

STS-126/ULF2

FD 02 Execute Package



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003	16	EVA Checklist Deltas (pdf)

Approved by FAO: J. Clevenger

Last Updated: Nov 15 2008 2:12PM GMT

JEDI (Joint Execute package **D**evelopment and **I**ntegration), v2.04.0003

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MSG 001 - FD02 FLIGHT PLAN REVISION

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MSG INDEX

<u>MSG NO.</u>	<u>TITLE</u>
001	FD02 Flight Plan Revision
002	FD02 Mission Summary
003	EVA Checklist Deltas

1. For today's cryo config, O2 and H2 Tank 5 will be active with dual heaters.
R1 O2, H2 MANF VLV TK1 (two) - OP (tb-OP)
TK3 HTRS A, B (four) - OFF
A15 CRYO TK5 HTRS O2, H2 A, B (four) – AUTO
2. In order to manage propellant margins and verify the RCS interconnect configurations for use post docking, there will be interconnect operations prior to NC-2 and NC-3.
3. Heide and Steve, prelaunch we had told you that there was some concern with the stickiness of the ISS MWS EEs. The ISS crew reported that both MWS EEs planned for use on your EVAs checked out OK. There will be no need to pack a shuttle MWS t-bar for transfer.
4. MSG 003 has P&I changes for the EVA C/L.
5. The MCC has remotely uplinked the latest HazMat data file to the KFX and WLES PGSCs onboard. The remaining PGSCs will be updated when those PGSCs are added to the network.
6. The WLES ground team has observed numerous intermittent communications errors between the WLES laptop and the in-wing sensor units. Based on the signature, the team believes this may be an issue with LRU to CRU orientation.
Please inspect the LRUs for both the WLES and KFX machines to ensure that both LRUs have clear line-of-sight to and are at least 5 inches away from both CRUs.
7. REPLACE PAGES 3-8 THROUGH 3-17.

REPLANNED

FD02

GMT 11/16/08 (321)

