



STS-128/17A

FD 12 Execute Package

MSG	Page(s)	Title
-	-	FD12 Summary Timeline
102A	1 - 11	FD12 Flight Plan Revision
103	12 - 13	FD12 Mission Summary
104	14	EVA Unpack and Stow
106	15	FD12 Crew Choice Downlink

Approved by FAO:
Gail Hansen

Last Updated: Sep 8 2009 1:06 PM GMT
JEDI (Joint Execute package Development and Integration), v3.0



What's that?

It's the LiOH you could have saved by switching to ECLSS's CDRA plan

Top Ten FAO Responses to "FAO, this comedy is not funny"

18. Yeah, Well you're not funny!
17. So then we can have more Ceccacci comedy?
16. Multiple 127 & 128 launch attempts have depleted the Strategic Comedy Reserve (SCR)
15. Sorry flight, we've been busy. Maybe DPS can help with that.
14. Too many left-brain types around here ... future hiring is targeting the liberal art schools like A&M.
13. You wouldn't let us do the mice comedy.
12. Under the new National Comedy Fairness Act of 2009, bad comedy must get equal time to good comedy.
11. Comedy? ... hey we're pretty busy back here with our Twitter and Facebook updates ...
10. @#\$%^&*!!!
9. Dammit Jim, I'm an engineer, not a comedian!
8. After review of all FAO Replan shift goals for generating Execute Packages, coordinating food runs, and developing comedy, the Augustine Committee recommends only 2 of 3 can be reasonably done with available resources.
7. Do you want to do it? No... Well then shut up!
6. Don't make me draw Sarafin's mustache on your picture!
5. "Space flight is easy; comedy is not."
4. Yes, we realize that there are 18 items in this top list, it's part of the joke.
3. We told ACO their comedy input was lame, but they pleaded otherwise ...
2. <<picture of a tree>>
1. Talk to the hand.

09/08/09 07:23:59

REPLANNED

GMT 09/08/09 (Z51) 010/00 04 05 06 07 08 09 10 11 12 13 14 15 16
 MET Day_010

FD11	CDR STURCKOW	PRE SLEEP PMC S A/G	PRE SLEEP	SLEEP	POST SLEEP
	PLT FORD	EXER CISE	PRE SLEEP	SLEEP	POST SLEEP
	MS1 FORRESTER		PRE SLEEP	SLEEP	POST SLEEP
	MS2 HERNANDEZ		PRE SLEEP	SLEEP	POST SLEEP
	MS3 OLIVAS	*	PRE SLEEP	SLEEP	POST SLEEP
	MS4 FUGLESANG		PRE SLEEP	SLEEP	POST SLEEP
	MS5 KOPRA		PRE SLEEP	SLEEP	POST SLEEP

DAY/NIGHT ORBIT

TDRS W E Z

ATTITUDE

NOTES

*C/L CAMERA INST-UNDK
 *ACT

BIAS -XLV -ZVW

159 160 161 162 163 164 165 166

REPLANNED

09/08/09 07:23:59

GMT 09/08/09 (Z51) 16 17 18 19 20 21 22 23 23 02 03 04
 MET Day_010 12 13 14 15 16 17 18 19 20 21 22 23 23 02 03 04 011/00

FD12	POST SLEEP	POST SLEEP	UNDOCK OPS	FLYAROUND/SEP	SEP1Δ SEP2Δ	G P R M D N P R A N T D P R D B N	F M S S E A S O A R C T	S D S E A S O A R C T	EXERCISE	M N C M N A N O A V S B R E T	M N C M N A N O A V S B R E T	M E A L	C O M M I	S P M - P E N Z C C V L * 2 R V
CDR STURCKOW	POST SLEEP	POST SLEEP	UNDOCK OPS	FLYAROUND/SEP	FLYAROUND/SEP	G P R M D N P R A N T D P R D B N	F M S S E A S O A R C T	S D S E A S O A R C T	EXERCISE	M N C M N A N O A V S B R E T	M N C M N A N O A V S B R E T	M E A L	C O M M I	S P M - P E N Z C C V L * 2 R V
PLT FORD	POST SLEEP	POST SLEEP	UNDOCK OPS	FLYAROUND/SEP	FLYAROUND/SEP	G P R M D N P R A N T D P R D B N	F M S S E A S O A R C T	S D S E A S O A R C T	STBD WING SURVEY	N O S E C A P S U R V E Y	N O S E C A P S U R V E Y	M E A L	P O R T W I N G S U R V E Y	O B S S B E R T H
MS1 FORRESTER	POST SLEEP	POST SLEEP	UNDOCK OPS	FLYAROUND/SEP	FLYAROUND/SEP	G P R M D N P R A N T D P R D B N	F M S S E A S O A R C T	S D S E A S O A R C T	STBD WING SURVEY	N O S E C A P S U R V E Y	N O S E C A P S U R V E Y	M E A L	P O R T W I N G S U R V E Y	O B S S B E R T H
MS2 HERNANDEZ	POST SLEEP	POST SLEEP	UNDOCK OPS	FLYAROUND/SEP	FLYAROUND/SEP	G P R M D N P R A N T D P R D B N	F M S S E A S O A R C T	S D S E A S O A R C T	STBD WING SURVEY	N O S E C A P S U R V E Y	N O S E C A P S U R V E Y	M E A L	P O R T W I N G S U R V E Y	O B S S B E R T H
MS3 OLIVAS	POST SLEEP	POST SLEEP	UNDOCK OPS	FLYAROUND/SEP	FLYAROUND/SEP	G P R M D N P R A N T D P R D B N	F M S S E A S O A R C T	S D S E A S O A R C T	EXERCISE	M E A L	M E A L	M E A L	P O R T W I N G S U R V E Y	O B S S B E R T H
MS4 FUGLESANG	POST SLEEP	POST SLEEP	UNDOCK OPS	FLYAROUND/SEP	FLYAROUND/SEP	G P R M D N P R A N T D P R D B N	F M S S E A S O A R C T	S D S E A S O A R C T	EXERCISE	M E A L	M E A L	M E A L	P O R T W I N G S U R V E Y	O B S S B E R T H
MS5 KOPRA	POST SLEEP	POST SLEEP	UNDOCK OPS	FLYAROUND/SEP	FLYAROUND/SEP	G P R M D N P R A N T D P R D B N	F M S S E A S O A R C T	S D S E A S O A R C T	EXERCISE	M E A L	M E A L	M E A L	P O R T W I N G S U R V E Y	O B S S B E R T H
DAY/NIGHT ORBIT	167	168	169	170	171	172	173	174	175	176	177	178	179	180
TDRS	W	E	Z											
ATTITUDE	BIAS -XLV -ZLV - UNDOCKING - TORF - ZLV - STBD SURVEY - NOSE SURVEY - PORT SURVEY - *REG RCNFG #STATUS CHECK													
NOTES	*ACT *DEACT @ACT *FILTER CK *UNDOCK 10/15:27 *LOMS TO RCS *DEACT *RECONFIG #STATUS CHECK													

