

STS-117/13A

FD 06 Execute Package



MSG	Page(s)	Title
033A	1 - 12	FD06 Flight Plan Revision (pdf)
034	13	FD06 Mission Summary (pdf)
035	14	FD06 Transfer Message (pdf)
037	15	EMU Water Recharge Troubleshooting for Post EVA 2 (pdf)
038	16 - 18	EVA Assessment of OMS Pod Blanket Repair (pdf)
039	19	2B SAW Retract Lighting Information (pdf)
036	---	FD05 MMT Summary (pdf - Electronic Only)

Approved by FAO: Linda Delapp

Last Updated: Jun 13 2007 11:44AM GMT

JEDI (Joint Execute package **D**evelopment and **I**ntegration), v2.04.0003

1 MSG INDEX

2

3 <u>MSG NO.</u>	<u>TITLE</u>
4 033	FD06 Flight Plan Revision
5 034	FD06 Mission Summary
6 035	FD06 Transfer Message
7 036	FD05 MMT Summary (Electronic Only)
8 037	EMU Water Recharge Troubleshooting for Post EVA 2
9 038	EVA Assessment of OMS Pod Blanket Repair
10 039	2B SAW Retract Lighting Information

11

12

13 1. In association with the MDM OA2 failure, parameter FC PURGE LN H2 T1 to the SM

14 GPC is lost, which affects Fuel Cell Auto Purge capability. A procedure is being

15 developed to perform future purges via RTCs. In the meantime, fuel cell purges will

16 need to be performed per FUEL CELL PURGE - MANUAL in the ORB OPS, EPS p. 6-7

17 with the following delta:

- 18
- 19 • In STEP 1, check with MCC for $\sqrt{\text{PURGE LN H2 T1}} > 79$ step before continuing in
 - 20 the procedure.

21

22 2. While performing the filter inspection, it is not necessary to inspect or clean the filter on

23 the middeck floor air diffuser that is covered with kapton tape.

24

25 3. If you are still having problems with accessing Outlook on the WLES PGSC (STS-7), a

26 reboot may clear up the issue. If you desire, you can perform a reboot of the

27 WLES laptop any time between MET 4/14:10 and 14:30 when there will be no WLES

28 commanding. Following the reboot, perform the following:

29

30 WLES ACTIVATION AND CHECKOUT

31 (ORB OPS, WLE SENSORS)

32 Steps 5, 6 only

33 In step 5 please select 'Primary' for the backup mode.

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

1 4. Flight Day 6 Exercise Constraints

2
3
4
5

The table below summarizes the Shuttle and ISS exercise constraints for today. Except as noted, these constraints are also denoted in your timelines for your reference.

Activity	Exercise Constraints	
	Shuttle	ISS
P6 2B SAW RETRACT	No exercise during SAW latch or deploy/retract motor or EVA driven operations	No exercise during SAW latch or deploy/retract motor or EVA driven operations
EVA 2 (during APFR operations from a structure-mounted WIF)	None	No IRED or HC-1 exercise allowed during APFR operations from a structure-mounted WIF (DLA install and some SARJ Launch Lock removals)
SARJ LAUNCH LOCK AND LAUNCH RESTRAINT REMOVALS*	Unisolated exercise may prevent EVA removal of launch locks and launch restraints	Unisolated exercise may prevent EVA removal of launch locks and launch restraints

6 * The exercise constraints for this task are not reflected in your timelines but may be
7 imposed if EV crew has problem with task completion.
8

9 5. REPLACE PAGES 2-18, 2-20, AND 3-56 THROUGH 3-63.

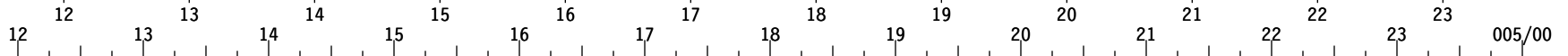
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33

FD06

06/13/07 06:38:47

REPLANNED

GMT 06/13/07 (164)
 β=46
 MET Day 004



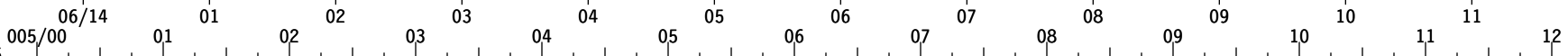
S T S - 1 1 7	CDR STURCKOW	SLEEP	POST SLEEP	P6 2B RETRACT	POST SLEEP	SSRMS EVA2 MNVR	P/TV 07 S/U	CTEW CRM	CXW FER	P6 2B RETRACT	FILTER INSPECT	MEAL	P/TV SUPPORT	EXERCISE	
	PLT/R2/M1 ARCHAMBAULT	SLEEP	POST SLEEP	SSRMS RTRCT VIEWING	POST SLEEP	SSRMS RTRCT EVA SPRT	SSRMS SPRT								
	MS1/EV3/R1 FORRESTER	SLEEP	POST SLEEP	HYG BRK/PREBREATHE	CAMPOUT EVA PREP	EMU PREBREATHE	C_LK DPRS	SORTIE EGRESS & S/U	2B P6 SAW RETRACT	DPLY SARJ BR	SARJ DLA 1 INSTALL	SARJ LOCKS & RES			
	MS2/EV4/M2 SWANSON	SLEEP	POST SLEEP	HYG BRK/PREBREATHE	CAMPOUT EVA PREP	EMU PREBREATHE	C_LK DPRS	SORTIE EGRESS & S/U	2B P6 SAW RETRACT	DPLY SARJ BR	SARJ LOCKS & RES				
	MS3/EV2/R1 OLIVAS	SLEEP	POST SLEEP	HYG BRK/HATCH CLS	CAMPOUT EVA PREP	EMU PREBREATHE	C_LK DPRS	P/TV SUPPORT	P6 2B RETRACT	P/TV SUPPORT		EXERCISE	P/TV SPRT		
	MS4/EV1 REILLY	SLEEP	POST SLEEP	P6 2B RETRACT	POST SLEEP	EVA 2 (6:30) IVA SPRT DLAs & SARJ PREP									
D N	FE-2 WILLIAMS	SLEEP	POST SLEEP	HYG BRK/HATCH CLS	CAMPOUT EVA PREP	EMU PREBREATHE	C_LK DPRS	SSRMS RTRCT EVA SPRT	MIDDAY-MEAL	B S A *	CEVIS				
	ISS CDR ЮРЧИХИН	SLEEP	POST SLEEP	DPC	PREP WORK	TVIS	BKД-Пx0-C01-CLSOUT15			MIDDAY-MEAL	BKД-Пx0-C01-CLSOUT15		IMS	COЖ	
E X P - 1 5	FE-1 KOTOB	SLEEP	POST SLEEP	DPC	PREP WORK	RED	SSRMS EVA2 MNVR	CMO OBT	H/O	CWC FILL INIT	MIDDAY-MEAL	XFER		TVIS	
	FE-2 ANDERSON	SLEEP	POST SLEEP	PREP WORK	DPC	SODF WARN DPLY	A D A P T	XFER		H/O	CWC FILL INIT	MIDDAY-MEAL	XFER		
SSRMS DAY/NIGHT		WS3 PDGF2													
S T S	ORBIT	72 73 74 75 76 77 78 79 80													
	TDRS	W -171 E -46 Z -275													
	ORB ATT	BIAS -XLV -ZVV													
NOTES	*INSTALL *STOW*HTR ACT NO EXERCISE *MANUAL PURGE *TERM NO EXERCISE NO IRED/HC-1														

