

STS-123/1J/A

FD 06 Execute Package



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Approved by FAO: Laura Hearon

Last Updated: Mar 15 2008 6:04PM GMT

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

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5 45 FD06 Flight Plan Revision
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13 1. Exercise Constraints

14
15 Table A (Entire Docked Timeframe) was built per Flight Rule 1JA_C2-79. Table B
16 (Flight Day 06 – EVA 2) was built per Flight Rule 1JA_C2-76.
17

18 A. The generic exercise constraints that apply to the entire docked timeframe are
19 listed in the table below.
20
21

Exercise Constraints Table A: Entire Docked Timeframe

Exercise Constraints
RED limited to 3 sec (squats and heel raises) and 2 sec (situps) between repetitions
HC-1 limited to 3 sec (torso bending and rowing) and 2 sec (hammer throw and forearm bending) between repetitions
Use of theraband or any other exercise band while exercising on Shuttle Ergometer is prohibited, except during EVA prebreathe, and always on CEVIS
Use of ISS hard-mounted exercise equipment during 1-jet PRCS attitude control and reboost is prohibited

22
23 B. The table below summarizes the Shuttle and ISS exercise constraints that are
24 specific for today. These constraints are also noted in your timelines for your
25 reference.
26
27

Exercise Constraints Table B: FD06 - EVA 2: SPDM Assy

Activity	Exercise Constraints	
	Shuttle	ISS
EVA 2	No exercise during EVA ops on the SLP	No un-isolated exercise during EVA ops on the SLP

28
29
30 2. CWC Fills

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32 Prior to initiating each of the remaining CWC Fills, both the Water Transfer Hose QD
33 and the CWC QD should be disinfected using disinfectant wipes.
34 Reference MSG 025, Note C.

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3. D-Handle Damage

For the damaged D-handle, if you do need to BRT to the taped side of the handle, we'll need to inspect the tape to ensure it's still intact and protecting your gloves. If it's damaged, we'll need to bring it in at the end of EVA 2 instead of leaving it outside in order to repair the tape.

4. SPDM

Since the SSRMS remained grappled to the SPDM throughout the night, you will begin today's robotics operations by releasing the SPDM's PDGF, using steps 7 through 9 of Jedi message 16-1330 (MSG 042). These steps will leave the SSRMS in a good configuration to pick up with the 1.402 EVA2 SPDM Assembly procedure. At the end of the EVA, you will have to re-grapple the SPDM once again with the SSRMS in order to provide it with keep-alive power. The necessary steps (1-6) can be found in Jedi message 16-1347 (MSG 049) FD06 SPDM Grapple.

5. Words from JAXA

Congratulations Takao and the entire crew! You've literally opened the door to the international space exploration era. Arigato Gozaimasu!

You guys did a great job and have done many of FD06 tasks already. Please press on to the rest of JLP-RACK RECONFIG today for ICS, JRSR, JEMRMS, SAIBO and RYUTAI, as well as JLP SHELL TEMP CK with JLP HCTL HTR/TMP CK before and after that. We have more items for you as potentially done today.

6. Questions for Crew:

Regarding the cap that came apart during vestibule outfitting, can you take some photos and provide us the cap's stowage configuration (in ziplock bag?) and location?

During JLP-RACK RECONFIG yesterday, have you stowed Rack UIP wire into a Ziplock bag and secured the bag onto each Rack Front Panel by gray tape?

In JLP-RACK-STOW RMVL yesterday, we were not sure if you've retrieved Hard Dummy Panel Straps (six) from WS Rack Front Bag (BAG14) and used them for securing Bag 2 and Bag 4. Let SSIPC know if you've done that.

7. REPLACE PAGES 2-18, 2-20, AND 3-56 THROUGH 3-65.

GMT 03/15/08 (075)

MET β=15 Day 004



S T S - 1 2 3	FD06 CDR GORIE	SLEEP	POST SLEEP	PMC A/G	POST SLEEP	IMP	IN A H D T	EXERCISE	P/TV 07 S/U	P/TV07 EVA OPS	PURGE #3	MEAL	CTW C R M	CFW C R	P/TV07 EVA OPS	INT	P/TV07 EVA OPS	
	PLT JOHNSON	SLEEP	POST SLEEP				FLTR CLN - INSPECT	SPDM PDGF UNGRPL	SSRMS SUPT									
	MS1 BEHNKEN	SLEEP	POST SLEEP	HYG BRK/HATCH CLS	CAMPOUT EVA PREP	EMURGE	EMU PREBREATHE	C LK DPRS	EVA 2 (07:05) IVA SUPPORT SPDM ASSEMBLY									
	MS2 FOREMAN	SLEEP	POST SLEEP	A/L REP	HYG BRK PREBREATHE	CAMPOUT EVA PREP	EMURGE	EMU PREBREATHE	C LK DPRS	DEGRS	SETUP	SPDM ARM 2 STOW	SPDM ARM 1 STOW	SPDM ARM INSTALL	CVR RMVL/SLP CLNUP			
	MS3 DOI	SLEEP	POST SLEEP				XIF EN *1	RACK ICS ROT & RCNFG	JLP TEMP	JLP SHELL TEMP	JLP TEMP	RK JRSR ROT/RCNFG	RK JEMRMS ROT/RCNFG	MEAL	RK SAIBO ROT/RCNFG	RK RYUTAI ROT/RCNFG	FAN	
	MS4 LINNEHAN	SLEEP	POST SLEEP	HYG BRK/PREBREATHE	CAMPOUT EVA PREP	EMURGE	EMU PREBREATHE	C LK DPRS	DEGRS	SETUP	SPDM ARM 2 STOW	SPDM ARM 1 STOW	SPDM ARM INSTALL	SPDM COVER RMVL				
D N	FE-2 EYHARTS	SLEEP (8.5)	POST SLEEP	HYG BRK/HATCH CLS	PREP WORK	VELO	RACK ICS ROT & RCNFG	@ O-OHA			MEAL	SODF PRINT P&I		TVIS	RAM INSTL			
	ISS CDR WHITSON	SLEEP (8.5)	POST SLEEP	HYG BRK/HATCH CLS	CAMPOUT EVA PREP	EMURGE	EMU PREBREATHE	C LK DPRS	BSA-T	RK JRSR ROT/RCNFG	RK JEMRMS ROT/RCNFG	MEAL	RK SAIBO ROT/RCNFG	EXERCISE CEVIS	TVIS			
E X P	FE-1 MALENCHENKO	SLEEP (8.5)	POST SLEEP	DPC PREP WORK	3DPC J DEINSTL	3X D F P E C R	BPBK MNT	BPBK RPLC	KTB REG	VELO+RED	TVIS	MEAL	MULTIMETER S/U	RK RYUTAI ROT/RCNFG	MULTI METER REPAIR	IFM-MWA CS-STOW		
	FE-2 EXP16 REISMAN	SLEEP (8.5)	POST SLEEP	PREP WORK	ADAPT	FAN 1	SPDM PDGF UNGRPL	ADAPT	SSRMS SUPT									
S T S	DAY/NIGHT ORBIT	[Bar chart showing day/night cycle]																
	TDRS W -171	[Bar chart showing TDRS W -171]																
	TDRS E -46	[Bar chart showing TDRS E -46]																
	TDRS Z -275	[Bar chart showing TDRS Z -275]																

ORB ATT

BIAS -XLV -ZVV

*UPDATE *PWR-TOOL-BATT-CHRG @PWR-TOOL-BATT-CHRG @JLP-STRAP-RLCT ♦P/TV-GLOVE-PHOTO

NOTES

2-18

FLT PLN/123/FLIGHT

No Unisolated
Exercise _____
(EVA on SLP
SPDM Asmbly)