09/08/09 07:23:59

REPLANNED

GMT 09/09/09 (252) 011/00 MET Day_011

Activity	04	05	06	07	08	09	10	11	12	13	14	15	16
FD12 CDR STURCKOW	PRE SLEEP M D PRE SLEEP N U PRE SLEEP V M SLEEP R P	M - P S N - R L Z E E P M C V L E A / G R V P	PRE SLEEP PRE SLEEP	PRE SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	POST SLEEP
PLT FORD	OB CT W I BE PO / S I SR SN D T T H I D E	P S W T A N R L A E S I E E S R T E E T M P E	PRE SLEEP	PRE SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	POST SLEEP
MS1 FORRESTER	OB R P W I BE M W A N SR S R S I S T D N E	P S W T R L A E E E S R E E T M P E	PRE SLEEP	PRE SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	POST SLEEP
MS2 HERNANDEZ	OB R P W I BE M W A N SR S R S I S T D N E	PRE SLEEP	PRE SLEEP	PRE SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	POST SLEEP
MS3 OLIVAS	PRE SLEEP	P O L P Y S B K	PRE SLEEP	PRE SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	POST SLEEP
MS4 FUGLESANG	L D R I D N L K	PRE SLEEP	PRE SLEEP	PRE SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	POST SLEEP
MS5 KOPRA	PRE SLEEP	PRE SLEEP	PRE SLEEP	PRE SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	SLEEP	POST SLEEP
DAY/NIGHT ORBIT	175	176	177	178	179	180	181	182					
TDRS W E Z													
ATTITUDE													
NOTES													

S T S 1 2 8

*DOWNLINK RATE RECONFIG

MSG 102A - FD12 FLIGHT PLAN REVISION

1 MSG INDEX

2

3 <u>MSG NO.</u>	3 <u>TITLE</u>
4 102	FD12 Flight Plan Revision
5 103	FD12 Mission Summary
6 104	EVA Unpack and Stow
7 106	FD12 Crew Choice Downlink

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11 1. **Notes on TriDAR** - As a reminder, once TriDAR is set up and running on STS3 (KFX
12 PGSC), you will be unable to view/access messages from the network. Any messages
13 that you need during the time TriDAR is running will need to be printed out before you
14 begin TriDAR. In addition, Outlook will not be available during this time.

15

16 2. **OBSS Ops Update** - Due to the closure of Fwd RCS Manifold 5, FWD RCS MANF 5
17 OVRD CL/OP callouts in the OBSS procedures are no longer required. The following
18 steps are affected. Please note, MSG 007A from FD2 is no longer applicable (i.e. no
19 changes to DAP or PRCS logics and drivers throughout procedure).

20

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), and step 10 (pg 7-47)

23 In step 10, power up forward primary logics and drivers to return to nominal config.

24 O14:F, √Pri RJDA LOGIC,DRIVER (eight) – ON

25 O15:F, Pri RJDF LOGIC,DRIVER (eight) – ON

26 O16:F

27 OBSS BERTH step 8 (pg 7-57)

28

29 Also, OBSS LDRI/IDC RCC SURVEY - PORT step 12 (pg 7-52) is not required for Late
30 Inspection and should be skipped.

31

32 3. **EVA Unpack and Stow** - We've uplinked a new procedure in MSG 104. Please use this
33 in place of the published procedure in the EVA checklist.

34

35 4. **Shuttle Condensate Collection Teardown Details** - Perform this activity only if the
36 Waste Water Dump will occur on FD12 to ensure sufficient waste tank ullage is available
37 to reach the FD13 dump.

38

39 Perform TEARDOWN of SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS)
40 p. 5-40. Place the Y-Y Condensate Hose in a ziplock bag and temp stow for use during
41 the FD13 condensate dump. Temp stow CWC s/n 5085 for dumping on FD13.

42

43 5. **Waste Dump Details** - Perform a Waste dump using SUPPLY/WASTE WATER DUMP
44 (ORB OPS, ECLS) p. 5-2. MCC will TMBU FDA in steps B and K. Perform step J.1 to
45 close the H2O TK N2 REG INLET SYS 2 vlv.

