

STS-124/1J

FD 07 Execute Package



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Approved by FAO: Jaime Marshik

Last Updated: Jun 6 2008 9:50AM GMT

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

1 MSG INDEX

2

3 <u>MSG NO.</u>	<u>TITLE</u>
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6 049	RETURN STOWAGE LAYOUTS
7 050	BCM DISPLAY RESISTOR MODIFICATION
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10 053	FD07 PAO EVENT KMSB-TV-TUSCON / NPR / AP TV
11 054	FD07 EVA DELTAS
12 055	1.710 EPS2 RACK1553 EXTENSION CABLE INSTALLATION
13 056	STOWAGE LOCATIONS FOR FD07 PLAN (GMT 158/159)

14

15 1. POST SLEEP CRYO CONFIG

16 For today's cryo config, the active tanks will be O2 Tanks 1 and 2, and H2 Tank 5.

17

18 **R1 O2, H2 MANF VLV TK2 (two) - OP (tb-OP)**
19 **O2 TK1 HTRS A, B (two) - AUTO**

20

21 **A15 CRYO TK5 HTRS O2 A, B (two) - OFF**

22

23

24 2. JEMRMS MUX C/O

25 1.104 JEMRMS PARTIAL DEPLOY TO EVA 3 START (JODF/ROBO, ACT & C/O)

26 Step 1 Figure 1.1. PTU adjustments of both TV camera angles are not required for MUX
27 Checkout.

28

29 If required, C&T: 2.604 VDS Split Screen Auto Route-Deroute, Steps 1-5.

30

31 Perform MUX manual request by PCS. Video configuration as follows:
32 MUX Video Input: 24: Tip Elbow (left side) and JEM CVIU A (right side)
33 MUX Video Output: JEM CVIU A

34

35 Perform JEM internal video routing by RLT. Video configuration as follows:
36 Video Input: JEM CVIU A
37 Video Output: RMS Mon1

38

39

40 3. ROBOTIC OPERATIONS

41 Due to a timing anomaly with FRGF grapples, we need to make sure that you wait until
42 after the JLP FRGF grapple is complete before taking SSRMS brakes on.

43

44 The following procedure redlines will assist you with this:

45

46 US_SODF; Robotics: Robotics Flight Specific ISS-1J; 4.102 JLP Relocate

47

48 In step 2 of 4.102 JLP Relocate (page 108)
49 AFTER: Verify 'Carriage' Retract - Blue
50 ADD: Verify 'Carriage' Brakes - On (15 s max)

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4. AMIA EQUALIZE

We wanted to confirm the AMIA equalize task was completed successfully yesterday. This task has to happen 24 hrs before AMIA removal (006/16:05), so we just wanted to make sure we did not need to adjust the timeline.

5. CBM STATUS

CBM prep for relocate activities went well overnight. Node 2 Zenith CBM is powered and activated on CPA 3. The Node 2 Zenith Capture Latches have the JLP captured and ready for deberth. JPM Zenith CBM is powered and activated on CPA 3. The JPM Zenith CBM Capture Latches are still deployed and ready for JLP Capture.

Also, we have uplinked a contingency procedure that updates {US SODF; Assembly Operations 1J: 8. Contingency; 8.010 JEM ZENITH CBM CONTINGENCY POWER WORKAROUND}. The procedure is MSG 043, 8.010 JEM ZENITH CBM CONTINGENCY POWER WORKAROUND. In the event of a contingency, we would use this uplinked procedure instead of the procedure in the Assembly Ops book.

6. POST EVA 2 QUESTIONS

For Ron, we have some questions for you in MSG 054 concerning EVA2.

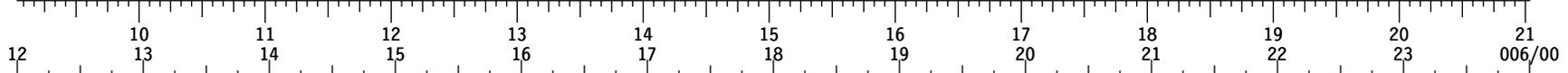
7. REPLACE PAGES 2-22, 2-24 and 3-68 THROUGH 3-77.

NO EXERCISE [FROM 3RD BOLTS UNTIL CAPTURE LATCHES DEPLOYED] NO EXERCISE [FROM MNVR TO INSTALL UNTIL A-BOLTS COMPLETE]

06/06/08 04:37:15

REPLANNED

GMT 06/06/08 (158)
MET Day 005



S T S - 1 2 4	FD07 CDR KELLY	SLEEP	POST SLEEP			X F P E D R T E	BCM RESISTOR MOD			P E A V O E N T	J P M H A R D P N L A S S Y	I N S T L	J P M S P I N S T L - J P M	MEAL	D M S 2 R A C K R C N F G	E P S 2 R A C K R C N F G	E C L S T C S 1 R A C K				
	PLT HAM	SLEEP	POST SLEEP			I O F L U M	M C I U	C I N N I T 4	EXERCISE	C T W E R C M	C X F E R	M D D K X F E R	C L E A R	J V I E W	MDDK XFER		MEAL	JLP RELOCT CAM SPRT		N S V L V *	
	MS1 NYBERG	SLEEP	POST SLEEP			A S S Y O P S P & I	T C S 2 R O T D N	T C A A C C U M C L S	T C S 2 R O T U P	JLP-PGRPL		MEAL	G R P L	U N B T H	J L P R E L O C A T E	J I N P S T L	L I M P	B M N V R * R A V K E *			
	MS2 GARAN	SLEEP	POST SLEEP			U C K C O N S O L I D A T E	EXERCISE	EPS2 BUS CNCT	J V I E W	C I O N S E T R L	J P M H A R D P N L A S S Y	I N S T L	J P M S P I N S T L - J P M	MEAL	D M S 2 R A C K R C N F G	E P S 2 R A C K R C N F G	E C L S T C S 1 R A C K				
	MS3 FOSSUM	SLEEP	POST SLEEP			BCM RESISTOR MOD			NODE2-PORT INV-INSTL			MEAL	JPM STBD FWD INV INS								
	MS4 HOSHIDE	SLEEP	POST SLEEP			S W A P *	JLP VEST CONFIG DMTE			J L P V E S T D P R S 1	J D L P R S 2	J L P V E S T D P R S 3	N O D E 2 C B M D E M A T E	M E A L	1 S T S T G C A P	2 N D S T G C A P	⊕				
D N	FE-2 REISMAN	SLEEP (8.5)	PS	P W D P C	T V I S	C B C S #	JLP VEST CONFIG DMTE			J L P V E S T D P R S 1	J D L P R S 2	J L P V E S T D P R S 3	MEAL	R F C A	W D S R C H R G		P W				
E X P 1 7	ISS CDR VOLKOV	SLEEP (8.5)	PS	P W D P C	P W	I W I S /	H A M S U	C K B 1 B T K 1 R C V Y	C K B 2 B T K 2 R C V Y	P E A V O E N T	MEAL		Д33	И C P H R D G	И P C K	И P C K	И P C K	И M S E D I T	T V I S		
	FE-1 KONONENKO	SLEEP (8.5)	PS	P W D P C	P W	P B O - 3 - 2 - I N I T	H A M P C	P B O 3 2 L U L V F Y	KPT-2-EXE		MEAL		KPT-2-EXE2		И П 1 M N T	С В O Э E Д B F I L L	C O Ж - M N T		R E D		
U P	FE-2 CHAMITOFF	SLEEP (8.5)	PS	P W D P C	P W	N P 2 L T I C M K	A D A P T	T C S 2 R O T D N	T C A A C C U M C L S	T C S R O T U P	A D A P T	J L P - P G R P L	MEAL	G R P L	N O D E 2 C B M D E M A T E	U N B T H	J L P R E L O C A T E	J I N P S T L	1 S T S T G C A P	2 N D S T G C A P	B M N V R * R A V K E *
S T S	ORBIT DAY/NIGHT	88 89 90 91 92 93 94 95																			
	W -171	[Timeline bars]																			
	TDRS E -46	[Timeline bars]																			
Z 275	[Timeline bars]																				
ORB ATT	BIAS -XLV -ZVV																				
NOTES	*MULTIMETER #PWRUP																				

*MDDK XFER
⊕PPRV SMPL
*SSRMS TO J

GMT 06/06/08 (158)

MET Day 006

006/00

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06/07

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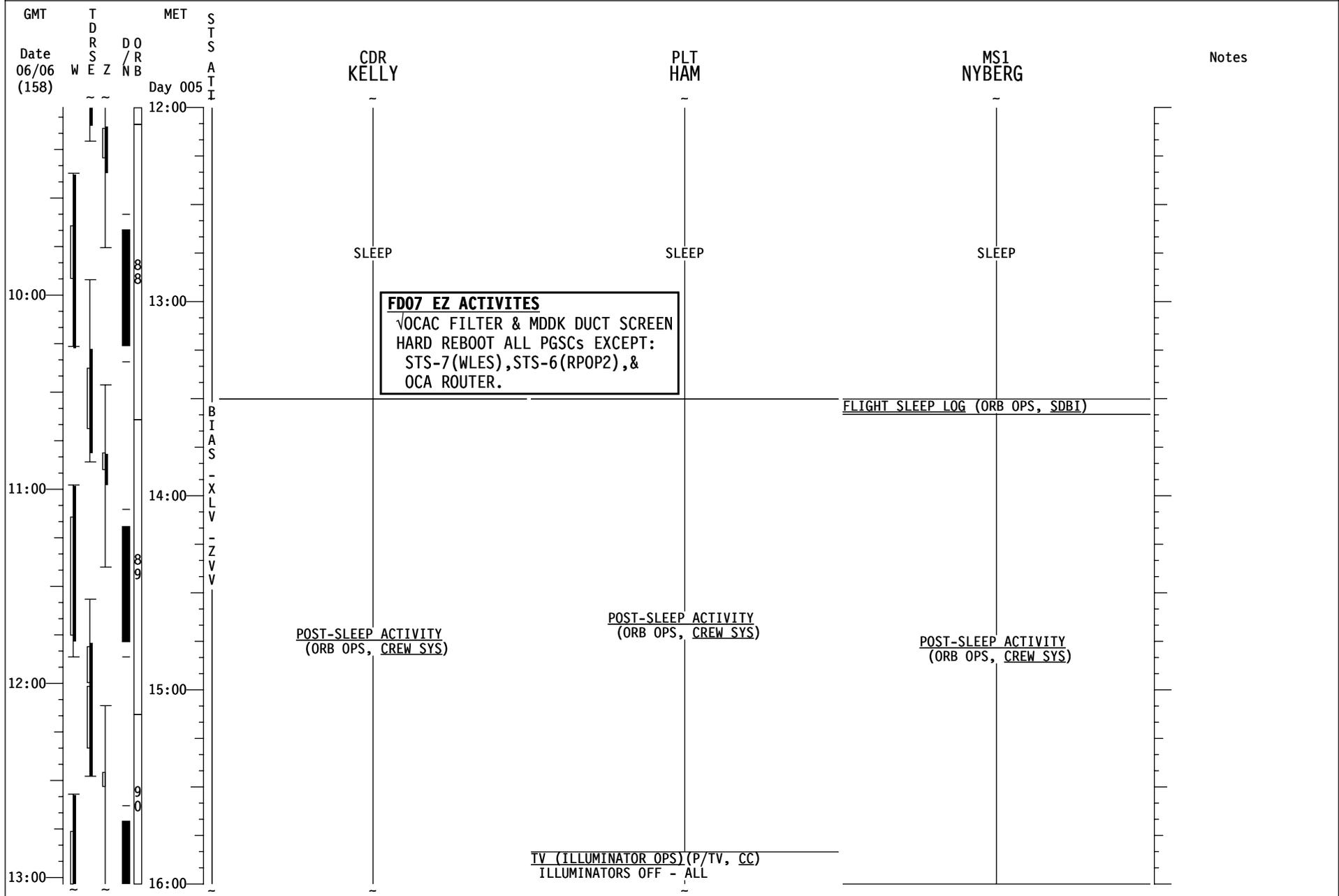
11

09

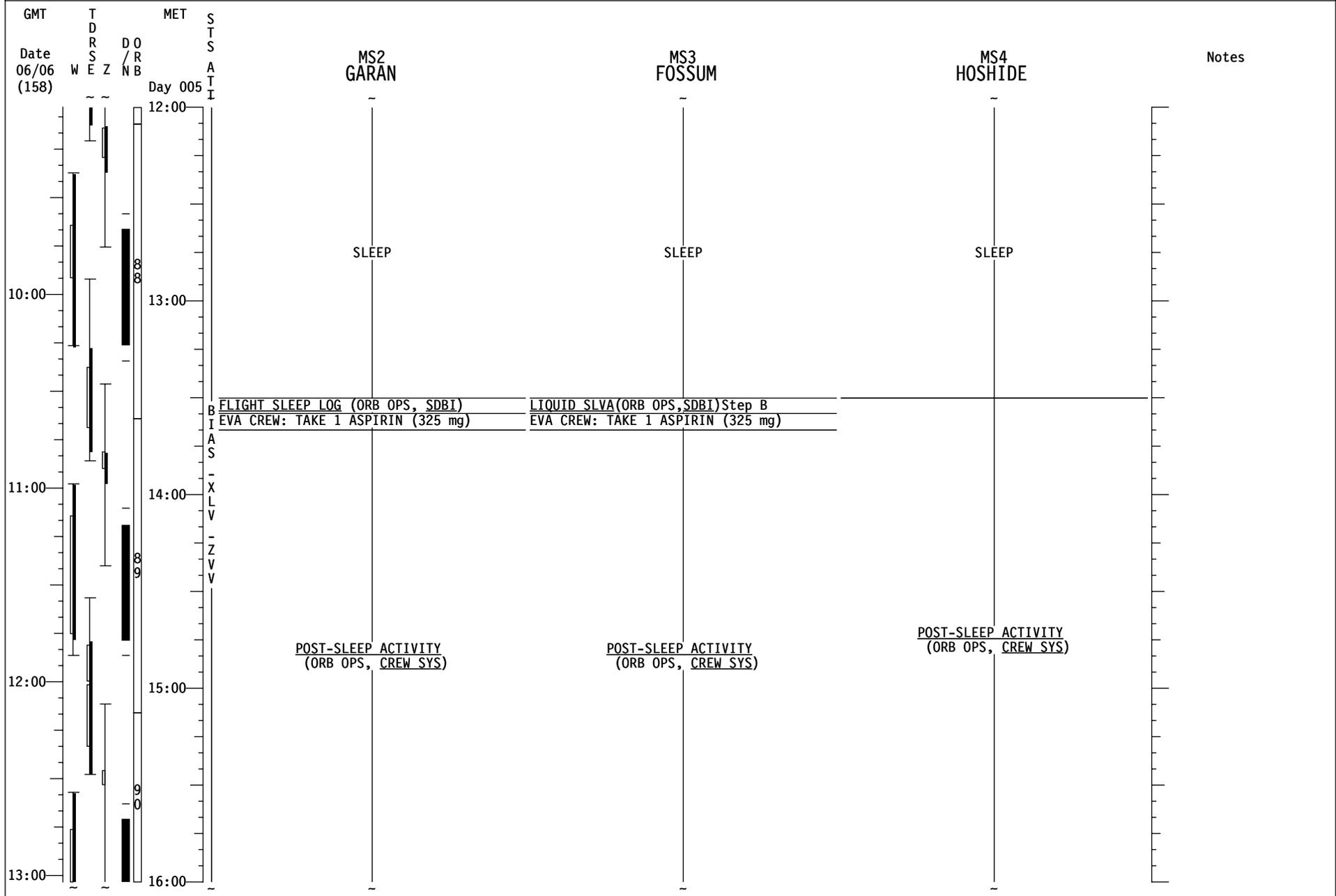
12

S T S - 1 2 4	FD07 CDR KELLY	ECLS TCS1 RACK	MDDK XFER	X T F A E G R U P	EXERCISE	X B F R E I E R E F	PRE SLEEP	PMC A/G	PRE SLEEP.	SLEEP										
	PLT HAM	MDDK XFER		I W C S #	M U P D R A T		PRE SLEEP		SLEEP											
	MS1 NYBERG	M N V R *	JPM STBD MPEV INSTL	H A T C H	JLP VEST PRESS LK CK	NOD2 PORT MPEV INSTL	F N L K C K	PRE SLEEP	U R M S *	PRE SLEEP	SLEEP									
	MS2 GARAN	ECLS TCS1 RACK	CGSE RACK RCNFG	PCS DEACT /AFD XFER	B I T O X *			PRE SLEEP		SLEEP										
	MS3 FOSSUM	*	EXERCISE	P / T V 8	P/TV08 EXTRNL SURVEY			PRE SLEEP		SLEEP										
	MS4 HOSHIDE	PPRV SMPL CAP RMVL	JLP LEAK CK S/U	EXERCISE	JRMS FINAL ACT P1	JEM RMS STRS REL	T M H U X	PRE SLEEP		SLEEP										
D N	FE-2 REISMAN	CBCS RMV	JLP LEAK CK S/U	JLP VEST PRESS LK CK	PW	F N L K C K	DPC	PS	SLEEP (8.5)											
E X P 1 7	ISS CDR VOLKOV	TVIS			PW		DPC	PS	SLEEP (8.5)											
	FE-1 KONONENKO	RED		EX ER			DPC	PS	SLEEP (8.5)											
U P	FE-2 CHAMITOFF	M N V R *	J R N L	A D A P T	T H V I O S	PW	PFC	PW	DPC	PS	PMC	PS	SLEEP (8.5)							
S T S	ORBIT DAY/NIGHT	95		96			97		98		99		100		101		102		103	
	W -171	[Timeline bars]																		
	TDRS E -46 Z 275	[Timeline bars]																		
ORBIT ATT	BIAS -XLV -ZVV																			
NOTES	*JPM STBD FWD INV INS *TERM *DEACT-PREP PT1 *SSRMS TO JRMS VIEW #COMPACT																			

