

STS-127/2JA

FD 11 Execute Package



MSG	Page(s)	Title
095A	1 - 18	FD11 Flight Plan Revision (pdf)
096	19 - 20	FD11 Mission Summary (pdf)
097	21	SM Comm Check Details (pdf)
100	22	EVA 5 Preliminary Summary Timeline (pdf)

Toli Melroy

Approved by FAO: T. Melroy

Last Updated: Jul 25 2009 8:21AM GMT

JEDI (Joint Execute package Development and Integration), v2.04.0003

MSG 095A - FD11 FLIGHT PLAN REVISION

1 5. EVA ITEMS

2
3 Enjoy your day off, you deserve it! Your EVA tool config is not scheduled until FD12, but
4 be aware that the RET left on the ballstack between EVAs is NOGO for further use. We
5 will include notes in tomorrow's EVA 4 tool deconfig asking you to report the s/n of the
6 ballstack RET and put it in a ziplock bag marked No Go for EVA. We will also request
7 the s/n's of the ballstack AET and the RETs attached to the door of C/L Bag B, although
8 they are still Go for EVA. For your reading pleasure, we included a preliminary EVA5
9 Summary Timeline in MSG 100 (20-0589).

10
11 Chris, MCC is analyzing the data from your EVA yesterday. If you wouldn't mind
12 answering a few questions, this may help us understand the performance of your LiOH
13 cartridge and what, if anything, should be done differently for EVA 5. We're trying to
14 understand how the amount of moisture present, which can be affected by the
15 Temperature Control Valve (TCV) setting, may have played a factor in the LiOH
16 performance.

- 17 1. What was your TCV setting during the EMU PREBREATHE and during the EVA?
18 2. During the EVA, were you warm, cold, or comfortable?
19 3. Throughout the EVA, did you notice any moisture in the suit or helmet fogging?
20 4. During POST EVA, did you notice any moisture in the suit, on the LCVG, or helmet
21 fogging?

22
23 6. REPLACE PAGES 2-36 THROUGH 2-41 AND 3-114 THROUGH 3-123.
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END OF PAGE 2 OF 18, MSG 095A

REPLANNED

FD11

07/25/09 02:18:01

FD10

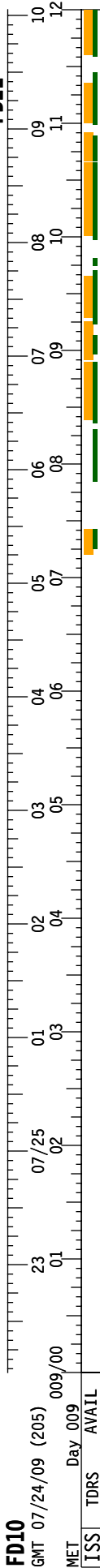
GMT 07/24/09 (205)

MET	Day_009	009/00	23 01	07/25 02	01 03	02 04	03 05	04 06	05 07	06 08	07 09	08 10	09 11	10 12	
CDR POLANSKY	RMS ICC BERTH	PRE SLEEP	PMC PRE SLEEP	PRE SLEEP	SLEEP										POST SLEEP
	PLT HURLEY	RMS ICC BERTH	PRE SLEEP	PRE SLEEP	SLEEP										POST SLEEP
MS1 CASSIDY	POST EVA W/H2O	PRE SLEEP	PRE SLEEP	PRE SLEEP	SLEEP										POST SLEEP
	MS2 PAYETTE	PRE SLEEP	PRE SLEEP	PRE SLEEP	SLEEP										POST SLEEP
MS3 MARSHBURN	POST EVA W/H2O	PRE SLEEP	PRE SLEEP	PRE SLEEP	SLEEP										POST SLEEP
	MS4 WOLF	POST EVA W/H2O	PRE SLEEP	PRE SLEEP	SLEEP										POST SLEEP
DAY/NIGHT ORBIT	143	144	145	146	147	148	149	150	151						
TDRS W E Z															
ORB ATT SSRMS_POS	BIAS -XIV -ZVW MBS PDGF3 @ WS8														
NOTES	*UPDATE &DEACT #STATUS CHECK														

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**REPLANNED
FD11**

07/25/09 02:18:01



ISS	TDRS	AVAIL	00:00	01:00	02:00	03:00	04:00	05:00	06:00	07:00	08:00	09:00	10:00	11:00	12:00
D N	FE-2 WAKATA	PRE SLEEP							SLEEP					POST SLEEP	
E X P	ISS CDR PADALKA	PRE SLEEP							SLEEP					POST SLEEP	
1 9	FE-1 BARRATT	PRE SLEEP	PEM I OV/M	POST S/A/H	EVA 2G	PRE SLEEP			SLEEP					POST SLEEP	
U P	FE-2 EXP20 KOPRA	PRE SLEEP	POST EVA W/H2O		PRE SLEEP				SLEEP					POST SLEEP	
E X P	FE-3 ROMANENKO	PRE SLEEP							SLEEP					POST SLEEP	
2 0	FE-4 THIRSK	PRE SLEEP							SLEEP					POST SLEEP	
	FE-5 DE WINNE	PRE SLEEP							SLEEP					POST SLEEP	
	DAY/NIGHT ORBIT		143	144	145	146	147	148	149	150	151				
	SSRMS POS														
	NOTES														

REPLANNED

07/25/09 02:18:01

FD11

GMT 07/25/09 (206)

