

# STS-126/ULF2

## FD 09 Execute Package



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077A	1 - 13	<a href="#">FD09 Flight Plan Revision</a> (pdf)
078	14 - 15	<a href="#">FD09 Mission Summary</a> (pdf)
079A	16 - 18	<a href="#">FD09 Transfer Message</a> (pdf)
080	19	<a href="#">FD08 MMT Summary</a> (pdf)
081	---	<a href="#">Stowage Locations for FD09 (GMT 327)</a> (pdf - Electronic Only)
082	20	<a href="#">FD09 Crew Choice Video Downlink Options</a> (pdf)
083A	21	<a href="#">NOAX Nozzle Modification (Alligator Clip)</a> (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 22 2008 1:58PM GMT

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

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MSG 077A - FD09 FLIGHT PLAN REVISION

1 MSG INDEX

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3 <u>MSG NO.</u>	<u>TITLE</u>
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6 079	FD09 Transfer Message (18-0287)
7 080	FD08 MMT Summary
8 081	Stowage Locations for FD09 (GMT 327) (18-0288)
9 082	FD09 Crew Choice Video Downlink
10 083	NOAX Nozzle Modification (Alligator Clip) (18-0291)

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- 13 1. For today's cryo config, O2 tanks 1 and 2 will be active with dual heaters and H2 tanks 1  
14 and 5 will be active with dual heaters.

15

16 R1 O2,H2 MANF VLV TK1 (two) - OP (tb-OP)  
17 O2 TK2 HTRS A,B (two) - AUTO

18

19 A15 CRYO TK5 HTR O2 A - OFF

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- 21
- 22 2. REPLACE PAGES 3-92 THROUGH 3-101.
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REPLANNED

FD09

GMT 11/23/08 (328)

MET Day 008

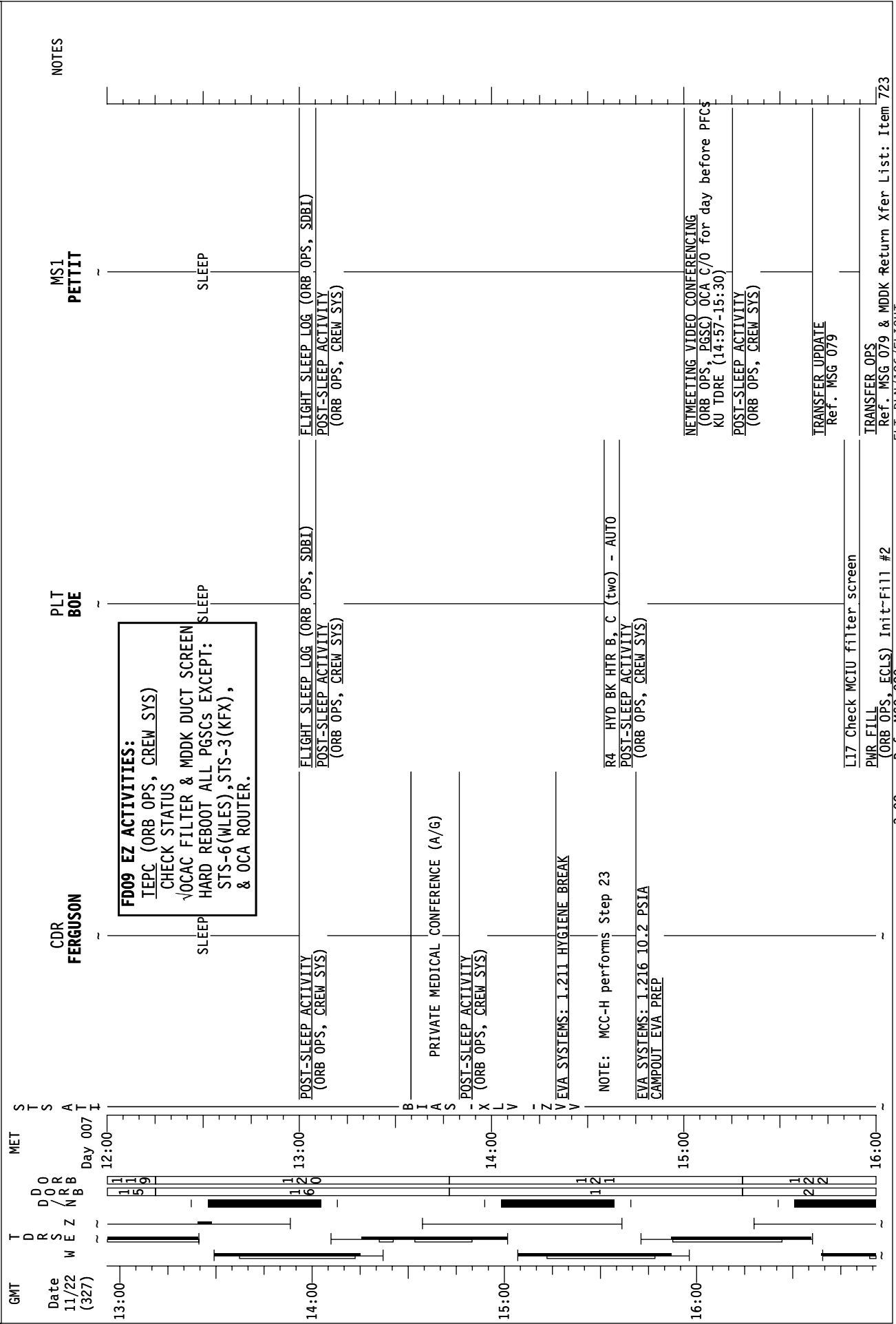
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S	T	S	-	1	2	6	CDR FERGUSON	MPLM XFERR R P S	POST EVA W/H2O	M PRE USLEEP A/G	PRE SLEEP	SLEEP
							R1 PLT BOE	MPLM XFER	X T M F A U E G S R	PRE SLEEP	SLEEP	
R3 MS1 PETTIT	EXER	MPLM XFER	MPLM XFER	X T M F A U E G S R	M PRE USLEEP A/G	PRE SLEEP	SLEEP	R	POST EVA W/H2O	M DM DU KKS #	PRE SLEEP	SLEEP
D N	FE-2 CHAMITOFF	MPLM XFER	PW	DPC@PFC	PRE SLEEP-ISS	SLEEP	SLEEP	R	POST EVA W/H2O	M DM DU KKS #	PRE SLEEP-ISS	SLEEP
I S S	FE-1 LONCHAKOV	TVIS	PW	DPC	PRE SLEEP-ISS	SLEEP	SLEEP	R	POST EVA W/H2O	M DM DU KKS #	PRE SLEEP-ISS	SLEEP
U P	DAY/NIGHT ORBIT	MPLM XFER	PW	DPC	PRE SLEEP-ISS	SLEEP	SLEEP	R	POST EVA W/H2O	M DM DU KKS #	PRE SLEEP-ISS	SLEEP

