

STS-119/15A

FD 08 Execute Package



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M. Blanton
Approved by FAO: M. Blanton

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

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2

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13 MSG080	15A EVA 3 Summary Timeline (18-1330)
14 MSG082	Stowage Locations for FD08 (18-1206)

15

16

17 1. CRYO CONFIG

18

19 For today's cryo config, O2 Tanks 2, 3 & 4 and H2 tanks 2 & 5 will be active.

20

21 **R1 O2, H2 MANF VLV TK2 (two) - OP (tb-OP)**
22 **O2 TK3 HTRS A,B (two) - AUTO**

23

24 **A11 CRYO TK4 HTRS O2 A,B (two) - AUTO**

25

26 **A15 CRYO TK5 HTRS O2 A - OFF**

27

28 2. New Water Ops Cue Card

29

30 Today, we are uplinking a new Water Ops Cue Card (MSG 079). This is in support
31 of the 13+0+3 timeline and maximizing water transfer to ISS. A total of 12 CWCs will
32 be filled and transferred. The information for the previously completed fills has been
33 included, so the old cue card can be discarded.

34

35 3. EVA 3 Re-planning

36

37 We have a lot of items in work to get you ready to go out the door for EVA 3. The
38 team is still working hard on the EVA 3 details since priorities have changed and
39 runs are being conducted in the NBL this morning to verify the tasks. We have
40 provided a preliminary summary timeline in MSG 080 (18-1330).

41

42 Additionally, information on tool config, EMU swap, and EMU battery charging are
43 detailed in MSG 076 FD08 EVA Deltas (13-1323) for you.

44

45 4. REPLACE PAGES 2-26, 2-28 and 3-78 THROUGH 3-87.