46

47 Waste dump valve open time will be 20 minutes to make the FD13 dump.

48

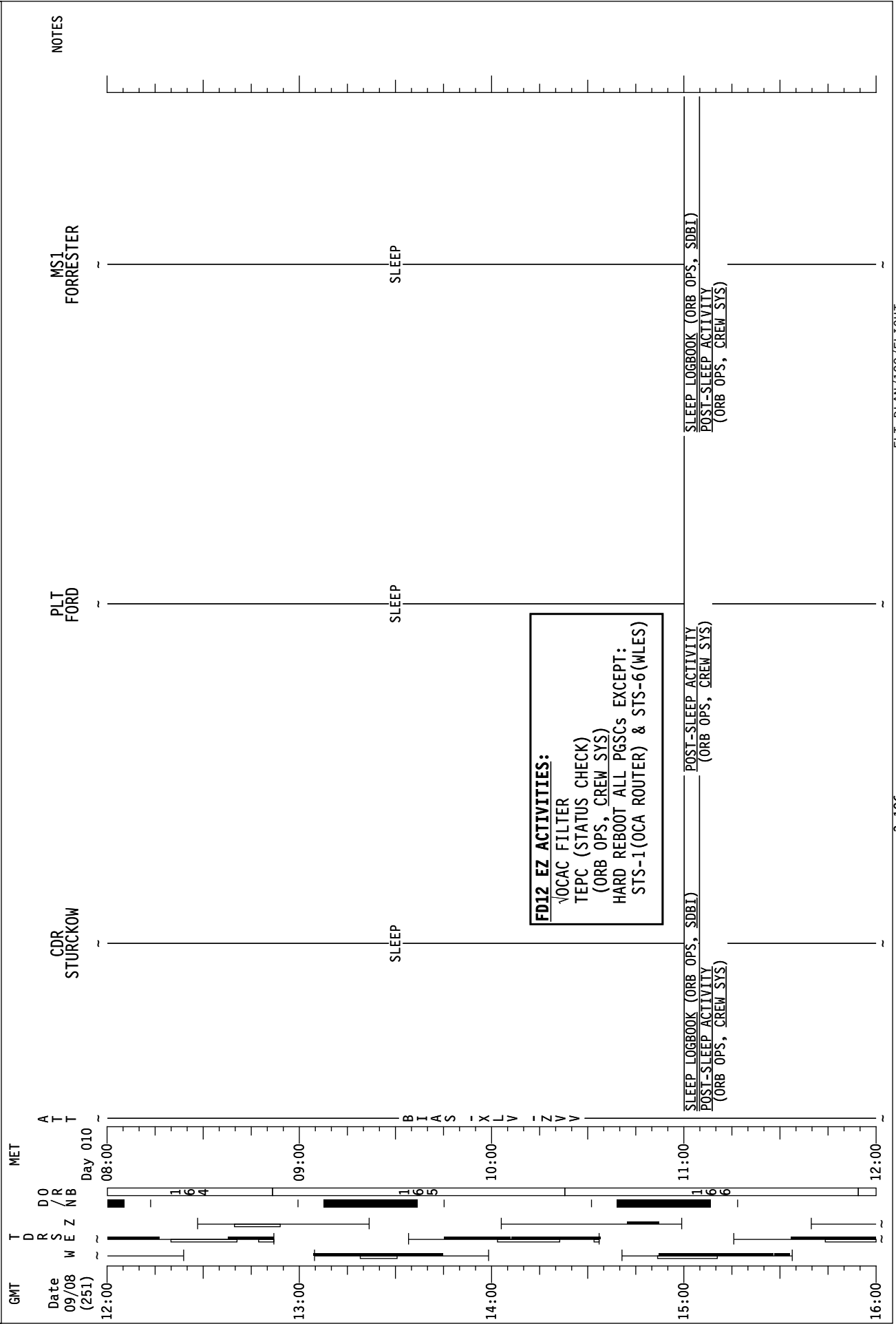
49 6. REPLACE PAGES 3-126 THROUGH 3-135.

50

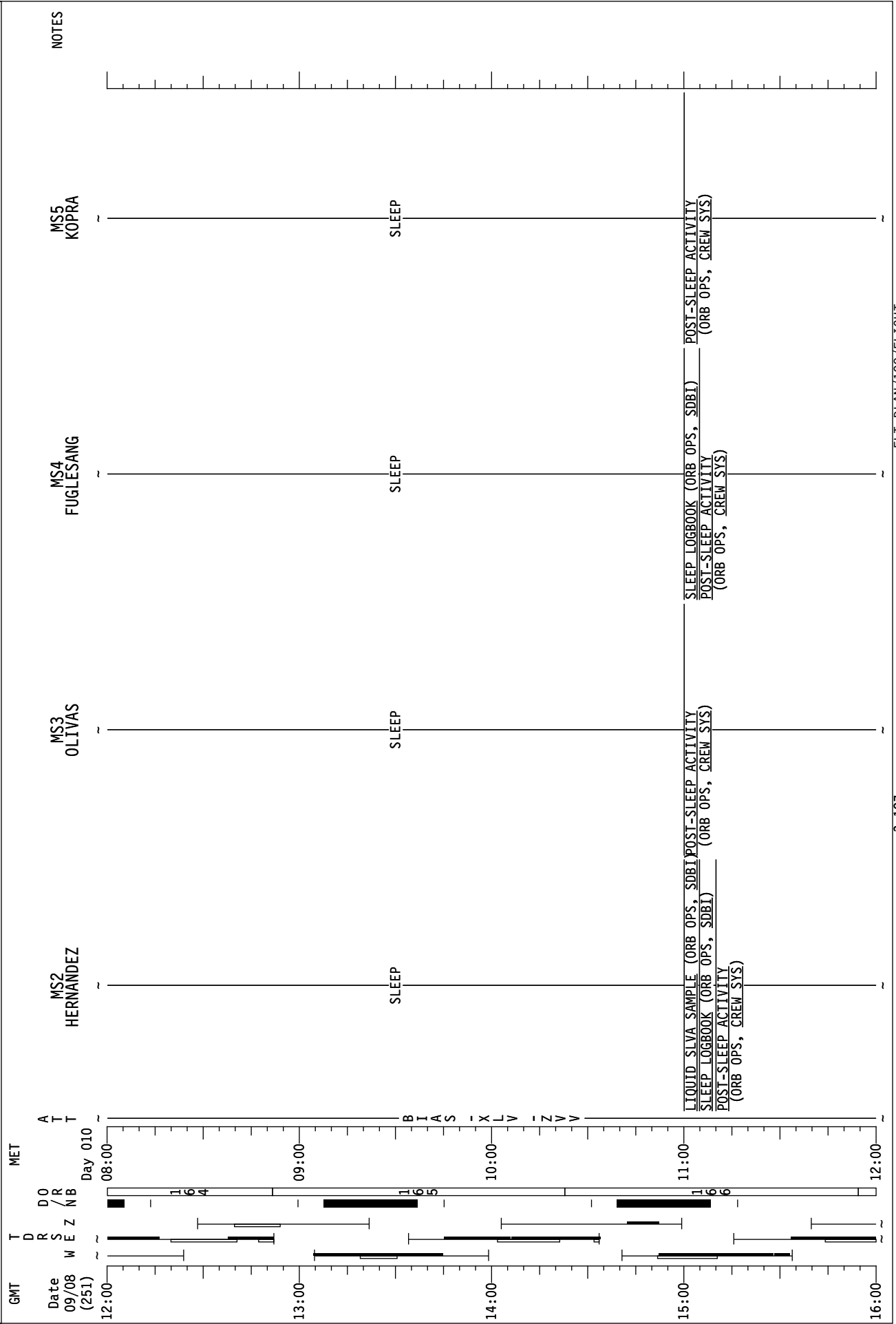
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END OF PAGE 1 OF 11, MSG 102A

