4. On FD 2 for the STBD Wing Survey, you replaced pages PDRS FS 3-35 through FS 3-38 with MSG 009. These updated pages are also needed for Late Inspection today. MSG 009 has been reprinted for you.

5. SSV Troubleshooting

1. Currently SSV is not generating video. The following quick troubleshooting steps are recommended to try to recover SSV to aid in MCC views of LDRI operations.
   a. SSV - ON
   b. OUT RATE - 4
   c. Inform MCC of the four LEDs on the SSV

   √ MCC for a status of SSV Video

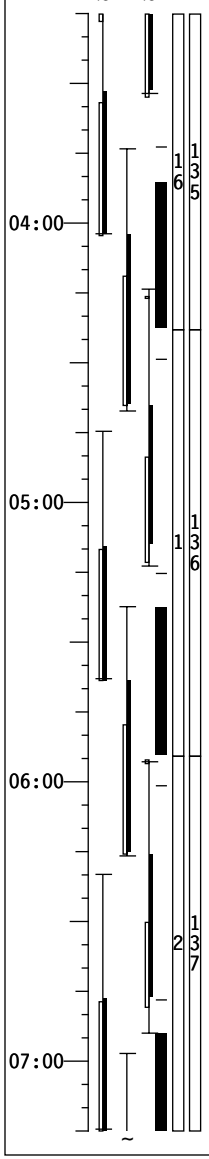
2. If no joy in recovering the SSV, the crew will not have MCC aid in the majority of ITVC Camera Pan/Tilt operations during OBSS LDRI RCC SURVEYs.

6. Message 113 contains a contingency troubleshooting procedure to use during the auto payload bay door close operations (**Deorbit Prep C/L**, page 1-21) in the event that the port door close A microswitch does not show close within six seconds of being ready.

7. REPLACE PAGES 3-104 THROUGH 3-111.

STS-115 (FD10)

GMT Date 09/18 (261) | TDRS W E Z | DORB | ORB | MET Day 008 | STS ATT | CDR JETT | PLT FERGUSON | MCC | NOTES



12:00 — STS ATT -ZLV -XVV

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

FD10 EZ ACTIVITIES:
OCAC FILTER Inspect
L17 Check MCIU Filter Screen
HARD Reboot PGSCs (Not KFX)

< MNVR BIAS -ZLV -YVV (8/12:50)

13:00

IMU STAR OF OPPTY ALIGN (ORB OPS)
I'CNCT R OMS TO RCS (OPCL, RCS)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

BIAS -ZLV -YVV

14:00

ON-ORBIT MULTI-AXIS RCS BURN
(ORB OPS, RCS)

ON-ORBIT MULTI-AXIS RCS BURN
(ORB OPS, RCS)

15:00

< NC-6 TIG (8/15:00)

< NC-6 TIG (8/15:00)

MO10W 14.7 CAB REG INLET SYS 1 vlv - OP
CAUTION: Do not remain in WCS area during high flow
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