\*S3 SARJ CLNG/TBA R&R @PRE SLEEP-ISS  
 #S3 SARJ CLNG/TBA R&R #STATUS CHECK  
 #EVA3 IVA SPRT

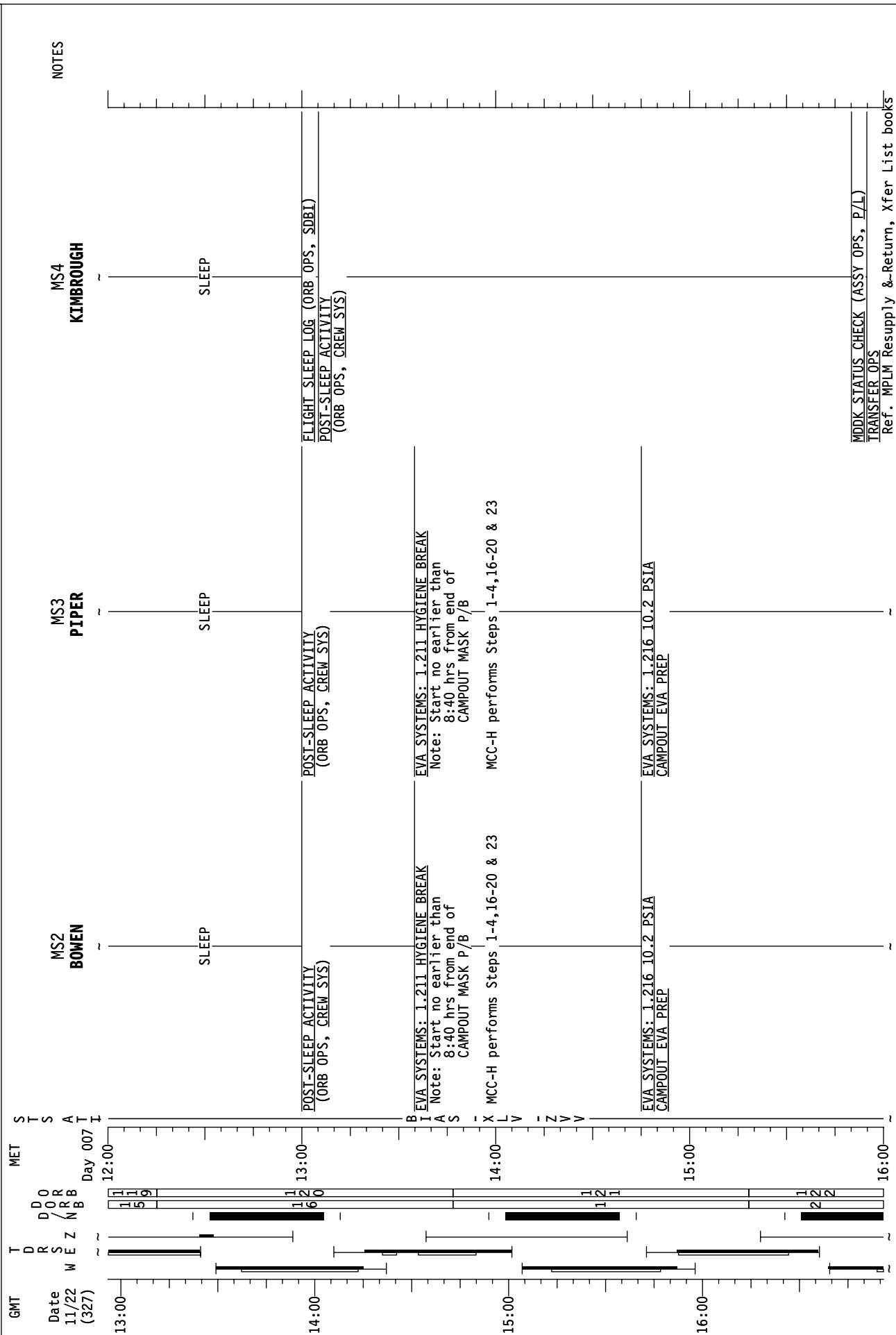
STS-126 FD (09)

