



STS-128/17A

FD 10 Execute Package

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080	17	FD10 Crew Choice Downlink
081A	18 - 20	FD10 Transfer Message
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083	22 - 26	17A Descent Sample Transfer From MELFI To Glacier
084	27	EVA Hardware Transfer to MPLM
086	28	EHIP/WVS Troubleshooting
088	29-30	Battery Charger 2 Troubleshooting
085	---	FD10 PAO Event Summary Message: ESA VIP Event <i>(JEDI only)</i>
087	---	Stowage Locations for FD10 (GMT 249/250) <i>(JEDI only)</i>

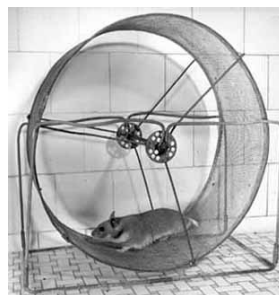
Approved by FAO:
Gail Hansen

Last Updated: Sep 6 2009 1:59 PM GMT
JEDI (Joint Execute package Development and Integration), v3.0

Other Treadmill Patch Candidates



2nd place



3rd place



Honorable Mention

MSG 078A - FD10 FLIGHT PLAN REVISION

1 MSG INDEX

2 MSG NO. TITLE

3 078 FD10 Flight Plan Revision
4 079 FD10 Mission Summary
5 080 FD10 Crew Choice Downlink
6 081 FD10 Transfer Message (20-1139)
7 082 17A MEFLI to GLACIER Transfer Overview (20-1137)
8 083 17A Decent Sample Transfer from MEFLI to GLACIER (20-1138)
9 084 EVA Hardware Transfer to MPLM (20-1140)
10 085 FD10 PAO Event Summary Message: ESA VIP Event (20-1141)
11 086 EHIP/WVS Troubleshooting (20-1142)
12 087 Stowage Locations for FD10 (20-1136)
13 088 Battery Charger 2 Troubleshooting

- 14
15
16 1. **Spinal Elongation** - Nicole, CJ: Reminder that the imagery taken during Spinal
17 Elongation setup needs to be downlinked as quickly as possible for you to be given a go
18 to proceed with operations this afternoon. Please make a call down to Shuttle OCA as
19 soon as the imagery card is placed in the PGSC so the images can be downlinked and
20 processed. In addition, please notify the ground when the data collection photos are
21 ready for downlink, as they require special processing.
22
23 2. **EVA Battery Charger** - Danny, we added an EVA Battery Charger Module trouble-
24 shooting activity to the timeline for today because of some charging anomalies that
25 happened overnight. EHIP battery sn1025 and PGT battery sn1004 did not charge
26 nominally. Troubleshooting steps are contained in MSG 088.
27
28 3. **CBM CPAs** - For all - Please be especially careful today around the CBM CPAs during
29 transfer ops to and from the MPLM. The CPA connectors are susceptible to damage
30 and we have incurred connector damage on past flights.
31
32 C.J. and Christer, yesterday we installed CPA 4 and temp stowed the caps in Node 2
33 [1.0 CTB S/N: 1351]. During today's remaining CPA installs, please retrieve these caps
34 and stow them with the others per the stowage note in the MPLM VOK.
35
36 4. **Attitude Control Handover Info** - The nominal ISS attitude control config during crew
37 wake inhibits the Auto Attitude Control Handover from US momentum management to
38 RS thrusters; during crew sleep, the Auto Handover is enabled. The team has decided
39 to wait to inhibit this Auto Handover until after CMG1 has been added back into the
40 steering law today. Therefore, you will stay in the "crew sleep" config, Auto Handover
41 enabled, until about MET 8/16:00. The CMG1 activity is a dynamic event, but is not
42 expected to saturate the CMG system. The enabled Auto Attitude Control Handover US
43 to RS FDIR provides protection for a Loss of ISS Attitude control should CMG saturation
44 unexpectedly occur.
45
46 5. **Outlook** - The Outlook files are becoming large. Please delete your Sent Mail or move it
47 into your Personal Folders.
48
49 6. Replace pages 2-32, 2-34, 2-36 and 3-102 through 3-111.
50

END OF PAGE 1 OF 14, MSG 078A

GMT 09/06/09 (249)		09/06/09 08:40:42												REPLANNED					
MET Day_008		04	05	06	07	08	09	10	11	12	13	14	15	16					
FD09	CDR STURCKOW	04	MPLM XFER	05	XT EVA XFER EGRU PRE BRIEF SLEEP A/G	06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
		04	EXERCISE	05		06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
FD10	PLT FORD	04	EXERCISE	05		06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
		04	EXERCISE	05		06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
S T S 1 2 8	MS1 FORRESTER	04	EXERCISE	05		06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
		04	EXERCISE	05		06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
S T S 1 2 8	MS2 HERNANDEZ	04	POST EVA W/H2O	05	BSA INIT	06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
		04	POST EVA W/H2O	05	BSA INIT	06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
S T S 1 2 8	MS3 OLIVAS	04	POST EVA W/H2O	05	BSA INIT	06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
		04	POST EVA W/H2O	05	BSA INIT	06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
S T S 1 2 8	MS4 FUGLESANG	04	POST EVA W/H2O	05	BSA INIT	06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
		04	POST EVA W/H2O	05	BSA INIT	06	PRE SLEEP	07	PRE SLEEP	08		09		10		11		12	
DAY/NIGHT	ORBIT	127	128	129	130	131	132	133	134	135									
TDRS	W																		
	E																		
	Z																		
ISS TDRS AVAIL																			
ORB ATT																			
NOTES																			

REPLANNED

09/06/09 08:40:42

GMT 09/06/09 (249) MET Day 008

16 12	17 13	18 14	19 15	20 16	21 17	22 18	23 19	01 21	02 22	03 23	04 009/00
CDR STURCKOW	POST SLEEP	PFC POST SLEEPED OCA	XUFP FRAT	EXERCISE	MPLM XFER	N2N CBM CPA INSTL	MPLM XFER	MEAL	S P I N A L	OFF DUTY	OFF DUTY
PLT FORD	POST SLEEP	POST SLEEP	CIMN MCIT	MPLM XFER XFER	MPLM XFER	EXERCISE	MPLM XFER	MEAL	OFF DUTY	OFF DUTY	OFF DUTY
MS1 FORRESTER	POST SLEEP	POST SLEEP	GLACR SMPL	MPLM XFER XFER	EXERCISE	MPLM XFER	MPLM XFER	MEAL	GLACR SMPL	OFF DUTY	OFF DUTY
MS2 HERNANDEZ	POST SLEEP	POST SLEEP	MPLM XFER	MPLM XFER	EXERCISE	MPLM XFER	MPLM XFER	MEAL	OFF DUTY	OFF DUTY	OFF DUTY
MS3 OLIVAS	POST SLEEP	POST SLEEP	PEP SISR AVOLIA OES NTE HT	LIQH XFER PART 2	EVA H/W STOW MPLM	EXERCISE	MPLM XFER	MEAL	GP LH AO SAFER CT C/O	OFF DUTY	OFF DUTY
MS4 FUGLESANG	POST SLEEP	POST SLEEP	EXERCISE	PSOL SEHAM TEP	MPLM XFER	N2N CBM CPA INSTL	MEAL	S P I N A L	OFF DUTY	OFF DUTY	OFF DUTY