FD06

06/13/07 06:38:47

REPLANNED

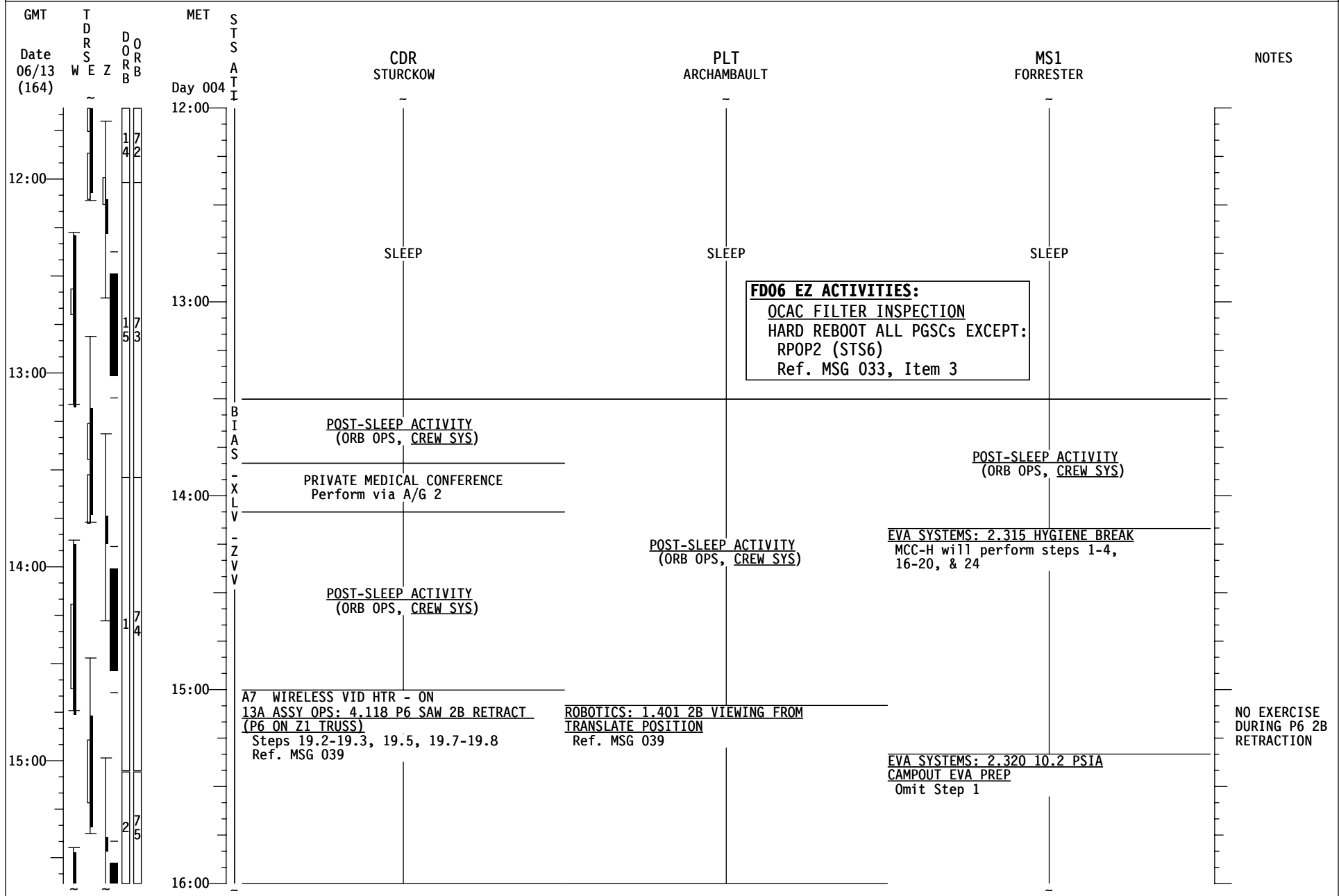
GMT 06/13/07 (164)
 β = 44
 MET Day 005



S T S - 1 1 7	CDR STURCKOW	CIN W CIT 3	XFER	W M S U *	CT W E R C M	CWC XFER	PRE SLEEP	PMC S/G	PRE SLEEP	ISS EXTERNAL SURVEY SLEEP		
	PLT/R2/M1 ARCHAMBAULT	SSRMS SPRT	PRE SLEEP	EXERCISE	I O L N L U M		PRE SLEEP		SLEEP			
	MS1/EV3/R1 FORRESTER	SL & AO RCE JKS	RSORTIE C/U & INGRS	P R P R S		POST EVA W/H2O,METOX		PRE SLEEP		SLEEP		
	MS2/EV4/M2 SWANSON	SL & AO RCE JKS	RSORTIE C/U & INGRS	P R P R S		POST EVA W/H2O,METOX		PRE SLEEP		SLEEP		
	MS3/EV2/R1 OLIVAS	P/TV SPRT		P R P R S		POST EVA W/H2O,METOX		PRE SLEEP		SLEEP		
	MS4/EV1 REILLY	IVA SPRT				EXERCISE	X B F R E E R E F	PRE SLEEP		SLEEP		
D N	FE-2 WILLIAMS	CEVIS			POST EVA W/H2O,METOX	BSA E X I T I N I T I A L	PRE SLEEP		SLEEP			
E X P - 1 5	ISS CDR ЮРЧИХИН		RED		PREP WORK	D P C	PRE SLEEP		SLEEP			
	FE-1 KOTOV	TVIS	TVIS MAINT	*	PREP WORK	D P C	PRE SLEEP		SLEEP			
U P	FE-2 ANDERSON	ADAPT	PMC G B A	J R N L	PREP WORK	D P C	PRE SLEEP		SLEEP			
SSRMS DAY/NIGHT		WS3 PDGF2										
S T S	ORBIT	80 81 82 83 84 85 86 87 88										
	TDRS W -171	[Timeline bars for W -171]										
	TDRS E -46	[Timeline bars for E -46]										
	TDRS Z -275	[Timeline bars for Z -275]										
ORB ATT		BIAS -XLV -ZVV										
NOTES		NO IRED/HC-1 *EHS-FMK-STOW *HTR DEACT										