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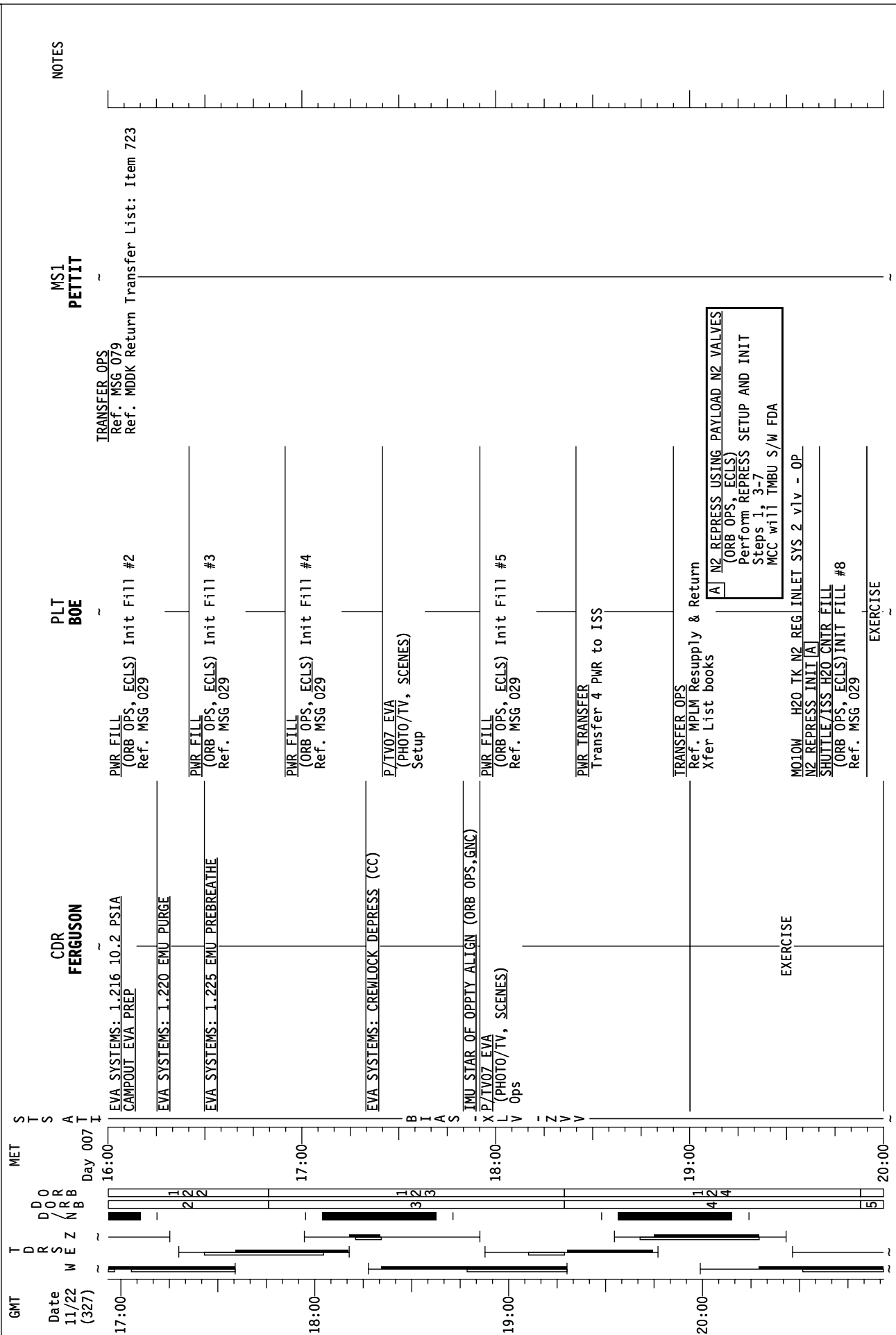
STS-126 FD (09)