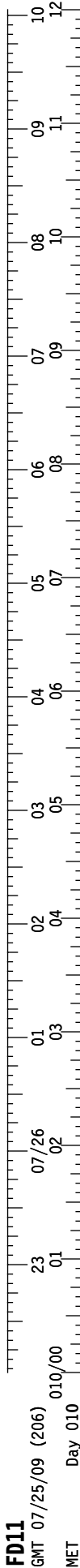
MET Day_009

22 010/00

CDR POLANSKY	PLT HURLEY	MS1 CASSIDY	MS2 PAYETTE	MS3 MARSHBURN	MS4 WOLF	DAY/NIGHT ORBIT	TDRS W E Z	ORB ATT SSRMS_POS	NOTES
02 POST SLEEP X F SLEEP E I R	02 POST SLEEP	02 POST SLEEP	02 POST SLEEP	02 POST SLEEP	02 POST SLEEP	02 POST SLEEP	02 POST SLEEP	02 POST SLEEP	
12 14 PE AV O E N T	12 14 PE AV O E N T	12 14 PE AV O E N T	12 14 PE AV O E N T	12 14 PE AV O E N T	12 14 PE AV O E N T	12 14 PE AV O E N T	12 14 PE AV O E N T	12 14 PE AV O E N T	
13 15 OFF DUTY PFC OCA	13 15 OFF DUTY	13 15 EXERCISE	13 15 OFF DUTY	13 15 OFF DUTY	13 15 OFF DUTY	13 15 OFF DUTY	13 15 OFF DUTY	13 15 OFF DUTY	
14 16 EXERCISE	14 16 PFC OCA	14 16 OFF DUTY	14 16 EXERCISE	14 16 EXERCISE	14 16 EXERCISE	14 16 EXERCISE	14 16 EXERCISE	14 16 EXERCISE	
15 17 OFF DUTY	15 17 EXERCISE	15 17 OFF DUTY	15 17 OFF DUTY	15 17 OFF DUTY	15 17 OFF DUTY	15 17 OFF DUTY	15 17 OFF DUTY	15 17 OFF DUTY	
16 18 MEAL	16 18 MEAL	16 18 MEAL	16 18 MEAL	16 18 MEAL	16 18 MEAL	16 18 MEAL	16 18 MEAL	16 18 MEAL	
17 19 OFF DUTY	17 19 OFF DUTY	17 19 OFF DUTY	17 19 OFF DUTY	17 19 OFF DUTY	17 19 OFF DUTY	17 19 OFF DUTY	17 19 OFF DUTY	17 19 OFF DUTY	
18 20 OFF DUTY	18 20 OFF DUTY	18 20 OFF DUTY	18 20 OFF DUTY	18 20 OFF DUTY	18 20 OFF DUTY	18 20 OFF DUTY	18 20 OFF DUTY	18 20 OFF DUTY	
19 21 OFF DUTY	19 21 OFF DUTY	19 21 OFF DUTY	19 21 OFF DUTY	19 21 OFF DUTY	19 21 OFF DUTY	19 21 OFF DUTY	19 21 OFF DUTY	19 21 OFF DUTY	
20 22 OFF DUTY	20 22 OFF DUTY	20 22 OFF DUTY	20 22 OFF DUTY	20 22 OFF DUTY	20 22 OFF DUTY	20 22 OFF DUTY	20 22 OFF DUTY	20 22 OFF DUTY	
21 23 CD R L E P S MR / UE L SW PS E L P	21 23 CD R L E P S MR / UE L SW PS E L P	21 23 CD R L E P S MR / UE L SW PS E L P	21 23 CD R L E P S MR / UE L SW PS E L P	21 23 CD R L E P S MR / UE L SW PS E L P	21 23 CD R L E P S MR / UE L SW PS E L P	21 23 CD R L E P S MR / UE L SW PS E L P	21 23 CD R L E P S MR / UE L SW PS E L P	21 23 CD R L E P S MR / UE L SW PS E L P	21 23 CD R L E P S MR / UE L SW PS E L P
22 010/00	22 010/00	22 010/00	22 010/00	22 010/00	22 010/00	22 010/00	22 010/00	22 010/00	
*FILTER CK									
#STATUS CHECK									
BIAS -XLV -ZVW									
MBS PDGF3 @ WS8									

**REPLANNED
FD12**

07/25/09 02:18:01



FD11
GMT 07/25/09 (206)

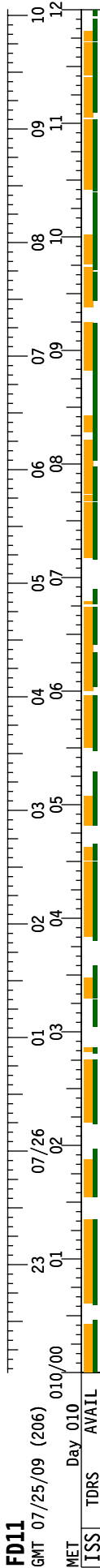
MET Day_010

CDR POLANSKY	PRE SLEEP	SLEEP	POST SLEEP
PLT HURLEY	PRE SLEEP	SLEEP	POST SLEEP
MS1 CASSIDY	PRE SLEEP	SLEEP	POST SLEEP
MS2 PAYETTE	PRE SLEEP	SLEEP	POST SLEEP
MS3 MARSHBURN	PRE SLEEP	SLEEP	POST SLEEP
MS4 WOLF	PRE SLEEP	SLEEP	POST SLEEP
DAY/NIGHT ORBIT	159	160	161
TDRS	162	163	164
W	165	166	167
E			
Z			
ORB ATT	BIAS -XIV -ZVW		
SSRMS_POS	MBS PDGF3 @ WS8		
NOTES			