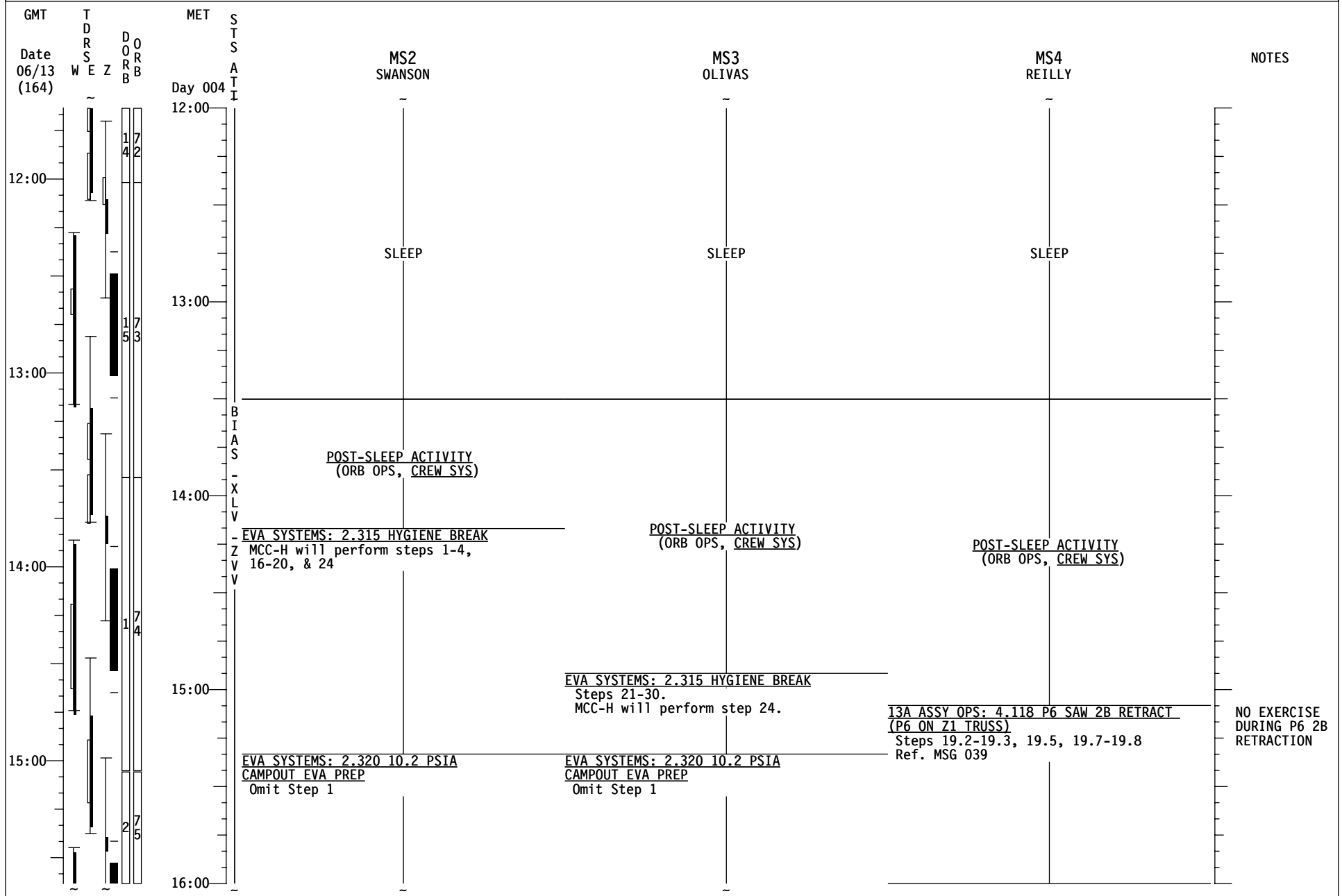
STS-117 (FD06)

REPLANNED



STS-117 (FD06)

REPLANNED



STS-117 (FD06)

REPLANNED

GMT	T D R S E Z	D O R B	MET	S T S	CDR	PLT	MS1	NOTES
Date 06/13 (164)	W	Z	Day 004	A T I	STURCKOW	ARCHAMBAULT	FORRESTER	
16:00							EVA SYSTEMS: 2.320 10.2 PSIA CAMPOUT EVA PREP Omit Step 1	
16:00					POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
17:00					EVA2 INHIBIT PAD (EVA, TIMELINES)		EVA SYSTEMS: 1.220 EMU PURGE	
17:00					TV (ILLUMINATOR OPS) CC (PHOTO/TV) ILLUMINATORS OFF - ALL		EVA SYSTEMS: 1.225 EMU PREBREATHE	
17:00					SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Init Fill #6 Ref. MSG 004	ROBOTICS: 1.402 MNVR FROM TRANSLATE TO 2B SAW EVA SETUP		UPLINK β18 only Box C1,C2,E1
					A FC PURGE - MANUAL (ORB OPS, EPS) S Ref. MSG 033, Item 1			
18:00							EVA SYSTEMS: CREWLOCK DEPRESS (CC)	
18:00					P/TV07 EVA Z (PHOTO/TV, SCENES) V Setup			
18:00						ROBOTICS: 1.403 2B SAW RETRACT EVA SUPPORT Ref. MSG 039	EVA SYSTEMS: CREWLOCK POST DEPRESS (CC)	
19:00					SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Perform FILL TERMINATION		EVA 2 SORTIE EGRESS/SETUP	
19:00					CWC TRANSFER Transfer 1 CWC to ISS Ref. MSG 004			
19:00					13A ASSY OPS: 4.118 P6 SAW 2B RETRACT (P6 ON Z1 TRUSS) Steps 19.2-19.3, 19.5, 19.7-19.8 Ref. MSG 039			NO EXERCISE DURING P6 2B RETRACTION
19:00							P6 2B RETRACTION SUPPORT	
20:00							DEPLOY SARJ BRACES	

STS-117 (FD06)

REPLANNED

GMT	T D R S E Z	D O R B	MET	S T S	MS2 SWANSON	MS3 OLIVAS	MS4 REILLY	NOTES
Date 06/13 (164)	W	E	Day 004	A T I				
16:00					EVA SYSTEMS: 2.320 10.2 PSIA CAMPOUT EVA PREP Omit Step 1	EVA SYSTEMS: 2.320 10.2 PSIA CAMPOUT EVA PREP Omit Step 1		
16:00							POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
17:00					EVA SYSTEMS: 1.220 EMU PURGE	EVA SYSTEMS: 1.220 EMU PURGE		
17:00					EVA SYSTEMS: 1.225 EMU PREBREATHE	EVA SYSTEMS: 1.225 EMU PREBREATHE		
18:00								
18:00					EVA SYSTEMS: CREWLOCK DEPRESS (CC)	EVA SYSTEMS: CREWLOCK DEPRESS (CC)		
18:00								
18:00					EVA SYSTEMS: CREWLOCK POST DEPRESS (CC)	EVA SYSTEMS: CREWLOCK POST DEPRESS (CC)		
19:00					EVA 2 SORTIE EGRESS/SETUP	P/TV SUPPORT EVA 2		
19:00						13A ASSY OPS: 4.118 P6 SAW 2B RETRACT (P6 ON Z1 TRUSS) Steps 19.2-19.3, 19.5, 19.7-19.8 Ref. MSG 039	IVA SUPPORT EVA 2	NO EXERCISE DURING P6 2B RETRACTION
19:00					P6 2B RETRACTION SUPPORT			
20:00					DEPLOY SARJ BRACES	P/TV SUPPORT EVA 2		