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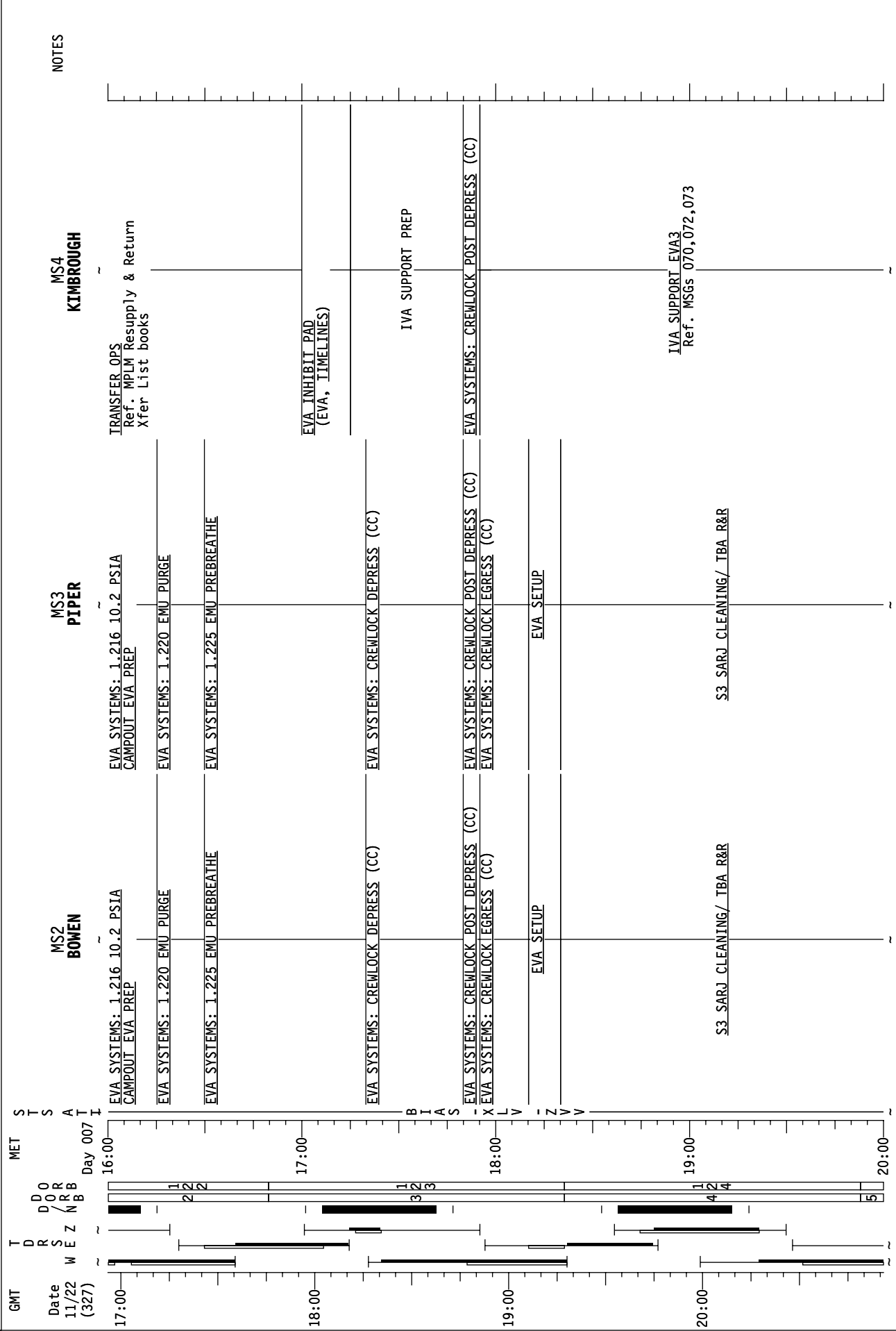
STS-126 FD (09)