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**REPLANNED
FD12**

07/25/09 02:18:01

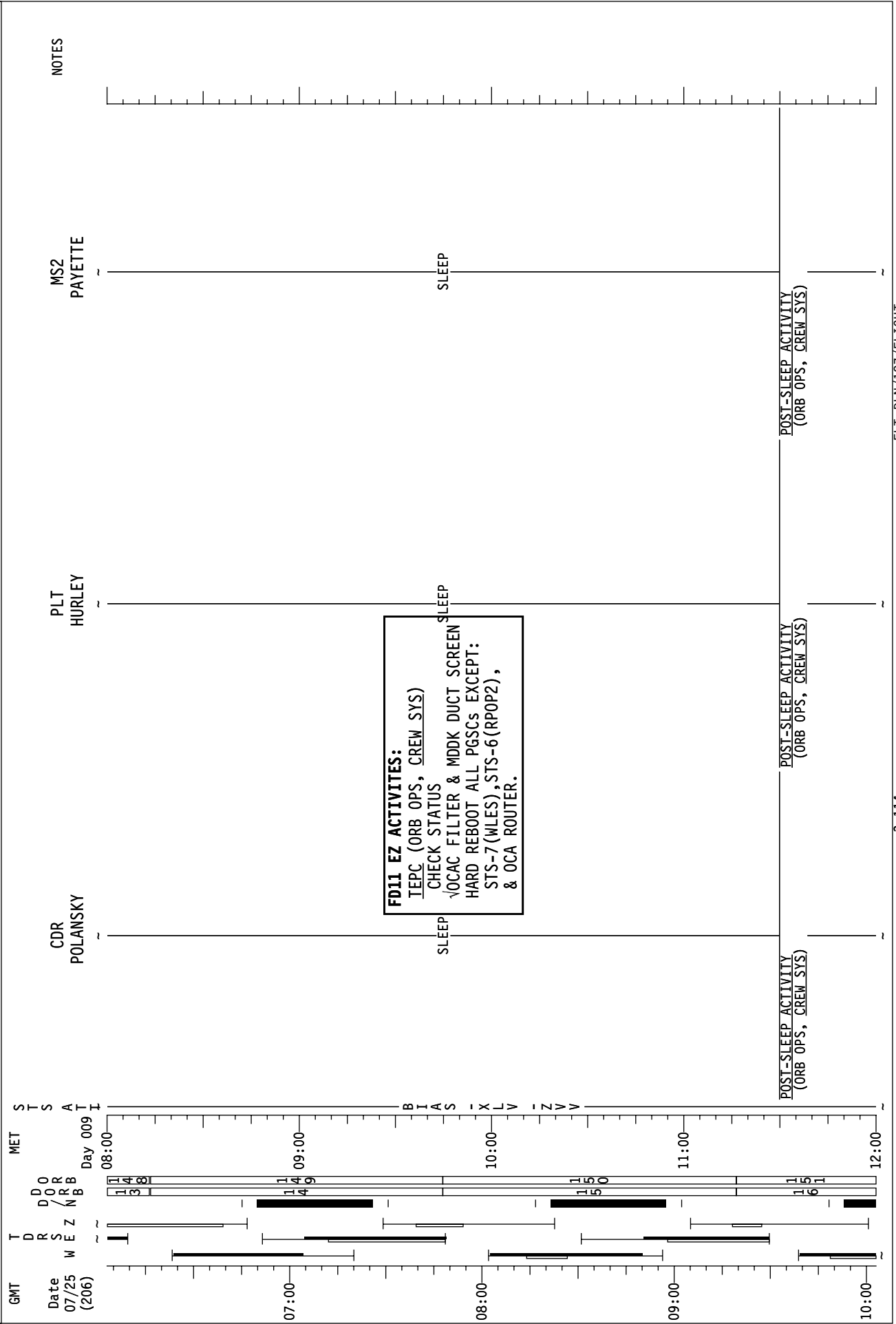


FD11

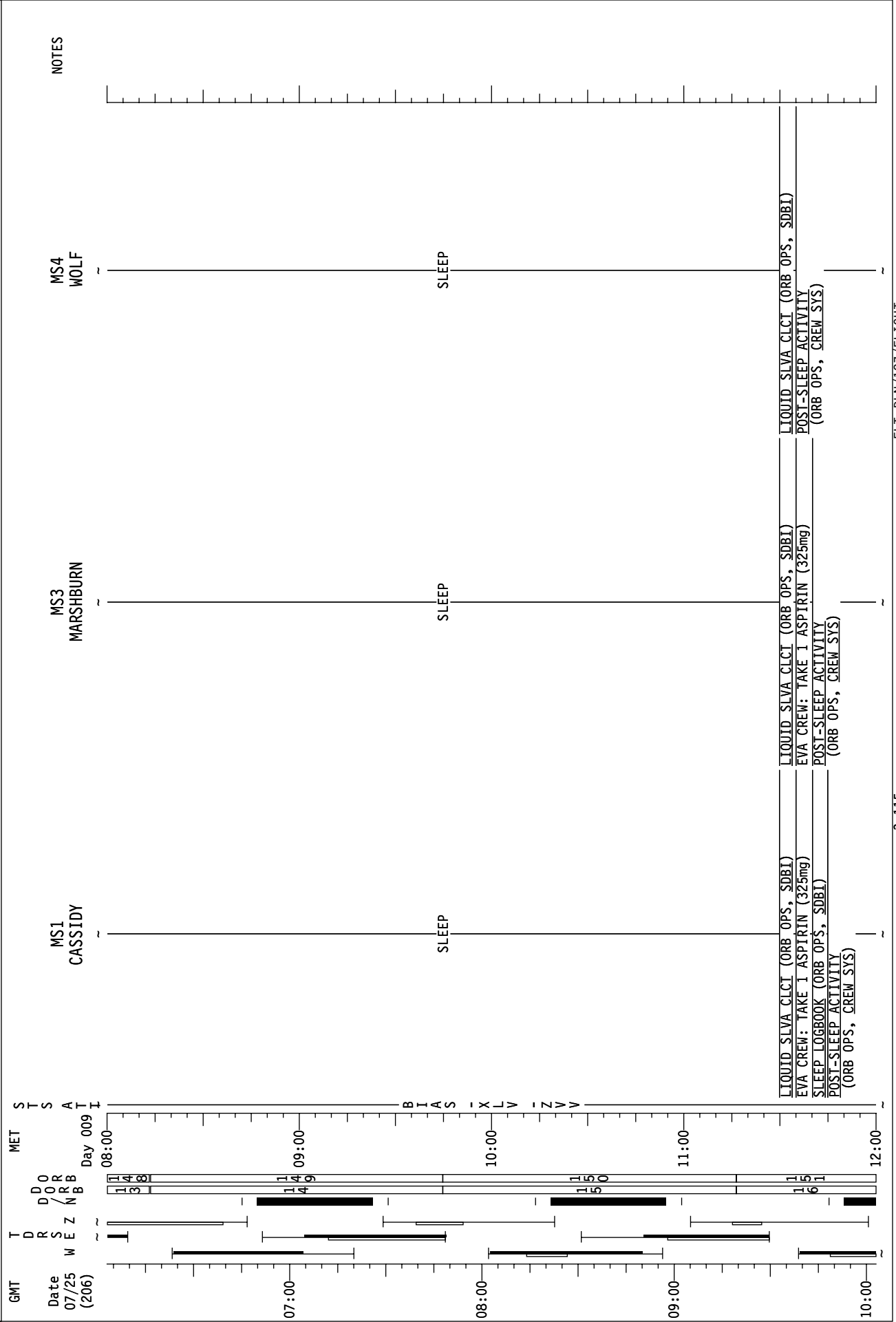
GMT 07/25/09 (206)