STS-124 FD07



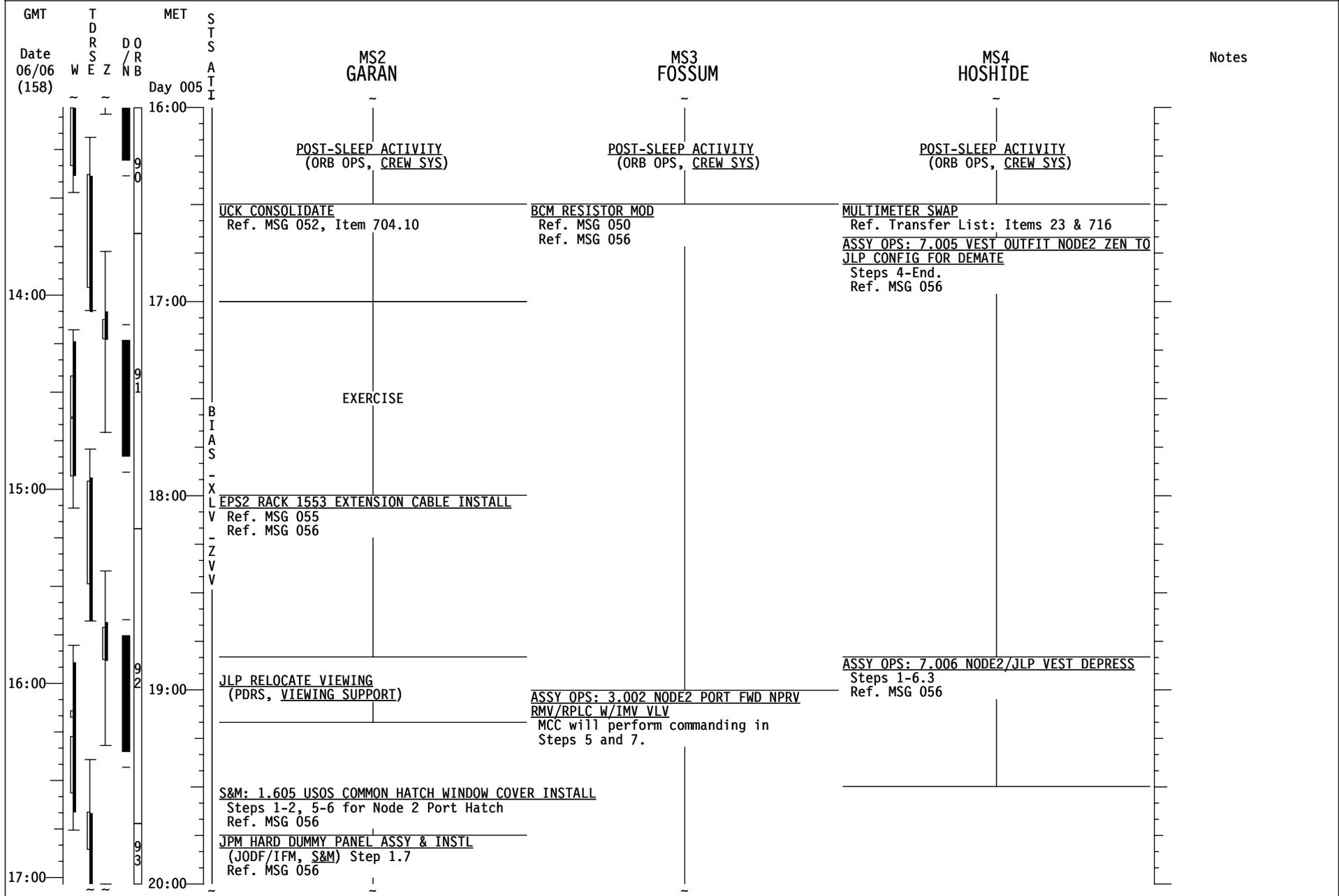
STS-124 FD07



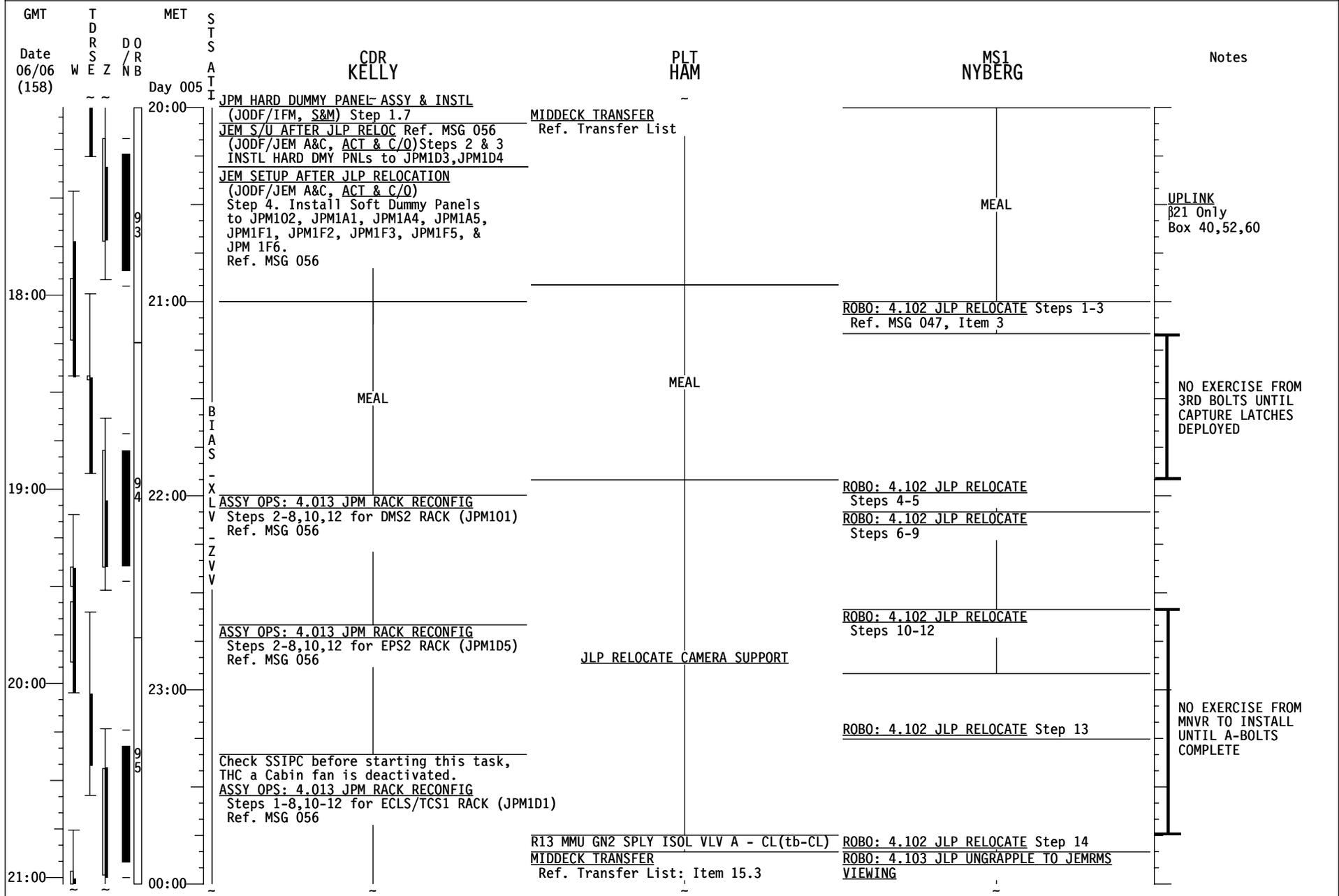
STS-124 FD07

GMT	T D R S W E Z	MET	S T S A T I	CDR KELLY	PLT HAM	MS1 NYBERG	Notes
Date 06/06 (158)	W E Z	Day 005	A T I				
16:00				POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	TV (ILLUMINATOR OPS)(P/TV, CC) ILLUMINATORS OFF - ALL L17 Check MCIU filter screen	ASSEMBLY OPS P&Is Ref. MSG 051	
				TRANSFER UPDATE Ref. Transfer List & MSG 052	SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) INIT #4 Ref. MSG 020		
				BCM RESISTOR MOD Ref. MSG 050 Ref. MSG 056		Check SSPIC before starting this task, THC B Cabin fan is deactivated. ASSY OPS: 4.013 JPM RACK RCNFG Steps 1-8, Rotate Down Ref. MSG 056	
14:00					EXERCISE		
						ASSY OPS: 4.014 JPM TCA M ACCUMULATOR INLET MANUAL VALVE CLOSE Ref. MSG 056	
					SHUTTLE/ISS H2O CONT FILL (ORB OPS, ECLS) TERM Report B/C and S/N to MCC		
					CWC TRANSFER Transfer 1 CWC to ISS		
15:00					MIDDECK TRANSFER Ref. Transfer List	ASSY OPS: 4.013 JPM RACK RCNFG Steps 10-12, Rotate Up Ref. MSG 056	
					STAR TABLE CLEAR [A] JLP RELOCATE VIEWING (PDRS, VIEWING SUPPORT)		[A] SPEC 22 ITEM 20 EXEC RESUME
16:00					MIDDECK TRANSFER Ref. Transfer List	ROBO: 6.301 NODE 2 RELEASE TO JLP PRE-GRAPPLE	
				PUBLIC AFFAIRS EVENT ISS KU TDRE: 19:22-20:10			
				JPM HARD DUMMY PANEL ASSY & INSTL (JODF/IFM, S&M) Step 1.7 Ref. MSG 056			
17:00							

