

# STS-121/ULF1.1

## FD 09 Execute Package



MSG	Page(s)	Title
074A	1 - 2	<a href="#">FD09 Summary Timeline (pdf)</a>
068A	3 - 14	<a href="#">FD09 Flight Plan Revision (pdf)</a>
069A	15 - 16	<a href="#">FD09 Mission Summary (pdf)</a>
070A	17 - 19	<a href="#">FD09 Transfer Message (pdf)</a>
071	20	<a href="#">FD09 Water Summary (pdf)</a>
072A	21	<a href="#">Photo/TV Items for EVA 3 (pdf)</a>
073	22	<a href="#">FD08 MMT Summary (pdf)</a>

**Approved by FAO:** L. Eadie

Last Updated: Jul 12 2006 2:53AM GMT

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

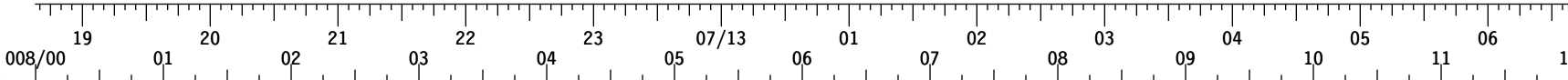
GMT 07/12/06 (193)

MET Day 007

		12	13	14	15	16	17	18	19	20	21	22	23	18 008/00						
STS-121	FD09 CDR LINDSEY	POST SLEEP	OCA TEST	POST SLEEP	ECNAC 13 INIMU 13 P/TV 07 S/U	IPNDT	OWM 13 CTRM 13 FCXFER			UPTDT	P/TV 07 EVA	MEAL	P/TV 07 EVA	EXERCISE	FES* P/TV 07	FES* P/TV 07	P/TV 07	XTAGRUP OVLUM	PRE SLEEP	
	PLT KELLY	EVA PREP				EMURGE	EMU PREBREATHE	C_LK DPRS	EVA 3 IVA SUPPORT										CRTRKS	POST EVA W/O H20
	MS1 FOSSUM	EVA PREP				EMURGE	EMU PREBREATHE	C_LK DPRS	EGRS	SSRMS SETUP	PLB SETUP	TPS REPAIR				PLB CLEANUP	SSRMS CLNUP	A/NLGRS	CRTRKS	POST EVA W/O H20
	MS2 NOWAK	POST SLEEP	EXERCISE		MPLM XFER		DOUG S/U	MNVR 3*	APFR INSTL/INGRESS	MNVR TO LMC	TPS REPAIR - SSRMS				MNVR A/L	APFR EGRS	MNVR MATE MPLM	PRE SLEEP		
	MS3 WILSON	EVA PREP				EMURGE	EMU PREBREATHE	C_LK DPRS	MNVR 3*	APFR INSTL/INGRESS	MNVR TO LMC	TPS REPAIR - SSRMS				MNVR A/L	APFR EGRS	MNVR MATE MPLM	P/TV 05 S/U	PS RLEE P
	MS4 SELLERS	EVA PREP				EMURGE	EMU PREBREATHE	C_LK DPRS	EGRS	SSRMS SETUP	PLB SETUP	TPS REPAIR				PLB CLEANUP	SSRMS CLNUP	A/NLGRS	CRTRKS	POST EVA W/O H20
ISS	ISS CDR	POST SLEEP	PREP WK	DPC	Φ-CB-ΠΦ-MNT	MPLM XFER		TVIS	MIDDAY-MEAL	MPLM XFER		VELO + HC	MPLM XFER		IMS	PREP WK	DPC			
	FE-1	POST SLEEP	PREP WK	CMM	DPC	C1 CB BD MNT	TVIS		RED	COX	MIDDAY-MEAL	MPLM XFER		MPLM XFER		JRN L	PREP WK	DPC		
	FE-2 Reiter	EVA PREP	XRFVWR	EVA PREP			EMURGE	CEVIS REMV		MIDDAY-MEAL	MPLM XFER		VELO	MPLM XFER	XTAGRUP	PREP WK	DPC			
STS	DAY/NIGHT ORBIT	[ORBIT TRACKING]												[ORBIT TRACKING]						
	TDRS	W -171	[TDRS TRACKING]												[TDRS TRACKING]					
	ORB ATT	BIAS -XLV -ZVV												BIAS -XLV -ZVV						
NOTES		*HAM P/D ^HTR				^ACT*INIT *APPLICATOR NOZZLE INSTL				*PARK *SETUP				*TERM ^OFF				^DEACT ^CNFG		
		MT XLATE WS5 TO WS4																		

GMT 07/12/06 (193)

MET Day 008



S T S - 1 2 1	<b>FD09</b> CDR LINDSEY	PRE SLEEP	PMC A/G	PRE SLEEP	SLEEP	POST SLEEP
	PLT KELLY	POST EVA W/O H2O		PRE SLEEP	SLEEP	POST SLEEP
	MS1 FOSSUM	POST EVA W/O H2O		PRE SLEEP	SLEEP	POST SLEEP
	MS2 NOWAK			PRE SLEEP	SLEEP	POST SLEEP
	MS3 WILSON			PRE SLEEP	SLEEP	POST SLEEP
	MS4 SELLERS	POST EVA W/O H2O		PRE SLEEP	SLEEP	POST SLEEP
I S S	ISS CDR	PREP WK		PRE SLEEP-ISS	SLEEP	POST SLEEP
	FE-1	PREP WK	DR KEN CALIF	PRE SLEEP-ISS	SLEEP	POST SLEEP
	FE-2 Reiter	X B F R E I R E F	PRE SLEEP	ISS PMC	PRE SLEEP-ISS	SLEEP
S T S	DAY/NIGHT ORBIT					
	TDRS W -171					
	TDRS E - 46 Z -275					
ORB ATT		BIAS -XLV -ZVV				
NOTES		ISS EXTERNAL SURVEY				

MSG 068A - FD09 FLIGHT PLAN REVISION

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MSG INDEX

<u>MSG NO.</u>	<u>TITLE</u>
68	FD09 Flight Plan Revision
69	FD09 Mission Summary (13-0658)
70	FD09 Transfer Message (13-0659)
71	FD09 Water Summary
72	Photo/TV Items for EVA 3 (13-0660)
73	FD08 MMT Summary (13-0661)
74	FD09 Summary Timeline

1. UPDATE TO EVA INHIBIT PAD

Due to the loss of VERNs, the EVA 3 Inhibit Pad needs to be changed as follows:

In the RCS block, step 1, change

√DAP: VERN, FREE, LO Z

to

√DAP: ALT, FREE, LO Z

The EVA 3 Inhibit Pad may be found on the following page of the EVA Checklist FS:  
EVA 3 pg FS 7-90

2. EVA UPDATE FOR METOX USE

For airlock CO2 management during EVA 3 preparation activities, reuse the same two Metox canisters (s/n 0020 and s/n 0021) which were used for EVA 2 prep. Please note this change on the STS-121 CONSUMABLES TRACKING CUE CARD.

