

# STS-126/ULF2

## FD 14 Execute Package



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151	---	<a href="#">Stowage Locations for FD14 (GMT 332)</a> (pdf - Electronic Only)
152	20	<a href="#">FD14 Crew Choice Video Downlink Options</a> (pdf)

Approved by FAO: T. Harris

*Jelisha M. Harris*

Last Updated: Nov 27 2008 8:53AM GMT

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

MSG 146 - FD14 FLIGHT PLAN REVISION

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MSG INDEX

<u>MSG NO.</u>	<u>TITLE</u>
146	FD14 Flight Plan Revision
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148	FD13 MMT Summary
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150	FD14 Transfer Message (18-0366)
151	Stowage Locations for FD14 (GMT 332) (18-0367)
152	FD14 Crew Choice Video Downlink Options

1. For today's cryo config, O2 Tanks 1 and 5 will be active with single heaters and H2 Tanks 1 and 4 will be active with dual heaters.

R1 O2,H2 MANF VLV TK1 (two) - OP (tb-OP)  
O2 TK3 HTR A - OFF

A15 CRYO TK5 HTR O2 A - AUTO

A11 CRYO TK4 HTR O2 A - OFF

2. REPLACE PAGES 3-150 THROUGH 3-159.



**REPLANNED**

**FD14**

GMT 11/27/08 (332)

MET Day\_012

11/28 013/00

D N	FE-2 CHAMITOFF	POST SLEEP	PW	EXERCISE TVIS	OFF DUTY	MIDDAY -MEAL	DCB PACK	DCB MDDK XFER	DPART PREP	EXERCISE	HATCH CLOSE	EXERCISE	PRE SLEEP
		POST SLEEP	DPC	PW	EXERCISE RED	OFF DUTY	MIDDAY -MEAL	EHS TEPCI RLCTN	WRS MPA LK-CK	CEVIS	HATCH CLOSE	PW	DPC
I S S	FE-1 LONCHAKOV	POST SLEEP	PW	OFF DUTY	OFF DUTY	MIDDAY -MEAL	VELO + RED	OFF DUTY	EXERCISE TVIS	PRE SLEEP			PRE SLEEP
		POST SLEEP	DPC	PW	EXERCISE CEVIS	OFF DUTY	MIDDAY -MEAL	DCB PACK	S ICE CRYSTAL	PFC	HATCH CLOSE	THC IMV DUCT	DPC
U P	FE-2 EXP18 MAGNUS	POST SLEEP	PW	OFF DUTY	OFF DUTY	MIDDAY -MEAL	DCB PACK	S ICE CRYSTAL	PFC	HATCH CLOSE	THC IMV DUCT	DPC	PRE SLEEP
		POST SLEEP	DPC	PW	OFF DUTY	MIDDAY -MEAL	DCB PACK	S ICE CRYSTAL	PFC	HATCH CLOSE	THC IMV DUCT	DPC	PRE SLEEP
DAY/NIGHT ORBIT		198	199	200	201	202	203	204	205	206			
TDRS		W -171.0	E -46.0	Z -275.0									
ORB ATT		BIAS -XLV -ZV											
NOTES		#STATUS CHECK #ACT@DEACT *MNR TO UNDOCK *FILTER CHECK #STATUS *PRE SLEEP-ISS *PRE SLEEP											