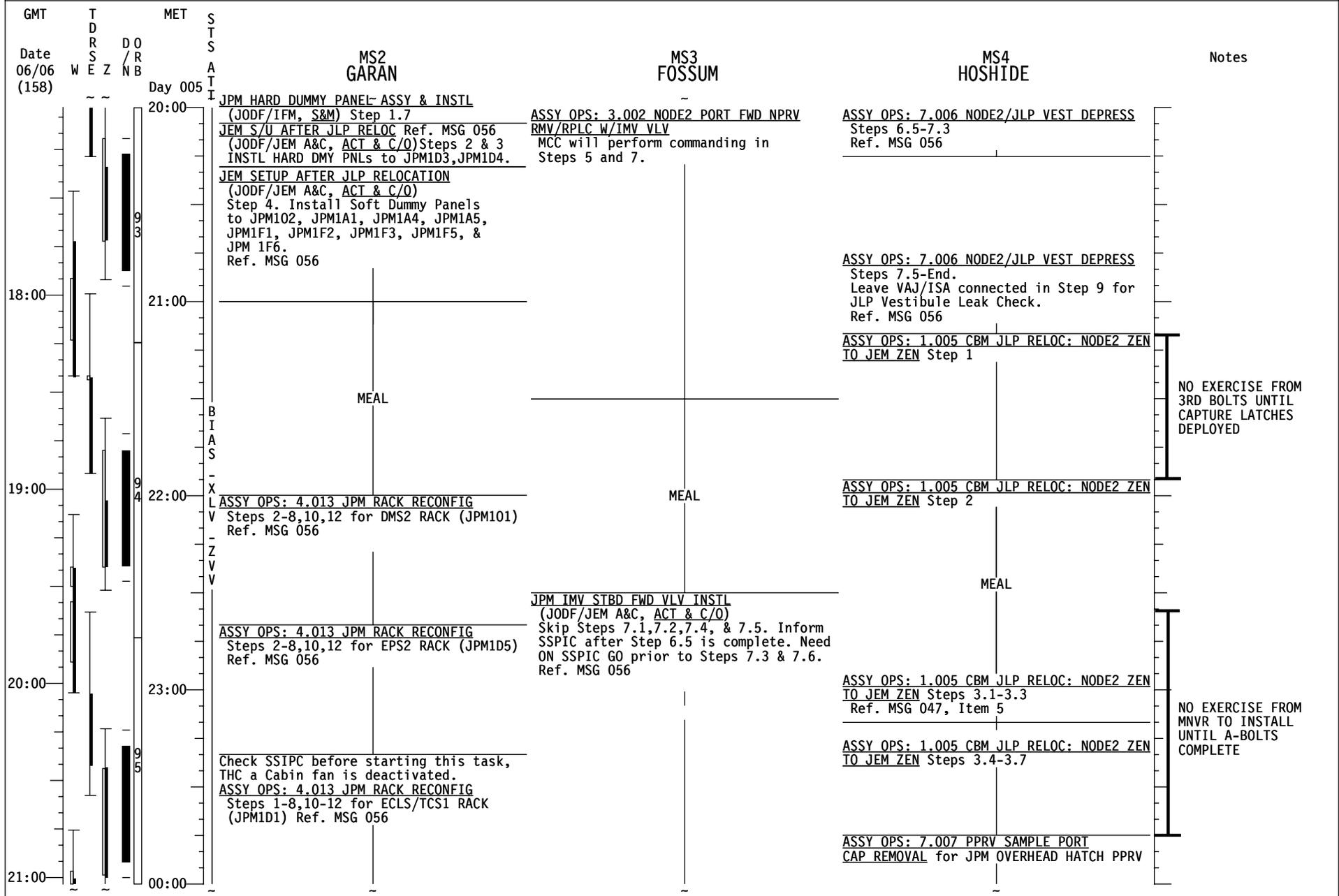
STS-124 FD07



STS-124 FD07



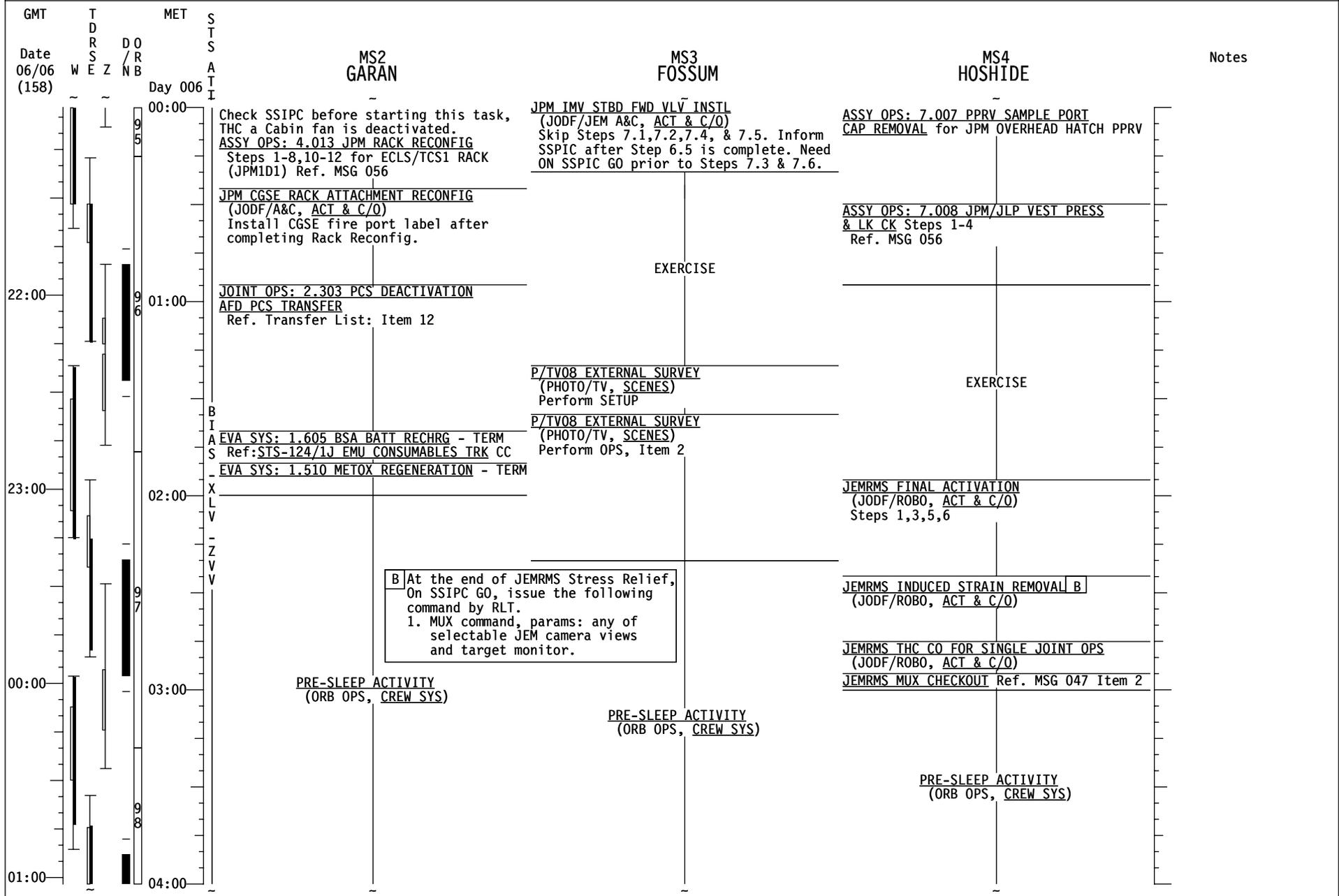
STS-124 FD07



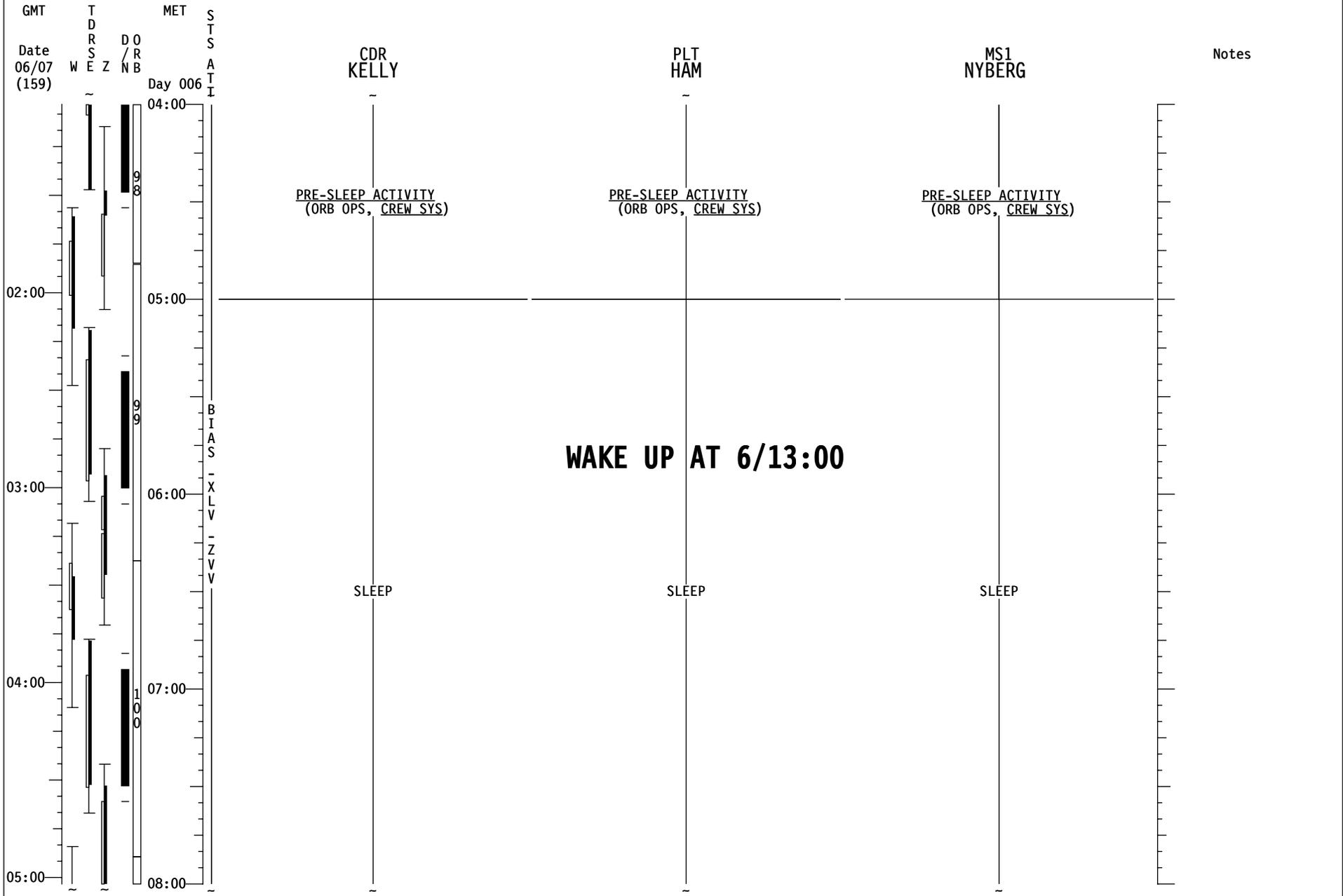
STS-124 FD07

GMT	T D R S E Z	MET	S T S	CDR KELLY	PLT HAM	MS1 NYBERG	Notes
Date 06/06 (158)	W E Z	Day 006	A T I				
00:00	95			Check SSIPC before starting this task, THCA Cabin fan is deactivated. ASSY OPS: 4.013 JPM RACK RECONFIG Steps 1-8,10-12 for ECLS/TCS1 RACK (JPM1D1) Ref. MSG 056	MIDDECK TRANSFER Ref. Transfer List: Item 15.3	ROBO: 4.103 JLP UNGRAPPLE TO JEMRMS VIEWING	
				MIDDECK TRANSFER Ref. Transfer List		1.305 JPM/JLP PPRV TO MPEV REPLACEMENT (JODF/JEM A&C, ACT & C/O) Steps 1-2.7,3 for JPM STBD HATCH	UPLINK β21 Only Box 40,60
22:00	96			DAILY STS/ISS CREW TRANSFER TAGUP		JPM OVERHEAD HATCH LATCH [A] ASSY OPS: 7.008 JPM/JLP VEST PRESS & LK CK Steps 5-7.5 Ref. MSG 056	
					IMU STAR OF OPTY ALIGN (ORB OPS, GNC) WCS COMPACTOR OPS (DUAL-VANE) (ORB OPS, CUE CARD) MNVR (TRK) UPDATE (Post JLP Relocate) TG=2 BV=5 P=166 Y=353 OM=190 A12/FREE/VERN Init TRK	ASSY OPS: 3.003 NODE2 PORT HATCH PPRV RMV/RPLC W/MPEV Ref. MSG 056	
23:00				EXERCISE		ASSY OPS: 7.008 JPM/JLP VEST PRESS & LK CK Steps 7.6-9 Ref. MSG 056	
	97			TRANSFER BRIEF Call down status to MCC		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
00:00				PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	JEMRMS DEACT PREP (JODF/ROBO, ACT & C/O) Steps 3-4	
				PRIVATE MEDICAL CONFERENCE Perform Via A/G 2		PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
01:00	98			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)			

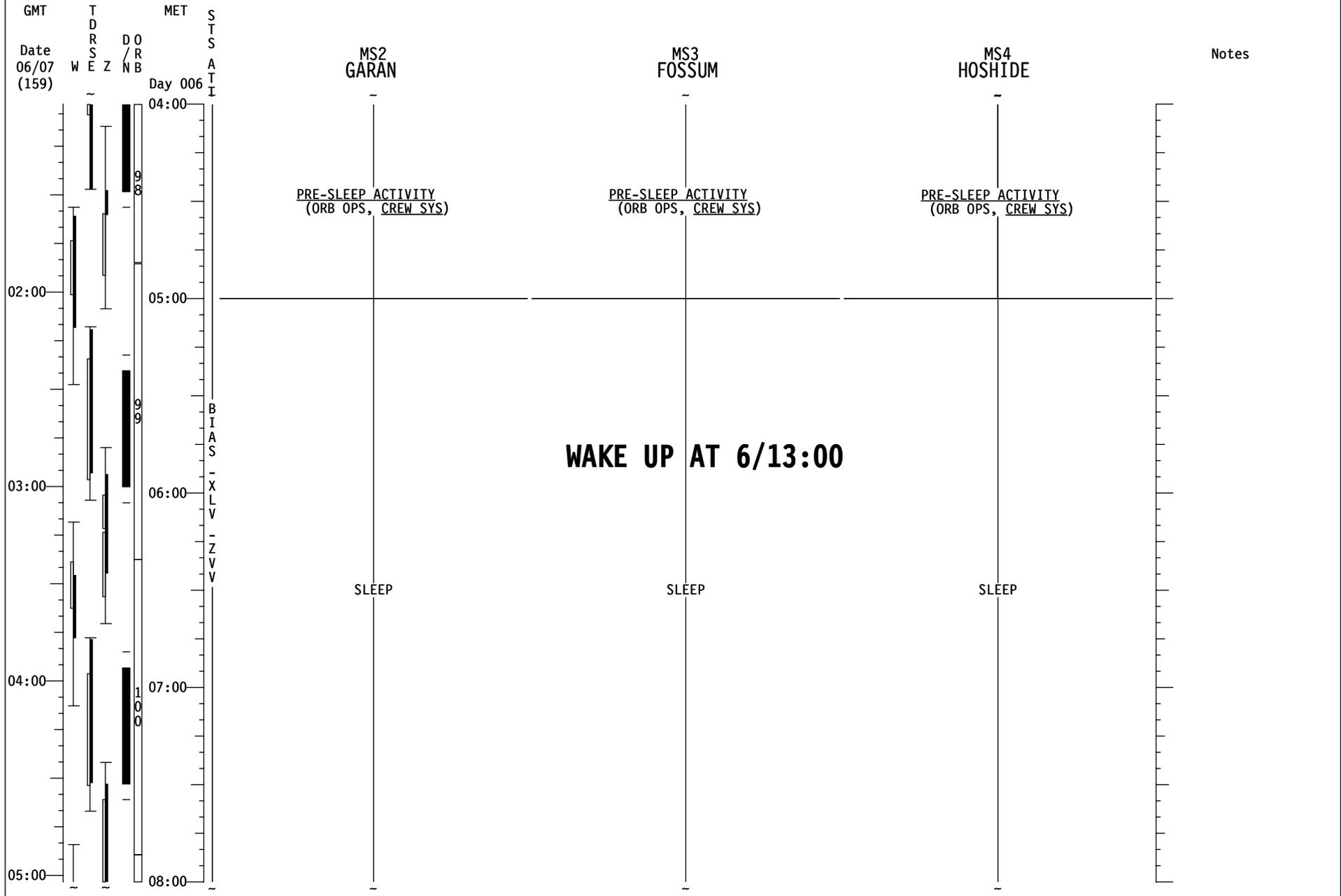
STS-124 FD07



STS-124 FD07



STS-124 FD07



MSG 048 - FD07 MISSION SUMMARY

1 Good Morning Discovery!!!

2
3 The downlink of yesterday's activities really brought home the fact that you are "light years"
4 ahead of us!

5
6 You will notice that the BCM IFM has been added to this morning's timeline. This will give
7 you an opportunity to show off your electronic lab skills! We hope that the addition of this
8 IFM makes up for the deletion of focused inspection! Have a great day!!!!

9
10 YOUR CURRENT ORBIT IS: 185 X 181 NM

11 NOTAMS:

12 EDW - LAKEBED RUNWAY 15/33 ELS ONLY. OTHER LAKEBED RWYS RED.
13 NOR - LAKEBED RUNWAYS GREEN.
14 NTU - NGU TACAN CH CHANGED TO 86Y.
15 YJT - TACAN CH 78 DME ONLY.
16 HAW - RWY 31 CLOSED. RWY 13 TODA 8,994'.
17 WAK - CLOSED. NOT USABLE.
18 IKF - NOT USABLE. NO AGREEMENT.
19 BEN - NOT RECOMMENDED/NOT SUPPORTED.
20 ZZA - FIRST 600M (~2,000') OF RWY 30L NOT AVAILABLE. 10,200' REMAINING.
21 NKT - CLOSED

22
23 NEXT 2 PLS OPPORTUNITIES:

24 EDT22R ORB 95 - 5/23:37 SKC 250/15P25
25 EDT22R ORB 110 - 6/22:24 SKC 250/12P20

26
27 OMS TANK FAIL CAPABILITY:

28 L OMS FAILS: NO
29 R OMS FAILS: NO

30
31 LEAKING OMS PRPLT BURN:

32 L OMS LEAK: ALWAYS BURN RETROGRADE
33 R OMS LEAK: ALWAYS BURN RETROGRADE

34
35 OMS QUANTITIES(%)

36 L OMS OX = 30.1 R OMS OX = 30.2
37 FU = 29.8 FU = 30.2

38 SUBTRACT INTERCONNECT COUNTER TO OBTAIN CURRENT OMS QUANTITIES

39
40 DELTA V AVAILABLE:

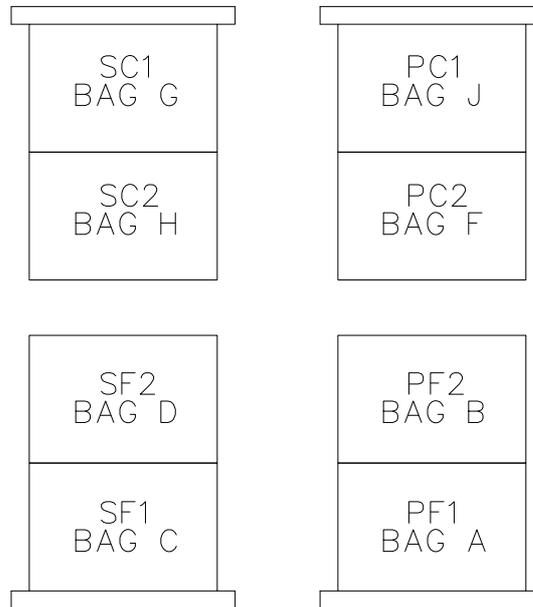
41 OMS 314 FPS
42 ARCS (TOTAL ABOVE QTY1) 38 FPS
43 TOTAL IN THE AFT 352 FPS

44
45 ARCS (TOTAL ABOVE QTY2) 71 FPS
46 FRCS (ABOVE QTY 1) 27 FPS

47
48 AFT QTY 1 80 %
49 AFT QTY 2 42 %

50
51 THERE ARE NO FAILURE/IMPACT/WORK AROUNDS FOR TODAY.