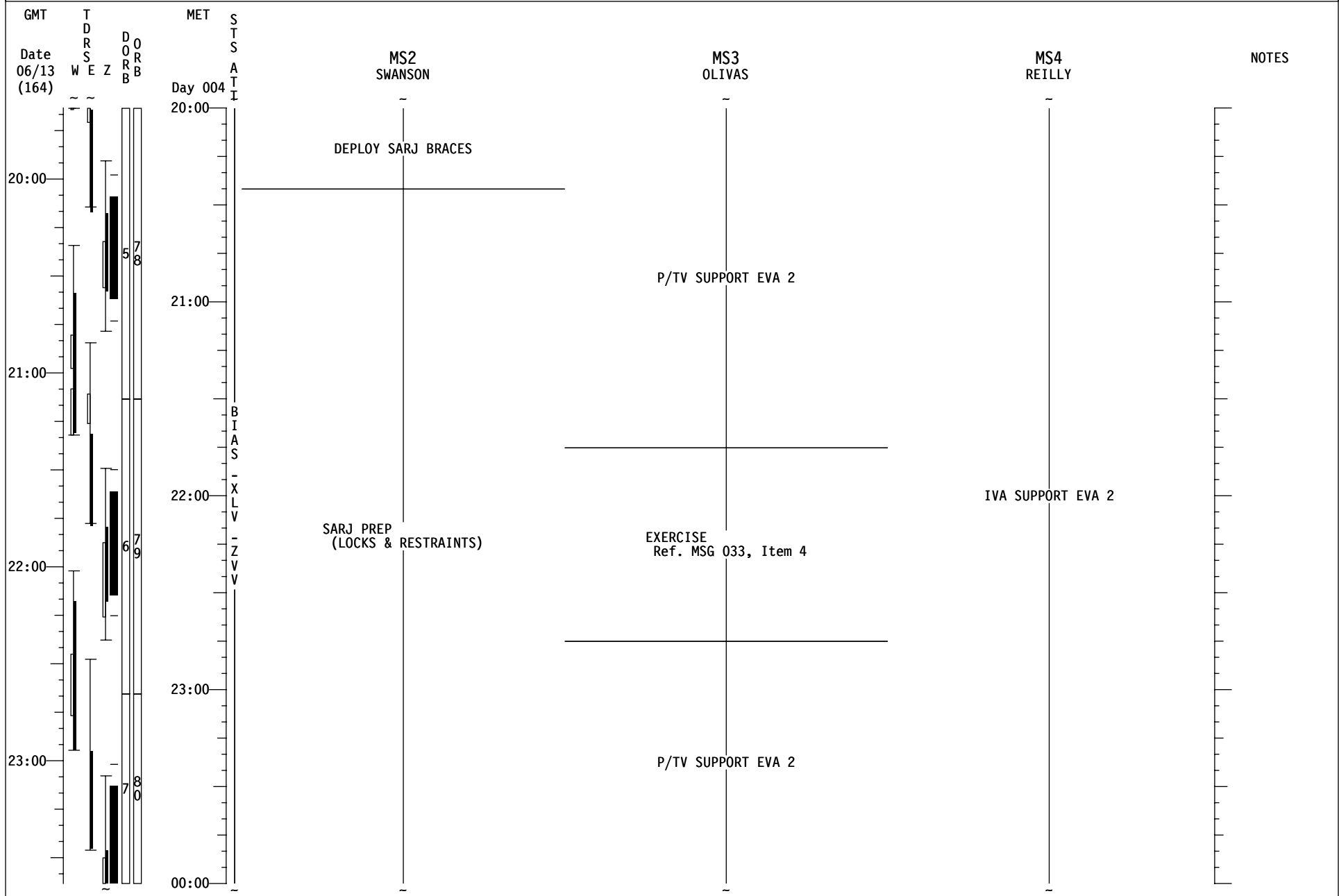
STS-117 (FD06)

REPLANNED

GMT	T D R S W E Z	D O R B B B	MET	S T S A T I	CDR STURCKOW	PLT ARCHAMBAULT	MS1 FORRESTER	NOTES
Date 06/13 (164)			Day 004					
20:00					FILTER CLEANING (IFM, SCHEDULED MAINTENANCE) Inspect filters and clean as necessary Ref. MSG 033, Item 2	ROBOTICS: 1.403 2B SAW RETRACT EVA SUPPORT Ref. MSG 039		
20:00							DEPLOY SARJ BRACES	
21:00					MEAL		INSTALL SARJ DLA 1 (FACE 2)	
21:00								
22:00								
22:00					P/TV SUPPORT EVA 2	SSRMS SUPPORT EVA 2		
22:00							SARJ PREP (LOCKS & RESTRAINTS)	
23:00					EXERCISE Ref. MSG 033, Item 4			
23:00								
00:00								

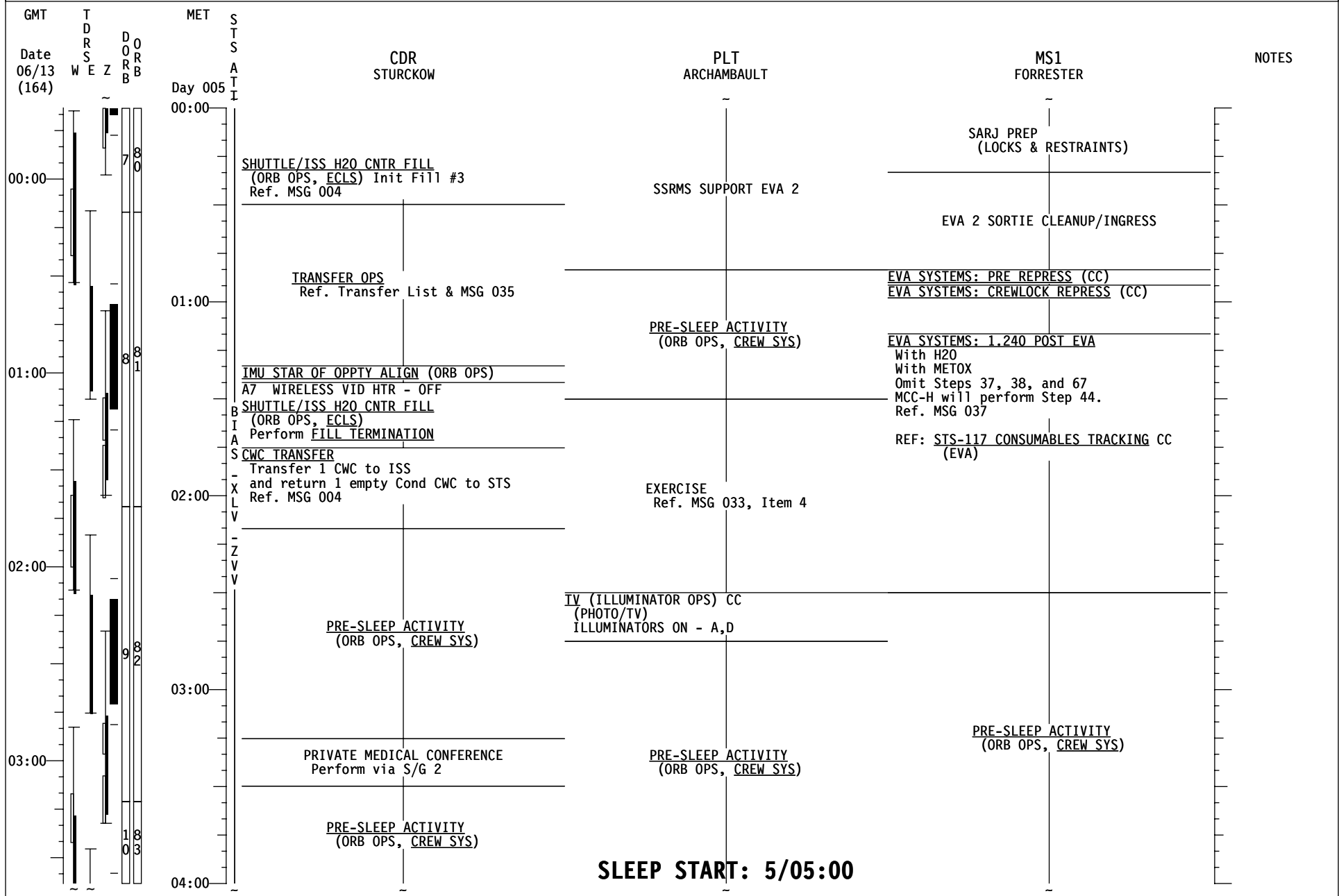
STS-117 (FD06)