**REPLANNED**

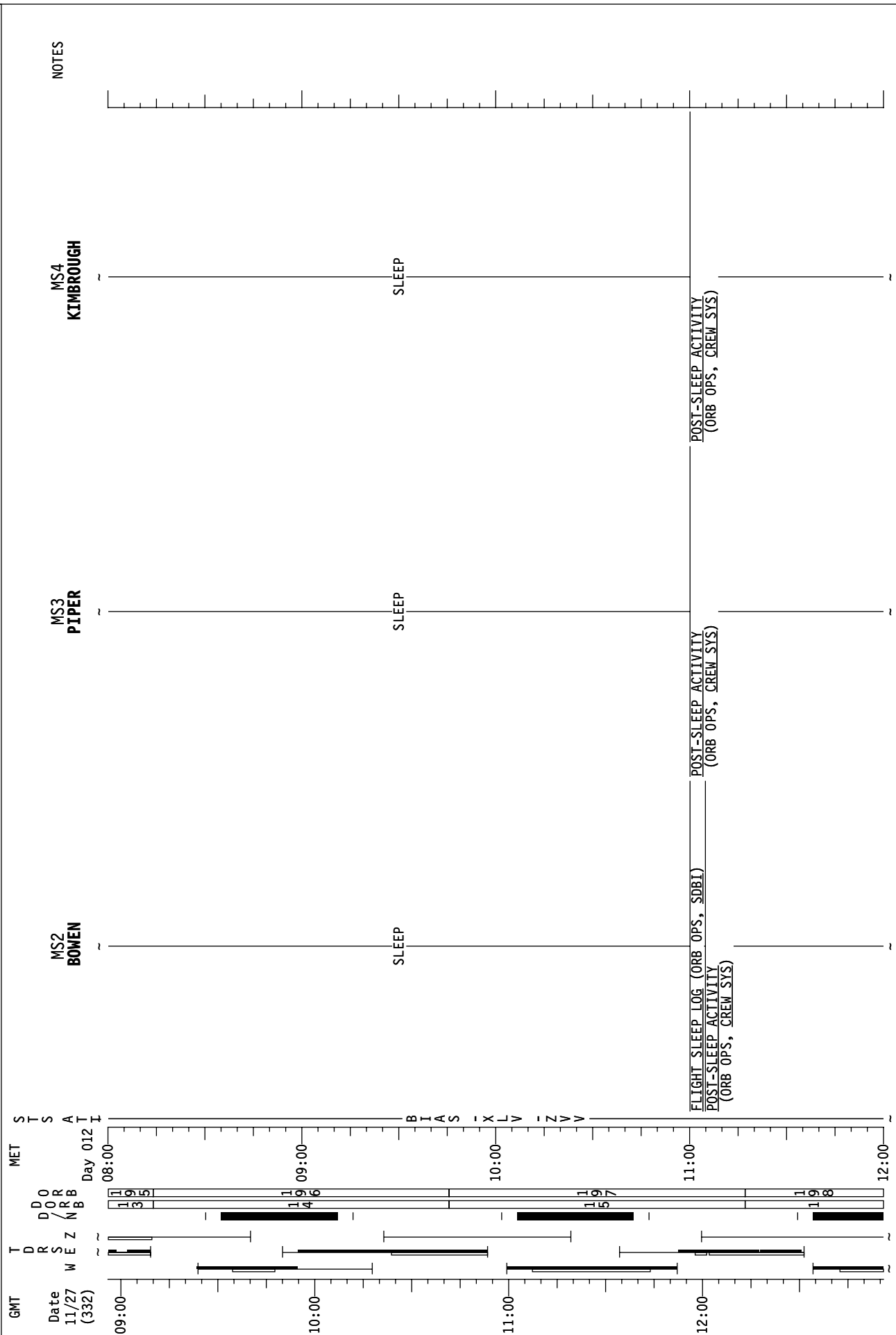
**FD14** GMT 11/28/08 (333) Day 013 MET

01 02 03 04 05 06 07 08 09 10 11 12

S T S - 1 2 6	CDR <b>FERGUSON</b>	PRE SLEEP	SLEEP	POST SLEEP	FD15					
	PLT <b>BOE</b>	PRE SLEEP	SLEEP	POST SLEEP						
	MS1 <b>PETTIT</b>	PRE SLEEP	SLEEP	POST SLEEP						
	MS2 <b>BOWEN</b>	PRE SLEEP	SLEEP	POST SLEEP						
	MS3 <b>PIPER</b>	PRE SLEEP	SLEEP	POST SLEEP						
	MS4 <b>KIMBROUGH</b>	PRE SLEEP	SLEEP	POST SLEEP						
D N	FE-2 <b>CHAMITOFF</b>	PRE SLEEP	SLEEP	POST SLEEP						
	ISS CDR <b>FINCKE</b>	PRE SLEEP-ISS	SLEEP	POST SLEEP	DPC PW					
I S S	FE-1 <b>LONCHAKOV</b>	PRE SLEEP	SLEEP	POST SLEEP	DPC PW					
	FE-2 EXP18 <b>MAGNUS</b>	PRE SLEEP	SLEEP	POST SLEEP	DPC PW					
U P	DAY/NIGHT ORBIT	206	207	208	209	210	211	212	213	214
	TDRS W E Z	-171.0	-46.0	-275.0						
ORB ATT		BIAS -XLV -ZVV								
NOTES		*ACT								
		*COFC-5M11-φ1-MNT-INIT								