3. ISS MANEUVER

ISS will be maneuvering to the mated TEA attitude YPR (+177.7, +22.5, +359.6) at about the same time the EV crew will egress the airlock. The maneuver is approximately 5 degrees and is expected to take 8 minutes

4. NETMEETING TEST

For the NetMeeting test this morning, we would like you to use either the KFX or RPOP PGSC (we want to use a laptop on the HDLN LAN). Reference procedure NETMEETING VIDEO CONFERENCE (ORB OPS C/L, PGSC). It is desired that you use the same PGSC that you are planning to use for the PFCs. Please let us know which machine you decide to use.

MSG 068A - FD09 FLIGHT PLAN REVISION

1 5. ROBO WORDS FOR FE1, MS2, AND MS3  
2

3 On GMT 191 we parked the SSRMS at the Airlock JOCAS Start Position per step 2 of  
4 1.420 Maneuver to EVA 2 Park Position in order to protect the Tip LEE camera from  
5 contamination. Today's timeline has been updated to complete this procedure prior  
6 to commencing the nominal EVA 3 procedures. Ops notes in OSTPV were updated to  
7 explain that before proceeding with 1.420 Maneuver to EVA 2 Park Position, step 3, you  
8 will need to configure cameras, cancel safing, remove brakes, and enter joint OCAS  
9 mode.

10  
11 6. EVA VIDEO ROUTING FOR MS2 AND MS3  
12

13 During the EVA, MCC-H will route WETA video to the ground. To avoid some of the  
14 video routing issues we saw during EVA 2, let MCC-H know if you want to use more than  
15 4 ISS cameras at one time (S1 and P1 Lower Outboard, Lab Stbd Zenith and MSS  
16 cameras). We will make space for extra ISS views at the RWS, by derouting views to  
17 the ground upon request.  
18

19 7. MAIL RELATED ITEMS  
20

21 1. If you get a chance, please move all the mail from your WORK RELATED, INBOX and  
22 SENT ITEMS folders to your personal folders (this shortens the time required for us to  
23 uplink your new mail)  
24

25 2. Some large attachments in the MS1, MS3 and MS4 Work Related e-mail messages  
26 were removed from the messages and saved to the C:\OCA-Up\Mail\WorkRelated folder  
27 on the KFX PGSC. This was done to reduce the size of the mail files that we uplink to  
28 you.  
29

30 3. PLT and MS4 have some new e-mail messages that contained a lot of very large  
31 attachments. We removed these attachments and uplinked them separately to the  
32 C:\OCA-Up\Mail\PersonalAttachments on the KFX PGSC. The path was also added to  
33 the body of the messages.  
34

35 We plan on using this technique as any other large attachments come through the mail.  
36

37 8. IUA RETURN TRANSFER WORDS  
38

39 Please don't transfer the Nadir IUA (the one you removed during EVA 2) early to the  
40 middeck. There are some discussions in work which may have you modify it to leave  
41 parts on ISS. We will let you know the details soon.  
42

43 Note: when you do transfer the IUA, it will be stowed with other items in one of the two  
44 Mesh bags for Shuttle EVA tools, which is return item #713 on your MDDK return list.  
45

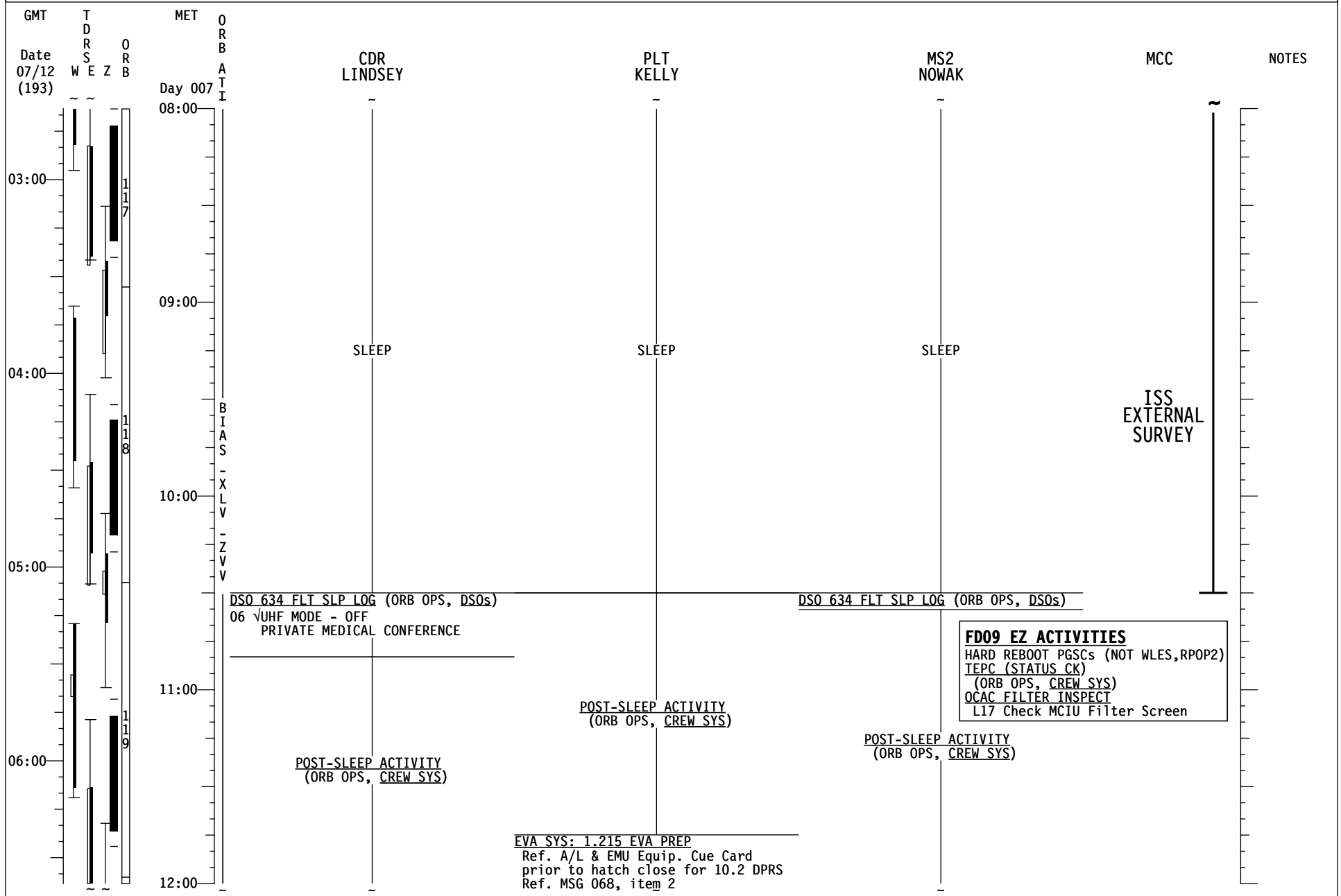
46 9. TRANSFER WORDS  
47

48 Per your request, we uplinked all of the Transfer List pages showing Swap items.  
49 Because this includes so many pages, you'll have to print this message on your own.  
50

51 10. REPLACE PAGES 3-90 THROUGH 3-99.