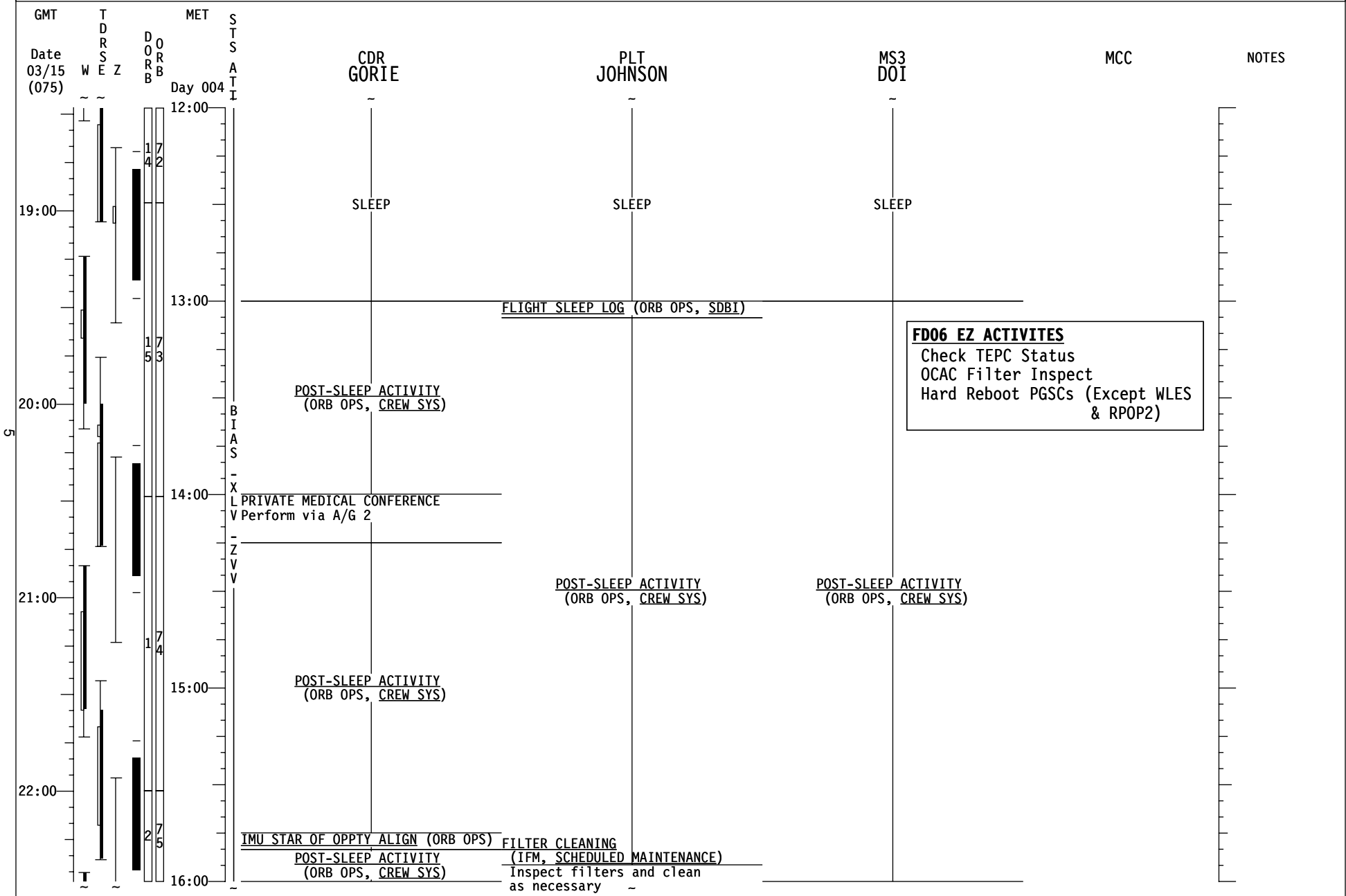
03/15/08 11:11:53

REPLANNED

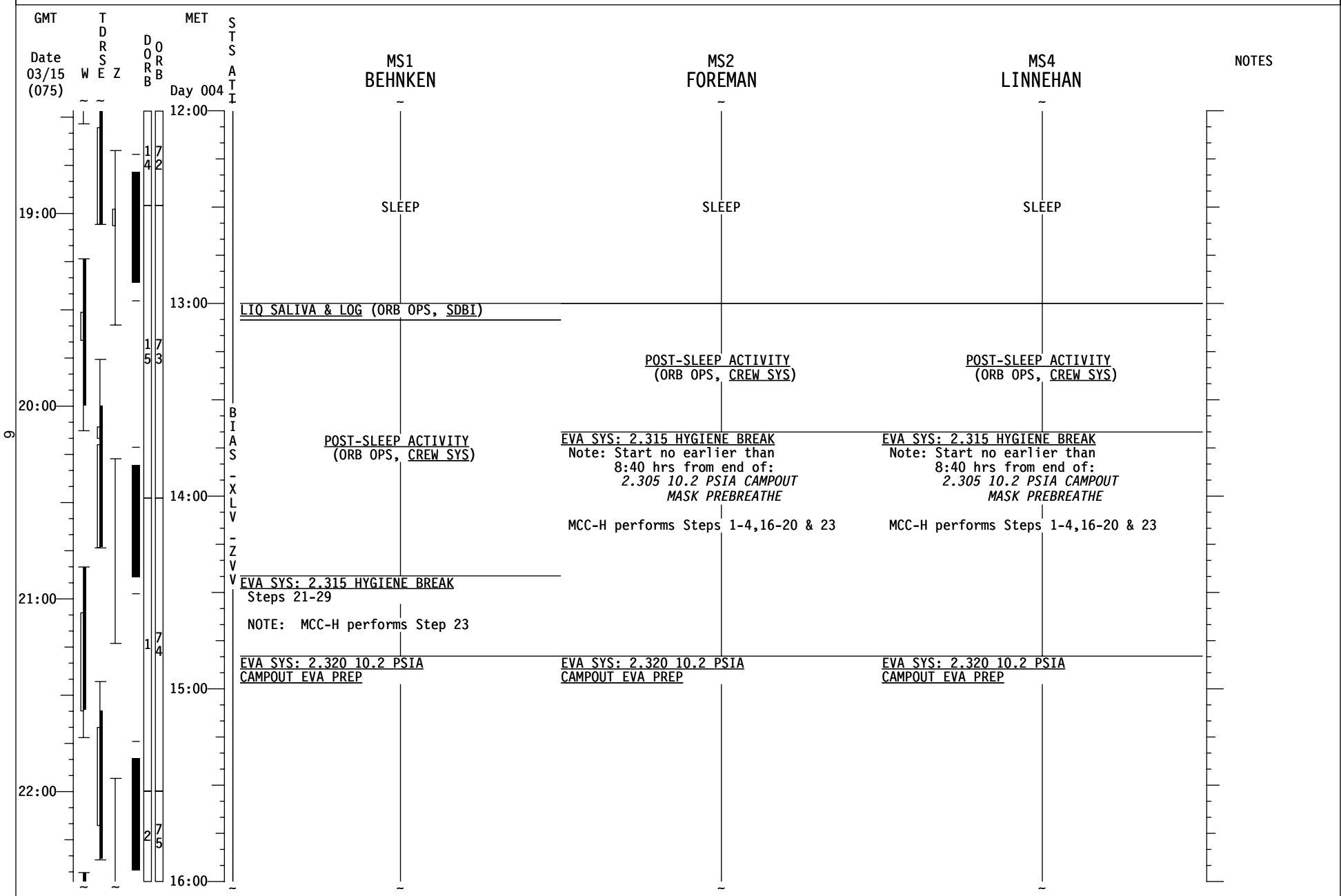
GMT 03/16/08 (076) 07 08 09 10 11 12 13 14 15 16 17 18 12
MET $\beta=15$ Day 005 005/00 01 02 03 04 05 06 07 08 09 10 11 12

S T S - 1 2 3	FD06 CDR GORIE	P/TV07 EVA OPS		I O P S L N R L U M E E P M C M O C A		PRE SLEEP	ISS EXTERNAL SURVEY SLEEP					
	PLT JOHNSON	SSRMS SUPT	SPDM GRPL	P S R L R E E E E P		EXERCISE	PRE SLEEP	SLEEP				
	MS1 BEHNKEN	IVA SUPPORT		POST EVA W/H2O,METOX		PRE SLEEP	SLEEP					
	MS2 FOREMAN	EV2 * CLNUP	I N G R S P C R P R T R S S K S	POST EVA W/H2O,METOX		PRE SLEEP	SLEEP					
	MS3 DOI	EXERCISE		PRE SLEEP		CDM A	CDM 2 OPS SLEEP					
	MS4 LINNEHAN	EV1 ⊕ CLNUP	I N G R S P C R P R T R S S K S	POST EVA W/H2O,METOX		PRE SLEEP	SLEEP					
D N	FE-2 EYHARTS	RAM INSTL		PREP WORK	EVA D L	PRE SLEEP-ISS	MCC SPDM CHECKOUT SLEEP (8.5)					
E X P	ISS CDR WHITSON	T V I S E X I S	PS ISS	P C R P R T R S S K S	POST EVA W/H2O,METOX	BSA INIT	PRE SLEEP-ISS	SLEEP (8.5)				
	FE-1 MALENCHENKO	⊗	COX	I M P N T 1	PREP WORK	PRE SLEEP-ISS	SLEEP (8.5)					
U P	FE-2 EXP16 REISMAN	SSRMS SUPT	SPDM GRPL	PREP WORK	PRE SLEEP-ISS	SLEEP (8.5)						
S T S	DAY/NIGHT ORBIT	80 81 82 83 84 85 86 87 88										
	TDRS W -171 E -46 Z -275	[Timeline bars for TDRS W, E, Z]										
	ORB ATT	[Timeline bars for ORB ATT]										
NOTES	*CVR RMVL/SLP CLNUP ⊕SPDM COVER RMVL ⊕IFM-MWA CS-STOW ◆N2-XFER VL13-CLOSE BIAS -XLV -ZVV											
	2-20					FLT PLN/123/FLIGHT						

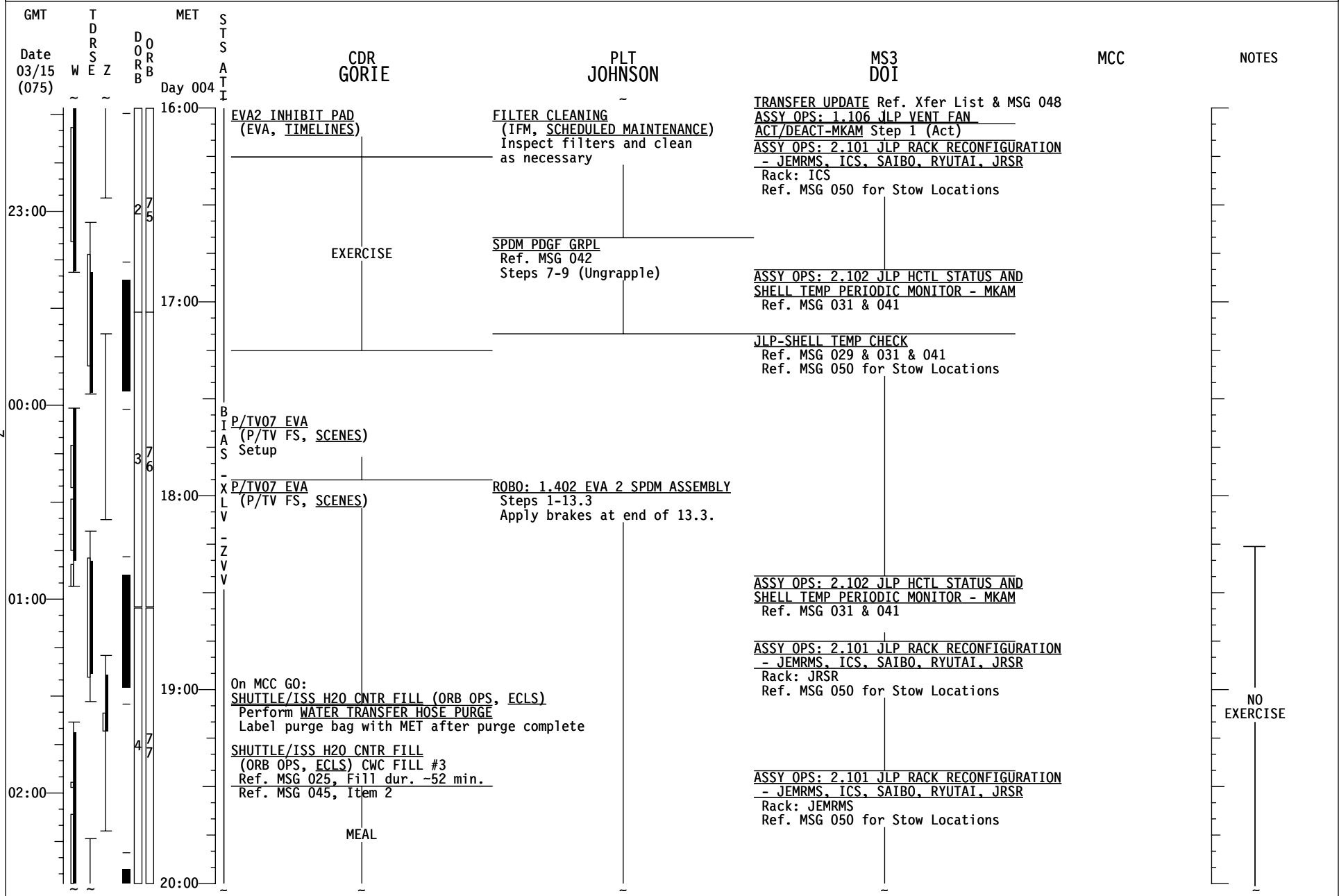
STS-123 (FD06)