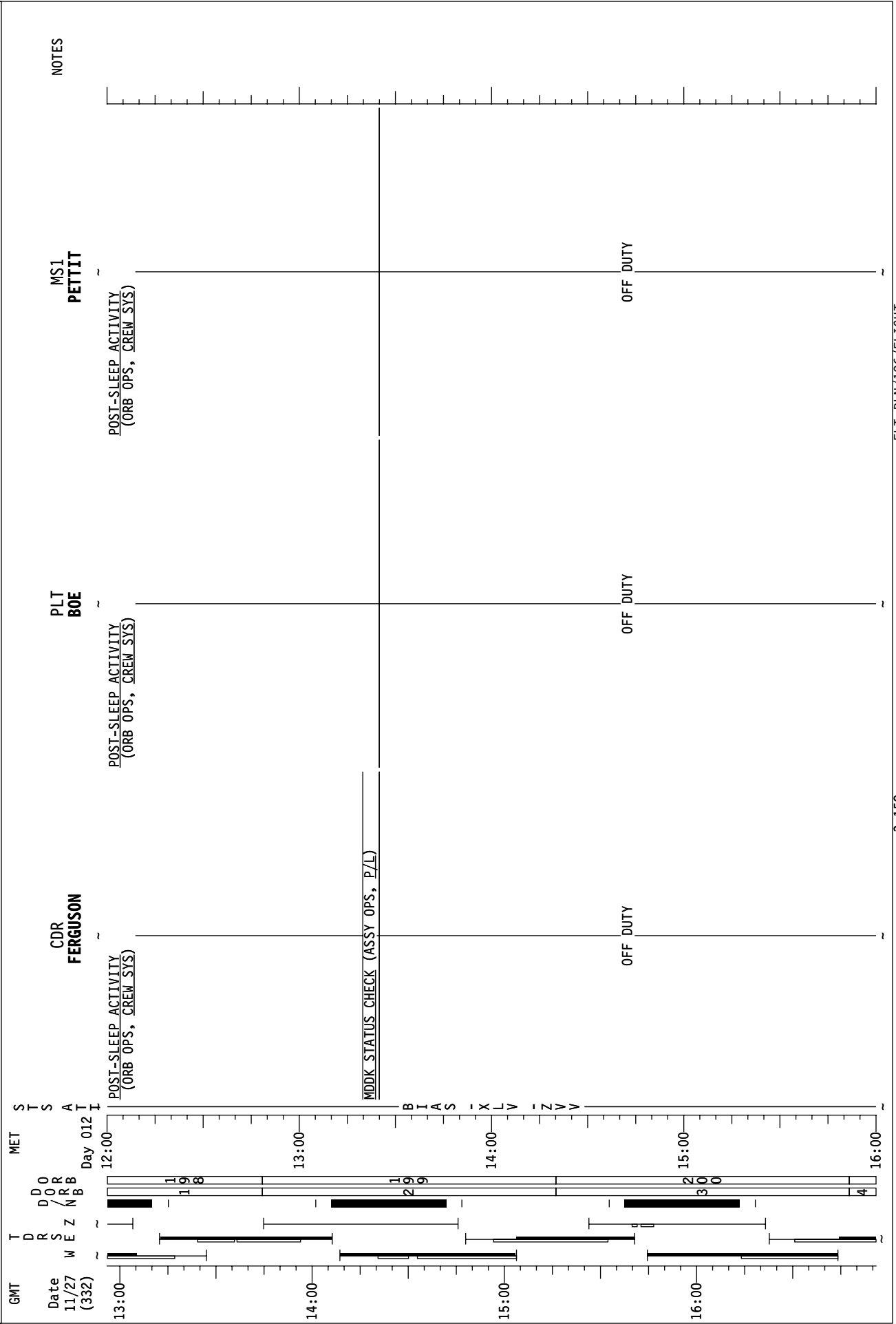


STS-126 FD (14) REPLANNED



STS-126 FD (14)