DAY/NIGHT ORBIT 135 136 137 138 139 140 141 142 143

TDRS W E Z

ISS TDRS AVAIL ORB ATT

*RPRS INIT *RPRS TERM
#STATUS CHECK *FILTER CK

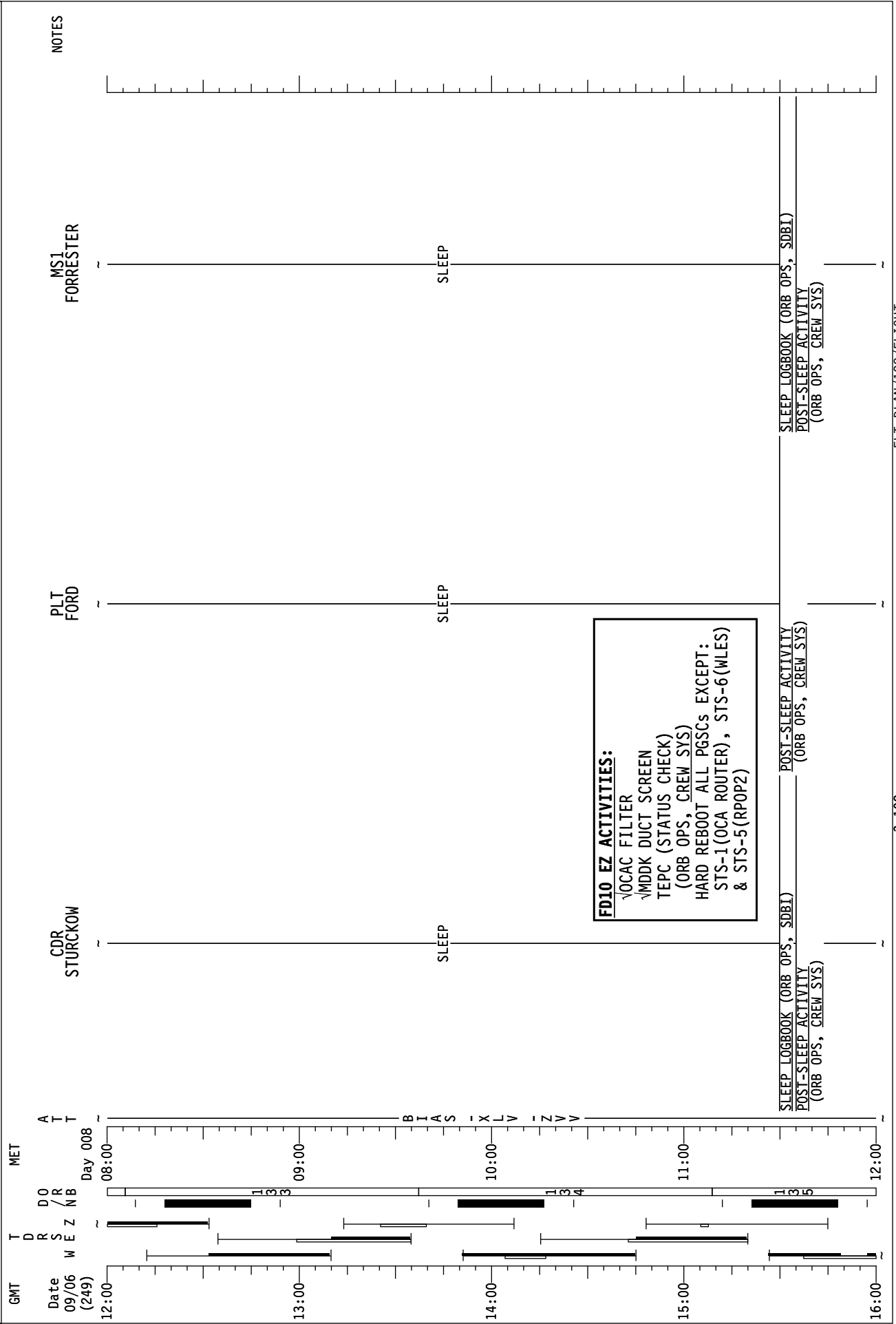
BIAS -XLV -ZVV
#STATUS CHECK

GMT 09/07/09 (Z50) 009/00 04 05 06 07 08 09 10 11 12 13 14 15 16 12

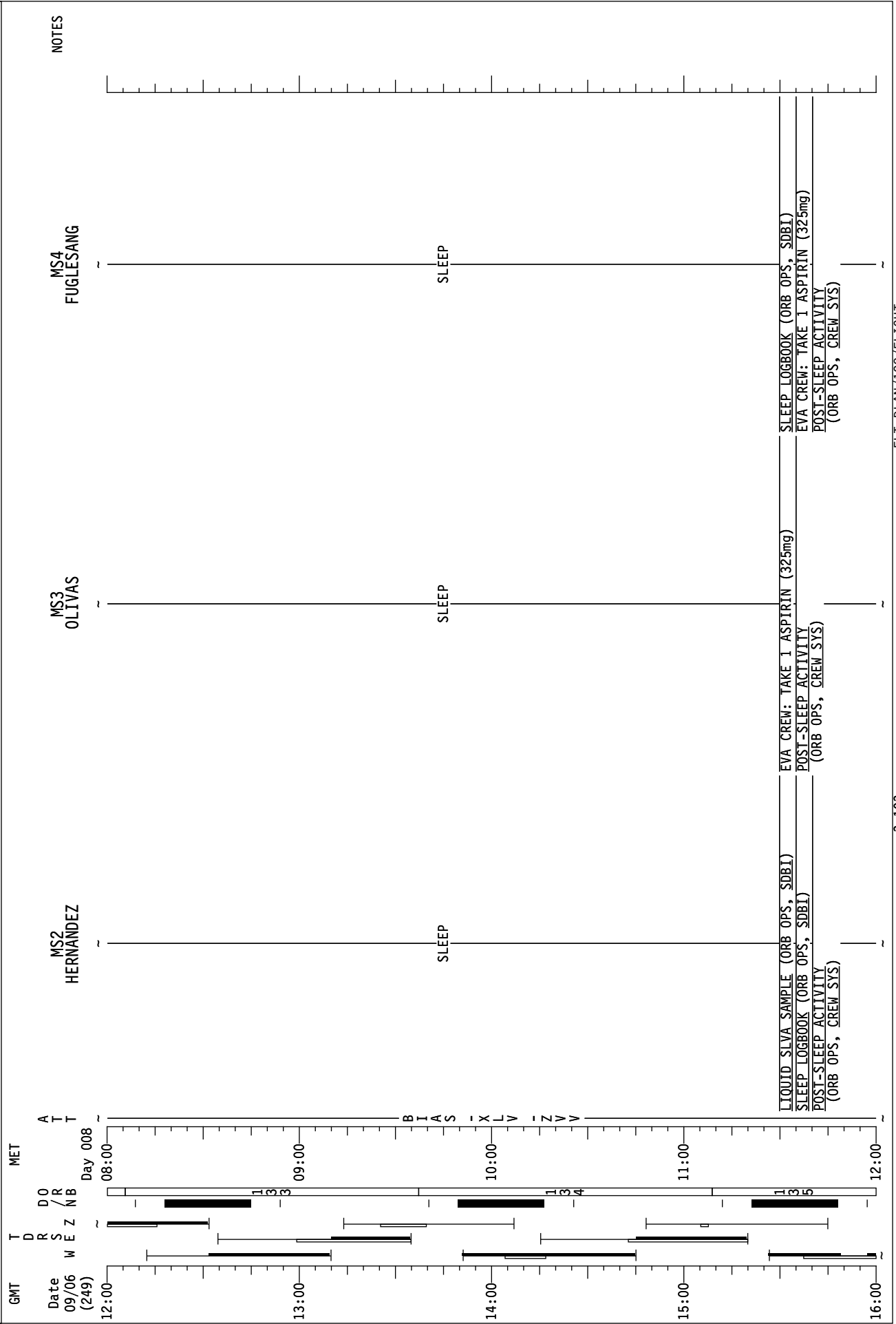
FD10	OFF DUTY	X T F A XFER EGRU P	PS	PMC A/G	PRE SLEEP	SLEEP	FD11			
CDR STURCKOW	OFF DUTY						L POST SLEEP			
PLT FORD	OFF DUTY				PRE SLEEP	SLEEP	POST SLEEP			
MS1 FORRESTER	OFF DUTY	G L L A C R #			PRE SLEEP	SLEEP	L POST SLEEP			
MS2 HERNANDEZ	OFF DUTY				PRE SLEEP	SLEEP	L POST SLEEP			
MS3 OLIVAS	OFF DUTY				PRE SLEEP	SLEEP	POST SLEEP			
MS4 FUGLESANG	OFF DUTY		PRE SLEEP	PRE SLEEP	PRE SLEEP	SLEEP	L POST SLEEP			
DAY/NIGHT ORBIT	143	144	145	146	147	148	149	150	151	
TDRS	W	E	Z							
ISS TDRS AVAIL ORB ATT	BIAS -XLV -ZVV									
NOTES	#PRE SLEEP #STATUS CHECK									