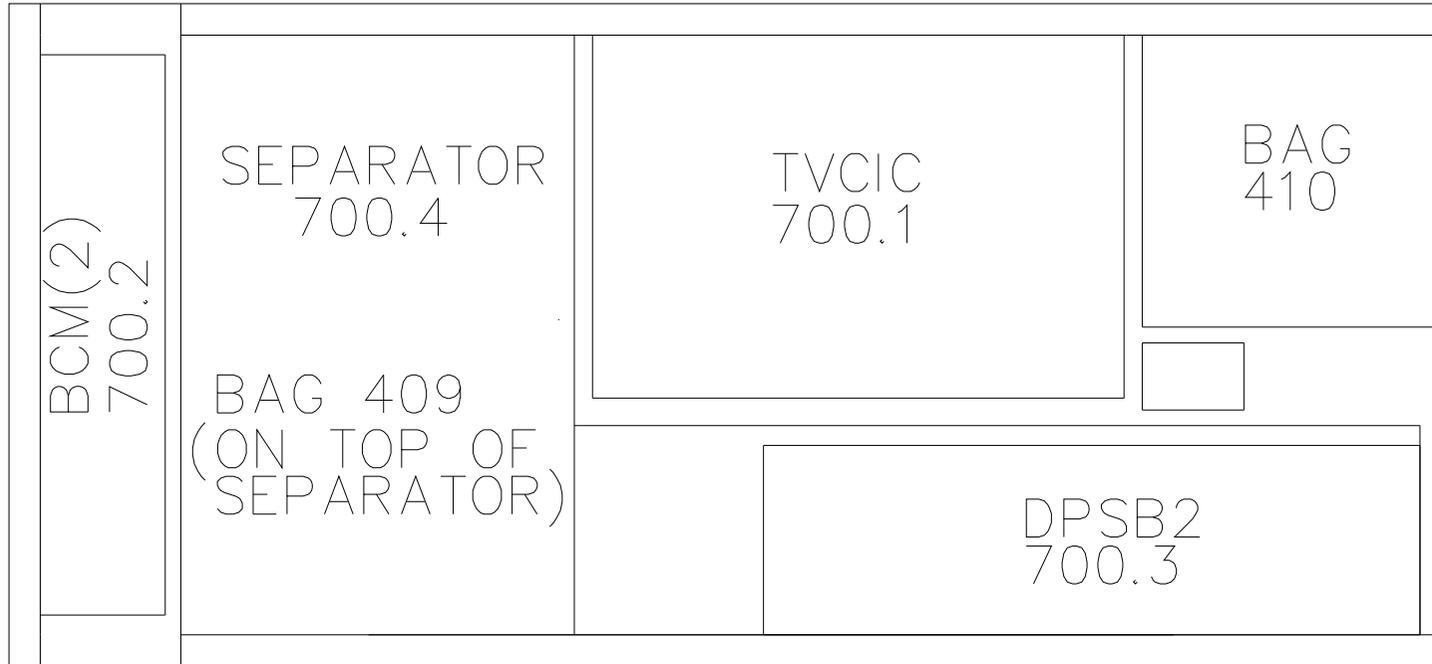
MSG 049 - RETURN STOWAGE LAYOUTS



DITCH VIEW LOOKING AFT

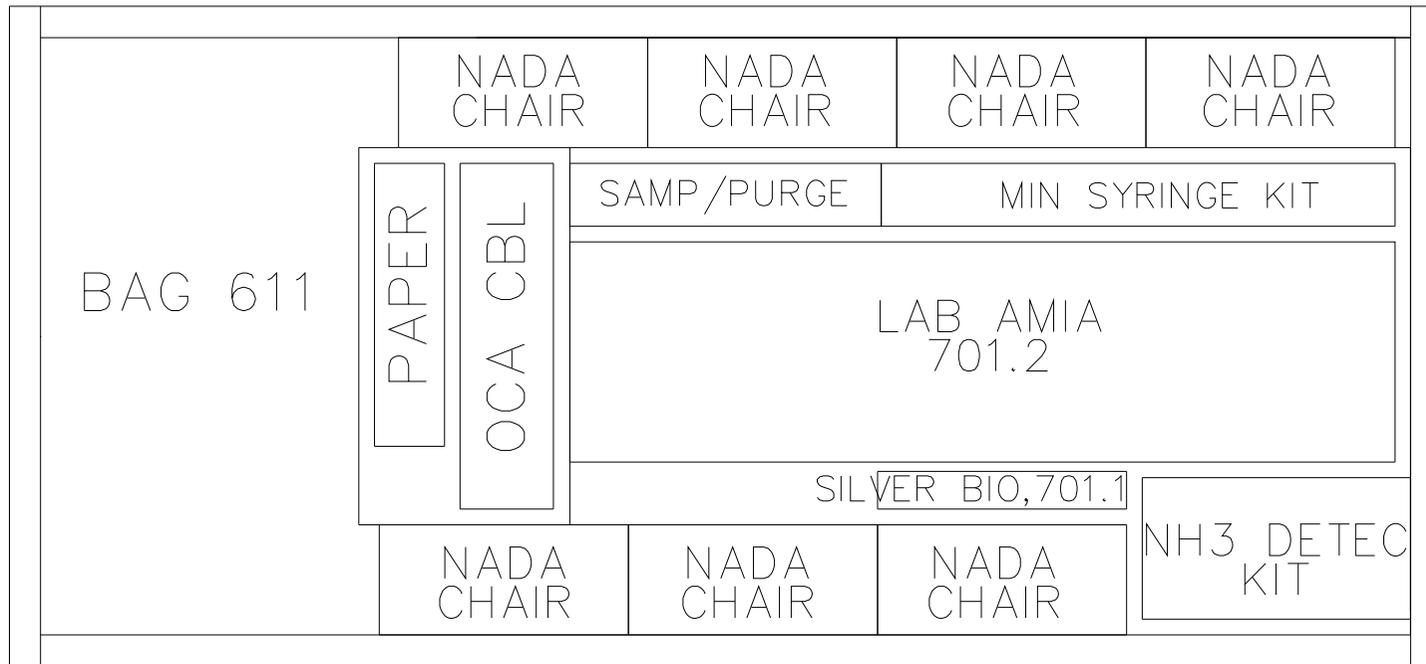
- Preference for unused cushion is to return in the bag it was launched in or in another bag to help protect hardware/used as filler. Any cushion that does not fit can be stowed in the A/L
- Please stow the 3 Actiwatches in MF28K (Post Insertion 2) for return
- Bag G is not shown since the return config is the same as launch

MSG 049 - RETURN STOWAGE LAYOUTS

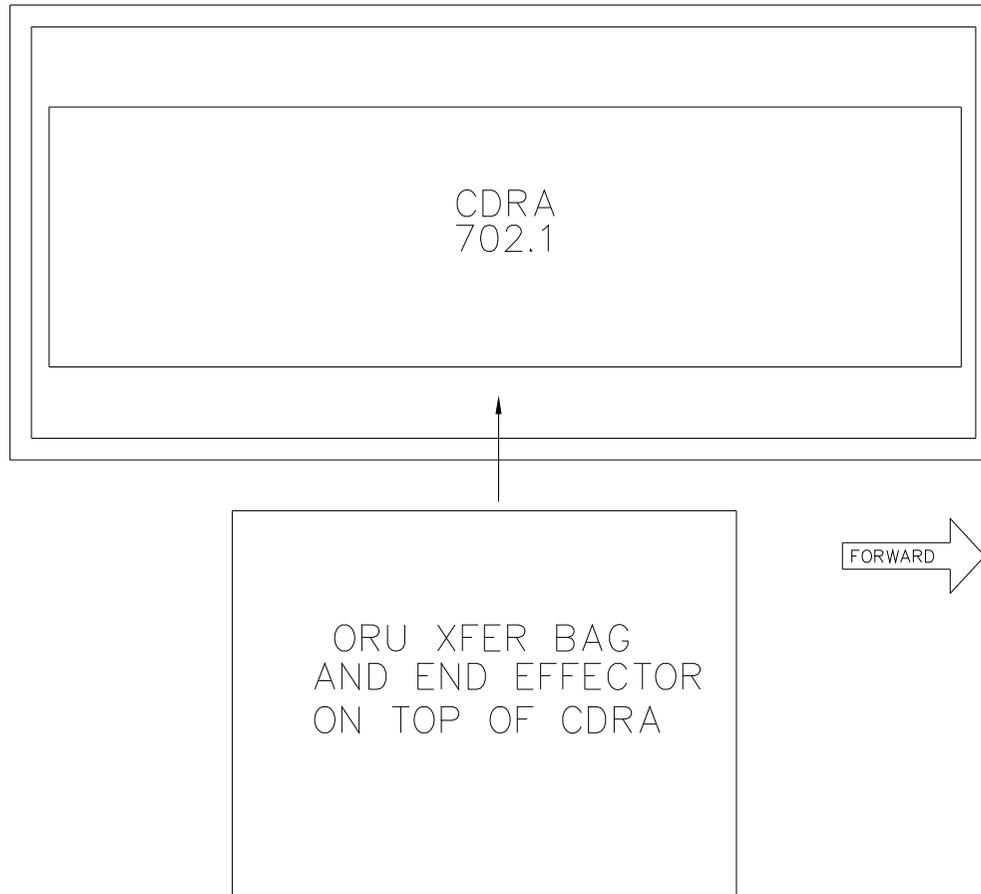


BAG A
Separator must be bagged
Double bag each BCM in ziplocks
Place Torque wrench (607) in available volume

MSG 049 - RETURN STOWAGE LAYOUTS



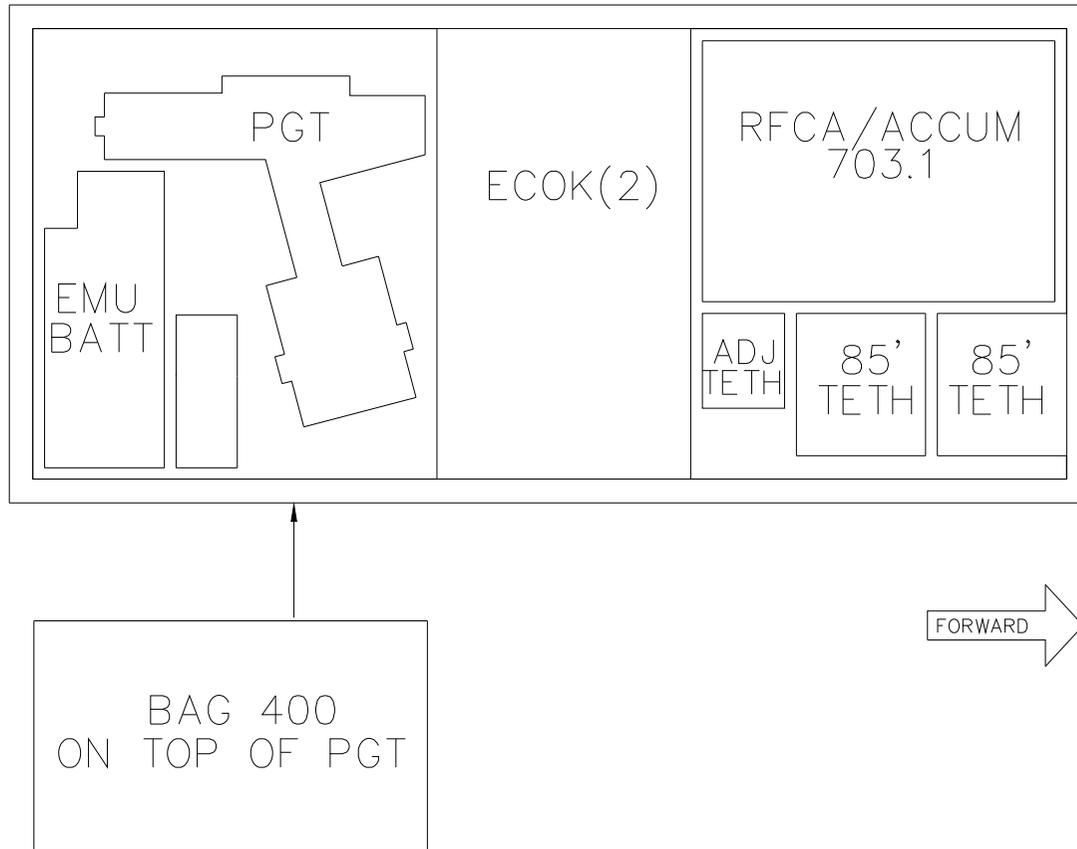
BAG B



ORU XFER BAG
AND END EFFECTOR
ON TOP OF CDRA

BAG C

MSG 049 - RETURN STOWAGE LAYOUTS



BAG D

Pack cushion/clothing around Bag 400
Cushion that contained Batteries and Dummy Box can return in another bag or in the A/L
RFCA/Accumulator must be bagged