NO UNISOLATED EXERCISE
DURING MT TRANSLATE

03/22/09 05:33:03

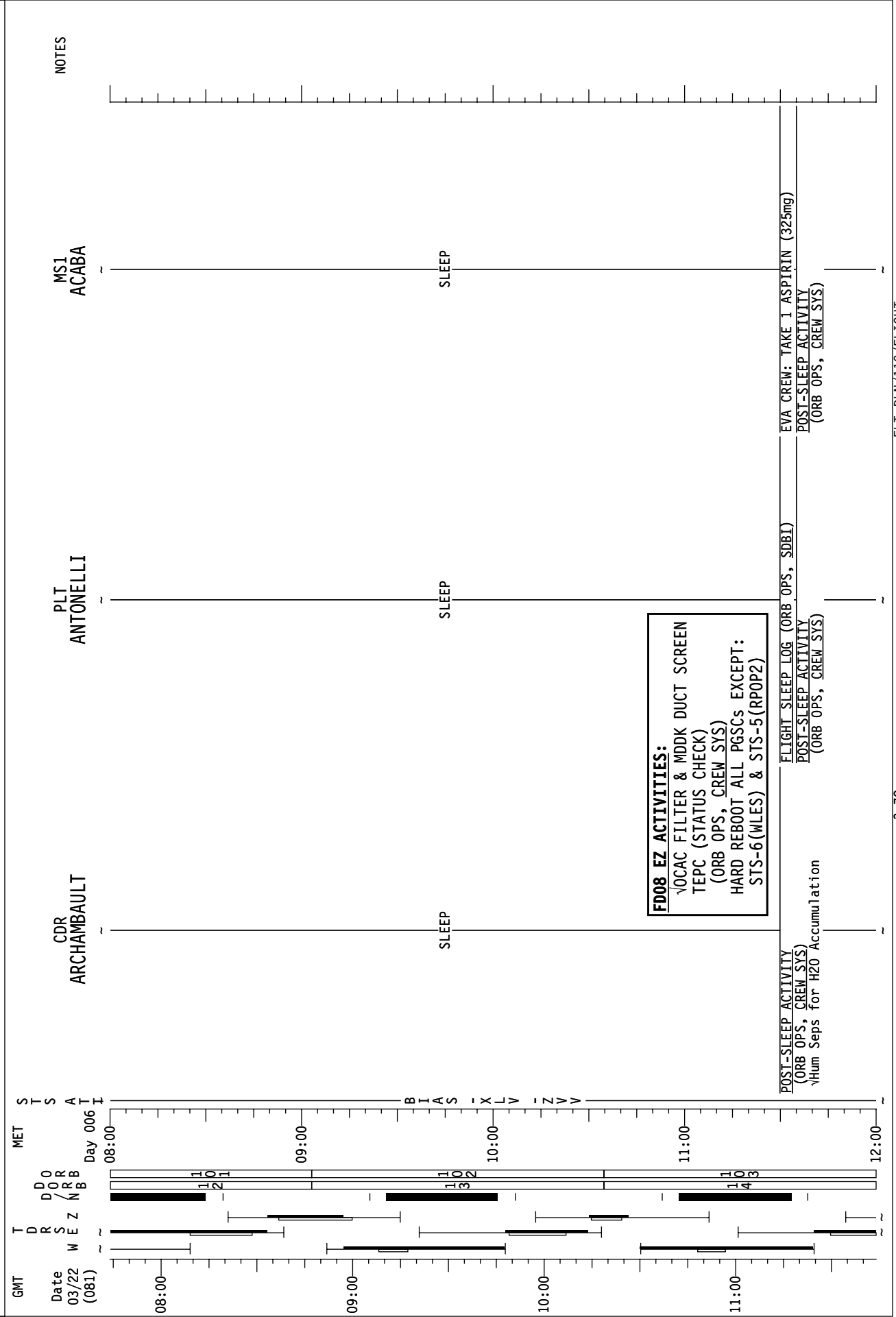
REPLANNED

GMT 03/22/09 (081) 007/00 03/23 01 02 03 04 05 06 07 08 09 10 11 12

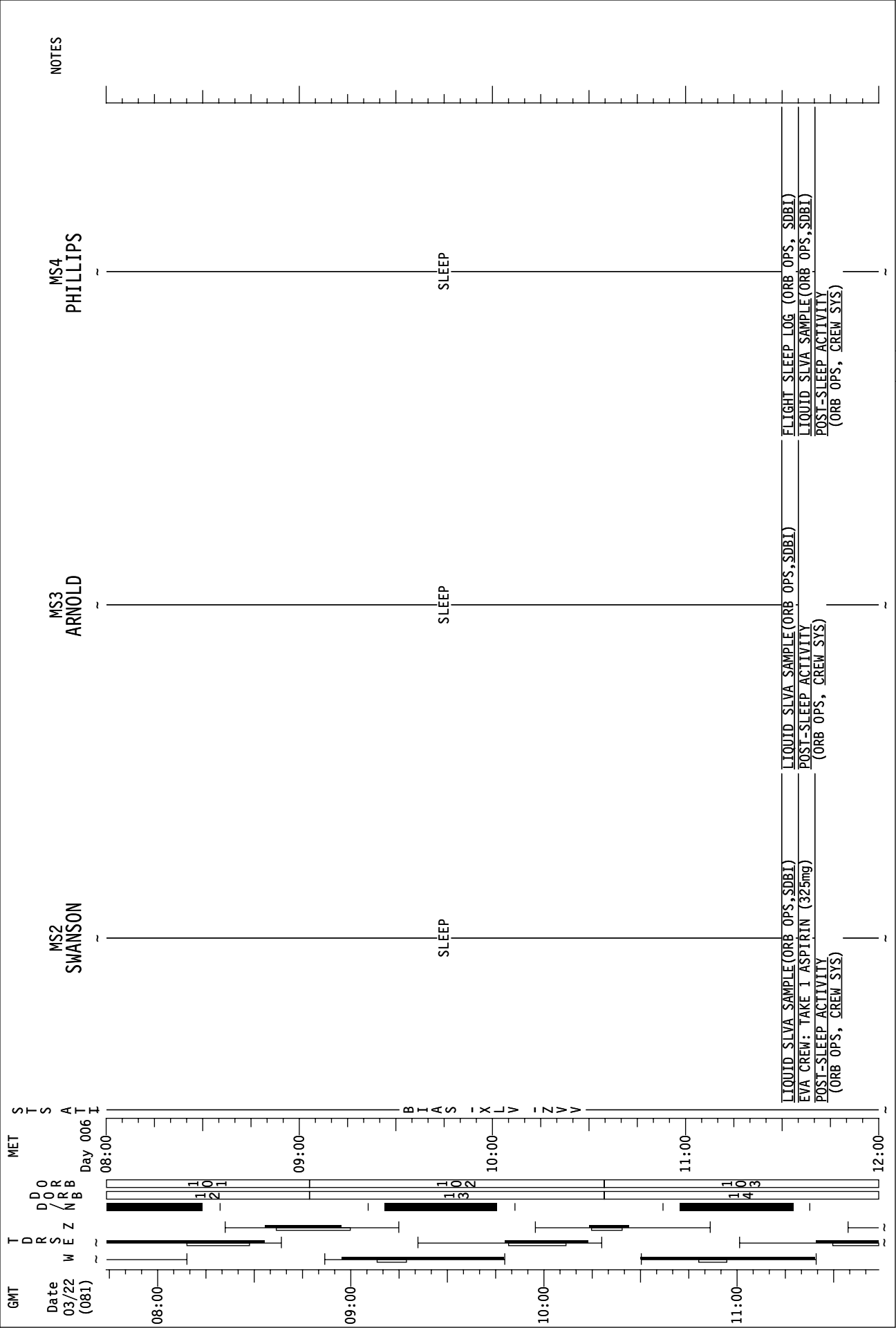
MET	Day	007	00	01	02	03	04	05	06	07	08	09	10	11	12
FD08	CDR ARCHAMBAULT	EVA 3 PROC RVW	PS RLE P	PRE SLEEP	PRE SLEEP					SLEEP				POST SLEEP	PS RLE P
	PLT ANTONELLI	EVA 3 PROC RVW	PRE SLEEP	PRE SLEEP	PRE SLEEP					SLEEP				POST SLEEP	PS RLE P
	MS1 ACABA	EVA 3 PROC RVW	PRE SLEEP	PRE SLEEP	PRE SLEEP					SLEEP				POST SLEEP	PS RLE P
	MS2 SWANSON	EVA 3 PROC RVW	PRE SLEEP	PRE SLEEP	PRE SLEEP					SLEEP				POST SLEEP	PS RLE P
D N	MS3 ARNOLD	EVA 3 PROC RVW	PRE SLEEP	PRE SLEEP	PRE SLEEP					SLEEP				POST SLEEP	PS RLE P
	MS4 PHILLIPS	EVA 3 PROC RVW	PRE SLEEP	PRE SLEEP	PRE SLEEP					SLEEP				POST SLEEP	PS RLE P
	FE-2 MAGNUS	TVIS	PS RLE P	PRE SLEEP	PRE SLEEP					SLEEP				POST SLEEP	PS RLE P
	ISS CDR FINCKE	EVA 3 PROC RVW	PS RLE P	PRE SLEEP	PRE SLEEP					SLEEP				POST SLEEP	PS RLE P
E X P	FE-1 LONCHAKOV	PREP WORK	PS RLE P	PRE SLEEP	PRE SLEEP					SLEEP				POST SLEEP	PS RLE P
	FE-2 EXP18 WAKATA	EVA 3 PROC RVW	PS RLE P	PRE SLEEP	PRE SLEEP					SLEEP				POST SLEEP	PS RLE P
U P	DAY/NIGHT ORBIT		111	112	113	114	115	116	117	118	119				
	TDRS														
TDRS	ISS AVAIL														
	ORB ATT														
NOTES															