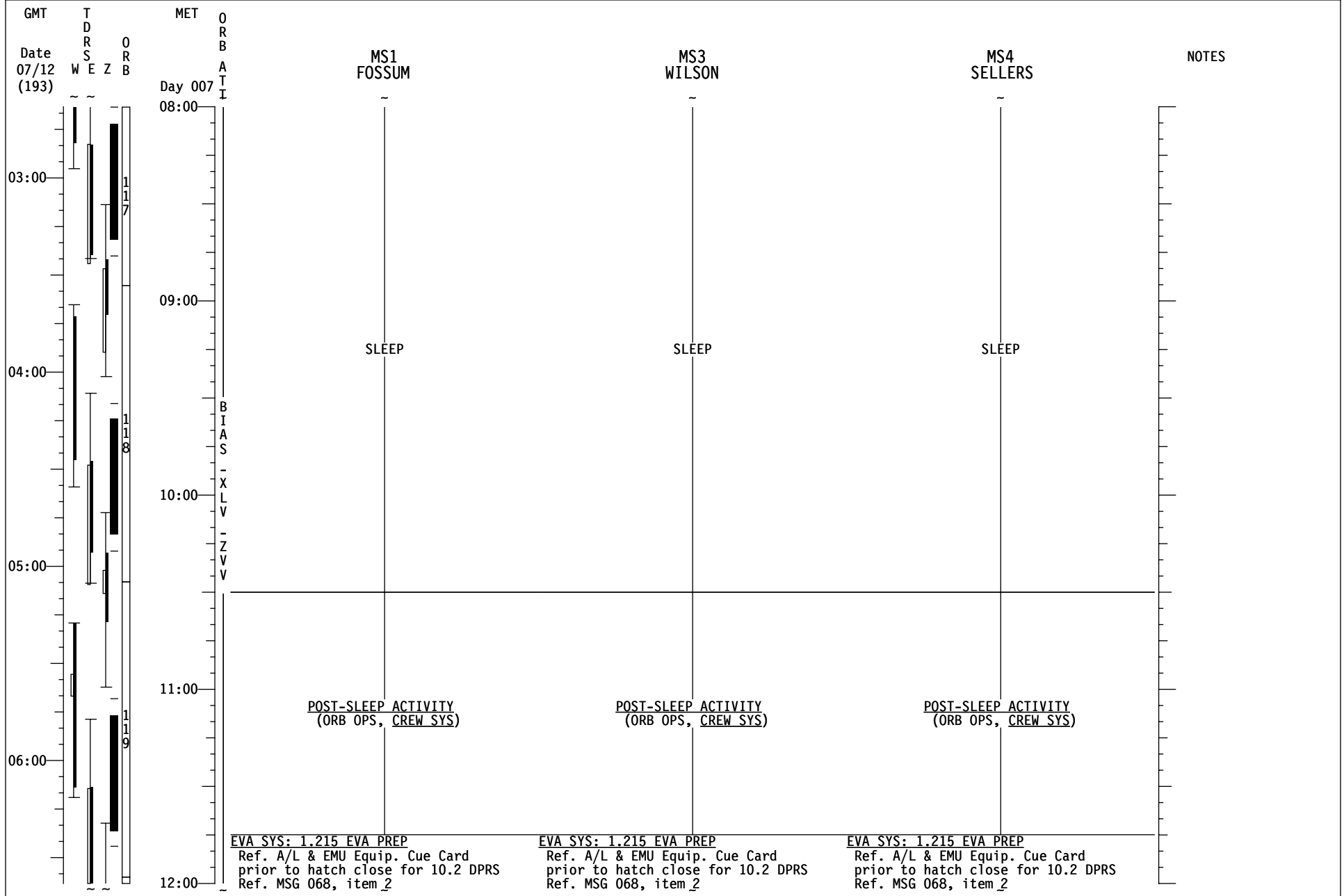
STS-121/ULF 1.1 (FD 08)