REPLANNED



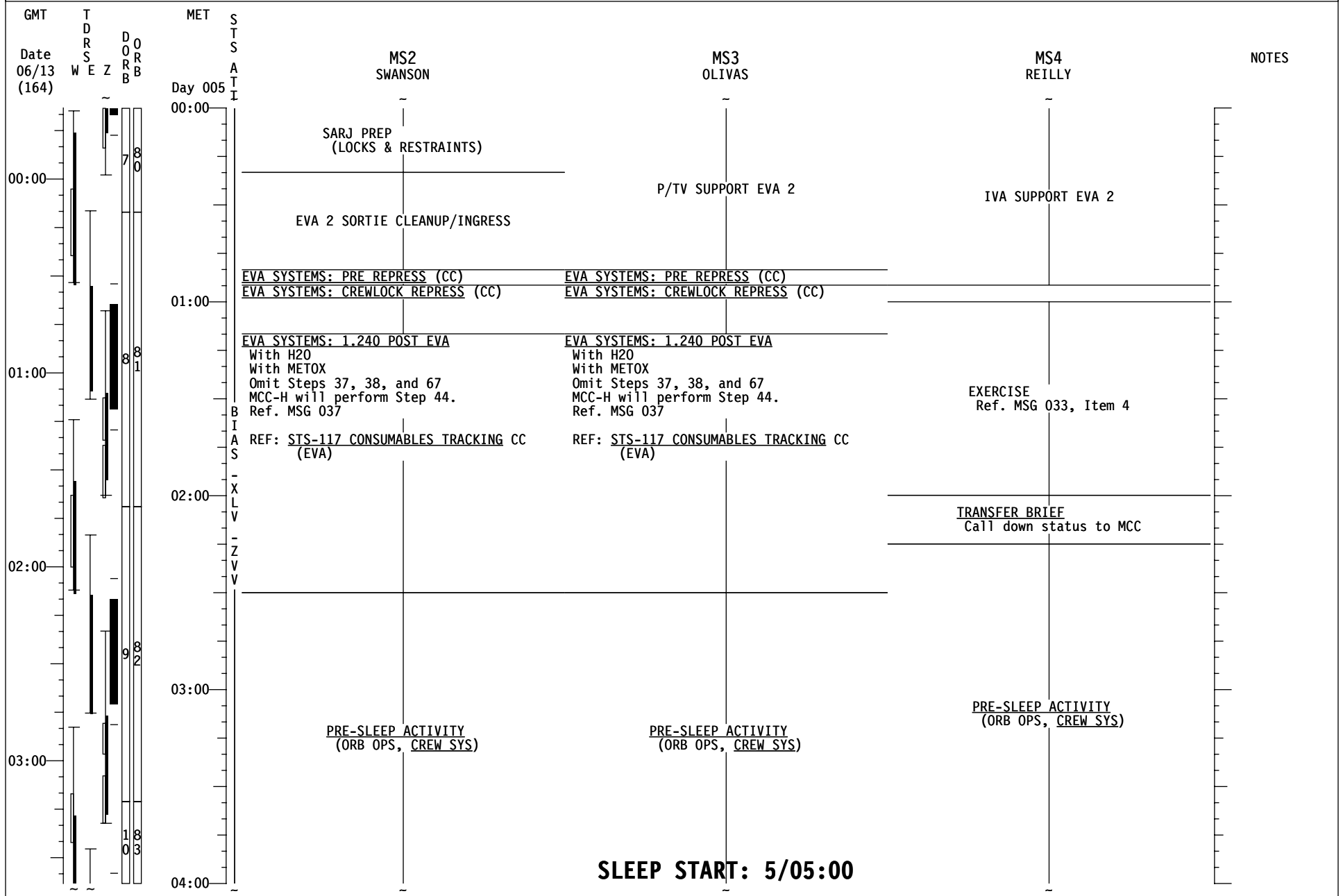
STS-117 (FD06)

REPLANNED



STS-117 (FD06)

REPLANNED



MSG 034 (15-0413) - FD06 MISSION SUMMARY

Page 1 of 1

1 Good Morning Atlantis!
2 The crew continues to do outstanding work. We are ready for another great EVA day. Good
3 luck with EVA 2!

4
5 YOUR CURRENT ORBIT IS: 184 X 179 NM

6
7 NOTAMS:

8
9 MORON (MRN) – CLOSED
10 WAKE ISLAND (WAK) - CLOSED
11 GOOSE BAY (YYR) – RWY 08/26 CLOSED
12 KEFLAVIK (IKF) – UNUSABLE
13 RIO GALLEGOS (AWG) – UNUSABLE

14
15
16 NEXT 2 PLS OPPORTUNITIES:

17
18 EDW22 ORB 80 – 4/23:54 (SCT250 230/13P23)
19 EDW22 ORB 95 – 5/22:40 (SKC 230/18P27)

20
21 OMS TANK FAIL CAPABILITY:

22
23 L OMS FAIL: NO R OMS FAIL: NO

24
25 LEAKING OMS PRPLT BURN:

26
27 L OMS LEAK: ALWAYS RETROGRADE
28 R OMS LEAK: ALWAYS RETROGRADE

29
30 OMS QUANTITIES(%)

31
32 L OMS OX = 31.0 R OMS OX = 33.0
33 FU = 30.8 FU = 32.5

34
35 SUBTRACT I'CNCT COUNTER FOR CURRENT OMS QUANTITIES

36
37 DELTA V AVAILABLE:

38
39 OMS 332 FPS
40 ARCS (TOTAL ABOVE QTY1) 48 FPS
41 TOTAL IN THE AFT 380 FPS

42
43 ARCS (TOTAL ABOVE QTY2) 82 FPS
44 FRCS (ABOVE QTY 1) 25 FPS

45
46 AFT QTY 1 79 %
47 AFT QTY 2 42 %

48
49
50
51 THERE ARE NO FAILURE/IMPACT/WORK AROUNDS FOR TODAY.