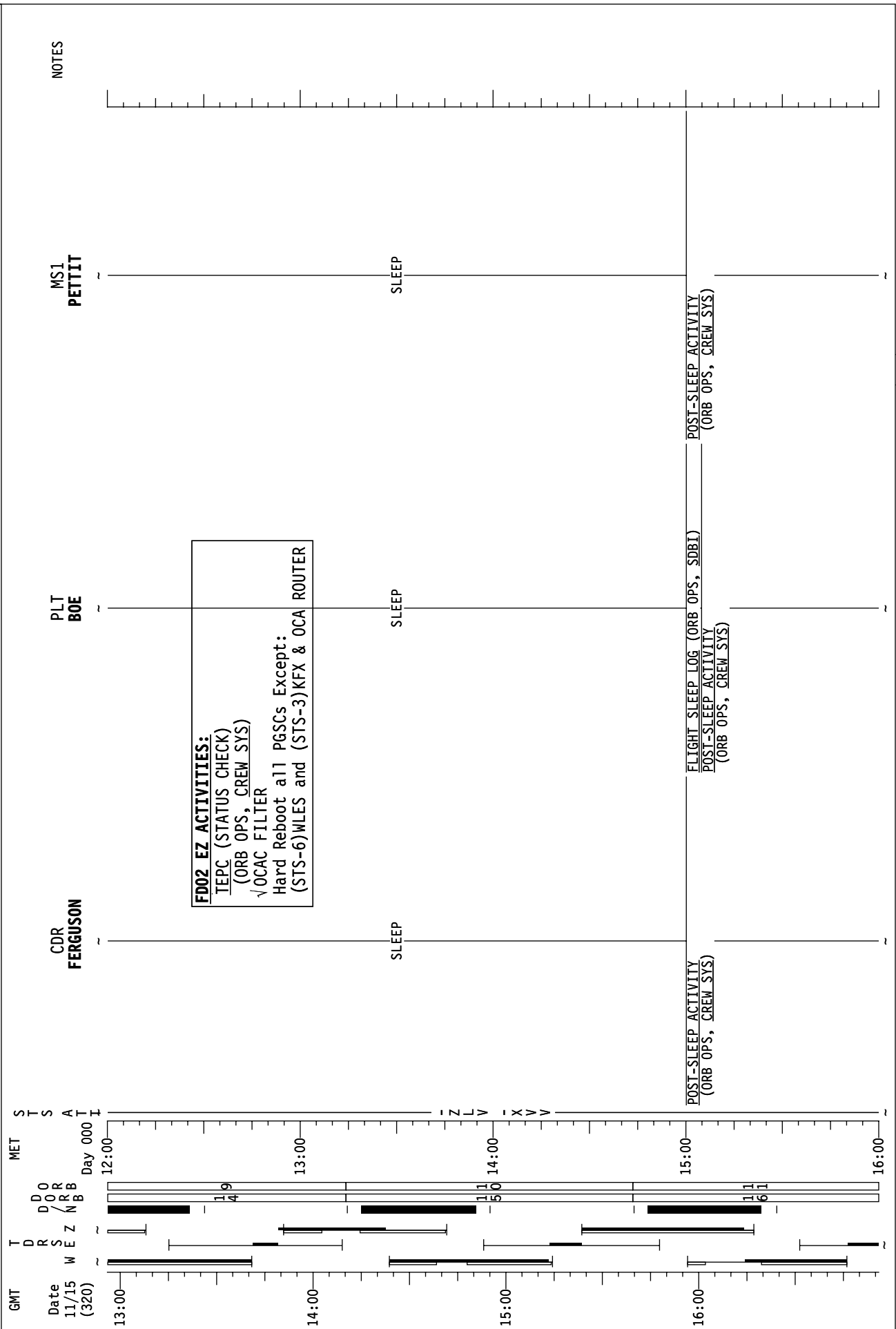
MET Day_001 001/00

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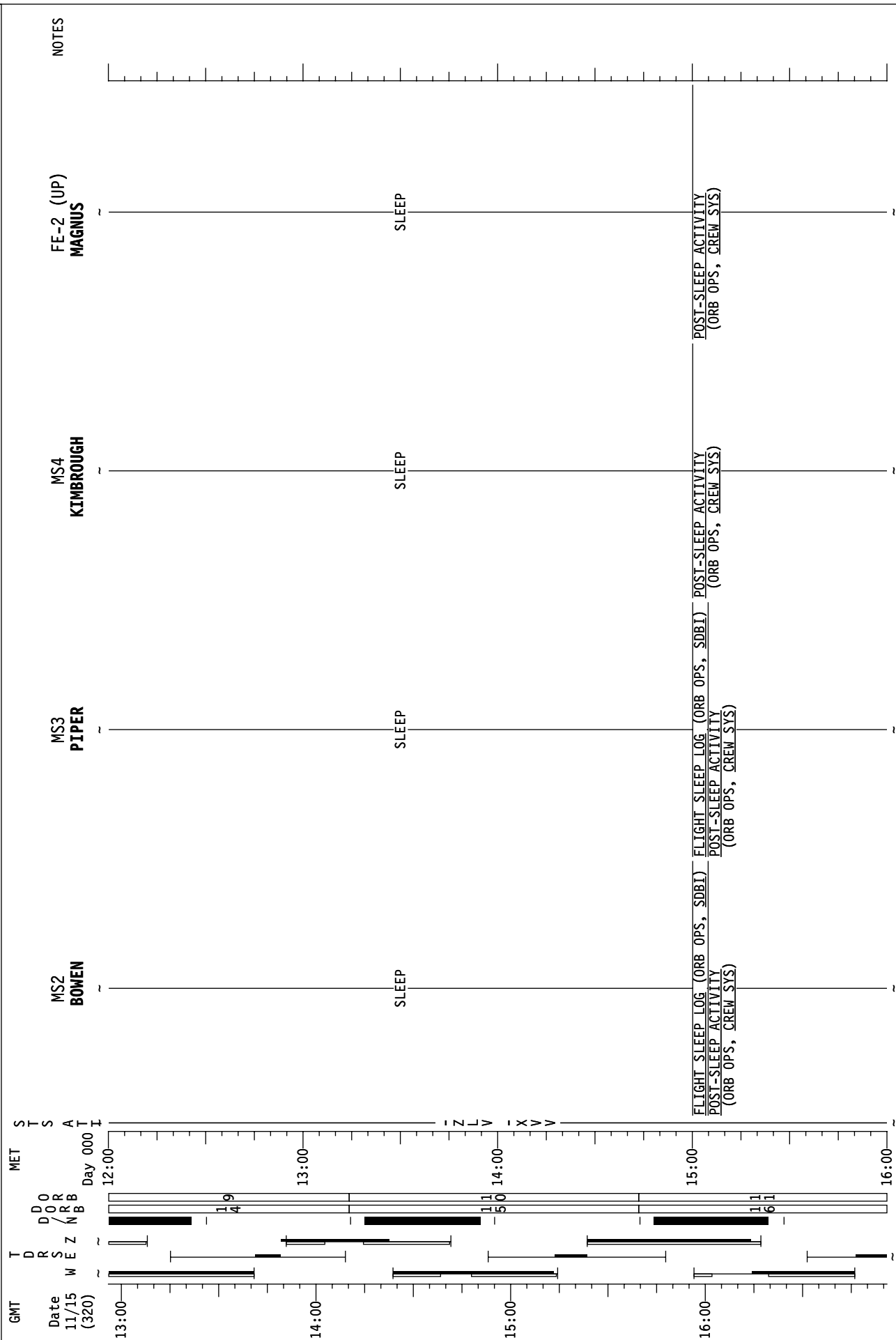
CDR FERGUSON	01	02	03	04	05	06	07	08	09	10	11	12
	IC N C T *	NC3 +X RCS BURN	FI M-UCM N ZINJ V LUGS R VERT EM	PRE SLEEP	PRE SLEEP PMC A/G	PRE SLEEP						
R1 PLT BOE	M N V R *	OBSS BERTH	+X RCS BURN	RNDZ TOOLS C/O	PRE SLEEP							
R3 MS1 PETTIT		EXERCISE	M PRE U S SLEEP	RNDZ TOOLS C/O	PRE SLEEP							
EV2 MS2 BOWEN	U N S O W @	SETUP C/L CAMR	FCMS HHLJJO OPS C/OSP	PRE SLEEP								
EV1 MS3 PIPER		OMS POD SRVY CAMR	ODS RING EXT	EXERCISE	PRE SLEEP							
R2/EV3 MS4 KIMBROUGH		OBSS BERTH	M ODS RING EXT	PRE SLEEP								
FE-2 EXP18 MAGNUS	EXER	LDRI DOWNLINK		PRE SLEEP								
DAY/NIGHT ORBIT	17	18	19	20	21	22	23	24	25			
TDRS	W -171.0											
	E -46.0											
	Z -275.0											
ORB ATT												
NOTES	*-ZLV *-ZLV -XVV *-LOMS TO RCS *RETURN @SALIVA KIT #STATUS CHECK ^VACC ACT1 -ZLV -XVV											