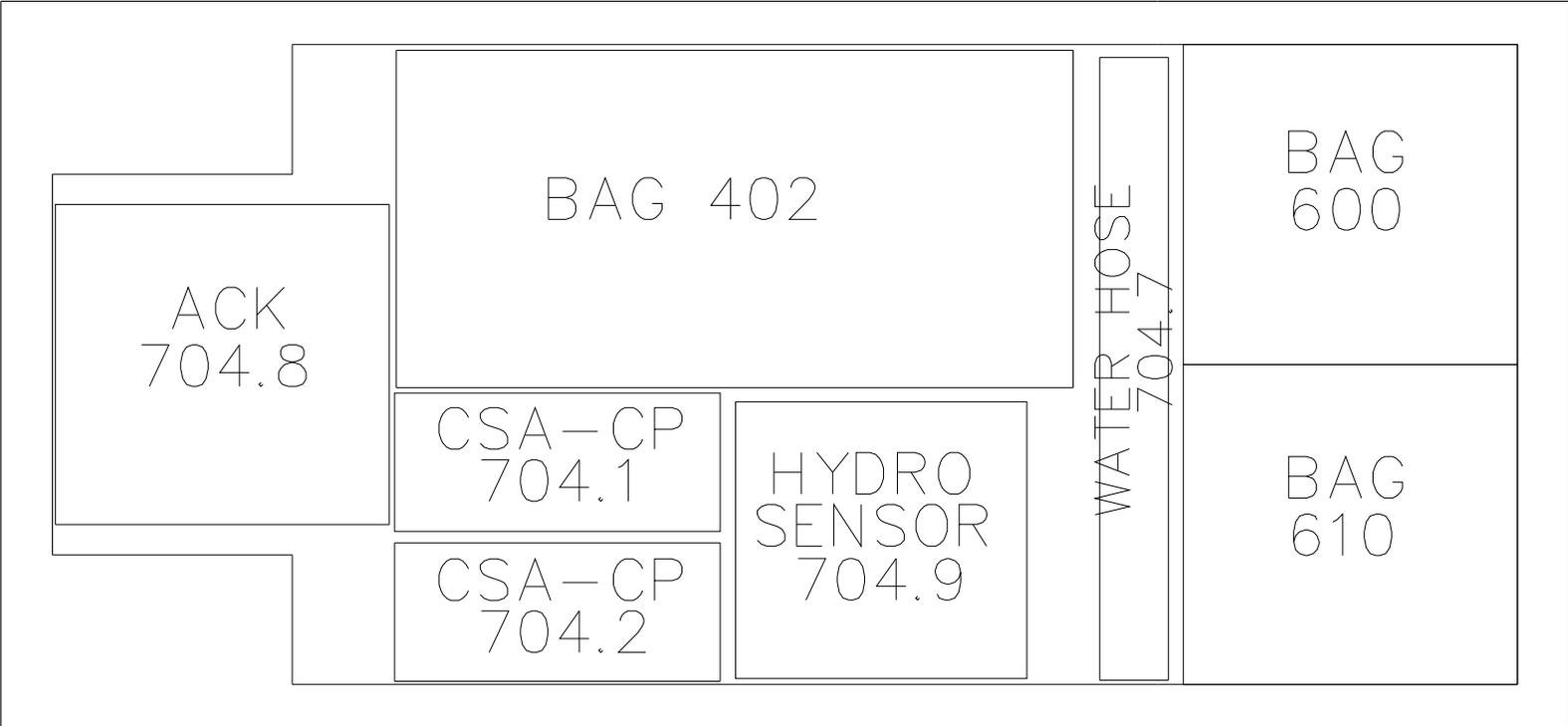
MSG 049 - RETURN STOWAGE LAYOUTS



BAG J
Stow Bags 412 and 413 in available volume

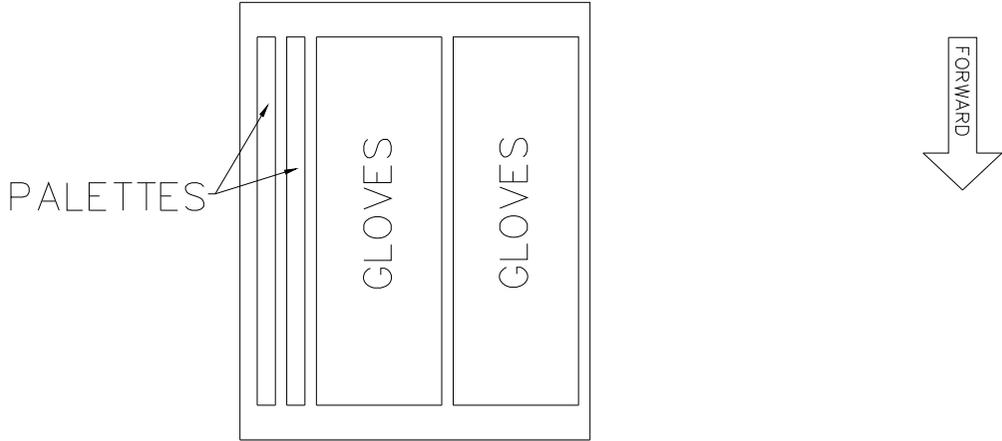
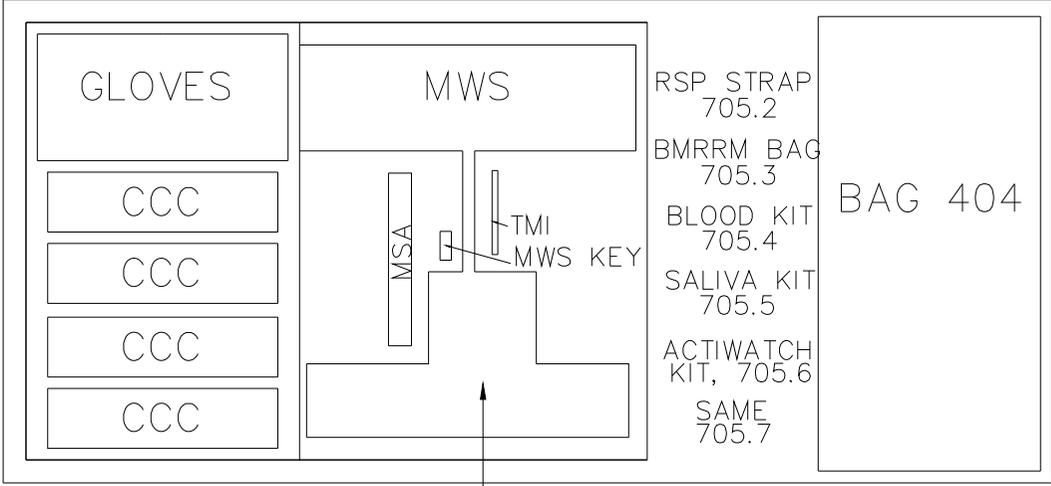


BAG F
Arrange excess cushion around bag



BAG H
Empty UCKs (701.3) can be packed in available volume

MSG 049 - RETURN STOWAGE LAYOUTS



A/L FLOOR (BAG I)
Stow EVA Wipes (705.1) in available volume
Wrap dividers or clothing around SAME hardware (705.7)

MSG 049 - RETURN STOWAGE LAYOUTS

LW MAR
8929-TBD

CDR MARK KELLY
PLT KENNETH HAM
M/S #1 KAREN NYBERG
M/S #2 RON GARAN
M/S #3 MIKE FOSSUM
M/S #4 AKI HOSHIDE
M/S #5 (UP) GREG CHAMITOFF
M/S #5 (DN) GARRETT REISMAN

MODULAR LOCKER LAYOUT
DESCENT

1622 MF57A 1622 1622
-308 -308 -302

LEADER: MELISSA BANDA
DATE: 06-05-08
LAUNCH: 05-31-08
FLIGHT: STS-124/1J JEM
VEHICLE: OV-103
CREW: 7 MAN 14 + 1 + 2 DAYS
RQMTS: SRMS, ERGOMETER,
SORG, NO RCRS,
SLEEPING BAGS

MD CEIL (PORT 1) 0667 -308
ECOK(602)
ECOK(603):LCVG W/BIO LCVG
ECOK(604):LCVG W/BIO CCA/LCVG
HCTB 412:GLOVES(6)
HCTB 413:GLOVES(6)
MD CEIL (PORT 2) 0654 -304
ACES CTB 405: SPU(3) 0941-301

ML60B 6013 -310
ML60E 0646 -TBD
ST1=OCA
ST2=WINDECOM
ST3=KFX
ST5=RPOP
ST6=RPOP2
ST7=WLES
ACCESS PT ACCESSORIES
ML60M 6014 -312

MIDDECK FORWARD

MF14E 1BD -TBD HCTB 401: WATER SAMPLES BLOOD SLEEVE SALIVA POUCH	MF28E 5452 -327 716:FOAM APPL(2) 711:DUXSEAL	MF43E 8967 -305	MF57E 6240 -311	MF71E 8723 -302
MF14G 2768 -303 6300 -345	MF28G 6250 -353 718:MULTIMETER	MF43G 1902 -309	MF57G 8073 -302	MF71G 1903 -306
MF14H 0674 -301 608:PWR(2)	MF28H 6684 -334	MF43H 0305 -306	MF57H 5473 -305	MF71H 0663 -301 710:DOUBLE COLDBAG
MF14K 2764 -306	MF28K 0656 -308 POST INSERTION ACTWATCHES #2	MF43K 1901 -306	MF57K RESERVED FOR FEET	MF71K RESERVED FOR FEET
MF14M 2765 -304	MF28M 2765 -307	MF43M 0641 -301	MF57M 1908 -309	MF71M 8965 -313
MF14O 2766 -305	MF28O 2767 -304	MF43O 1904 -309	MF57O 5692 -326	MF71O 6299 -318

MIDDECK AFT

MA9D/F 9882 -303	MA16D/F 0644 -TBD CTB 609:RCC PLUGS 9117-304 CTB 408:RCC PLUGS 0944-301 HCTB 411:EMCS 0948-301
MA9G 8737 -307	MA16G 8047 -304
MA9J 6256 -303	MA16J 1BD -TBD PHOTO/TV BLOOD KIT RESUPP SALIVA KIT GEOFLOW SGHAB/HAB ROTOR LK (HCTB 403) (CTB)
MA9L 6066 -332	MA16L 0634 -308 612:PCS LAPTOP 407:CD CASE/PDA
MA9N 7432-328 SOFT STWG BAGS 4980-311 8071-312 8070-302	

MD CEIL (STBD 1) 0275 -308
CRACK BAG/GUNS/BPT EVA WIPES(6)/SAFER HCL WAIST TETH(4)/SCRAPERS THERM SENSOR/EWA(2) MMWS CADD/TETH EXT R&P GAUGE/DIDB(8) SWINGARM FLOWVALVE(2) CAM MOUNT/RET(11)
MD CEIL (STBD 2) 6665 -347
HCTB 600:CREW PREF
HCTB 610:CREW PREF
HCTB:ACOU CTMSR
CSA-CP RESUP(2)
CTB 409:CHECS 1BD
HOSE ASSY, 2.5"

MD FLOOR (PORT 2) 0637 -306
NADA CHAIR(7)/ERADK
OCA CABLE (B/D)
CONDENSATE CWD
SILVER BIOCIDE KIT
MINERAL SYRINGE KIT
SAMPLE/PURGE KIT
AMIA/PRINTER PAPER
611-SOKOL SUIT
MD FLOOR (PORT 1) 0670 -306
TVIC/SEPARATOR
BCM(2)/DPSB
607:TOE WRENCH/BAG
CTB 403:PBA/PROBE 0946-301
HCTB 410:ATU 0947-301

MD FLOOR (STBD 2) 0657 -305
ECOK(2)
85' TETHER(2)
DIDB(6)/AE(6)
PGT/EMU BATT
EVA GAP GAUGE
RFCA
HCTB 400:GSC(9) 0939-301
MD FLOOR (STBD 1) 0245 -307
CDRA
ORU BAG/END EFCTR

A16 7490 -301	A17 7424 -304	VOLUME D (MD52C) NOT INSTALLED	VOLUME F (MD76M) 1403 -306 WET TRASH	VOLUME G (MD80R) 1800 -346	VOLUME H (MD23R) 8068 -316 EMU SERVICE KIT EHIP BATT(4) (INBD) EVA ACCESS 8065 -311 (OBD)	WMC 4575 (MA82H) 0914 -332	EXT AIRLOCK 5557 -321 (STBD) 2-EMUs (PORT1) EXT A/L FLOOR 0666 -305 PHASE VI GLOVE(4PR) MWS/MSA(4)/W(2)/CCC(4) CRACK REPAIR PALETTE(2) BLOOD/SALIVA KIT/WIPES CTB 404:EVA HDWR0940-301 BMRRM BAG/RSP(5)/SAME
---------------	---------------	-----------------------------------	---	----------------------------	--	----------------------------	--

31 LIQH- 29 + 1 ATCO IN LIQH BOX, 2 INSTLD (7435-TBD) WINDOW SHADE BAG - WINDOW SHADES (5548-TBD) IFM CABLES & HOSES (4259-344) MONITOR SHIELDS

L10A1: AVIU (6686-331)
L10A2: DTV MUX
L10A3: DTV VTR/VIP
L11: PDIP 2 OIU 1/2
L12A1: SSP 1
L12A2: SSP 2
L12A3: PDIP 1
R12A1: VPU
R12A2: OBSS/OPP

* NOT APPROVED
● RUNWAY DESTOW
CTB-CARGO TRANSFER BAG
HCTB-HALF CARGO TRANSFER BAG

C/D JSC 2173-305
P/D JSC 2169-304
C/D KSC 2174-302
P/D KSC 2170-303
CEIT KIT 2122-309
MDK LBL 7495
DWG NO. SGD32104447
/USR/DWGS/LOCKER/STS124
CCMM: M. MCDONALD 483-1384

ONLY LOCATIONS THAT CHANGE OR CONTAIN
TRANSFER ITEMS ARE SHOWN

NOTE: LOCKER LAYOUTS ARE FOR REFERENCE ONLY AND ARE NOT RELEASED DRAWINGS.
FOR RELEASED DRAWINGS, REFER TO CCCD DRAWING # SGD32104447

17-0349 (MSG 050) BCM DISPLAY RESISTOR MODIFICATION

Page 1 of 14 pages

OBJECTIVE:

Cut the incorrectly installed resistor on the back of the Battery Charger Module (BCM) Display to disable its backlight function.

Procedure will open bottom cover of BCM, remove two front switches on BCM, disengage display from front panel, and cut the affected resistor.

LOCATION:

Maintenance Work Area

DURATION:

2.5 hours (1 hour 15 minutes per BCM)

CREW:

Two

PARTS:

Battery Charger P/N SEG39128256-305

MATERIALS:

Gray Tape

Kapton Tape

Sharpie

TOOLS:

DCS 760 Camera

Flashlight (crew preference)

ISS IVA Toolbox:

Drawer 2:

- Ratchet, 3/8" Drive

- Driver Handle, 1/4" Drive

- 9/16" Deep Socket, 1/4" Drive

- (5-35 in lb) Trq Driver, 1/4" Drive

- (10-50 in lb) Trq Wrench, 1/4" Drive

- 1/4" to 3/8" Adapter

Drawer 3:

- #8 Long Torq Driver, 3/8" Drive

- #6 Long Torq Driver, 3/8" Drive

- #4 Long Torq Driver, 3/8" Drive

Drawer 4:

- Wire Cutters

- Small Needle Nose Pliers

- Large Needle Nose Pliers

- 6" Long Mini Pliers Straight

Drawer 5:

- Static Wrist Tether

- Magnifying Glass (7X)

MWA Work Surface Area

MWA Utility Kit

- Track Restraint

- ORU Clamp

- Ground Cord, 5'

- Ground Cord, 2'

- Alligator Clip

17-0349 (MSG 050) BCM DISPLAY RESISTOR MODIFICATION

Page 2 of 14 pages

REFERENCED PROCEDURES:

A.2.6 Maintenance Work Area (MWA) Installation

1. SECURING BCM TO MWA

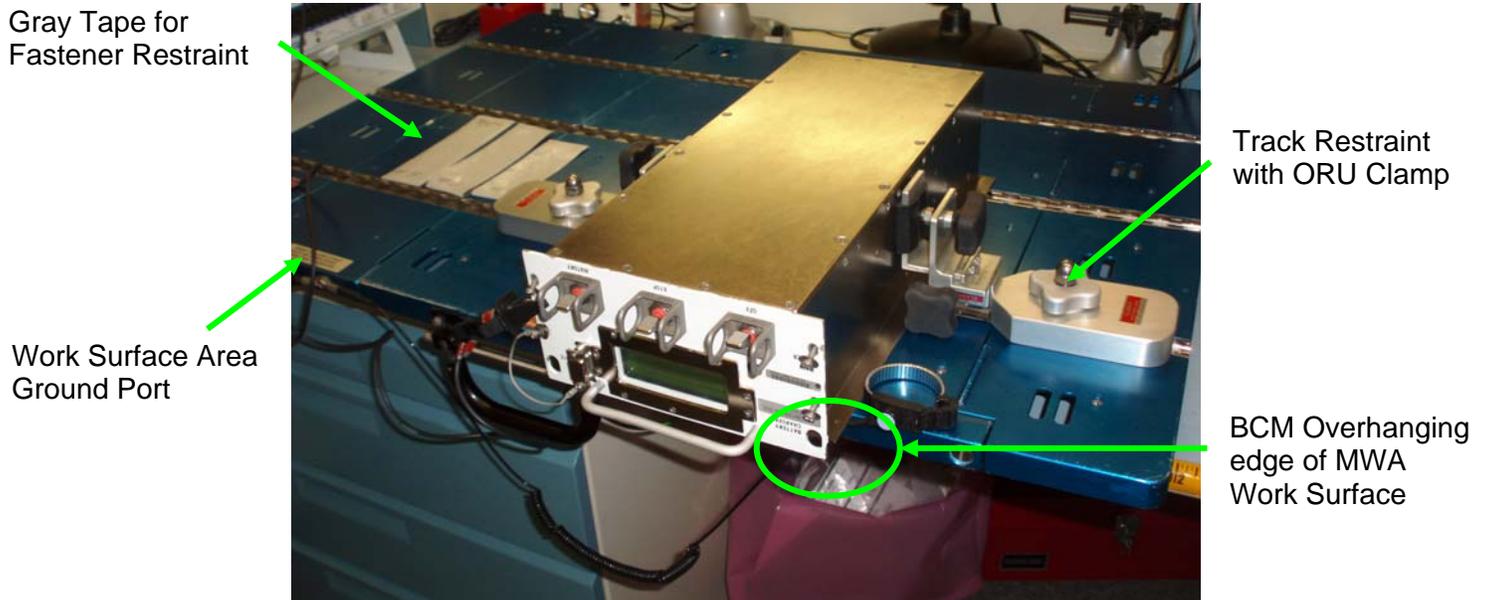


Figure 1. – BCM Attached to MWA Work Surface Area.