ISS EXTERNAL SURVEYS
BIAS -XIV -ZV
HYGN BREAK/
HYGN BREAK/

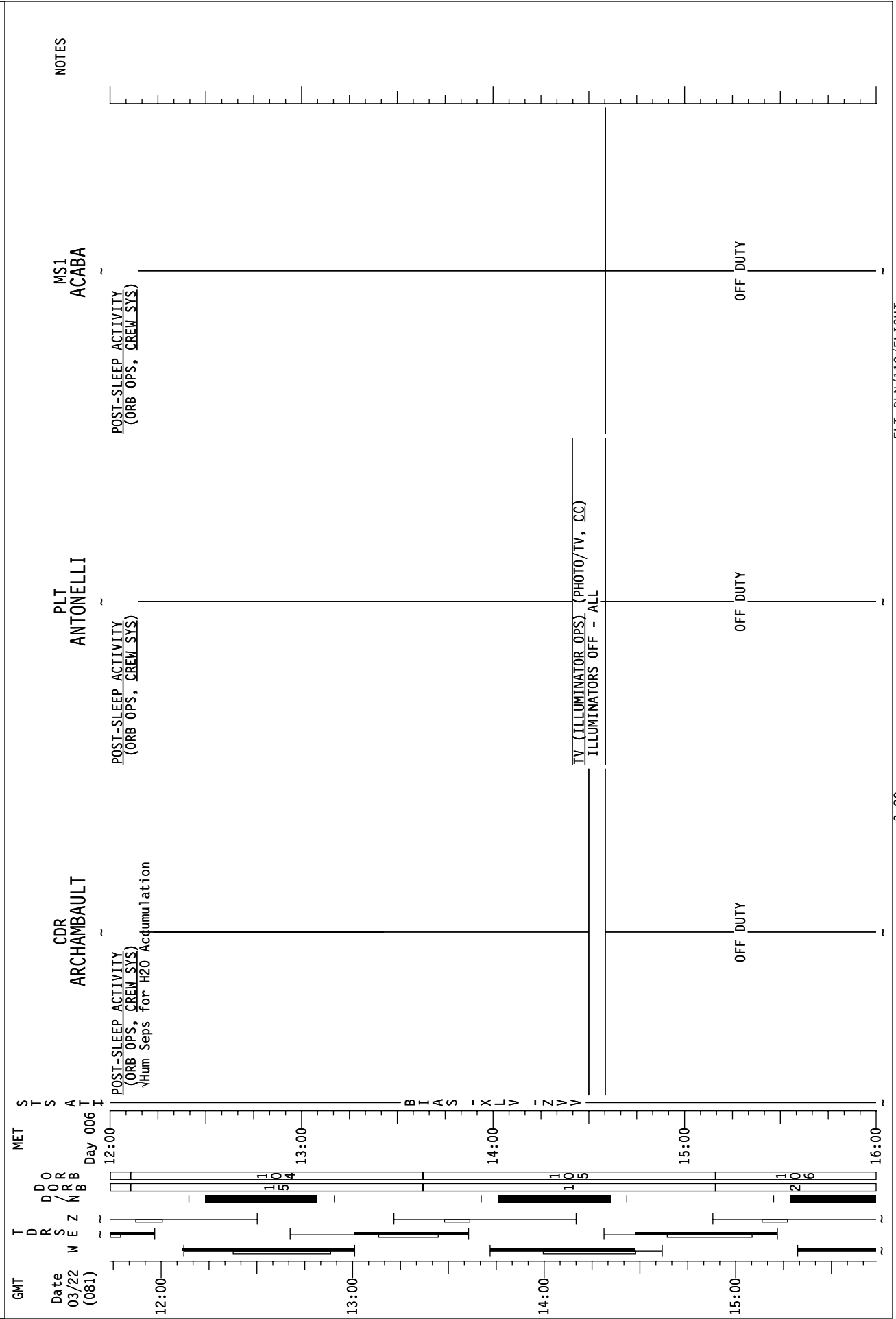
STS-119 FD (08)