S T S - 1 2 6

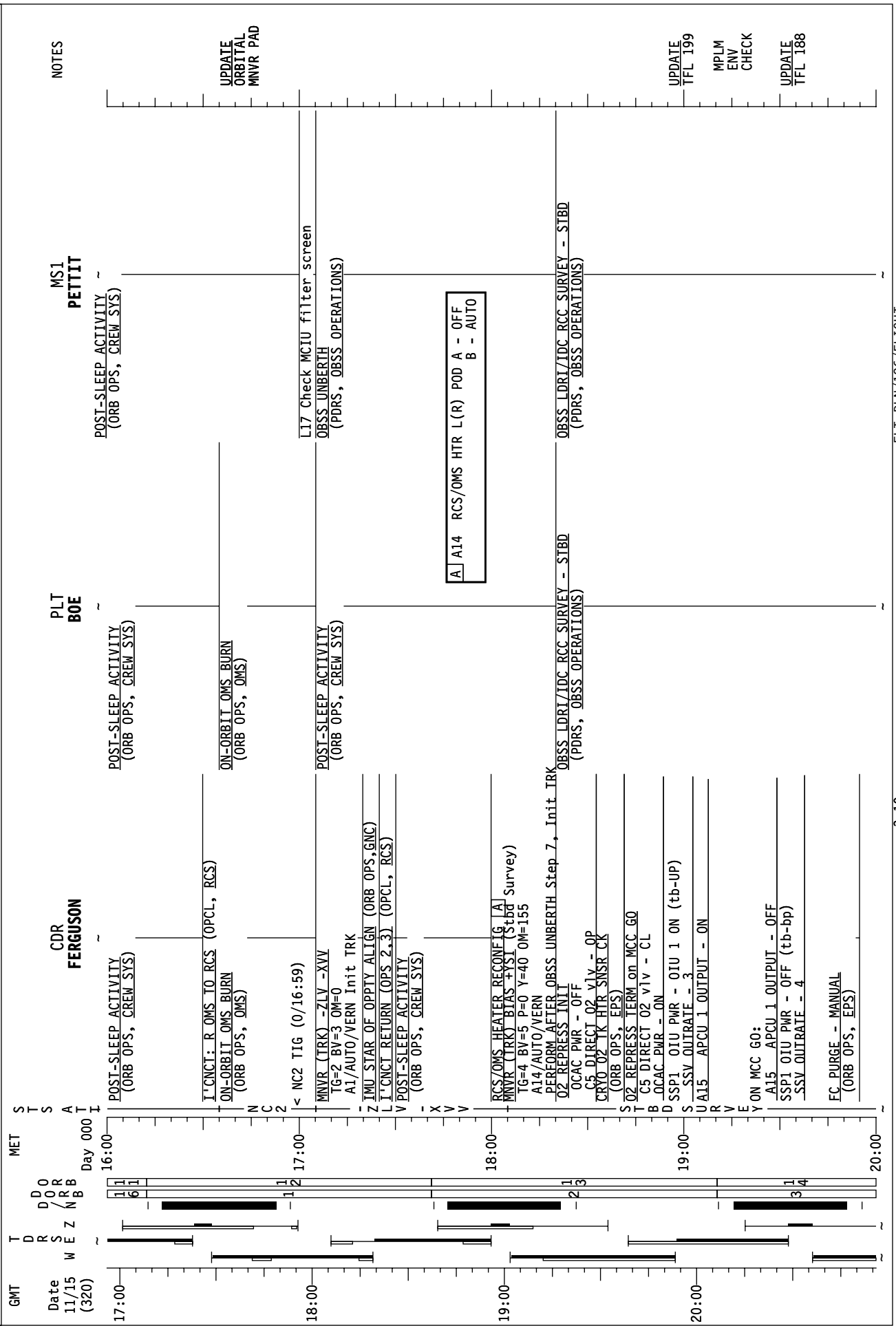
STS-126 FD (02)