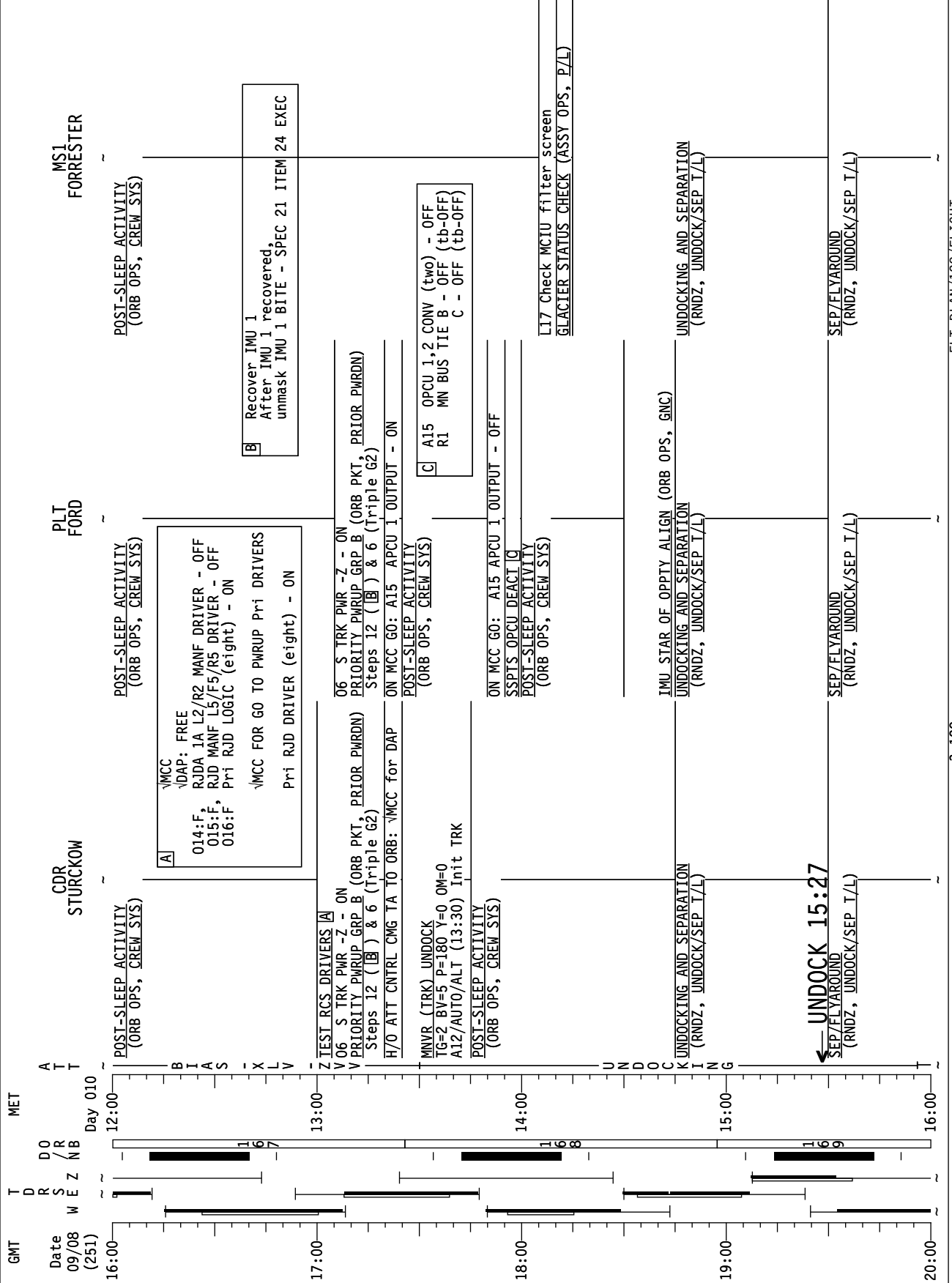
STS-128/17A FD12



STS-128/17A FD12