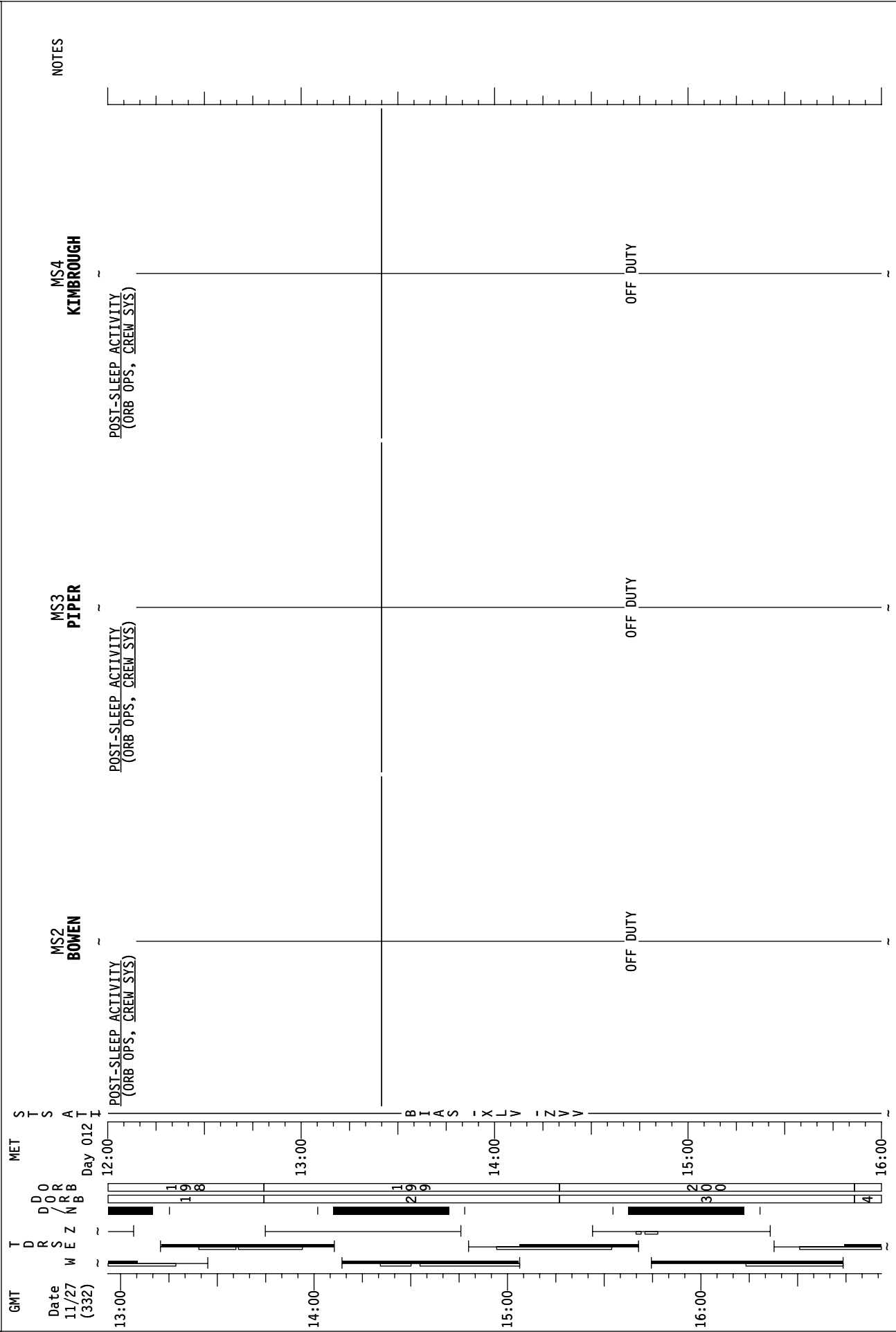
REPLANNED





# STS-126 FD (14)

**REPLANNED**



STS-126 FD (14)

REPLANNED

GMT	Date 11/27 (332)	DRS W E Z	T D O R S / R B	MET Day 012	CDR FERGUSON	PLT BOE	MS1 PETTIT	NOTES
17:00				16:00				
17:00				17:00	OFF DUTY	OFF DUTY	OFF DUTY	
18:00				18:00	PUBLIC AFFAIRS EVENT Ref. MSG 149 ISS KU: 17:07-17:52	PUBLIC AFFAIRS EVENT Ref. MSG 149 ISS KU: 17:07-17:52	PUBLIC AFFAIRS EVENT Ref. MSG 149 ISS KU: 17:07-17:52	
19:00				19:00	MEAL	MEAL	MEAL	
19:00				19:00	L17 Check MCIU Filter screen IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)	SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) INIT FILL #13 Ref. MSG 142	WLES RNDZ TOOLS C/O PREP (ORB OPS, WLE SENSORS) TRANSFER UPDATE Ref. MSG 150	UPDATE TFL 199
20:00				20:00	EXERCISE	ON MCC GO: A15 APCU 1 OUTPUT - OFF	SSC TRANSFER Transfer PCS/SSC to ISS per Transfer List Item # 8-10	MPLM PRESSURE CHECK
20:00				20:00		OBSS MNVR TO UNDOCK (PDRS, OBSS NOMINAL)	MIDDECK XFER Ref. Middeck Transfer List: Items 1, 8-10, 700, 701, 702, 704.1, 705, 706, 708, 709, 903, 904, 951, 952, 954, 954.1, 997, 999, 1000, 1002, 1003, and Bag E	UPDATE TFL 184

STS-126 FD (14)

REPLANNED

GMT	Date 11/27 (332)	TDRS W E Z	MET	STSAI	MS2 BOWEN	MS3 PIPER	MS4 KIMBROUGH	NOTES
17:00								
17:00					OFF DUTY	OFF DUTY	OFF DUTY	
17:00					PUBLIC AFFAIRS EVENT Ref. MSG 149 ISS KU: 17:07-17:52	PUBLIC AFFAIRS EVENT Ref. MSG 149 ISS KU: 17:07-17:52	PUBLIC AFFAIRS EVENT Ref. MSG 149 ISS KU: 17:07-17:52	
18:00					MEAL	MEAL	MEAL	
18:00					EMU TRANSFER TO STS Ref. MSG 140, Step 2, Transfer EMUs (2)	EMU TRANSFER TO STS Ref. MSG 140, Step 2, Transfer EMUs (2)	MIDDECK XFER Ref. Middeck Transfer List	
18:00					MIDDECK XFER Ref. Middeck Transfer List	MIDDECK XFER Ref. Middeck Transfer List	MIDDECK XFER Ref. Middeck Transfer List	
19:00					EXERCISE	EXERCISE	OBSS MNVR TO UNDOCK (PDRS, OBSS NOMINAL)	
19:00					MIDDECK XFER Ref. Middeck Transfer List	MIDDECK XFER Ref. Middeck Transfer List	MIDDECK XFER Ref. Middeck Transfer List	
20:00								