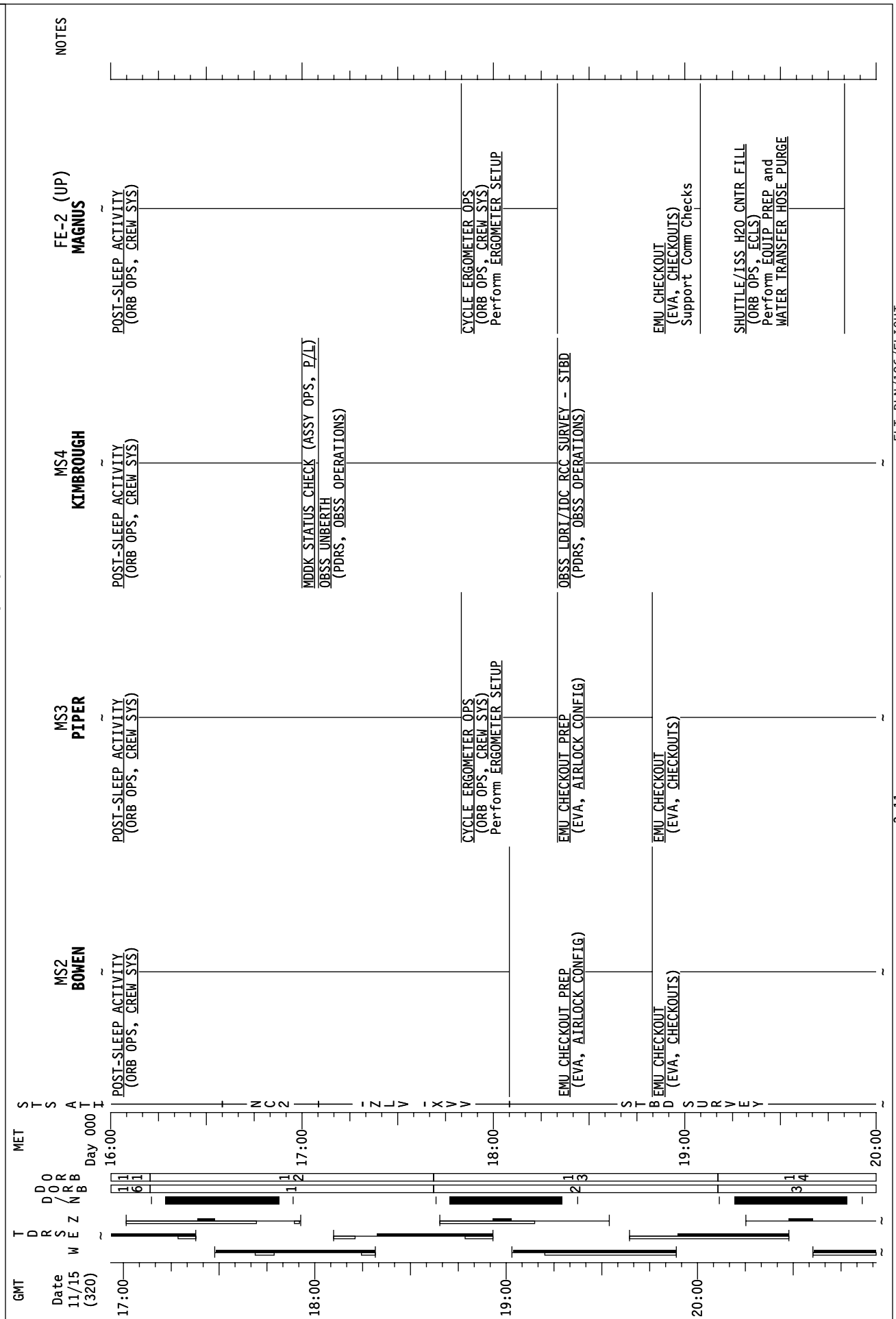
STS-126 FD (02)



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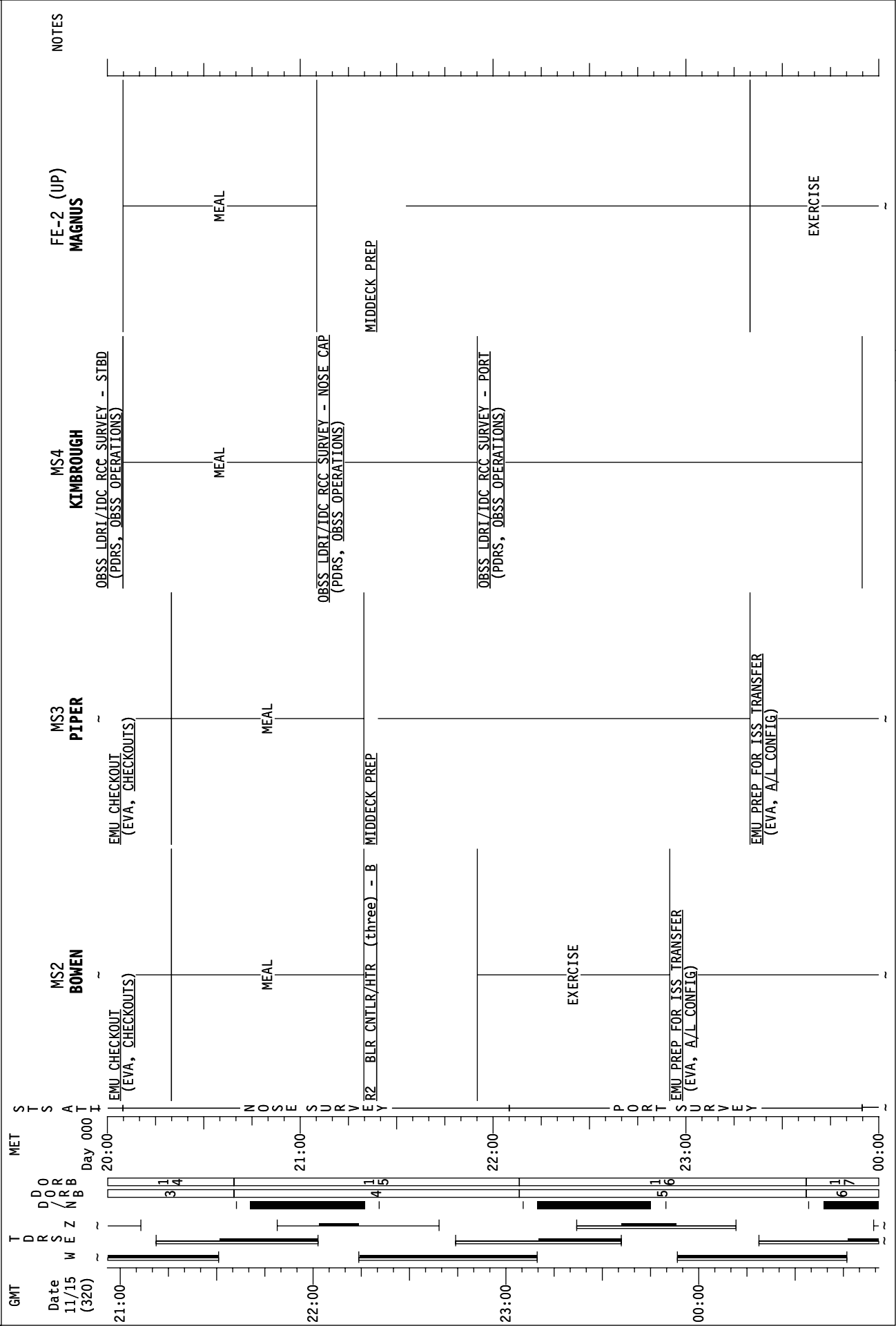


