

STS-128/17A

FD 02 Execute Package



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Approved by FAO:

Tobin Melroy

A handwritten signature in black ink that reads "Tobin Melroy". The signature is written in a cursive style and is placed over a light yellow rectangular background.

Last Updated: Aug 29 2009 5:57 PM GMT

JEDI (Joint Execute package Development and Integration), v3.0

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MSG 003B - FD02 FLIGHT PLAN REVISION

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2 MSG INDEX

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4 <u>MSG NO.</u>	5 <u>TITLE</u>
6 003	7 FD02 Flight Plan Revision
8 004	9 FD02 Mission Summary
10 005	11 FD02 Transfer Prep
12 006	13 FD02 Crew Choice Downlink
14 007	15 OBSS Ops with Loss of Verns

- 16
- 17 1. **HazMat Files** - The MCC has remotely uplinked the latest HazMat data file to all PGSCs onboard.
 - 18 2. **EE Operations** - During RMS End Effector checkout, the snares hung up on the EE carriage mechanism after the inadvertent capture command while the carriage was at the DERIGIDIZE position. Review of video and data does not indicate any damage to the ball screw or snares. We expect the EE to operate nominally and no procedure changes are required.
 - 19 3. **EVA Prep for Transfer** - Due to the damaged waist tethers and d-ring extenders aboard ISS, replacement hardware must be gathered for transfer to ISS. The damaged hardware will be returned to the Shuttle via the Transfer List rather than EVA procedures. The following changes are required for the EVA Checklist:

20 EVA PREP FOR TRANSFER TO ISS (EVA, AIRLOCK CONFIG FS 2-7)

21 Add step 11a: Gather items listed below and put in EVA Task Mesh Bag

- 22 • Four (4) waist tethers (S/N 1033, 1055, 1059, 1064) from Bag B
- 23 • Two (2) d-ring extenders (S/N 1001, 1010) from MF71C

- 24
- 25 4. **NLP Video** - NASA HQ has requested the FD2 NLP Activation activity or the FD4 NLP Termination be recorded for future public affairs outreach by the National Lab Pathfinder (NLP) program.

26 This request requires a second crewmember be made available for one of those activities to collect a minimum of 5 minutes of video (Ku is not required). This video should include the participating crewmember and the NLP GAP hardware in the frame, showing the crewmember attaching the hand crank and cranking several GAPs to activate (or deactivate).

27 We've added this activity and a video setup to PLT during the NLP Activation on FD2 to accommodate this request. The detail pages contain instructions on the video setup.

- 28
- 29 5. **F5R and Survey Procedures** - Further review of F5R data indicates the jet to have annunciated failed leak due to a real leak as opposed to a heater failure. Therefore, this results in loss of verniers for the mission. Accordingly, the manifold should be closed:

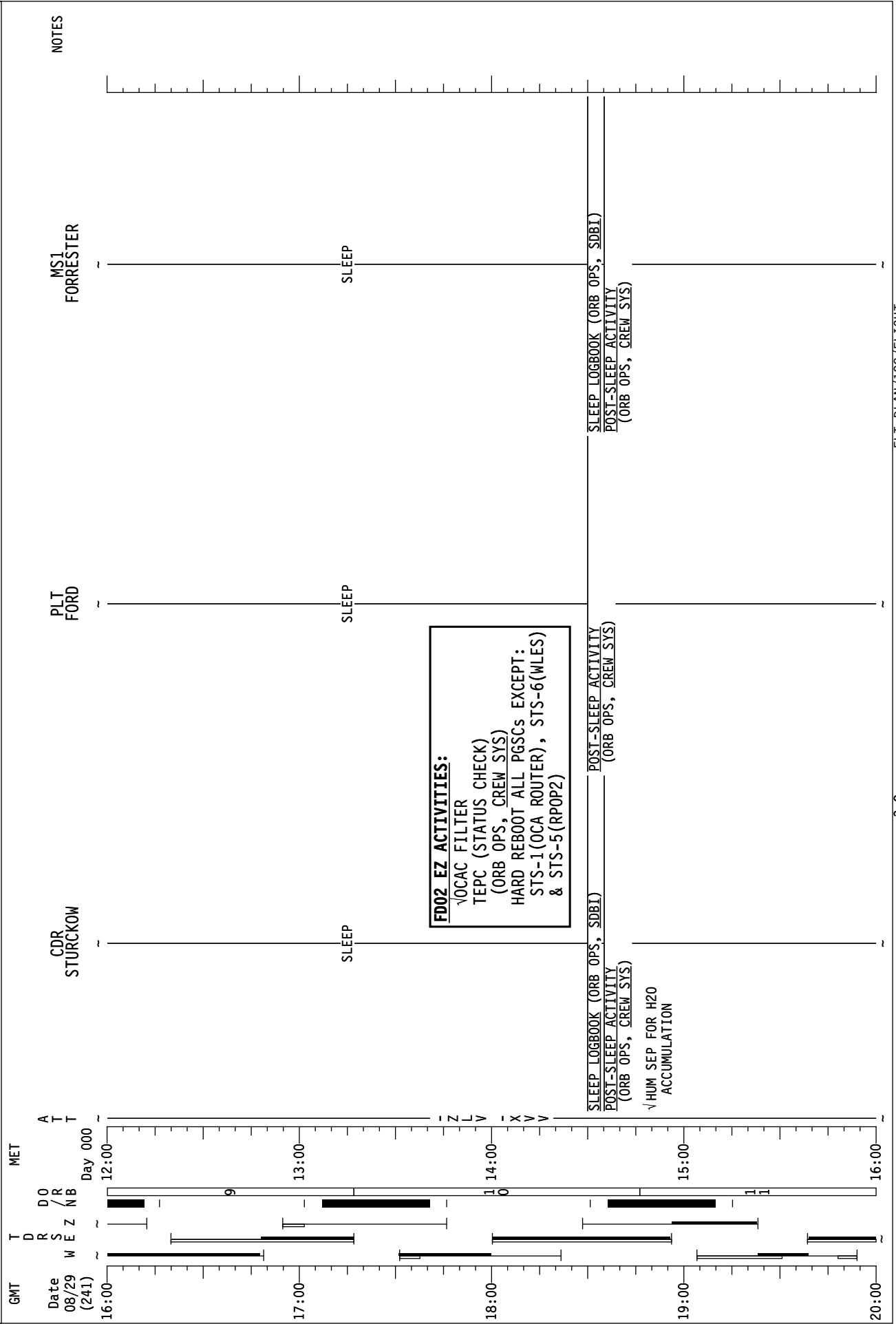
30 O8 FWD RCS MANF ISOL 5 - CL (tb - CL)