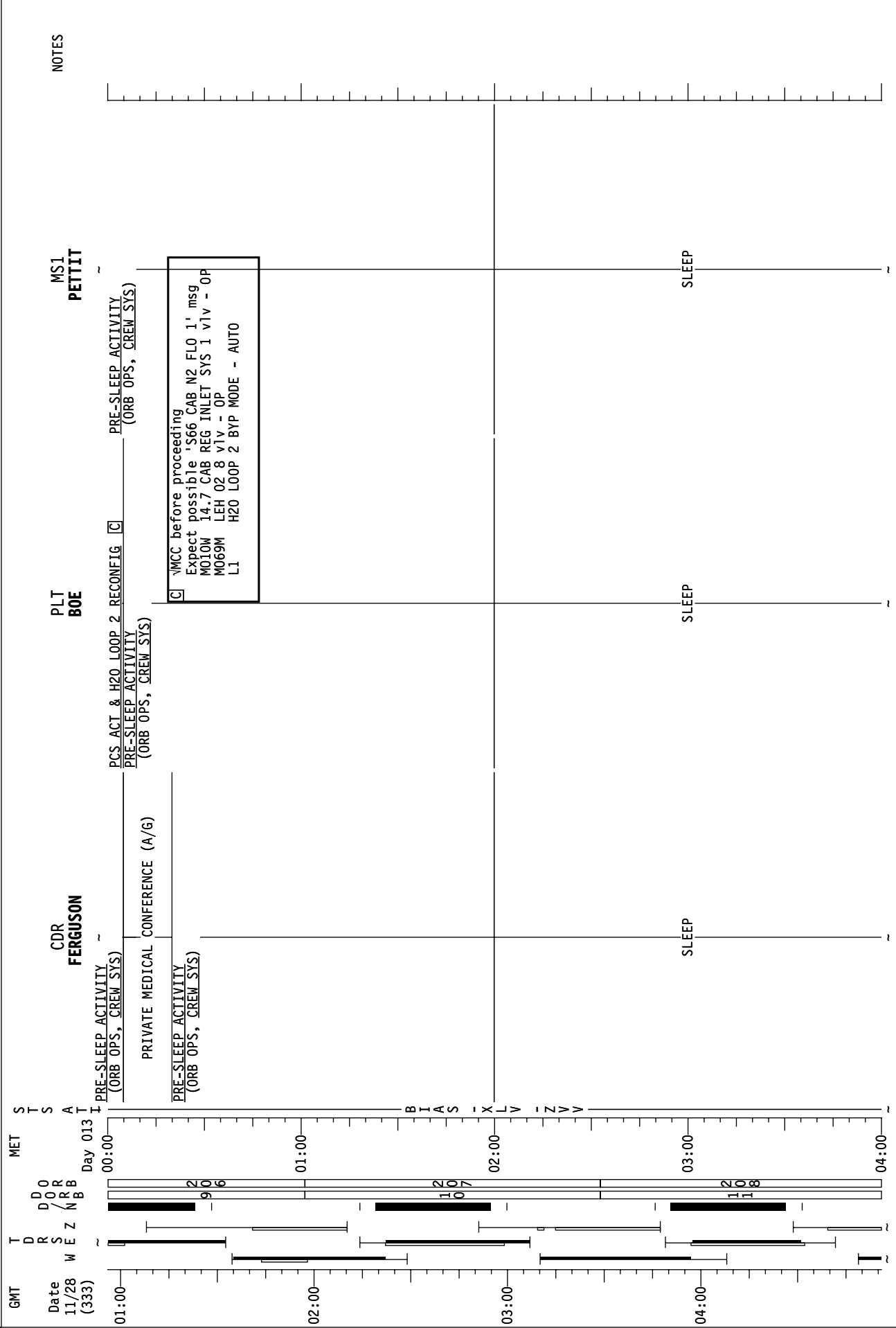
STS-126 FD (14) REPLANNED

GMT	Date 11/27 (332)	DRS W E Z	TDRS M E Z	MET Day 012	CDR <b>FERGUSON</b>	PLT <b>BOE</b>	MS1 <b>PETTIT</b>	NOTES
21:00					<p>JOINT OPS: 3.116 HIGH PRESSURE TANK O2 TRANSFER Steps 3.2-3.3</p> <p>JOINT OPS: 3.118 OXYGEN TRANSFER TEARDOWN Steps 1-6 MCC-H will perform steps 1.6 and 4.5</p>	<p>SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Perform FILL TERMINATION CMC TRANSFER Transfer 1 CMC to ISS</p>		
22:00					<p>RNDZ TOOLS CHECKOUT (RNDZ, RNDZ TOOLS)</p>	EXERCISE	<p>RNDZ TOOLS CHECKOUT (RNDZ, RNDZ TOOLS)</p>	UPLINK TFL 192
23:00					<p>FAIR WINDS</p> <p>JOINT OPS: 3.110 HANDOVER ATTITUDE CONTROL CMG TA to ORBITER</p>	<p>FAIR WINDS</p> <p>P/TV03 UNDOCK (PHOTO/TV, SCENES) Setup</p>	<p>FAIR WINDS</p> <p>C/L CAMR INSTALL (PHOTO/TV, C/L CAMR) Perform step 1 only</p>	UPLINK TFL 184
00:00					<p>MDDK STATUS CHECK (ASSY OPS, P/L) MUS LOG (ASSY OPS, PAYLOADS) PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>	<p>MUS LOG (ASSY OPS, PAYLOADS) PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>	<p>MUS LOG (ASSY OPS, PAYLOADS) PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>	
					<p>JOINT OPS: 3.111 HANDOVER ATTITUDE CONTROL ORBITER to CMGTA LCNCT RETURN (OPS 2.3) (OPCL, RCS)</p> <p>PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)</p>			

