



# STS-132/ULF4

## FD 11 Execute Package

MSG	Page(s)	Title
096A	1 - 15	FD11 Flight Plan Revision
097	16 - 17	FD11 Mission Summary

**Approved by FAO:**

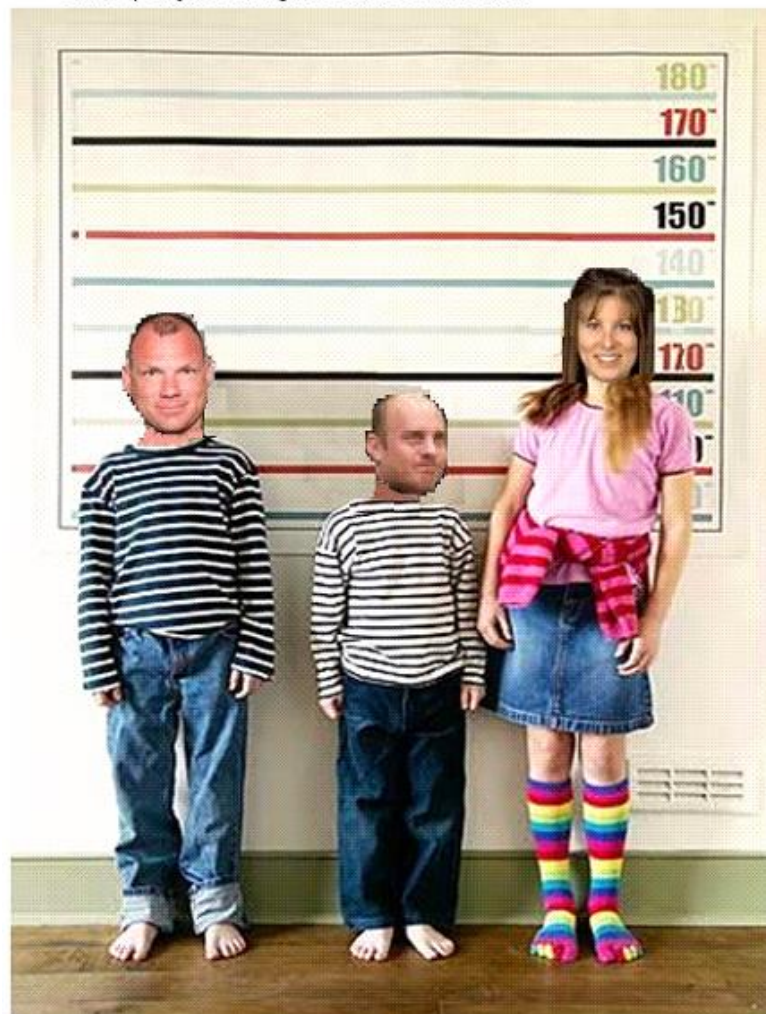
J. Mintz

Last Updated: May 24 2010 1:15 AM GMT

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

Spinal Standing Height Results:

Garrett on FD09: "Are you guys getting any science out of this, or are you just doing it to make fun of me?"



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MSG 096A - FD11 FLIGHT PLAN REVISION

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MSG INDEX

<u>MSG NO.</u>	<u>TITLE</u>
096	FD11 Flight Plan Revision
097	FD11 Mission Summary

1. Post-Sleep Cryo Config

For today's post-sleep cryo config, H2 tanks 1 and 2 and O2 tanks 2 and 5 will be active. We are expecting to deplete O2 tanks 4 and 5 today; you can expect realtime calls to reconfigure tanks following each depletion.

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

**A15 CRYO TK5 HTR O2 A - AUTO**

Pre-Sleep Cryo Config

√MCC for deltas prior to configuring for pre-sleep.

For tonight's pre-sleep cryo config, manifold 2 will be closed with O2 and H2 tanks 2 and 3 active.

**R1 H2 TK1 HTRS A,B (two) - OFF  
TK3 HTRS A,B (two) - AUTO  
O2,H2 MANF VLV TK2 (two) - CL (tb-CL)**

2. Crew Choice Downlink Opportunities

TDRS	AOS	LOS	Delta (min)	Notes
W	09/23:23	09/23:32	9	
E	09/23:33	09/23:55	22	
E	10/00:00	10/00:21	21	
W	10/00:35	10/00:41	5	
W	10/01:00	10/01:16	16	
E	10/01:37	10/02:04	27	

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3. WATER ACTIVITY DETAILS

Today you will be performing a Simo Dump, Condensate Teardown, and a Condensate CWC Dump.

SIMO DUMP

Perform SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS), p.5-3. MCC will TMBU limits in steps B and K. After dump termination, step J.1 is required.

Supply nozzle open time will be 50 minutes.

Dump the Waste Tank to 5%. Nozzle open time will be ~43 minutes.

CONDENSATE TEARDOWN

After the Simo Dump has been initiated, perform SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) p. 5-43, TEARDOWN. Temp stow CWC s/n 6005 on Middeck.

CONDENSATE CWC DUMP

After Condensate Teardown, pregather the following equipment:

- |         |              |
|---------|--------------|
| Middeck | CWC s/n 6005 |
| BOB     | WWD Filter   |
| CHCK    | Y-Y Hose     |

Once the Simo Dump is complete, dump CWC s/n 6005 using CWC OVERBOARD DUMP (ORB OPS, ECLS) pg 5-39. MCC will TMBU limits in steps B and H. Dump time will be ~15 minutes. Once the dump is complete, stow the CWC in MF28O.