31 See Msg 007 for PDRS procedures that are affected by the loss of verns.

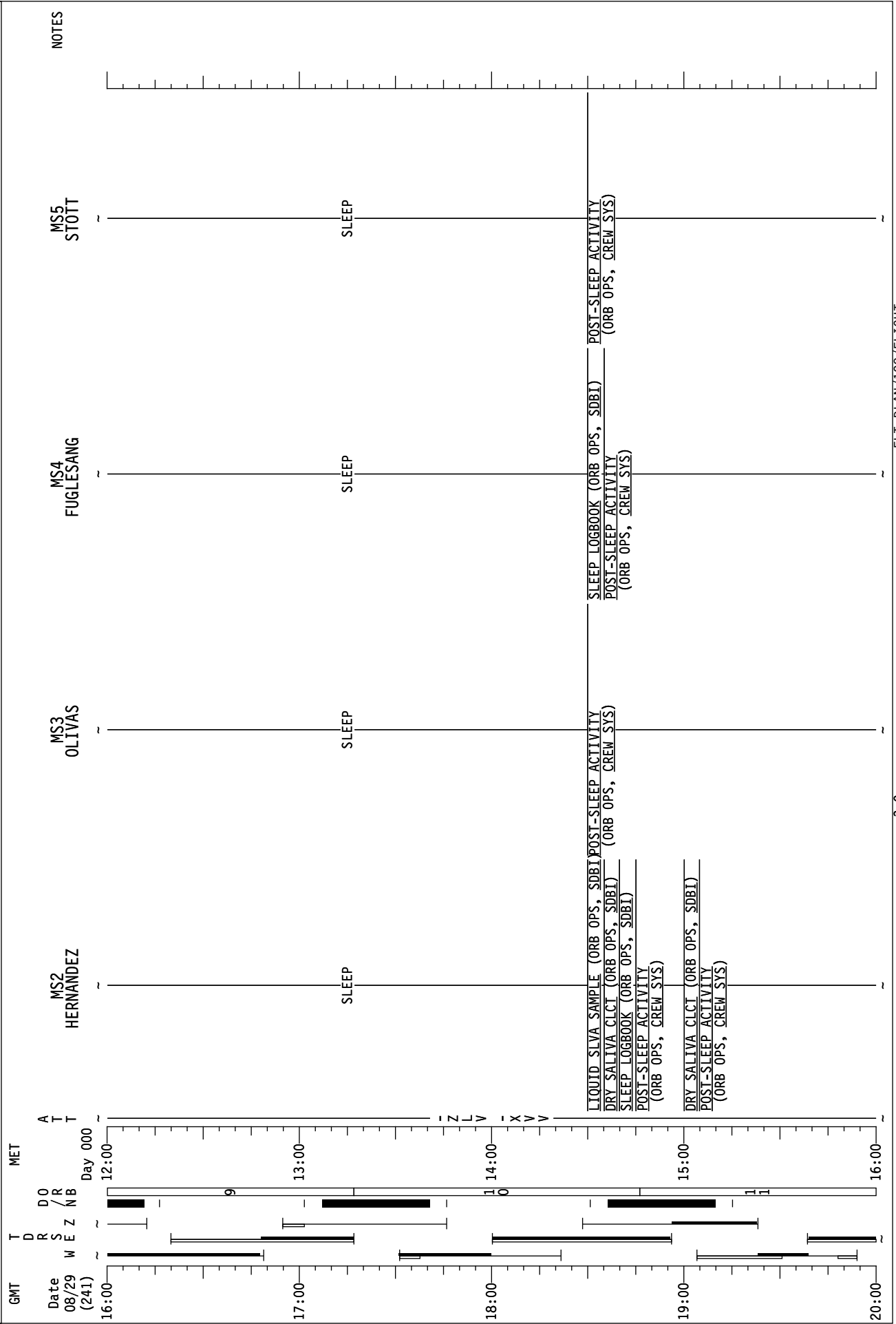
- 32
- 33 6. REPLACE PAGES 3-8 THROUGH 3-17.