REPLANNED



# STS-121/ULF 1.1 (FD 08)

**REPLANNED**



# STS-121/ULF 1.1 (FD 09)

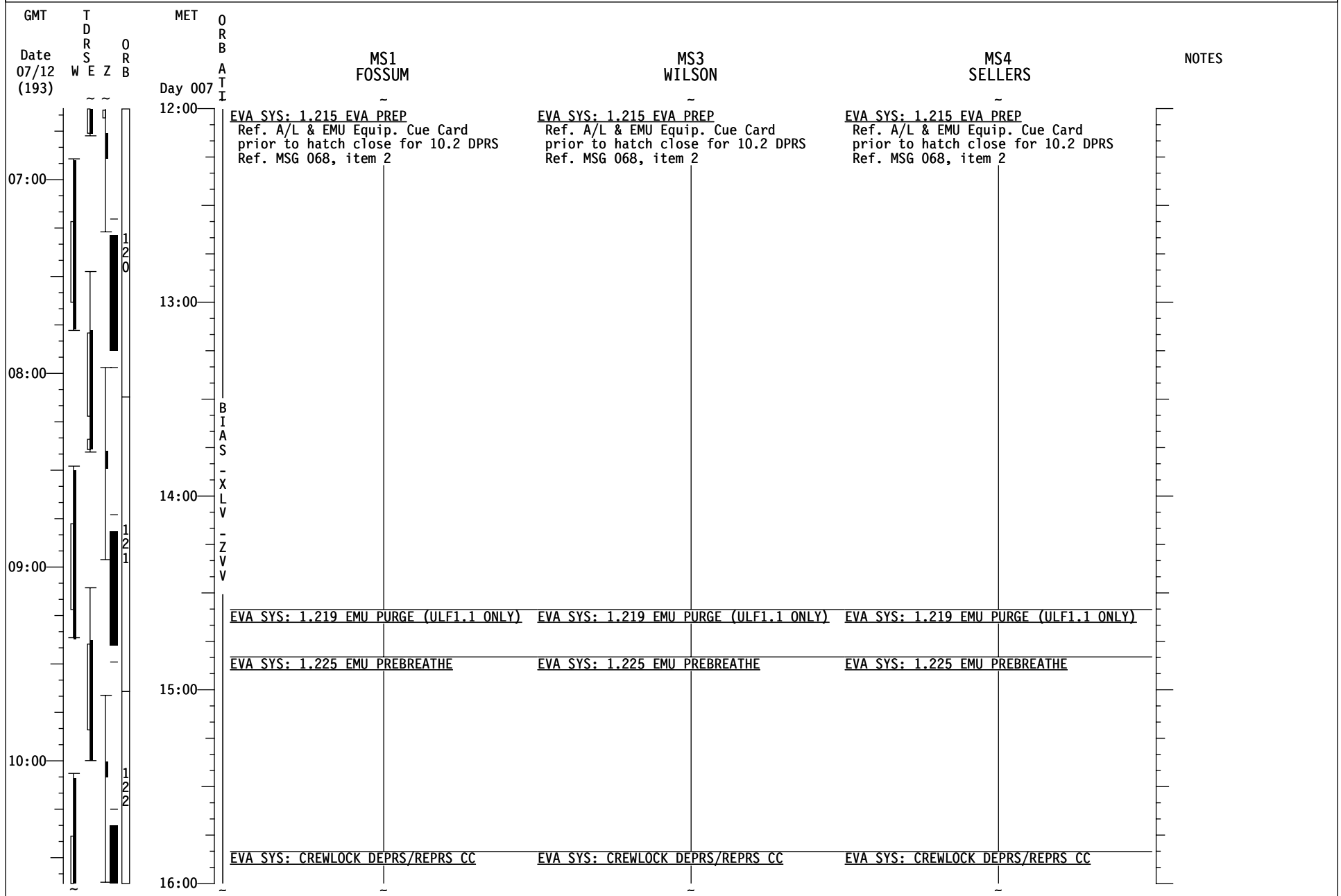
**REPLANNED**

GMT	T D R S E Z	ORB	MET	ORB	CDR LINDSEY	PLT KELLY	MS2 NOWAK	MCC	NOTES
Date 07/12 (193)	W E Z	ORB	Day 007	ORB					
12:00					POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	EVA SYS: 1.215 EVA PREP Ref. A/L & EMU Equip. Cue Card prior to hatch close for 10.2 DPRS Ref. MSG 068, item 2			
07:00					OCA-TEST Ref. MSG 068, item 4		POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
08:00					POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)				
					TOPPING FES STARTUP (ORB OPS, ECLS) p5-21, step 1 SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) INIT #13 - Ref. MSG 071				
14:00					IMU STAR OF OPTY ALIGN (ORB OPS, GNC) LP/TV07 EVA (PHOTO/TV, SCENES) - Setup - Ref. MSG 072		EXERCISE		
09:00					EVA 3 INHIBIT PAD (EVA, EVA 3) Ref. MSG 068, item 1				
					SSP1 OIU PWR - OIU 1 ON (tb-UP) SHUTTLE/ISS H2O CONT FILL (ORB OPS, ECLS) TERM Report B/C and S/N to MCC	EVA SYS: 1.219 EMU PURGE (ULF1.1 ONLY)	TRANSFER OPS Ref. MPLM Resupply & Return Xfer List books		
15:00					SPLY H2O DUMP W/FES (ORB OPS, ECLS) p5-9, step 1, DUMP INIT w/ FES PRI A CWC TRANSFER Transfer 1 CWC to ISS Ref. MSG 071	CRM APPLICATOR NOZZLE INSTL (DAY OF EVA) (EVA, TOOLS & STOWAGE) EVA SYS: 1.225 EMU PREBREATHE			
10:00									
16:00						EVA SYS: CREWLOCK DEPRS/REPRS CC			



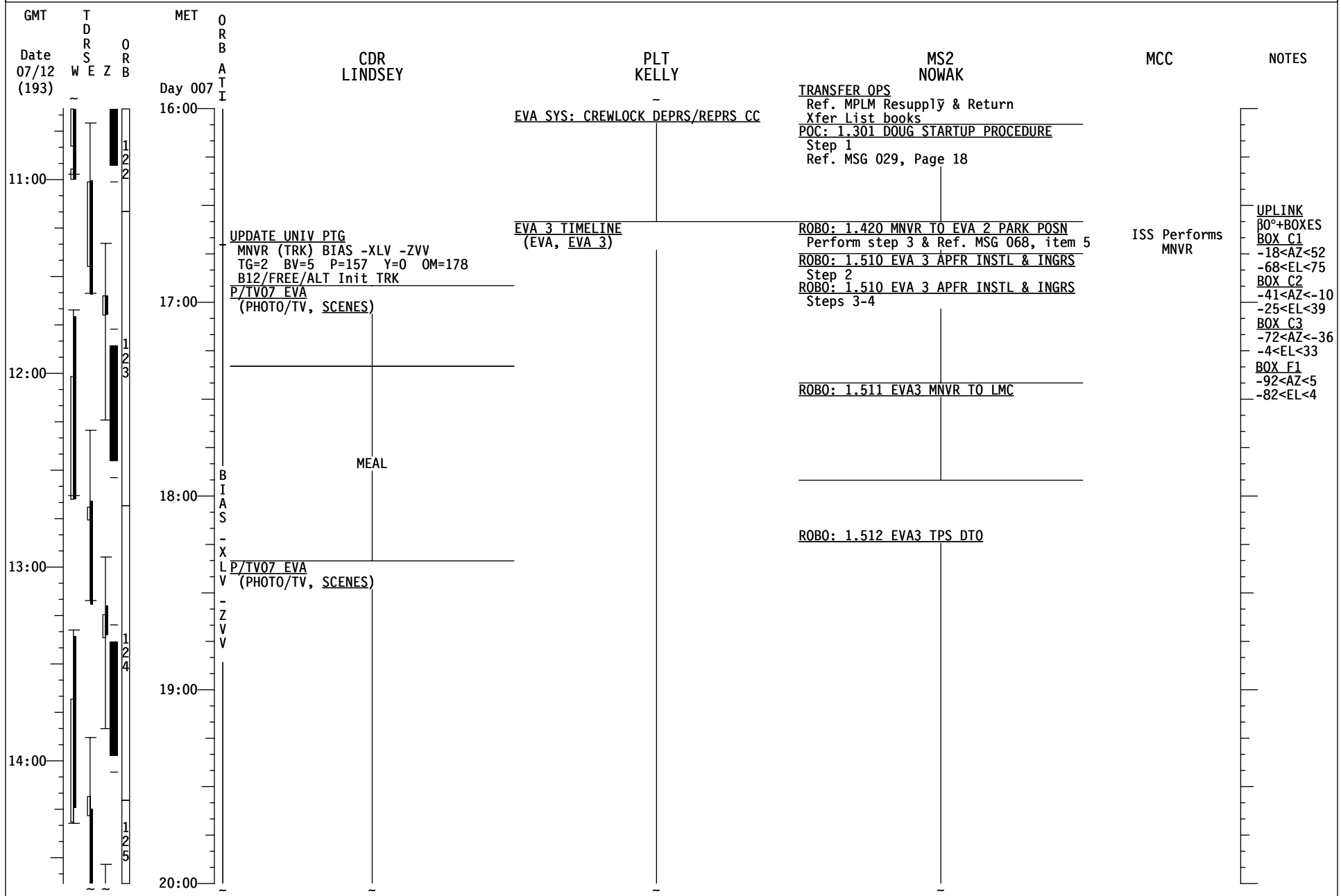
# STS-121/ULF 1.1 (FD 09)