4. REPLACE PAGES 2-36 THROUGH 2-39 AND 3-114 THROUGH 3-123.

**REPLANNED**

**FD11**

**GMT 05/23/10 (143)**

**MET Day\_009**

	19	20	21	22	23	24	01	02	03	04	05	06
	00	01	02	03	04	05	06	07	08	09	10	11
<b>CBR</b> Ham	PRE SLEEP PMC A/G	PRE SLEEP	<del>                     S T S - 1 3 2                 </del>									
<b>PLT</b> Antone11i	PRE SLEEP	PRE SLEEP										
<b>MS1</b> Reisman	PRE SLEEP	PRE SLEEP										
<b>MS2</b> Good	PRE SLEEP	PRE SLEEP										
<b>MS3</b> Bowen	PRE SLEEP	PRE SLEEP										
<b>MS4</b> Sellers	PRE SLEEP	PRE SLEEP										
	19	20	21	22	23	24	01	02	03	04	05	06
	00	01	02	03	04	05	06	07	08	09	10	11
<b>DAY/NIGHT</b>	143	144	145	146	147	148	149	150	151			
<b>ORBIT</b>												
<b>TDRS</b>	W	E	Z									
<b>ISS TDRS AVAIL</b>												
<b>ORB ATT</b>												
<b>SSRMS POS</b>												
<b>NOTES</b>												

**REPLANNED**

**FD11**  
 GMT 05/24/10 (144)  
 MET Day\_009

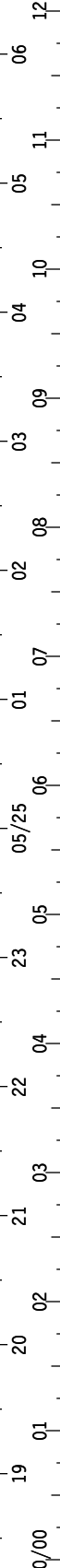
12	13	14	15	16	17	18	19	20	21	22	23	18
CDR Ham	POST SLEEP M - NY SIMO V V RV INIT	SIMO TERM - I	EXERCISE	EXERCISE	MEAL	PORT WING SURVEY	MEAL	PORT WING SURVEY	OBSS BERTH	PRE SLEEP	PRE SLP	
PLT Antonelli	POST SLEEP	EXERCISE	STBD WING SURVEY	STBD WING SURVEY	MEAL	PORT WING SURVEY	MEAL	PORT WING SURVEY	OBSS BERTH	PRE SLEEP		
MS1 Retzman	POST SLEEP	EXERCISE	EXERCISE	STBD WING SURVEY	MEAL	PORT WING SURVEY	MEAL	PORT WING SURVEY		PRE SLEEP		
MS2 Good	POST SLEEP	EMU INSTL	EVA UNPACK & STOW	PST ISS EVA ENT PREP	MEAL		MEAL		EXERCISE		PRE SLEEP	
MS3 Bowen	POST SLEEP	EMU INSTL	EVA UNPACK & STOW	PST ISS EVA ENT PREP	MEAL		MEAL		EXERCISE		PRE SLEEP	
MS4 Sellers	POST SLEEP	EXERCISE	EXERCISE	STBD WING SURVEY	MEAL	PORT WING SURVEY	MEAL	PORT WING SURVEY	OBSS BERTH	PRE SLEEP		
DAY/NIGHT ORBIT	151	152	153	154	155	156	157	158	159			
TDRS												
ORB ATT	-ZLV -XVV	*FILTER CK	@RIGHT OMS TO RCS	STBD SURVEY	NOSE SURVEY	PORT SURVEY	-ZLV -YVV	-ZLV -YVV	#STATUS CHECK	#STATUS CHECK	*A POD HTR RECONFIG	
NOTES												

REPLANNED

FD11

GMT 05/24/10 (144)