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END OF PAGE 1 OF 11, MSG 003B

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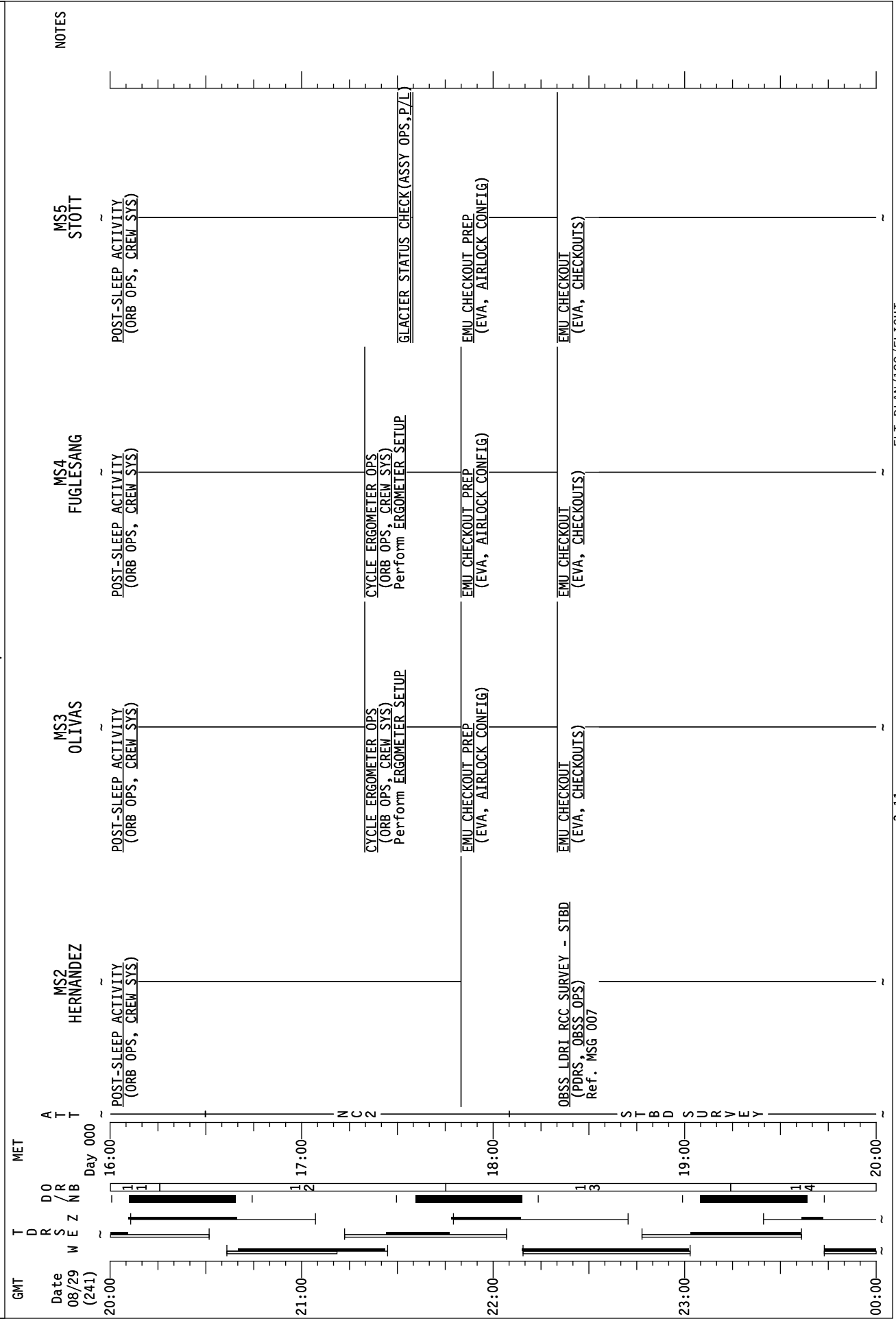