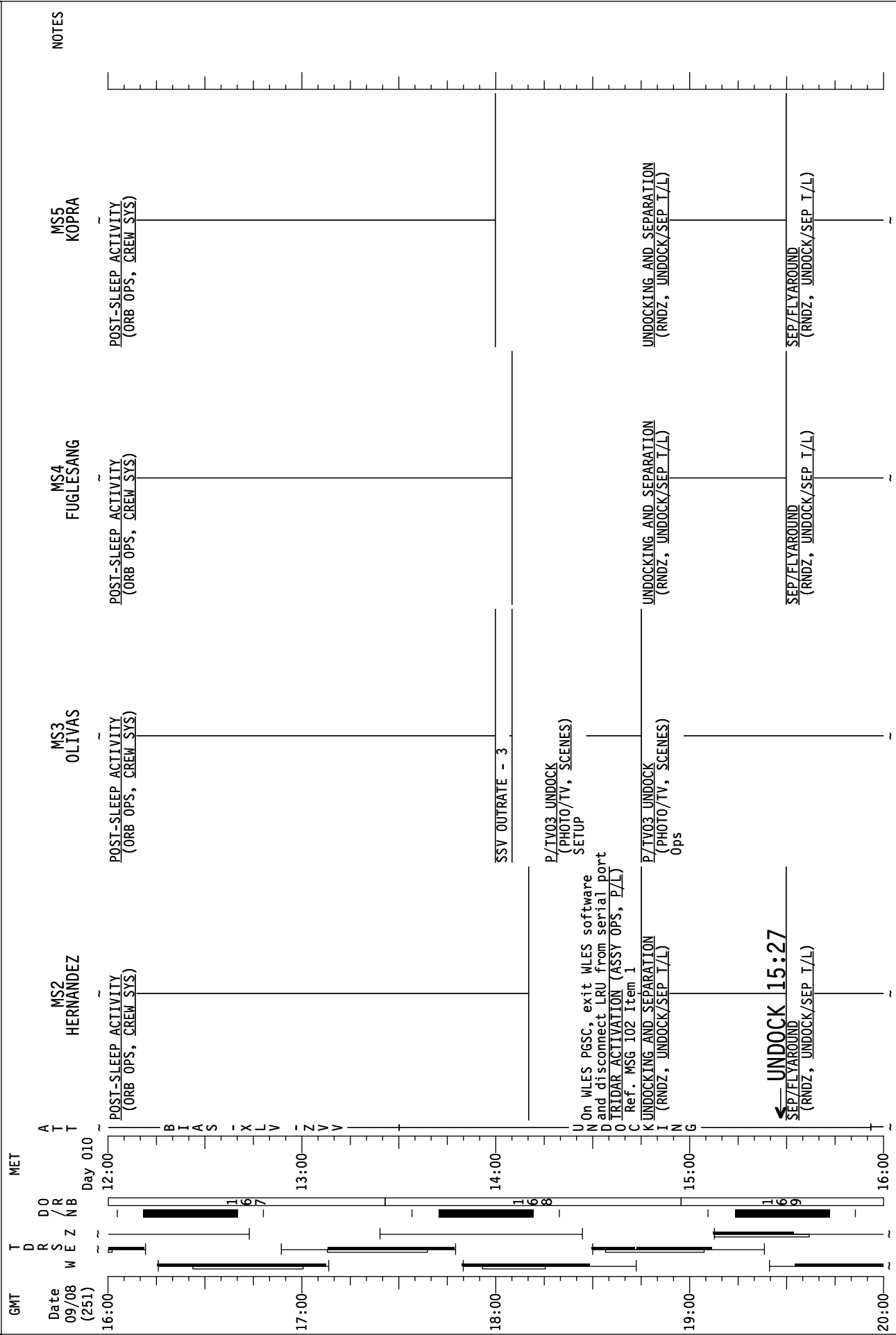


STS-128/17A FD12

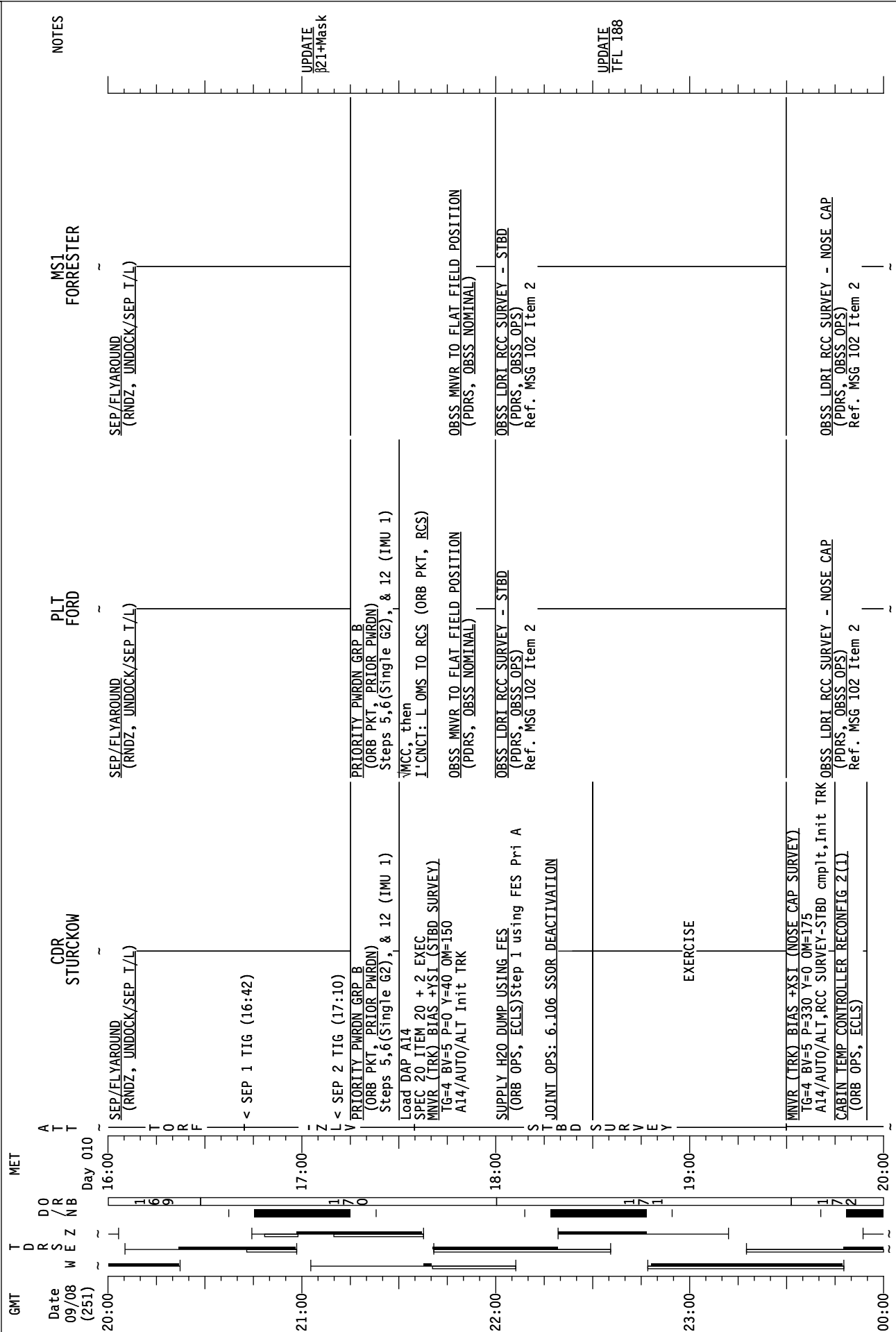


