

STS-115/12A

FD 07 Execute Package



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| 074A | 3 - 13 | FD07 Flight Plan Revision (pdf) |
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Approved by FAO: M. Scheib

Last Updated: Sep 15 2006 2:47AM GMT

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

NO EXERCISE

REPLANNED

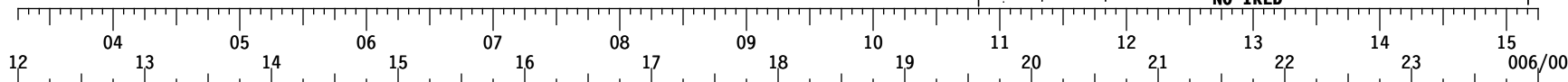
09/14/06 18:29:28

NO PRCS
NO IRED

FD07

GMT 09/15/06 (258)

MET Day 005



| | | | | | | | | | | | | | | | | | | |
|-------------|-----------------|---------------------------------|----------------|--------------------|-------------------|------------------|-------------|-----------------|---------------------|----------------|------------------|------------------|-------------|----------------|-----------|----------------------|--------------------------|---------------|
| STS-115 | CDR JETT | SLEEP | POST SLEEP | PMC A/G | HYG BRK/HATCH CLS | CAMPOUT EVA PREP | EMURGE | EMU PRE BREATHE | C.LK DPRS | P/TV07 EVA OPS | P/TV09 S/U | P/TV07 EVA OPS | MEAL | P/TV07 EVA OPS | | | | |
| | PLT FERGUSON | SLEEP | POST SLEEP | EVA** | | POST SLEEP | INAHDI B | CINWCT #7 | PCRLCLASE | CTWERM | EXERCISE | | MEAL | CINWCT #8 | CTWERM | CWCXFER (2) | | |
| | MS1/EV1 TANNER | SLEEP (IN ISS A/L) | POST SLEEP | HYG BRK/PREBREATHE | 10.2 DPRS | CAMPOUT EVA PREP | EMURGE | EMU PRE BREATHE | C.LK DPRS | PESEDRTP | EVA-P6 BGA-INSTL | RLS CNCH/WNCH | P3 CLNUP | SASA R&R | | SIGNASNTL | EWIS ANT INST | IR CAMERA DTO |
| | MS3/EV2 PIPER | SLEEP (IN ISS A/L) | POST SLEEP | HYG BRK/PREBREATHE | A/L REP | CAMPOUT EVA PREP | EMURGE | EMU PRE BREATHE | C.LK DPRS | PESEDRTP | MISSE 5 | RLS CNCH/WNCH | P3 CLNUP | SASA R&R | | S-BND BSP & XPDR R&R | EWIS ANT INST | |
| | MS2/EV3 BURBANK | SLEEP | POST SLEEP | | | | IR CAMR ACT | EXERCISE | | EVA3 IV1 SPPT | | | | | | | | |
| | MS4/EV4 MACLEAN | SLEEP | POST SLEEP | | | | | EXERCISE | PTV07 S/U | EVA3 IV2 SPPT | | | | | | | | |
| ISS | ISS CDR | SLEEP - ISS | POSTSLEEP-ISS | PREP WORK | DPC | | | TVIS | TKOTP* | MIDDAY-MEAL | | | BTX-11-CLCT | | IXWFIE SR | DPRT PREP | | |
| | FE-1 | SLEEP - ISS | POSTSLEEP-ISS | PREP WORK | DPC | HAM | RED | COX MNT | CREW DEPARTURE PREP | MIDDAY-MEAL | POДHИK DEACT | IWIS BATT RMV | | TVIS | | | | |
| | FE-2 | SLEEP - ISS | POST SLEEP ISS | HYG BRK/HATCH CLS | PW | CAMPOUT EVA PREP | EMURGE | EMU PRE BREATHE | C.LK DPRS | RED | MIDDAY-MEAL | MCHTORG | CK | CK | CK | MOTO* | BTX 11 PHOTO | TVIS |
| DAY/NIGHT | | [Timeline bars for Day/Night] | | | | | | | | | | | | | | | | |
| ORBIT | | [Timeline bars for Orbit] | | | | | | | | | | | | | | | | |
| DAILY ORBIT | | [Timeline bars for Daily Orbit] | | | | | | | | | | | | | | | | |
| TDRS | | [Timeline bars for TDRS] | | | | | | | | | | | | | | | | |
| ORB ATT | | BIAS -XLV -ZVV | | | | | | | | | | | | | | | | |
| NOTES | | *COMM Config | | | | | | | | | | *Charge Closeout | | | | | *EVA3 CLNU *EVA3 CLNU | |