OBSS UNBERTH
(PDRS, OBSS NOM OPS)
Ref. MSG 107, Item 3

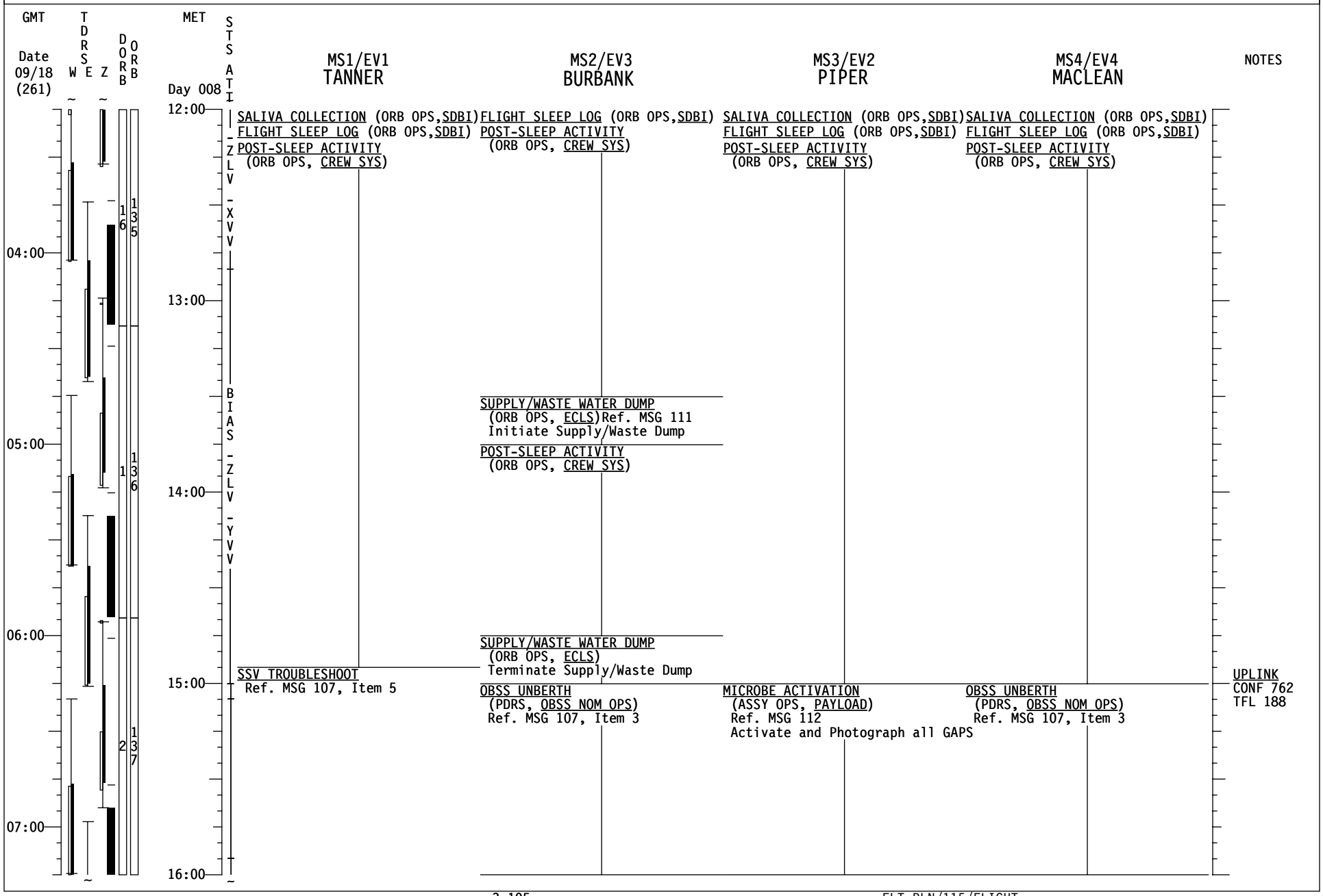
MO10W 14.7 CAB REG INLET SYS 1 vlv - CL

MNVR STBD SURVEY
TG=4 BV=5 P=0 Y=49 OM=258
A14/AUTO/VERN Init TRK on MCC GO

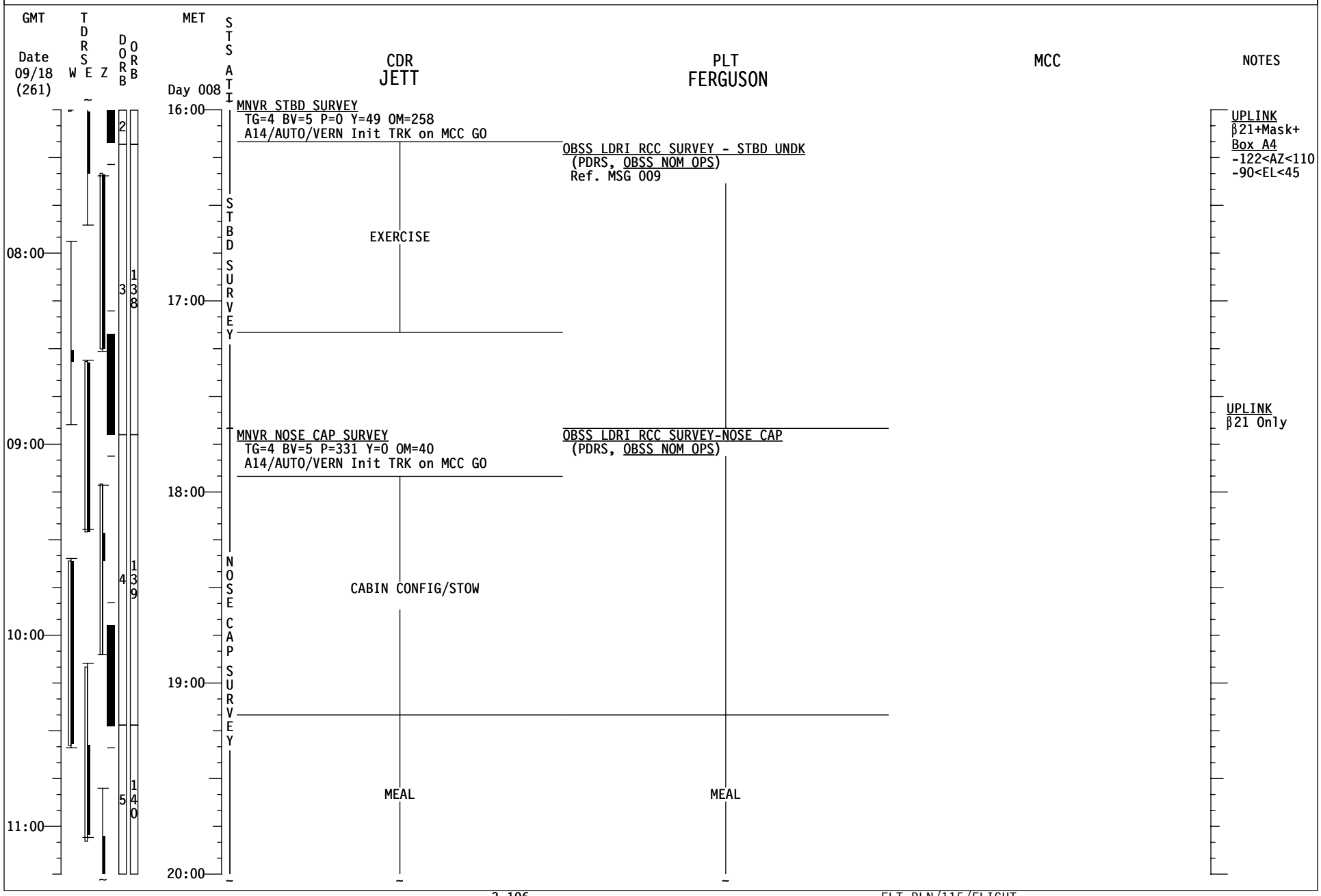
16:00

UPLINK
β21+Mask+
Box A2,
-27<AZ<110
-90<EL<0
Box A3
-81<AZ<110
-67<EL<-10

STS-115 (FD10)