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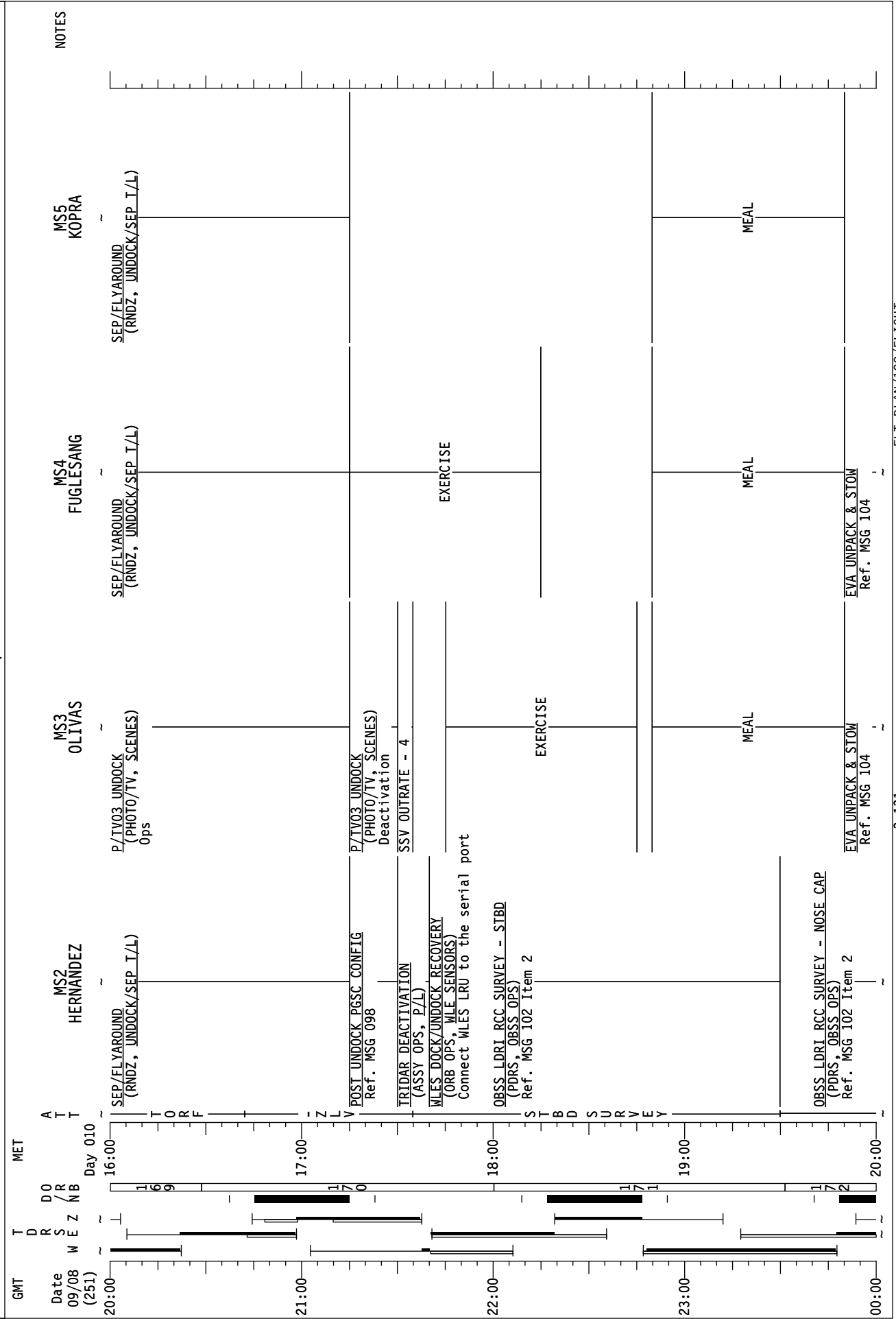
STS-128/17A FD12