**NO SHUTTLE EXERCISE,
ISS EXERCISE CONSTRAINTS**

09/14/06 18:29:28

REPLANNED

FD07

GMT 09/15/06 (258)

MET Day 006

| | | 006/00 | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|-----------------|---|------------------|--|----------------------|---|--------------------------|----|--|----|--|----|--|----|--|----|--|-------|--|----|--|----|--|----|--|--|
| | | 16 | | 17 | | 18 | | 19 | | 20 | | 21 | | 22 | | 23 | | 09/16 | | 01 | | 02 | | 03 | | |
| | | 01 | | 02 | | 03 | | 04 | | 05 | | 06 | | 07 | | 08 | | 09 | | 10 | | 11 | | 12 | | |
| S T S - 1 1 5 | CDR JETT | * | EXERCISE | C O L U M * I O N L E M U M * H A / G | | | | | | | | | | | | | | | | | | | | | | |
| | PLT FERGUSON | OS IS UV D4 | | | MISSE XFER | | | | | | | | | | | | | | | | | | | | | |
| | MS1/EV1 TANNER | E C V L A N 3 U P | C R P T R K S | | POST EVA, H20, MTX | 7 6 0 * | B I S N A I T * | | | | | | | | | | | | | | | | | | | |
| | MS3/EV2 PIPER | E C V L A N 3 U P | C R P T R K S | | POST EVA, H20, MTX | | B I S N A I T * | | | | | | | | | | | | | | | | | | | |
| | MS2/EV3 BURBANK | EVA3 IV1 SPPT | | | POST EVA, H20, MTX | F D M / R 5 E E L M A T I V C O O T X H | | | | | | | | | | | | | | | | | | | | |
| | MS4/EV4 MACLEAN | EVA3 IV2 SPPT | C R P T R K S | | POST EVA, H20, MTX | M / R E L M T I V O O X H | | | | | | | | | | | | | | | | | | | | |
| I S S | ISS CDR | D P P R E T P | | TVIS | Γ 21P STOW | D P C | | | | | | | | | | | | | | | | | | | | |
| | FE-1 | | TVIS | I W I S C B L I N S T | J R N L | P R E P W O R K | D P C | | | | | | | | | | | | | | | | | | | |
| | FE-2 | | M O - 9 * | I M S E D I T | F A H K D W N L D | P R E P W O R K | D P C | | | | | | | | | | | | | | | | | | | |
| DAY/NIGHT | | [Bar chart showing day/night cycle] | | | | | | | | | | | | | | | | | | | | | | | | |
| ORBIT | | [Bar chart showing orbit parameters] | | | | | | | | | | | | | | | | | | | | | | | | |
| DAILY ORBIT | | [Bar chart showing daily orbit parameters] | | | | | | | | | | | | | | | | | | | | | | | | |
| TDRS | | [Bar chart showing TDRS parameters] | | | | | | | | | | | | | | | | | | | | | | | | |
| ORB ATT | | [Bar chart showing orbit attitude] | | | | | | | | | | | | | | | | | | | | | | | | |
| NOTES | | <p>*P/TV07 EVA OPS *OPEN *Includes recharge of REBA, @CWC XFER (2) *Deconfig PGT, Helmet Light *CAM DISASSEMBLY</p> <p align="right">ISS EXTERNAL SURVEY</p> | | | | | | | | | | | | | | | | | | | | | | | | |