S T S 1 2 8

STS-128/17A FD10

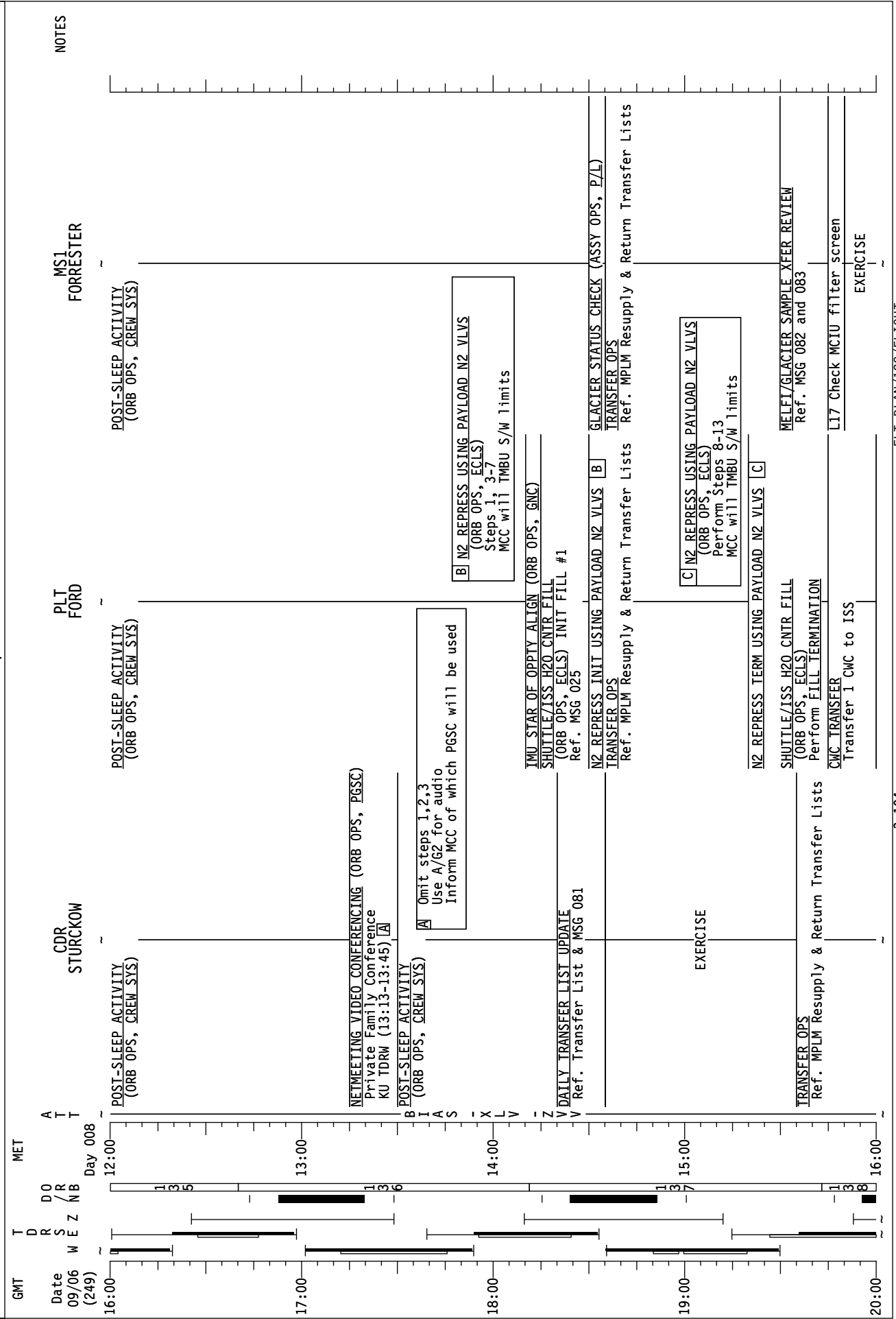


STS-128/17A FD10

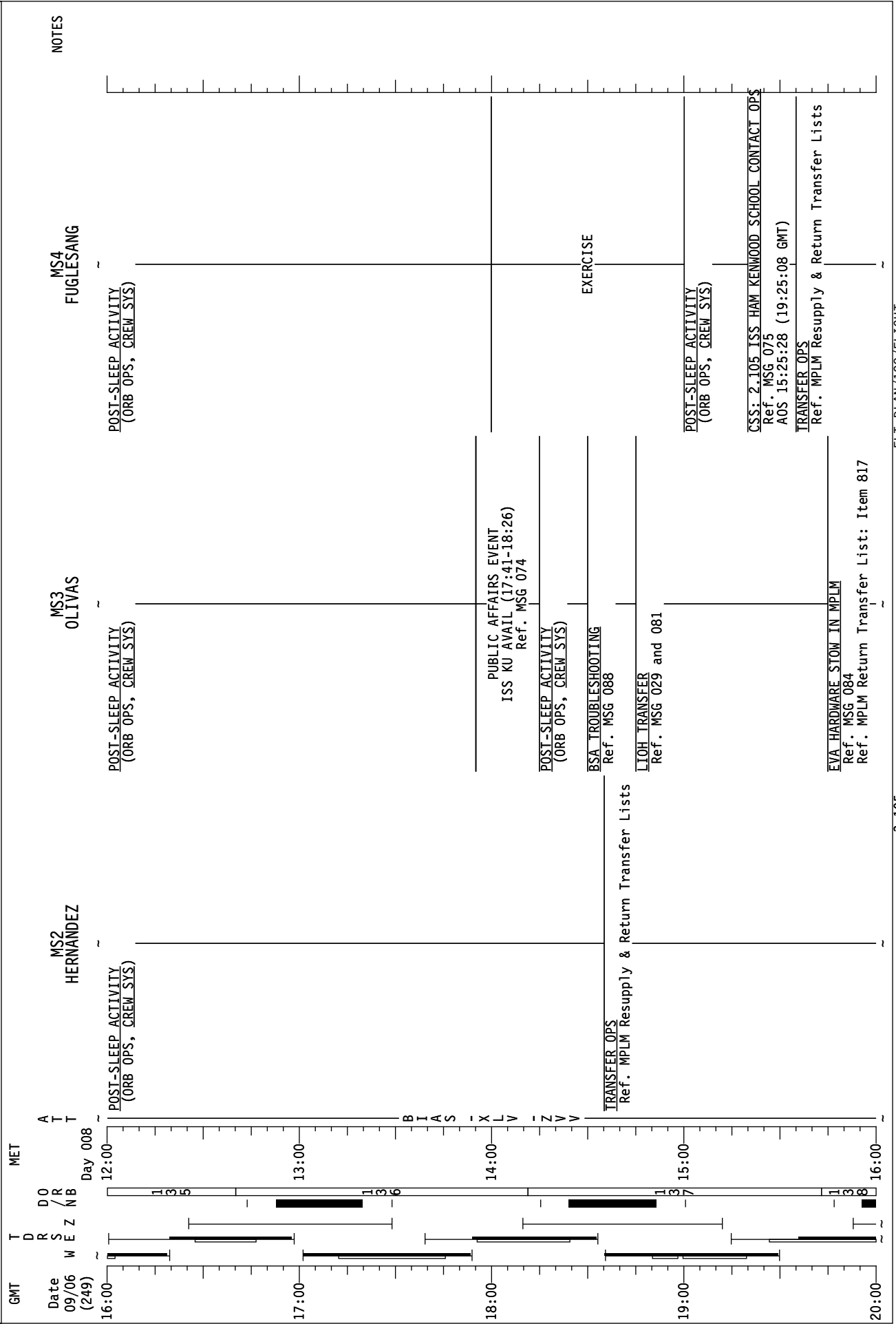


09/06/09 08:41:00

STS-128/17A FD10



STS-128/17A FD10

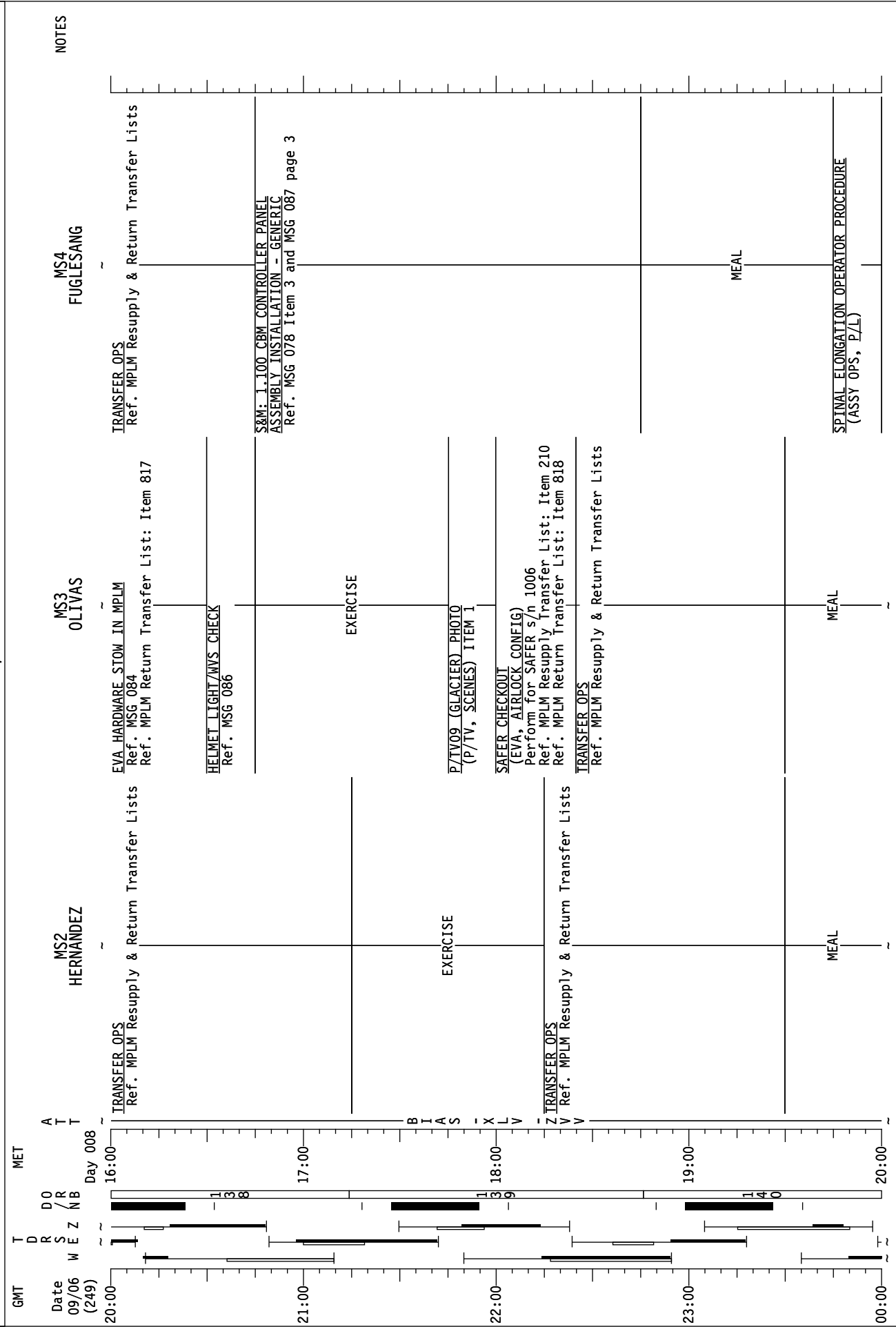


STS-128/17A FD10

GMT	Date 09/06 (249)	T R S W E Z	DO /R NB	MET Day 008	CDR STURCKOW	PLT FORD	MS1 FORRESTER	NOTES
20:00				16:00	TRANSFER OPS Ref. MPLM Resupply & Return Transfer Lists	TRANSFER OPS Ref. MPLM Resupply & Return Transfer Lists		
21:00				17:00	S&M: I.100 CBM CONTROLLER PANEL ASSEMBLY INSTALLATION - GENERIC Ref. MSG 078 Item 3 and MSG 087 page 3		EXERCISE	
22:00				18:00			TRANSFER OPS Ref. MSG 083 Ref. Middeck Transfer List: Item 607	
23:00				19:00	TRANSFER OPS Ref. MPLM Resupply & Return Transfer Lists	TRANSFER OPS Ref. MPLM Resupply & Return Transfer Lists		
00:00				20:00	MEAL	MEAL	GLACIER STATUS CHECK (ASSY OPS, P/L)	