MET Day 010

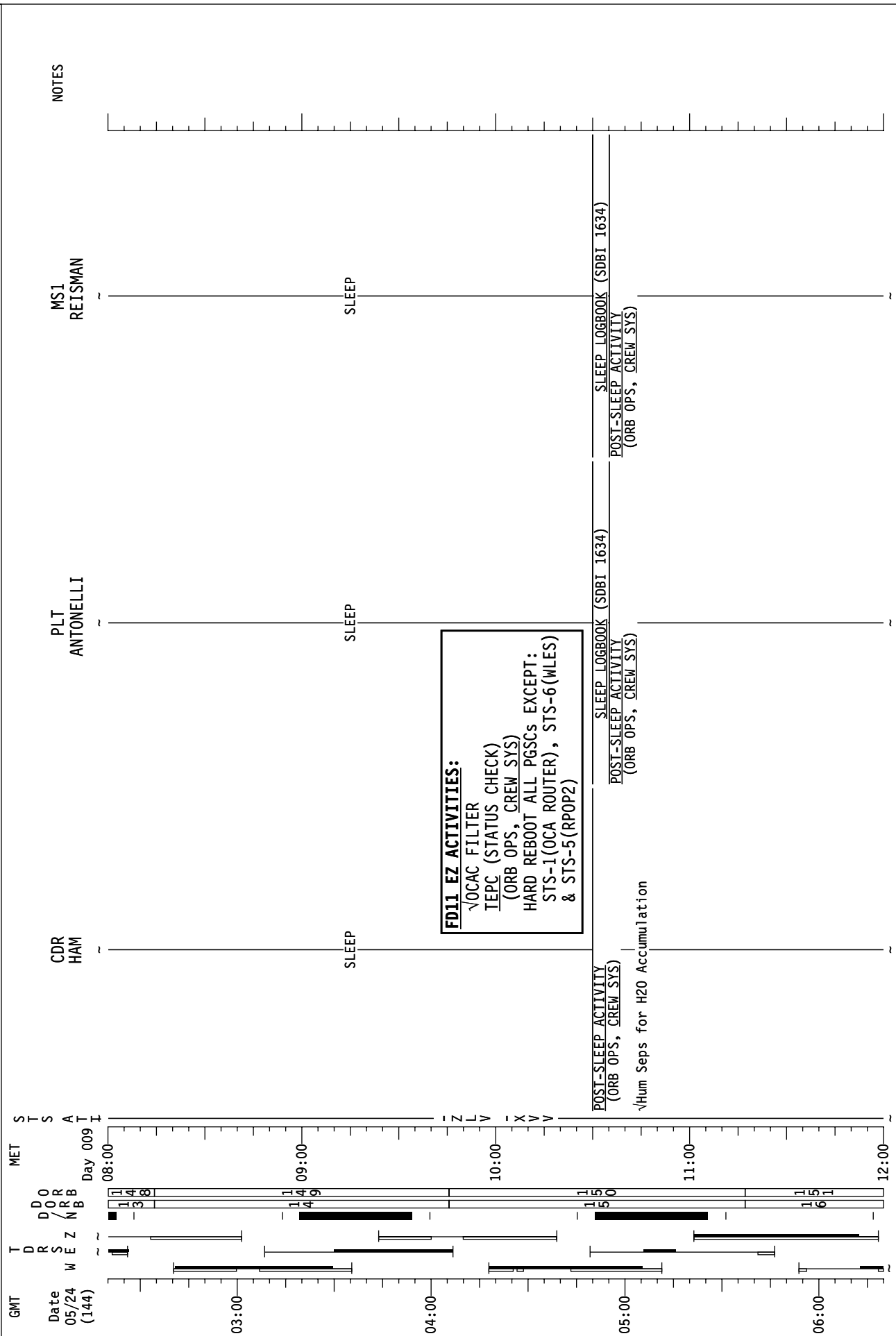


CDR Ham	PRE SLP A/G	PMC A/G	PRE SLEEP	SLEEP	POST SLP
PLT Antone11i	PRE SLEEP			SLEEP	POST SLEEP
MS1 Retzman	PRE SLEEP			SLEEP	POST SLEEP
MS2 Good	PRE SLEEP			SLEEP	POST SLEEP
MS3 Bowen	PRE SLEEP			SLEEP	POST SLEEP
MS4 Sellters	PRE SLEEP			SLEEP	POST SLEEP
DAY/NIGHT ORBIT	159 160 161 162 163 164 165 166 167			[Timeline with activity bars]	
TDRS	W E Z			[Timeline with activity bars]	
ORB ATT	*RATE RCMFG			-ZLV -XVW	
NOTES					

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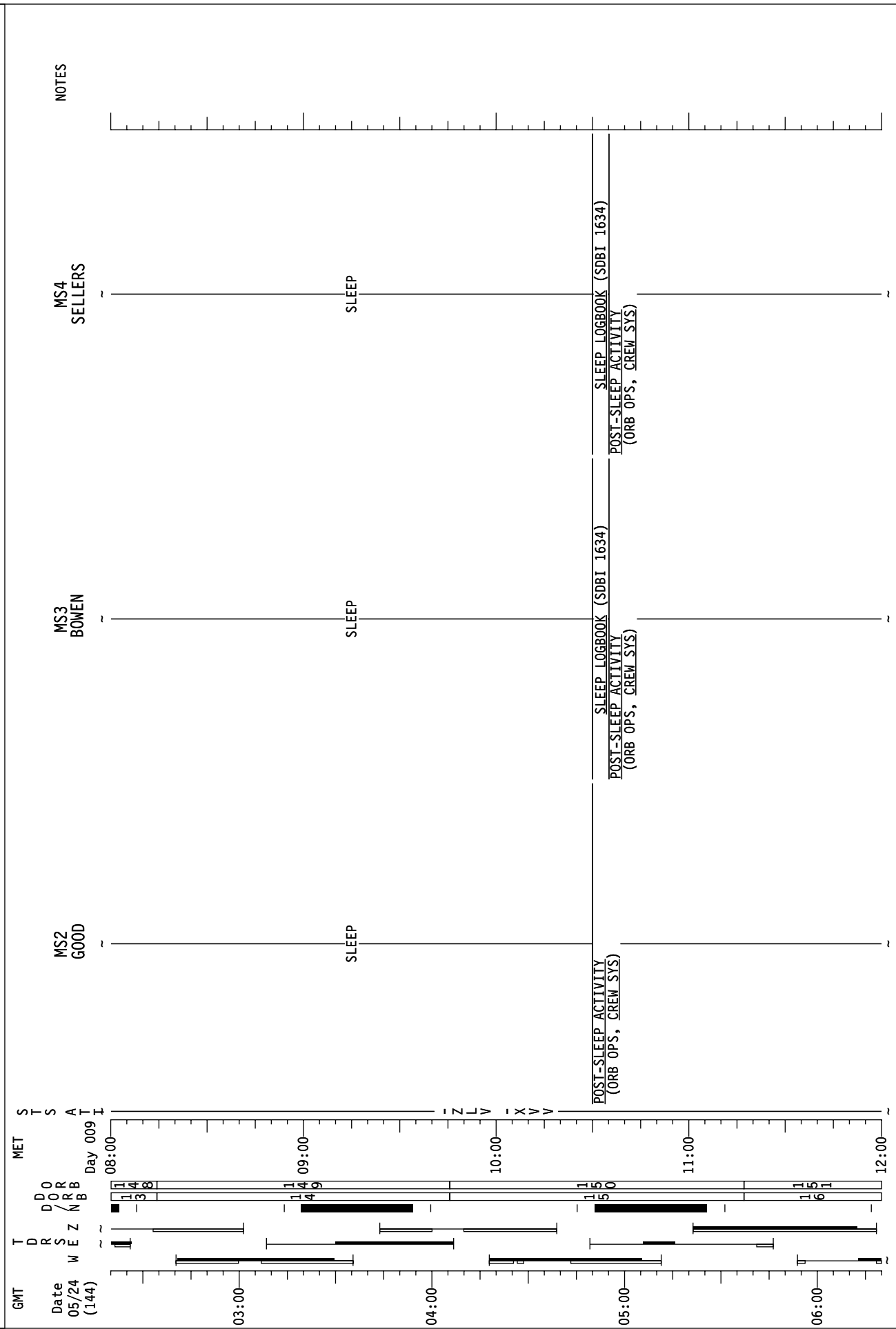
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STS-132 FD (11)