MSG 074A - FD07 FLIGHT PLAN REVISION

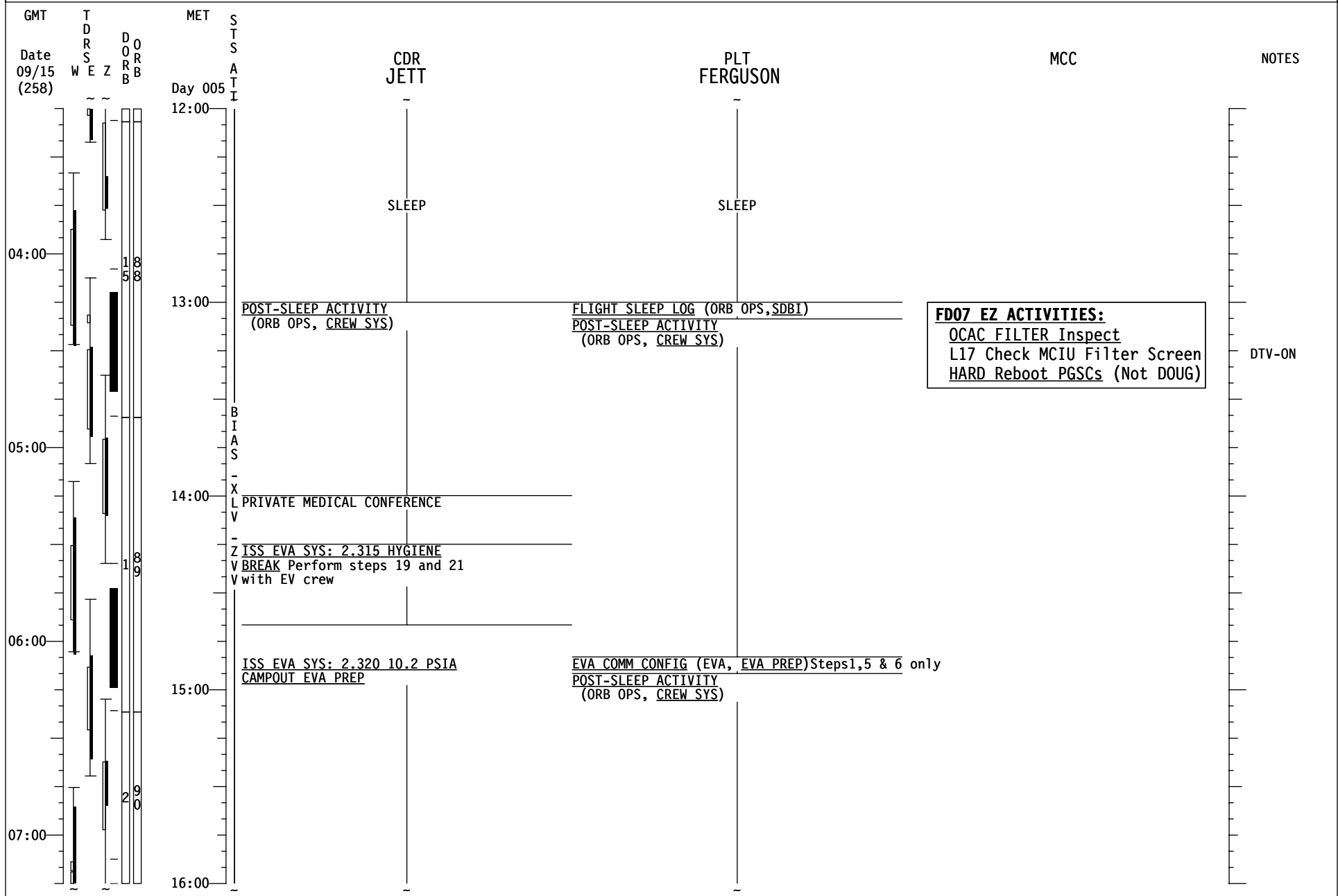
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MSG INDEX