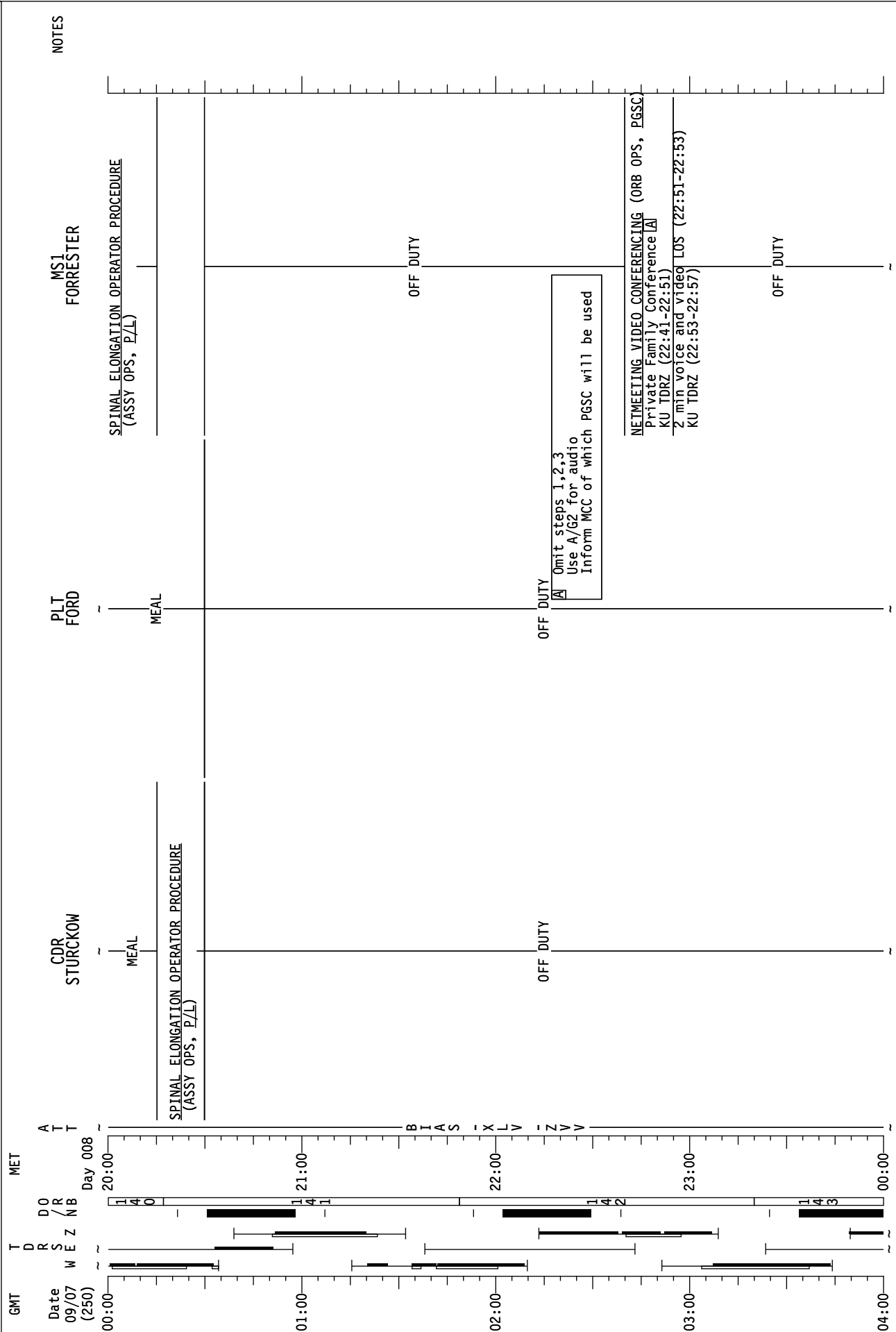
09/06/09 08:41:00

STS-128/17A FD10



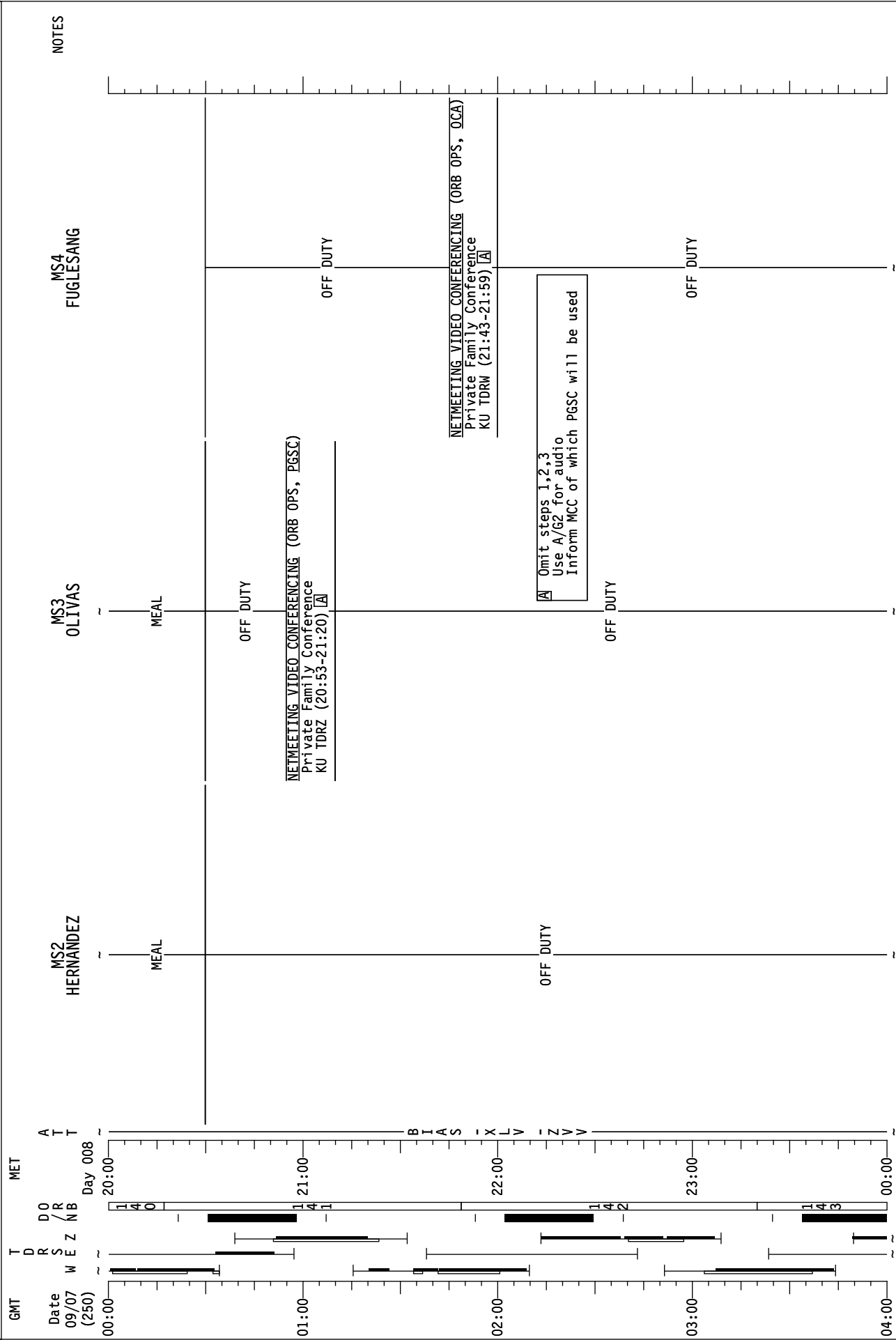
09/06/09 08:41:00

STS-128/17A FD10



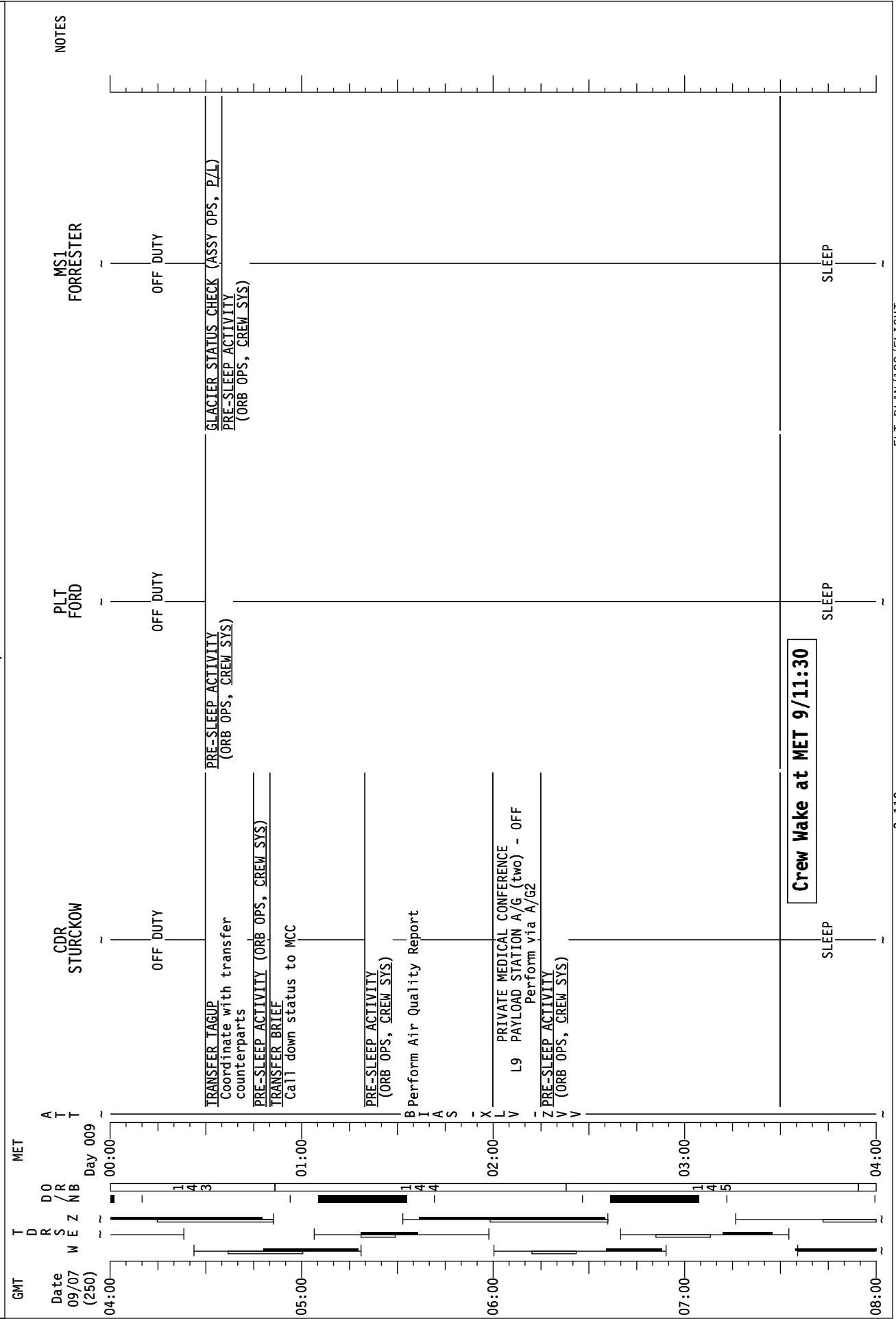
09/06/09 08:41:00

STS-128/17A FD10

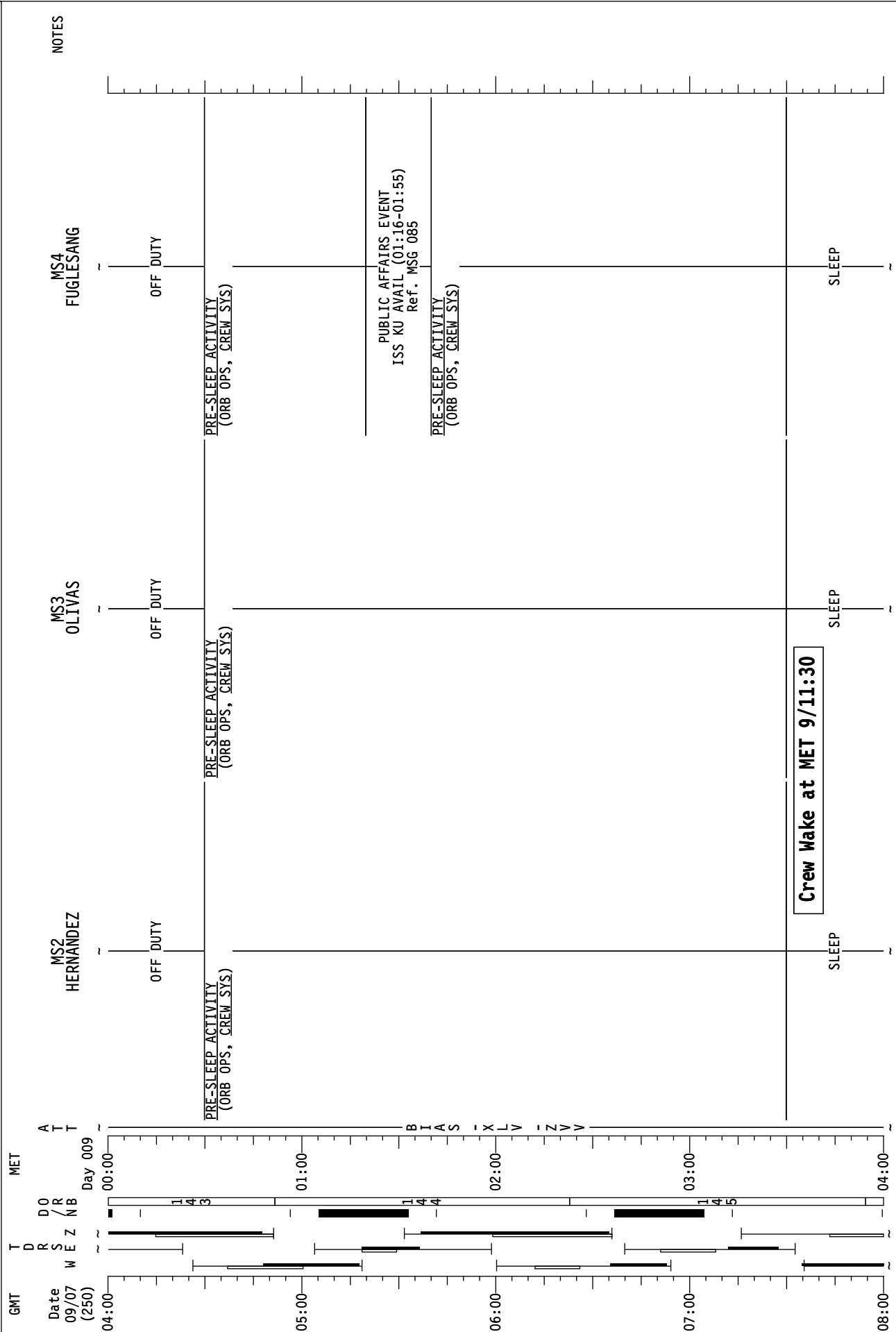


09/06/09 08:41:00

STS-128/17A FD10



STS-128/17A FD10



MSG 079 - FD10 MISSION SUMMARY

1
2 Good Morning Discovery!!!!

3
4 The "Handover" quote of the day was from EVA. It was a "Fantastic EVA!!!!". Perfect
5 summary of yesterday's effort by the entire team!