MSG 035 (15-0414) - FD06 TRANSFER MESSAGE

Page 1 of 9

1 Good morning crew,

2
3 You guys are doing great! Today we've added 1 resupply item, 1 return item, and some 5
4 MLE Bag Layouts to help you pack the bag.

5
6 The Transfer List Excel file, FD06_TransferList_STS117.xls, is located on the KFX machine
7 in **C:\OCA-up\transfer**.

8
9 For ISS, the Transfer List Excel file, FD06_TransferList_STS117.xls, is located in **K:\OCA-**
10 **up\transfer**.

11
12 **Transfer Notes**

- 13 • This message contains bag drawings for 5 MLE Bags A, B, D, and H to help you
14 configure the bags for return. We are still working on the 5 MLE Bag C drawing and
15 will uplink it in a future Transfer message
- 16
17 • In location MF43C, please stow Return Bag 405 in the back of the locker and Return
18 Bag 401 in the front of the locker (next to the door). This is because bag 405 is
19 heavy and stowing it toward the back will maintain the locker CG needed to protect
20 the locker mounting fasteners.

21
22 **Questions/Answers for the crew**

- 23 • None

24
25 **Please incorporate uplink pages as follows:**

26
27 In **LAYOUTS** tab

28 Add Page(s): L-5, L-6, L-8, and L-9

29
30 In **RESUPPLY** tab

31 Replace Page(s): 9

32
33 In **RETURN** tab

34 Replace Page(s): 2, 6, 8

35
36
37 **Changes to the Transfer List are detailed below.**

38 **RESUPPLY**

39 Item 803: New Item

40
41 **RETURN**

42 Item 607: Updated Constraint

43 Item 703.2, 703.3, 703.4: Added S/N's

44 Item 804: New Item

45
46
47 Call us with any questions and have a great day!

48
49 - The Transfer Team

15-0416 (MSG 037) – EMU Water Recharge Troubleshooting for Post EVA 2

Page 1 of 1

1 The Water Recharge performed Post EVA 1 did not pressurize the EMU water tanks as
2 expected. The IRU is suspect, and we need additional data to determine its health.
3 These troubleshooting steps will provide the operating pressure of the IRU pump. The PWR
4 swap is to help rule out this being a PWR issue. The following delta steps should be performed
5 during the 1.506 EMU Water Recharge Post UIA Cap and Plug procedure during Post EVA2:
6

7 Unstow PWR s/n 1025 and 1023. Use PWR 1025 first.
8 Perform steps 1-18 as written.
9

10 After step 18, perform the following delta steps:
11

- 12 IRU 18.1 H2O Outlet vlv (rotary) ↻ CLOSED
13 18.2 Monitor IRU Pressure gauge reading stable for ~ 2 minutes
14 18.3 Report to **MCC-H**, IRU Pressure and Quantity readings, pressure fluctuations and
15 final constant pressure.
16
17 If pressure > **10 psi**:
18 18.4 H2O Outlet vlv (rotary) ↻ EMU SUPPLY. Continue filling EVA2 EMUs per the ISS
19 EMU Water Recharge procedure.
20
21 If pressure ≤ **10 psi**:
22 18.5 Perform steps 19.1, 19.4 - 19.7 to swap to PWR 1023.
23 18.6 IRU H2O Outlet vlv (rotary) ↻ EMU SUPPLY
24 18.7 sw PUMP → ON
25 18.8 H2O Outlet vlv (rotary) ↻ CLOSED
26 18.9 Monitor IRU Pressure gage reading stable for ~ 2 minutes
27 18.10 Report to **MCC-H**, IRU Pressure and Quantity readings, pressure fluctuations and
28 final constant pressure.
29 18.11 H2O outlet vlv (rotary) ↻ EMU SUPPLY
30 18.12 Pick up at step 20 on **MCC-H** go
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50

MSG 038 (15-0417) - EVA ASSESSMENT OF OMS POD BLANKET REPAIR

Page 1 of 3

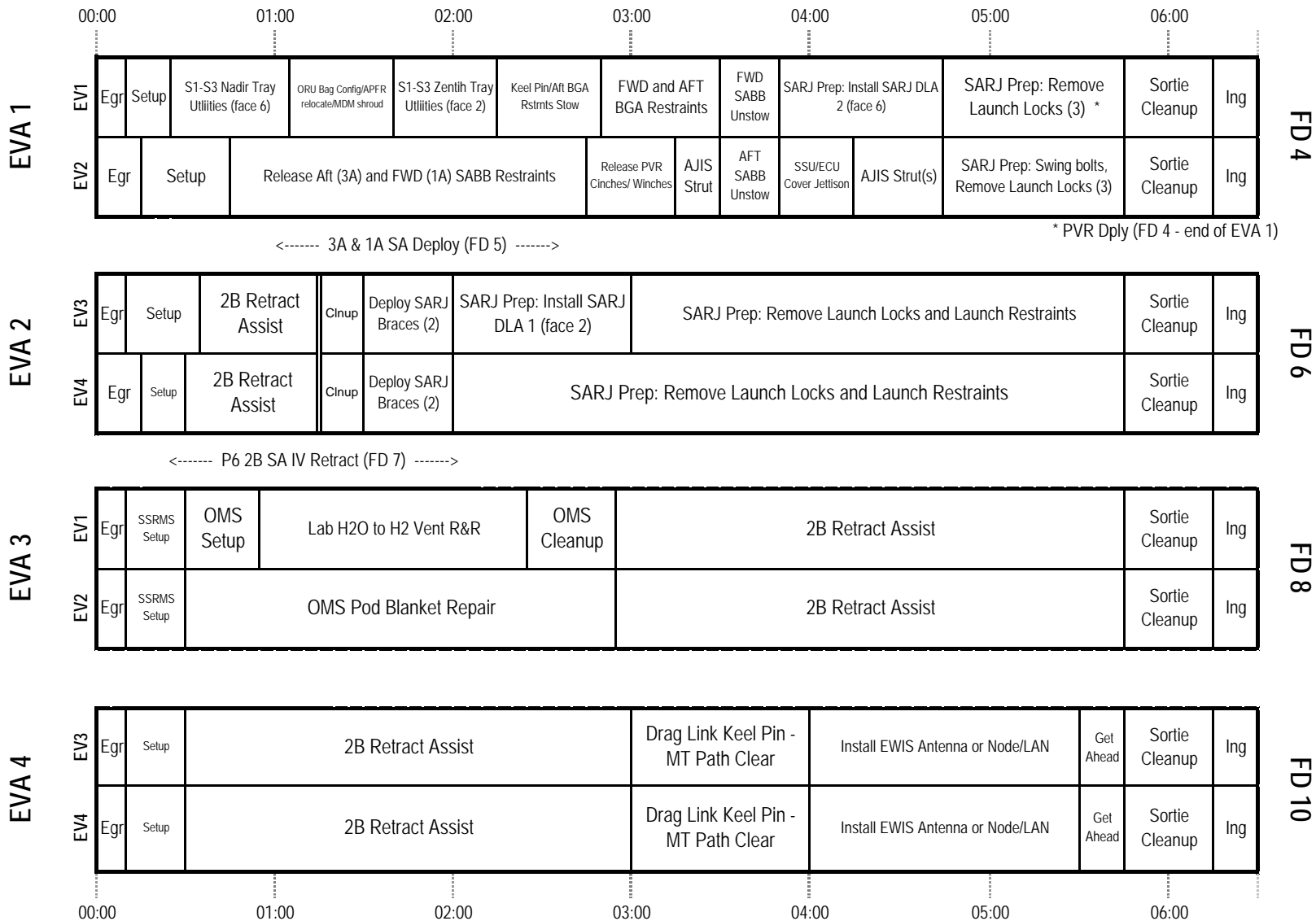
1 The following EVA summary timelines illustrate the two options that are under consideration
2 for the OMS Pod blanket repair.