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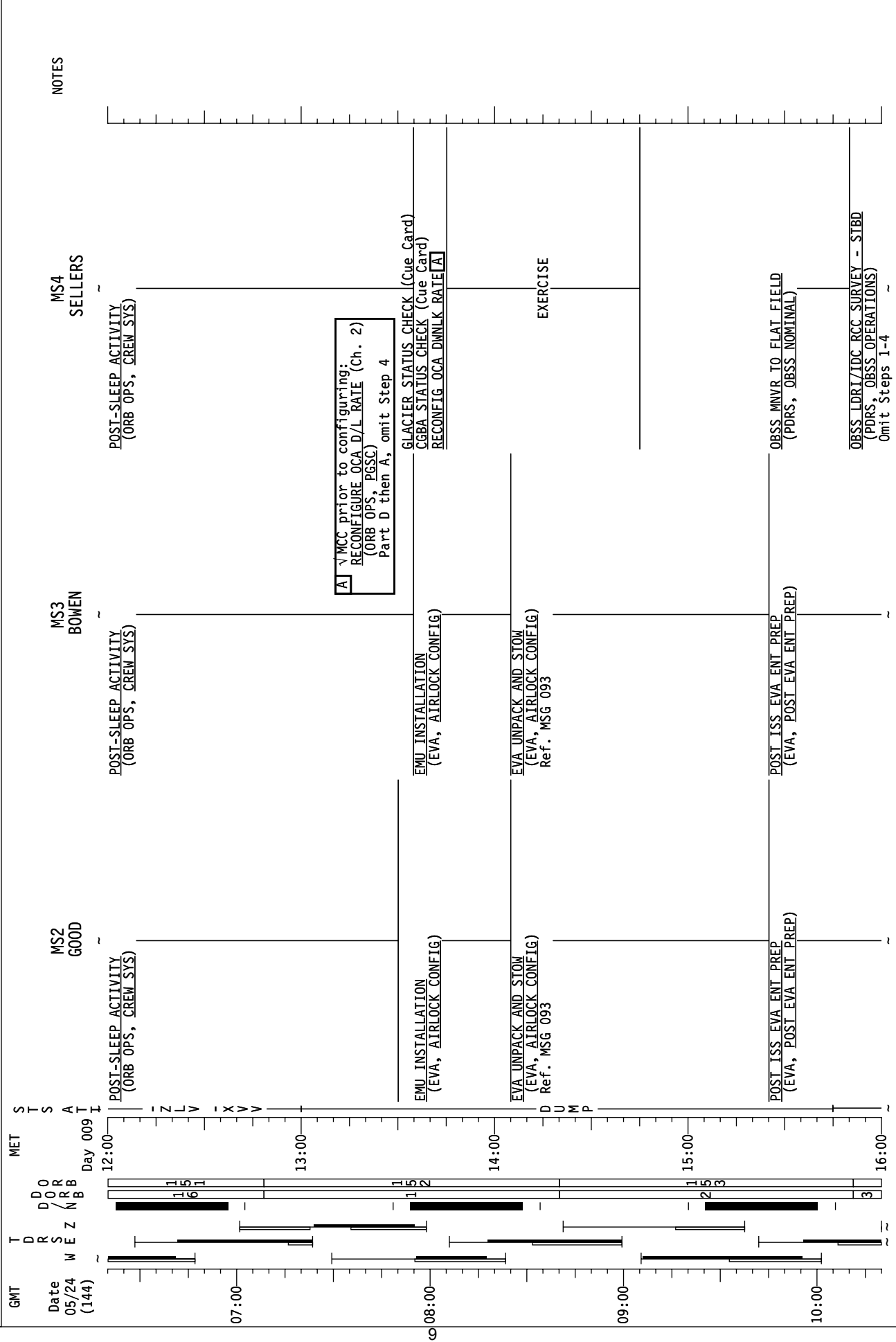
# STS-132 FD (11)

**REPLANNED**

GMT	MET	Date 05/24 (144)	D O R S W E Z	D O R S W E Z	CDR HAM	PLT ANTONELLI	MS1 REISMAN	NOTES
07:00	12:00							
					POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
					Hum Seps for H2O Accumulation			
					MNVR (TRK) BIAS -ZIV -YV IG-2 BV=3 OM=70 A1/AUTO/VERN Init TRK SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Initiate Supply/Waste Dump Ref. MSG 096, Item 3			
08:00	13:00							
						SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) Perform Teardown Ref. MSG 096, Item 3	COMM STRING 1 C/O (PART A) (ORB OPS, COMM/INST)	
						MCS COMPACTOR OPS (DUAL-VANE) (ORB OPS, CUE CARD)		
						L17 Check MCIU filter screen		
09:00	14:00							
						EXERCISE	EXERCISE	
					SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Supply/Waste Dump Ref. MSG 096, Item 3			
					CWC OVERBOARD DUMP (ORB OPS, ECLS) Initiate Condensate Dump Ref. MSG 096, Item 3			
					CWC OVERBOARD DUMP (ORB OPS, ECLS) Terminate Condensate Dump Ref. MSG 096, Item 3			
					INC1: R OMS TO RCS (OPCL, RCS)			
10:00	15:00							
						DAP: A14 OBSS MNVR TO FLAT FIELD (PDRS, OBSS NOMINAL)	EXERCISE	
					MNVR (TRK) BIAS +YSI (Stbd Survey) IG-4 BV=5 P=0 Y=40 OM=230 A14/AUTO/VERN Init TRK			
						OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS) Omit Steps 1-4	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS) Omit Steps 1-4	