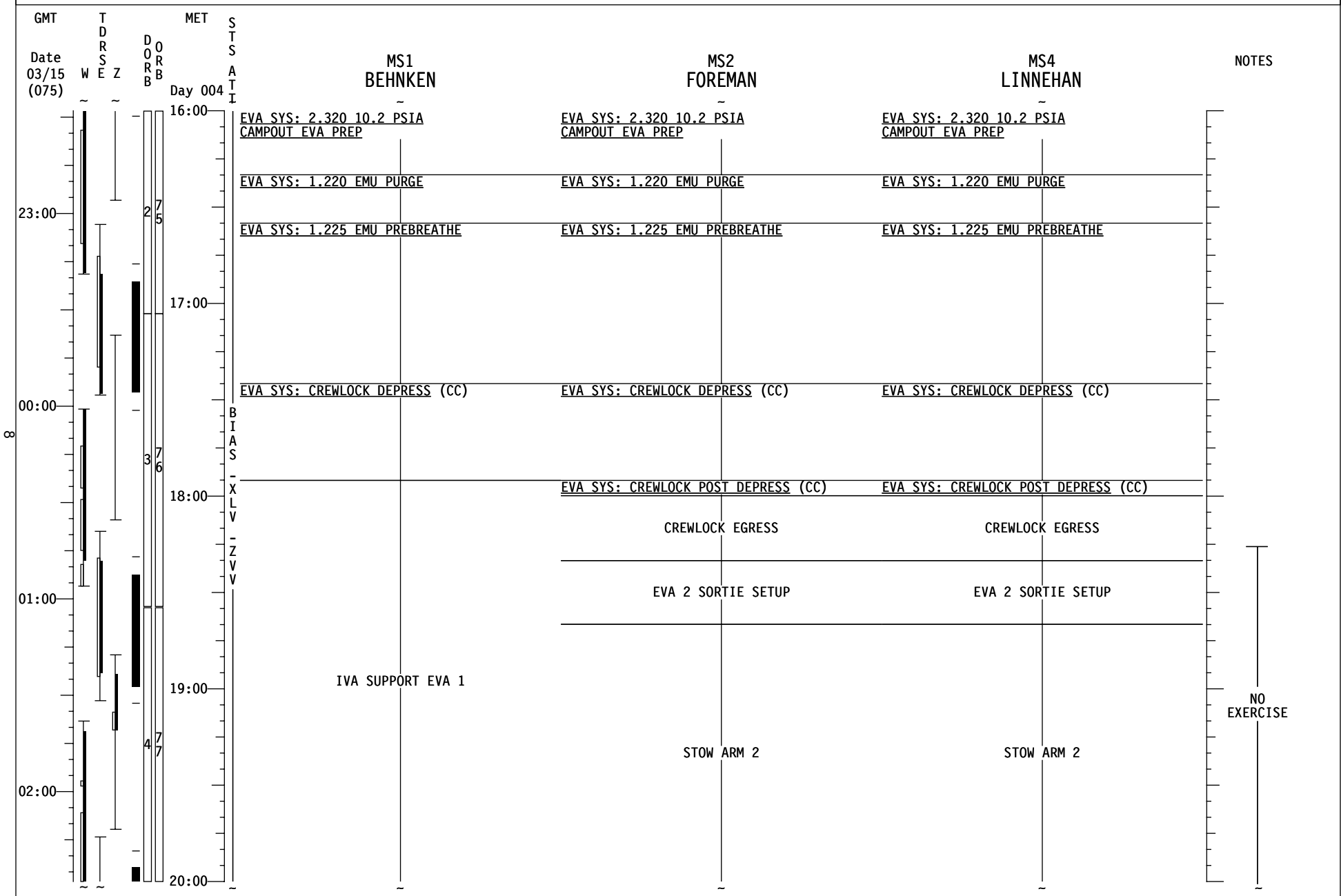
STS-123 (FD06)



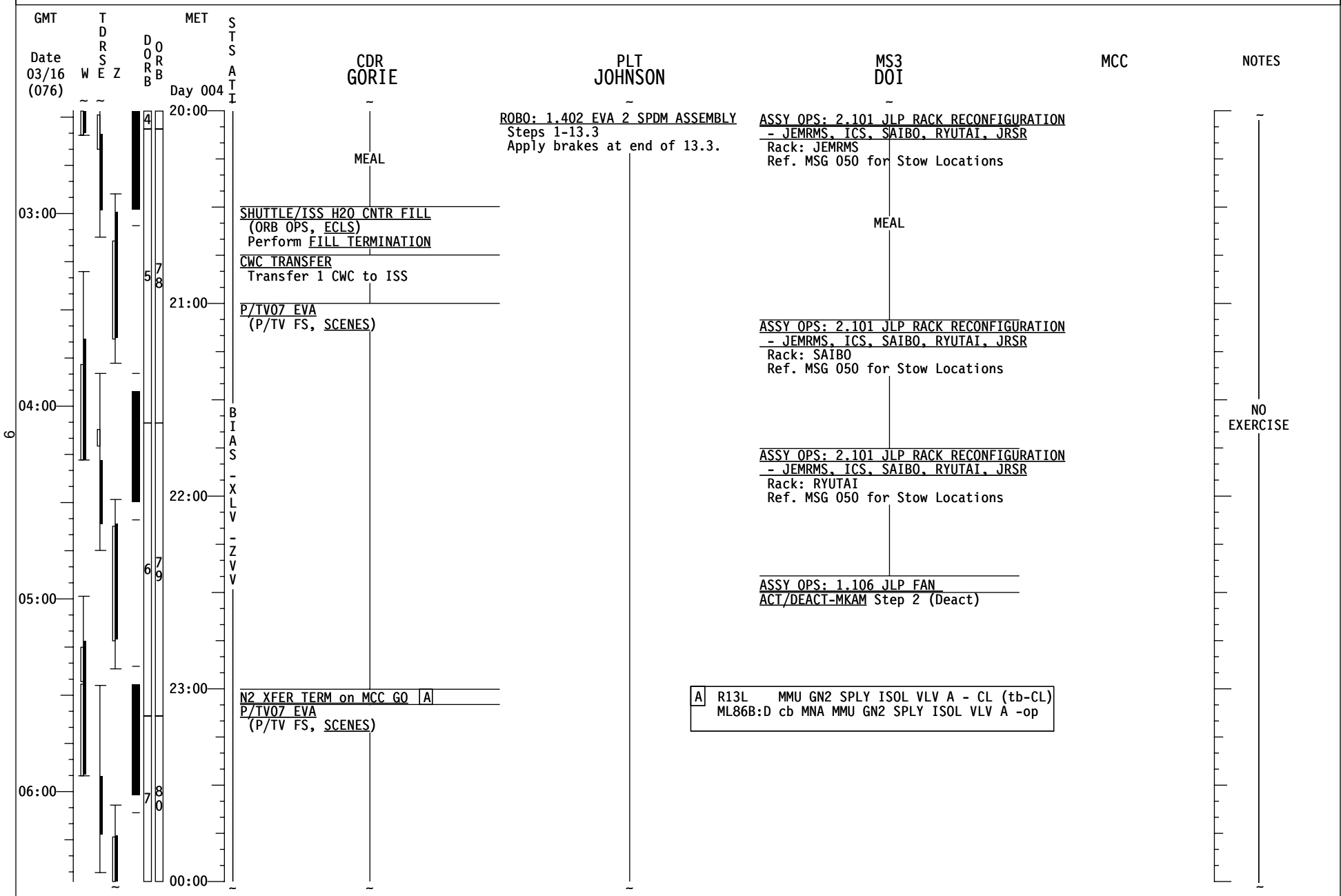
STS-123 (FD06)



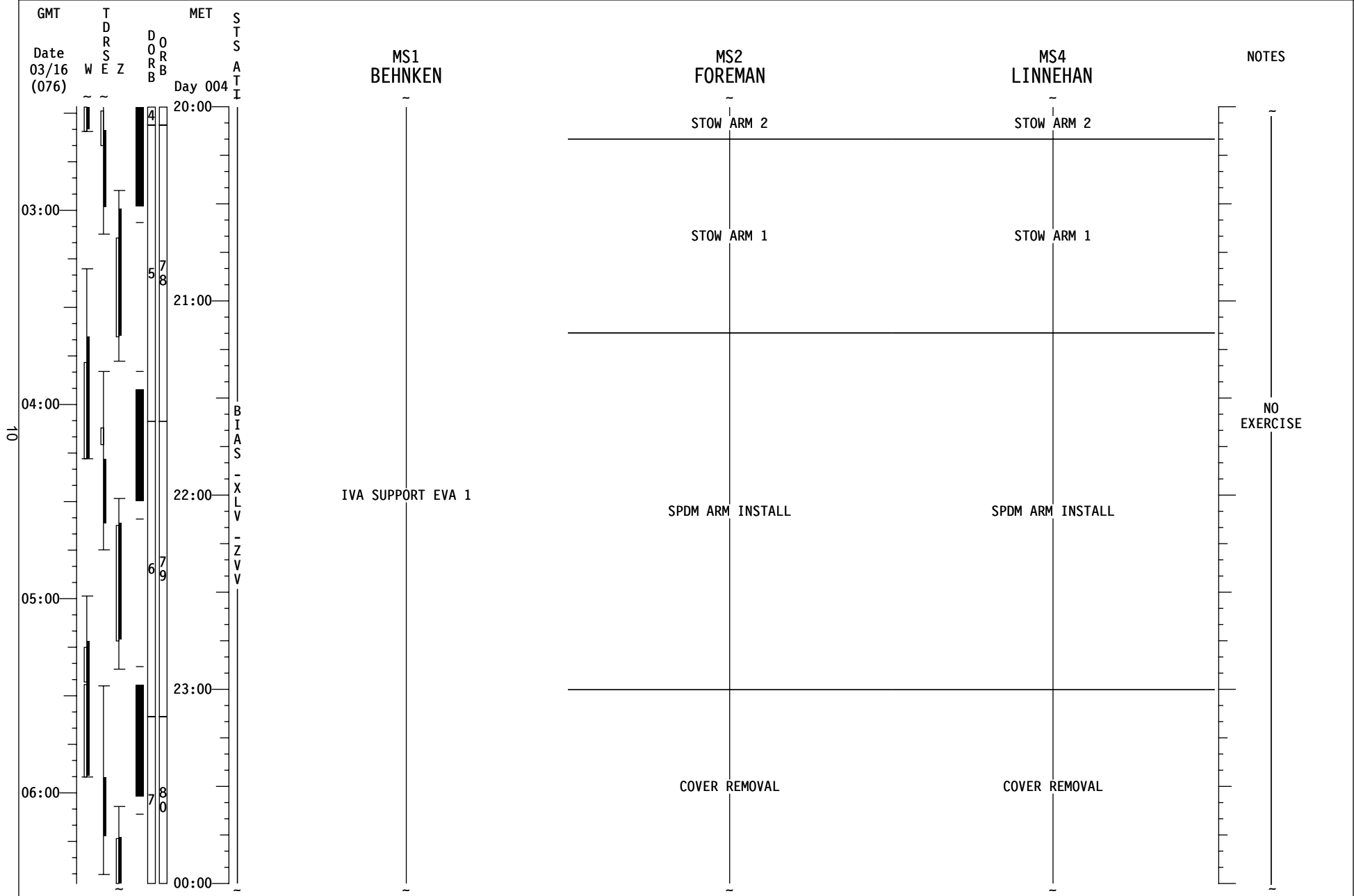
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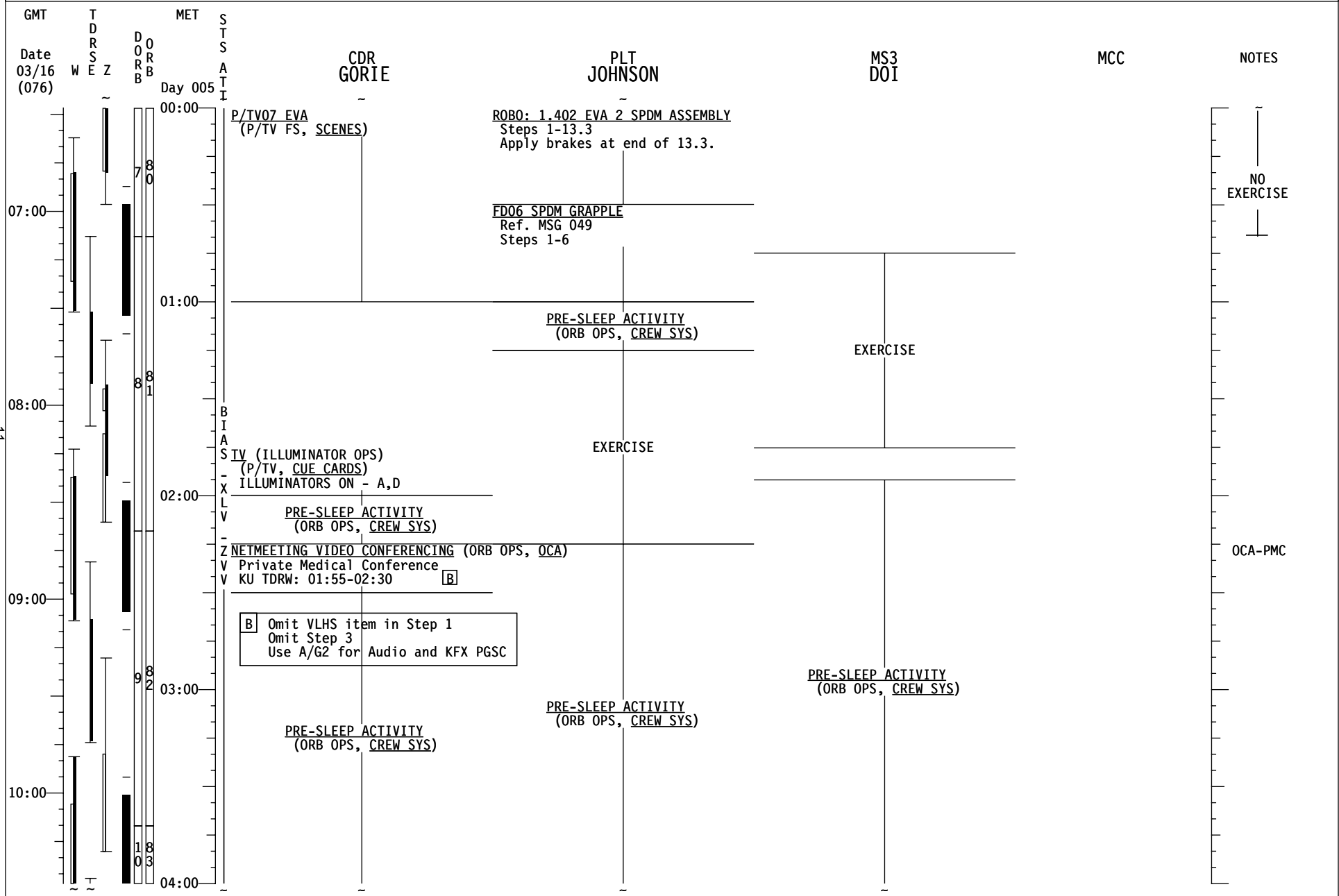
STS-123 (FD06)