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STS-128/17A FD02

GMT	Date 08/30 (24Z)	DRS W E Z	DO/R N B	MET Day 000	ATT	CDR STURCKOW	PLT FORD	MS1 FORRESTER	NOTES
00:00				20:00		SSP1 OIU PMR - OFF (tb-bp) MNVR (TRK) BIAS +XSI (NOSE CAP SURVEY) TG=4 BV=5 P=330 Y=0 OM=115 A14/AUTO/ALT, RCC SURVEY-STBD cmlt, Init TRK	OBSS_LDRI_RCC_SURVEY - STBD (PDRS, OBSS_OPS) Ref. MSG 007	OBSS_LDRI_RCC_SURVEY - STBD (PDRS, OBSS_OPS) Ref. MSG 007	UPDATE TFL 188
01:00				21:00		MEAL	MEAL	MEAL	
02:00				22:00		MNVR (TRK) BIAS -YSI (PORT SURVEY) TG=4 BV=5 P=0 Y=323 OM=220 A14/AUTO/ALT, RCC SURVEY-PORT Step 3 cmlt, Init TRK FC PURGE - MANUAL (ORB OPS, EPS) FILTER CLEANING (IFM, SCHEDULED MAINTENANCE)	OBSS_LDRI_RCC_SURVEY - PORT (PDRS, OBSS_OPS) Ref. MSG 007	OBSS_LDRI_RCC_SURVEY - PORT (PDRS, OBSS_OPS) Ref. MSG 007	
03:00				23:00					
04:00				00:00		IMU STAR OF OPPTY ALIGN (ORB OPS, GNC) MNVR (TRK) -ZLV -XVY			