GMT
Date 09/18 (261)
W
TDRS E
Z
DORB
ORB
MET
Day 008
STS ATI
12:00
13:00
14:00
15:00
16:00
04:00
05:00
06:00
07:00
16
135
1
136
2
137
ZLV-XVV
BIAS-ZLV-YVV
MS1/EV1 TANNER
MS2/EV3 BURBANK
MS3/EV2 PIPER
MS4/EV4 MACLEAN
NOTES
SALIVA COLLECTION (ORB OPS,SDBI)
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)
SALIVA COLLECTION (ORB OPS,SDBI)
FLIGHT SLEEP LOG (ORB OPS,SDBI)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
SALIVA COLLECTION (ORB OPS,SDBI)
FLIGHT SLEEP LOG (ORB OPS,SDBI)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Ref. MSG 111 Initiate Supply/Waste Dump
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Supply/Waste Dump
SSV TROUBLESHOOT Ref. MSG 107, Item 5
OBSS UNBERTH (PDRS, OBSS NOM OPS) Ref. MSG 107, Item 3
MICROBE ACTIVATION (ASSY OPS, PAYLOAD) Ref. MSG 112 Activate and Photograph all GAPS
OBSS UNBERTH (PDRS, OBSS NOM OPS) Ref. MSG 107, Item 3
UPLINK CONF 762 TFL 188

STS-115 (FD10)


GMT
Date 09/18 (261)
TDRS W E Z
DORB 2 3 4 5
ORB 138 139 140
MET
Day 008
STS ATT
STBD SURVEY
NOSE CAP SURVEY
16:00
17:00
18:00
19:00
20:00
08:00
09:00
10:00
11:00
CDR JETT
PLT FERGUSON
MCC
NOTES
MNVR STBD SURVEY
TG=4 BV=5 P=0 Y=49 OM=258
A14/AUTO/VERN Init TRK on MCC GO
OBSS LDRI RCC SURVEY - STBD UNDK
(PDRS, OBSS NOM OPS)
Ref. MSG 009
EXERCISE
UPLINK
β21+Mask+
Box A4
-122<AZ<110
-90<EL<45
MNVR NOSE CAP SURVEY
TG=4 BV=5 P=331 Y=0 OM=40
A14/AUTO/VERN Init TRK on MCC GO
OBSS LDRI RCC SURVEY-NOSE CAP
(PDRS, OBSS NOM OPS)
UPLINK
β21 Only
CABIN CONFIG/STOW
MEAL
MEAL

STS-115 (FD10)

GMT Date 09/18 (261) | TDRS W E Z | DORB 2 3 4 5 | ORB 138 139 140 | MET Day 008 | STS ATI

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

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

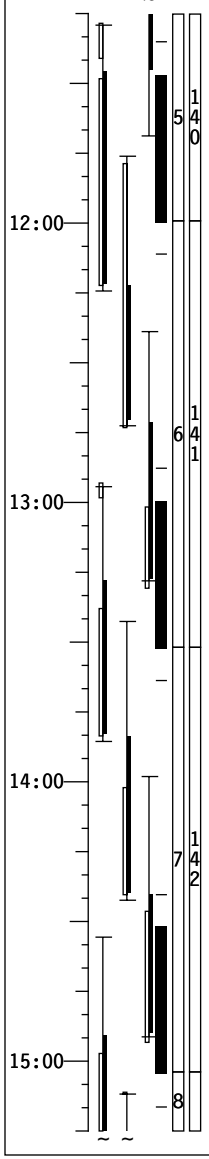
STBD SURVEY

NOSE CAP SURVEY

MS1/EV1 TANNER	MS2/EV3 BURBANK	MS3/EV2 PIPER	MS4/EV4 MACLEAN	NOTES
	OBSS ITVC/LDRI FLAT FIELDS (PDRS, OBSS NOM OPS)Steps 1,2,4 Daylight is NOT required.	YEAST GAP ACTIVATION (ASSY OPS, PAYLOAD) Ref. MSG 112	OBSS ITVC/LDRI FLAT FIELDS (PDRS, OBSS NOM OPS)Steps 1,2,4 Daylight is NOT required.	
	OBSS LDRI RCC SURVEY - STBD UNDK (PDRS, OBSS NOM OPS) Ref. MSG 009		OBSS LDRI RCC SURVEY - STBD UNDK (PDRS, OBSS NOM OPS) Ref. MSG 009	
	OBSS LDRI RCC SURVEY-NOSE CAP (PDRS, OBSS NOM OPS)		OBSS LDRI RCC SURVEY-NOSE CAP (PDRS, OBSS NOM OPS)	
CABIN CONFIG/STOW		CABIN CONFIG/STOW		
MEAL	MEAL	MEAL	MEAL	

STS-115 (FD10)

GMT Date 09/18 (261) | TDRS W E Z | DORB | ORB | MET Day 008 | STS ATI



MET	STS ATI	CDR JETT	PLT FERGUSON	MCC	NOTES
20:00		MEAL	MEAL		UPLINK β21+Mask+ Box A2 -27<AZ<110 -90<EL<0
	PORT SURVEY	MNVR PORT SURVEY TG=4 BV=5 P=0 Y=334 OM=250 A14/AUTO/VERN Init TRK on MCC GO	OBSS LDRI RCC SURVEY - PORT (PDRS, OBSS NOM OPS)		
21:00					
		MNVR (TRK) BIAS -ZLV, -YVV TG=2 BV=3 OM=70 A1/AUTO/VERN Init TRK	OBSS BERTH (PDRS, OBSS NOM OPS)		
22:00		PWR DUMP - SUPPLY LINE (Init) (ORB OPS, ECLS)Ref. MSG 111 Dump Leaking PWR S/N 1011			
			RMS PWRDN(PDRS, RMS PWRDN) PORT RMS HTR A - OFF B - AUTO		
	BIAS -ZLV -YVV	PWR DUMP - SUPPLY LINE (Term) (ORB OPS, ECLS)			UPLINK β21+Mask
14:00		CWC OVERBOARD DUMP (Init) (ORB OPS, ECLS) Ref. MSG 111 Dump Orbtr Condnst CWC S/N: 5092			
23:00			EXERCISE		
			RCS/OMS HEATER CONFIG [A] PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
15:00		CWC OVERBOARD DUMP (Term) (ORB OPS, ECLS)			
00:00					