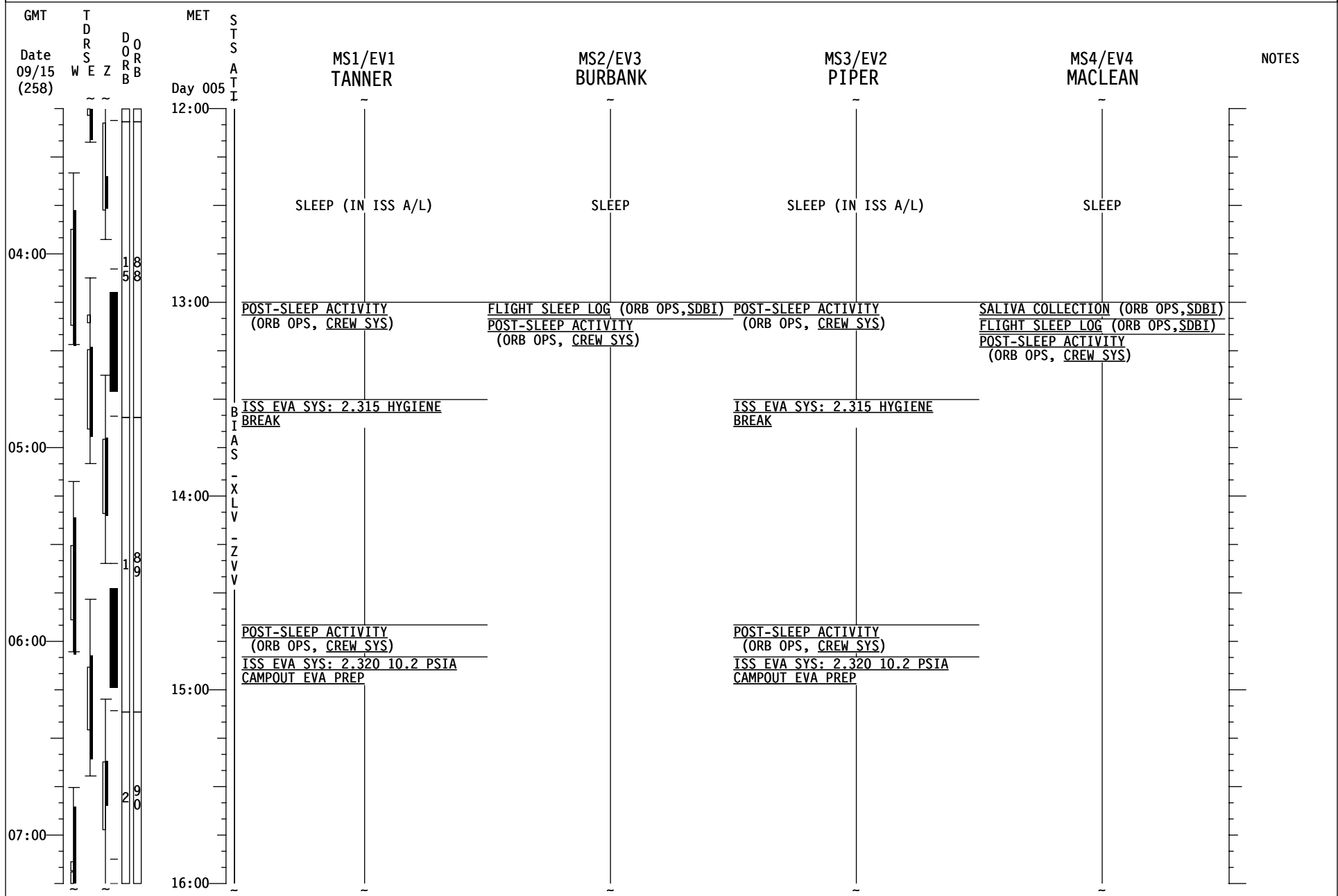
| <u>MSG NO.</u> | <u>TITLE</u> |
|----------------|--|
| 74 | FD07 Flight Plan Revision |
| 75 | FD07 Mission Summary |
| 76 | FD07 Summary Timeline |
| 77 | FD07 Water Summary Message |
| 78 | PRLA Close With OBSS Safing |
| 79 | EVA 3 Detailed Timeline Pen and Inks |
| 80 | Updated Middeck Bag A Layout And Entry Locker Layout |
| 81 | EVA 3 Changeout Pages |
| 82 | FD06 MMT Summary |

1. Please configure the cryo system as follows for post-sleep:
 - R1 CRYO O2,H2 MANF VLV TK2 (two) - OP (tb-OP)
 - A11 CRYO TK 4 HTRS H2 A,B (two) - AUTO
 - A15 CRYO TK 5 HTRS H2 A,B (two) – OFF
2. During EWIS Antenna Install (005/22:25 - 23:50), the Big Loop will be tied together in MCC-H, due to the ISS UHF going OFF for the EVA activity.
3. Reminder, please check the FD7 Summary Timeline for exercise constraints during the EVA and MT translation (or call MCC if you'd prefer).
4. The PRLA Close has been scheduled for MET 005:16:50 for PLT. Message 078 contains an updated PRLA close procedure which includes a few steps to prevent an inadvertent OBSS release. Please check with MCC before starting this procedure, as the steps added to the procedure to safe the OBSS affect KU band comm.
5. REPLACE PAGES 3-68 THROUGH 3-77.