STS-119 FD (08)



STS-119 FD (08)



STS-119 FD (08)

GMT	Date 03/22 (081)	DRS W E Z	T D R S	D O R B	D O R B	MET	ST S A T I	CDR ARCHAMBAULT	PLT ANTONELLI	MS1 ACABA	NOTES
16:00						16:00		OFF DUTY	OFF DUTY		
17:00						17:00		OFF DUTY	OFF DUTY		OCA-PFC
18:00						18:00		OFF DUTY	OFF DUTY		
19:00						19:00		OFF DUTY	OFF DUTY		
20:00						20:00		OFF DUTY	OFF DUTY		

NETMEETING VIDEO CONFERENCING
(ORB OPS, PGSC) Private Family Conference
Omit Steps 1.2 & 3. KU TDRE (16:28-16:58)

L17 Check MCIU filter screen
PMR FILL
(ORB OPS, ECLS)
Fill PMR SN 1026
Ref. MSG 079

MEAL

EXERCISE

MEAL

EMU SWAP FOR EVA 3
Ref. MSG 075

B N2 RPRS USING P/L N2 VLV
(ORB OPS, ECLS)
S Perform REPRESS SETUP AND INIT
Steps 1, 3-7, MCC will TMBU S/W FDA
- JOINT OPS: 3.103 NITROGEN TRANSFER TERM
X Steps 3-5.1