[A] A14 RCS/OMS HTR L POD - B OFF
- A AUTO
R POD - B OFF
- A AUTO

STS-115 (FD10)

GMT Date 09/18 (261) | TDRS W E Z | DORB 5 6 7 8 | ORB 140 141 142

MET Day 008 | STS ATI

MS1/EV1 TANNER | MS2/EV3 BURBANK | MS3/EV2 PIPER | MS4/EV4 MACLEAN | NOTES

20:00 — 21:00 — 22:00 — 23:00 — 00:00 — 12:00 — 13:00 — 14:00 — 15:00

PORT SURVEY

BIAS-ZLV-YVV

MS1/EV1 TANNER

- MEAL
- EXERCISE
- COMM STRING 1 C/O (PART A) (ORB OPS, COMM/INST)

MS2/EV3 BURBANK

- MEAL
- OBSS LDRI RCC SURVEY - PORT (PDRS, OBSS NOM OPS)
- OBSS BERTH (PDRS, OBSS NOM OPS)
- RMS PWRDN(PDRS, RMS PWRDN) PORT RMS HTR A - OFF B - AUTO
- SUPPLY WATER DUMP USING FES (ORB OPS, ECLS) Ref. MSG 111 Step 1, Dump Init, using FES PRI A.
- PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
- 06 √UHF MODE - OFF PRIVATE FAMILY CONFERENCE

MS3/EV2 PIPER

- MEAL
- EXERCISE
- PLAYBACK (DIGITAL) (PHOTO/TV, CUE CARD) LDRI SURVEYS KU W-171 (22:08 - 22:35) KU E-046 (22:46 - 23:09)
- PLAYBACK (DIGITAL) (PHOTO/TV, CUE CARD) LDRI SURVEYS KU W-171 (23:44 - 00:10) KU E-046 (00:27 - 00:47)

MS4/EV4 MACLEAN

- MEAL
- OBSS LDRI RCC SURVEY - PORT (PDRS, OBSS NOM OPS)
- OBSS BERTH (PDRS, OBSS NOM OPS)
- EXERCISE

NOTES

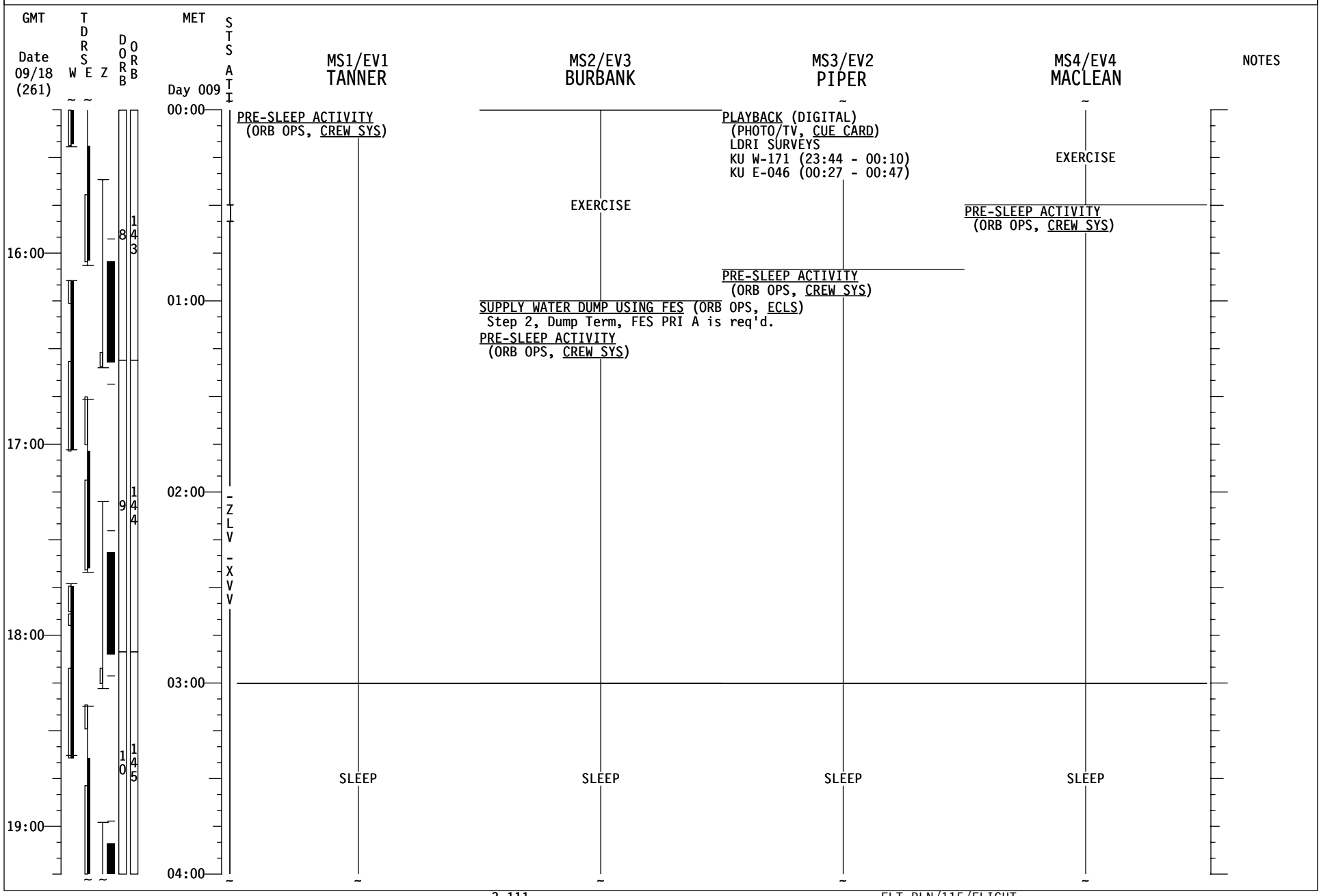
- A/G-PFC

STS-115 (FD10)