STS-115 (FD07)



STS-115 (FD07)



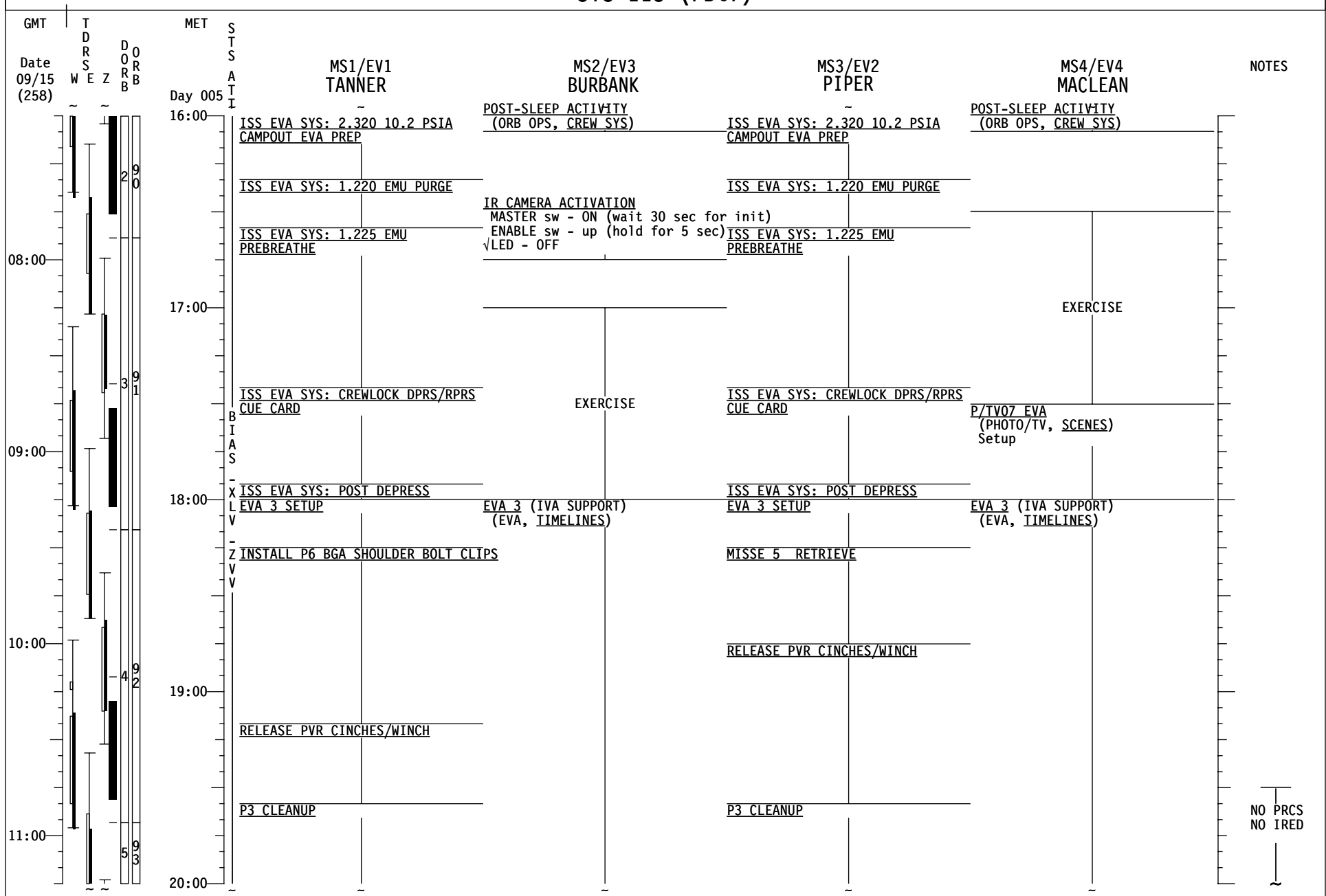
STS-115 (FD07)