**REPLANNED**



# STS-121/ULF 1.1 (FD 09)

**REPLANNED**



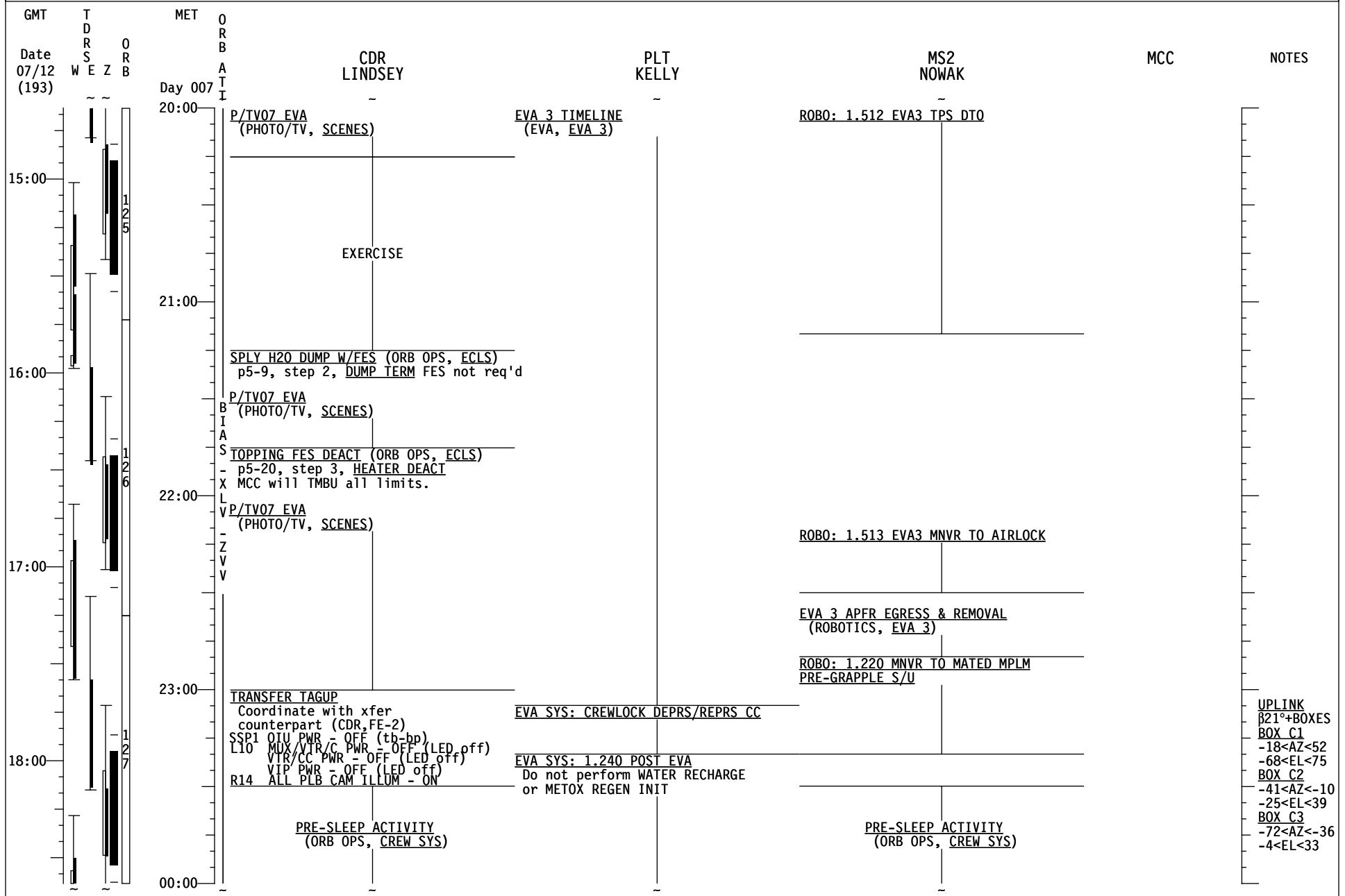
# STS-121/ULF 1.1 (FD 09)

**REPLANNED**

GMT	T D R S E Z	MET	O R B	MS1 FOSSUM	MS3 WILSON	MS4 SELLERS	NOTES
Date 07/12 (193)	W E Z B	Day 007	A T I				
16:00				<u>EVA SYS: CREWLOCK DEPRS/REPRS CC</u>	<u>EVA SYS: CREWLOCK DEPRS/REPRS CC</u>	<u>EVA SYS: CREWLOCK DEPRS/REPRS CC</u>	
11:00				<u>POST DEPRESS &amp; A/L EGRESS</u>	<u>ROBO: 1.420 MNVR TO EVA 2 PARK POSN</u> <u>Perform step 3 &amp; Ref. MSG 068, item 5</u>	<u>POST DEPRESS &amp; A/L EGRESS</u>	
				<u>SSRMS SETUP</u>	<u>ROBO: 1.510 EVA 3 APFR INSTL &amp; INGRS</u> <u>Step 2</u> <u>ROBO: 1.510 EVA 3 APFR INSTL &amp; INGRS</u> <u>Steps 3-4</u>	<u>SSRMS SETUP</u>	
12:00					<u>ROBO: 1.511 EVA3 MNVR TO LMC</u>		
				<u>PLB SETUP</u>		<u>PLB SETUP</u>	
18:00							
13:00				<u>TPS REPAIR</u>	<u>ROBO: 1.512 EVA3 TPS DTO</u>	<u>TPS REPAIR</u>	
14:00							
19:00							
20:00							

# STS-121/ULF 1.1 (FD 09)

**REPLANNED**



UPLINK  
 B21+BOXES  
 BOX C1  
 -18<AZ<52  
 -68<EL<75  
 BOX C2  
 -41<AZ<-10  
 -25<EL<39  
 BOX C3  
 -72<AZ<-36  
 -4<EL<33