6
7 Have another great day!!!!

8
9
10
11 YOUR CURRENT ORBIT IS: 194 X 181 NM

12
13 **NOTAMS: (NO CHANGE)**

14
15 EDW - EDW IN USE. EDT DAY ELS ONLY.
16 EDW - LAKEBED RWY 15/33 GREEN - ELS ONLY. RWY 18L - UNUSABLE.
17 NOR - LAKEBED RUNWAYS GREEN.
18 NKT - AERODROME CLOSED.
19 FMH - RWY 32 SEQUENCED FLASHING LIGHTS OTS.
20 YJT - TACAN YJT78 OTS.
21 EDF - RWY 06/24 CLOSED
22 LAJ - TACAN LAJ45 OTS.
23 HAW - RWY 31 LDA = 9024 FT.
24 GUA - RWY 24R END LIGHTS OTS.
25 IKF - NOT USABLE. NO AGREEMENT.
26 BEN - NOT RECOMMENDED/NOT SUPPORTED.
27

28
29 **NEXT 2 PLS OPPORTUNITIES:**

30
31 EDW22 ORB 142 – 8/22:42 FEW250 7 230/10P16
32 EDW22 ORB 157 – 9/21:31 FEW250 7 230/16P22

33
34 **OMS TANK FAIL CAPABILITY:**

35
36 L OMS FAILS: NO
37 R OMS FAILS: NO

38
39 **LEAKING OMS PRPLT BURN:**

40
41 L OMS LEAK: ALWAYS BURN RETROGRADE
42 R OMS LEAK: ALWAYS BURN RETROGRADE

43
44 **OMS QUANTITIES(%)**

45
46 L OMS OX = 34.4 R OMS OX = 33.4
47 FU = 33.9 FU = 33.4
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END OF PAGE 1 OF 2, MSG 079

MSG 079 - FD10 MISSION SUMMARY

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DELTA V AVAILABLE:

OMS	359 FPS
<u>ARCS (TOTAL ABOVE QTY1)</u>	<u>23 FPS</u>
TOTAL IN THE AFT	382 FPS
ARCS (TOTAL ABOVE QTY2)	56 FPS
FRCS (ABOVE QTY 1)	33 FPS
AFT QTY 1	82 %
AFT QTY 2	44 %

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

END OF PAGE 2 OF 2, MSG 079

MSG 080 - FD10 CREW CHOICE DOWNLINK

1 Below are your crew choice downlink opportunities based on Ku availability:

2
3
4

TDRS	AOS	LOS	Delta (min)	Notes
Z	9/00:15	9/00:48	33	Analog Only Alpha Stop @ 00:30
W	9/00:49	9/01:03	14	
E	9/01:19	9/01:29	10	
Z	9/02:00	9/02:35	35	Analog Only Alpha Stop @ 02:05 & 02:13

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END OF PAGE 1 OF 1, MSG 080

MSG 081A (20-1139A) - FD10 TRANSFER MESSAGE

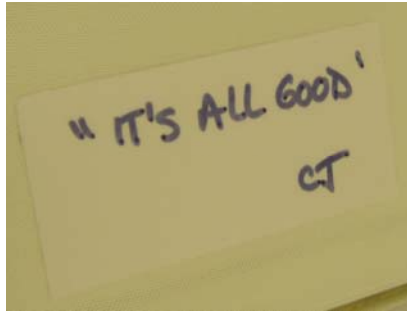
Page 1 of 7

1 Good morning Danny, Christer, CJ & Jose

2

3 Welcome to your last day of MPLM Transfer! You are 77 percent complete on MDDK, 87
4 percent complete on MPLM, and 85 percent complete overall. For today we have listed out
5 all open MPLM items in the choreography. The Marsha note below from the resupply
6 RPCMs sums everything up very well.....

7



8

9

10

11 The Transfer List Excel file, FD10_Transfer_List_STS128.xls, locations are:

12

- Shuttle: **C:\OCA-up\transfer** (KFX machine)
- Station: **K:\OCA-up\transfer**

13

14

15 Transfer Notes

16

• **LiOH**

17

• The missing 1.0 CTB:

18

- This was reported on FD06 by Danny as being labeled #812 with 17A cans #1 & #2 stowed inside. If this bag is not found deployed in the MPLM or Middeck you can check to see if it's still strapped to the Endcone. The following MPLM Endcone locations are where the LiOH CTBs launched so check to see if there are CTBs still at any of these locations.

19

20

21

22

23

24

- A1, A3, F1, P1, P2, P3

25

- When you locate this CTB it needs be re-labeled #810.

26

• The Plan for today:

27

- 17A used LiOH cans 17 & 18 are the last two cans to be transferred.
 - Stow one can in return bag #805 (0.5 CTB). This CTB launched at MPL1S1_B1 and should be temp stowed in the Endcone.
 - Stow the second can into the 1.0 CTB listed above that you re-labeled as #810 and stow it at MPL1A3_C1.
 - If you are not able to find either of these bags just let us know and we will give you an alternate location for the LiOH cans.
 - If accessible, remove 6 blue LiOH covers from the LiOH launch CTBs in the MPLM and install them on cans STS-128 26-31 located in the LiOH Box, MD52M.

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• What should be left in the MDDK LiOH box when all LiOH transfer is complete:

39

- STS-128 Can number: 19 (Used), 20 & 21 (Installed), 22 thru 47 (Unused).

40

41

- Verify the LiOH Can numbers present in the LiOH Box. Report to MCC whether there are any discrepancies, or if everything is as expected.

42

MSG 081A (20-1139A) - FD10 TRANSFER MESSAGE

Page 2 of 7

- 1 • **Laundry Relocation:** Pre-flight we discussed the possibility of having to stow laundry in
2 the MPLM Endcone for return. That is no longer required so your laundry can stay on
3 the Middeck.
- 4 • **Non-Collapsible Food Container:** Per the call down last night it sounded like the
5 MPLM Endcone has been emptied. Item 731 has not been reported complete and it is
6 not going into an M-Bag so it should be still located in the Endcone. If this item is not in
7 the Endcone or MPL1S1_A2 you should check to see if it migrated out of the endcone
8 and is hiding in the MPLM or check the area around LAB1S4 to see if it got left in the
9 Lab.

10 **FD10 Choreography**

- 11 • **Danny (LiOH)**
 - 12 ○ **Items 810 & 805:** See Transfer Notes section for details
 - 13 ○ **Items 260.1, 267.1, 269.1, & 813:** Transfer Jettison Stowage Bags to ISS
- 14 • **EVA Hardware:**
 - 15 ○ **Items 210 & 818:** Transfer SAFERs per SAFER C/O activity
 - 16 ○ **Item 815:** Transfer returning RGA after EVA 2 and stow in foam box
 - 17 ○ **Item 815:** Transfer returning RGA after EVA 2 and stow in foam box
 - 18 ○ **Item 815:** Transfer returning RGA after EVA 2 and stow in foam box
 - 19 ○ **Item 815:** Transfer returning RGA after EVA 2 and stow in foam box
 - 20 ○ **Item 817:** Transfer EVA hardware to MPLM per EVA H/W STOW MPLM
 - 21 activity
- 22 • **Item 607:** Transfer Glacier samples to STS per GLACIER SAMPLE XFER activity
- 23 • **Item 614:** Transfer Micro Sample Post-Flight Analysis Packets per EMU WPA SMPL
- 24 activity
- 25 • **MPLM Prep for return**
 - 26 ○ **Items 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, & 831:** Install temp
 - 27 stowed handrails on MPLM racks for return
 - 28 ○ **Items 832 & 833:** Transfer PBA and PFE back to ISS
 - 29 ○ **Item 836:** Strap ISP foam down for return
 - 30 ○ **Item 835:** Uninstall all bungees and then transfer them to ISS
 - 31 ○ **Item 103:** Scavenge GLAs per MPLM GLA SCAVENGE activity
- 32 • **Remaining MPLM Open Items**
 - 33 ○ **Item 521, 522, 523, 524:** Transfer Food Containers
 - 34 ○ **Item 555, 700, 701, 705, 711, 716, 720, 726, 731, & 732:** Transfer remaining
 - 35 pre-pack items
 - 36 ○ **Item 811, 814, 816, 819, 820, 952, 954, 955, 964, 965, 966, & 967:** Transfer
 - 37 the remaining non-prepacked items

MSG 081A (20-1139A) - FD10 TRANSFER MESSAGE

Page 3 of 7

1 **Please incorporate uplink pages as follows (we've listed the updates in the order they**
2 **printed out for you):**

3
4 In the Middeck Transfer List **RESUPPLY** tab

5 Replace the following page:
6 Resupply 5 & 6

7
8 In the MPLM Return Transfer List **RETURN** tab

9 Replace the following page:
10 Return 19

11
12 Add the following page:
13 Return 25

14
15 **Changes to the Transfer List are detailed below:**

16 17 **MIDDECK RESUPPLY**

18 Item 34.1 – updated notes

19 Item 302 – new item

20 21 **MPLM RETURN**

22 Item 817 – updated item name

23 Item 964 – new item

24 Item 965 – new item

25 Item 966 – new item

26 Item 967 – new item

27 28 29 **FD11 Choreography**

- 30 • **Item 612:** Transfer Saliva samples per SALIVA STOW activity
- 31 • **Item 613:** Transfer Blood samples per BLOOD STOW activity
- 32 • **Item 5:** Transfer RPOP2 per PGSC XFER activity
- 33 • **Items 600, 605, & 606:** Transfer EVA Hardware per EVA procedure
- 34 • **Item 603:** Transfer Double Coldbag per DCB XFER activity
- 35 • **Item 34 & 34.1:** Return PCS to ISS and transfer power supply per PCS XFER
- 36 activity
- 37 • **Remaining Middeck Open Items**
 - 38 ○ **Items 24, 736, 604, 611, 616, 900, 903, 903.1, 904, & 906:** Transfer
 - 39 remaining Middeck items

40
41
42
43 Have a great day and let us know if you have any questions!

