

STS-126/ULF2

FD 16 Execute Package



MSG	Page(s)	Title
161	1 - 14	FD16 Flight Plan Revision (pdf)
162	15 - 16	FD16 Mission Summary (pdf)
163	---	FD16 PAO Event Summary (pdf - Electronic Only)
164	17	FD16 Crew Choice Video Downlink Options (pdf)
165	18	FD16 Combo Water Dump (pdf)
166	19	Entry Day Fluid Loading and Anti-G Suit Ops (pdf)

Approved by FAO: T. Clancy

A handwritten signature in black ink, appearing to read 'T. Clancy', written over a horizontal line.

Last Updated: Nov 29 2008 8:04AM GMT

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

MSG 161 - FD16 FLIGHT PLAN REVISION

1 MSG INDEX

2

3 <u>MSG NO.</u>	<u>TITLE</u>
4 161	FD16 Flight Plan Revision
5 162	FD16 Mission Summary
6 163	FD16 PAO Event Summary
7 164	FD16 Crew Choice Video Downlink Options
8 165	FD16 Combo Water Dump
9 166	Entry Day Fluid Loading and Anti-G Suit Ops

10

- 11
- 12 1. For today's cryo config, O2 Tanks 2 and 4 will be active with single heaters. H2
13 Tanks 2 and 4 will be active with dual heaters.

14

15 R1	O2,H2 MANF VLV TK2 (two) - OP (tb-OP)
16	O2 TK2 HTR B - OFF
17	H2 TK3 HTRS A,B (two) - OFF

18

19 A11 CRYO TK4 HTRS H2 A,B (two) - AUTO

20

- 21 2. Per today's EZ Activity callout, water for fluid loading should be pulled today. Reference
22 MSG 166. Report to MCC when starting this activity and when complete.

- 23
- 24 3. Prior to Ku Stow this afternoon, we will downlink your Outlook Personal Folders so that
25 you may have them when you return to Houston. Please move any messages that you
26 would like to keep from your **INBOX**, **SENT ITEMS** and **UPLINKED BY CAPCOM**
27 folders to your Personal Folder before **MET 14/20:00**. We will also perform one final
28 mail synch at the same time to deliver any last minute messages you want to send. We
29 will not lock you out of your e-mail during this time so that you can still read your e-mail,
30 but anything you change or write will not be downlinked. Please let the Ground know if
31 you plan to use the KFX PGSC for PILOT Ops. If so, the above time will need to be
32 shifted earlier.

- 33
- 34 4. REPLACE PAGES 3-174 THROUGH 3-183.
- 35
- 36
- 37
- 38
- 39
- 40
- 41
- 42
- 43
- 44
- 45
- 46
- 47
- 48
- 49
- 50