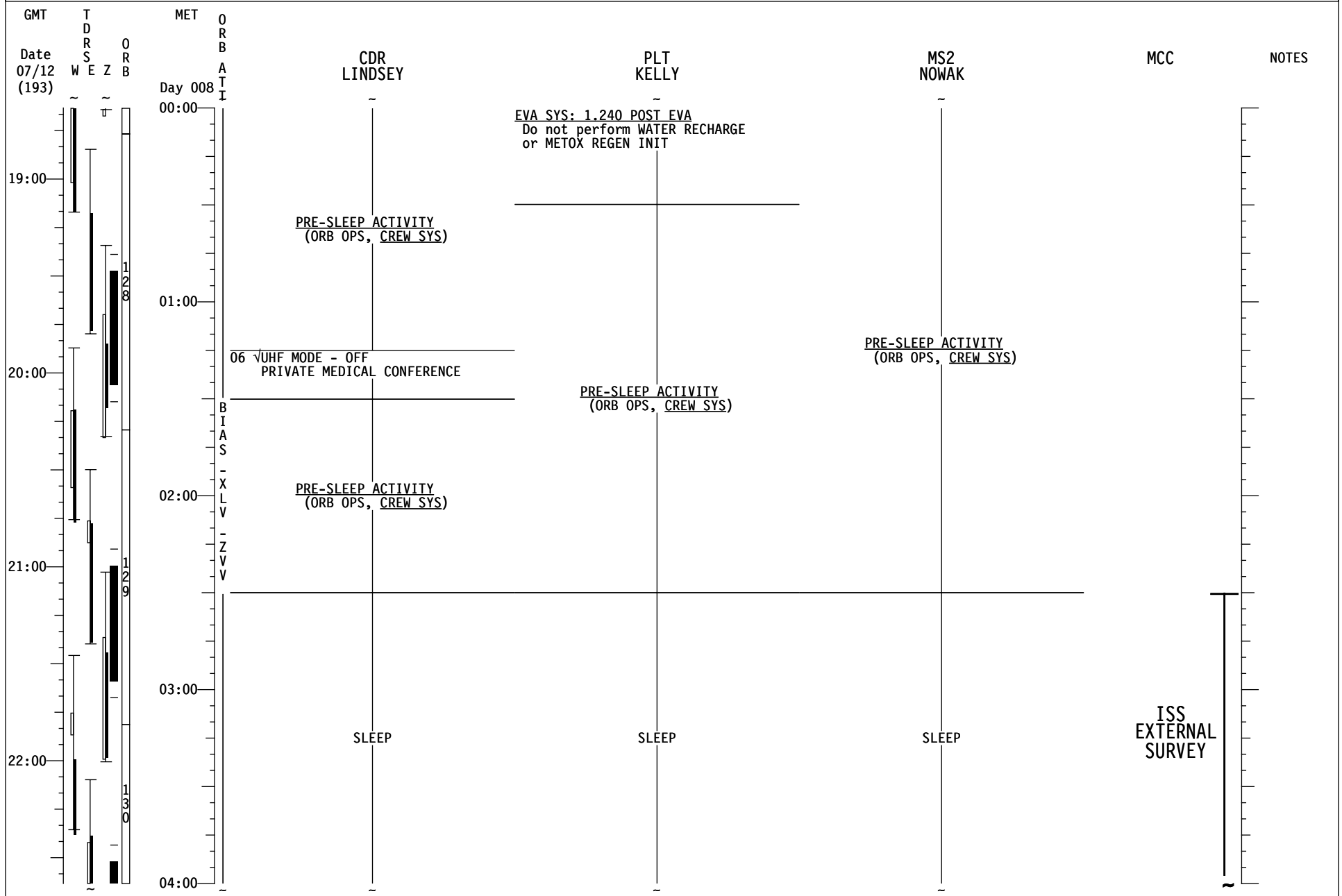
# STS-121/ULF 1.1 (FD 09)

**REPLANNED**

GMT	T D R S E Z	O R B	MET	O R B	MS1	MS3	MS4	NOTES
Date	W E Z	W E Z	Day	A T I	FOSSUM	WILSON	SELLERS	
07/12 (193)	~	~	007	I				
15:00			20:00		TPS REPAIR	ROBO: 1.512 EVA3 TPS DTO	TPS REPAIR	
16:00			21:00		PLB CLEANUP		PLB CLEANUP	
17:00			22:00		SSRMS CLEANUP	ROBO: 1.513 EVA3 MNVR TO AIRLOCK	SSRMS CLEANUP	
18:00			23:00		A/L INGRESS & PRE-REPRESS	EVA 3 APFR EGRESS & REMOVAL (ROBOTICS, EVA 3)	A/L INGRESS & PRE-REPRESS	
					EVA SYS: CREWLOCK DEPRS/REPRS CC	ROBO: 1.220 MNVR TO MATED MPLM PRE-GRAPPLE S/U	EVA SYS: CREWLOCK DEPRS/REPRS CC	
					EVA SYS: 1.240 POST EVA Do not perform WATER RECHARGE or METOX REGEN INIT	In Preparation for FD10 Event P/TV05 ISS INTERNAL OPS (HC) (PHOTO/TV, SCENES) SETUP	EVA SYS: 1.240 POST EVA Do not perform WATER RECHARGE or METOX REGEN INIT	
			00:00			PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		

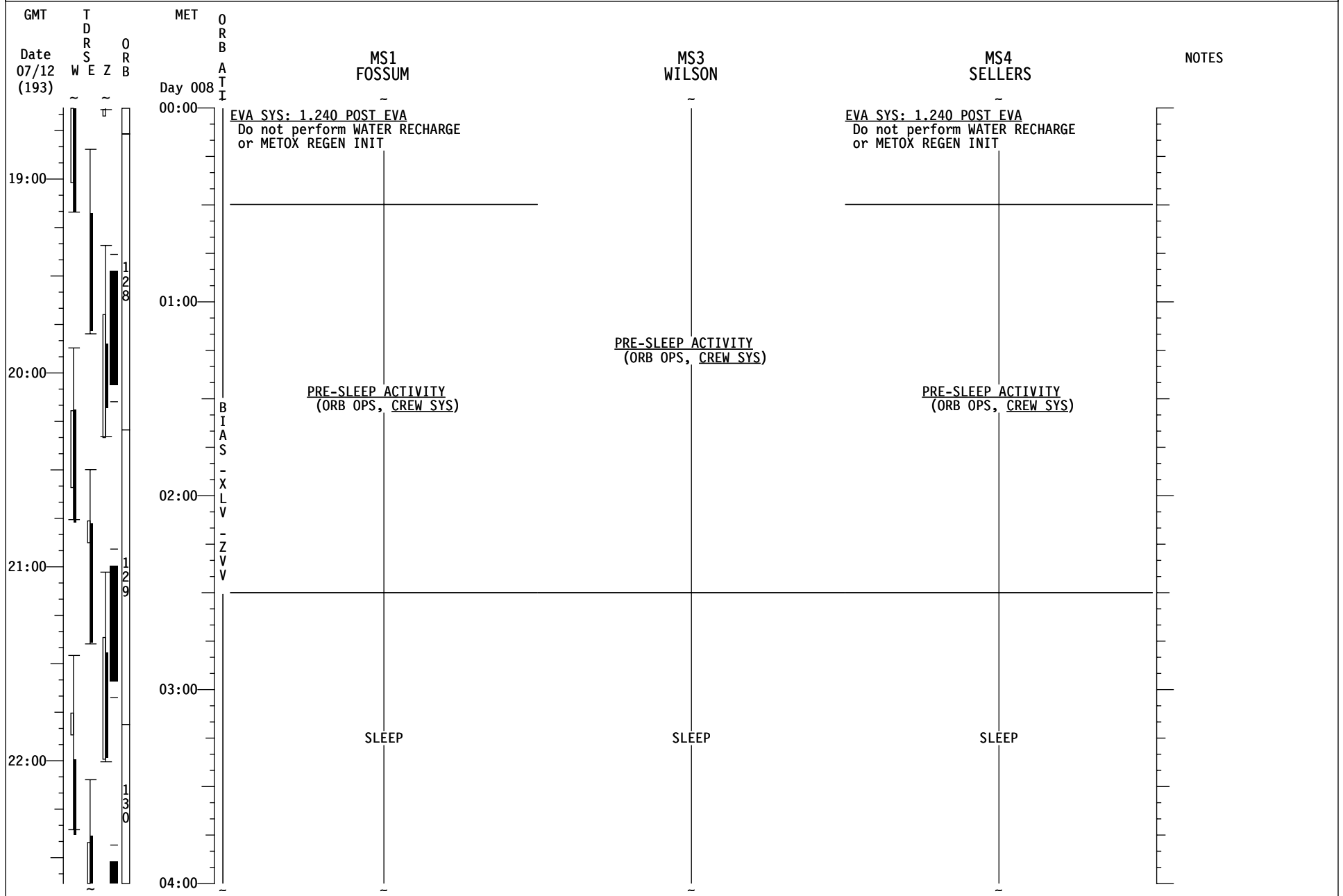
# STS-121/ULF 1.1 (FD 09)