- 3
- 4 1) Repair at the beginning of EVA 3
- 5 2) Repair on EVA 4
- 6

7 Both timelines assume the repair technique can be accomplished by a single crewmember
8 working off the SRMS using the PAD, WIF Extender, and APFR. The leading repair
9 technique involves using a surgical stapler to insert staples between the two blankets at two
10 levels (one between the blankets at a buried layer and the other along the surface) with
11 Saffil pins (designed for use with a Tile Overlay repair) staked from the blanket into
12 the adjacent tiles. The secondary method involves stitching one side of the raised blanket to
13 the surrounding blanket (using an IVA EMU Lacing tool, IVA stainless steel thread, and an
14 IVA dental punch tool), and staking with the Saffil pins. The specific task time required for
15 the repair is still under assessment, but it appears feasible to complete the task in the times
16 allotted in either option.

17
18 Discussion is still on-going as to which EVA is preferable and we will let you know as soon
19 as a decision is made. As you can imagine, more details are to follow.
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51

STS-117 ISS-13A EVA Timelines (Option 1 - Early EVA 3 OMS Pod Blanket Repair)

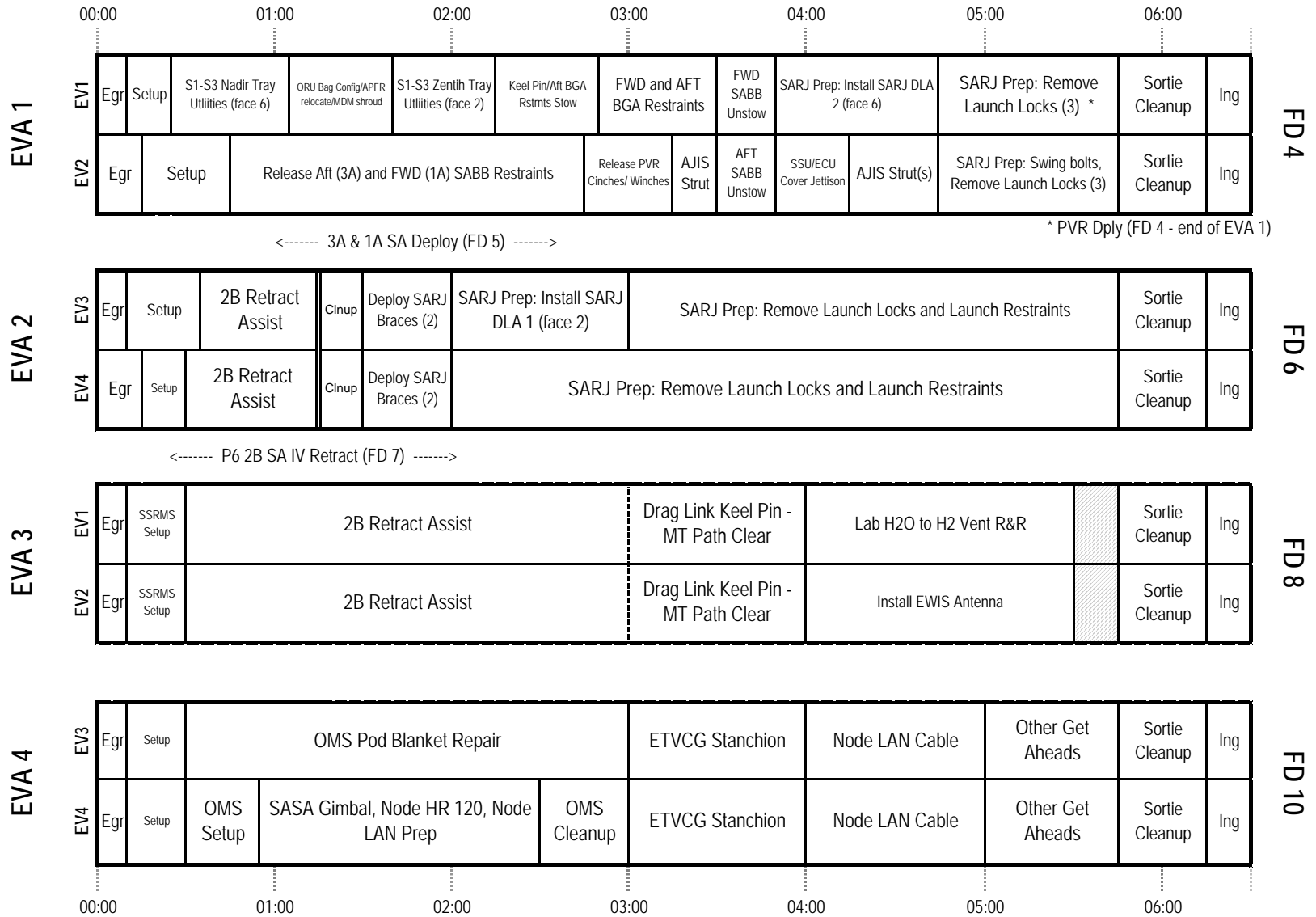


Assumptions: 1) Simple repair option requires 1 crew based off SRMS w/ WIF Ext/APFR.

Discussion points: 1) If repair is a single person task, want other EV crew to do productive work. The Lab Vent is the highest priority single person task. JR is better trained for this than Danny. Therefore Danny should do repair. 2) Makes sense for SRMS ingress to be somewhere on Lab fwd. 3) Good possibility that 2B could be completely retracted on EVA 3 in which case time for get aheads on EVA 4 increases.