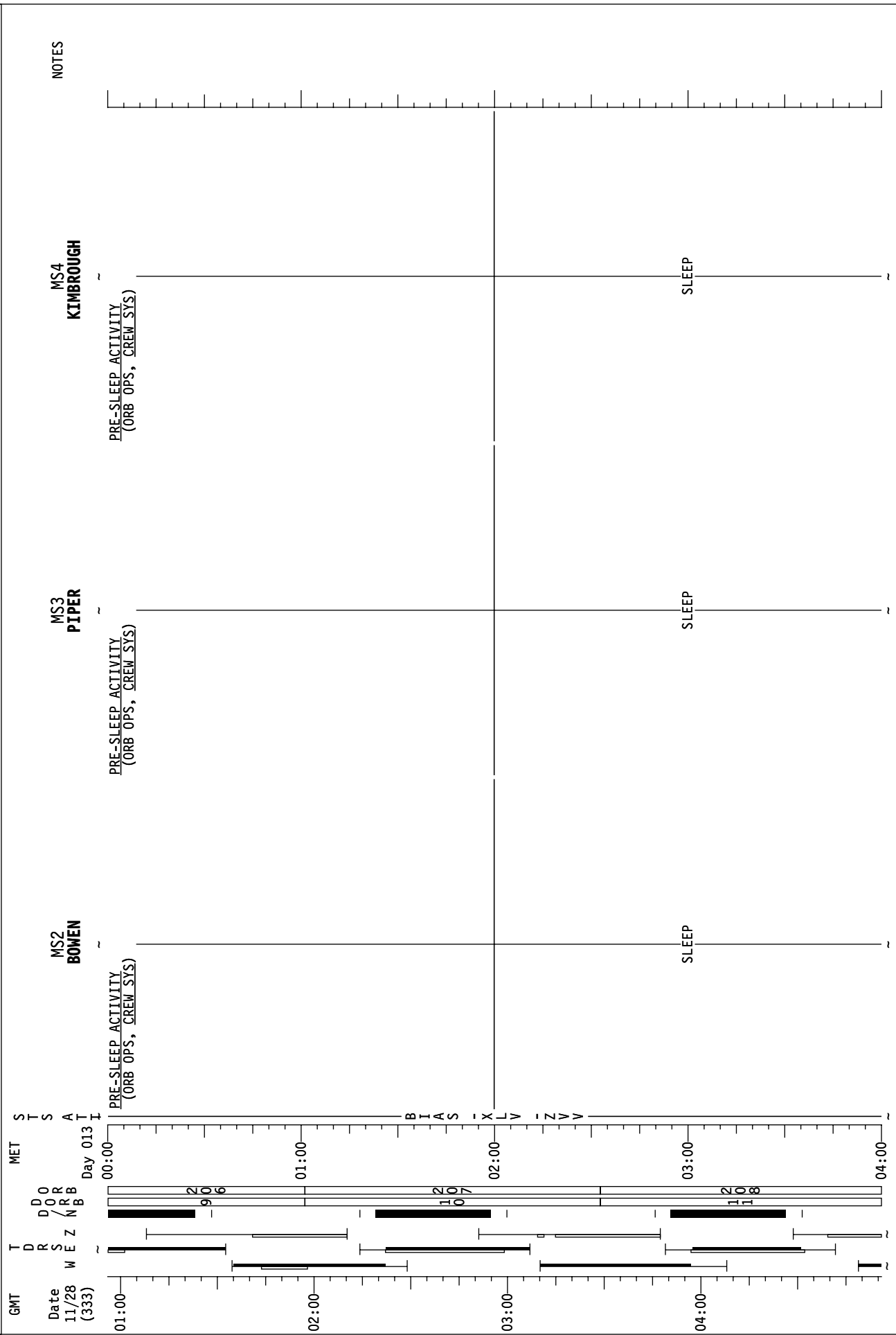


STS-126 FD (14)

REPLANNED



STS-126 FD (14) REPLANNED



FLT PLN/126/FLIGHT

3-159

MSG 147 - FD14 MISSION SUMMARY

1 Good Morning Endeavour!!!  
2 Happy Thanksgiving!!!!  
3 We are all very thankful that STS 126 has been such an outstanding flight!  
4 Make the most of your last day of docked ops!

5  
6  
7  
8  
9

YOUR CURRENT ORBIT IS: 196 X 186 NM

10 NOTAMS:

11  
12 **NOTAMS - THREE CHANGES**

13  
14 **DELETED PTN NOTAM.**

- 15 **GUA – AERODROME CLOSED 16 NOV 1200Z 28 NOV 2000Z.**  
16 **EDW – LAKEBED RUNWAYS RED. STANDING WATER.**  
17 EDW – EDT IN USE FOR STS-126. EDW ELS DAY / VFR ONLY.  
18 NOR – LAKEBED RUNWAYS GREEN.  
19 MRN – RWY 02 THLD DISPL 2,000'. RWY 20 LDA 9,800'.  
20 DYS – AERODROME CLOSED 26 NOV 2300Z TO 29 NOV 0700Z.  
21 JTY – AERODROME CLOSED 26 NOV 1300Z TO 28 NOV 2100Z.  
22 NKT – AERODROME CLOSED 25 NOV 2200Z TO 02 DEC 1200Z.  
23 NTU – AERODROME CLOSED 26 NOV 2100Z TO 01 DEC 1500Z.  
24 JDG – AERODROME CLOSED 27 NOV 0000Z TO 01 DEC 0630Z.  
25 DOV – RWY 14/32 CLOSED.  
26 AMB – RWY 15/33 CLOSED.  
27 YYT – RWY 16/34 CLOSED.  
28 IKF – NOT USABLE. NO AGREEMENT.  
29 BEN – NOT RECOMMENDED/NOT SUPPORTED.

30  
31  
32  
33

34 NEXT 2 PLS OPPORTUNITIES:

35  
36 KSC33 ORB 202 – 12/18:14 SKC 7 VRB/02P04  
37 EDT04L ORB 219 – 13/20:11 SCT300 7 040/12P19

38  
39

40 OMS TANK FAIL CAPABILITY:

41  
42 L OMS FAILS: NO  