44
45 - The STS-128 Transfer Team

46
47
48
49
50
Page 3 of 7, MSG 081A (20-1139A)

1 Nicole and Pat,

2
3 Today you will be transferring samples from the ISS MELFI to STS Glacier in
4 preparation for 17A descent. You will be using one Double Coldbag and two Icepac
5 Belts to protect the science during transfer. Below are some suggestions and
6 constraints to keep in mind while performing this activity. This message should be
7 reviewed in conjunction with procedure {UPLINKED PROCEDURES: US SODF:
8 ASSY OPS: 20-1138 (MSG 083) 17A DESCENT SAMPLE TRANSFER FROM
9 MELFI TO GLACIER}.

- 10
11 1. You will need to use the Light Duty Cryo Gloves from ISS while accessing
12 both MELFI and Glacier.
- 13 2. Minimize MELFI and Glacier door open time to help reduce moisture and
14 protect other samples. Note that standard timing restrictions on MELFI and
15 Glacier do not apply for this activity.
- 16 3. Minimize the amount of time that retrieved samples are exposed to ambient
17 air to prevent science warm-up/loss.
- 18 4. When samples are removed from MELFI, the packing orientation of samples
19 between the Icepacs in the Double Coldbag is not important. The packing
20 diagram in the procedure is simply a suggested guide. In addition, the
21 procedure provides a recommendation for packing these samples into
22 Glacier. It is not important to follow the exact call outs for placement of these
23 samples into the trays. If necessary, simply evenly distribute the samples
24 between the four Glacier trays during insertion.
- 25 5. Close the Double Coldbag lid except when inserting frozen items.
- 26 6. Close Glacier inner doors except when inserting/removing trays.
- 27 7. Insert the Glacier tray so that the Velcro on the end of the tray is towards the
28 back of Glacier.
- 29 8. If a MELFI tray gets stuck when opening a Dewar, use the Wireway Cover to
30 aid in the removal of the tray.

OBJECTIVE:

This procedure will be used to transfer frozen science samples from ISS MELFI to Shuttle Glacier using one Double Coldbag. This activity is performed by ISS and shuttle crewmembers. The Glacier door will be locked after sample transfer is complete.

IFM Tool Locker (MF14H):

3/16" Hex Head, 1/4" Drive

4" Extension, 1/4" Drive

Trq Wrench, 1/4" Drive (40 - 200 in-lbs)

PARTS:

Double Coldbag S/N 1012

Light Duty Cryo Gloves (from ISS)

Small Coldplate/Wiretray Cover P/N SEG33111361-301

ITEMS TO UNSTOW WITHIN PROCEDURE

Icepac Belt -32°C (two)

HRP Urine (sixty-two wraps)

HRP Blood (nineteen vial bags)

JAXA Microbe bag (three tubes)

LADA VPU (one ziplock)

MELFI 1. PACKING MELFI SAMPLES INTO DOUBLE COLDBAG

WARNING

Protective Gloves must be worn when manipulating MELFI trays or samples to prevent injury to exposed skin.

CAUTION

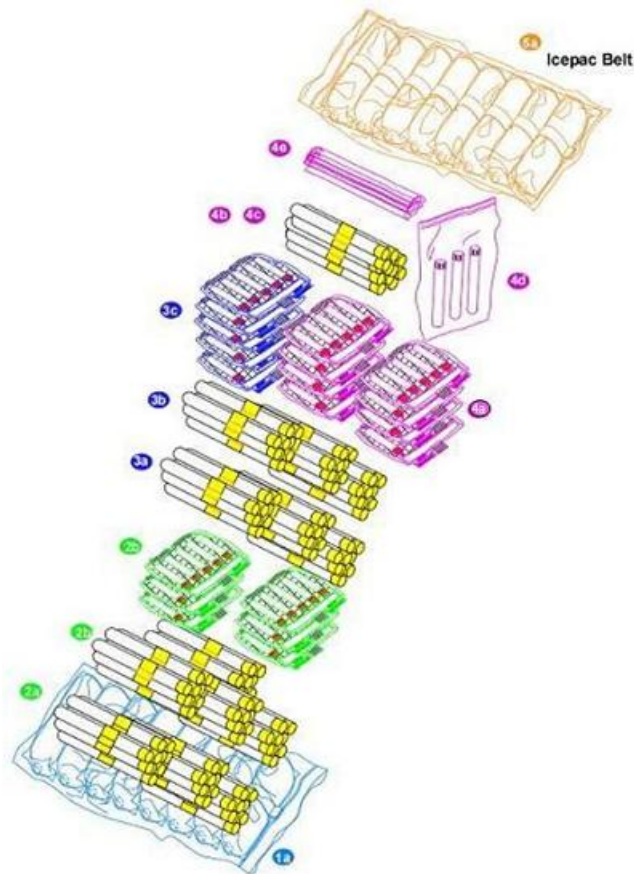
- 1. Minimize exposure of MELFI trays, frozen Icepacs, and samples to ambient air to prevent increased sample temperatures.
- 2. Double Coldbag lid should remain closed when the internal volume is not being accessed.

NOTE

The 60 seconds and 45 minutes MELFI Dewar opening rules do not apply during packing of the Coldbag.

- 1.1 Don Light Duty Cryo Gloves.
- 1.2 Pack Double Coldbag per Figure 1.

()



Step	From MELFI Location *	Description
1a	2-C-1	Insert Icepac Belt -32°C (pink) on bottom
2a	2-A-2,3	Insert HRP urine (fourteen wraps);
2b	2-B-2,3	Insert HRP urine (fifteen wraps);
		Insert HRP blood (six vial bags);
3a	1-C-1	Insert HRP urine (twelve wraps);
3b	1-C-4	Insert HRP urine (eleven wraps);
3c	1-B-1,2	Insert HRP blood (five vial bags);
4a	3-A-2	Insert HRP blood (eight vial bags);
4b	3-C-3	Insert HRP urine (six wraps);
4c	3-C-4	Insert HRP urine (four wraps);
4d	3-C-1	Insert JAXA Microbe bag;
4e	3-B-2,3	Insert LADA VPU bag
6a	2-C-2	Insert Icepac Belt -32°C (pink) on top

* Dewar-Tray-Tray Section (3-A-1 = Dewar 3, Tray A, Tray Section 1)

Figure 1. Samples in Double Cold Bag

 *
 * If Tray is stuck and cannot be removed from Dewar
 * | Perform 4.010 MELFI REMOVAL OF A STUCK TRAY,
 * | steps 5 to 13 (US PODF: MELFI), then:
 *

2. TRANSFERRING DOUBLE COLDBAG FROM ISS TO SHUTTLE

2.1 Transfer Double Coldbag to Glacier.

MA16F/G
(Glacier)

3. INSERTING SAMPLES INTO GLACIER

WARNING
Protective gloves must be worn when handling frozen samples or manipulating inner doors, cold trays or samples in Glacier to prevent injury to exposed skin.

CAUTION
1. Minimize exposure of Glacier trays and samples to ambient air to prevent increased sample temperatures.
2. Glacier inner doors should remain closed when the internal volume is not being accessed.