STS-126 FD (02)

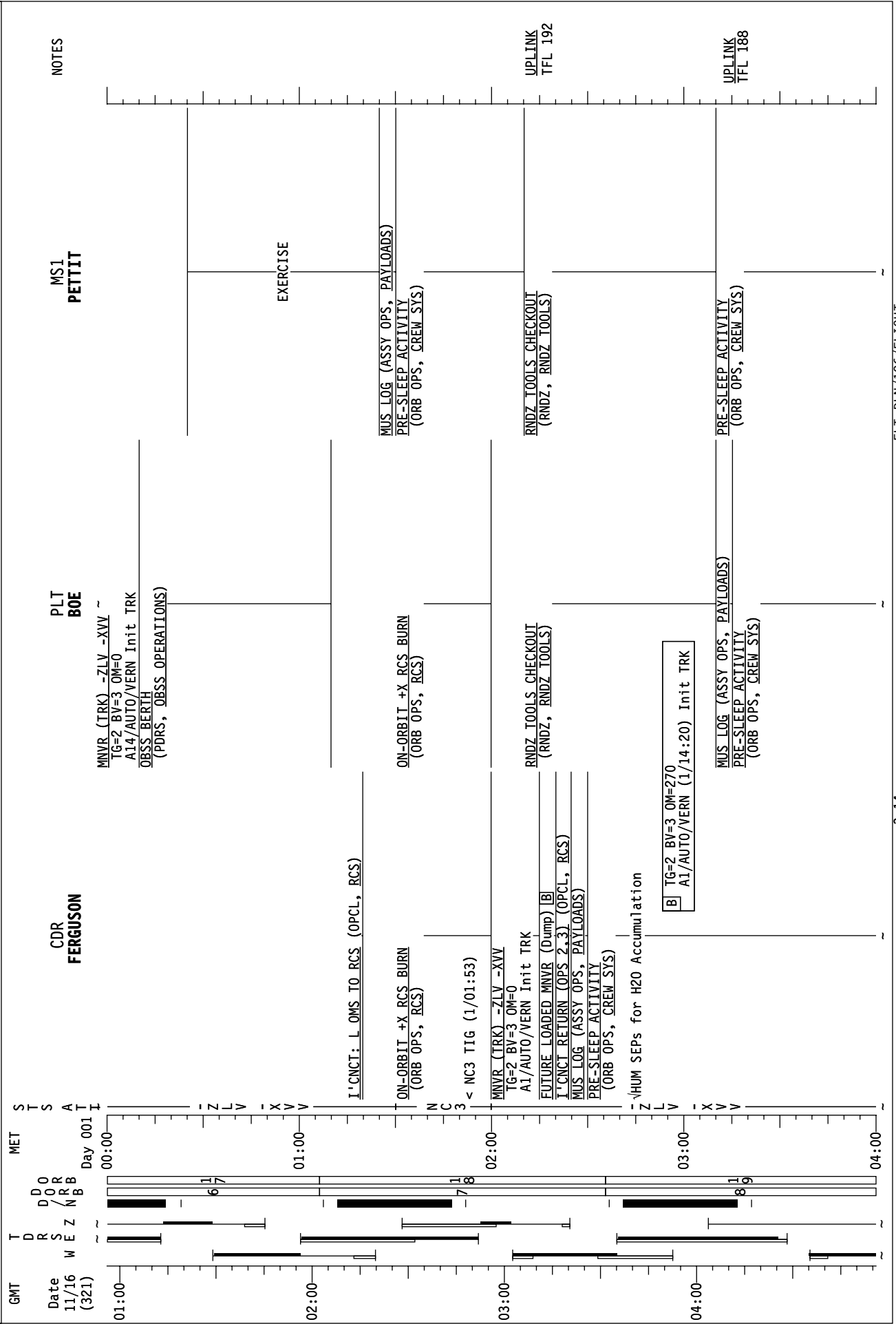
GMT	Date 11/15 (320)	DRS W E Z	TDRS D O R / R B	MET Day 000	STSAI	CDR FERGUSON	PLT BOE	MS1 PETTIT	NOTES
21:00				20:00		MNVR (TRK) BIAS +XSI (Nose Cap) TG=4 BV=5 P=330 Y=0 OM=140 A14/AUTO/VERN Init TRK	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS)	
22:00				21:00		MEAL	MEAL	MEAL	
23:00				22:00		E FILTER CLEANING (IFM, SCHEDULED MAINTENANCE) Do not perform MCIU Filter Check	OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - NOSE CAP (PDRS, OBSS OPERATIONS)	
00:00				23:00		Perform Port Survey Steps 1-3 Prior to MNVR MNVR (TRK) BIAS -YSI (Port Survey) TG=4 BV=5 P=0 Y=323 OM=190 A14/AUTO/VERN Init TRK	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)	OBSS LDRI/IDC RCC SURVEY - PORT (PDRS, OBSS OPERATIONS)	
				00:00		EXERCISE			
				00:00					