MET	Day 010	010/00	01	02	03	04	05	06	07	08	09	10	11	12
ISS	TDRS	AVAIL												
D N	FE-2 WAKATA	PRE SLEEP												
		SLEEP												
E X P	ISS CDR PADALKA	PRE SLEEP												
		SLEEP												
1 9	FE-1 BARRATT	PRE SLEEP												
		SLEEP												
U P	FE-2 EXP20 KOPRA	PRE SLEEP												
		SLEEP												
E X P 2 0	FE-3 ROMANENKO	PRE SLEEP												
		SLEEP												
E X P 2 0	FE-4 THIRSK	PRE SLEEP												
		SLEEP												
E X P 2 0	FE-5 DE WINNE	PRE SLEEP												
		SLEEP												
DAY/NIGHT														
ORBIT														
SSRMS POS		159	160	161	162	163	164	165	166	167				
NOTES		MBS PDGF3 @ MS8												

STS-127 FD (11)



STS-127 FD (11)



STS-127 FD (11)

GMT	Date 07/25 (206)	DRS W E Z	TDRS M E Z	DORS R B	DOORB N B	MET	STS S A T	CDR POLANSKY	PLT HURLEY	MS2 PAYETTE	NOTES
11:00											
12:00											
13:00											
14:00											
15:00											
16:00											

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

JOINT OPS: 3.123.02 XFER S/U (POST-PREREAHE USING SHUTTLE 02)
Confirm Step 2 complete. Then, perform Step 3. Report to ISS crew when complete.

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

JOINT OPS: 3.123.02 XFER S/U (POST-PREREAHE USING SHUTTLE 02)
Confirm Step 4 complete. Then, perform Steps 5.1-5.3. Report to ISS crew when complete.

JOINT OPS: 3.116 HIGH PRESSURE
LI7 Check MCIU filter screen
IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)

PUBLIC AFFAIRS EVENT
ISS KU AVAIL: 13:59-14:28
Ref. MSG 098

PUBLIC AFFAIRS EVENT
ISS KU AVAIL: 13:59-14:28
Ref. MSG 098

PUBLIC AFFAIRS EVENT
ISS KU AVAIL: 13:59-14:28
Ref. MSG 098

NETMEETING VIDEO CONF (ORB OPS, PGSC)
Private Family Conference
KU TDRM (14:59-15:31)

NETMEETING VIDEO CONF (ORB OPS, PGSC)
Private Family Conference
KU TDRE (15:35-16:09)

OFF DUTY

OFF DUTY

OFF DUTY

EXERCISE

EXERCISE

EXERCISE

A Omit Steps 1.2 & 3
Use A/G 2 for Audio & Inform
MCC of which PGSC will be used

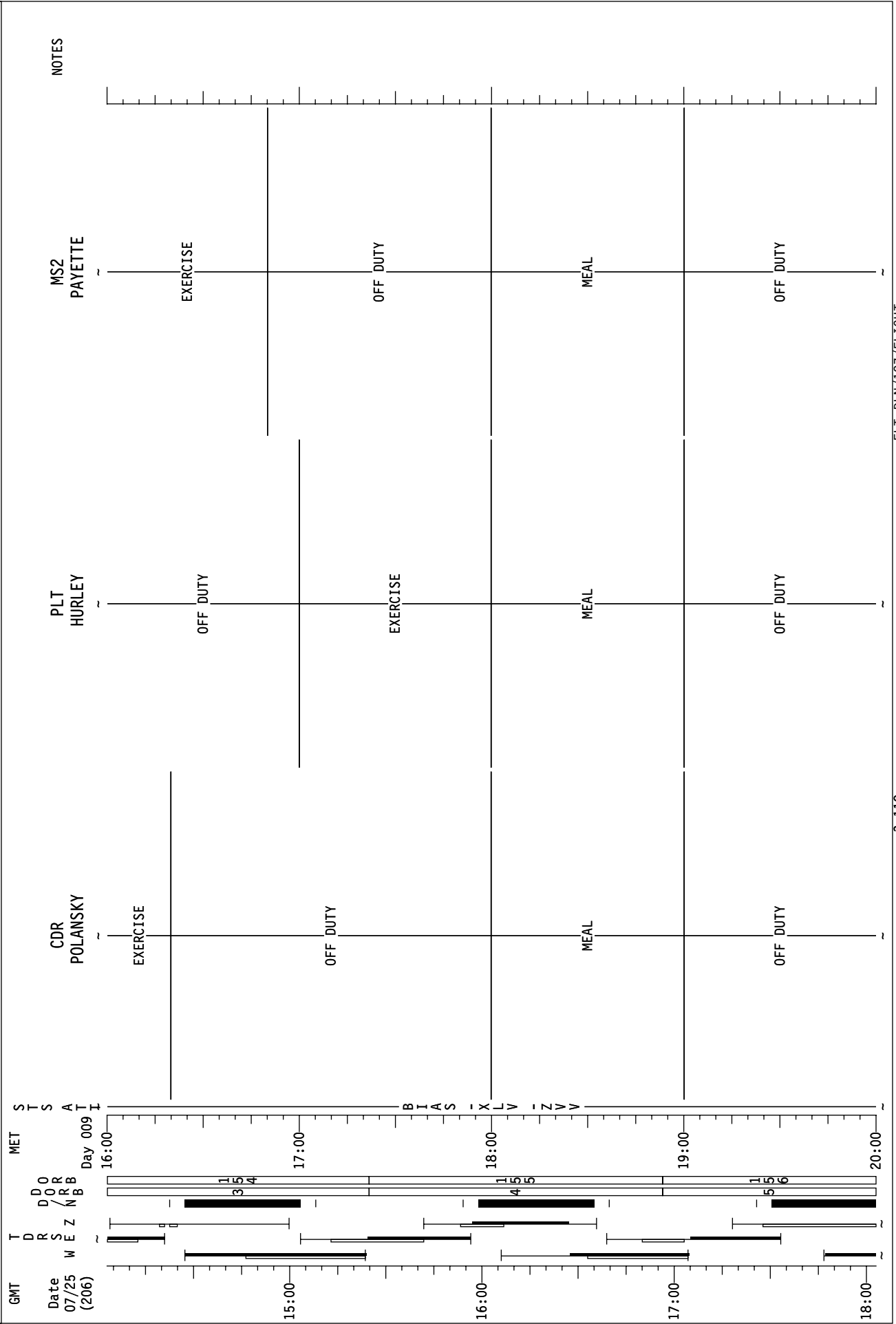
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STS-127 FD (11)