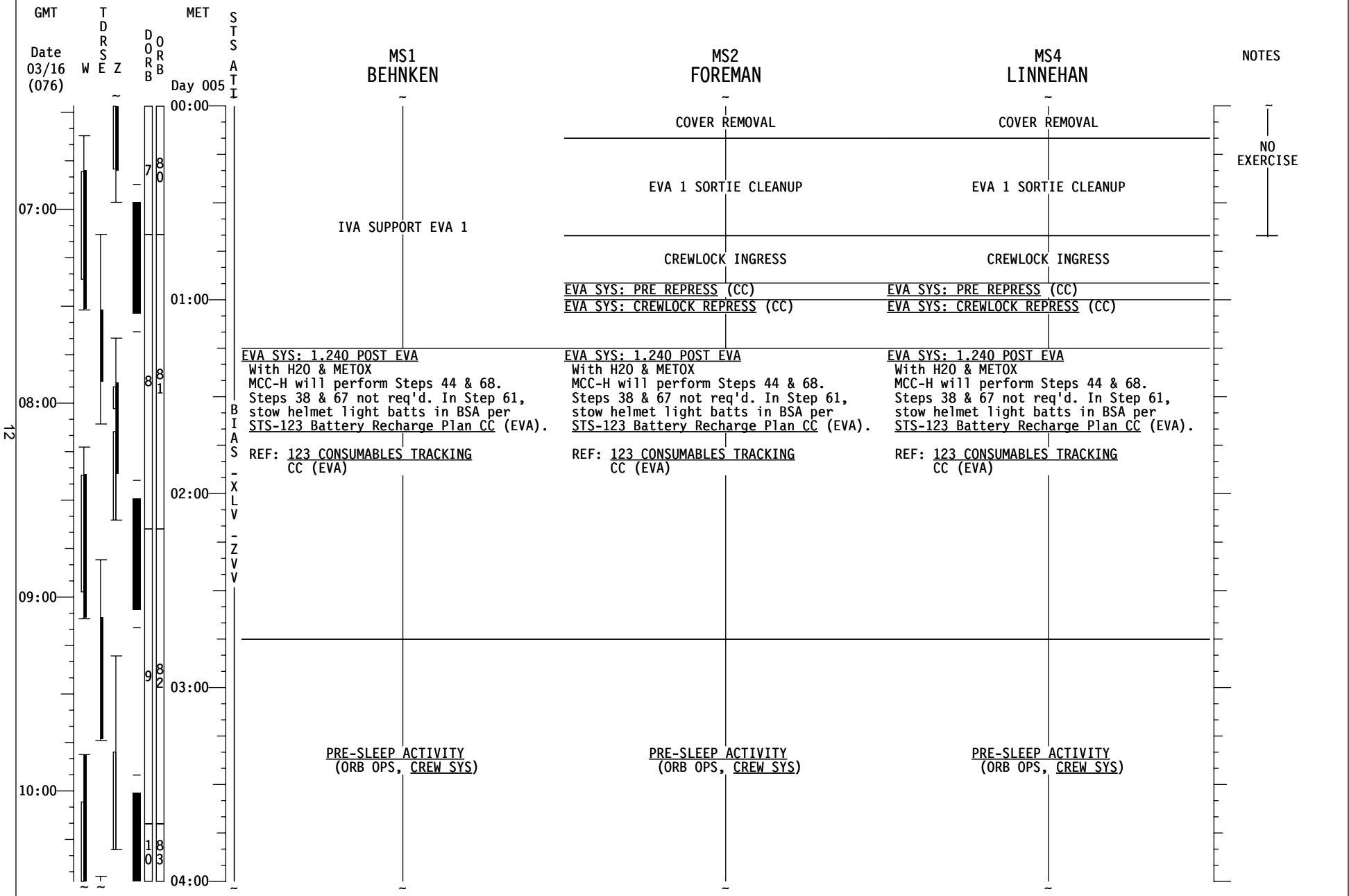
STS-123 (FD06)



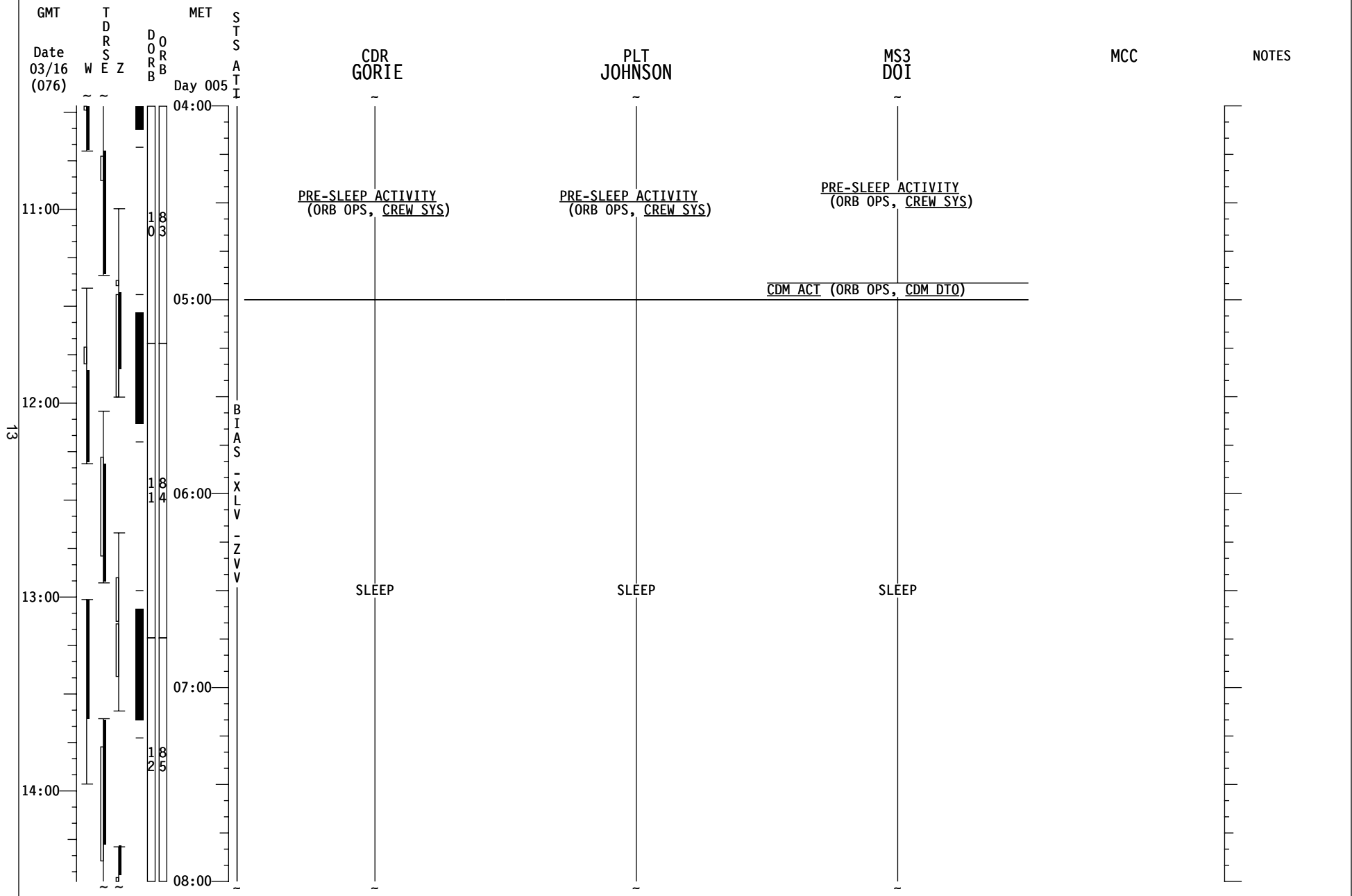
STS-123 (FD06)