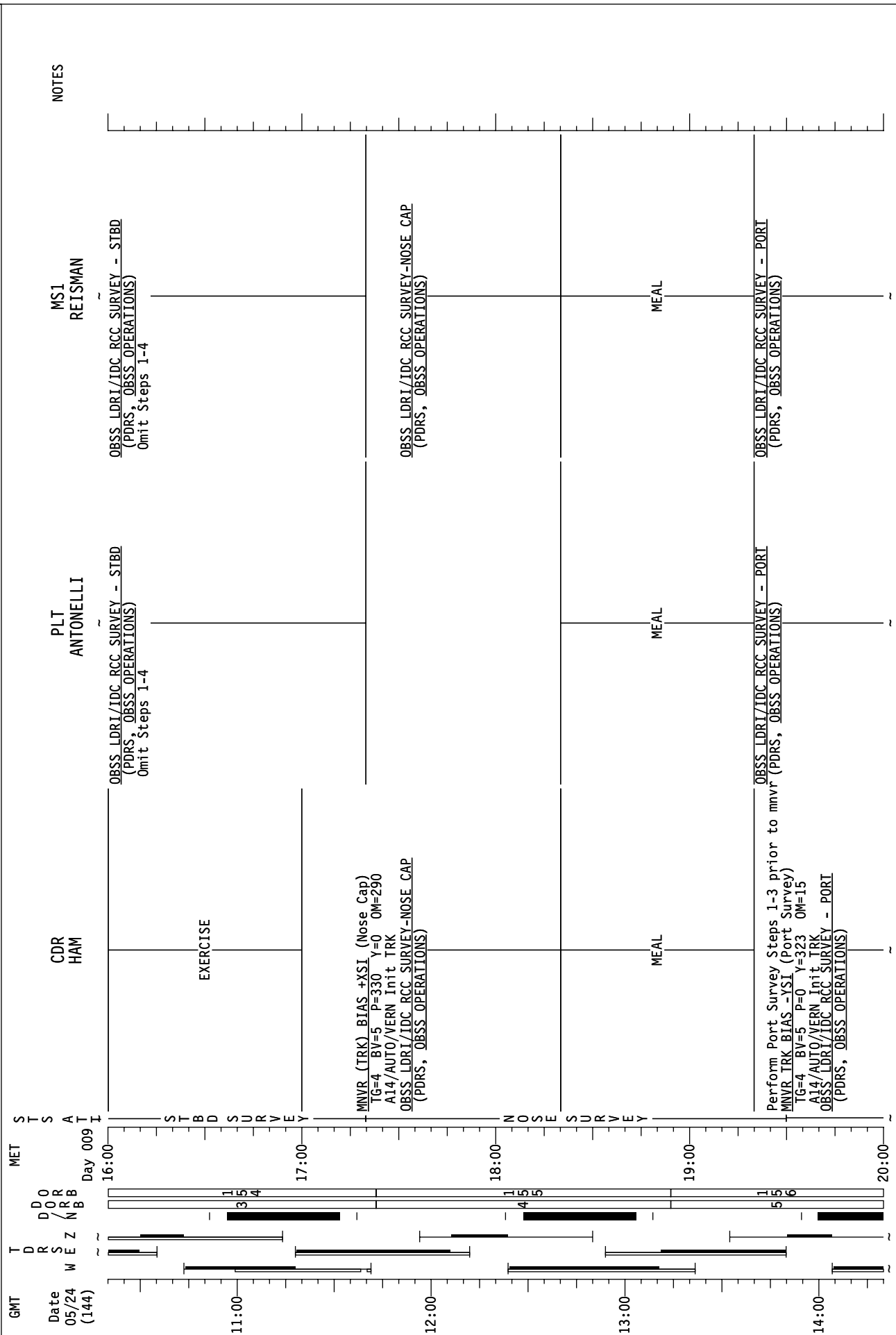
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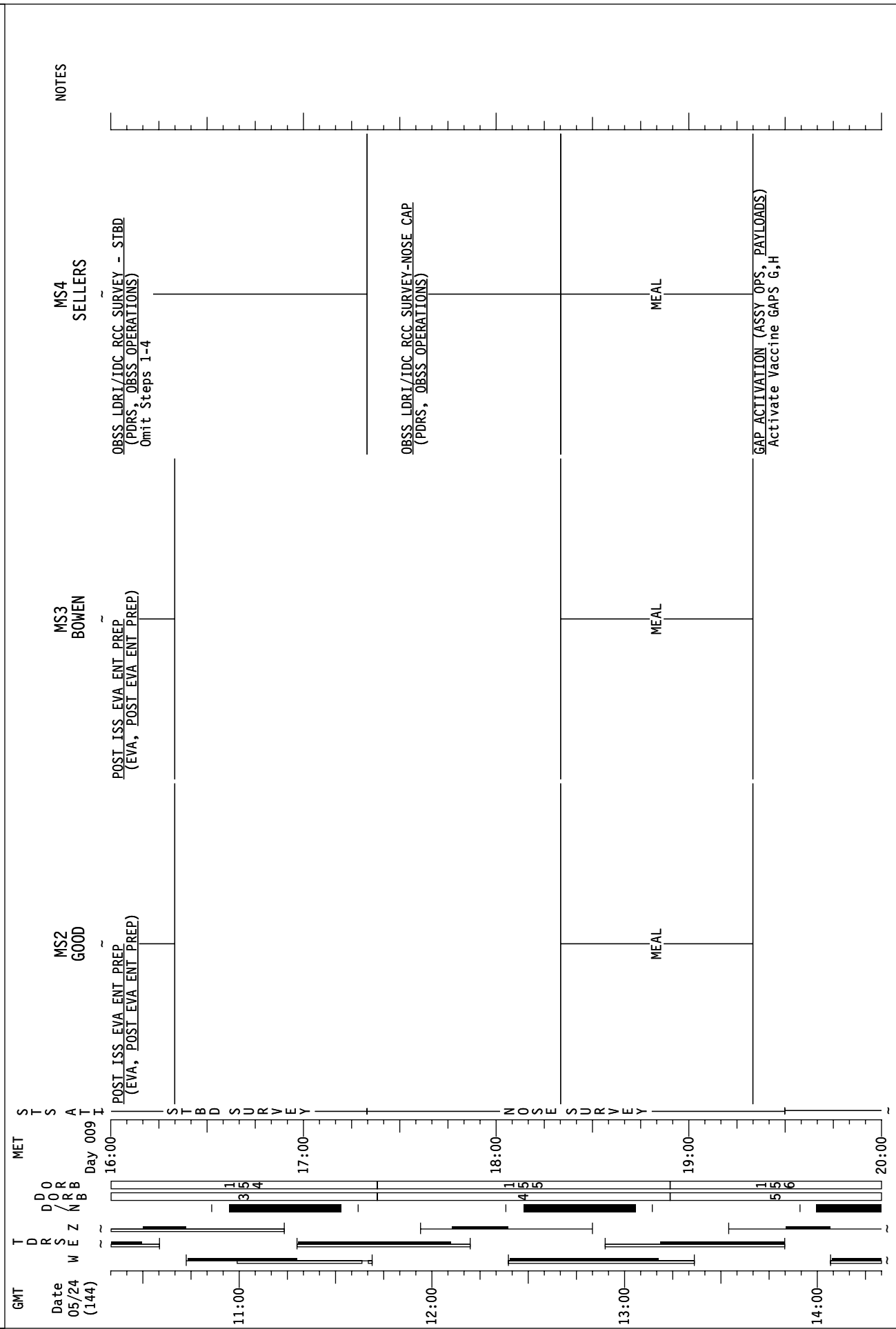
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