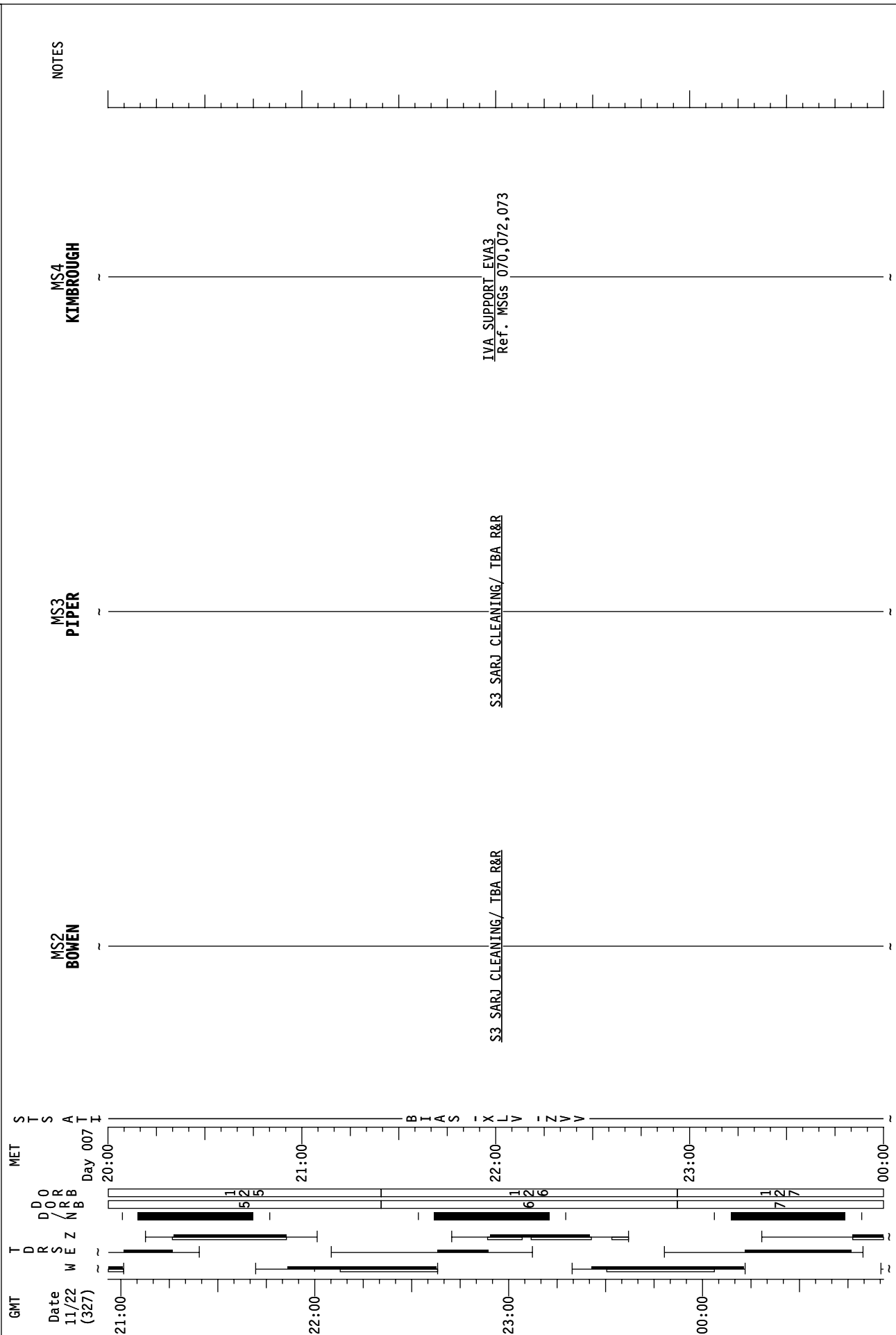
STS-126 FD (09)

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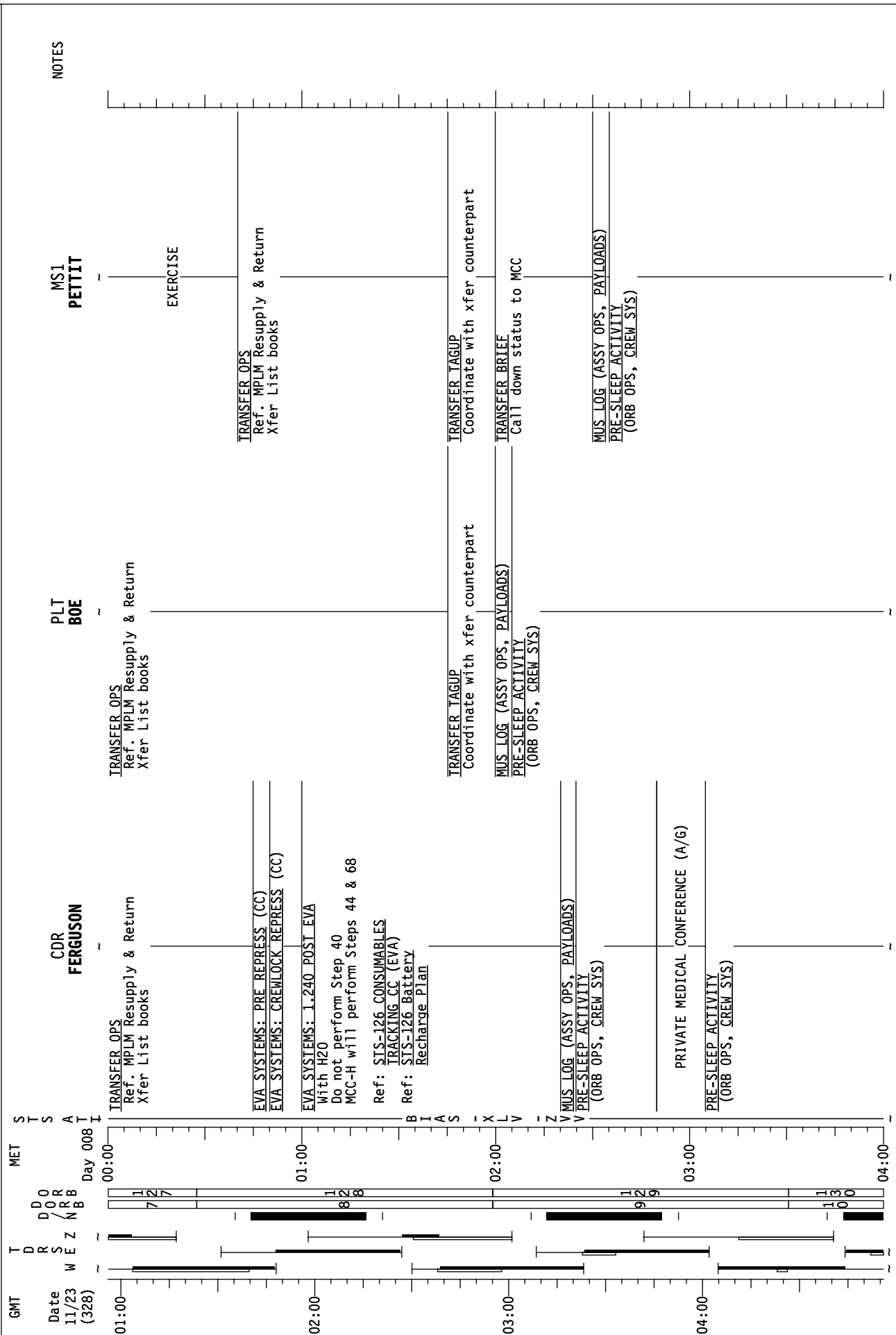