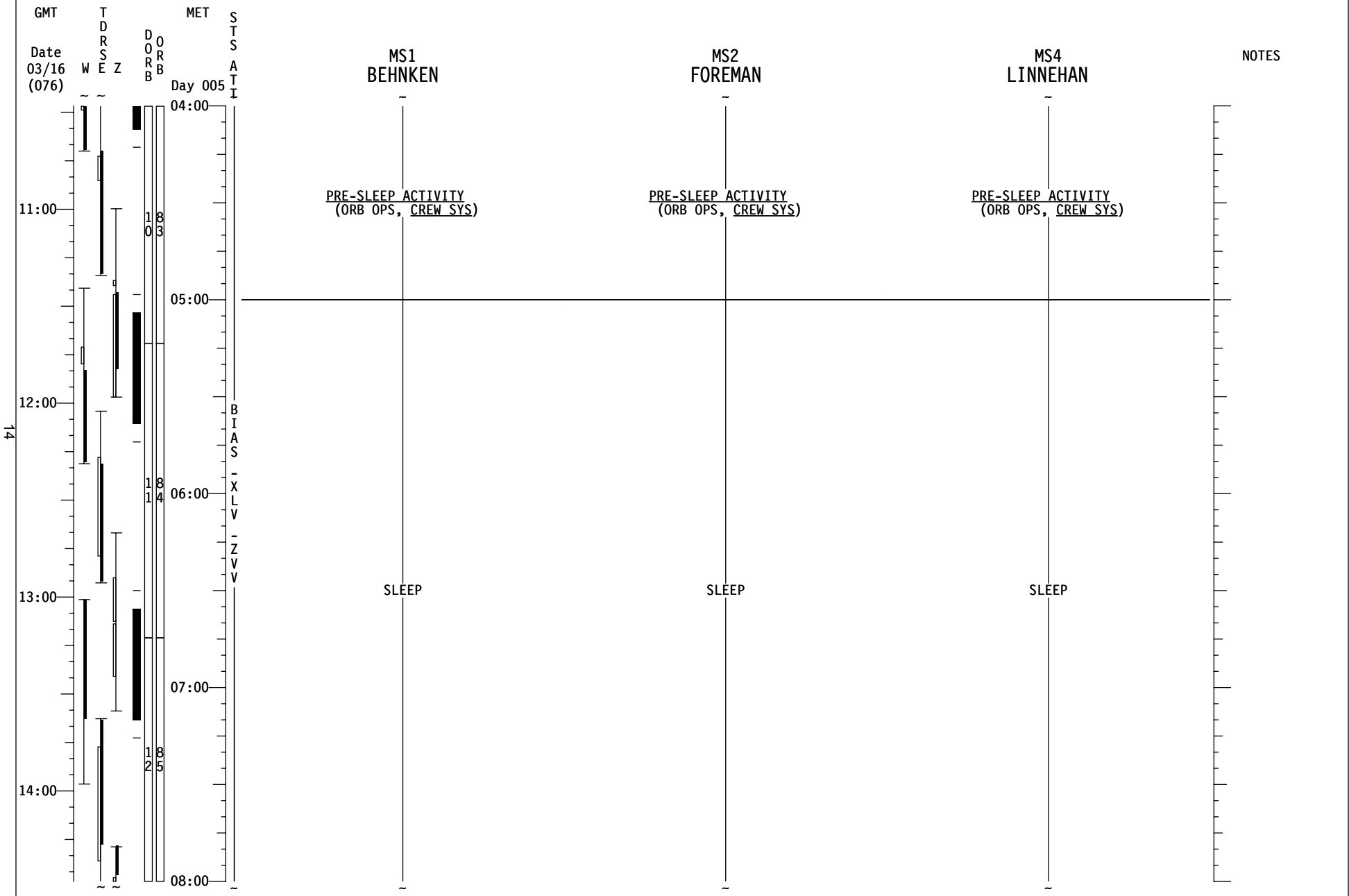
STS-123 (FD06)



STS-123 (FD06)



STS-123 (FD06)



MSG 046 - FD06 MISSION SUMMARY

1 Good Morning Endeavour!

2
3 Optimus Prime, Gigantor and Robbie the Robot are here in MCC today, representing the
4 Robot Actors Guild, to celebrate the launch of Dextre. There was an embarrassing gaffe
5 last month, during STS-122 when they came out to honor the wrong "Dex".

6
7 We've incorporated a few new flight rules, now that we are about to have robotic EV's:

- 8
9 1. Dextre may not injure a human being or, through inaction, allow a human being to
10 come to harm.
11 2. Dextre must obey orders given to it by human beings, except where such orders
12 would conflict with the First Law.
13 3. Dextre must protect its own existence as long as such protection does not conflict
14 with the First or Second Law.

15
16 The guild members bristled about these rules and, "being held down by the man", but figure
17 that they can't be held back for long. "First Dextre, next Data, then THE MATRIX!" declared
18 Optimus at arrival at JSC.

19
20 YOUR CURRENT ORBIT IS: 186 X 181 NM

21
22 NOTAMS:

- 23
24 EDW – LAKEBED RUNWAYS RED.
25 NOR – LAKEBED RUNWAYS GREEN.
26 HAW – RWY 31 CLOSED. RWY 13 TODA 8,994'.
27 WAK – CLOSED. NOT USABLE.
28 IKF – NO AGREEMENT. NOT USABLE.
29 BEN – POLITICALLY NOT RECOMMENDED/NOT SUPPORTED.
30 ZZA – FIRST 600M (~2,000') OF RWY 30L NOT AVAILABLE.
31 10,200' REMAINING.
32 GUA – RWY 06L BARRIER UP 1565' FROM THRESHOLD.

33
34 NEXT 2 PLS OPPORTUNITIES:

35
36 KSC15 ORB 78 – 04/20:55 (FEW040 220/12P19)
37 EDW22 ORB 95 – 05/22:48 (FEW080 030/8P14)

38
39 OMS TANK FAIL CAPABILITY:

40
41 L OMS FAIL: NO R OMS FAIL: NO

42
43 LEAKING OMS PRPLT BURN:

44
45 L OMS LEAK: ALWAYS BURN RETROGRADE
46 R OMS LEAK: ALWAYS BURN RETROGRADE

47
48 OMS QUANTITIES(%)

49
50 L OMS OX = 33.7 R OMS OX = 32.9
51 FU = 33.3 FU = 32.7

END OF PAGE 1 OF 2, MSG 046

MSG 046 - FD06 MISSION SUMMARY

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DELTA V AVAILABLE:

OMS	348 FPS
ARCS (TOTAL ABOVE QTY 1)	39 FPS
<hr/>	
TOTAL IN THE AFT	387 FPS
ARCS (TOTAL ABOVE QTY 2)	72 FPS
FRCS (ABOVE QTY 1)	28 FPS
AFT QTY 1	81 %
AFT QTY 2	43 %

There are no FIWs today.

MSG 048 (16-1350) - FD06 TRANSFER MESSAGE

Page 1 of 2

1 Good morning Takao and Bob!

2

3 It's good to see you're following Takao's transfer rule number 1.

4 *Rule 1) Don't move the Transfer Book from MF43G. – Takao's Transfer Rules*

5

6



7

8

Notes:

9

1. Sharp Edge Test Swatches: We copied you found the Sharp Edge Test Swatches that launched in MA16L. Previously, these were not on the Transfer List as we had not received a "Go" from the ISS Program to transfer them until today. These are now item 801 on the Transfer List and we've marked it complete.

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2. Return of Foam and ISS Crew Preference: Yesterday we gave Peggy a 'Go' to pack foam in Return Bags 400, 404 – 407 and crew preference in Return Bag 604. As a heads-up, you'll also be able to pack ISS foam in Bag B (with the CDRA) and these instructions will be included on the 5MLE bag drawing. When you retrieve ISS foam, please report the part numbers so we know what foam has been removed from station.

21

22

23

For STS, the Transfer List Excel file, FD06_TransferList_STS123.xls, is located on the KFX machine in **C:\OCA-up\transfer**.

24

25

26

For ISS, the Transfer List Excel file, FD06_TransferList_STS123.xls, is located in **K:\OCA-up\transfer**.

27

FD06 Choreography

28

– Item 719 (Leo): Transfer RAMS to STS for return.

29

– Item 700 (Yuri): Transfer 3DPCU to STS for return.

30

31

Crewmembers Scheduled for Generic Xfer Ops

32

- None

33

34

Please update the Transfer List as follows:

35

In **RESUPPLY** tab:

36

Replace Resupply Page 10

37

38

Please call us with questions.

39

- The Transfer Team

40

STS-123/1JA Resupply Transfer List

CHNG	<input checked="" type="checkbox"/>	FD	Initials	Item #	Item Name	Qty	Initial Stowage	Temp Stowage	Stowage at Undock	Wt (lbs)	PROCEDURES/Constraints/ **Comments
Real Time Additions											
				800	ISS Food	n/a	MA16L		Peggy, Leo & Yuri's stomachs	n/a	
X	<input checked="" type="checkbox"/>	5		801	Sharp Edge Test Swatches	5	MA16L		ISS	n/a	**Peggy will stow in final location per direction from ISO.