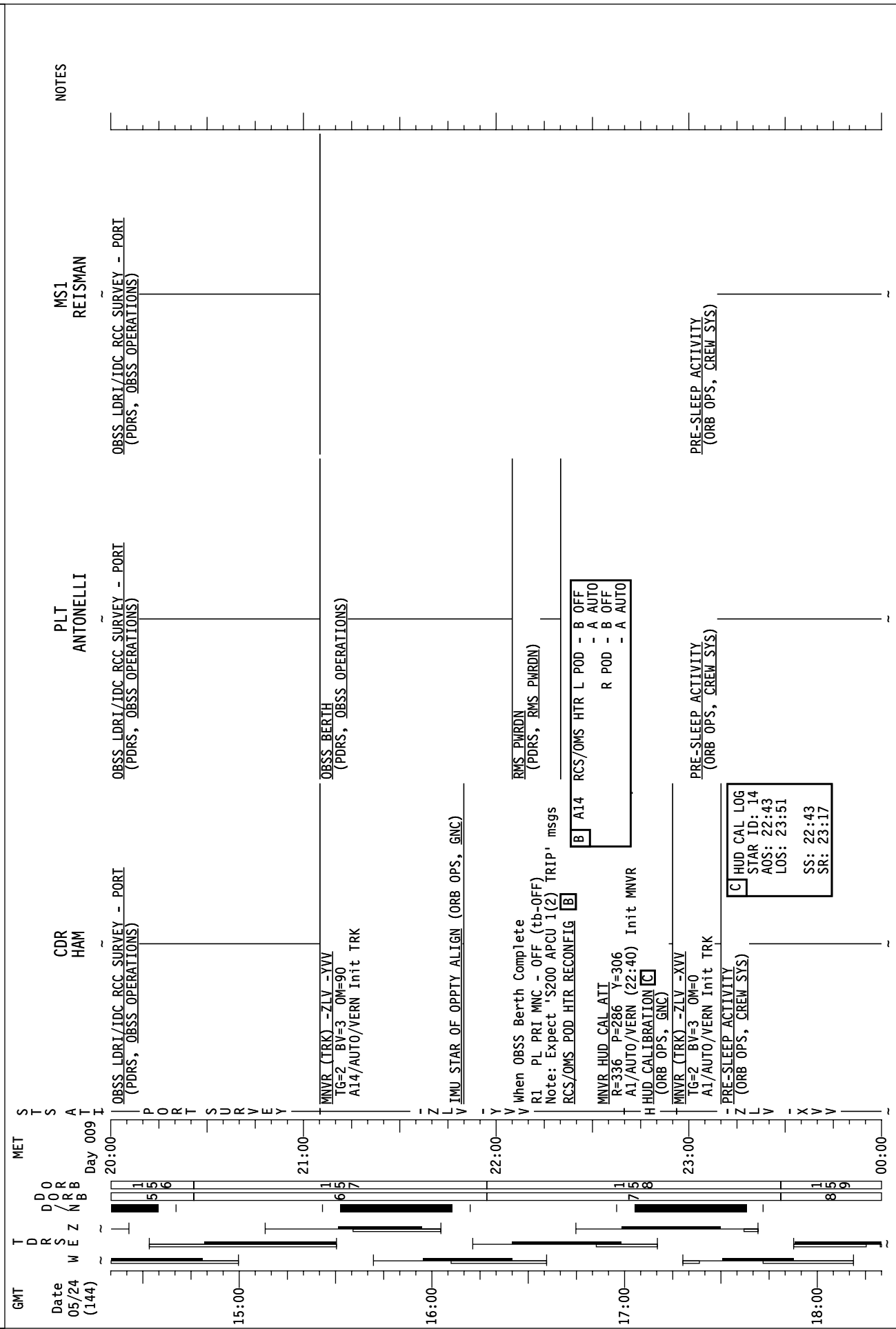
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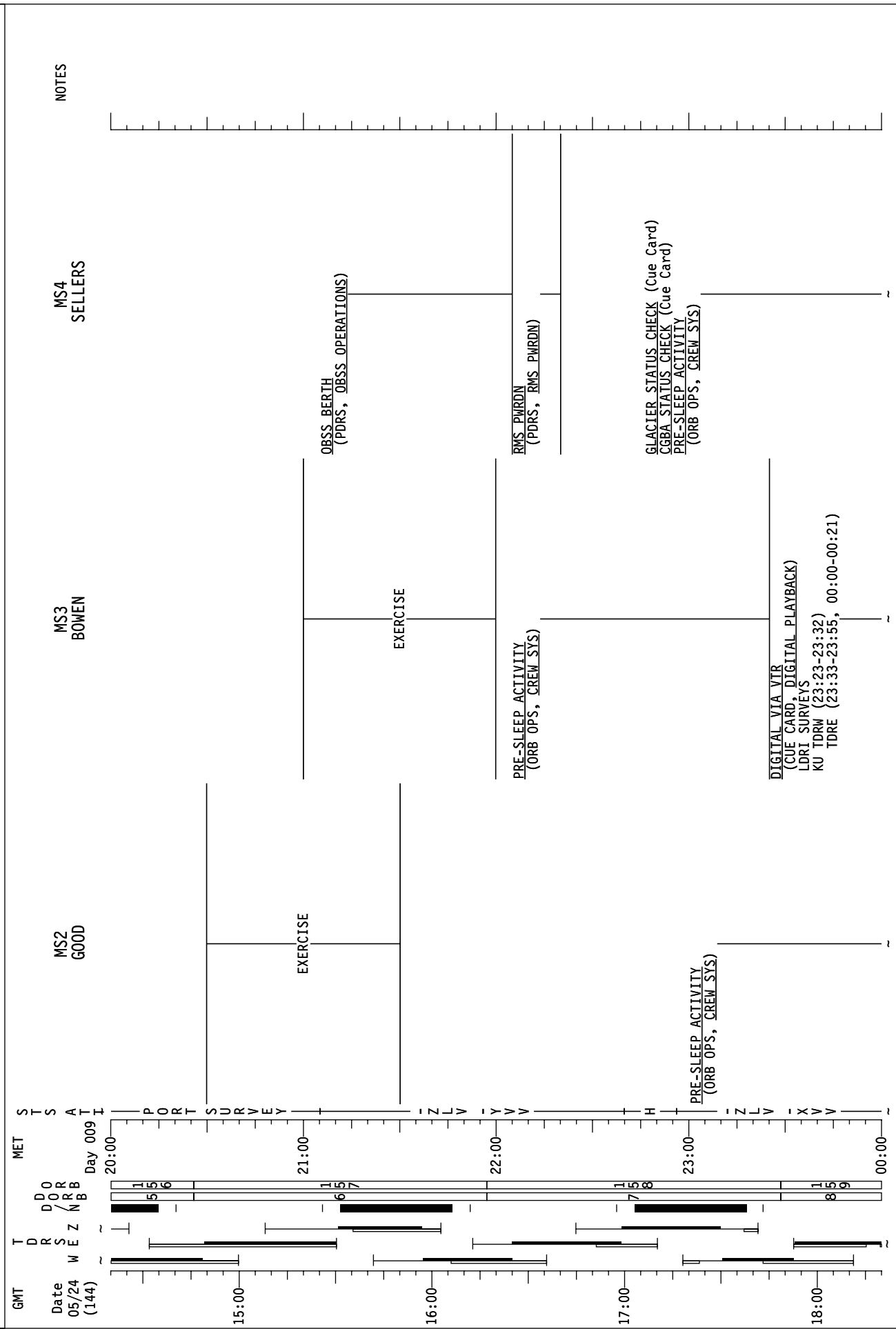
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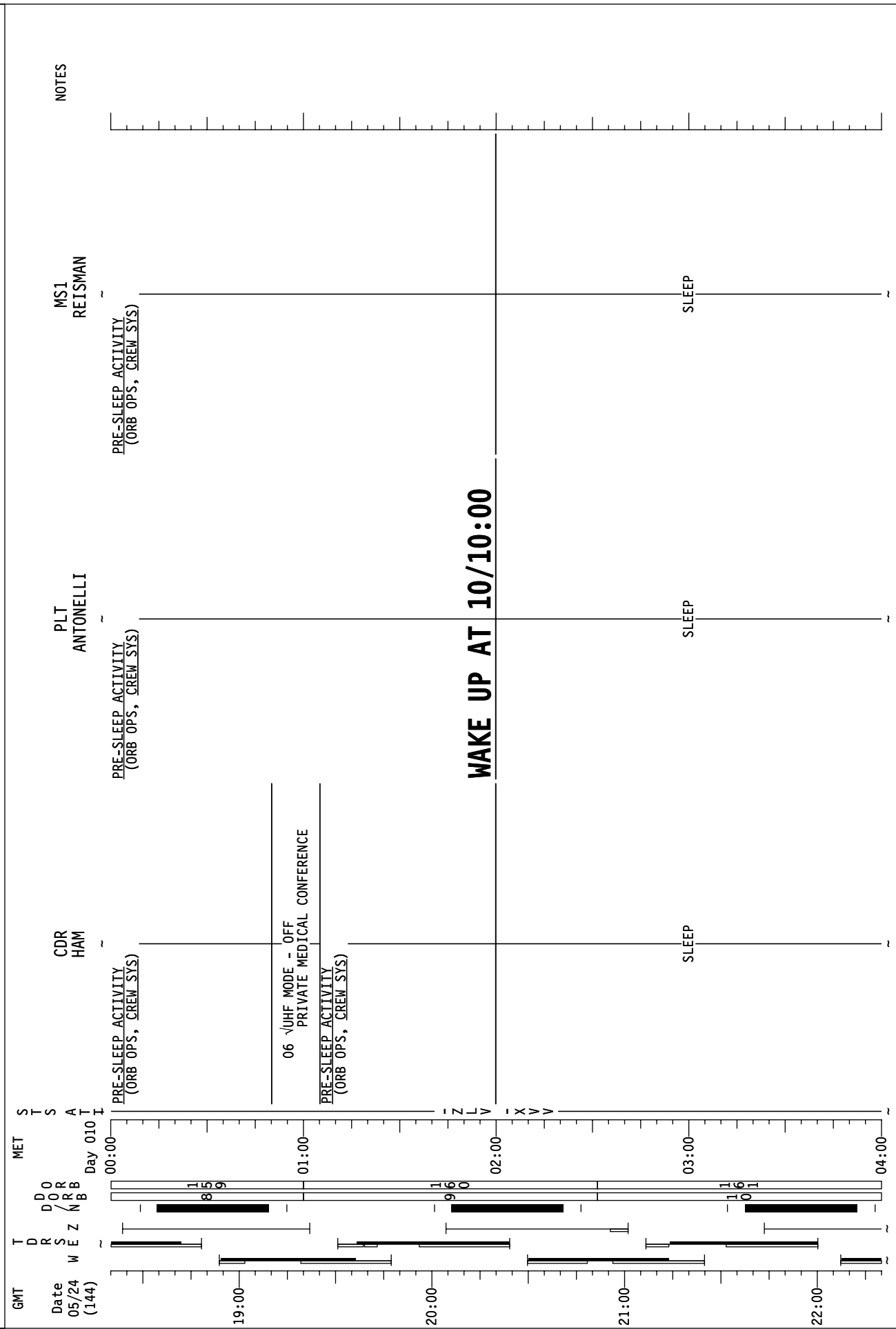