GMT	Date 07/25 (206)	DRS W E Z	DOORB N B	MET	STSA Day 009 I	MS1 CASSIDY	MS3 MARSHBURN	MS4 WOLF	NOTES
12:00			1 6 1			POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
13:00									
14:00			1 5 2			Report off-nominal conditions, associated channel, and REBA s/n			
15:00			1 5 3						
16:00			3						

STS-127 FD (11)

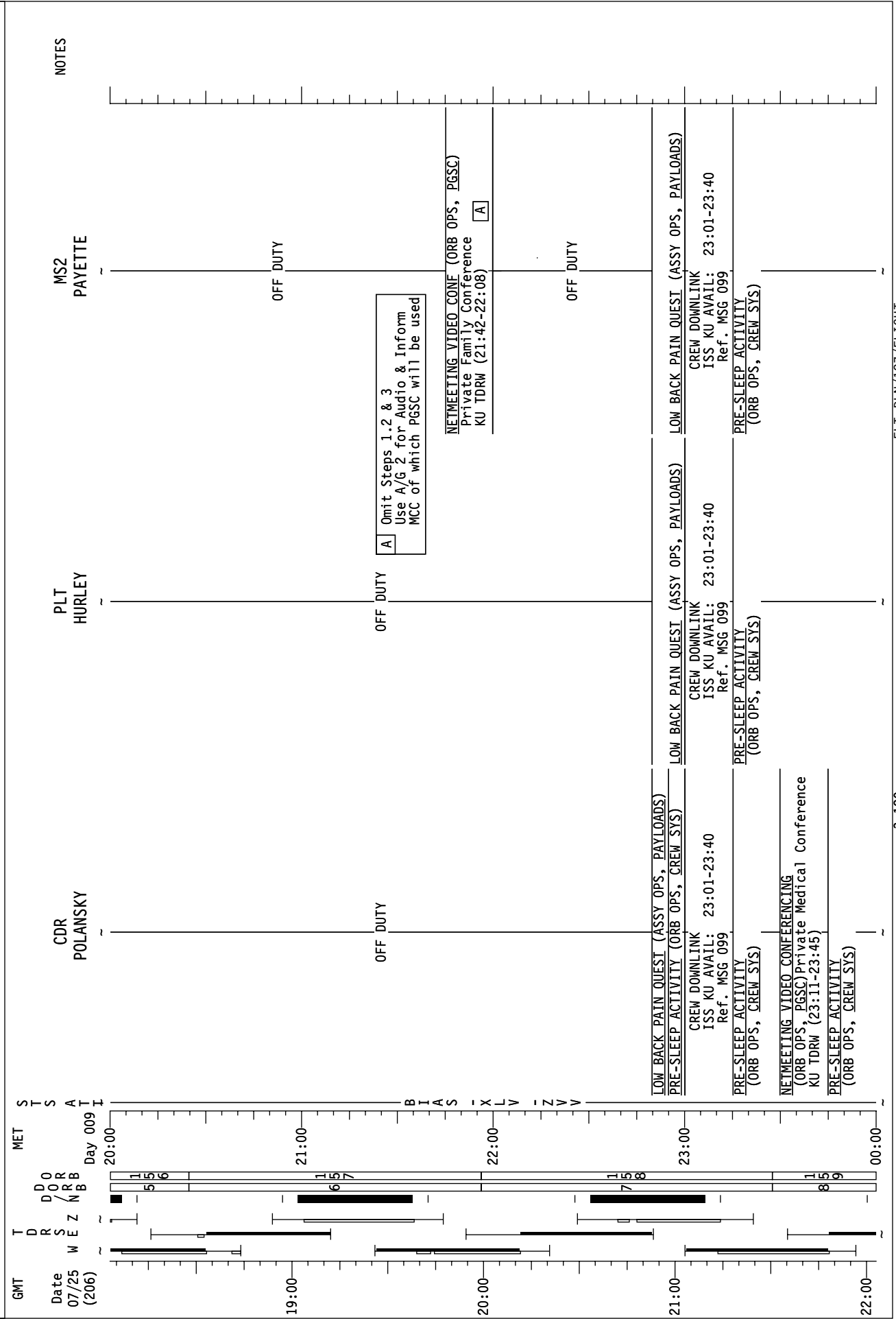


STS-127 FD (11)