STS-128/17A FD12



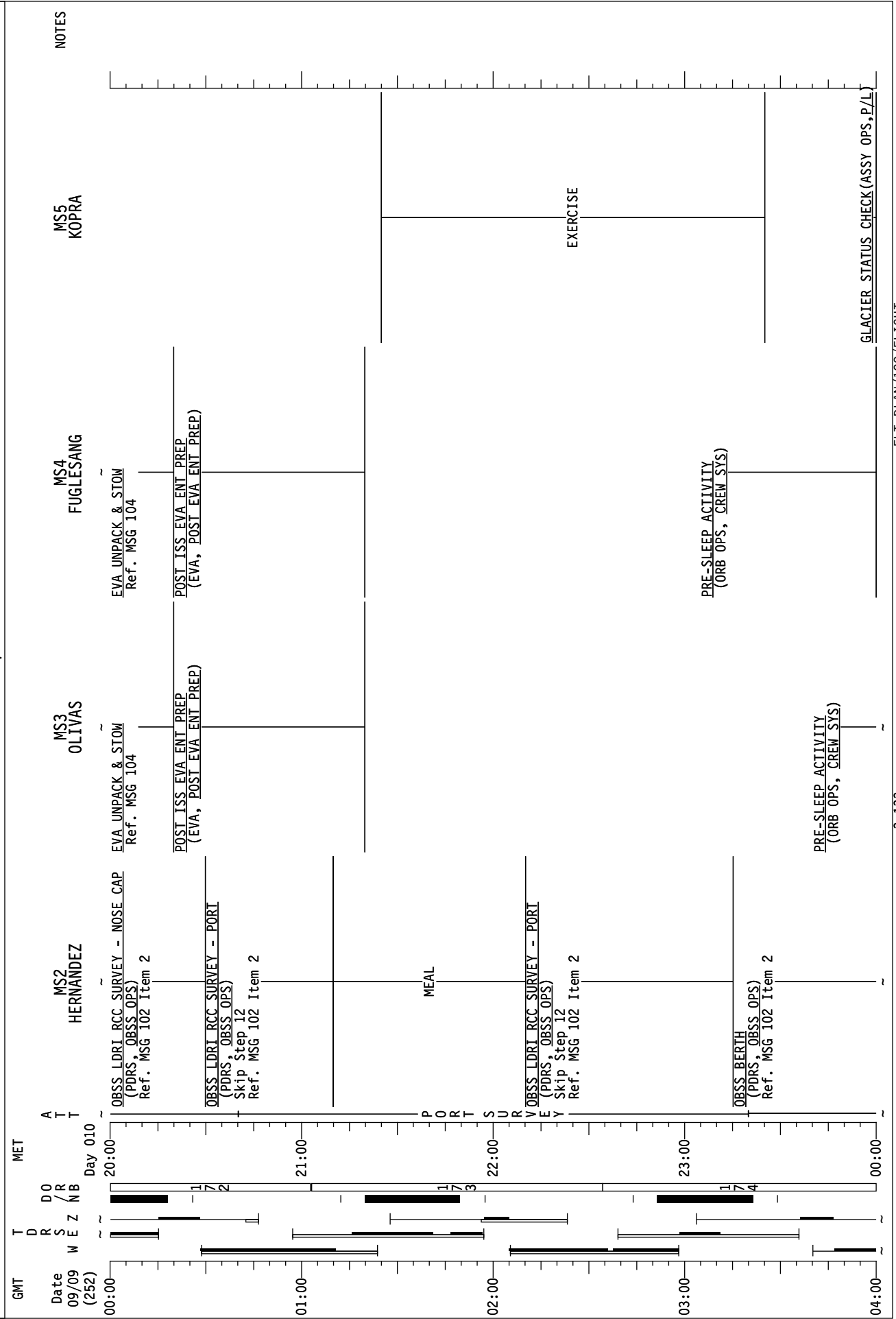
STS-128/17A FD12



STS-128/17A FD12

GMT	Date 09/09 (252)	DRS W E Z	Time Day 010	CDR STURCKOW	PLT FORD	MS1 FORRESTER	NOTES
00:00			20:00				
				SUPPLY WATER DUMP USING FES (ORB OPS, ECLS) On MCC GO: Step 2, FES Pri A Req'd	OBSS_LDRI_RCC_SURVEY - NOSE_CAP (PDRS, OBSS OPS) Ref. MSG 102 Item 2	OBSS_LDRI_RCC_SURVEY - NOSE_CAP (PDRS, OBSS OPS) Ref. MSG 102 Item 2	
				MNVR (TRK) BIAS -YSI (PORT SURVEY) TG=4 BV=5 P=0 Y=323 OM=145 A14/AUTO/ALT,RCC SURVEY-PORT Step 3 cmlt,Init TRK	OBSS_LDRI_RCC_SURVEY - PORT (PDRS, OBSS OPS) Skip Step 12 Ref. MSG 102 Item 2	OBSS_LDRI_RCC_SURVEY - PORT (PDRS, OBSS OPS) Skip Step 12 Ref. MSG 102 Item 2	
				HTR RECONFIG - CONEFIG B (ORB OPS, EPS) R4 HYD BK HTR B, C (two) - OFF			
01:00			21:00				
					MEAL		
					MEAL		
					MEAL		
02:00			22:00				
				V COMM STRING 1 C/O (PART A) (ORB OPS, COMM/INST)	OBSS_LDRI_RCC_SURVEY - PORT (PDRS, OBSS OPS) Skip Step 12 Ref. MSG 102 Item 2	OBSS_LDRI_RCC_SURVEY - PORT (PDRS, OBSS OPS) Skip Step 12 Ref. MSG 102 Item 2	
03:00			23:00				
				RCS REGULATOR RECONFIG (ORB OPS, RCS) SPEC 20 ITEM 20 + 2 EXEC MNVR (TRK) -ZLV -XVW TG=2 BV=3 OM=0 A14/AUTO/ALT,RCC SURVEY-PORT Step 11 cmlt,Init TRK	OBSS_BERTH (PDRS, OBSS OPS) Ref. MSG 102 Item 2	OBSS_BERTH (PDRS, OBSS OPS) Ref. MSG 102 Item 2	
04:00			00:00				

STS-128/17A FD12



STS-128/17A FD12

GMT	Date 09/09 (252)	DRS W E Z	T D S M	D O R N B	MET	Day 011	CDR STURCKOW	PLT FORD	MS1 FORRESTER	NOTES
04:00							PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
04:00							Perform Air Quality Report			OBSS_BERTH (PDRS, OBSS OPS) Ref. MSG 102 Item 2
04:00							MNVR (TRK) BIAS -XLV +YV (DUMP) Tg=2 BV=3 OM=270 A1/AUTO/ALT Init TRK			RMS_PMRDN (PDRS, RMS_PMRDN)
04:00							PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS) Initiate Waste Dump Ref. MSG 102 Item 5
04:00							PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
05:00							MNVR (TRK) -ZLV -XV Tg=2 BV=3 OM=0 A6/AUTO/ALT Init TRK			SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Waste Dump Ref. MSG 102 Item 5
05:00							PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
06:00							PRIVATE MEDICAL CONFERENCE L9 PAYLOAD STATION A/G (two) - OFF Perform via A/g2			
06:00							PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
07:00										
08:00										