REPLANNED

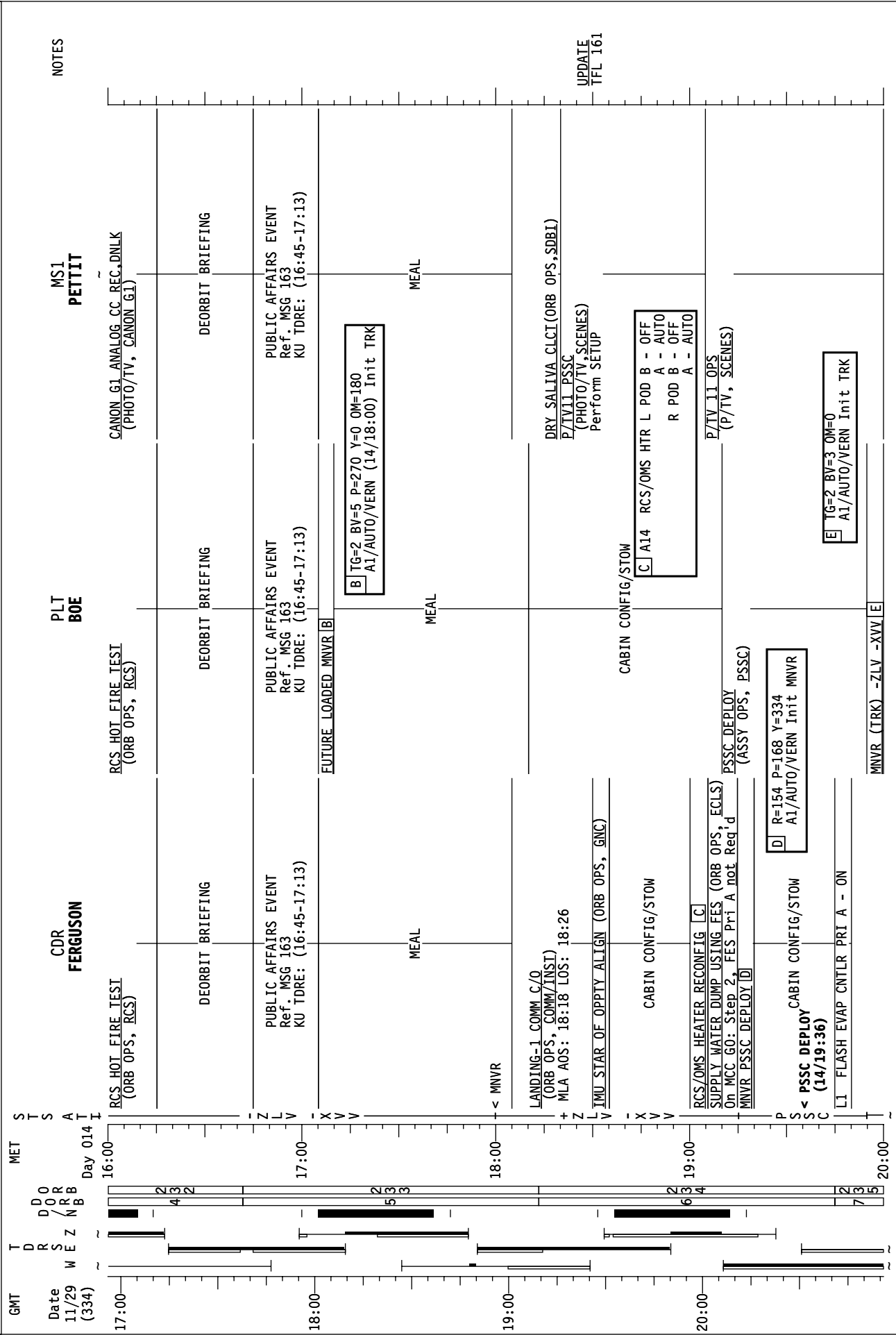
FD16 GMT 11/30/08 (335) MET Day 015

01	02	03	04	05	06	07	08	09	10	11	12
CDR FERGUSON	PRE SLEEP *PMC A/G			SLEEP				FD17	POST SLEEP PMC A/G	POST SLEEP	MG P AR W I TIP R M C B U U C H P
PLT BOE	PRE SLEEP			SLEEP					POST SLEEP		MG P AR W I TIP R I P S C B U U C H P
MS1 PETTIT	PRE SLEEP			SLEEP					POST SLEEP		P G G S S C
MS2 BOWEN	PRE SLEEP			SLEEP					POST SLEEP		M A T C H
MS3 PIPER	PRE SLEEP			SLEEP					POST SLEEP		O S A C T I A O C C W H
MS4 KIMBROUGH	PRE SLEEP			SLEEP					POST SLEEP		
MS5 CHAMITOFF	PRE SLEEP			SLEEP					POST SLEEP		
DAY/NIGHT ORBIT	237	238	239	240	241	242	243	244	245		
TDRS W -171 E -46 Z -275											
ORB ATT											
GND											
NOTES											