GMT Date 09/18 (261) | TDRS W E Z | DORB 8 9 10 | ORB 143 144 145 | MET Day 009 | STS ATT -ZLV -XVV

MET	CDR JETT	PLT FERGUSON	MCC	NOTES
00:00	CWC OVERBOARD DUMP (Term) (ORB OPS, ECLS)	PRE-SLEEP ACTIVITY ~ (ORB OPS, CREW SYS)		
	ON-ORBIT MULTI-AXIS RCS BURN (ORB OPS, RCS)	ON-ORBIT MULTI-AXIS RCS BURN (ORB OPS, RCS)		
	< NC-7 TIG (9/00:33)	< NC-7 TIG (9/00:33)		
	MNVR (TRK) -ZLV, -XVV TG=2 BV=3 OM=0 A1/AUTO/VERN Init TRK	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
01:00	06 √UHF MODE - OFF PRIVATE MEDICAL CONFERENCE			
	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
02:00				DTV-OFF UPLINK TFL 161
03:00				
	SLEEP	SLEEP		
04:00				

STS-115 (FD10)


GMT
Date 09/18 (261)
W
TDRS E
Z
DORB
ORB
MET
Day 009
STS ATI
MS1/EV1 TANNER
MS2/EV3 BURBANK
MS3/EV2 PIPER
MS4/EV4 MACLEAN
NOTES
00:00
01:00
02:00
03:00
04:00
16:00
17:00
18:00
19:00
8
9
10
143
144
145
-ZLV
-XVV
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
EXERCISE
PLAYBACK (DIGITAL)
(PHOTO/TV, CUE CARD)
LDRI SURVEYS
KU W-171 (23:44 - 00:10)
KU E-046 (00:27 - 00:47)
EXERCISE
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
SUPPLY WATER DUMP USING FES (ORB OPS, ECLS)
Step 2, Dump Term, FES PRI A is req'd.
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
SLEEP
SLEEP
SLEEP
SLEEP

Good morning Atlantis!

Congratulations on a flawless undocking, and thanks for the awesome pictures you took during flyaround! It is impressive how much you have added to Station. Its appearance has changed significantly! Have a great day and have fun inspecting!

YOUR CURRENT ORBIT IS: 190 X 180 NM

NOTAMS:

EDWARDS (EDW) – 15/33 ELS ONLY – 18L CLOSED
WHITE SANDS (NOR) – RED
AMBERLY (AMB) - CLOSED
ANDERSEN (GUA) - 06L/24R CLOSED, ALTERNATE 06R/24L
ANDERSON BACKUP (UNZ CH 100) VORTAC FREQUENCY CHANGED TO CH 105
ISTRES (FMI) - RUNWAY 33 DISTANCE MARKERS @ 300, 600, 900M
LAJES (LAJ) RWY 33 EXTREME CAUTION DUE TO LOOSE ASPHALT 210 AND 400 FT FROM THRESHOLD
LAJES (LAJ CH 45) OUT OF SERVICE
ORMOND BEACH (OMN CH 73) AZIMUTH OUT OF SERVICE
RIO GALLEGOS (AWG) - NOT APPROVED
SALISBURY (SBY CH 49) OUT OF SERVICE (PRIME TACAN FOR WALLOPS)
WAKE ISLAND (WAK) - CLOSED
WAKE ISLAND (AWK CH 82) OUT OF SERVICE
WILMINGTON (ILM) - CLOSED
PEASE (PSA) - USE IN EMERGENCY ONLY. CHEMICAL ON RUNWAY IS CORROSIVE TO RUBBER.

NEXT 2 PLS OPPORTUNITIES:

EDW04 ORB 141 - 8/21:35 (FEW 250, 040@06P10)
EDW22 ORB 157 - 9/21:59 (SKC, 220@05)

OMS TANK FAIL CAPABILITY:

L OMS FAILS: NO
R OMS FAILS: NO

LEAKING OMS PRPLT BURN:

L OMS LEAK: ALWAYS BURN RETRO
R OMS LEAK: ALWAYS BURN RETRO

OMS QUANTITIES(%)

L OMS	OX = 33.5	R OMS	OX = 33.0
	FU = 34.5		FU = 33.7

SUBTRACT I'CNCT COUNTER FOR CURRENT OMS QUANTITIES

DELTA V AVAILABLE:

OMS	335 FPS
ARCS (TOTAL ABOVE QTY1)	30 FPS
TOTAL IN THE AFT	365 FPS
ARCS (TOTAL ABOVE QTY2)	64 FPS
FRCS (ABOVE QTY 1)	46 FPS
AFT QTY 1	86 %
AFT QTY 2	48 %

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

Today there will be a simo dump, PWR s/n 1011 will be dumped through the supply line, a condensate CWC dump, and a supply water dump using the FES.

Simo Dump Details

At MET 08/13:30 perform a simo supply/waste water dump with the following details:

Perform SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) p 5-2, steps A, and C through J.

Dump supply water for 55 minutes.

The waste tank will be dumped to 5%. Waste dump valve open duration will be 35 minutes.

MCC will TMBU all limits.

FES Dump Details

At MET 8/23:00 perform a supply water dump using FES with the following details:

SUPPLY WATER DUMP USING FES (ORB OPS, ECLS) p5-9, step 1 using FES PRI A.

FES dump termination will be ~2 hours after FES dump initiation.
SUPPLY WATER DUMP USING FES (ORB OPS, ECLS) p5-9, step 2 FES PRI A is req'd.

PWR Supply Line Dump Details

At MET 08/21:55 perform a PWR dump through the supply line with the following details:

NOTE: Have towel ready in case free fluid present.

Perform PWR DUMP-SUPPLY LINE (ORB OPS, ECLS) p 5-40, steps 1, and 3 through 6 with the following delta:

Delta to Step 4. DUMP INITIATION:
WAS: When SUPPLY H2O NOZ T A, B (two) > 150
IS: When SUPPLY H2O NOZ T A, B (two) > 250

PWR will take approximately 15 minutes to dump.