43 R OMS FAILS: NO

44  
45

46 LEAKING OMS PRPLT BURN:

47  
48 L OMS LEAK: ALWAYS BURN RETROGRADE  
49 R OMS LEAK: ALWAYS BURN RETROGRADE

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END OF PAGE 1 OF 2, MSG 147



MSG 147 - FD14 MISSION SUMMARY

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OMS QUANTITIES(%):

L OMS OX = 33.6    R OMS OX = 34.0  
FU = 33.3            FU = 33.8

Subtract interconnect counter for current OMS quantities.

DELTA V AVAILABLE:

OMS	311 FPS
<u>ARCS (TOTAL ABOVE QTY1)</u>	<u>32 FPS</u>
TOTAL IN THE AFT	343 FPS
ARCS (TOTAL ABOVE QTY2)	63 FPS
FRCS (ABOVE QTY 1)	12 FPS
AFT QTY 1	75 %
AFT QTY 2	37 %

MSG 148 - FD13 MMT SUMMARY

1 FD13 MMT Summary

2  
3 The MMT met to review mission progress and orbiter systems. The mission is progressing  
4 extremely well and all parties are excited with the success of the docked phase of the  
5 mission. Endeavour continues to perform extremely well and no new systems issues were  
6 discussed today.

7  
8 The MMT had a brief discussion regarding EOM consumables capabilities. LiOH will be the  
9 limiting consumable at EOM+2. Based on the early, but very encouraging forecasts at KSC  
10 and EDW for EOM and EOM+1, the decision was made to not take additional LiOH from the  
11 ISS stockpile and accept LiOH as the limiting consumable. All of the LiOH is currently  
12 located in the correct locations to support this plan.