**REPLANNED**



# STS-121/ULF 1.1 (FD 09)

**REPLANNED**



**MSG 069A (13-0658A) - FD09 MISSION SUMMARY**

Page 1 of 2

1  
2 Good morning, Discovery  
3  
4 Another great day yesterday – you guys are the best Shuttle crew this year, so far. Plus,  
5 now that it looks like camera D has pink eye, and obviously it got pink eye from Station's  
6 S1LO, you have proven that viruses can be transmitted in the space environment. Brilliant!  
7  
8 Have a wonderful EVA day. And by the way, the news of your talk with the President has  
9 spread to the four corners of the world after having been released to the media by the White  
10 House. Again, great job.  
11  
12  
13 YOUR CURRENT ORBIT IS: 191 X 177 NM  
14  
15 NOTAMS:  
16  
17 CHERRY POINT (NKT) - RWY 32 NOW AVAILABLE  
18 ORMOND BEACH (KOMN) – TAC (OMN CH 73) AZMUTH OUT OF SERVICE UFN  
19 LAJES – TACAN 45X OUT OF SERVICE TILL 10 JUL  
20 KING KHALID - VORTAC CH 92X OPERATIONAL BUT CAUTION ADVISED DUE TO NO  
21 MONITORING  
22 GUAM (GUA) – RWY 06L/24R CLOSED  
23 AMBERLEY (AMB) – CLOSED  
24 OCEANA (NTU) - RWY 23L/05R CLOSED  
25 RIO GALLEGOS (AWG) - NOT APPROVED  
26 ISTRES (FMI) – 33 RWY REMAINING MARKERS AVAIL ARE 300,600,900M  
27  
28 NEXT 2 PLS OPPORTUNITIES:  
29  
30 EDW22 ORB 126 – 7/21:56 (SKC, 250@12P18)  
31 EDW22 ORB 142 – 8/22:18 (FEW100, 240@5P10)  
32  
33 OMS TANK FAIL CAPABILITY:  
34  
35 L OMS FAILS: NO  
36 R OMS FAILS: NO  
37  
38 LEAKING OMS PRPLT BURN:  
39  
40 L OMS LEAK: ALWAYS BURN RETROGRADE  
41 R OMS LEAK: ALWAYS BURN RETROGRADE  
42  
43 OMS QUANTITIES(%)  
44  
45 L OMS OX = 34.6 R OMS OX = 37.2  
46 FU = 35.1 FU = 37.9  
47  
48 SUBTRACT I'CNCT COUNTER FOR CURRENT OMS QUANTITIES  
49  
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51



**MSG 069A (13-0658A) - FD09 MISSION SUMMARY**

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DELTA V AVAILABLE:

OMS	365 FPS
ARCS (TOTAL ABOVE QTY1)	26 FPS
TOTAL IN THE AFT	391 FPS
ARCS (TOTAL ABOVE QTY2)	59 FPS
FRCS (ABOVE QTY 1)	36 FPS
AFT QTY 1	84 %
AFT QTY 2	46 %

<u>SYSTEM</u>	<u>FAILURE</u>	<u>IMPACT</u>	<u>WORK AROUND</u>
COMM/IN ST	A magenta hue is noted on camera D.	Images from camera D exhibit a slight magenta tint.	Camera D may be used nominally. For image content requiring good color rendition, use other payload bay or ISS cameras.

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**MSG 070A (13-0659A) - FD09 TRANSFER MESSAGE**

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Good morning Thomas, Stephanie, and Steve,

Thanks much for the great calldown on FD8. All the details really help us do our replan. We've uplinked all Swap tab pages and all Resupply and Return pages that have Swap Tab items on them. All completed items are shown as grayed out on these pages.

Information for crew:

FYI - The PWR foam is p/n FK\_0041\_1. If found, can be stowed in A4\_K1 for return. This is item 808.

Regarding the UCB s/n 1089: We still do not have authorization from the Program to return this item, but it's still on our list of items to potentially add to the middeck.

Regarding the Orlan gloves (s/n 1130018): We do not yet have authorization from the Program to return this second set of gloves stowed in the S2 RSR. **Please call the ground for confirmation before installing the ZSR (item 763) on the S2 RSR.**

We've added a bag of PFMI items to be consolidated and packed for return. We think it would be a great challenge for Steve to gather this hardware. Too bad he's busy today. This bag was added to your updated pages today as item 812.

We've added a ziplock of one set of Pivot Pins and Brackets from item 777 (0.5 CTB labeled PIVOT PINS/KBARS which was borrowed from ISS) for return. The other set of Pivot Pins and Brackets will remain on ISS in item 777. This bag was added to your updated pages today as item 813.

FD09 (EVA3)

- Continue MPLM packing.
- Install ZSR on front of P3 RSR.
- Install ZSR on front of S2 RSR (call ground first re: Orlan gloves!)
- CEVIS Removal – transfer to MPLM and pack: CEVIS frame, ergometer & half CTB
- Complete remaining MPLM resupply transfers bags/items to ISS.

The Transfer List Excel file, FD09\_TransferList\_STS121.xls, is located on the KFX machine in **C:\OCA-up\transfer**.

For ISS, the Transfer List Excel file, FD09\_TransferList\_STS121.xls, is located in **K:\OCA-up\transfer**.