MCC will TMBU all limits. The SUPPLY H2O NOZ T A, B lower limits will be set to 50 instead of 90 in Step 2.

When dump complete, stow the B-B hose and R-Y QD adapter in the Contingency Hose and Cable Kit (CHCK). Use gray tape to mark the hose "used" prior to stowing.

CWC Overboard Dump Details

Once the PWR dump is complete, perform a CWC overboard dump with the following details:

Perform CWC OVERBOARD DUMP (ORB OPS, ECLS) p 5-32, steps A, and C through G omitting step G1.

CWC will take approximately 55 minutes to dump.

MCC will TMBU all limits.

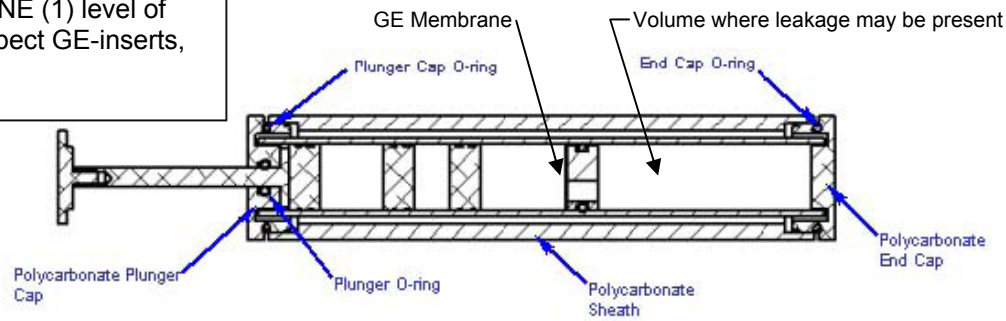
Microbe payload loading anomaly

The Fluid Processing Apparatus (FPA) typically uses a gas-exchange (GE) insert—intended to allow vapor passage but not fluid—as a level of containment. During Microbe preflight loading, it was noted that fluids were slowly seeping past some GE inserts. The Payload Safety Review Panel determined this was acceptable with only tox hazard level (THL) 1 and 0 fluids used in Microbe.

If droplets are observed past the GE-insert, but still inside the FPA polycarbonate sheath, this is acceptable, and the GAP can be operated. If fluid is observed outside of the FPA polycarbonate sheath then place the GAP in a ziplock bag per the procedure.

After the GAPs have been terminated, reinsert the GAP into the foam in an upside down position to help prevent any further loss of fluid through the membrane during reentry. The more fluid we can conserve the better the analysis will be.

Microbe FPA: Only ONE (1) level of containment with suspect GE-inserts, approved for THL≤1.



The Yeast-GAP payload uses a different GE insert and has not exhibited this anomaly. Any noted leakage should be dealt with per procedure.

10. Verify visually:
    No leakage from GAP.

    ****
    * If any external leakage is evident, immediately
    * place GAP in Ziplock Bag and stow.
    ****

    No leakage or internal damage to the Fluid Processing Apparatus (FPAs) (eight) within GAP.

    If there is leakage, notify **MCC-H**.

11. If GAP is listed in step 3
    Retrieve DCS 760 Camera, and perform the following:
    Take one photo of two FPAs.
    Rotate GAP to capture next two FPAs.
    Continue until all FPA (eight) within GAP have been photographed.
    Temporarily stow DCS 760 Camera.

12. Attach Hand Crank to GAP.
    Slowly rotate the Hand Crank CW until lower edge of pressure plate aligns with top edge of the first mark labeled “ACTIVATION” on the side of GAP housing.

13. Detach Hand Crank and temporarily stow.

14. Shake GAP firmly by accelerating in a back and forth motion along the lengthwise axis of the GAP four times.

15. Place GAP in original location within Microbe Stowage Foam.

16. Continue with step 7 until all GAPS listed in step 2 are activated.

17. Record MET Stop Time: _____

18. Place Hand Crank in original location within Microbe Stowage Foam.

MA16F 19. Stow Microbe Stowage Foam.

20. Notify **MCC-H** of MET Start, Stop Time.

10. Verify visually:
    No leakage from GAP.

    ****
    * If any external leakage is evident, immediately
    * place GAP in Ziplock Bag and stow.
    ****

    No leakage or internal damage to the Fluid Processing Apparatus (FPAs) (eight) within GAP.

    If there is leakage, notify **MCC-H**.

11. If GAP is listed in step 3
    Retrieve DCS 760 Camera, and perform the following:
    Take one photo of two FPAs.
    Rotate GAP to capture next two FPAs.
    Continue until all FPAs (eight) within GAP have been photographed.
    Temporarily stow DCS 760 Camera.

12. Attach Hand Crank to GAP.
    Slowly rotate the Hand Crank ↷ until lower edge of pressure plate aligns with lower edge of the second mark, labeled “TERMINATION”, on the side of GAP housing or until hard stop is reached.

13. Detach Hand Crank and temporarily stow.

14. Shake GAP firmly by accelerating in a back and forth motion along the lengthwise axis of the GAP four times.

15. Place GAP upside down (GAP number down, p/n up) in original location within Microbe Stowage Foam.

16. Continue with step 7 until all GAPs listed in step 2 are terminated.

17. Record MET Stop Time: _____

18. Place Hand Crank in original location within Microbe Stowage Foam.

MA16F 19. Stow Microbe Stowage Foam.

20. Notify **MCC-H** of MET Start, Stop Time.

8. Attach Hand Crank to GAP.
   Slowly rotate the Hand Crank ↷ until lower edge of pressure plate aligns with lower edge of the second mark, labeled “TERMINATION”, on the side of GAP housing or until hard stop is reached.