11/15/08 08:02:18

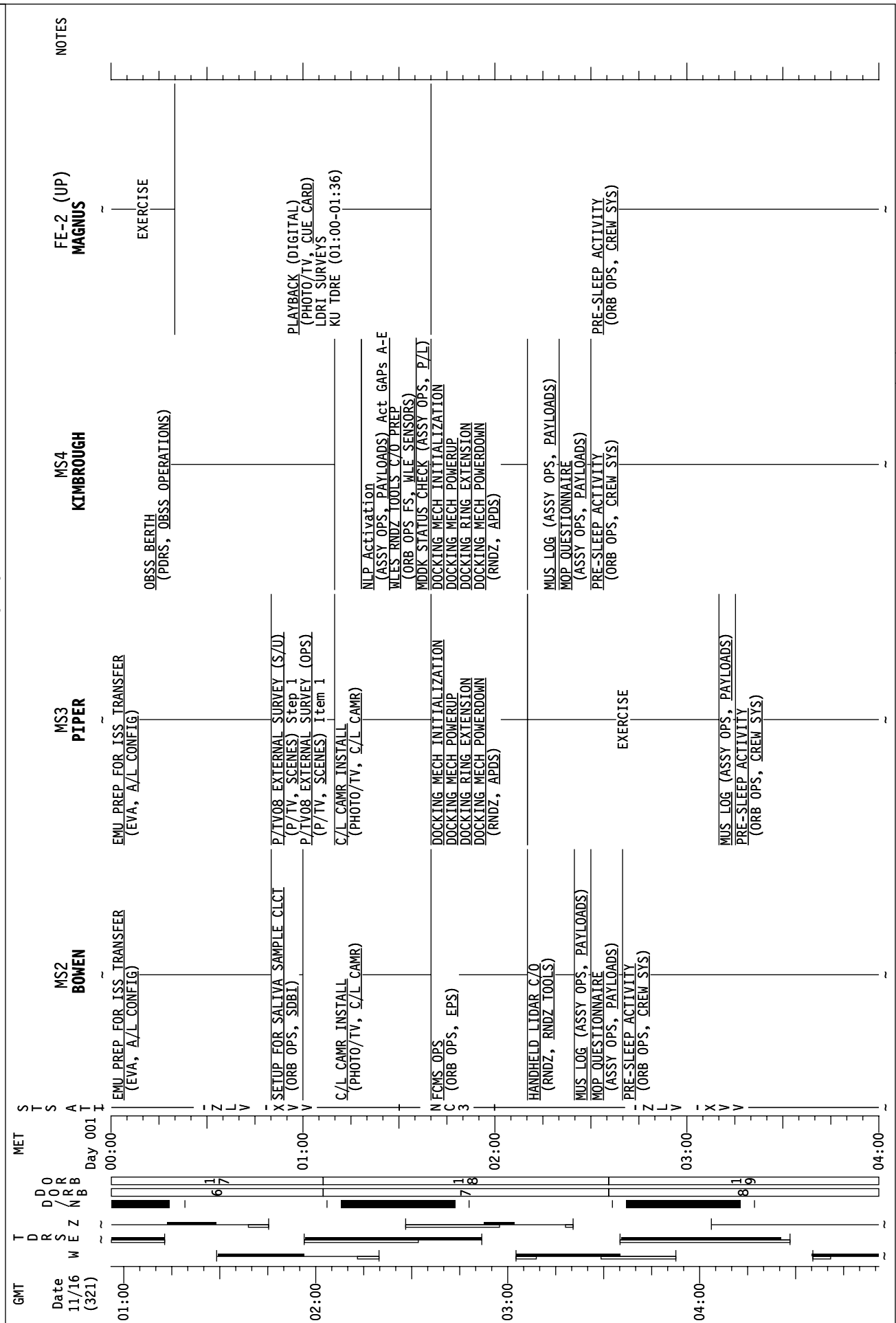
STS-126 FD (02)