STS-117 ISS-13A EVA Timelines

(Option 2 - Early EVA 4 OMS Pod Blanket Repair)



This option preserves EVA 1, 2, and 3 as written. Preserves a conservative 2:30 for repair. Free floater tasks during repair are lower priority so it would be lower impact to have him assist throughout repair. This has the least impact on tool logistics during previous EVAs and allows for better repair technique development

15-0419 (MSG 039) – 2B SAW Retract Lighting Information

Page 1 of 1

1 The following camera pan/tilt angles can be used to provide additional illumination during 2B
2 SAW retract. These values assume the SSRMS is in the Translate position with the MT at
3 WS3. The SRMS is at the SAW Retract Viewing posn:
4

5 **Outboard 1/3rd of 2B SAW:**

6 SSRMS Tip Elbow (+141, +36)

7 SRMS Elbow (+90, -47)
8

9 **Mid 1/3rd of 2B SAW:**

10 SSRMS Tip Elbow (+65, +70)

11 SSRMS Base Elbow (-105, -52) (Left Panel only)

12 SRMS Elbow (+80, -40)
13

14 **Inboard 1/3rd of 2B SAW:**

15 SSRMS Tip LEE

16 SSRMS Tip Elbow (-3, +45)

17 US LAB: (+150, +29)

18 SRMS Elbow (+65, -25)

19 MBS Mast Camera (-82, -17) (Left Panel only)
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51

MSG 036 (15-0415) - FD05 MMT SUMMARY

Page 1 of 2

1 **FD5 MMT Crew Summary**

2

3 The MMT met today to discuss mission progress, the MDM OA2 Card 5 anomaly, debris
4 assessment data, and the Port OMS Pod blanket including EVA repair options. Both the
5 ISS and Shuttle MMT were very pleased with your hard work and outstanding execution of
6 EVA 1 and are enjoying views of the newly deployed solar arrays. There were no significant
7 decisions made during the meeting today.

8

9 **MDM OA2 Card 5:**

10 The team is assessing impacts for the loss of telemetry on MDM OA2 Card 5 and trying to
11 determine why it failed. There are no mission duration impacts for this failure nor will it
12 adversely affect any of your operations. A power cycle of this MDM will not be pursued at
13 this time because it would also result in a power cycle for the remaining OA MDM's and
14 therefore is not performed for non-critical instrumentation.

15

16 **Imagery/Debris Assessment Team:**

17 The TPS for window 5/6 and the Port ET Door tiles were cleared today at the MMT. The
18 final analysis for the protruding gap filler near the arrowhead tile is still being completed
19 since the worst case boundary layer effect envelope a portion of the RCC panels and thus
20 requires more time. Additionally, the team is continuing with final assessments of the Right
21 Inboard Elevon tile that was obscured by shadows and the Aft fuselage gap filler. It is
22 important to note that the team indicates no concern with any of the analysis completed thus
23 far.

24

25 The MMT received a summary of the ascent Radar data. All three radars performed very
26 well and tracked the orbiter through ascent. While most of the radar returns are still being
27 understood and correlated with imagery data, one of the returns did correlate with an ET
28 foam loss near the LOX feedline that was noted in the ET feedline camera imagery. There
29 are no concerns with any of the radar data.

30

31 There have been two on-orbit Wing Leading Edge Impact Detection Sensor (WLEIDS)
32 indications that the team has noted. The first was noted on the starboard RCC panel 11/12
33 and the second was on the port RCC 7/8. The team is not concerned because surrounding
34 sensors did not register any response as would be expected with an actual debris impact.
35 This is most likely thermal induced and has been noted on previous missions.

36

37 **Port OMS Pod Blanket:**

38 The team continues to work the details regarding thermal analysis and material testing for
39 the torn blanket and underlying graphite epoxy structure. While no new thermal analysis
40 was provided to the MMT, the team did provide a detailed test plan for Arc Jet and Radiant
41 testing with graphite epoxy panels and for a blanket pull test to assist in development of the
42 EVA repair technique. The blanket pull test will be completed tonight and the Arc Jet and
43 Radiant testing will take longer but results are expected over the next several days.

44

45 The MMT was briefed by Team 4 on the different blanket repair options and will decide
46 tomorrow whether the repair will occur on EVA 3 or EVA 4. The operations team has
47 worked hard to keep the repair as simple as possible. These options include using the Saffil
48 pins from the TPS overlay kit, staples from the medical kit stapler, or the EVA servicing kit
49 needle with 22 gauge wire to secure the blanket. Work continues on this and the team fully
50 expects to converge on an agreed to option by tomorrow.

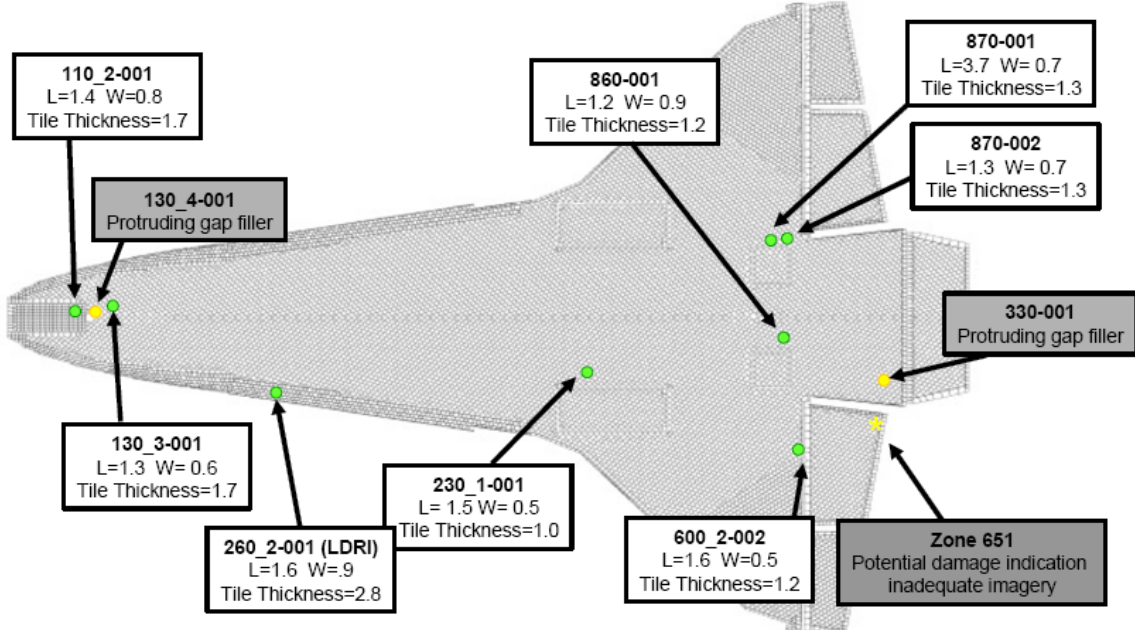
51

MSG 036 (15-0415) - FD05 MMT SUMMARY

Page 2 of 2

1

- Cleared damage sites were assessed with Mach 20.6
 - Remaining work for partial transition due to gap filler & RH inboard Elevon site



2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29