| GMT | T D R S E Z | D O R B | MET | S T S | CDR | PLT | MCC | NOTES |
|-------------|-------------|---------|-----|-------|--|--|-----|-------|
| Date | W | Z | Day | A T I | JETT | FERGUSON | | |
| 09/15 (258) | | | 005 | | | | | |
| 16:00 | | 290 | | | ISS EVA SYS: 2.320 10.2 PSIA CAMPOUT EVA PREP | POST-SLEEP ACTIVITY - (ORB OPS, CREW SYS) EVA 3 INHIBIT PAD (EVA, TIMELINES) Ref MSG 081 for new FS 7-60 | | |
| | | | | | ISS EVA SYS: 1.220 EMU PURGE | | | |
| 08:00 | | | | | ISS EVA SYS: 1.225 EMU PREBREATHE | SHUTTLE/ISS H2O CNTR FILL (Init #7) (ORB OPS, ECLS) Ref MSG 077 | | |
| | | | | | | PRLA CLOSE Ref MSG 074 item 4 & MSG 078 √MCC PRIOR TO START | | |
| | | 391 | | | ISS EVA SYS: CREWLOCK DPRS/RPRS CUE CARD | | | |
| 09:00 | | | | | | SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Terminate CWC fill | | |
| | | | | | X ISS EVA SYS: POST DEPRESS L P/TV07 EVA (Ops) V (PHOTO/TV, SCENES) Z Perform during EVA V as time permits | | | |
| | | | | | | EXERCISE | | |
| 10:00 | | 492 | | | | | | |
| | | | | | P/TV09 SAW/PVR DEPLOY (PHOTO/TV, SCENES) Setup | | | |
| 11:00 | | 593 | | | P/TV07 EVA (Ops) (PHOTO/TV, SCENES) Perform during EVA as time permits | | | |
| 20:00 | | | | | | | | |

UPLINK
 β0+Boxes
 Box D1
 -18<AZ<70
 -68<EL<75
 Box C2
 -41<AZ<-10
 -25<EL<39
 Box C3
 -72<AZ<-36
 -4<EL<33

NO PRCS
 NO IRED

STS-115 (FD07)



STS-115 (FD07)

| GMT | T D R S E Z | D O R B | MET | S T S A T I | CDR | PLT | MCC | NOTES |
|------------------|-------------|---------|---------|-------------|------|----------|-----|-----------------|
| Date 09/15 (258) | W E Z | | Day 005 | | JETT | FERGUSON | | |
| 12:00 | | 53 | 20:00 | | | | | |
| | | | | | MEAL | MEAL | | NO EXERCISE |
| | | | 21:00 | | | | | |
| | | | | | | | | |
| 13:00 | | 64 | 22:00 | | | | | |
| | | | | | | | | NO PRCS NO IRED |
| | | | | | | | | |
| 14:00 | | | | | | | | |
| | | | | | | | | |
| 15:00 | | 75 | 23:00 | | | | | |
| | | | | | | | | |
| 00:00 | | | | | | | | |