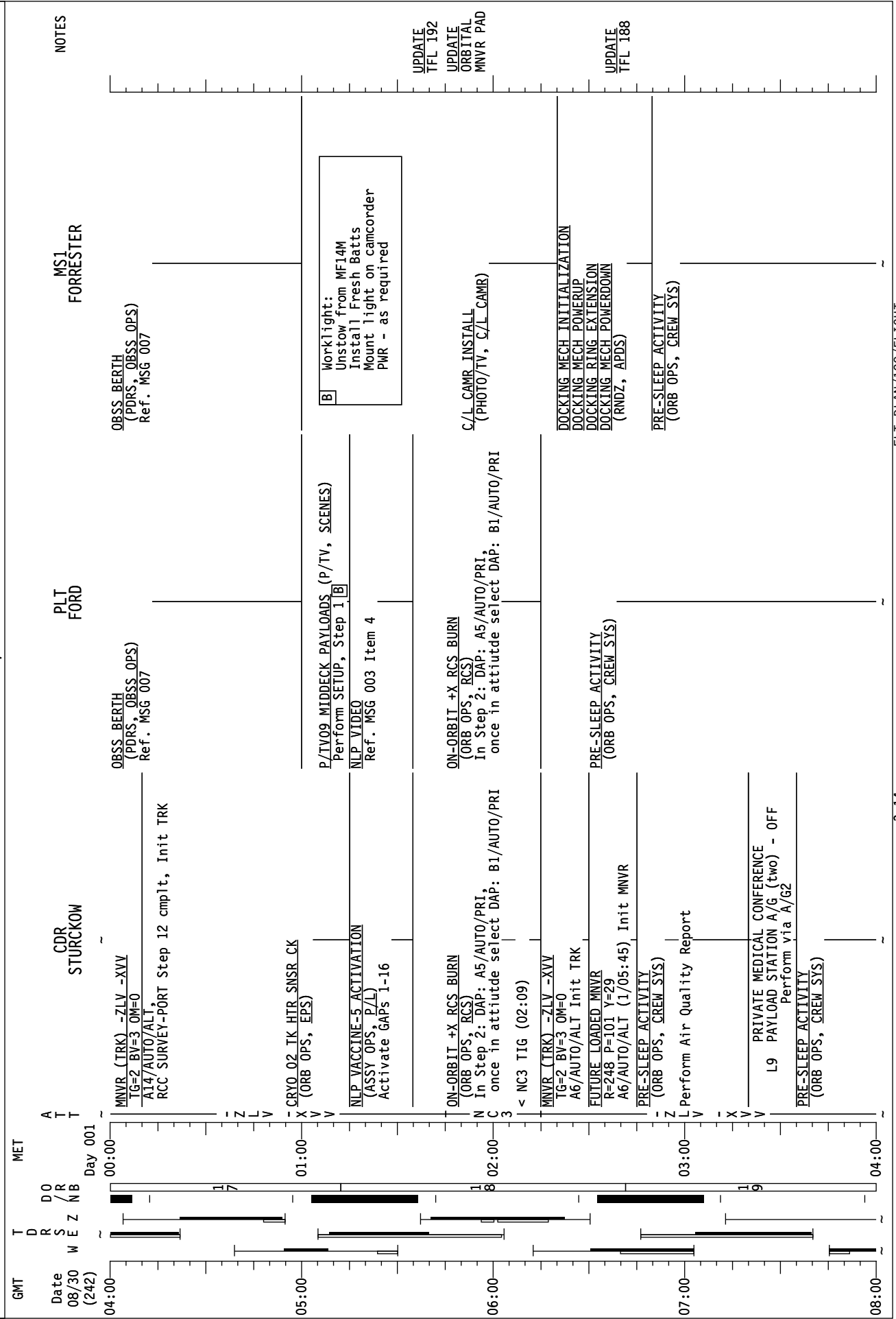
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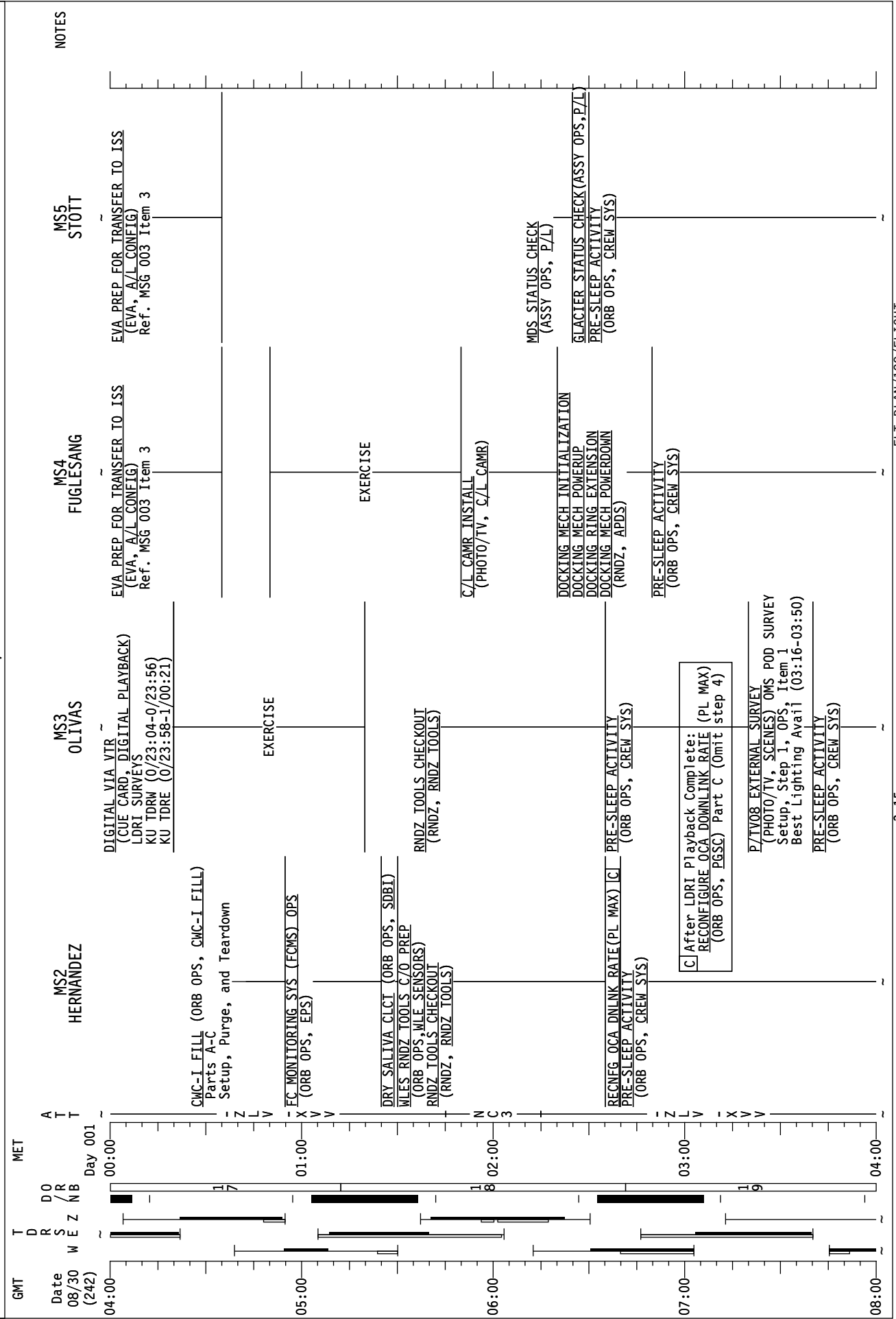
GMT	Date 08/30 (242)	TDRS W E Z	MS2 HERNANDEZ	MS3 OLIVAS	MS4 FUGLESANG	MS5 STOTT	NOTES
00:00			OBSS_LDRI_RCC_SURVEY - STBD (PDRS, OBSS_OPS) Ref. MSG 007	EMU_CHECKOUT (EVA, CHECKOUTS)	EMU_CHECKOUT (EVA, CHECKOUTS)	EMU_CHECKOUT (EVA, CHECKOUTS)	
01:00			MEAL	MEAL	MEAL	MEAL	
02:00			DRY_SALIVA_CLCT (ORB OPS, SDBI) OBSS_LDRI_RCC_SURVEY - NOSE CAP (PDRS, OBSS_OPS) Ref. MSG 007	MIDDECK_TRANSFER_PREP Ref. MSG 005	DAILY_TRANSFER_LIST_UPDATE Replace the FD02 XFER PREP message in the TRANSFER PROCEDURES tab of the MPIM Resupply Transfer Book with MSG 005. MIDDECK_TRANSFER_PREP Ref. MSG 005		
03:00			OBSS_LDRI_RCC_SURVEY - PORT (PDRS, OBSS_OPS) Ref. MSG 007				
04:00			DIGITAL_VIA_VTR (CUE_CARD, DIGITAL_PLAYBACK) LDRI_SURVEYS KU_TDRW (0/23:04-0/23:56) KU_TDRE (0/23:58-1/00:21)				
			EVA_PREP_FOR_TRANSFER_TO_ISS (EVA, A/L_CONFIG) Ref. MSG 003 Item 3				
			EVA_PREP_FOR_TRANSFER_TO_ISS (EVA, A/L_CONFIG) Ref. MSG 003 Item 3				