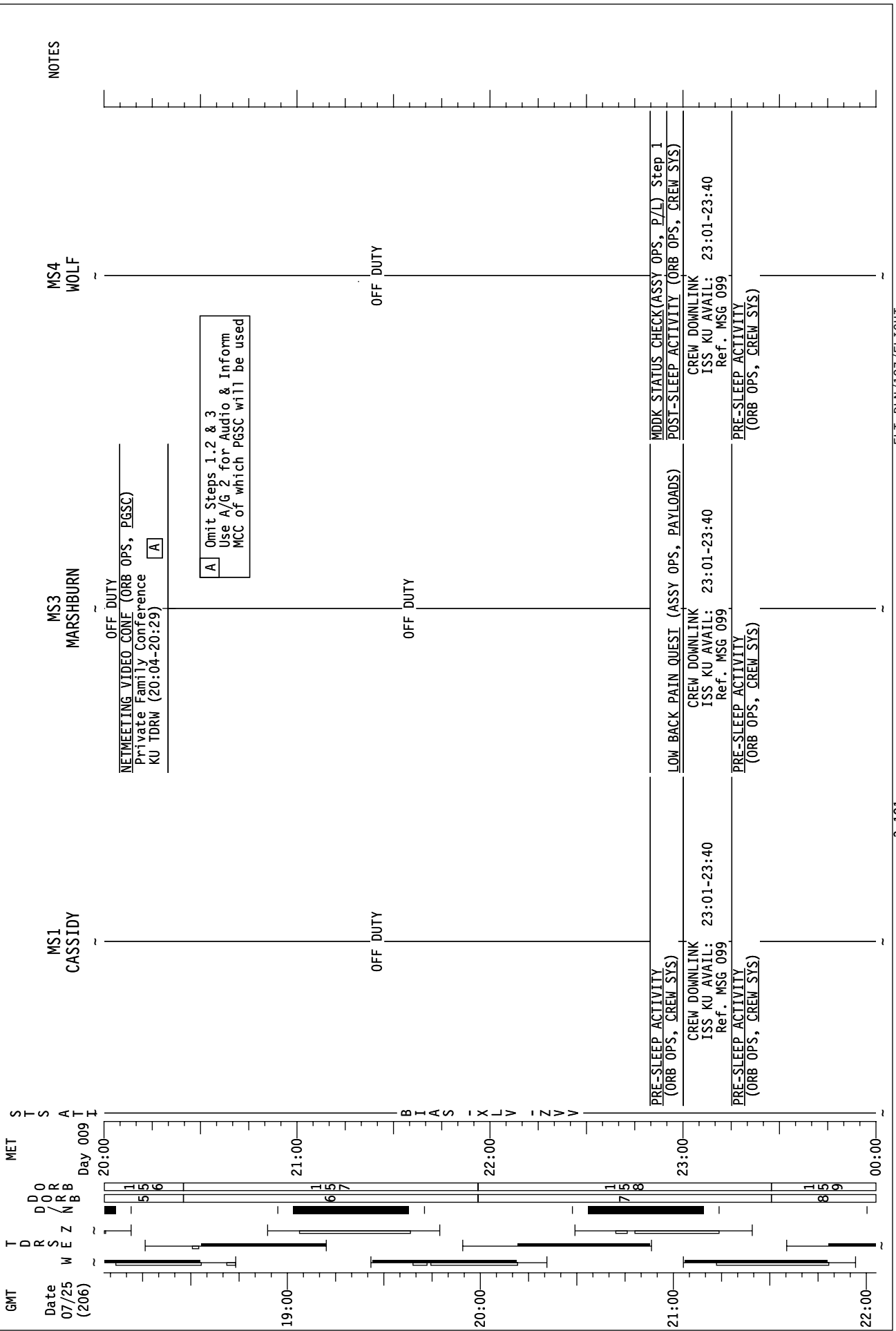
GMT	Date 07/25 (206)	DRS W E Z	DOORB N B	MET Day 009 I	STSA T I	MS1 CASSIDY	MS3 MARSHBURN	MS4 WOLF	NOTES
15:00						OFF DUTY		OFF DUTY	
16:00						NETMEETING VIDEO CONE (ORB OPS, PGSC) Private Family Conference KU TDRM (16:44-17:20) Alpha Stop at 17:10			
17:00						OFF DUTY	OFF DUTY	OFF DUTY	EXERCISE
18:00						OFF DUTY		OFF DUTY	
19:00						MEAL	MEAL	MEAL	
20:00						OFF DUTY	OFF DUTY	OFF DUTY	