S T S - 1 2 6

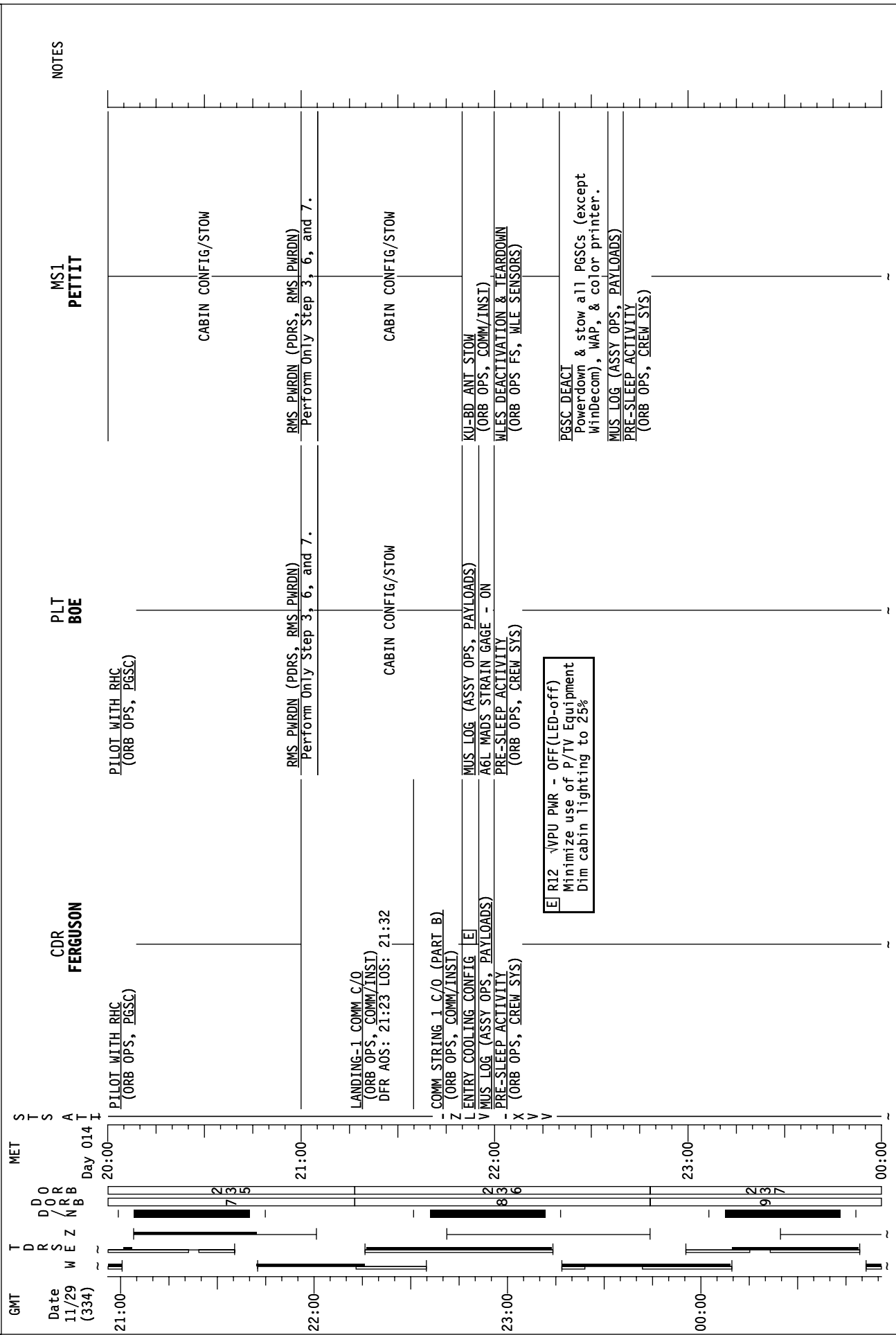
STS-126 FD (16)