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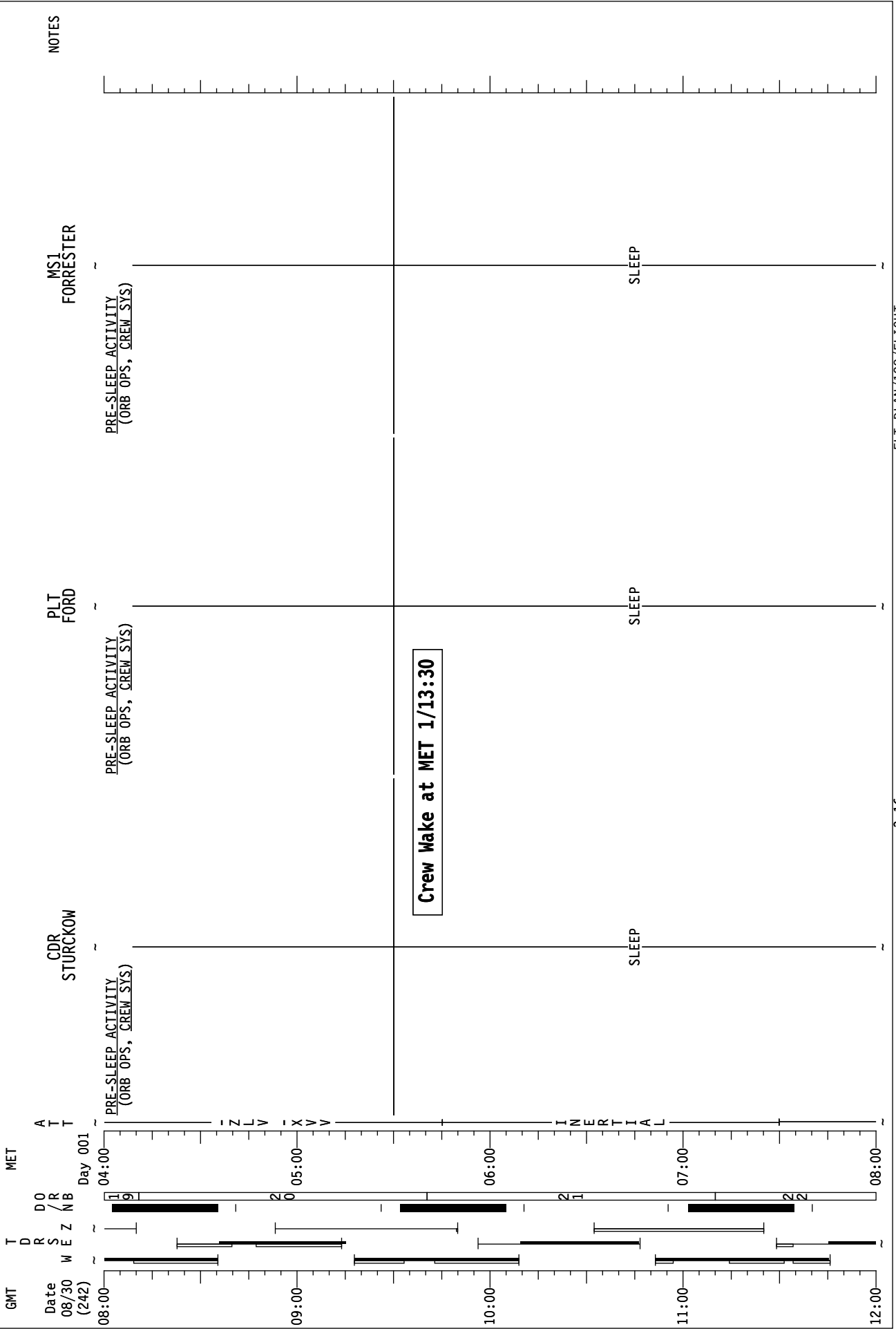
STS-128/17A FD02