3.1 Don Light Duty Cryo Gloves (from ISS).

3.2 Open Glacier.

3.3 Insert into Tray A: HRP Urine (fifteen wraps), JAXA Microbe bag and LADA VPU bag.

3.4 Insert into Tray B: HRP Urine (fourteen wraps) and HRP Blood (eight vial bags).

3.5 Insert into Tray C: HRP Urine (eleven wraps) and HRP Blood (six vial bags).

3.6 Insert into Tray D: HRP Urine (twenty-two wraps), HRP Blood (five vial bags).

4. LOCK GLACIER DOOR

4.1 ✓Glacier door is closed.

```

*****
*
* If Outer Door does not close
* | Press on top left corner or bottom left corner of door to assist
* | with closure.
*
*****

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- 4.2 ✓Door Latch – Locked (Finger latches fully spread apart and locking flap positioned between finger latches.)

WARNING

Glacier Door Captive Locks (two) must be torqued to 75 in-lbs for safety purposes.

- 4.3 Fasten Glacier Door Captive Locks (two), torque to 75 in-lbs using 3/16" Hex Head, 1/4" Drive, 4" Extension, 1/4" Drive, (40 to 200 in-lbs) Trq Wrench 1/4" Drive. See Figure 2 Glacier Configuration.

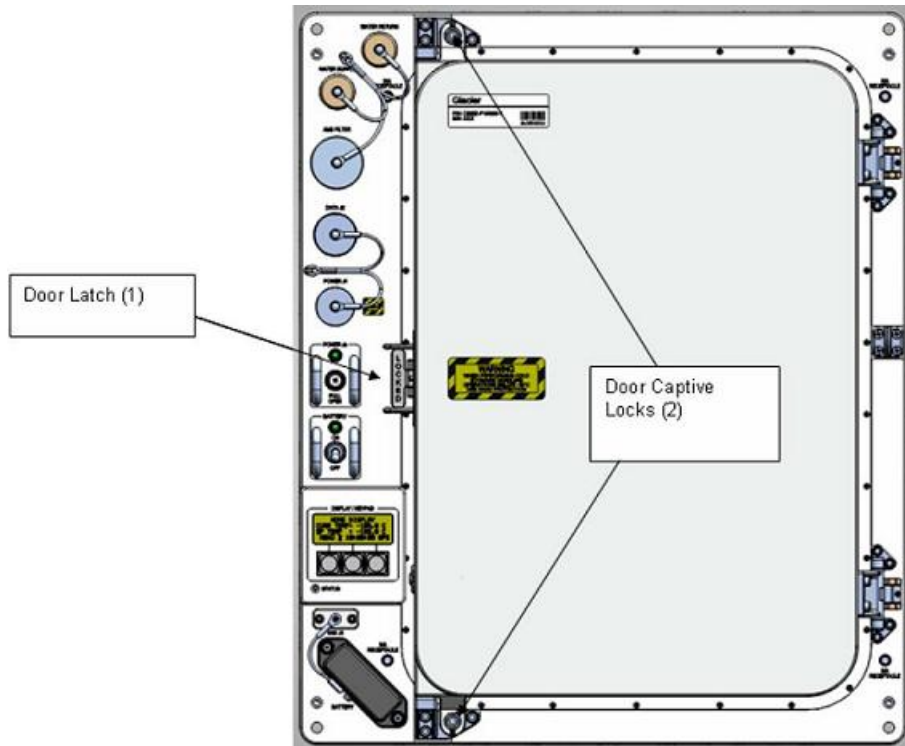


Figure 2. Glacier Configuration

MF14H

- 4.4 Stow tools.

5. TEMPORARY STOW DOUBLE COLDBAG

- 5.1 Transfer Double Coldbag to location that allows temporary stowage and protection from kick loads.
- 5.2 Remove Icepac Belt -32 °C (two) from Double Coldbag and place in temporary stowage location to air dry.

5.3 Return Light Duty Cryo Gloves to original location on ISS.

5.4 Notify **MCC-H** that transfer activities completed and temporary stowage locations for Double Coldbag and Icepacs.

6. GROUND UPDATES FOR IMS

Ground updates IMS for the following parts:

Double Cold Bag S/N 1012 TO: per crew call down (step 5.4)

1 **EVA HARDWARE TRANSFER TO MPLM (45 min)**

- 2 1. Retrieve two of the sixteen Node 3/S0 Avionics caps from the
3 large trash bag. We plan to leave these on ISS.
4 S0 Cap p/n: NZGL-RPC-N-25-R-MS
5 Cable Cap p/n: NZGL-PPC-N-25L-R
6

7 Place these two caps in a Ziplock bag labeled:
8 “S0/Node3: P/J 181 from 17A EVA3”
9

10 Stow Ziplock in CTB 1022 “Unique EVA Tools” located in
11 A/L1D2_Behind Closeout
12

- 13 2. Stow the following items in Node 3 CH 2/3 Avionics Cable Bag
14

- | |
|--|
| <p style="text-align: center;"><u>NODE 3 CH 2/3 AVIONICS CABLE BAG</u></p> <ul style="list-style-type: none"><input type="checkbox"/> PAS Antirotation Cap w/ hitch pin<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> PAS RTL PIP pins (3)<input type="checkbox"/> Stow clevis bracket<input type="checkbox"/> Node 3/S0 Avionics caps (14)<input type="checkbox"/> <input type="checkbox"/> MSS Camera Cover MLI (2)<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 55-ft Safety Tethers (3) #60, #70, #71<input type="checkbox"/> Node 1 Slidewire<input type="checkbox"/> GPS Antenna Caps (4) |
|--|

- 15 3. Transfer Node 3 CH 2/3 Avionics Cable Bag to MPLM
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20-1142 (MSG 086) – EHIP/WVS Troubleshooting

Page 1 of 1

1 Danny and Christer, great job on the EVA yesterday. We have a few questions
2 about Christer's helmet light/WVS to help us determine why it became detached and
3 if there was any subsequent damage. From the pictures, we could see that it was
4 helmet light sn 1010.

5
6 During this troubleshooting it may be helpful to detach the WVS from the helmet
7 lights to make access to the EHIP latches easier.

8
9 1) Did you detach the helmet lights from the helmet after EVA 2 when you changed
10 the lightbulb or had they been mounted to the helmet since prior to EVA 2?

11
12 2) If you detached them after EVA 2, did you have any trouble reattaching them for
13 EVA 3?

14
15 3) Please inspect the mounting brackets on the helmet. Is there any damage or
16 looseness?

17
18 4) Please inspect the Helmet Light latches. Is there any looseness? Do they snap
19 back automatically?

20
21 5) Please inspect the WVS power cable where it attached to the PLSS. Is there any
22 damage to the TMG or the cable?

23
24 6) Please inspect the power socket where the cable plugs into the ERCA and report
25 any damage.

26
27 7) Please install the helmet light sn1010 onto the helmet and do a pull test. Is there
28 any play or looseness?

MSG 088 - BATTERY CHARGER 2 TROUBLESHOOTING

1 Objective: Troubleshoot recurring LOW SLOPE ERROR on Battery Charger 2. BC2
2 Channels 2 and 3 experienced errors during charging. You will be reinitiating charge on
3 BC2 after giving us History for BC2. Only the helmet light battery in BC2 Channel 1 is
4 initially removed to expedite troubleshooting, the remainder of the batteries should not be
5 removed or cycled unless specified in this procedure. If the anomaly on BC2 recurs we will
6 have you stop charge and reinitiate. If it recurs again the helmet light battery in BC2
7 Channel 2 (S/N 1025) will be removed and reseated, and charge reinitiated.

8

9 1. On BC 2,3 and 4, sw MODE → STOP.

10 2. BC2 sw DATA → HISTORY and report Channel 2 & 3 to MCC

11 3. On BC 2, 3, and 4, sw MAIN POWER → OFF

12 4. Open BSA Door and remove only HL s/n 1022 from BC2 Ch 1 (ref STS-128 EVA Battery
13 Recharge Plan)

14 5. Close BSA Door

15 6. For BC2 only

16 6a. sw MAIN POWER → ON.

17 6b. sw MODE → STOP.

18 6c. sw MODE → CHARGE.

NOTE

MCC-H will monitor re-initiation of
Battery charging. Up to 3 minutes are required
for MCC-H to determine charging quality.

19

20 6d. On **MCC-H** "GO", perform step 7.

21

22 7. If BC2 anomaly recurs:

23 7a. Record BC2 displayed Volts and Amps. Notify **MCC-H**.

24 **Record Volts:** _____

25 **Record Amps:** _____

26 7b. sw MODE → STOP.

27

28 7c. Cycle through history on BC2, for Channel 2 and 3.

29 ✓ DISPLAY = STOP SWITCH TOGGLED.

30

31 7d. If BC2 channel 2 or 3 not displaying "STOP SWITCH TOGGLED" Notify **MCC-**
32 **H**.

33

34 7e. sw MODE → CHARGE. Notify **MCC-H**.

END OF PAGE 1 OF 2, MSG 088

MSG 088 - BATTERY CHARGER 2 TROUBLESHOOTING

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NOTE
MCC-H will monitor re-initiation of Battery charging. Up to 3 minutes are required for MCC-H to determine charging quality.

7f. On **MCC-H** "GO", perform step 8

8. If BC2 anomaly recurs:
- 8a. sw MODE → STOP.
 - 8b. sw MAIN POWER → OFF.
 - 8c. Open BSA Door.
 - 8d. Remove and then reseal helmet light battery S/N 1025 from BC2 Channel 2 slot.
 - 8e. Close BSA Door.
 - 8f. sw MAIN POWER → ON.
 - 8g. sw MODE → STOP
 - 8h. sw MODE → CHARGE.