REPLANNED



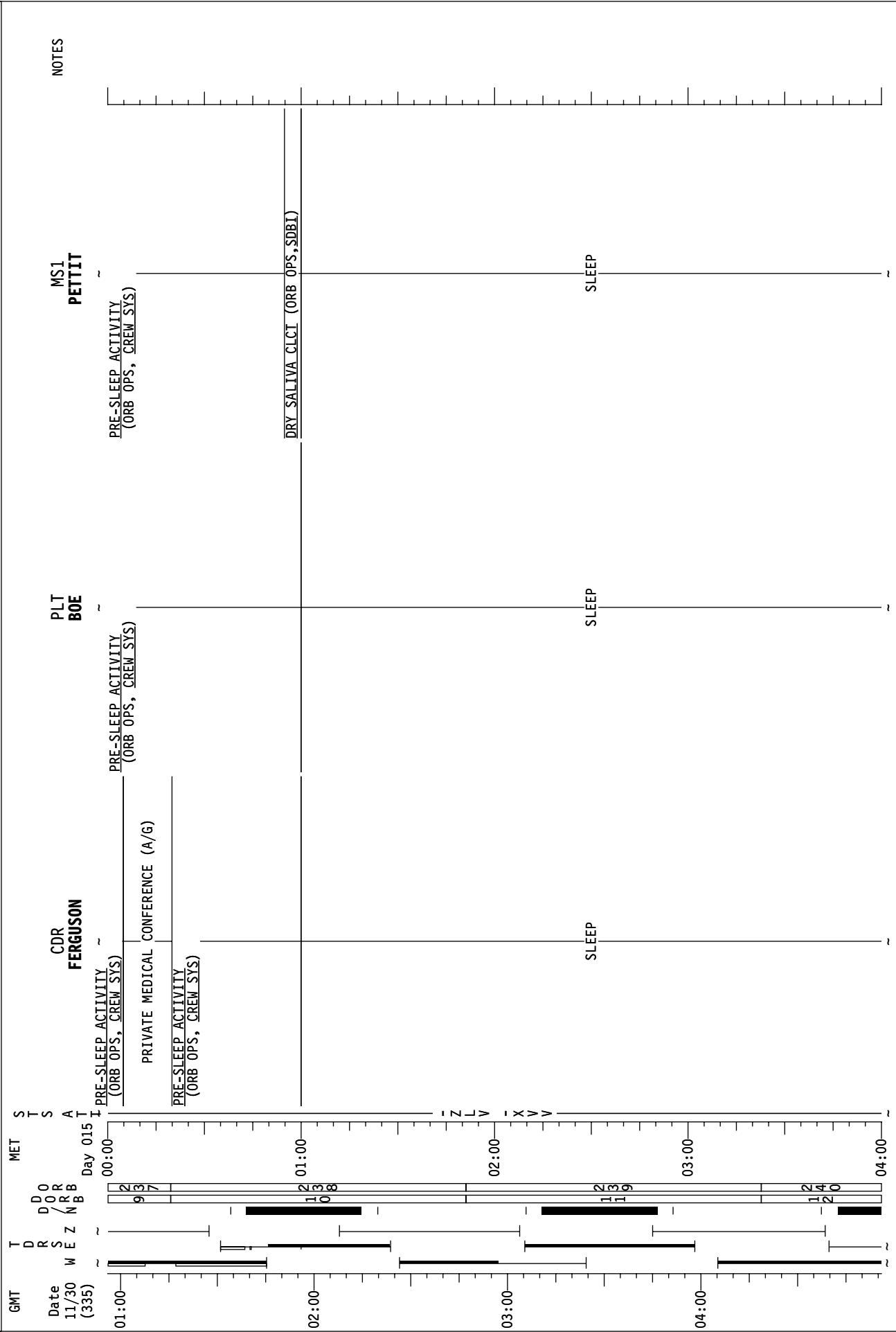
STS-126 FD (16)

REPLANNED



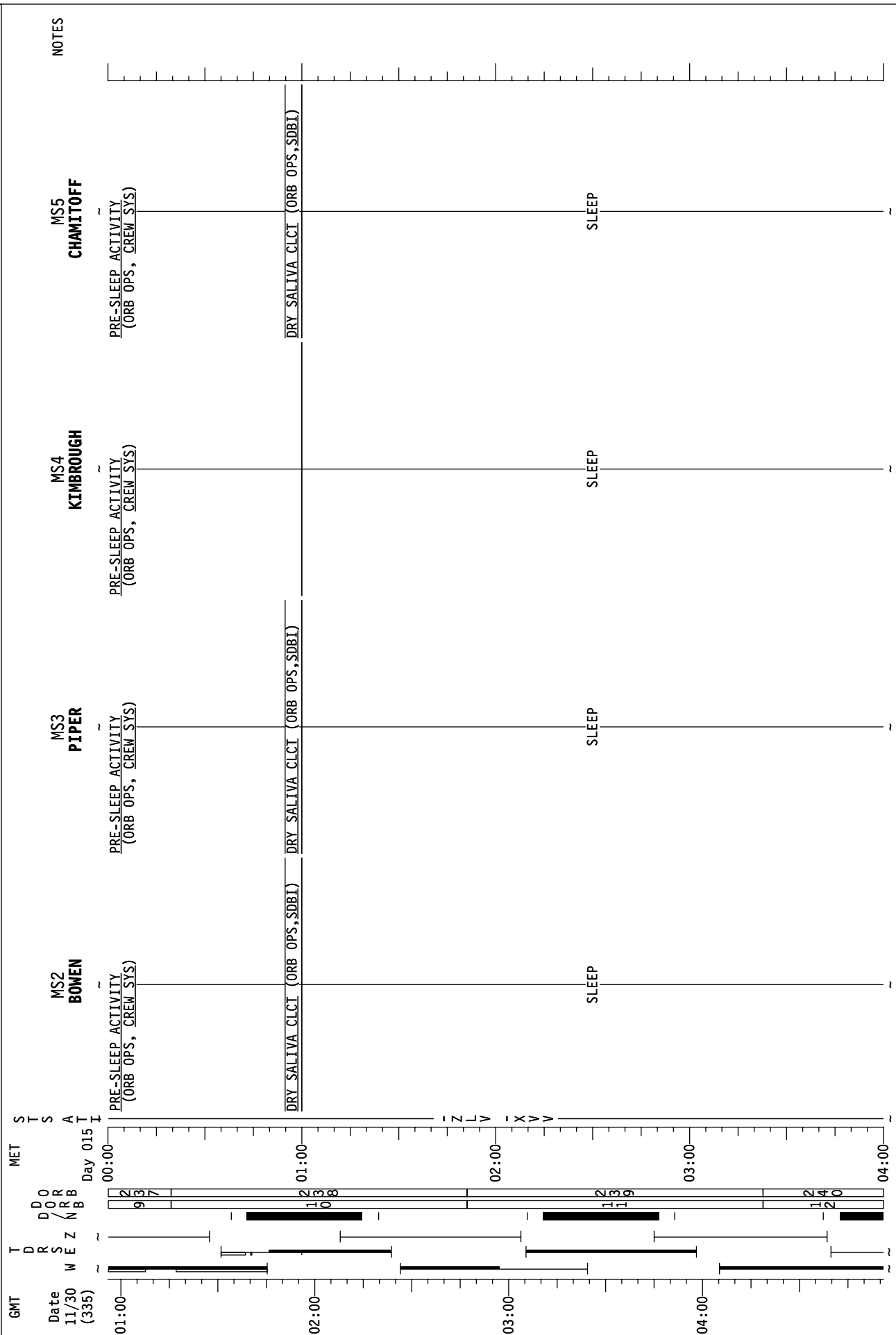
STS-126 FD (16)