STP-126 FD (09) REPLANNED



STS-126 FD (09)

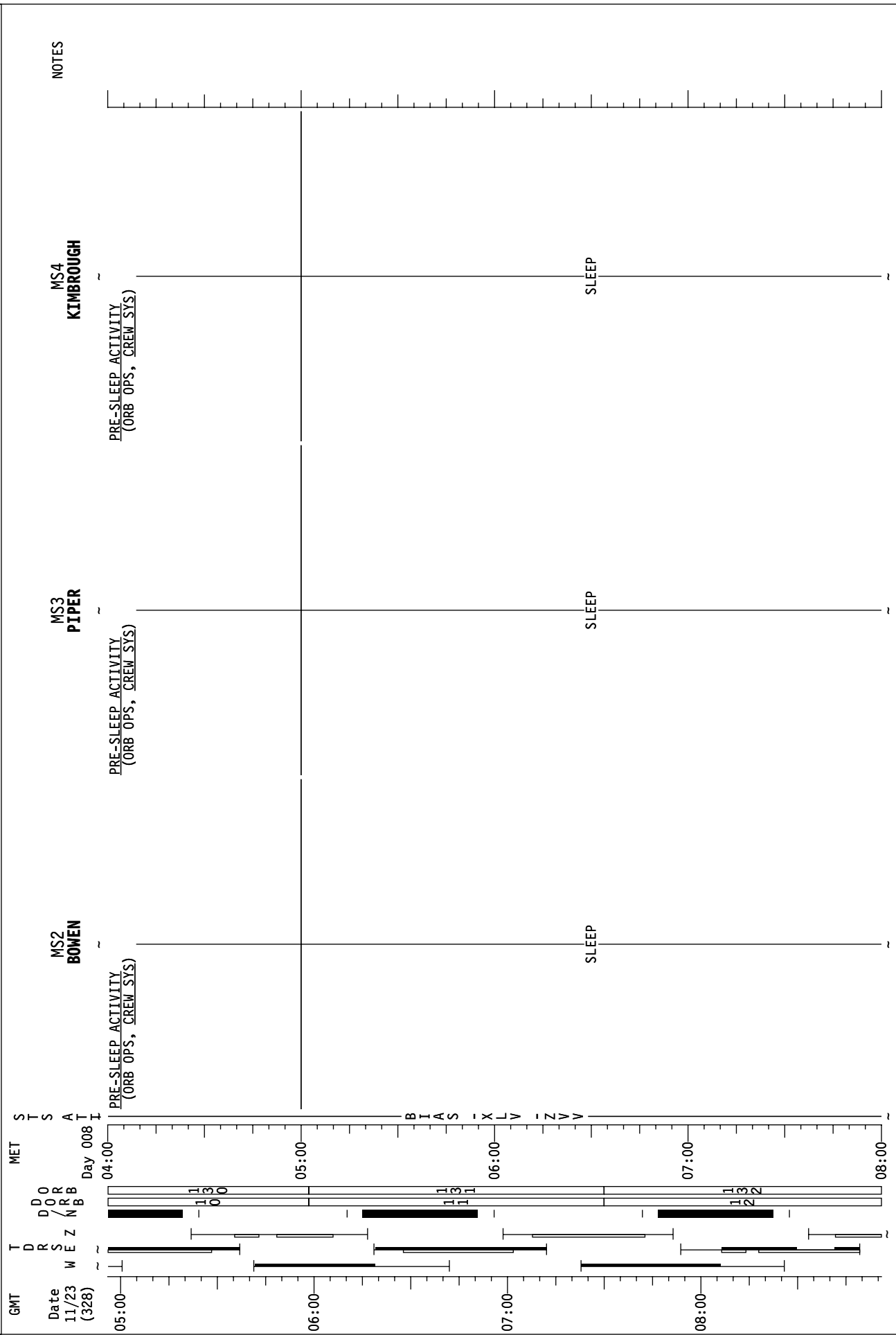
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STS-126 FD (09) REPLANNED