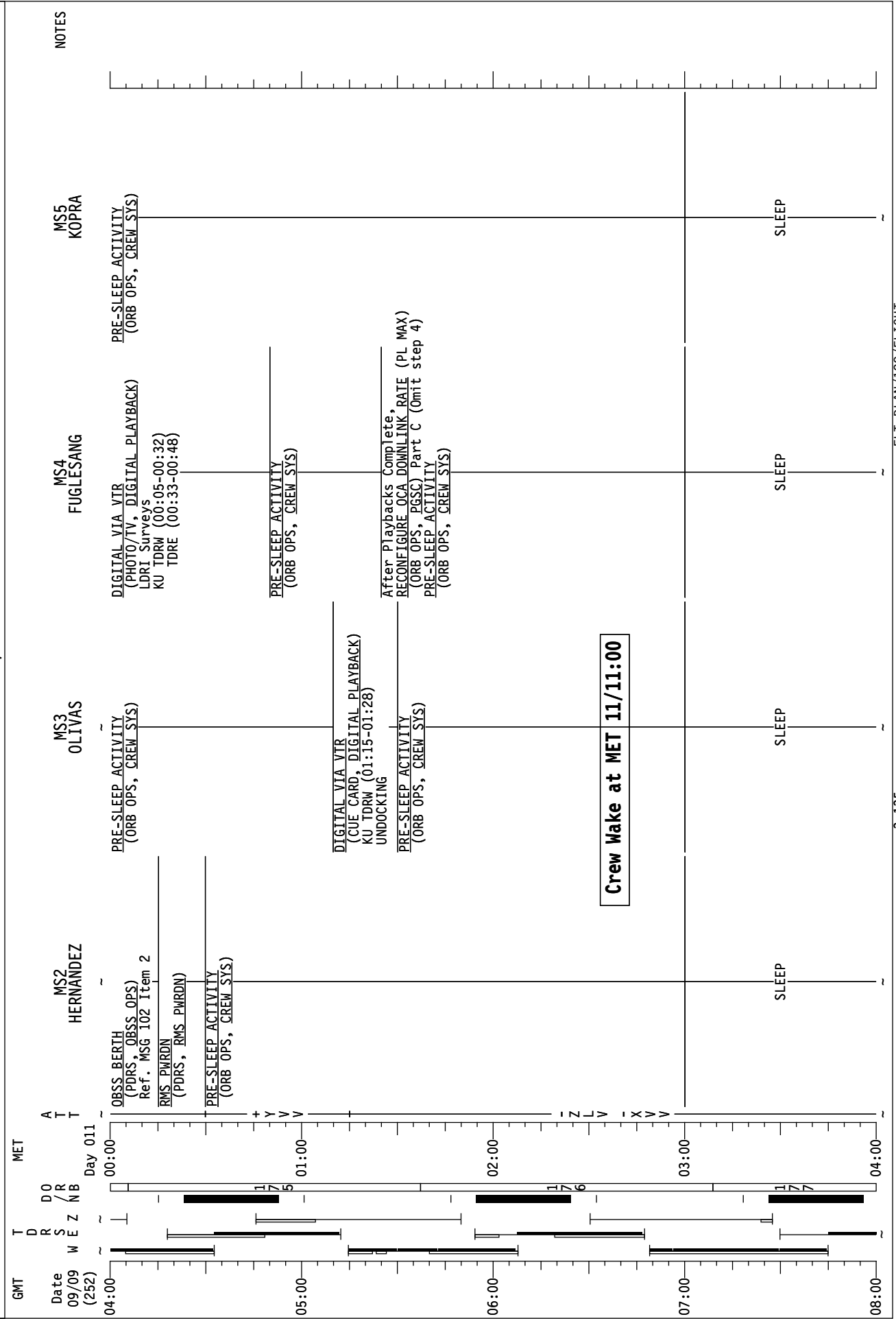
Crew Wake at MET 11/11:00

SLEEP

SLEEP

SLEEP

STS-128/17A FD12



MSG 103 - FD12 MISSION SUMMARY

1 Good Morning Discovery!!!!

2

3 Great job on the transfer and the MPLM stow!

4

5 Happy undocking day!!!!

6

7

8

9 YOUR CURRENT ORBIT IS: 194 X 181 NM

10

11 **NOTAMS: SIX CHANGES (DELETED NKT, EDF & HAW – ADDED YHZ, MRN & AMB)**

12

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

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

15 NOR - LAKEBED RUNWAYS GREEN.

16 FMH - RWY 32 SEQUENCED FLASHING LIGHTS OTS.

17 YJT - TACAN YJT78 OTS.

18 **YHZ AD LTS OUT OF SERVICE 1100-2100Z DAILY.**

19 LAJ - TACAN LAJ45 OTS.

20 **MRN TACAN MRN100 OUT OF SERVICE.**

21 **AMB TACAN AMB94 OTS 8 SEP 2100 – 9 SEP 0100Z**

22 GUA - RWY 24R END LIGHTS OTS.

23 IKF - NOT USABLE. NO AGREEMENT.

24 BEN - NOT RECOMMENDED/NOT SUPPORTED.

25

26

27 **NEXT 2 PLS OPPORTUNITIES:**

28

29 EDW22 ORB 173 – 10/21:56 SCT250 7 220/14P19

30 EDW22 ORB 188 – 11/20:45 SCT250 7 210/08P13

31

32 **OMS TANK FAIL CAPABILITY:**

33

34 L OMS FAILS: NO

35 R OMS FAILS: NO

36

37 **LEAKING OMS PRPLT BURN:**

38

39 L OMS LEAK: ALWAYS BURN RETROGRADE

40 R OMS LEAK: ALWAYS BURN RETROGRADE

41

42 **OMS QUANTITIES(%)**

43

44 L OMS OX = 34.4 R OMS OX = 33.4

45 FU = 33.9 FU = 33.4

46

47 Subtract interconnect counter for current OMS quantities.

48

49

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END OF PAGE 1 OF 2, MSG 103

MSG 103 - FD12 MISSION SUMMARY

1 DELTA V AVAILABLE:

2
3 OMS 328 FPS
4 ARCS (TOTAL ABOVE QTY1) 15 FPS

5
6 TOTAL IN THE AFT 343 FPS

7
8 ARCS (TOTAL ABOVE QTY2) 46 FPS
9 FRCS (ABOVE QTY 1) 27 FPS

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11 AFT QTY 1 81 %
12 AFT QTY 2 43 %

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

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END OF PAGE 2 OF 2, MSG 103

MSG 104 - EVA UNPACKING AND STOW

1 **EVA UNPACK AND STOW** (60 min)

NOTE

This procedure assumes that transfer items were preconfigured per POST EVA EMU RECONFIG AND TRANSFER (MSG096A)

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1. Install EMU 3015 (OI) on Stbd AAP
2. Install EMU 3009 (Fg) on Port AAP
3. Unpack EVA Return Mesh Bag(s) and stow items as listed below:

Item	Final Destination (On Shuttle)
EMU Servicing Kit	Vol H Inboard (MD23R)
<input type="checkbox"/> <input type="checkbox"/> Helmet Light Assemblies	Vol H Inboard (1) Vol H Outboard (1)
EVA Task CTB <input type="checkbox"/> EMU Battery s/n 2076 <input type="checkbox"/> <input type="checkbox"/> EMU LiOH Canister (2) <input type="checkbox"/> BMRRM Tool (s/n 1003) <input type="checkbox"/> Fastener Retention Tool (s/n 1002) <input type="checkbox"/> <input type="checkbox"/> NH3 DTED Protective Containers (2)	Airlock Floor bag
<input type="checkbox"/> EMU LiOH Canister	
<input type="checkbox"/> Expedited Suit Doffing/Emergency Transfer Cue Card	SODF Locker
<input type="checkbox"/> Ammonia Contamination Cue Card	
<input type="checkbox"/> EVA Checklist (Orange stripe)	FDF Locker
<input type="checkbox"/> Consumables Tracking Cue Card/Battery Recharge Graphic	

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MSG 106 - FD12 CREW CHOICE DOWNLINK

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

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TDRS	AOS	LOS	Delta (min)	Notes
W	11/00:05	11/00:32	27	
E	11/00:33	11/00:48	15	Alpha Stop @ 11/00:34
W	11/01:15	11/01:28	13	
W	11/01:44	11/02:07	23	
E	11/02:20	11/02:47	27	
W	11/02:50	11/02:56	6	

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END OF PAGE 1 OF 1, MSG 106