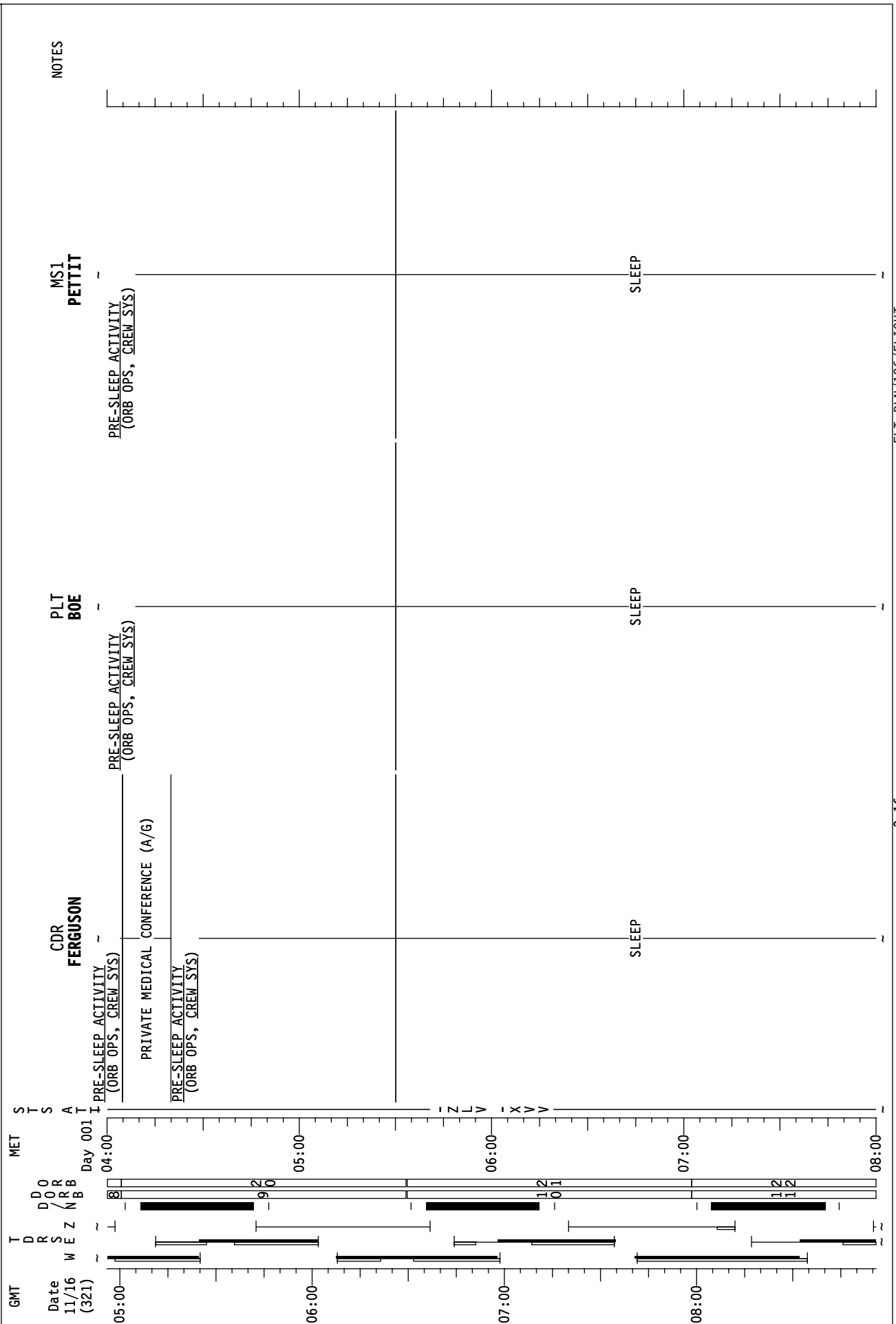
STS-126 FD (02)



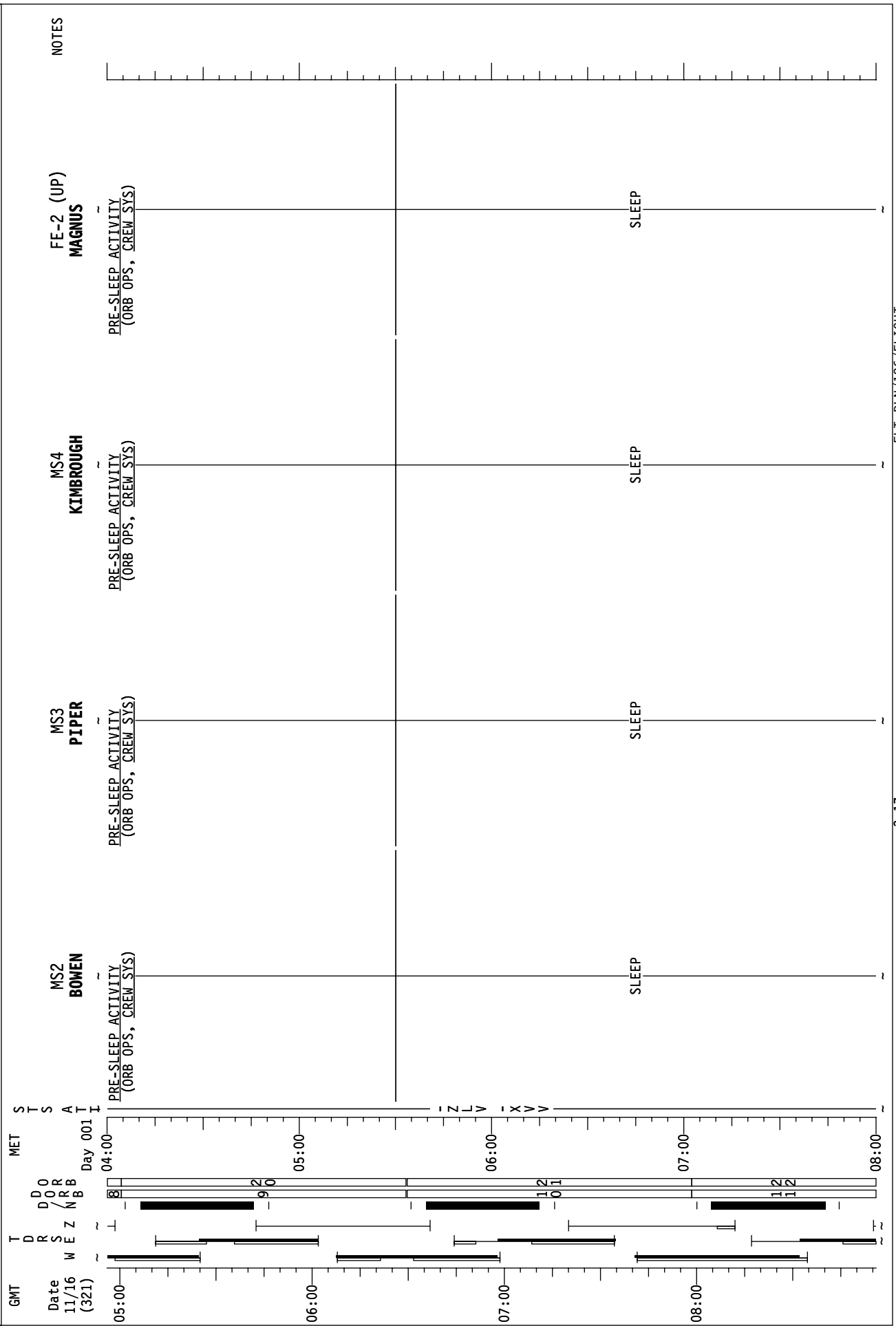
STS-126 FD (02)