- 1.1 Place BCM, upside down, on MWA Work Surface Area. Adjust positioning of BCM faceplate to overhang edge of MWA Work Surface to allow access to fasteners during future steps. Secure BCM using Track Restraints and ORU Clamps. Reference Figure 1. Refer to A.2.6 Maintenance Work Area (MWA) Installation if needed.
- 1.2 Connect Ground to BCM:
 - Ground Cord, 5' →|← Work Surface Area Ground Port
 - Ground Cord, 5' →|← UOP J5 ESD GND

 - Ground Cord, 2' →|← Work Surface Area Ground Port
 - Ground Cord, 2' →|← Alligator Clip

 - Alligator Clip →|← BCM Faceplate
- 1.3 Don Static Wrist Tether
 - Static Wrist Tether Plug →|← Work Surface Area Ground Port or Ground Cord Jack (Ground Cords have “nesting” plug capability)
- 1.4 Prepare three strips of Gray Tape, approx 6 inches long each, to be used for non-captive fastener (three types) temp stow and organization.
Label tape for four stowage zones: “#4”, “#6”, “#8”, “Switch H/W”

2. REMOVING BOTTOM COVER

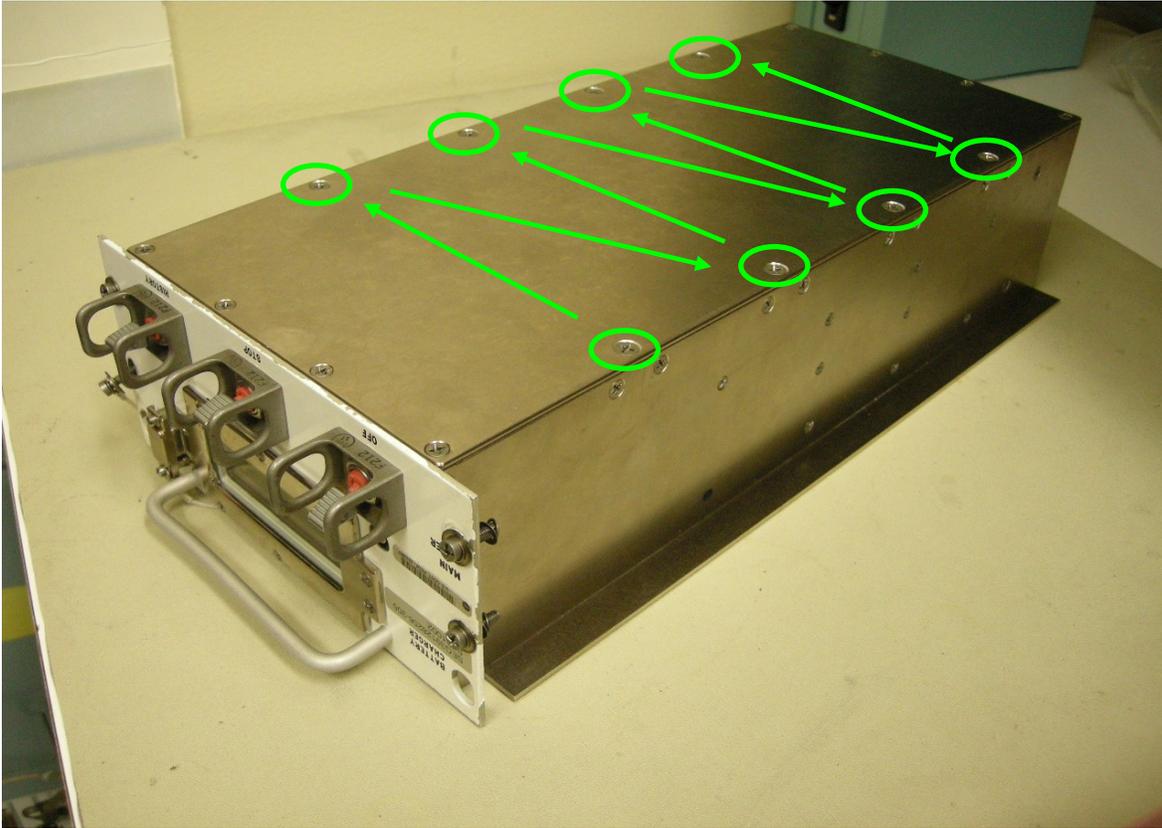


Figure 2.- Bottom View of BCM, size #8 Fasteners

NOTE

1. All BCM fasteners are non-captive. Pre-stage tape as required.
2. When disengaging BCM bottom cover fasteners in Step 2.1- 2.2, fasteners may not actually come free from cover after threads are disengaged. Cover any stubborn fasteners with Kapton Tape to ensure they do not come loose, and proceed with subsequent steps.

- 2.1 Remove non-captive size #8 fasteners (eight) from BCM bottom cover in alternating pattern as indicated in Figure 2 (Driver Handle, 1/4" Drive; 1/4" to 3/8" Adapter; #8 Long Torq Driver, 3/8" Drive). Stow non-captive fasteners in "#8" location on Gray tape.

17-0349 (MSG 050) BCM DISPLAY RESISTOR MODIFICATION

Page 4 of 14 pages

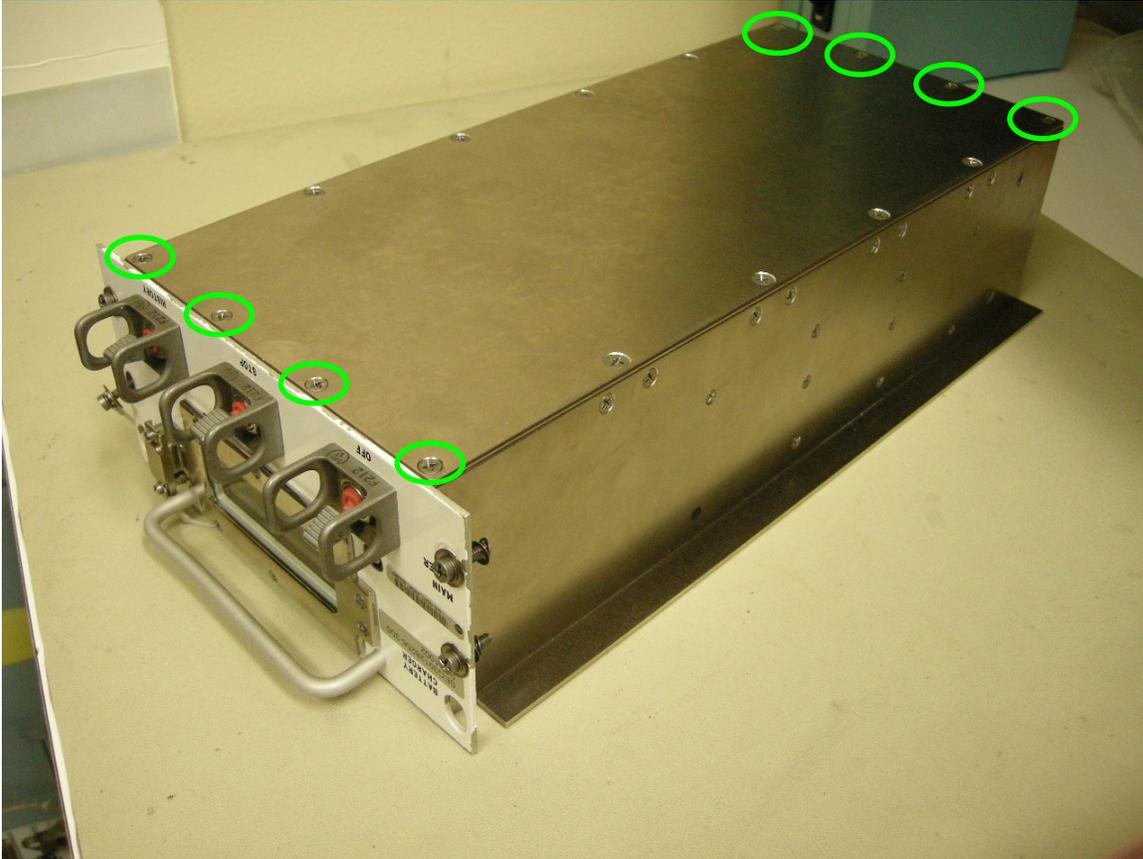


Figure 3.- Bottom View of BCM, size #6 Fasteners

- 2.2 Remove non-captive size #6 fasteners (eight) from bottom cover as indicated in Figure 3 (Driver Handle, 1/4" Drive; 1/4" to 3/8" Adapter; #6 Long Torq Driver, 3/8" Drive).
Stow non-captive fasteners in "#6" location on Gray tape.

17-0349 (MSG 050) BCM DISPLAY RESISTOR MODIFICATION

Page 5 of 14 pages

96-Pin Connector
No-Touch-Zone

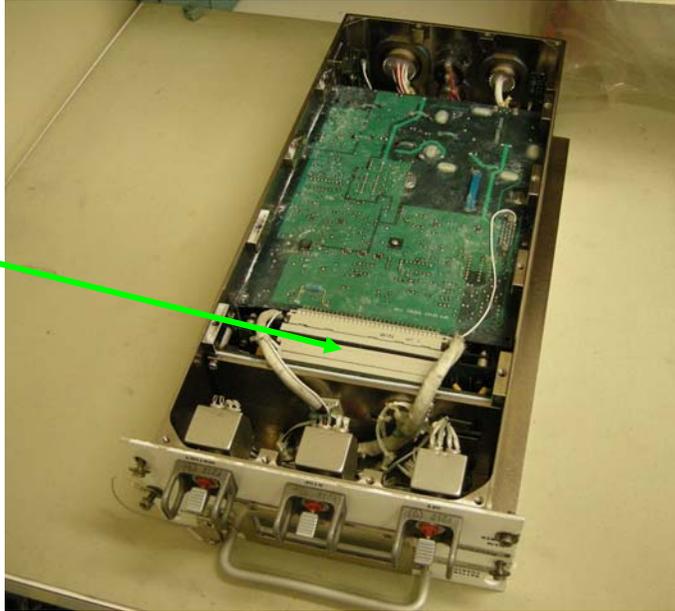


Figure 4.- BCM with bottom cover removed

- 2.3 Remove bottom cover.
Temporarily stow.

* If fastener cannot be removed from bottom cover after
* threads are disengaged,
* |
* | Remove bottom cover.
* | Cover fastener(s) with Kapton tape.

- 2.4 Photo document BCM interior. (DCS 760 Camera). These pictures can be referenced during BCM reassembly, if required.

17-0349 (MSG 050) BCM DISPLAY RESISTOR MODIFICATION

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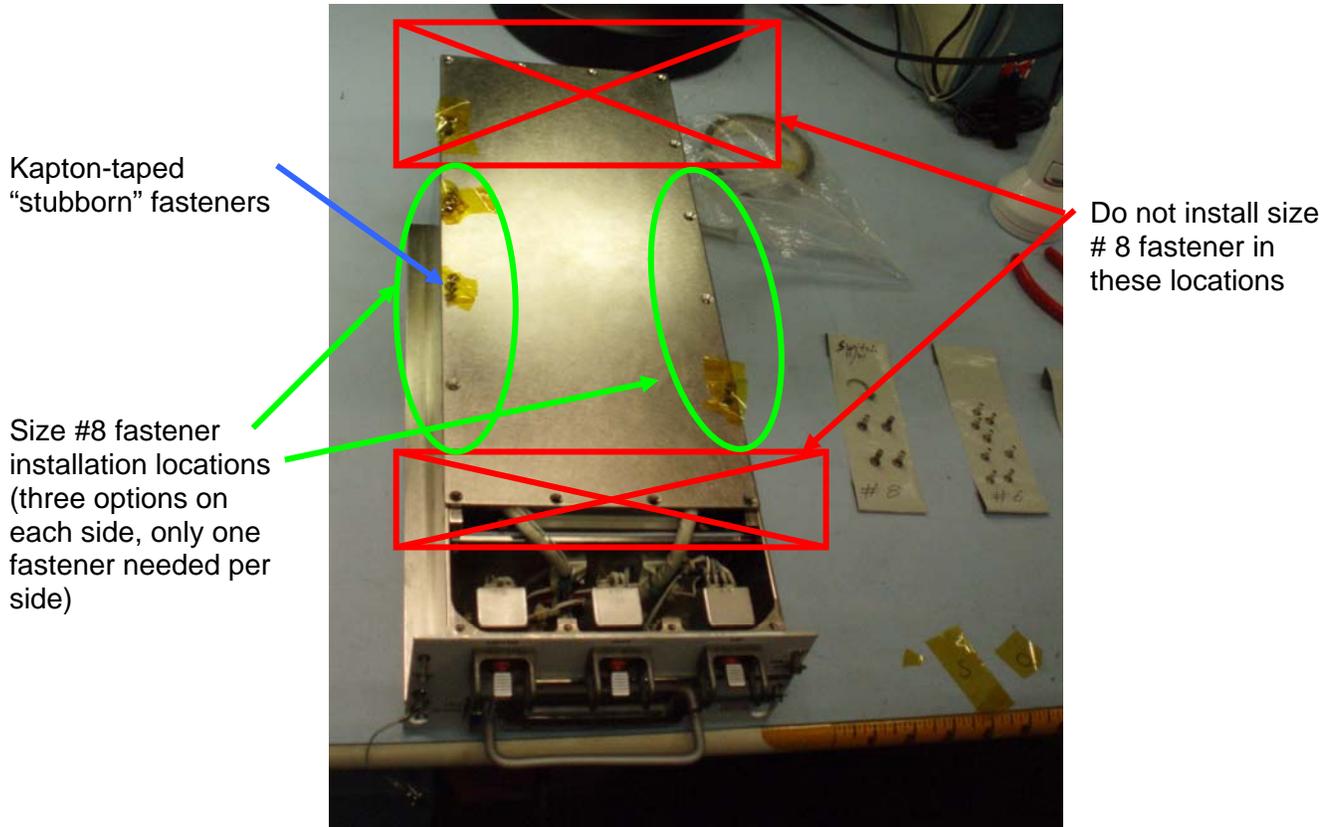


Figure 5. – BCM cover installed in interim location.