MSG 078 - FD09 MISSION SUMMARY

1 Good Morning Endeavour!!!

2

3 Thanks once again for a great day!

4

5 Have a great EVA!

6

7

8 YOUR CURRENT ORBIT IS: 195 X 186 NM

9

10 NOTAMS:

11

12 **NOTAMS - ONE CHANGE**

13

14 **DELETED HAW NOTAM**

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

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

17 NOR – LAKEBED RUNWAYS GREEN.

18 ZZA – 20' HIGH BARRIER IN OVERRUN OF RWY 30L. LDA 12,200'.

19 MRN – RWY 20 THLD DISPL 3,000'. RWY 20 LDA 8,800'.

20 YHZ – RWY 05/23 CLOSED 24 NOV 1100Z - 26 NOV 1600Z.

21 DOV – RWY 14/32 CLOSED.

22 AMB – RWY 15/33 CLOSED.

23 YYT – RWY 16/34 CLOSED.

24 IKF – NOT USABLE. NO AGREEMENT.

25 BEN – NOT RECOMMENDED/NOT SUPPORTED.

26

27 NEXT 2 PLS OPPORTUNITIES:

28

29 EDT22R ORB 126 – 7/22:15 FEW250 7 240/03P05

30 NOR17 ORB 141 – 8/21:08 FEW200 7 310/07P12

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 = 33.6 R OMS OX = 34.0

45 FU = 33.3 FU = 33.8

46 Subtract interconnect counter for current OMS quantities.

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MSG 078 - FD09 MISSION SUMMARY

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DELTA V AVAILABLE:

OMS	343 FPS
<u>ARCS (TOTAL ABOVE QTY1)</u>	<u>39 FPS</u>
TOTAL IN THE AFT	382 FPS
ARCS (TOTAL ABOVE QTY2)	72 FPS
FRCS (ABOVE QTY 1)	26 FPS
AFT QTY 1	80 %
AFT QTY 2	42 %

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

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

2  
3 Congratulations on finishing MPLM resupply yesterday! You're making great progress on  
4 return packing as well. We are currently showing you 75% complete with all MPLM transfer.

5  
6 Today your choreography is very simple...continue to work on MPLM return packing. In  
7 addition, the WRS water sample will also be taken and can be packed for return in the  
8 Middeck.

9  
10 The Transfer List Excel file, FD9\_Transfer\_List\_STS126.xls, locations are:

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

13  
14  
15 **Transfer Notes**

- 16  
17 • **Item 612:** Don, unfortunately we're going to need you to get into MPLM Return bag 612  
18 once again. After last night's transfer brief, we were informed that both CPAs currently  
19 stowed in item 612 at MPL1F4\_H1 need to stay on ISS. These CPAs are both still  
20 functional; therefore, we need you to remove the following CPAs: s/n 76-D0032 and 87-  
21 D0027. While you're there, we need you to stow the broken CPA (s/n 87-D0046) for  
22 return instead. Please verify the serial number prior to stowing, as it is very important to  
23 return only the broken CPA. We apologize for the extra effort this has caused you.  
24
- 25 • **Item 448:** Don, you reported a couple days ago that you added ZSR brackets and ZSR  
26 bracket PiP pins to item 448 for return. This bag already included some water samples  
27 for return that will ultimately be emptied into MF14E or MF14G for return. In addition, we  
28 need you to remove the brackets and PiP pins and return them in the External A/L Floor  
29 Bag. You'll be left with an empty 0.5 CTB that will return as item 704 with additional  
30 hardware inside it. Your Middeck Return transfer list has been updated to reflect this.  
31
- 32 • **LHAs:** Don, we received approval to pack two additional LHAs for return. LHAs (s/n 7  
33 and 102), currently located in JPM1F7, should be stowed with the other LHAs you  
34 packed in MPL1P4\_K1 inside item 447. While you are in MPL1P4\_K1, if you don't think  
35 it will take too much time, please retrieve LHA (s/n 17) and return it to ISS. It should be  
36 stowed in the 3.0 CTB at NOD2D5 with the GLAs removed from the MPLM. The two  
37 new LHAs have been added to your MPLM Return transfer list as item 447.3.  
38
- 39 • **Old SODF:** For Greg, we have received approval to return the KBO-M of SODF and  
40 Soyuz clothing in the Middeck. This bag has been added to the Middeck Return transfer  
41 list as item 968.  
42
- 43 • **Return MPLM M-bag Drawings:** Don, you mentioned last night that you have several  
44 larger pieces of M-bag foam that will not fit in their return locations. We just wanted to  
45 remind you that your MPLM Return book has M-bag return layouts (pages L-10 thru L-  
46 29) in the "Layouts" tab to assist you. If you have any questions while you are packing  
47 the bags, please feel free to call us so we can help provide you with an alternate plan  
48 sooner. Remember that it is important for the MPLM Stowage team to understand the  
49 exact return configurations of the M-bags.  
50

- **MPL1A4\_A1:** Don, we just wanted to give you a heads-up that we will be adding an ESA payload item called Kubik-2 to MPL1A4\_A1 for return. We understand that you have reported all the returning items in this bag as complete; however, the P4 rack needs more mass added to it. The Kubik-2 will be packed per a Russian activity and available for stowing in the MPLM early on FD11.