STS-126 FD (02)



STS-126 FD (02)



MSG 002 - FD02 MISSION SUMMARY

1 Good Morning Endeavour!!!
2
3 Yesterday's launch was awesome!
4
5 We are looking forward to working with you today!
6

7
8 YOUR CURRENT ORBIT IS: 131 X 112 NM
9

10 NOTAMS:

11 NOTAMS – NO CHANGE

12 EDW – EDT (TEMP RWY) IN USE FOR STS-126. EDW (PERM RWY) ELS - DAY /
13 VFR ONLY.

14
15 EDW – LAKEBED RUNWAY 15/33 ELS ONLY. OTHER LAKEBED RWYS RED.

16 NOR – LAKEBED RUNWAYS GREEN.

17 DOV – RWY 14/32 CLOSED.

18 HAW – RWY 13 THLD DISPLACED, 9,019' USABLE.

19 AMB – RWY 15/33 CLOSED.

20 YHZ – RWY 05/23 CLOSED.

21 YYT – RWY 16/34 CLOSED.

22 IKF – NOT USABLE. NO AGREEMENT.

23 BEN – NOT RECOMMENDED/NOT SUPPORTED.

24 ZZA – FIRST 600M (~2,000') OF RWY 30L NOT AVAILABLE. 10,200' REMAINING
25

26
27 NEXT 2 PLS OPPORTUNITIES:

28
29 EDT22R ORB 17 – 1/00:37 SKC 7 040/07P9

30 EDT22R ORB 33 – 2/00:24 FEW250 7 040/07P9
31

32 OMS TANK FAIL CAPABILITY:

33
34 PRE NC-4:

35 L OMS FAILS: YES

36 R OMS FAILS: YES
37

38 POST NC-4:

39 L OMS FAILS: NO

40 R OMS FAILS: NO
41

42
43 LEAKING OMS PRPLT BURN:

44
45 PRE NC-4:

46 L OMS LEAK: ALWAYS BURN OUT OF PLANE ASAP

47 R OMS LEAK: ALWAYS BURN OUT OF PLANE ASAP
48

49 POST NC-4:

50 L OMS LEAK: ALWAYS BURN RETROGRADE

51 R OMS LEAK: ALWAYS BURN RETROGRADE

END OF PAGE 1 OF 2, MSG 002

MSG 002 - FD02 MISSION SUMMARY

OMS QUANTITIES(%)

PRE NH:

L OMS OX = 55.7 R OMS OX = 54.9
 FU = 55.3 FU = 54.6

Subtract interconnect counter for current OMS quantities.

POST NH / PRE NC-4:

L OMS OX = 42.9 R OMS OX = 42.0
 FU = 42.5 FU = 41.8

POST NC-4 :

L OMS OX = 34.8 R OMS OX = 34.0
 FU = 34.5 FU = 33.7

DELTA V AVAILABLE:

	<u>PRE NH</u>	<u>POST NH / PRE NC-4</u>	<u>POST NC-4</u>
OMS	534 FPS	403 FPS	301 FPS
ARCS (TOTAL ABOVE QTY1)	51 FPS	48 FPS	23 FPS
TOTAL IN THE AFT	585 FPS	451 FPS	324 FPS
ARCS (TOTAL ABOVE QTY2)	79 FPS	77 FPS	52 FPS
FRCS (ABOVE QTY 1)	52 FPS	52 FPS	40 FPS
AFT QTY 1	92 %	92 %	87 %
AFT QTY 2	54 %	54 %	49 %

<u>SYSTEM</u>	<u>FAILURE</u>	<u>IMPACT</u>	<u>WORK AROUND</u>
INST/COMM	Ku-Band Comm Mode Auto Track	Ratty Comm off the Nose and Tail	Ku-Band dish antenna is being pointed by SM in Designate Mode.
OMS/RCS	Aft Right Ox Low Point Drain Line Crossfeed A Heater	Loss of OMS Crossfeed Line A Heaters	Use OMS Crossfeed Line B Heaters for the remainder of the mission.

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EVA Checklist Deltas

There have been changes to our REBA and PGT battery plan. Prior to flight, we changed a couple of PGT batteries that will be used for EVA 1. REBA s/n 1004 had a short circuit error while charging and is considered failed. We are now returning all 4 old REBAs after EMU Swap for EVA 4. Please make the following pen and ink changes:

Consumables Tracking Cue Card

- a. EVA 1 & EVA 2 for Pp, replace REBA s/n "1004" with "1005"
- b. EVA 1, replace PGT s/n "1009" and "1008" with "1004" and "1005"
- c. Post EVA 3, recharge REBA s/n "1008" and "1009"
- d. EVA 4 for Bw, replace REBA s/n "1011" with "1009"

Battery Recharge Cue Card

- a. Post EVA 1, replace REBA s/n "1004" with "1005"
- b. Post EVA 1, replace PGT s/n "1008" with "1004" and s/n "1009" with "1005"
- c. Post EVA 3, replace REBA s/n "1011" with "1009"

EMU SWAP FOR EVA 4, EVA Checklist, FS 2-14

- Add for EMU 3003:
- 7a. Remove REBA; temp stow in M-02 s/n 1038 for xfer to MPLM
 - 7b. Install REBA s/n 1009