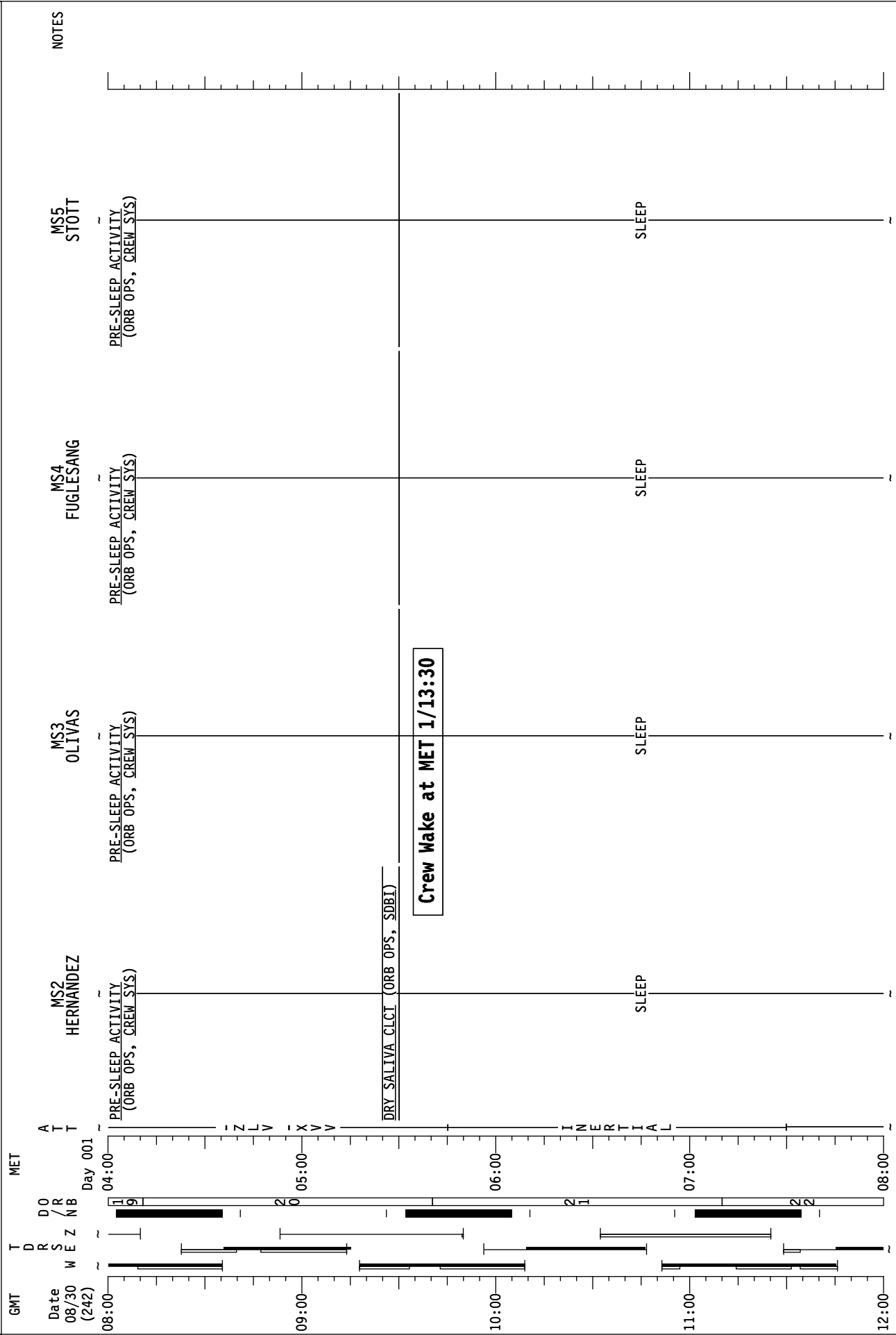
STS-128/17A FD02



STS-128/17A FD02



STS-128/17A FD02



MSG 004 - FD02 MISSION SUMMARY

1 Good Morning Discovery!!!

2

3 What a beautiful launch!!!

4

5 It is so good to see STS 128 in orbit!!!!

6

7 Have a great day!!!!

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9

10 YOUR CURRENT ORBIT IS: 146 X 115 NM

11

12 NOTAMS:

13

14 EDW - EDW IN USE. EDT DAY ELS ONLY.

15 EDW - LAKEBED RWY 15/33 GREEN - ELS ONLY. RWY 18L - UNUSABLE.

16 NOR - LAKEBED RUNWAYS GREEN.

17 YJT - TACAN YJT78 OTS.

18 YYR - TACAN UYR40 OTS.

19 LAJ - TACAN LAJ45 OTS.

20 HAW - RWY 31 LDA = 9024 FT.

21 GUA - RWY 24R END LIGHTS OTS.

22 IKF - NOT USABLE. NO AGREEMENT.

23 BEN - NOT RECOMMENDED/NOT SUPPORTED.

24

25 NEXT 2 PLS OPPORTUNITIES:

26

27 EDW22 ORB 17 – 1/00:34 SCT250 7 240/8P12

28 EDW22 ORB 33 – 2/00:34 SKC 7 230/7P11

29

30 OMS TANK FAIL CAPABILITY:

31

32 PRE NC-4:

33 L OMS FAILS: YES

34 R OMS FAILS: YES

35

36 POST NC-4:

37 L OMS FAILS: NO

38 R OMS FAILS: NO

39

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41 LEAKING OMS PRPLT BURN:

42

43 PRE NC-4:

44 L OMS LEAK: ALWAYS BURN OUT OF PLANE

45 R OMS LEAK: ALWAYS BURN OUT OF PLANE

46

47 POST NC-4:

48 L OMS LEAK: ALWAYS BURN RETROGRADE

49 R OMS LEAK: ALWAYS BURN RETROGRADE

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51

END OF PAGE 1 OF 2, MSG 004

MSG 004 - FD02 MISSION SUMMARY

OMS QUANTITIES(%)