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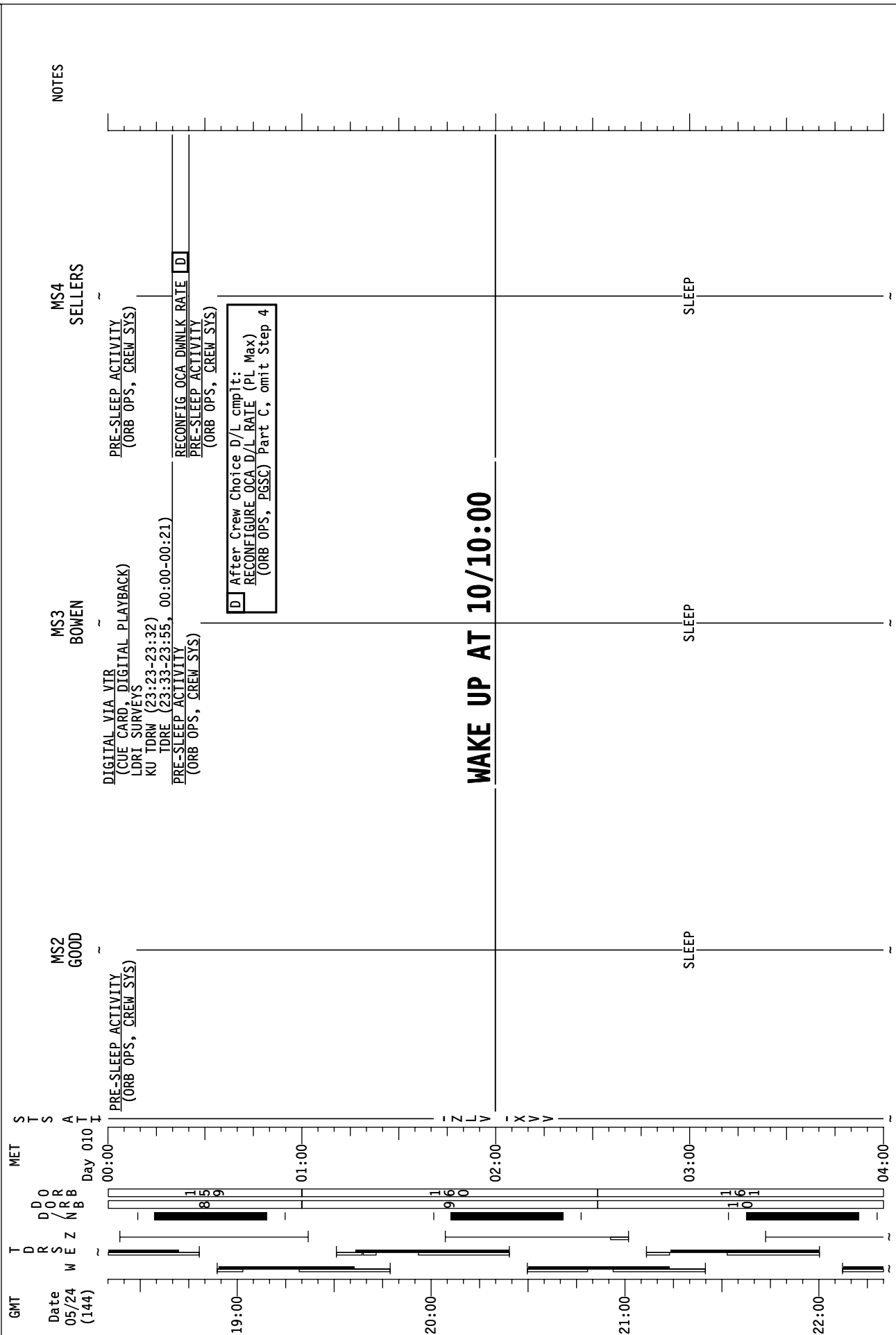
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STS-132 FD (11)