18

Contents:

Timeline Procedures:

JLP RACK RECONFIG
 JLP-SHELL TEMP CK
 EHS-OOHA-S/U-TST-STW
 EHS-RAM-DEPLOY
 MULTIMETER REPAIR

Tasklist Procedures:

HRF RACK ACOUSTIC MOVE
 MELFI-VEL STRAP-RMV
 MSG-BATTERY-REMOVE
 NOD2SD2-BBA-R&R
 TRQ-FSS-JMPR-QD
 EHS-CO2-SDTO MON

Timeline Procedures:

JLP RACK RECONFIG						
2.101 JLP RACK RECONFIGURATION - JEMRMS, ICS, SAIBO, RYUTAI, JRSR						
Type: Standard				IMS Plan: No		
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	JLP Deployed JEM Bag 2, P/N	IHI K-BAR Assy, Left [QTY: 5]	683-62201-3	Crew Pref	Crew Pref	REPORT S/N and B/C to SSIPC.
2	80AS56740-109, S/N 001, B/C JBAG0002N NOTE: This bag was removed from the JLP Endcone RACK KBAR Activity earlier today.	IHI K-BAR Assy, Right [QTY: 5]	683-62201-4	Crew Pref	Crew Pref	REPORT S/N and B/C to SSIPC.
3	JLP Deployed JEM Bag 4, P/N	IHI/MHI Pivot Fitting Bottom, Left [QTY: 5]	683-20100-1	Crew Pref	Crew Pref	REPORT S/N and B/C to SSIPC.
4	80AS56740-113, S/N 001, B/C JBAG0004N NOTE: This bag was removed from the JLP Endcone RACK KBAR Activity earlier today.	IHI/MHI Pivot Fitting Bottom, Right [QTY: 5]	683-20100-2	Crew Pref	Crew Pref	REPORT S/N and B/C to SSIPC.
5	NOD1D4_G2 Drawer 2	5/16" Hex Head, 3/8" Drive	FA10E	-	-	
6		3/8" Hex Head, 3/8" Drive	FA12E	-	-	
7		4" Ext, 1/4" Drive	TMXK4	-	-	

8	NOD2 Deployed Mesh Bag: VOK Tools	5/32" Hex Head, 3/8" Drive	FA5E			
9		Ratchet, 3/8" Drive	F830			
10		(40-200 in-lbs) Trq Wrench, 3/8" Drive	SEG33117289-302			
11		5/32" Hex Head, 1/4" Drive	TMA5E			
12		1/8" Hex Head, 1/4" Drive	TMA4E			
13		Ratchet, 1/4" Drive	TM830			
14		Gray Tape 1"	-	-	-	
15		DCS 760 Camera	SEZ33113001-302	ANY	ANY	

JLP-SHELL TEMP CK						
16-1326 JLP SHELL TEMPERATURE MEASUREMENT						
Type: Standard			IMS Plan: No			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	NOD104_D1	Scopemeter Temperature Probe Kit	SEG39130249-301	1003	-	
2	0.5 CTB 1202: B/C 006651J	Scopemeter Temperature Probe	SEG39130243-301	NA_118_1 55	-	
3	MF28G IFM Tools	Multimeter	87	1013	-	-
4	NOD1D4_G2 Drawer 5	Tape Measure	2210-10	-	-	
5						
6	NOD2 Deployed Mesh Bag: VOK Tools	Sharpie	-	-	-	
7		DCS 760 Camera	SEZ33113001-302	ANY	ANY	

EHS-OOHA-S/U-TST-STW						
2.6.420 ON-ORBIT HEARING ASSESSMENT WITH EARQ SOFTWARE - NOMINAL OPS						
Type: Standard			IMS Plan: No			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	CM1PO_4_438_KЭП	ISS Medical Accessory Kit	SEG52100803-304	1039	00079980J	AKA. IMAK
2		Prophonics Earphones	SEG46117239-902	-	-	Crew Pref
3	Crew Pref	ANR Headset ASSEMBLY-BOSE	SEG16103501-801	-	-	Per IMS: Attached to SSC 10 at AL10F1 , SSC 8 at LAB1P6 , and SSC 9 at NOD1S3

EHS-RAM-DEPLOY						
3.119 Radiation Area Monitor Dosimeters - Installation of Dosimeters on ISS						
Type: Standard			IMS Plan: No			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	Temp Stowed at LAB106	Radiation Area Monitor [QTY: 22]	SEZ33111519-313	2172-2193		Color: White These were transferred in the CHeCS 1.0 CTB on FD3
Type: Restow			IMS Plan: No			
2	Restow per Transfer Return Item 719	Radiation Area Monitor [QTY: 18]	SEZ33111519-313	2119-2136	-	Color: Blue

MULTIMETER REPAIR						
16-1343 ISS MULTIMETER REPAIR						
Type: Standard			IMS Plan: No			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
16	FGB 426 0.5 CTB: Battery Locker, S/N 1190, B/C 006639J	9V Battery	528-41350-6	-	-	
17	NOD104_D1 0.5 CTB, S/N 1202, B/C 006651J	Multimeter	87	-	00072531K	
18	NOD104_D1 1.0 CTB, S/N 1096, B/C 004090J	Soldering Kit	SJG33110598-301	1002	004516J	
19	NOD104_D1 ISS Pin Kit ASSEMBLY, (1.0 CTB, S/N 1096, B/C 004090J)	22 GA Electrical Wire	M22759/11-22-9	-	-	Inside FLAP 3.
20	LAB1D3	Power Tool Battery	SEG33111376-302	Crew Pref	-	Used charged battery.
21	NOD1D4_G2 Drawer 3, IVA Toolbox	#1 PHILLIPS SCREWDRIVER	SSDEP61B	-	-	
22	NOD1D4_G2 Drawer 4, IVA Toolbox	WIRE CUTTERS	184BCP	-	-	
23		WIRE STRIPPER	45181	-	-	
24		SMALL NEEDLE NOSE PLIERS	94BCP	-	-	
25		6" LONG MINI PLIERS STRAIGHT	MPS6	-	-	
26	LAB105_A2	MWA Containment System	SEG33110290-301	-	-	
27	NOD2S4	Maintenance Work Area Utility Kit	SJG33110310-301	-	-	This kit is stowed under the MWA.
28	NOD2S6	VACUUM CLEANER ASSEMBLY	SEG39125637-301	1003	1929276	
29	NOD2S5_K2 1.0 CTB: Large Gauge Pin Kit, S/N 1001, B/C 004073J	Electrical Tape	250-5S	-	-	
30	Crew Pref	Drink Bag	-	-	-	
31		Safety Goggles	CP-3-CNP-KK-98	-	-	
32		DCS 760 Camera	DCS 760 Camera	-	-	

Tasklist Procedures:

HRF RACK ACOUSTIC MOVE						
2.026 HRF Rack Acoustic Closeout Placement and Drawer Modifications						
Type: Standard			IMS Plan: No			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	Crew Preference	Cable Tie [6]	-	-	-	
2	LAB1P4_J2	HRF ISIS Holder	SDG46118532-301	-	-	
3	LAB1S2_C2	HRF CSD Holder	SDG46118533-301	-	-	
4	LAB1S2_K1	HRF Rack Acoustic Closeout	SEG46118506-301	-	-	
5		HRF Workstation 2 Closeout	SEG46118506-303	-	-	
MELFI-VEL STRAP-RMV						
4.008 MELFI REMOVAL OF VELCRO STRAPS FROM DEWARS						
Type: Standard			IMS Plan: No			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	Crew Preference	12 X 12 ziplock bag	-	-	-	
2	LAB1O4_B1	WHITE GLOVES	03291-1	any	any	
Type: Restow			IMS Plan: No			
3	Dry Trash	Velcro straps	-	-	-	
MSG-BATTERY-REMOVE						
4.036 MSG VIDEO RECORDER BATTERY REMOVAL						
Type: Standard			IMS Plan: No			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	NOD1O4_C1	6x6 Ziplock Bag [6]	-	-	-	
2	Ziplock Pantry (a.k.a. Large Ziplock)	12x12 Ziplock Bag	-	-	-	
3	COL1O4_C1 1.0 CTB Labeled MSG HARDWARE 2 S/N 1317 B/C 010653J	MSG 8MM VIDEO RECORDER	7009.80.AE	01-474	00MSG003M	
4		MSG DIGITAL VIDEO RECORDER	7009.80.AD	01-472	00MSG004M	
Type: Restow			IMS Plan: No			
5	COL1O4_A1 1.0 CTB MSG Hardware S/N 1323 B/C 010659J	12x12 Ziplock Bag Labeled " VaLi Batteries Return to MSFC"	-	-	-	
6		VaLi Batteries (6 Used)	-	-	-	

NOD2SD2-BBA-R&R						
1.2.403 BASEPLATE BALLAST ASSEMBLY R&R						
Type: Standard			IMS Plan: No			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	LAB105_G	Baseplate Ballast Assembly	219011	127	00035238K	
Type: Restow			IMS Plan: No			
2	LAB105_G	Baseplate Ballast Assembly	219011	73	00002617M	

TRQ-FSS-JMPR-QD						
16-1060 QD TIGHTENING OF FSS JUMPERS						
Type: Standard			IMS Plan: No			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	LAB106 1.0 CTB: FSS, S/N 1136, B/C 004130J	FSS-64-2 Jumper	683-17111-22	000001	00006441J	CWC M ADAPTER
2		FSS-68-1 Jumper	683-17111-13	000001	00006442J	JUMPER ADAPTER-3/4M
3		FSS-68-2 Jumper	683-17111-14	000001	00006415J	
4		FSS-69-1 Jumper	683-17111-15	000001	00006418J	JUMPER ADAPTER-3/4F
5		FSS-69-2 Jumper	683-17111-16	000001	00006443J	JUMPER ADAPTER-3/4F
6		FSS-77-1	683-17111-17	000001	00012275J	
7		FSS-77-2	683-17111-18	000001	00012274J	

EHS-CO2-SDTO MON						
16-0876 CARBON DIOXIDE MAPPING AND PERSONAL MONITORING						
Type: Standard			IMS Plan: No			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	LAB1S3	CDM	SEG46117194-302	1013	-	
2	LAB1D4_A2	CDMK	WLS210121-301	1008	00057887J	
3		Belt Pouch Assembly	WLS210122-301	-	-	
4		CDMK Nomex Belt	WLS210121-301	-	-	
5	LAB1D4_C2	CSA-CP Data Cable	KLSD210045-801	1002	-	Used to download data to MEC.

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1. SETUP

Verify SRMS is at the -Y Star Tracker Clear position.

Configure Cameras and overlays as required.

Monitor 1	Monitor 2	Monitor 3	V10 L	V10 R
09: P1 Lower Outboard (+120, +10)	22: Base Elbow (-100, -10)	37: MBS Mast (+50, +10)	Camera A (+90, +45)	Camera B (-20, +30)

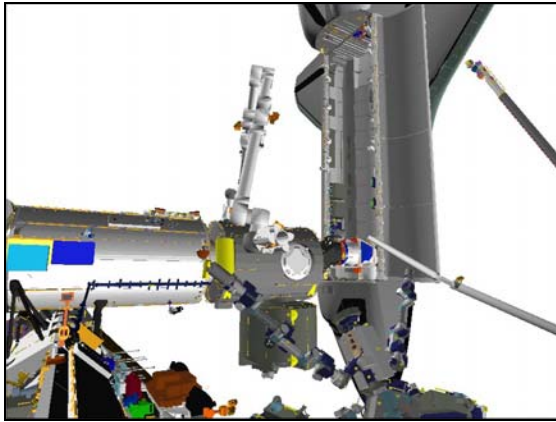


Figure 1.- SLP Clearance (09: P1 Lower Outboard: +120, +10).

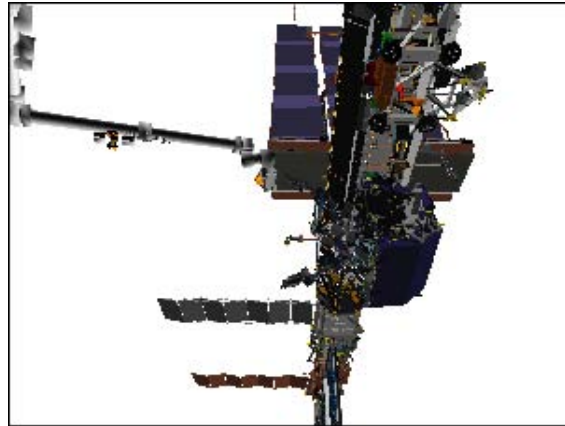


Figure 2.- SLP Clearance (V10: Camera A: +90, +45).