9. Detach Hand Crank and temporarily stow.

10. Shake GAP firmly by accelerating in a back and forth motion along the lengthwise axis of the GAP four times.

11. Retrieve DCS 760 Camera and perform the following:
    Take one photo of two FPAs.
    Rotate GAP to capture next two FPAs.
    Continue until each FPA (eight) within GAP has been photographed.
    Temporarily stow DCS 760 Camera.

12. Place GAP upside down (GAP number down, p/n up) in original location within Yeast GAP Stowage Foam.

13. Repeat steps 4 to 12 for remaining GAP.

14. Record MET Stop Time: _____

15. Place Hand Crank in original location within Yeast GAP Stowage Foam.

MA16G 16. Stow Yeast GAP Stowage Foam.

17. Notify **MCC-H** of MET Start, Stop Time.

During auto PLBD opening, a PBD CONFIG FDA was annunciated when the port door forward close indication transitioned to off while the port bulkhead latches were opening. There is a small possibility that the port door forward close indication will not come on when expected during PLBD closing, causing the PORT DOOR to not show 'CL' within 6 seconds of 'RDY'. In D/O PREP, AUTO PLBD CLOSING, page 1-21, step 5, the starred block only addresses the case for the missing port door **aft** close microswitch. The following contingency procedure and figures should be used if the port door **forward** close MICRO-SW STATUS does not indicate closed ('C'). The figures show the starboard door forward bulkhead latch gang in the latched position; the port door forward bulkhead latch gang is similar.

R13L a. PL BAY DR – STOP

NOTE

Use PLB cameras A or D, or window (if possible), to view port fwd bulkhead latch hook/roller #4 (see figure 1).

b. PL BAY DR SYS 1 – DSBL

During the following step, monitor latch hook #4 while driving to ensure hook motion and proper roller engagement. If at any point latch hook #4 stops moving while commanded, or it appears that the hook is going to miss or jam into its roller:

PL BAY DR – STOP

√MCC

c. PL BAY DR – CL

CRT4 When proper roller engagement verified for latch #4 or PORT DOOR – 'CL':

R13L d. PL BAY DR SYS 1 – ENA

Continue in step 5 of AUTO PLBD CLOSING procedure

Figure 1. PLBD Stbd Bulkhead Forward Latches 2, 3, and 4 (shown fully latched)