NOTE

BCM bottom cover will be reinstalled to protect BCM electronics during remainder of procedure. The 96 pin connector is prone to damage and will be protected in this configuration. Refer to Figures 4 and 5.

- 2.5 Install BCM bottom cover, displaced by one fastener location. Install, snug single size #8 fastener on each side of bottom cover (two fasteners total). (Driver Handle, 1/4" Drive; 1/4" to 3/8" Adapter; #8 Long Torq Driver, 3/8" Drive)
Refer to Figure 5 for proper fastener installation location.

17-0349 (MSG 050) BCM DISPLAY RESISTOR MODIFICATION

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3. REMOVING DISPLAY

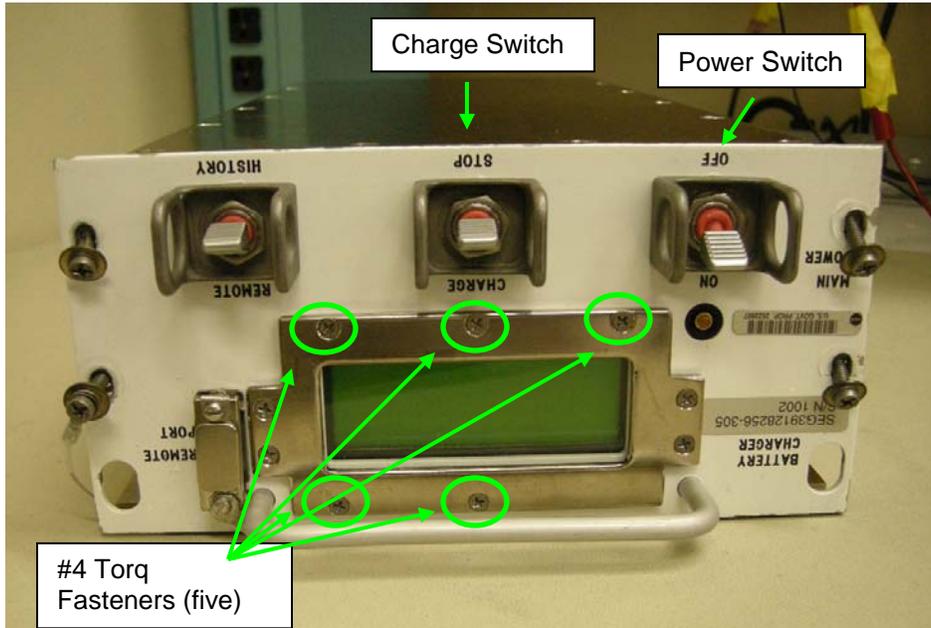


Figure 6.- Face Plate of BCM

- 3.1 Remove non-captive fasteners (five) as shown in Figure 6 (Driver Handle, 1/4" Drive; 1/4" to 3/8" Adapter; #4 Long Torq Driver, 3/8" Drive).
Stow non-captive fasteners in "#4" location on Gray tape.
- 3.2 Apply Kapton Tape to Charge Switch and Power Switch and label with "S" (for "STOP") and "O" (for "OFF") appropriately (Kapton Tape, Sharpie)
Refer to Figure 6.

17-0349 (MSG 050) BCM DISPLAY RESISTOR MODIFICATION

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Figure 7.- Removing Charge Switch nut, locking washer, guard

- 3.3 Remove Charge Switch non-captive nut, locking washer, switch guard (Driver Handle, 1/4" Drive; 9/16" Deep Socket, 1/4" Drive). Refer to Figure 7.
Stow non-captive hardware on gray tape.



Figure 8.- Charge Switch removed from face plate

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NOTE

A non-captive key ring is located on the switch shaft. This ring will come loose during removal of switch. Avoid letting key ring rotate during switch removal. Key ring will be taped after switch is removed. Refer to Figure 9.

- 3.4 Carefully pull Charge Switch out of face plate, taking care not to stress wires on back side of switch. Avoid letting key ring rotate during removal of switch
Refer to Figure 8.

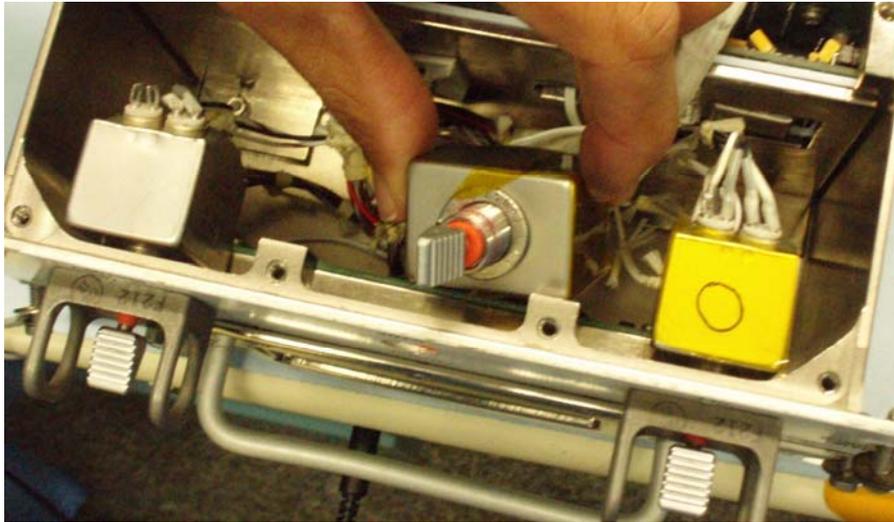


Figure 9. – Taping Switch Key Ring to prevent rotation.

- 3.5 Tape non-captive switch key ring to switch to prevent rotation.
(Kapton Tape).
Refer to Figure 9.

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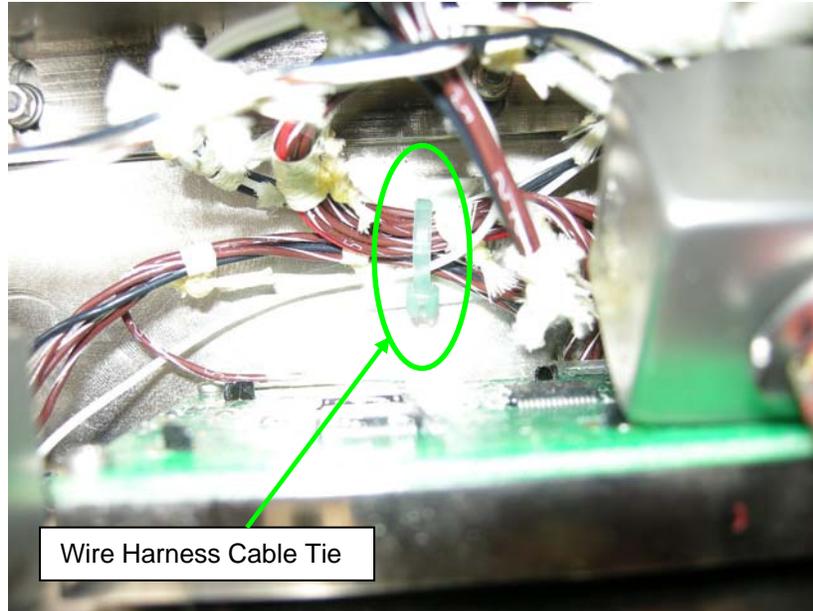


Figure 10.- Wire Harness Cable Tie

- 3.6 Rotate blue Wire Harness Cable Tie toward front panel of BCM (Large Needle Nose Pliers, Flashlight). Refer to Figure 10.

CAUTION

Use Caution when cutting wire harness cable tie. Do not damage wires beneath wire tie.

- 3.7 Cut wire harness cable tie near head of wire tie (Wire Cutters, Flashlight). Remove with Large Needle Nose Pliers. Refer to Figure 10.
- 3.8 Remove Power Switch non-captive nut, locking washer, switch guard (Driver Handle, 1/4" Drive; 9/16" Deep Socket, 1/4" Drive). Refer to Figure 6. Stow non-captive hardware on gray tape.
- 3.9 Carefully pull Power Switch out of face plate, taking care not to stress wires on back side of switch. Avoid letting key ring rotate during removal of switch
- 3.10 Tape non-captive switch key ring to switch to prevent rotation. (Kapton Tape). Refer to Figure 9.

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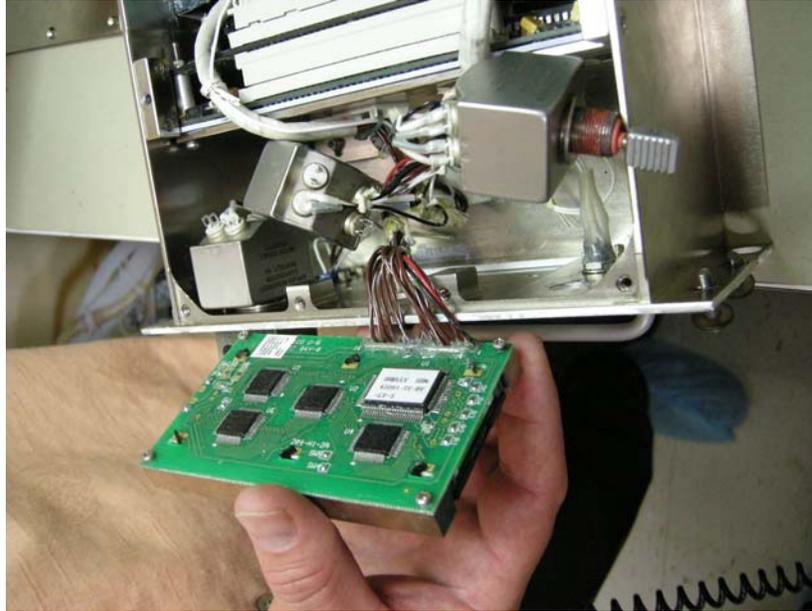


Figure 11.- Display lifted out from BCM case

- 3.11 Inspect Display, Circuit Card and cable harness noting orientation for later reinstallation.
- 3.12 Carefully extract display.
Refer to Figure 11.

4. CUTTING RESISTOR

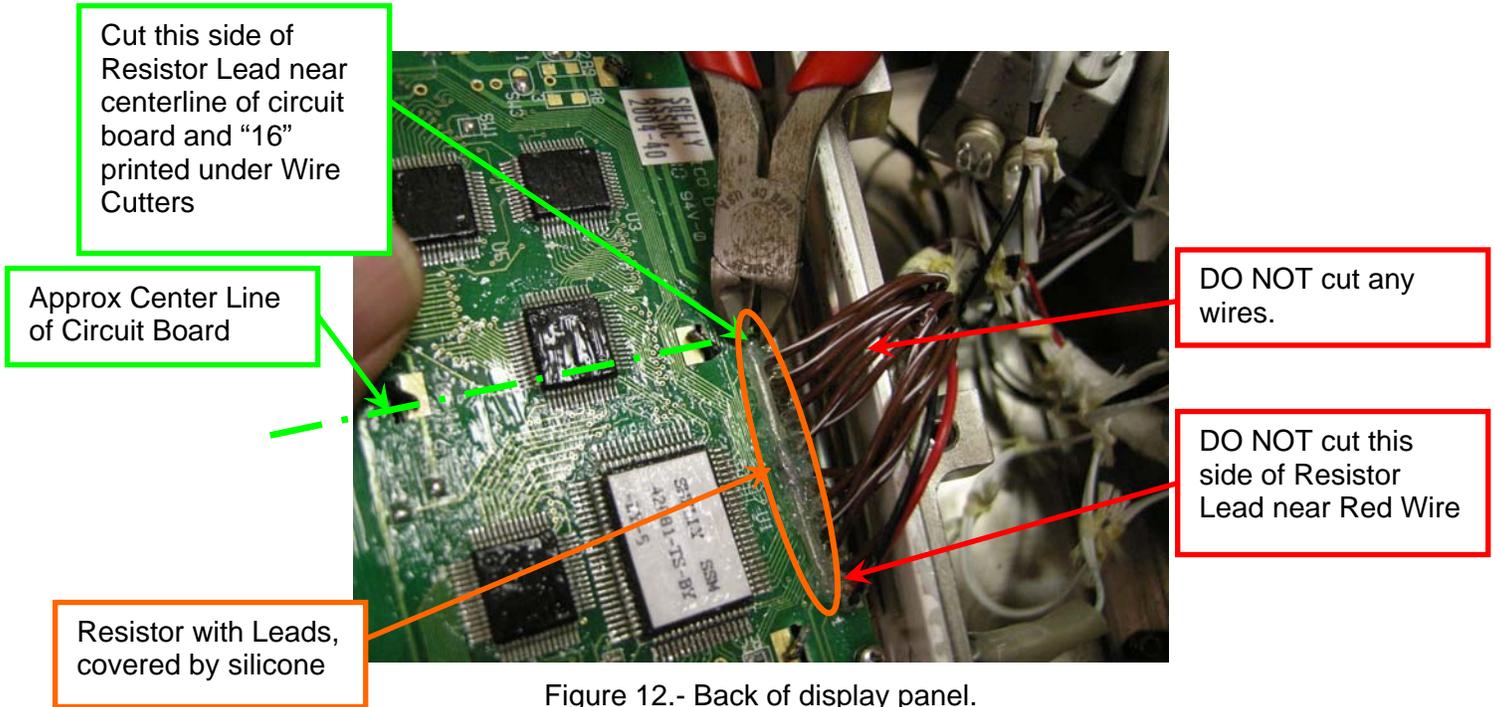


Figure 12.- Back of display panel.

CAUTION

1. Do not cut any wires (red, brown, or black) attached to circuit card. The resistor lead to be cut is a silver-colored lead, coated with silicone, laying across the base of the wire connection area.
2. Use caution when cutting resistor lead to not damage circuit board below resistor.

- 4.1 Cut resistor lead (silver-colored, silicone coated conductor) near centerline of display and as parallel to plane of board as possible (Nearest the number "16" on the printed circuit board, opposite side of the red wire). [Wire Cutters, Magnifying Glass (7X)] Refer to Figure 12.
- 4.2 Gently bend the cut end of resistor lead away from circuit board. The goal is to introduce a gap in the lead at the cut location to break the electrical circuit. [Wire Cutters or fingernail or 6" Long mini-pliers, Magnifying Glass (7X)]
- 4.3 Photo-document resistor with cut lead.(DCS 760)

17-0349 (MSG 050) BCM DISPLAY RESISTOR MODIFICATION

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5. REINSTALLING DISPLAY

- 5.1 Verify display orientation for reinstallation.
- 5.2 Hold display in place in original location inside of BCM.
Install size #4 fasteners (five) (Driver Handle, 1/4" Drive; 1/4" to 3/8" Adapter; #4 Long Torq Driver, 3/8" Drive).

NOTE

Torq-type fasteners are very difficult to torque. Avoid allowing tool slippage (resulting in fastener and/or tool damage) if possible.

- * If any BCM fasteners cannot be torqued per procedure
- * due to tool slippage, contact **MCC-H** for GO to
- * proceed without torquing fasteners. Minimum
- * requirement is that fasteners must be flush and snug
- * with BCM bottom cover.

- 5.3 Torque display fasteners to 8 inch-lbs (five) ([5-35 in-lb] Trq Driver, 1/4" Drive, 1/4" to 3/8" Adapter, #4 Long Torq Driver).
- 5.4 Remove tape from switch key ring prior to switch installation.
Ensure Switch location, orientation from sharpie label and reinstall Charge and Power switches and switch guards, locking washers, nuts (9/16" Deep Socket, 1/4" Drive).
If necessary, cycle switches while finger-starting non-captive nuts.
- 5.5 Torque Switch Fasteners to 14 in lbs (two) ([5-35 in-lb] Trq Driver, 1/4" Drive, 9/16" Deep Socket).
- 5.6 Remove Kapton Tape labels from Power and Charge Switches.