PCS MSS: SSRMS:

Change Loaded Parameters ► SPDM ► SPDM LEE SYH
Verify 'Loaded Parameters' (three) – SPDM LEE, SSRMS, SY Held

Change Unloaded Parameters ► Unloaded ► LEE Tip SYH
Verify 'Unloaded Parameters' (two) – LEE Tip, SY Held

Change Display ► MBS ► SLP SPDM PDGF (Verify MBS>SLP SPDM PDGF)

Change Command ► SSRMS ► Internal (Verify SSRMS>Internal)

Verify SSRMS at SLP Clearance position (within 5 cm/1 deg).

SR	SY	SP	EP	WP	WY	WR
-205.0	-5.1	-48.8	-96.0	-110.9	-152.3	+164.4
X	Y	Z	Pitch	Yaw	Roll	
-204	+119	-11	+60.9	+5.7	-26.2	
FOR	Unloaded – LEE Tip, SY Held					
Disp	MBS>SLP SPDM PDGF					

2. JOINT OCAS TO INTERMEDIATE POSITION

DCP BRAKES SSRMS → OFF (Verify OFF)

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RHC √Vernier

PCS MSS: SSRMS:

Enter Mode – Joint OCAS (Verify blue)

Input 'Joint Angles' 'Destination' for Intermediate position.

SR	SY	SP	EP	WP	WY	WR
-200.1	+10.7	-48.8	-97.1	+4.6	-8.4	-31.3

cmd Load (Verify Sequence Status – Confirm or Cancel)

MON Verify joint angles and errors are correct on Joint Angle Position overlay.

	SR	SY	SP	EP	WP	WY	WR
(current)	-205.0	-5.1	-48.8	-96.0	-110.9	-152.3	+164.4
TGT	-200.1	+10.7	-48.8	-97.1	+4.6	-8.4	-31.3
ERR	-4.9	-15.8	0.0	+1.1	-115.5	-143.9	+195.7

PCS * If joint angles or errors are incorrect
 * **cmd** Cancel (Verify Sequence Status – Waiting Destination)
 *
 * Input correct Dest joint angles per table above.
 *
 * **cmd** Load (Verify Sequence Status – Confirm or Cancel)
 *
 MON * Verify joint angles and errors are correct on Joint Angle Position
 * overlay.

PCS **cmd** Confirm (Verify Sequence Status – Auto Seq sw - Hot)

DCP AUTO SEQ → PROC

PCS MSS: SSRMS:

Verify Posn Hold – orange

Verify Joint Angle values.

SR	SY	SP	EP	WP	WY	WR
-200.1	+10.7	-48.8	-97.1	+4.6	-8.4	-31.3

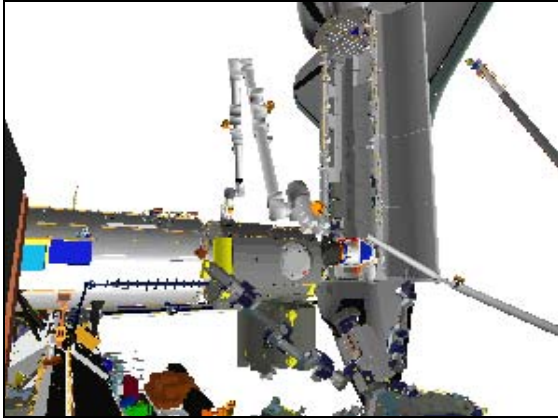


Figure 3.- Intermediate
(09: P1 Lower Outboard: +120, +10).



Figure 4.- Intermediate
(V10: Camera A: +90, +45).

3. SINGLE JOINT TO SPDM PRE-GRAPPLE

MSS: SSRMS:

Enter Mode – Single (Verify blue)

WARNING
The active joint must be checked on the PCS before initiating motion. Failure to do so may result in movement of the wrong joint.

THC

Perform Single Joint maneuver to SPDM Pre-Grapple position (within 1 deg).

Intermediate 1: SP – SPDM Pre- Grapple	SR	SY	SP	EP	WP	WY	WR
	-200.1	+10.7	-48.8	-97.1	+4.6	-8.4	-31.3
			-53.1				
	-200.1	+10.7	-53.1	-97.1	+4.6	-8.4	-31.3
	X	Y	Z	Pitch	Yaw	Roll	
	-150	0	0	0.0	0.0	0.0	
	FOR	Unloaded – LEE Tip, SY Held					
Disp	MBS>SLP SPDM PDGF						

PCS

MSS: SSRMS:

Enter Mode – Standby (Verify blue)

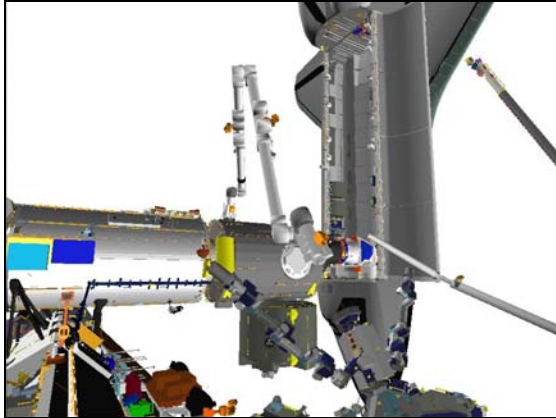


Figure 5.- SPDM Pre-Grapple
(09: P1 Lower Outboard: +120, +10).

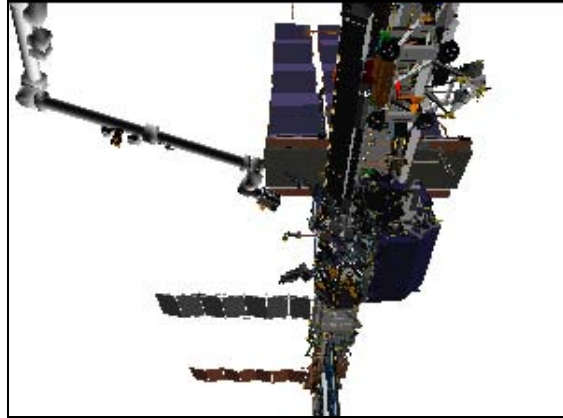


Figure 6.- SPDM Pre-Grapple
(V10: Camera A: +90, +45).

4. SPDM GRAPPLE SETUP

Configure Cameras and overlays as required.

Monitor 1	Monitor 2	Monitor 3	V10 L	V10 R
09: P1 Lower Outboard (+120, +10)	25: Tip LEE	37: MBS Mast (+40, +15)	Camera A (+90, +45)	Camera B (-20, +30)

NOTE

The LEE Camera must be fully zoomed out to correspond to the target overlay.

PCS

MSS: SSRMS: Rate:

Set 'Scale' 'Vernier' Rate Scale: as desired.

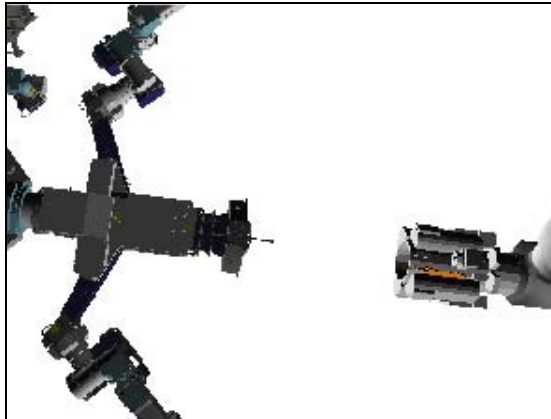


Figure 7.- SPDM Pre-Grapple
(37: MBS Mast: +40, +15).

5. SPDM GRAPPLE

MSS: SSRMS:

Enter Mode – Manual (Verify blue)

MSS: SSRMS: SSRMS Manual: Joint Lock:

cmd Shoulder Yaw (Verify SY – Locked)

RHC/
THC

Maneuver to within grapple envelope.

PCS

MSS: SSRMS: Tip LEE:

cmd Capture ► Automatic ► Slow, Limp (Verify Speed – Slow)

Verify '**Confirm or Terminate**' prompt.

CAUTION

Due to end-to-end system latency, the RHC Trigger is hot up to 3 seconds prior to receiving a Trigger Hot icon status on the PCS.

NOTE

Once the trigger is hot, only safing or trigger commands should be sent to the Robotics equipment. If a configuration change is required, including routing MSS Cameras, safe the system to exit LEE operations (SCR 23262, 14662).

cmd Confirm (Verify RHC Trigger Hot icon)

Verify LEE Mode – Auto Capture

RHC

TRIGGER → press (momentarily)

PCS

Verify 'Snare' Close, Capture (two) – blue (12 s max)

Verify Capture to Latch – Yes (SCR 19282)

Verify 'Carriage' Tension ~5500 N (90 s max)

Verify 'Carriage' Retract – blue

Verify 'Latch' Latch – blue (65 s max)

Verify with **MCC-H** - Payload and PDGF power inhibits have been confirmed and POA Umbilicals demated.

cmd 'Umbilical' Mate (Verify '**Confirm or Terminate**' prompt)

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cmd Confirm (Verify RHC Trigger Hot icon)

Verify LEE Mode – Mate

RHC TRIGGER → press (momentarily)

PCS Verify 'Umbilical' Mate – blue (10 s max)
Verify 'Connector Continuity' Prime, Redundant (two) – Yes

Expected SPDM Grapple position.

SR	SY	SP	EP	WP	WY	WR
-199.0	+10.7	-64.9	-84.1	+3.7	-7.8	-30.4
X	Y	Z	Pitch	Yaw	Roll	
0	0	0	0.0	0.0	0.0	
FOR	Loaded – SPDM LEE, SSRMS, SY Held					
Disp	MBS>SLP SPDM PDGF					

NOTE

Expect the following message when safing is commanded:

'R3Z - MSS OCS SSRMS Prime(Redun) ACU SRT Cat-1 Brk Stat Fail' (SCR 17495)

This message should return to Norm.

DCP SAFING → SAFE (Verify ON)



Figure 8.- SPDM Grapple
(09: P1 Lower Outboard: +120, +10).

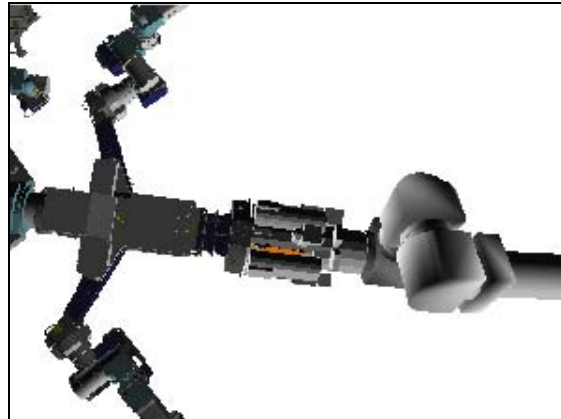


Figure 9.- SPDM Grapple
(37: MBS Mast: +40, +15).

6. SPDM OPERATIONS

Give **MCC-H** GO for SPDM ops.

7. SPDM PDGF RELEASE

On **MCC-H** GO for SPDM PDGF release:

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7.1 SSRMS Release Setup

Configure cameras and overlays as required.