13  
14 The MMT reviewed the window 6 thermal pane MMOD impact assessment. There has been  
15 similar damage in the past and those windows had no issues throughout entry. The window  
16 has positive margins, and there is no concern throughout the heating regime of entry when  
17 the dynamic pressure is very low. The assessment determined that crack propagation is  
18 unlikely, but if it occurred, it would be below Mach 1. Further, if cracks do occur around the  
19 HAC, previous ground testing has demonstrated that there is no concern, even for loads  
20 much more significant than your predicted aero loads.

**MSG 150 (18-0366) - FD14 TRANSFER MESSAGE**

Page 1 of 4

1 Good morning Don, STS-126 & Increment 18 crews!

2  
3 Today's your last day of transfer and your last transfer message for STS-126! You all did  
4 great! It's been our privilege to execute this plan with you.

5  
6 Today you'll be wrapping up the last few middeck return items as you prepare to close the  
7 hatches. This will include packing up the coldbags with return samples, packing up blood  
8 and saliva samples, and returning your 5 MLE bags back to the middeck.

9  
10 The Transfer List Excel file, FD14\_Transfer\_List\_STS126.xls, locations are:

- 11 • Shuttle: **C:\OCA-up\transfer** (KFX machine)
- 12 • Station: **K:\OCA-up\transfer**

13  
14 **FD14 Choreography**

15  
16 • **Transfer all the remaining items:**

- 17 ○ **Item 1:** Transfer G1 camcorder with wide-angle lens
- 18 ○ **Items 8, 8.1, 8.2, and 8.3:** Transfer AFD PCS and internal components to ISS.
- 19 ○ **Items 9 and 10:** Transfer SSC-load and spare PCS-load hard drives to ISS.
- 20 ○ **Item 700:** Transfer Bag A back to middeck.
- 21 ○ **Item 701:** Transfer Bag B back to middeck.
- 22 ○ **Item 702:** Transfer Bag H back to middeck
- 23 ○ **Item 704.1:** Transfer Blood Samples after collection activity.
- 24 ○ **Items 705 and 706:** Transfer Double Coldbags with samples to Middeck for  
25 return.
- 26 ○ **Items 708 and 709:** Return EMUs 3018 and 3003 to middeck.
- 27 ○ **Item 903:** Transfer BPSMU Battery Packs from shuttle to ISS.
- 28 ○ **Item 904:** Transfer Sandy to ISS prior to hatch closure.
- 29 ○ **Item 951:** Transfer Blood Collection Kit after collection activities.
- 30 ○ **Item 952:** Transfer Saliva Collection Kit after collection activities.
- 31 ○ **Items 954 and 954.1:** Transfer Saliva Collection Kit and Saliva Sample after  
32 collection activities.
- 33 ○ **Item 997:** Transfer GSC (s/n 1050) after sample taken.
- 34 ○ **Item 999:** Transfer 2" Velcro Kit to middeck for return.
- 35 ○ **Item 1000:** Transfer Glass Tape to middeck for return.
- 36 ○ **Item 1002:** Transfer broken Gas-Liquid Separator to middeck for return.
- 37 ○ **Item 1003:** Transfer Greg to shuttle prior to hatch closure.
- 38 ○ **Transfer Bag E back to middeck.**

39  
40 **Please incorporate uplink pages as follows (we've listed the updates in the order they**  
41 **printed out for you):**

42  
43 **MIDDECK TRANSFER BOOK**

44  
45 In the Middeck Transfer List **MDDK RSPLY REALTIME ADDITIONS** tab

46 Replace the following page:

47 Resupply 13

48  
49 In the Middeck Transfer List **MDDK RTN REALTIME ADDITIONS** tab

50 Add the following page:

51 Return 10c

**MSG 150 (18-0366) - FD14 TRANSFER MESSAGE**

Page 2 of 4

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**Changes to the Transfer List are detailed below:**

**MIDDECK RETURN**

Item 903 – new item

Item 904 – new item

**MIDDECK RETURN**

Item 1002 – new item

Item 1003 – new item

Have a great hatch closure day and see you on the ground!

- The STS-126 Transfer Team

MSG 152 - FD14 CREW CHOICE VIDEO DOWNLINK OPTIONS

1 Here are the available Ku times for your Crew Choice Video Downlink. Let us know which  
2 time works best for you.

3  
4

**Crew Choice KU FD14**

<b>TDRS</b>	<b>AOS</b>	<b>LOS</b>	<b>DURATION (min)</b>
West	12/11:47	12/12:09	22
West	12/13:37	12/14:07	30
East	12/14:08	12/14:36	28
West	12/15:18	12/15:48	30
West	12/17:03	12/17:32	29
West	12/18:44	12/19:12	28
West	12/21:39	12/22:13	34
West	12/23:13	12/23:46	33
East	13/01:27	13/02:03	36

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