A Omit Steps 1.2 & 3
Use A/G 2 for Audio & Inform
MCC of which PGSC will be used

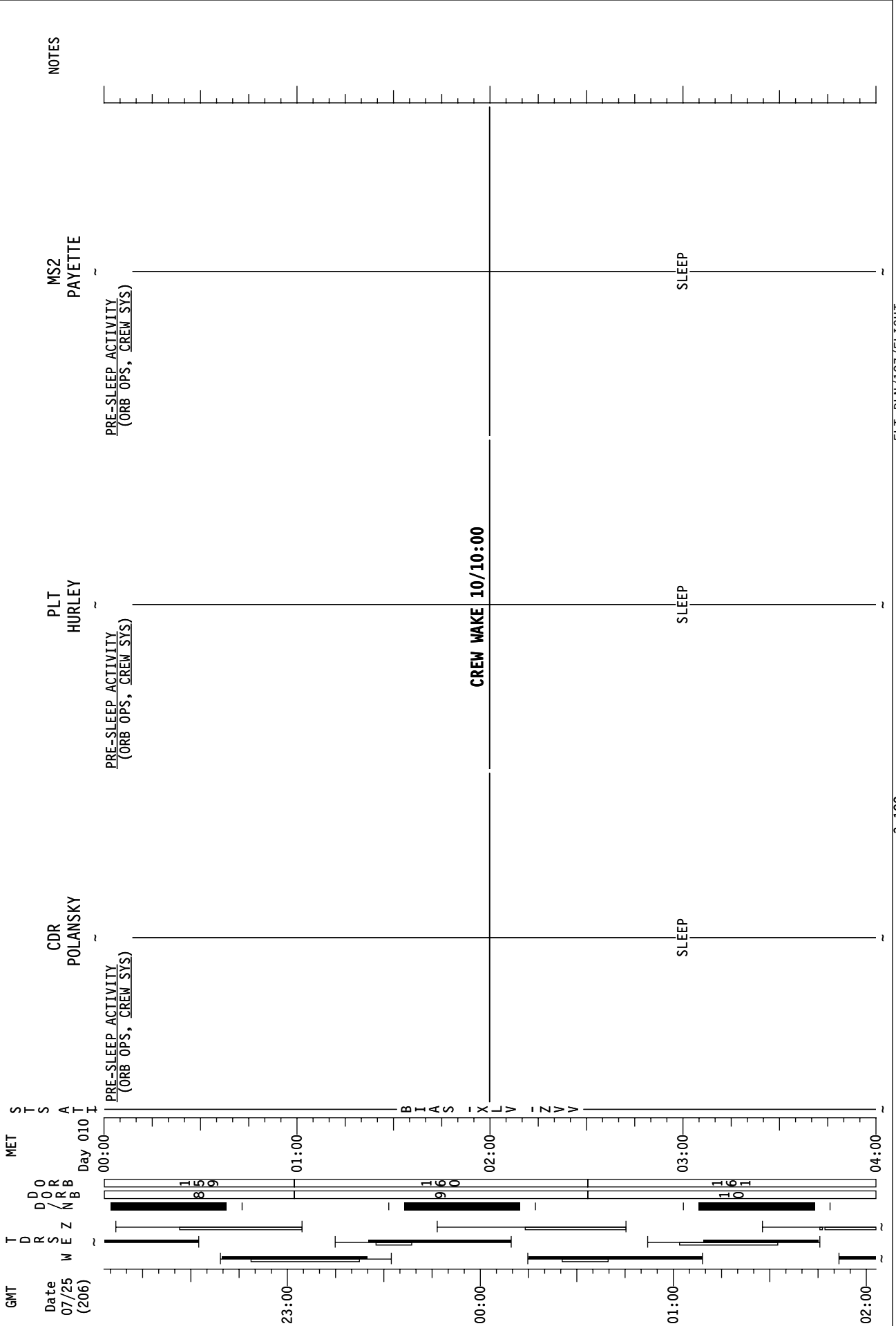
STS-127 FD (11)



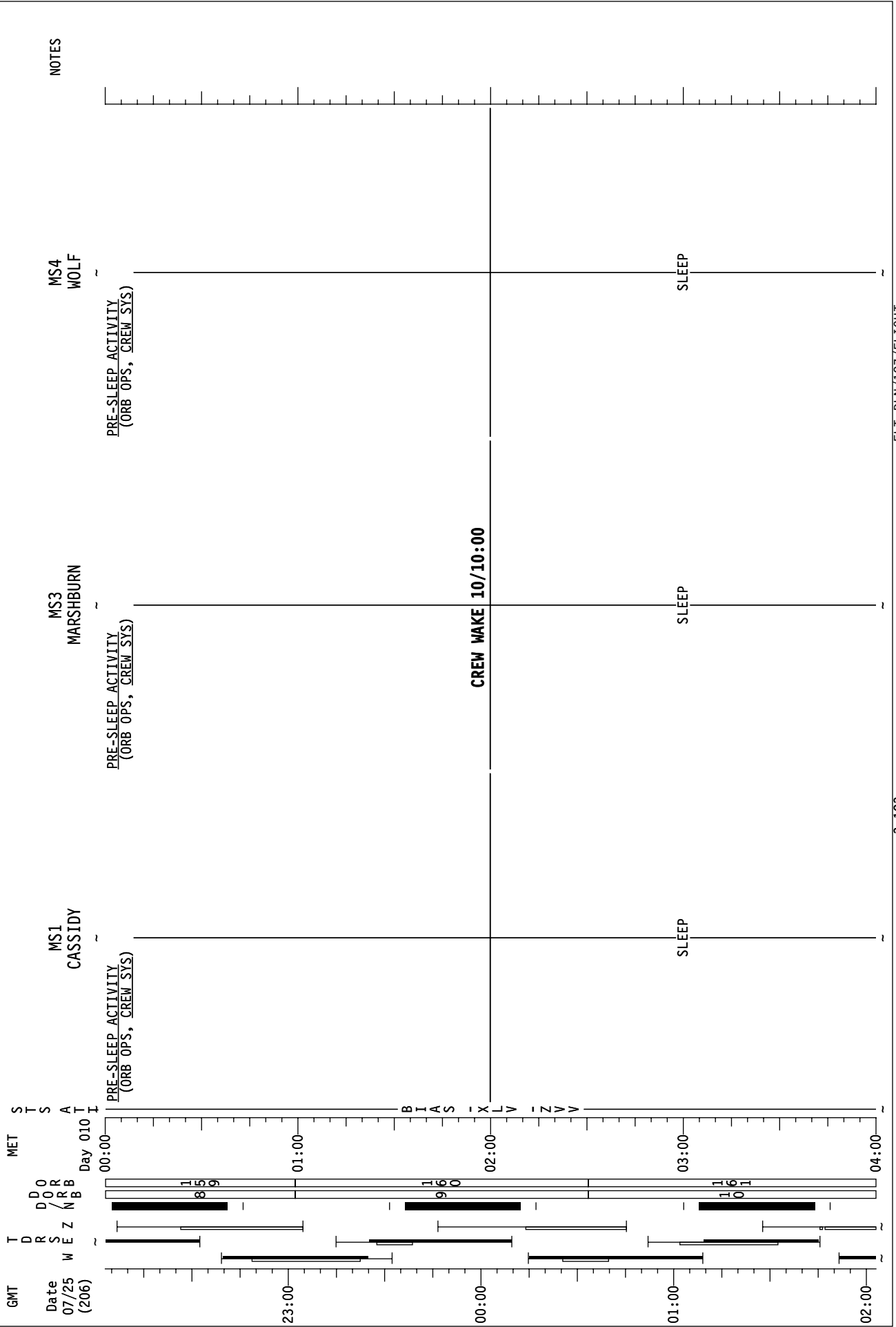
STS-127 FD (11)