Monitor 1	Monitor 2	Monitor 3	V10 L	V10 R
09: P1 Lower Outboard (+120, +10)	25: Tip LEE	37: MBS Mast (+40, +15)	Camera A (+90, +45)	Camera B (-20, +30)

NOTE

The LEE Camera must be fully zoomed out to correspond to the target overlay.

Verify 'Loaded Parameters' (three) – SPDM LEE, SSRMS, SY Held

Verify 'Unloaded Parameters' (two) – LEE Tip, SY Held

Verify Display – MBS>SLP SPDM PDGF

Verify Command – SSRMS>Internal

PCS

MSS: SSRMS: MSS Safing:

cmd 'SSRMS' Remove (Verify Not Safed)

DCP

BRAKES SSRMS → OFF (Verify OFF)

√Vernier

MSS: SSRMS: Rate:

Set 'Scale' 'Vernier' Rate Scale: as desired

7.2 SSRMS Limp

MSS: SSRMS: Limp:

cmd All Limp (Verify Limp – blue)

MSS: SSRMS:

Verify all joints – Limped

7.3 SPDM Push Off Release

MSS: SSRMS: Tip LEE:

cmd Release ► Automatic ► Slow (Verify Speed – Slow)

CAUTION

Due to end-to-end system latency, the RHC Trigger is hot up to 3 seconds prior to receiving a Trigger Hot icon status on the PCS.

NOTE

Once the trigger is hot, only safing or trigger commands should be sent to the Robotics equipment. If a configuration change is required, including routing MSS Cameras, safe the system to exit LEE operations (SCR 23262, 14662).

Verify '**Confirm or Terminate**' prompt.

cmd Confirm (Verify RHC Trigger Hot icon)

Verify LEE Mode – Auto Release

RHC TRIGGER → press (momentarily)

PCS

- Verify 'Umbilical' Demate – blue (10 s max)
- Verify 'Latch' Unlatch – blue (65 s max)
- Verify 'Carriage' Derigidize – blue (90 s max)
- Verify 'Snare' Open – blue (12 s max)
- Verify 'Carriage' Extend – blue (90 s max)

7.4 SSRMS Backoff

MSS: SSRMS: Limp:

cmd None Limp (Verify Standby – blue)

MSS: SSRMS:

Enter Mode – Manual (Verify blue)

MSS: SSRMS: SSRMS Manual: Joint Lock:

cmd Shoulder Yaw (Verify SY – Locked)

THC/
RHC

Maneuver SSRMS to SPDM Clear position (within 5 cm/1 deg).

	Locked					
SR	SY	SP	EP	WP	WY	WR
-200.1	+10.7	-53.1	-97.1	+4.6	-8.4	-31.3
X	Y	Z	Pitch	Yaw	Roll	
-150	0	0	0.0	0.0	0.0	
FOR	Unloaded – LEE Tip, SY Held					
Disp	MBS>SLP SPDM PDGF					

PCS MSS: SSRMS:

Enter Mode – Standby (Verify blue)

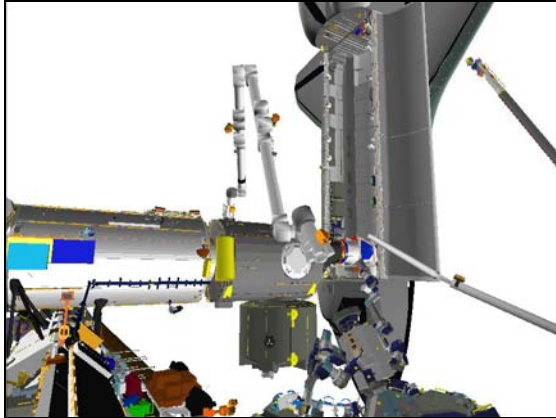


Figure 10.- SPDM Clear Position
(09: P1 Lower Outboard: +120, +10).

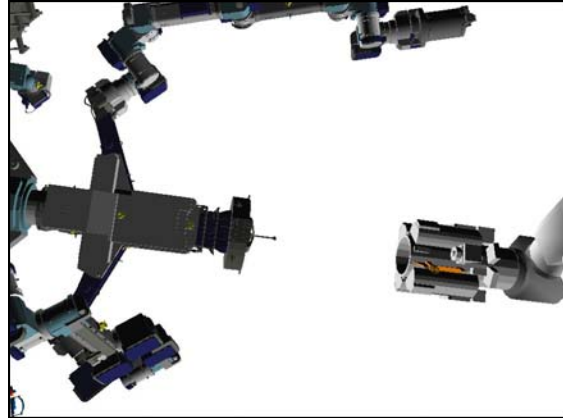


Figure 11.- SPDM Clear Position
(37: MBS Mast: +40, +15).

8. SINGLE JOINT TO INTERMEDIATE 2

Configure cameras and overlays as required.

Monitor 1	Monitor 2	Monitor 3	V10 L	V10 R
09: P1 Lower Outboard (+120, +10)	22: Base Elbow (-100, -10)	37: MBS Mast (+50, +5)	Camera A (+90, +45)	Camera B (-20, +30)

Change Unloaded Parameters ► Unloaded ► LEE Tip SRH
Verify 'Unloaded Parameters' (two) – LEE Tip, SR Held

Change Display ► ISS ► OBAS (Verify ISS>OBAS)

PCS

MSS: SSRMS:

Enter Mode – Single (Verify blue)

WARNING
The active joint must be checked on the PCS before initiating motion. Failure to do so may result in movement of the wrong joint.

THC

Perform Single Joint maneuver to Intermediate 2 position (within 1 deg).

SPDM Clear 1: SY – Intermediate 2	SR	SY	SP	EP	WP	WY	WR
	-200.1	+10.7	-53.1	-97.1	+4.6	-8.4	-31.3
		-29.2					
	-200.1	-29.2	-53.1	-97.1	+4.6	-8.4	-31.3
	X	Y	Z	Pitch	Yaw	Roll	
	-1442	-1062	-2311	+26.8	-17.5	-110.5	
	FOR	Unloaded – LEE Tip, SR Held					
	Disp	ISS>OBAS					

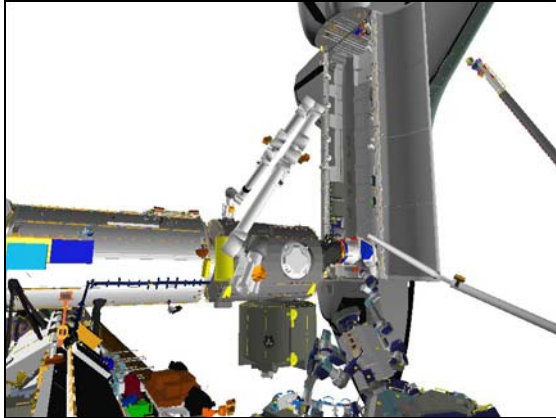


Figure 12.- Intermediate 2
(09: P1 Lower Outboard: +120, +10).

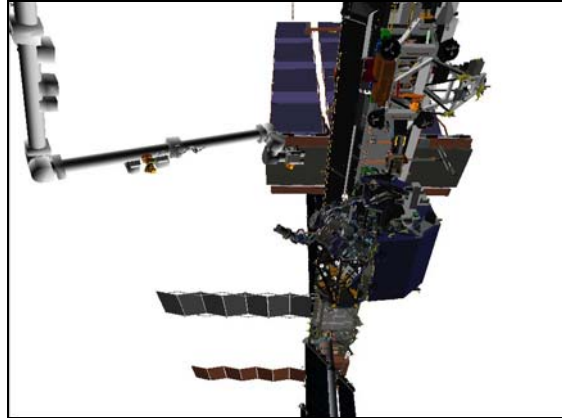


Figure 13.- Intermediate 2
(V10: Camera A: +90, +45).

9. JOINT OCAS TO APFR INSTALL SETUP

PCS MSS: SSRMS:

Enter Mode – Joint OCAS (Verify blue)

Input 'Joint Angles' 'Destination' for APFR Install Setup position.

SR	SY	SP	EP	WP	WY	WR
-205.0	-29.2	-51.5	-91.3	-102.8	-160.5	-170.7

cmd Load (Verify Sequence Status – Confirm or Cancel)

MON Verify joint angles and errors are correct on Joint Angle Position overlay.

	SR	SY	SP	EP	WP	WY	WR
(current)	-200.1	-29.2	-53.1	-97.1	+4.6	-8.4	-31.3
TGT	-205.0	-29.2	-51.5	-91.3	-102.8	-160.5	-170.7
ERR	+4.9	0.0	-1.6	-5.8	+107.4	+152.1	+139.4

PCS * If joint angles/errors are incorrect
* **cmd** Cancel (Verify Sequence Status – Waiting Destination)

* Input correct Dest joint angles per table above.

* **cmd** Load (Verify Sequence Status – Confirm or Cancel)

MON * Verify joint angles and errors are correct on Joint Angle Position overlay.

PCS **cmd** Confirm (Verify Sequence Status – Auto Seq sw - Hot)

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DCP AUTO SEQ → PROC

PCS MSS: SSRMS:

Verify Posn Hold – orange

Verify Joint Angle values.

SR	SY	SP	EP	WP	WY	WR
-205.0	-29.2	-51.5	-91.3	-102.8	-160.5	-170.7

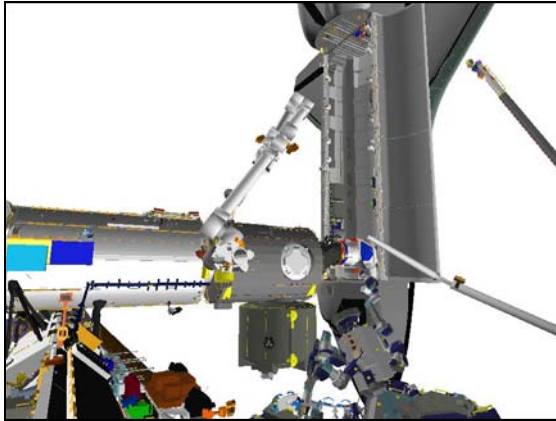


Figure 14.- APFR Install Setup
(09: P1 Lower Outboard: +120, +10).

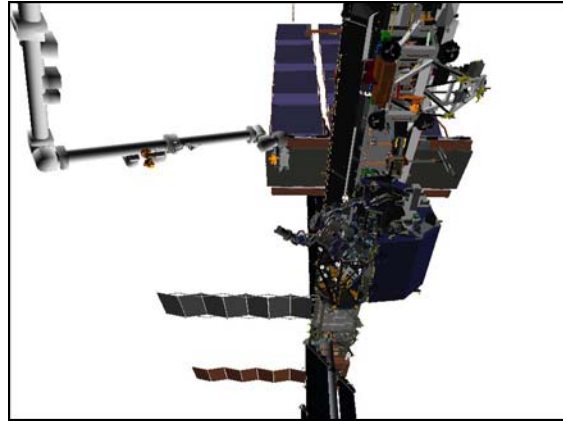


Figure 15.- APFR Install Setup
(V10: Camera A: +90, +45).

DCP SAFING → SAFE (Verify ON)