V SHUTTLE/ISS H2O CNTR FILL
(ORB OPS, ECLS) Init Fill #7
Ref MSG 079

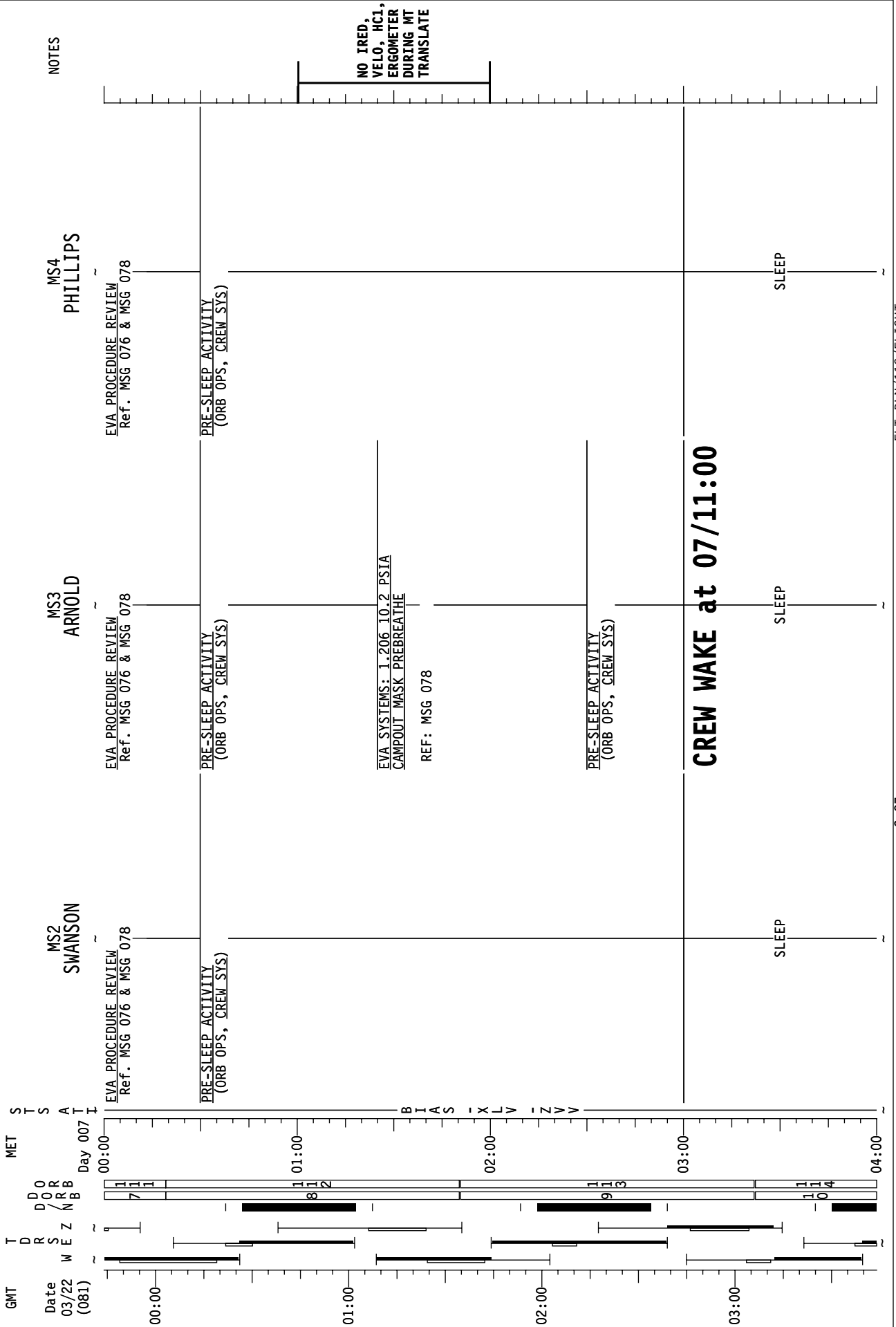
MEAL

SHUTTLE/ISS H2O CNTR FILL
(ORB OPS, ECLS)
Perform FILL TERMINATION
CWC TRANSFER
Transfer 1 CwCs to ISS

STS-119 FD (08)

GMT	Date 03/22 (081)	DRS W E Z	TDRS M E Z	DORS N B	MET	STS A T	MS2 SWANSON	MS3 ARNOLD	MS4 PHILLIPS	NOTES
16:00					Day 006 I		NETMEETING VIDEO CONFERRING (ORB OPS, PGSC) Private Family Conference Omit Steps 1.2 & 3. KU TDRW (16:02-16:20)			
16:00							OFF DUTY			
17:00							OFF DUTY			
17:00							OFF DUTY			
18:00							EVA SYSTEMS: 1.605 BSA BATTERY RECHARGE I Perform Terminate Steps 13-17, 19-21 A Ref STS-119 Battery Recharge CC S EVA SYS: 1.635 REBA RECHARGE FROM - PSA UTILITY OUTLET Terminate Steps 15-27 X Ref. STS-119 Battery Recharge CC L EVA SYSTEMS: 1.625 EMU BATTERY RECHARGE FROM V PSA UTILITY OUTLET Initiate Steps 1-8 - Perform after MSG 076 Steps are complete Z Ref. STS-119 Battery Recharge CC			
18:00							EXERCISE			
18:00							ROBO: 1.310 SSRMS MNVR to XLATE FOR EVA 3			
19:00							MEAL			
19:00							EMU SWAP FOR EVA 3 Ref. MSG 075			
19:00							MEAL			
20:00							EMU SWAP FOR EVA 3 Ref. MSG 075			
20:00										OCA-PFC

STS-119 FD (08)



MSG 072 - FD08 MISSION SUMMARY

1 Good Morning Discovery!

2
3 Great job on a very challenging EVA. Enjoy your half day off!

4
5
6
7
8 YOUR CURRENT ORBIT IS: 197 X 186 NM

9
10 NOTAMS:

11
12 **NOTAMS – ONE ADDITION, ONE DELETION (AMB)**

13
14 EDW - EDW IN USE. EDT ELS DAY / VFR ONLY.
15 EDW - LAKEBED RUNWAYS RED - WET.
16 NOR - LAKEBED RUNWAYS GREEN.
17 ILM - DME DIW107 OTS
18 FMH - TACAN PVD103 DME ONLY.
19 DOV - RWY 14/32 CLOSED.
20 **YQX - TACAN YQX74 OTS.**
21 MRN - TACAN AOG23 OTS.
22 WAK - TACAN AWK82 OTS.
23 HAW - TACAN ASI59 DME OTS.
24 IKF - NOT USABLE. NO AGREEMENT.
25 BEN - NOT RECOMMENDED/NOT SUPPORTED.