REPLANNED



STS-126 FD (16)

REPLANNED



FLT PLN/126/FLIGHT

3-183

MSG 162 - FD16 MISSION SUMMARY

1 Good Morning Endeavour!!!

2

3 Have a great day!!!!

4

5 YOUR CURRENT ORBIT IS: 192 X 184 NM

6

7

8 NOTAMS:

9

10 **NOTAMS - TWO CHANGES**

11

12 **DELETED JTY AND GUA NOTAMS.**

13

13 EDW – LAKEBED RUNWAYS RED.

14

14 EDW – EDT IN USE FOR STS-126. EDW ELS DAY / VFR ONLY.

15

15 NOR – LAKEBED RUNWAYS GREEN.

16

16 MRN – RWY 02 THLD DISPL 2,000'. RWY 20 LDA 9,800'.

17

17 DYS – AERODROME CLOSED.

18

18 WAK – AERODROME CLOSED.

19

19 NKT – AERODROME CLOSED.

20

20 NTU – AERODROME CLOSED.

21

21 JDG – AERODROME CLOSED.

22

22 DOV – RWY 14/32 CLOSED.

23

23 AMB – RWY 15/33 CLOSED.

24

24 YYT – RWY 16/34 CLOSED.

25

25 IKF – NOT USABLE. NO AGREEMENT.

26

26 BEN – NOT RECOMMENDED/NOT SUPPORTED.

27

28

29 NEXT 2 PLS OPPORTUNITIES:

30

31 EDT04L ORB 234 – 14/19:01 SCT300 7 050/12P18

32

32 EDT04L ORB 250 – 15/19:26 FEW300 7 050/06P11 (EOM)

33

34

35 OMS TANK FAIL CAPABILITY:

36

37 L OMS FAILS: NO

38

38 R OMS FAILS: NO

39

40

41 LEAKING OMS PRPLT BURN:

42

43 L OMS LEAK: ALWAYS BURN RETROGRADE

44

44 R OMS LEAK: ALWAYS BURN RETROGRADE

45

46

47 OMS QUANTITIES(%):

48

49 L OMS OX = 33.6 R OMS OX = 34.0

50

50 FU = 33.3 FU = 33.8

51

51 Subtract interconnect counter for current OMS quantities.

END OF PAGE 1 OF 2, MSG 162

MSG 162 - FD16 MISSION SUMMARY

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51

DELTA V AVAILABLE:

OMS	312 FPS
<u>ARCS (TOTAL ABOVE QTY1)</u>	<u>16 FPS</u>
TOTAL IN THE AFT	328 FPS
ARCS (TOTAL ABOVE QTY2)	46 FPS
FRCS (ABOVE QTY 1)	11 FPS
AFT QTY 1	75 %
AFT QTY 2	37 %

MSG 164 - FD16 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 FD16

TDRS	AOS	LOS	DURATION (min)	COMMENT
West	14/09:47	14/10:13	26	
East	14/13:37	14/14:02	25	
Z	14/14:03	14/14:43	40	No DTV
East	14/15:10	14/15:36	26	
Z	14/15:50	14/16:17	27	No DTV
East	14/16:19	14/16:41	22	
East	14/16:45	14/17:13	28	
Z	14/17:24	14/17:51	27	No DTV
West	14/19:11	14/20:04	53	
East	14/21:21	14/22:17	56	
West	14/22:46	14/23:13	27	
East	14/23:26	14/23:52	26	
West	15/00:22	15/00:49	27	

5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35

MSG 165 - FD16 COMBO WATER DUMP

1 Combo Dump Details

2
3 Today you will perform a combo dump. You will be dumping the waste tank followed by
4 condensate CWC s/n 5060.

5 6 Waste Water Dump

7 Perform a waste dump using SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) p. 5-2.
8 Perform steps E, G and I. MCC-H will TMBU FDA in steps B and K. After completing step I-
9 2, proceed to CWC OVERBOARD DUMP (ORB OPS, ECLS).

10
11 Waste dump valve open time will be ~40 minutes. Dump the waste tank to 5%.

12 13 CWC Dump

14 After performing the waste dump step I-2 perform CWC OVERBOARD DUMP (ORB OPS,
15 ECLS) p. 5-36. Perform steps A, D, E, F, and G. MCC-H will TMBU FDA in steps B and H.
16 Dump CWC s/n 5060.

17
18 Waste dump valve open time for CWC s/n 5060 will be ~ 45 minutes.

19
20 Stow CWC s/n 5060 in Bag F (Middeck Ceiling Port 2) once the dump is complete.

21 Stow the WWD in a separate ziplock bag in the BOB.

22 Stow the Y-Y hose in a separate ziplock bag in the CHCK.
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51

MSG 166 - ENTRY DAY FLUID LOADING AND ANTI-G SUIT OPS

1 Fluid loading water for one Entry opportunity should be pulled today. Fluid loading for a one
2 orbit waveoff is not required to be pulled until waveoff is declared. Pulling water for fluid
3 loading on EOM-1 will help maximize Supply Water quantities to support maximal deorbit
4 landing opportunities.

5
6 **Fluid Loading:**

7
8 The following is the prescription for fluid loading on entry day:

9
10 Initiate fluid loading at 1 hour before TIG. Consume 8 ounces of water or artificially
11 sweetened (A/S) drink with two salt tablets, or 8 ounces of Chicken Consommé every 15
12 minutes. Fluid loading must be completed by Entry Interface (EI).

CREWMEMBER	FLUID	TOTAL # OF SALT TABLETS
CDR (Ferguson)	40 oz Water	10 Salt Tablets
PLT (Boe)	40 oz Tropical Punch w/ A/S	10 Salt Tablets
MS1 (Pettit)	40 oz Water	10 Salt Tablets
MS2 (Bowen)	48 oz Lemon-Lime Ade	
MS3 (Stefanyshyn-Piper)	24 oz Chicken Consommé 16 oz Lemon-Lime Ade	
MS4 (Kimbrough)	40 oz Grape Drink w/ A/S	10 Salt Tablets
MS5-DN (Chamitoff)	48 oz Water	12 Salt Tablets

13
14 Note: Chicken Consommé is only available in 12 oz. Servings. Prepackaged volume may
15 exceed prescribed quantity.

16
17 If there is a one orbit wave-off and fluid loading was completed on the previous deorbit
18 attempt, then one-half of the above should be repeated by EI.

19
20 If there is a greater than one orbit wave-off or a partial fluid load was performed on the
21 previous deorbit attempt then the entire protocol above should be repeated.

22
23
24
25 **Anti-G Suit Operations:**

26
27 Anti-G suits must be inflated to 0.5 psi (one click) at or near entry interface and to at least
28 1.0 psi (two clicks) at one G.

29
30
31
32 **Dosimeter Reminder:**

33
34 Please ensure that all dosimeters are stowed in your ACES suits.