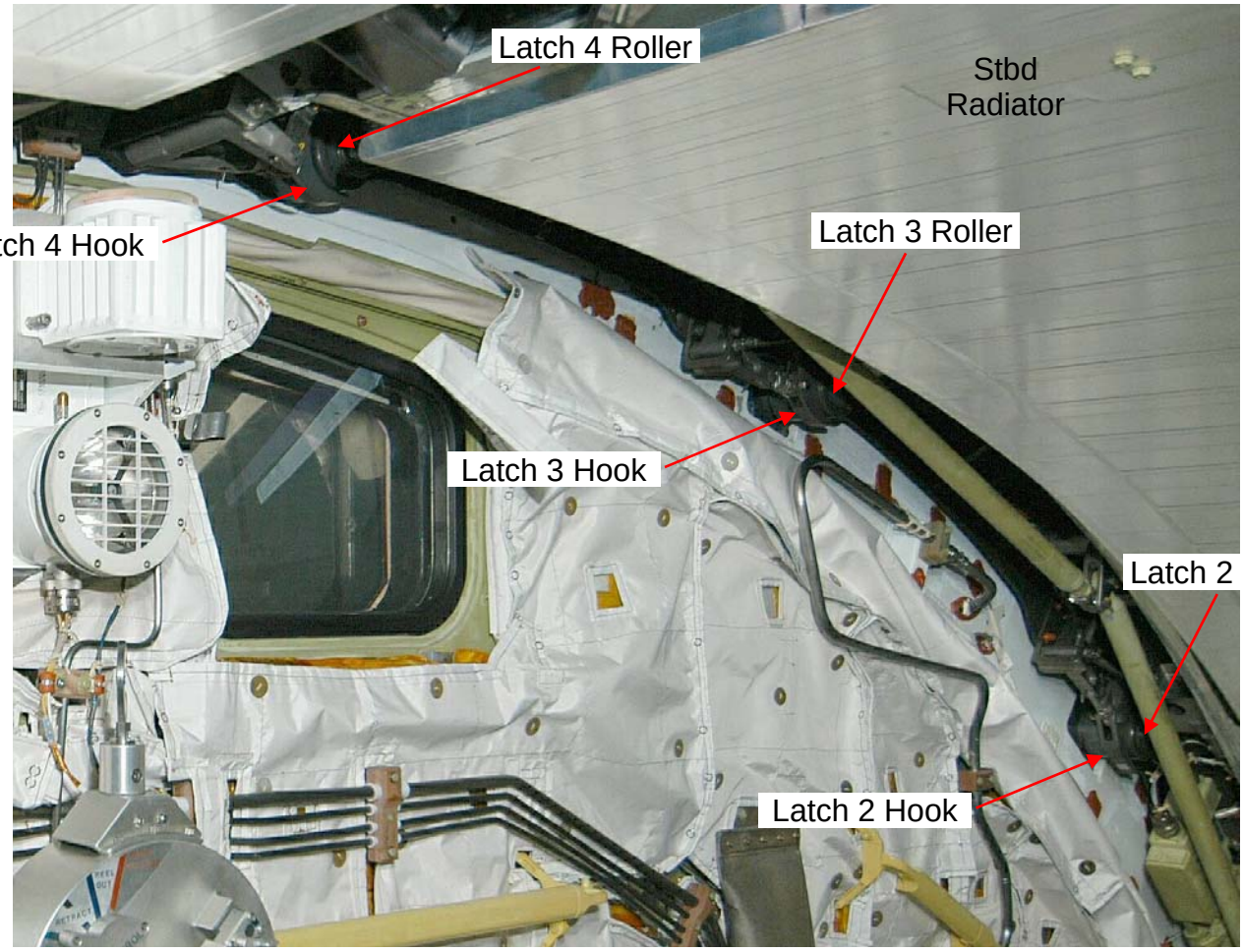
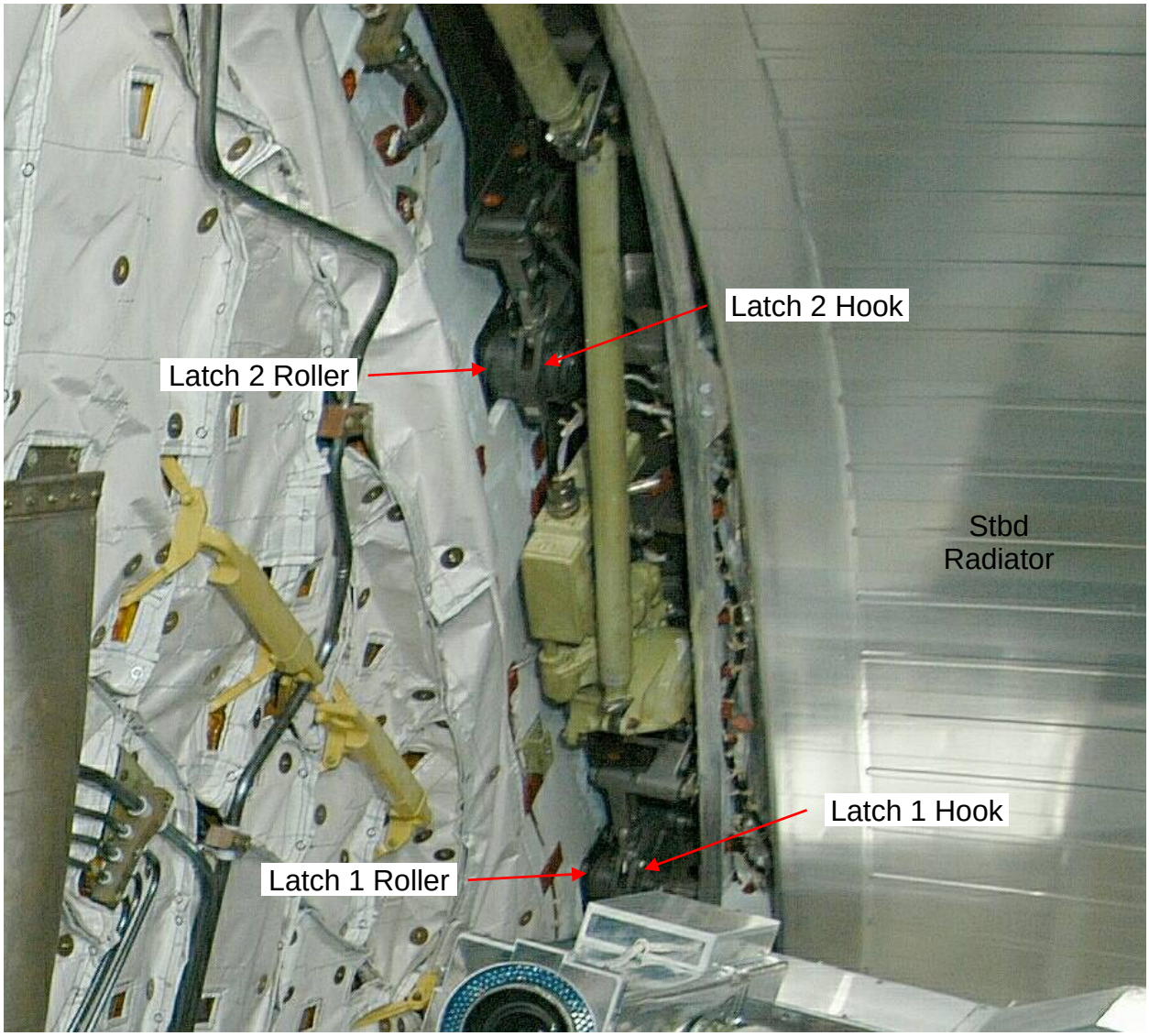


Figure 2. PLBD Stbd Bulkhead Forward Latches 1 and 2 (shown fully latched)



FD9 MMT Crew Summary

The MMT convened again today for only 30 minutes. The MMT was impressed with the flawless undocking and the beautiful flyaround. It was truly a tremendous site here on the ground to see the fruits of the crew's exceptional work during this assembly mission. On the board for tomorrow, the MMT will receive the Entry Flight Director briefing.

Late Inspection - Late inspection will occur on FD10 and the plan will be to incorporate the IDC into the nominal LDRI inspection timeline in the same fashion used for the FD2 Inspection. The Late Inspection will not be interrupted to accommodate optimal lighting for the IDC portion of the operation. In fact, it will be better to evaluate the IDC under non-optimal lighting conditions, different than what was already experience during the FD2 Inspection, in order to better characterize the IDC performance as it is incorporated into the Miniboom design development.

Leaking PWR Status - This PWR will be dumped on FD10. Preflight, no procedures were changed as a result of the dump nozzle anomalies seen on STS-121. The only restriction is that the PWR will not be dumped simultaneously with another CWC or PWR. The dump procedure will be modified slightly on FD10 to increase the nozzle temp range.

Sequential Still Video - Prior to starting Late Inspection, it is expected that further troubleshooting for the SSV system will occur. This system is used by the ground team to provide backup insight to any ongoing inspections whenever the Ku-band antenna is in blockage. Even without the recovery of SSV, there are no significant operational impacts.

Lower Right S-band Antenna- Intermittent communication dropouts are still being observed on the Lower Right S-band antenna. At this time, it appears that the Lower Right antenna hardware is more susceptible to RFI events. The resolution for the Lower Right Antenna issue is still in work.