PRE NC-4:

L OMS OX = 42.5 R OMS OX = 40.0

 FU = 42.1 FU = 39.8

POST Dock :

L OMS OX = 34.4 R OMS OX = 33.5

 FU = 34.0 FU = 33.5

DELTA V AVAILABLE:

	<u>PRE NC-4</u>	<u>POST Dock</u>
OMS	391 FPS	317 FPS
<u>ARCS (TOTAL ABOVE QTY1)</u>	<u>42 FPS</u>	<u>23 FPS</u>
TOTAL IN THE AFT	433 FPS	340 FPS
ARCS (TOTAL ABOVE QTY2)	70 FPS	52 FPS
FRCS (ABOVE QTY 1)	40 FPS	28 FPS
AFT QTY 1	87 %	82 %
AFT QTY 2	49 %	44 %

<u>SYSTEM</u>	<u>FAILURE</u>	<u>IMPACT</u>	<u>WORK AROUND</u>
RCS	F5R Failed Leak	Loss of Verniers	Orbiter will fly on ALT or PRI DAP for the remainder of the mission. For Docked Ops, ISS assets will be used for mnvrs and ISS attitude recovery. ALT available for contingency (Reboost and Att Hold).

MSG 005 - FD02 XFER PREP

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Danny & Christer, below are instructions for you to pack the jettison stowage bag for transfer. (Note: The relocation of Silver Biocide Syringe Kit S/N 1003 that we discussed pre-flight is no longer required.)

1. Retrieve jettison stowage bag from EXT A/L FLOOR BAG and pack per Table A below.

Table A: FD02 Transfer Pregather Bag

Item #	Item	Qty	Initial Location	Notes
A1	Bungees	1 Ziplock	EXT A/L FLOOR BAG (Bag I) (in Jettison Stowage Bag)	Already contained in jettison stowage bag.
A2	Trash Bag Liners	1 Ziplock		
A3	Utility Bags	1 Ziplock		
A4	Glasses & Wipes – Creamer	1 Ziplock	EXT A/L FLOOR BAG (in Bag I)	
A5	Glasses & Wipes – Noguchi	1 Ziplock		
A6	O-Rings	1 Ziplock	MF28O	
A7	CWC-I [Qty 4]	1 Ziplock	LiOH Box	
A8	ICE BRICK -32°C	1 Ziplock	MF71C	
A9	IMAK	1	MA16N	
A10	OGS Universal Water Jumper	1 Ziplock	MF14K	

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2. Temp stow jettison stowage bag on Middeck.
3. Report to MCC-H that the activity is complete and any deltas.

MSG 006 - FD02 CREW CHOICE DOWNLINK

1 Here are your Crew Choice Downlink opportunities based on Ku availability:
2

TDRS	AOS	LOS	Delta Min
West	1/02:40	1/03:02	22
East	1/03:04	1/03:40	36
West	1/04:10	1/04:35	25
East	1/04:37	1/05:13	36

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END OF PAGE 1 OF 1, MSG 006

MSG 007A - OBSS OPS WITH LOSS OF VERNS

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2 1. Having closed the manifold, all FWD RCS Manifold 5 valve override Close
3 or Open callouts in the PDRS procedures are no longer required.

4
5 Any PDRS procedural callouts to turn off the FRCS primary logics and drivers should be
6 ignored. This is due to the pre-mission issue on the FPCAs.

7
8 2. The following are a list of page numbers and steps in (PDRS, OBSS OPS) performed for
9 FD2/Late Inspection Surveys that are affected.

10
11 **Primary Logic/Driver Callouts**

12 OBSS LDRI/IDC RCC SURVEY - STBD Step 10 (pg 7-20)

13 OBSS LDRI/IDC RCC SURVEY - NOSE CAP Step 2 (pg 7-27)

14 OBSS LDRI/IDC RCC SURVEY - PORT Step 8 (pg 7-44)

15 OBSS LDRI/IDC RCC SURVEY - PORT Step 10 (pg 7-47)

16
17
18 **Manifold 5 Valve Override Callouts**

19 OBSS LDRI/IDC RCC SURVEY - STBD Step 10 (pg 7-21)

20 OBSS LDRI/IDC RCC SURVEY - STBD Step 12 (pg 7-24)

21 OBSS LDRI/IDC RCC SURVEY - NOSE CAP Step 2 (pg 7-27)

22 OBSS LDRI/IDC RCC SURVEY - PORT Step 3 (pg 7-37)

23 OBSS LDRI/IDC RCC SURVEY - PORT Step 8 (pg 7-45)

24 OBSS LDRI/IDC RCC SURVEY - PORT Step 10 (pg 7-47)

25 OBSS BERTH Step 8 (pg 7-57)

26
27 **DAP Callouts**

28 OBSS BERTH Step 6 (pg 7-56) DAP: A5/AUTO/ALT

29 OBSS BERTH Step 8 (pg 7-57) √DAP A5/AUTO/ALT

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END OF PAGE 1 OF 1, MSG 007A