**FD09 Choreography**

- **Item 29:** Retrieve PWD Galley Hose, PWD Standoff Hose, & PWD QD Bracket for PWD hose routing activity.
- **Item 723:** Pack WRS Sample for return in MF14E.
- **Continue packing MPLM return items.**

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

**MIDDECK TRANSFER BOOK**

In the Middeck Transfer List **RETURN** tab

Replace the following page:

Return 2

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

Replace the following page:

Return 10

**MPLM RETURN TRANSFER BOOK**

In the MPLM Return Transfer List **RETURN** tab

Replace the following page:

Return 16, 18, and 23

In the MPLM Return Transfer List **MPLM RETURN REALTIME ADDITIONS** tab

Replace the following page:

Return 31

In the MPLM Return Transfer List **MPLM RETURN REALTIME ADDITIONS** tab

Add the following page:

Return 32

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

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**MIDDECK RETURN**

Item 441 – added note  
Item 448 – updated Item Name  
Item 448.1 and 448.2 – new items  
Item 968 – new item

10 **MPLM RETURN**

11 Item 447.3 – new item  
12 Item 612 – updated item  
13 Item 784 – update to notes  
14 Item 959 – added note  
15 Item 959.1 – new item  
16 Item 969, 970, 971 – new items

17  
18

19 **FD10 Choreography**

- 20 • **Items 783, 783.1:** Pack SAFER for return in MPLM after SAFER C/O.
- 21 • **Begin packing endcone with foam and CIR Hardware CTBs (qty 5) full of foam.**
- 22 • **Continue packing MPLM return items.**

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25 Have a great day!

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- The STS-126 Transfer Team

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MSG 080 - FD08 MMT SUMMARY

1 The MMT met to review mission progress, orbiter systems and the request to use the TPS  
2 NOAX dispensing tool for EVA 3 and 4. The mission is proceeding extremely well and the  
3 MMT is very happy with mission progress. Endeavour is also performing well. The elbow  
4 camera magenta hue and ITVC tilt angle offset were briefed. INCO may be requested to  
5 reset the angles of the ITVC, but both cameras are considered fully operational. In addition,  
6 the analysis of the gloves from EVA 2 were presented. Additional pictures of one of the  
7 gloves were requested but the other 3 gloves were in great shape and GO for the next EVA.

8  
9 The MMT reviewed the request to use the TPS NOAX dispensing tool for EVAs 3 and 4 to  
10 assist with the lubrication of the port and starboard SARJ. The team reviewed the  
11 efficiencies the additional tool could provide. The MMT recognizes that there is a very low  
12 probability that the tool will be required for the contingency scenario of dispensing NOAX. It  
13 was also observed that the tool could be cleaned up after it was used for SARJ lubrication  
14 and ready to serve as the backup to the prime NOAX dispensing tool, if needed. Since one  
15 of the primary objectives of this mission was to stabilize and restore the SARJ to fully  
16 functional status, the MMT concurred with the request to use the backup NOAX dispensing  
17 tool for EVAs 3 and 4. The Flight Control Team will work with you on the details of how and  
18 when the tool may be implemented for EVAs 3 and 4.

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END OF PAGE 1 OF 1, MSG 080

MSG 082 - FD09 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. Please give the ground 30 minutes to configure for HD video.

3  
4

**Crew Choice KU FD09**

<b>TDRS</b>	<b>AOS</b>	<b>LOS</b>	<b>DURATION (min)</b>	<b>COMMENT</b>
W-171	7/14:18	7/14:51	33	
E-46	7/14:57	7/15:30	34	
W-171	7/16:08	7/16:39	31	
E-46	7/16:40	7/17:06	27	
W-171	7/17:52	7/18:21	30	
E-275	7/18:50	7/19:21	32	No DTV or HD
W-171	7/19:36	7/20:04	29	
E-275	7/20:21	7/20:55	34	No DTV or HD
W-171	7/21:12	7/21:41	29	
W-171	7/22:35	7/23:07	33	
W-171	8/00:08	8/00:43	36	
E-46	8/03:56	8/04:32	36	

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# MSG 083A (18-0291A) - NOAX NOZZLE MODIFICATION (ALLIGATOR CLIP)

Page 1 of 1

## NOAX NOZZLE MODIFICATION (ALLIGATOR CLIP INSULATOR)

(15 MIN)

**OBJECTIVE:** Use Alligator Clip insulator to reduce NOAX gun nozzle size to better dispense grease.

**LOCATION:** Middeck

### **TOOLS REQD:**

CHCK	Metal Hose Clamp
ISS Pin Kit	Alligator Clip (NOD104_D1, flap 2)
TOOL	Kapton Tape
	Large Needlenose Pliers
VOL D	NOAX gun nozzle

- Middeck
1. Remove metal Alligator Clip from insulation.
  2. Attach insulation to NOAX gun nozzle using Hose Clamp as shown below.



3. Tighten Hose Clamp finger tight, use Needlenose Pliers to tighten additional ½ turn.
4. Cover Hose Clamp with two layers of Kapton Tape as shown below.