MSG 097 - FD11 MISSION SUMMARY

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Good Morning Atlantis!!!

Thanks for the great undock and fly around yesterday!

Have a good inspection day!!!

YOUR CURRENT ORBIT IS: 192 X 183 NM

NOTAMS - (TWO CHANGES: DELETED EDF, ADDED MRN.)

- EDW - EDW 22L/04R IN USE. EDT 22R/04L CLOSED FOR CONSTRUCTION.
- EDW - LAKEBED RWYS 15/33 GREEN. 18L RED.
- NOR - LAKEBED RWYS GREEN.
- NTU - RWY 05R/23L CLSD.
- FOK - CLOSED.
- FMH - RWY 23 APCH LTS OTS.
- YYT - TACAN UYT23 AZIMUTH OTS.
- MRN - TACAN MRN100 OTS.
- KBO - TACAN DOR23Y DME OTS.
- AMB - RWY 15/33 REQUIRES 30MIN PN TO CLEAR WIP.
- PTN - CLSD.
- IKF - NOT USABLE. NO AGREEMENT.
- BEN - NOT RECOMMENDED/NOT SUPPORTED.

NEXT 2 PLS OPPORTUNITIES:

EDW22	ORB157 – 9/21:17	SCT150 BKN250	7	240/9P15
EDW22	ORB173 – 10/21:41	SKC	7	220/7P11

OMS TANK FAIL CAPABILITY:

L or R OMS FAILS: NO

LEAKING OMS PRPLT BURN:

L or R OMS LEAK: ALWAYS BURN RETROGRADE

OMS QUANTITIES(%)

L OMS OX = 36.77	R OMS OX = 37.23
FU = 36.79	FU = 36.89

FOR CURRENT QTYS, SUBTRACT INCN'T COUNTER

END OF PAGE 1 OF 2, MSG 097

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DELTA V AVAILABLE:

OMS	380 FPS
<u>ARCS (TOTAL ABOVE QTY1)</u>	<u>37 FPS</u>
TOTAL IN THE AFT	417 FPS
ARCS (TOTAL ABOVE QTY2)	69 FPS
FRCS (ABOVE QTY 1)	29 FPS
AFT QTY 1	81 %
AFT QTY 2	43 %

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

END OF PAGE 2 OF 2, MSG 097