6. CLOSEOUT

- 6.1 Remove bottom cover, non-captive size #8 fasteners (two) from BCM. (Driver Handle, 1/4" Drive; 1/4" to 3/8" Adapter; #8 Long Torq Driver, 3/8" Drive).
- 6.2 Check for FOD inside of BCM.
- 6.3 Photo Document BCM interior. (DCS 760)
- 6.4 Install BCM Bottom Cover.
Loosely install size #6 fasteners (eight) on short edges of BCM bottom cover. (Driver Handle, 1/4" Drive; 1/4" to 3/8" Adapter; #6 Long Torq Driver, 3/8" Drive).
Refer to Figure 3.

17-0349 (MSG 050) BCM DISPLAY RESISTOR MODIFICATION

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- 6.5 Loosely install size #8 fasteners (eight) on long edges of BCM bottom cover (Driver Handle, 1/4" Drive; 1/4" to 3/8" Adapter; #8 Long Torq Driver, 3/8" Drive).
Refer to Figure 2.
- 6.6 Torque, using cross pattern from the end to the middle, size # 6 fasteners to 15 in lbs (eight) ([5-35 in-lb] Trq Driver, 1/4" Drive, #6 Long Torq Driver, 3/8" Drive).
Refer to Figure 3
- 6.7 Torque, using cross pattern from the end to the middle, size #8 fasteners to 27 in lbs (eight) ([10 - 50 in-lb] Trq Wrench, 1/4" Drive, #6 Long Torq Driver, 3/8" Drive, 1/4" to 3/8" Adapter). Reference Figure 2.
- 6.8 Doff Static Wrist Tether.
- 6.9 √sw Power – OFF
√sw Charge – STOP
Refer to Figure 6.
- 6.10 Remove BCM from MWA and Temp Stow.
- 6.11 Repeat procedure for other BCM.
- 6.12 After modification of both BCMs is complete, stow tools, materials.
- 6.13 Inform **MCC-H** of task completion.

INSTRUCTIONS:

Gather the 3 1J Assembly Operations books and update with the following P&Is

1. 4.013 JPM RACK RECONFIGURATION

- a. On page 339, delete step 4.1

2. 4.017 JEMRMS BDS SETUP PART1

- a. On page 374, step 4.8.2, change ←|→ to →|←

3. 7.009 VESTIBULE OUTFITTING JPM TO JLP - PART1

- a. On page 627, step 6.2, in two places, change the reference of Table 2 to Table 1.
- b. On page 628, step 6.6, change the reference of Table 2 to Table 1
- c. On page 630, step 10.1
 - i. In 4 places, change the reference of Table 3 to Table 2
 - ii. Change the reference of Figures 5 and 6 to Figures 4 and 5
- d. On page 631, step 10.4, change the reference of Table 3 to Table 2

17-0353 (MSG 054) – FD07 EVA Deltas

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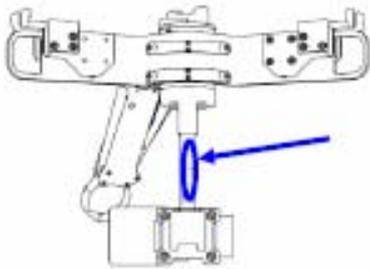
1 Ron and Mike,
2 Way to go on the EVA yesterday!

3
4 Ron,

5 We heard on EVA 1 that you had trouble with your MWS EE being sticky and
6 unusable. Did this occur on EVA 2 as well? Can you please report the serial
7 number located on the stem of the T-bar to MCC?

8 Also, you called down near the end of EVA 2 that you saw a loose PIP-pin
9 floating in the A/L. Can you identify what type of PIP pin this is? If not, can you take
10 a picture of it?

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12
13



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17-0350 (MSG 055) 1.710 EPS2 RACK 1553 EXTENSION CABLE INSTALLATION

(JEM A&C/1J/FIN)

Page 1 of 6 pages

OBJECTIVE:

Install 1553 Extension Cables (two) to EPS2 Rack umbilical to support EPS2 Rack rotation.

LOCATION:

JPM1D5

DURATION:

50 minutes

CREW:

One

PARTS:

W1009 1553 Ch A Extension Cable P/N JTD361435-101

W1009 1553 Ch B Extension Cable P/N JTD361435-111

MATERIAL:

Ziplock Bag

Sharpie

Gray Tape

TOOLS:

DCS 760 Camera

ISS IVA Toolbox:

Drawer 5:

Static Wrist Tether

NOTE

1. The following step configures the CDH buses to install EPS2 Rack 1553 Extension Cable.
2. If desired, CDH steps can be executed by the ground if S-Band is available.

1. CB EXT 2 1553 BUS CONFIGURATION

PCS

- 1.1 Inhibiting C&C MDM BC Comm Failure
CDH: Primary C&C MDM: Recovery Retry
Primary CCS Recover Retry

sel CCS MDM

CCS Recovery Retry
'BC Comm Fail'

cmd Inhibit Execute (Verify – Inh)

2. ACCESS

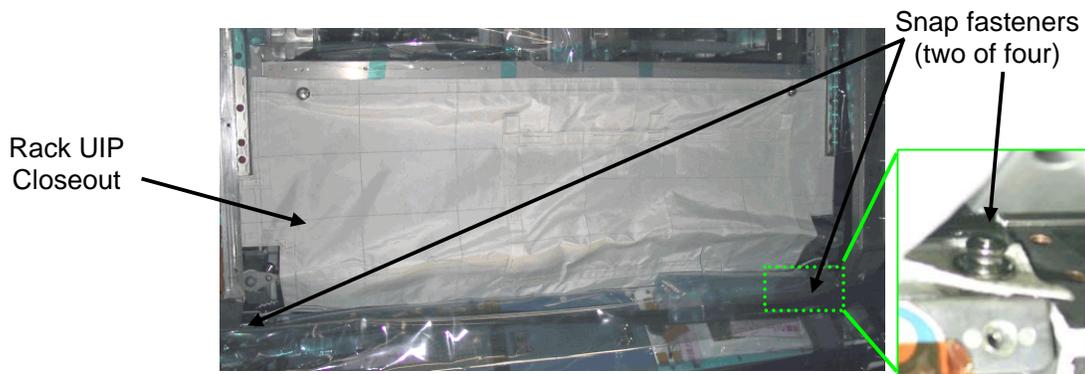


Figure 1.- Rack UIP Closeout.

- 2.1 **√SSIPC** that DIU EPS2 RT FDIR and RT I/O on CB Ext 2 are inhibited and 1553B bus channel of JEM SLBus 1 is switched to Ch a.

JPM1D5

- 2.2 Release and peel EPS2 Rack UIP Closeout from Standoff, Snap fasteners (two), Velcro. Refer to Figure 1.

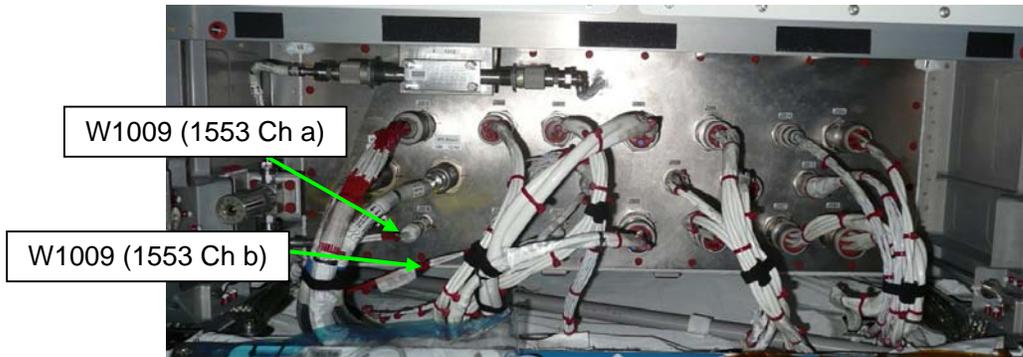


Figure 2.- EPS2 Rack UIP (Launch configuration)

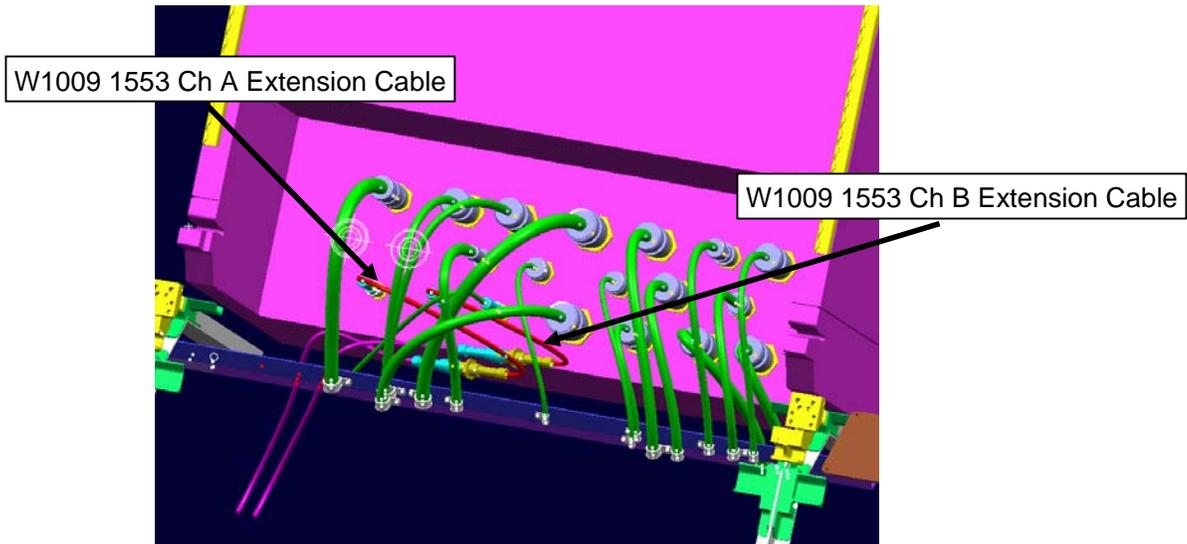


Figure 3.- Image of extension cables connection

3. INSTALLING W1009 1553 CH B EXTENSION CABLE

- 3.1 Don Static Wrist Tether.
Secure clip end to unpainted, unanodized metal surface.
- 3.2 Remove Protective Caps from W1009 1553 Ch B Extension Cable.
Using Sharpie, Label 6" x 6" Ziplock Bag "W1009 1553 Extension Protective Caps."
Stow Protective Caps in Ziplock Bag labeled "W1009 1553 Extension Protective Caps."
- 3.3 P3519 on W1009 ←|→ J3519 on Rack UIP
P3519A on W1009 1553 Ch B Extension Cable →|← J3519 on Rack UIP
J3519A on W1009 1553 Ch B Extension Cable →|← P3519 on W1009
Refer to Figures 2 and 3.
- 3.4 Notify **SSIPC** of W1009 1553 Ch B Extension Cable Installation completed.

4. INSTALLING W1009 1553 CH A EXTENSION CABLE

- 4.1 **SSIPC** that 1553B bus channel of JEM SLBus 1 is switched to Ch b.
- 4.2 Remove Protective Caps from W1009 1553 Ch A Extension Cable.
Stow Protective Caps in Ziplock Bag labeled "W1009 1553 Extension Protective Caps."
- 4.3 P3518 on W1009 ←|→ J3518 on Rack UIP
P3518A on W1009 1553 Ch A Extension Cable →|← J3518 on Rack UIP
J3518A on W1009 1553 Ch A Extension Cable →|← P3518 on W1009
Refer to Figures 2 and 3.
- 4.4 Doff Static Wrist Tether.
- 4.5 Notify **SSIPC** of W1009 1553 Ch A Extension Cable Installation completed.

NOTE

If there is cable connection error, Advisory Message '**Primary CC MDM Detect Loss of Comm with DIU 2 – LAB**', ISS Event Code: 5173 would go into alarm when RT I/O with DIU EPS2 enabled.

5. CB EXT 2 COMM VERIFICATION BETWEEN C&C MDM AND DIU EPS2

PCS

5.1 CB Ext 2 Ch A Comm Verification

Task: JPM Channel B Initial Activation

JPM Channel B Initial Activation

'DIU EPS2'

cmd RT I/O – Enable (Verify – Ena)

CDH: Primary C&C MDM: CB Ext 2
sel Bus Status

CB Ext 2 Bus Status

cmd Select Ch A **Execute**

Verify Channel Selected – A

Task: JPM Channel B Initial Activation

JPM Channel B Initial Activation

'DIU EPS2'

Verify Data Frame Counter – incrementing

5.2 CB Ext 2 Ch B Comm Verification

CDH: Primary C&C MDM: CB Ext 2
sel Bus Status

CB Ext 2 Bus Status

cmd Select Ch B **Execute**

Verify Channel Selected – B

Task: JPM Channel B Initial Activation

JPM Channel B Initial Activation

'DIU EPS2'

Verify Data Frame Counter – incrementing

cmd RT I/O – Inhibit (Verify – Inh)

6. RETURN CB EXT 2 1553 BUS TO NOMINAL CONFIGURATION

6.1 Enabling C&C MDM BC Comm Failure

CDH: Primary C&C MDM: Recovery Retry

Primary CCS Recover Retry

sel CCS MDM

CCS Recovery Retry

'BC Comm Fail'

cmd Enable **Execute** (Verify – Ena)

6.2 Switch Channel on CB Ext 2 to Ch A

CDH: Primary C&C MDM: CB Ext 2

sel Bus Status

CB Ext 2 Bus Status

cmd Select Ch A **Execute**

Verify Channel Selected – A

7. CLOSE OUT

7.1 Check for FOD within 1m.

7.2 Photo-document all newly configured hardware (DCS 760 Camera).

7.3 Close Rack UIP Closeout to standoff, Snap fasteners (two), Velcro. Refer to Figure 1.

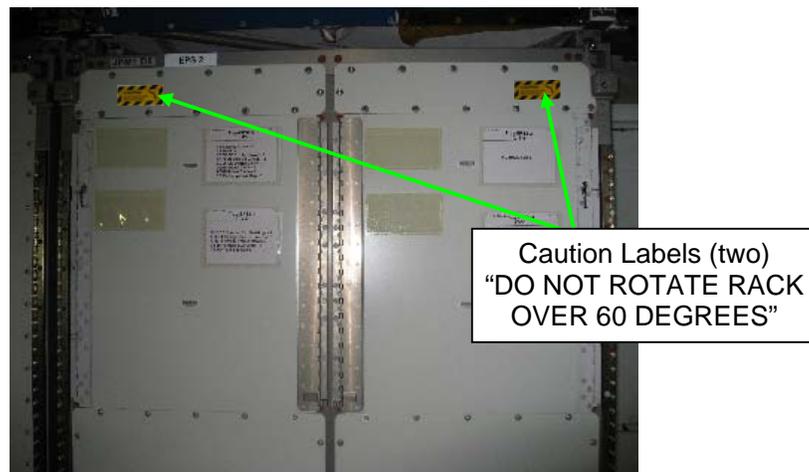


Figure 4.- Caution Labels on EPS2 Rack Front.

NOTE

Caution Labels are no longer required since Extension Cables allow rack to fully rotate.

- 7.4 Cover over entire Caution Labels “DO NOT ROTATE RACK OVER 60 DEGREES” (two) on EPS2 Rack Front. (Gray Tape)
Refer to Figure 4.
- 7.5 Notify **SSIPC** of task completion.
Stow all tools, equipment and material.
Update IMS with stowage location of hardware.