(continued on next page)

**MSG 070A (13-0659A) - FD09 TRANSFER MESSAGE**

Page 2 of 3

- 1
- 2 Please incorporate uplink pages as follows (call us with any questions!):
- 3
- 4 In the MDDK Transfer List Book
- 5 **RESUPPLY** tab, Replace the following pages:
- 6 Page Resupply 1
- 7 Page Resupply 3
- 8 Page Resupply 5
- 9 Page Resupply 6
- 10 Page Resupply 7
- 11 Page Resupply 8
- 12 **SWAP** tab, Replace the following pages:
- 13 Page Swap 1
- 14 Page Swap 2
- 15 Page Swap 3
- 16 Page Swap 4
- 17 Page Swap 24
- 18 **RETURN** tab, Replace the following pages:
- 19 Page Return 2
- 20 Page Return 3
- 21 Page Return 5
- 22 Page Return 6
- 23
- 24 In the MPLM Resupply Transfer List Book
- 25 **A2 RSP** tab, Replace Page Resupply 13
- 26 **A3 ETR** tab, Replace Page Resupply 14
- 27 **A4 RSP** tab, Replace Page Resupply 15
- 28 **F3 RSP** tab, Replace Page Resupply 20
- 29 **F4 RSP** tab, Replace Page Resupply 22
- 30 **P2 RSR** tab, Replace Page Resupply 24
- 31 **P3 RSR** tab, Replace the following pages:
- 32 Page Resupply 25
- 33 Page Resupply 26
- 34 Page Resupply 27
- 35 **S2 RSR** tab, Replace Page Resupply 30
- 36 **SWAP** tab, Replace the following pages:
- 37 Page Swap 5 through Page Swap 23
- 38
- 39
- 40 (continued on next page)
- 41
- 42
- 43
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- 46
- 47
- 48
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- 50
- 51

**MSG 070A (13-0659A) - FD09 TRANSFER MESSAGE**

Page 3 of 3

- 1
- 2 In the MPLM Return Transfer List Book
- 3 **LAYOUTS** tab
- 4 Replace the following pages:
- 5 L-29
- 6 L-30
- 7 L-31
- 8 **RETURN** tab
- 9 Replace the following pages:
- 10 Page Return 11
- 11 Page Return 14
- 12 Page Return 20
- 13 Page Return 22
- 14 Page Return 24
- 15 Page Return 25
- 16 Page Return 26
- 17 Page Return 27
- 18 Page Return 29
- 19 Page Return 30
- 20 **MPLM CLEANUP** tab, Replace Page Return 31
- 21 **MPLM RTN REALTIME ADDITIONS** tab, Replace the following pages:
- 22 Replace Page Return 32
- 23 Insert Page Return 33 through Page Return 35
- 24
- 25 -The Transfer Team-
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MSG 071 - FD09 WATER SUMMARY

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Today there will be 1 CWC fill and a supply water dump using the FES.

**CWC Fill Details**

The Shuttle/ISS H2O Container Fill initiation scheduled for CDR at MET 7/13:40 should contain the following details:

**SHUTTLE/ISS H2O CONT FILL INIT #13**

(ORB OPS, ECLS)

Ag Biocide is req'd.

Sample is not req'd.

Fill Duration: ~50 minutes

Report Serial Number and Barcode to MCC.

After fill is complete, transfer the CWC to the water wall (NOD1P2) at MET 7/15:15 per the flight plan. If there is insufficient room for the bag at this ISS location, store CWC on the FGB Floor and report to MCC.

**FES Dump Details**

At MET 7/13:35, perform TOPPING FES STARTUP (ORB OPS, ECLS) p5-21, step 1. MCC will TMBU all limits. After 90 minutes, perform SUPPLY WATER DUMP USING FES (ORB OPS, ECLS) p5-9, step 1, DUMP INITIATION with FES PRI A.

At MET 7/21:15, perform SUPPLY WATER DUMP USING FES (ORB OPS, ECLS) p5-9, step 2, DUMP TERMINATION. The FES will not be required.

Thirty (30) minutes following FES dump termination, perform TOPPING FES DEACTIVATION (ORB OPS, ECLS) p5-20, step 3, HEATER DEACTIVATION. MCC will TMBU all limits.

**MSG 072A (13-0660A) - PHOTO/TV ITEMS FOR EVA 3**

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WVS Video Improvements for EVA 3:

During EVAs 1 and 2, our WVS Power telemetry was lower than was expected. Please confirm that the S-Band Level for WVS is set to Maximum Mode instead of Dynamic for EVA 3. Please verify Step 4 is performed during the WVS Day-of-EVA check.

- Select Page - RF Camera
- Near Middle of RF Camera page, 'Sel Advanced Controls'
- S-Band Level (two) - Maximum

The Maximum setting will provide better reception through the ISS WVS assets. If desired, you may route WVS video through Orbiter assets using P/L 2 or P/L 3 per the Setup in P/TV07.

760 EVA Camera:

During EVA1, as you were stowing the 760 EVA Camera w/ Flash, you made the comment "here is the flash that didn't flash". P/TV would like to verify the status of the EVA Flash.

After EVA2, you transferred the ISS EVA Flash Card to Shuttle for downlink. Please return the card to ISS.

Please downlink all pictures from the 760 EVA camera via ISS resources.

EVA IR Camera:

Please remember to place the IR Camera Images in the following folder  
U:\Temp\images\STS121\EVA IR CAMR on a Station SSC.

## MSG 073 (13-0661) - FD08 MMT SUMMARY

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### FD8 MMT Crew Summary

The FD 8 MMT meeting lasted about an hour. Both Programs were extremely happy with the results of EVA 2 and a post EVA review of the data indicates that all hardware is properly secured with the proper bolt torques. The MT is now fully redundant and a good Mobile Servicing System (MSS) checkout including the mast camera has been completed by the ISS teams. In terms of significant decisions, the ISS Program confirmed they are in agreement with pre-flight EVA 3 priorities but would like to see the grapple bar transferred only if time is available after the TPS Repair DTO. The ISS Program was also very appreciative of the EV hatch picture and no additional pictures of the scratch will be required. The MMT also concurred with the FES troubleshooting plan, which will be scheduled the day before entry after FCS Checkout and RCS hotfire are completed. More details on a few of the items are listed below to review at your leisure.

**Transfer** – The preliminary estimate from FD 8 is that the MPLM is ahead of schedule with about 90% of the total MPLM transfer complete. Estimates at the time of the MMT were that approximately 93% of the MPLM re-supply and 88% of the MPLM return items are complete. The middeck transfer appears to be ahead of schedule and there was no change from the FD 6 status which was ~44% complete (68% re-supply/10% return) based on the data presented at the MMT.

**EVA #3** – The locking problems with EV1's SAFER were discussed and there were no issues voiced at the MMT with using this SAFER for EVA 3 including the possible use of Kapton tape for EVA 3 to keep the mechanism in the lock position.

**WLE Sensors** – The WLE sensors continue to provide data for the orbit data takes and all of the data to date has been nominal. WLE aft port sensor 1009 (panels 8, 9, 10 region) is declared failed but there are two other sensors in the area that provide overlapping coverage.

**FES Troubleshooting** – Since FES PRI B was noisy on STS-114 during deorbit prep and since the FES cannot be functionally checked out on the ground in the OPF, on-orbit troubleshooting is key to attempt to determine the cause of the anomalous FES PRI B post insertion behavior. The plan is for Steve to perform about an hour of troubleshooting on FD 13 (FCS Checkout day). The plan includes data collection on FES PRI A to provide baseline data, then operations on FES PRI B, and lastly operations on the Secondary controller, which will address any potential icing that could occur if FES PRI B does not operate nominally. The troubleshooting procedure will be PV'd on FD 9 in the SMS by Steve Frick prior to uplink to the crew. Regardless of the troubleshooting results, FES PRI A will be used for entry.