26
27 NEXT 2 PLS OPPORTUNITIES:

28
29 NOR23 ORB 110 – 6/22:05 SCT080 SCT250 7 **220/20P30 CHC 3** BLDU
30 EDW04 ORB 126 – 7/22:32 SKC 7 340/9P14

31
32 OMS TANK FAIL CAPABILITY:

33
34 L OMS FAILS: NO
35 R OMS FAILS: NO

36
37 LEAKING OMS PRPLT BURN:

38
39 L OMS LEAK: ALWAYS BURN RETROGRADE
40 R OMS LEAK: ALWAYS BURN RETROGRADE

41
42 OMS QUANTITIES(%)

43
44 L OMS OX = 36.1 R OMS OX = 35.8
45 FU = 35.6 FU = 35.8

46 Subtract interconnect counter for current OMS quantities.
47
48
49
50
51

MSG 072 - FD08 MISSION SUMMARY

DELTA V AVAILABLE:

OMS	377 FPS
<u>ARCS (TOTAL ABOVE QTY1)</u>	<u>43 FPS</u>
TOTAL IN THE AFT	420 FPS
ARCS (TOTAL ABOVE QTY2)	77 FPS
FRCS (ABOVE QTY 1)	33 FPS
AFT QTY 1	82 %
AFT QTY 2	45 %

<u>SYSTEM</u>	<u>FAILURE</u>	<u>IMPACT</u>	<u>WORK AROUND</u>
EPS	SSPTS OPCU 2A failed to reactivate due to a false Fault Isolator trip for a second time on FD07.	Crew actions required to perform recovery procedure.	EPS SSR-204 was worked to cycle input power to SSPTS OPCU 2A. Power transfer was regained through this converter.
ERGOMETER	Ergometer pedals would not rotate in forward direction.	Loss of primary exercise equipment which required the use of bungees for crew exercise.	An IFM was performed to reposition the calibration strap within the ergometer to regain full operational capability.

18-1326 (MSG 075) – EMU Swap for EVA 3

Page 1 of 2

1 EMU SWAP FOR EVA 3 (60 min)

NOTE

This procedure assumes the following procedures have been completed following EVA 2:

{1.240 POST EVA} (SODF: ISS EVA SYS: EVA PREP/POST)

{1.605 BSA BATTERY RECHARGE - term} (SODF: ISS EVA SYS: BATTERY OPS)

{1.635 REBA RECHARGE FROM PSA UTILITY OUTLET - term}(SODF: ISS EVA
SYS: BATTERY OPS)

{1.625 EMU BATTERY RECHARGE FROM PSA UTILITY OUTLET - init}(SODF: ISS
EVA SYS: BATTERY OPS)

2

3

CONFIGURE SWANSON'S EMU FOR RETURN

4

5

EMU 3017
(Aft EDDA)

1. √DIDB Restraint Bag in HUT
Remove Comm Cap, stow in Airlock Floor Bag

7

8

9

2. Install Sw helmet, s/n 1071
Remove Helmet lights/TV assembly; temp stow

10

√Helmet locked, sun shades down, sun visor retracted, cover installed

11

12

3. Remove Cuff C/L

13

If desired, remove crew notes pages and stow pages in your ECOK

14

Stow Cuff C/Ls in Airlock Floor Bag

15

16

4. Connect Sw 1 gloves to lower arms; √Locked

17

18

5. Remove Wrist Mirrors (2); temp stow in Airlock Floor Bag

19

20

6. Remove mission patch, US flag and stripes (DCM/PLSS/LTA)

21

Stow in Sw ECOK

22

23

7. Remove Sw 2 comm cap from Sw ECOK

24

Stow in EMU Equipment Bag (Danny Bag) with BA2 CCA

25

26

8. √Used EV1 undergarments (TCUs, socks, wristlets, comfort gloves)

27

stowed for return on Shuttle

28

29

9. Gather EV1 (Sw) EMU crew-specific items and place in Sw ECOK per

30

Table 1

31

32

10. Remove REBA; stow in M-02 Bag s/n 1038

33

34

11. Remove EMU battery s/n 2076 from EMU 3017 and stow in M-02 Bag s/n
1038

35

36

37

12. Remove Metox s/n 0007 from EMU 3017 and stow in M-02 Bag s/n 1038

38

39

EMU 3004

13. Remove LTA Restraint Bag to access LTA

40

Remove LTA s/n 2057 (bladder 007), temp stow for install on Sw EMU
3017

41

42

Install LTA s/n 2076 (bladder 045) from EMU 3017; √Locked

18-1326 (MSG 075) – EMU Swap for EVA 3

Page 2 of 2

- 1
- 2
- 3
- 4
- 5 EMU 3017 14. Install LTA Restraint Bag
- 6 Stow EMU 3004 in Node 1
- 7
- 8 DCM 15. Stow Sw ECOK and LCVG in HUT
- 9 Install LTA s/n 2057 (bladder s/n 007) from EMU 3004; √Locked
- 10
- 11 16. √PWR – SCU
- 12 √PURGE vlv – op (up)
- 13 √O2 ACT – OFF
- 14 √WATER – OFF, switch guard installed
- 15
- 16 EMU 3006 17. Retrieve LTA Restraint strap and bag from EMU 3006
- 17
- 18 18. Remove EMU 3017 from aft EDDA
- 19 Install LTA Restraint Strap and Bag
- 20 Stow EMU 3017 in Node 1 for transfer to Shuttle
- 21
- 22 19. Verify all items for transfer per Table 1:

<u>EMU 3017 (Sw)</u>	<u>ECOK (Sw)</u>
<input type="checkbox"/> DIDB Restraint Bag	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> EVA 1, 2, & 4 Ziplock Bags (less used items)
<input type="checkbox"/> Sw ECOK	<input type="checkbox"/> MAGs
<input type="checkbox"/> Sw LCVG	<input type="checkbox"/> TCUs (top, bottom)
<input type="checkbox"/> Helmet s/n 1071	<input type="checkbox"/> Socks
<input type="checkbox"/> EMU Gloves (Sw 1)	<input type="checkbox"/> Wristlets
<input type="checkbox"/> LTA s/n 2057 (bladder s/n 007)	<input type="checkbox"/> Comfort Gloves
<input type="checkbox"/> LTA Restraint and Strap	<input type="checkbox"/> <input type="checkbox"/> Flag, patch and EV1 stripes

Table 1

- 21
- 22
- 23
- 24
- 25
- 26
- 27
- 28
- 29
- 30
- 31
- 32

CONFIGURE ARNOLD'S EMU FOR EVA 3

- 26 EMU 3006 20. Transfer EMU 3006, An ECOK and LCVG to E-Lk
- 27 Install EMU on aft EDDA
- 28
- 29 21. Install Helmet Lights/EMU TV assembly
- 30 √Sun visors down, cover installed
- 31
- 32 22. √Wrist Mirrors (two) installed

18-1323 (MSG 076) – FD08 EVA Deltas

Page 1 of 1

FD8 EVA Deltas

Swanny, Ricky and Joe, we have a lot of items in work to get you ready to go out the door for EVA3. Here is what we have so far. Msg. 080 (18-1330) has the Revised EVA3 Summary Timeline. The preliminary procedure will come later. The specifics related to the UCCAS task will be sent after the UCCAS NBL evaluation is complete. In addition, we have a list of tools that you can pre-gather for the UCCAS task:

- Hammer A/L crewlock- Staging Bag, fish stringer#1, Hook #7
- Cheater bar A/L crewlock- Staging Bag, fish stringer#1, Hook #6
- Prybar A/L crewlock- Staging Bag, fish stringer#2, Hook #4
- 2 Long duration tethers - Staging Bag, fish stringer#2, to strap
- Russian Hammer (still working on permission to use this)

These items may need to be gathered while EVA:

- Bolt puller Airlock Toolbox #1 zenith door
- PRD Airlock Toolbox #1 in box behind zenith door
- GP Cutters Airlock Toolbox #2 nadir door

With the use of the ratchet wrench on the ADP during EVA 2, you will need to inspect that tool for possible sharp edges during the EVA 3 tool config today. Please report your findings.

EMU Swap for EVA 3

Please use MSG 075 (18-1326). This procedure replaces the EMU SWAP FOR EVA 3 (FS 2-12 in FDF). Without EVA 4 in the plan, this procedure now includes configuring Swanny's EMU (3017) for return, with the exception of LiOH and EMU Battery which will be covered in POST EVA EMU RECONFIG AND TRANSFER. Also, as a late change we will be leaving Swanny's backup Comm Cap onboard for future use as Cassidy's backup CCA during STS-127.

PSA EMU Battery Charging Deltas

EMU battery 2074 was not used during EVA 2 due to a lower than expected OCV. Before we charge this battery, we would like you to check the OCV one more time this morning because we want to verify that the OCV is constant over time. This information and the charge will hopefully enable us to declare this battery 'GO' for contingency use. Please perform the following steps prior to starting PSA-EMU CHRГ-INИT:

1. Verify all four BCs OFF
2. Install EMU battery s/n 2074 in left EMU battery slot and close BSA door
3. On BC3, sw MAIN PWR → ON
4. Wait 20 seconds until display pixel test complete
5. sw MODE → STOP
6. Report EMU voltage (CH4) to MCC-H
7. sw MAIN PWR → OFF, √POWER LED - OFF
8. Remove EMU battery s/n 2074 and close BSA door
9. Perform initiate steps of 1.625 EMU Battery Recharge from PSA Utility Outlet to recharge EMU batteries 2074 and 2075.