STS-127 FD (11)



STS-127 FD (11)



NOTES

MS4 WOLF

MS3 MARSHBURN

MS1 CASSIDY

GMT Date 07/25 (206)

Time 23:00 00:00 01:00 02:00

MET Day 010

00:00 01:00 02:00 03:00 04:00

MSG 096 - FD11 MISSION SUMMARY

1 Good morning, Endeavour!

2
3 Thank you and congratulations for your outstanding and successful work on EVA 4 and its
4 associated robotics! It was a daunting series of tasks, but you made it look easy.

5
6 Today we hope you can enjoy some well-earned time off. At orbital rates, you can't stop to
7 smell the roses, but you can savor the view from the best seats in the house!
8
9

10
11
12
13 YOUR CURRENT ORBIT IS: 188 X 186 NM

14
15 NOTAMS:

16
17 **NOTAMS – NO CHANGES**

18
19 EDW - EDW IN USE. EDT ELS DAY / VFR ONLY.
20 EDW - LAKEBED RWY 15/33 - GREEN. RWY 18L - UNUSABLE.
21 NOR - LAKEBED RUNWAYS GREEN.
22 FMH - RWY 05/23 CLOSED.
23 GUA - RWY 24R END LIGHTS OTS.
24 GUA - RWY 06R/24L CLOSED.
25 INN - CLOSED.
26 AMB - CLOSED.
27 ESN - RWY 03R/21L CLOSED.
28 IKF - NOT USABLE. NO AGREEMENT.
29 BEN - NOT RECOMMENDED/NOT SUPPORTED.
30

31 NEXT 2 PLS OPPORTUNITIES:

32
33 NOR17 ORB 157 – 9/21:17 SCT250 7 200/06P10
34 EDW22 ORB 173 – 10/21:40 SCT200 7 220/08P13 (ORB 174: 220/13P23)
35

36 OMS TANK FAIL CAPABILITY:

37
38 L OMS FAILS: NO
39 R OMS FAILS: NO
40

41 LEAKING OMS PRPLT BURN:

42
43 L OMS LEAK: ALWAYS BURN RETROGRADE
44 R OMS LEAK: ALWAYS BURN RETROGRADE
45

46 OMS QUANTITIES(%)

47
48 Subtract interconnect counter for current OMS quantities.

49
50 L OMS OX = 39.5 R OMS OX = 39.7
51 FU = 39.1 FU = 39.4

END OF PAGE 1 OF 2, MSG 096

MSG 096 - FD11 MISSION SUMMARY

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DELTA V AVAILABLE:

OMS	394 FPS
<u>ARCS (TOTAL ABOVE QTY1)</u>	<u>42 FPS</u>
TOTAL IN THE AFT	436 FPS
ARCS (TOTAL ABOVE QTY2)	74 FPS
FRCS (ABOVE QTY 1)	28 FPS
AFT QTY 1	81 %
AFT QTY 2	43 %

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

1 Perform the following comm checks to test the audio signatures on the ground
2 during docked ops.

- 3
- 4 • Depress Line 1 on SM ΠA 3.
- 5 • Perform a comm check using SM ΠA 3 with a crew member in the STS.
- 6 • Perform a comm check using SM ΠA 3 with the ground on S/G1. Ground will
7 respond from FCR1 on S/G1.
- 8 • Perform a comm check using SM ΠA 3 with the ground on S/G1. Ground will
9 respond from the WFCR on A/G1.
- 10 • Release Line 1 on SM ΠA 3.
- 11 • Both crew members report any off nominal statuses of the comm check.
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EVA 5	
PET TIME (HR : MIN)	IV/SSRMS
(00:00-00:45)	<p>EV1 – Marshburn (FF)</p> <p>EGRESS/SETUP (00:45)</p> <ul style="list-style-type: none"> ■ Post Depress and Egress (00:15) ■ Setup (00:15) ■ STP shuffle to AIL(00:15) <p>SPDM COVERS (01:00)</p> <p>Efficiency: Consider calling Chris off Z1 when Tom finishes SPDM. Consider setting a Bingo time for Z1 if SPDM goes much quicker than expected.</p>
(00:45-01:45)	<p>EV2 – Cassidy (FF)</p> <p>EGRESS/SETUP (00:45)</p> <ul style="list-style-type: none"> ■ Post Depress and Egress (00:15) ■ Setup (00:15) ■ STP Relocate to AIL (00:15) <p>Z1 PATCH PANEL (01:00)</p>
(01:45-03:15)	<p>FWD INSTALLED VE (01:30)</p> <p>Efficiency: May gain some time savings since cameras will be done at the same time.</p>
(03:15-04:30)	<p>AFT INSTALLED VE/LTA RECONFIG (01:15)</p>
(04:30-05:45)	<p>GET-AHEADS (01:15)</p> <p>Time Permitting: - S3 Zenith Outboard PAS</p>
(05:45-06:30)	<p>CLEANUP/INGRESS (00:45)</p> <ul style="list-style-type: none"> ■ Cleanup (retrieve MLI bag) (00:30) ■ Ingress and Pre Repress (00:15)