Page 1 of 1, 18-1323 (MSG 076)

MSG 079 - STS-119 WATER OPS CUE CARD

CWC FILLS

CWC No.	Record S/N Used	Mineral Kit Ref. Kit Table	Ag Biocide Kit Ref. Kit Table	Sample Kit Ref. Kit Table	CWC Label	CWC Launch Location
1	S/N 1090	S/N 1003	S/N 1003	S/N 1004 (Note A)	Blue (Pot)	
2	S/N 1091	S/N 1003	S/N 1003	S/N 1004 (Note A)	Blue (Pot)	
3	S/N 1089	S/N 1003	S/N 1003	S/N 1004 (Note A)	Blue (Pot)	
4	S/N 1084	S/N 1003	S/N 1003	S/N 1004 (Note A)	Blue (Pot)	
5	S/N 1094	S/N 1003	S/N 1003	S/N 1004 (Note A)	Blue (Pot)	
6	S/N 1086	S/N 1003	S/N 1003	S/N 1004 (Note A)	Blue (Pot)	
7		S/N 1003	S/N 1006	S/N 1004 (Note A)	Blue (Pot)	In pregathered M-02 bag (Note E); Available Potable S/Ns: 1085 <input type="checkbox"/> 1083 <input type="checkbox"/>
8		S/N 1003	S/N 1006	S/N 1004 (Note A)	Blue (Pot)	
9		Not Req'd	S/N 1006	S/N 1004 (Note A)	Green (Tech)	In pregathered M-02 bag (Note E); Available Technical S/Ns: 1008 <input type="checkbox"/> 1029 <input type="checkbox"/> 1051 <input type="checkbox"/> 1030 <input type="checkbox"/> 1050 <input type="checkbox"/> 1064 <input type="checkbox"/> 1069 <input type="checkbox"/>
10		Not Req'd	S/N 1006	S/N 1004 (Note A)	Green (Tech)	
11		Not Req'd	S/N 1006	Not Req'd	Green (Tech)	
12		Not Req'd	S/N 1006	Not Req'd	Green (Tech)	

Pre-Fill Checklist:

- Disinfect CWC QD and Transfer Hose QD
1 2 3 4 5 6 7 8 9 10 11 12

Post-Fill Checklist:

- Take Sample, filling Sample Bag nearly full
1 2 3 4 5 6 7 8 9 10
- Record MET on Sample Bag label
1 2 3 4 5 6 7 8 9 10
- Check correct label is in CWC window
1 2 3 4 5 6 7 8 9 10 11 12
- Check correct decal on CWC end
1 2 3 4 5 6 7 8 9 10 11 12
- Check correct CWC S/N on end decal
1 2 3 4 5 6 7 8 9 10 11 12
- Report S/N to MCC
1 2 3 4 5 6 7 8 9 10 11 12
- Transfer CWC to NOD2D2
1 2 3 4 5 6 7 8 9 10 11 12
- Cap Transfer Hose QD between each fill
1 2 3 4 5 6 7 8 9 10 11 12

CWC Fill Notes:

- A. Slow filled sample bags and purge bag (only one purge is done during the flight, at CWC Fill setup) in MF14E.
- B. Rough handling may cause leakage.
- C. Have towel ready to absorb any liquid released when mating/demating connections.
- D. Fill each CWC for 52 min or Term CWC Fill on MCC call.
- E. Pregathered M-02 bag (S/N 1026) originally located in NOD2D2. Some CWCs may still contain residual water (~ 10 lb/bag) and will be located outside the mesh bag. Prior to filling, report if bag has a significant amount of residual water.

Kit Table

Kit	S/N	Stowage Location	Undock Location
Sample/Purge Kit	1004	MD FLOOR (STBD 2, BAG D)	MD CEIL (STBD 2, BAG H)
Mineralization Kit	1003	MD FLOOR (STBD 2, BAG D)	MD CEIL (STBD 2, BAG H)
Ag Biocide Kit	1003	Pregathered M-02 bag (Note E)	MD CEIL (STBD 2, BAG H)
Ag Biocide Kit	1006	Pregathered M-02 bag (Note E)	NOD2D2 (M-02 Bag, S/N 1026)

PWR OPS

PWR No.	PWR S/N	Stowage Location	Actions
1	1026	Temp stowed post FD7 dump	Fill and transfer to A/L1D1

PWR Fill Notes: Do not detach PWR (EMU H2O Recharge Bag) QD restraint during PWR ops.

18-1330 (MSG 080) – 15A EVA 3 SUMMARY TIMELINE

Page 1 of 1

PET. HR : MIN	IV/SSRMS	EV2 – Arnold	EV3 – Acaba	PET. HR : MIN
00:00		EVA 3 POST DEPRESS. EGRESS & SETUP (00:50)	EVA 3 POST EGRESS & SETUP (00:50)	00:00
01:00		CETA CART RELOCATION (01:00)	CETA CART RELOCATION (01:00)	01:00
02:00		F3 NADIR UCCAS (2:25)	F3 NADIR UCCAS (2:25)	02:00
03:00				03:00
04:00		S3 OUTBOARD/ZENITH PAS (01:00)	S3 OUTBOARD/ZENITH PAS (01:00)	04:00
05:00		Z1 PATCH PANEL (00:30)	GET AHEAD LEE LUBE (00:30)	05:00
06:00	EVA 3 PET = 06:30 hr	CLEANUP AND INGRESS (00:40)	CLEANUP AND INGRESS (00:40)	06:00
-06:30		PRE-REPRESS (00:05)	PRE-REPRESS (00:05)	-06:30