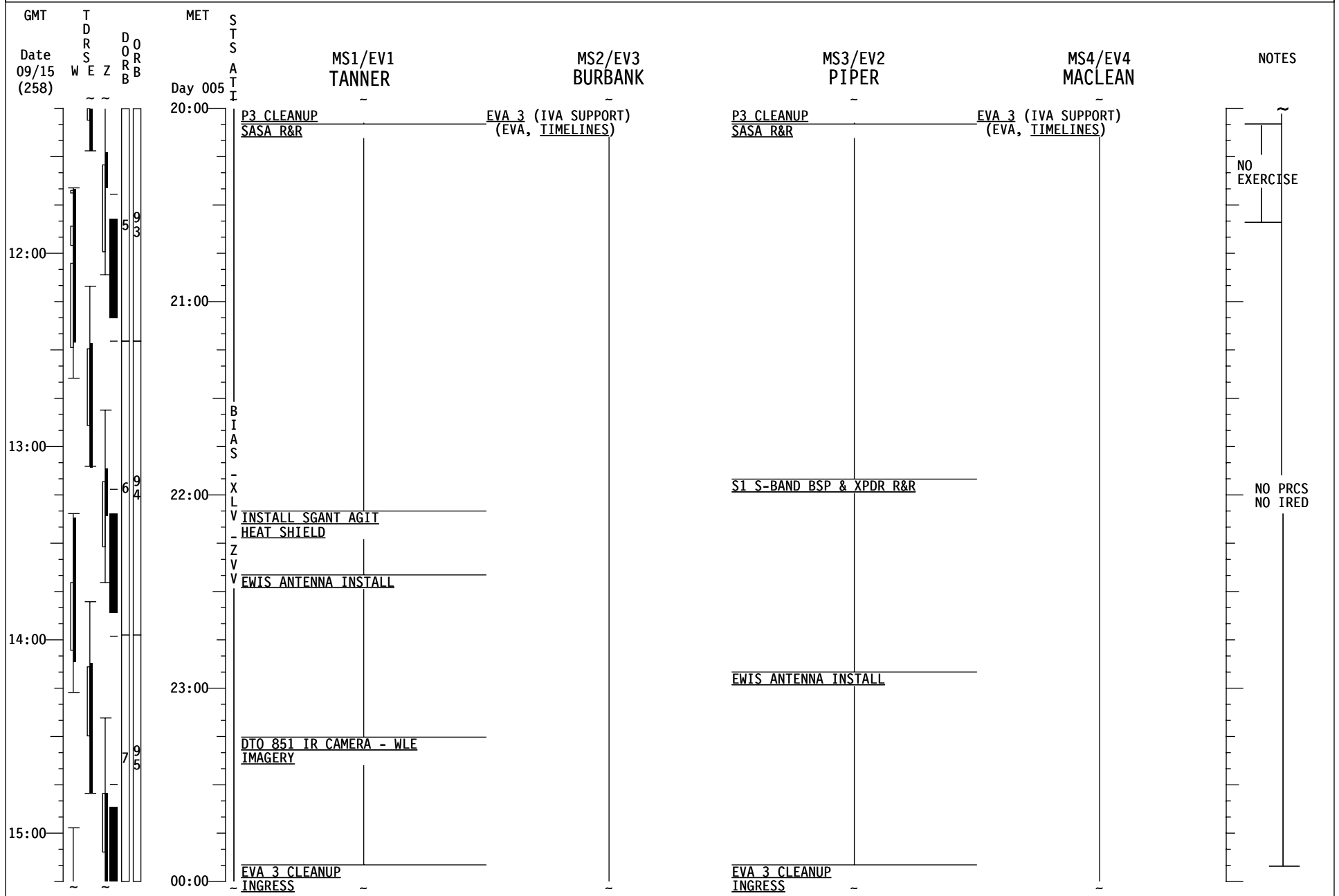
P/TV07 EVA (Ops)
(PHOTO/TV, SCENES)
Perform during EVA
as time permits

P/TV07 EVA (Ops)
(PHOTO/TV, SCENES)
Perform during EVA
as time permits

SHUTTLE/ISS H2O CNTR FILL (Init #8)
(ORB OPS, ECLS)
Ref MSG 077

SHUTTLE/ISS H2O CNTR FILL
(ORB OPS, ECLS)
Terminate CWC fill
CWC TRANSFER
Transfer 2 CWC bags to ISS.
Ref MSG 077

STS-115 (FD07)



STS-115 (FD07)

| GMT | T D R S E Z | D O R R B | MET | S T S | CDR | PLT | MCC | NOTES |
|------------------|-------------|-----------|---------|-------|----------|----------|-----|--|
| Date 09/15 (258) | W | E | Day 006 | A T I | JETT | FERGUSON | | |
| 00:00 | | 75 | | | | | | UPLINK CNFG 762 TFL 188 DTV-OFF |
| | | | | | | | | |
| 16:00 | | 86 | | | EXERCISE | | | UPLINK β21+Boxes Box D1 -18<AZ<70 -68<EL<75 Box C2 -41<AZ<-10 -25<EL<39 Box C3 -72<AZ<-36 -4<EL<33 |
| | | | | | | | | |
| 17:00 | | 97 | | | | | | |
| | | | | | | | | |
| 18:00 | | 97 | | | | | | |
| | | | | | | | | |
| 19:00 | | 1908 | | | | | | |
| | | | | | | | | |
| 04:00 | | | | | | | | NO SHUTTLE EXERCISE, ISS CONSTRAINED EXERCISE |

P/TV07 EVA (Ops)
(PHOTO/TV, SCENES)
Perform during EVA
as time permits

CWC TRANSFER
Transfer 2 CWC bags to ISS.
Ref MSG 077
OIU DEACTIVATION (ORB OPS, OIU)
SSV OUTFATE - 4

EVA COMM DECONFIG (EVA, EVA PREP)
Perform step 1,
step 4, VOICE RCD SEL CH 1 and 2 - OFF only
then step 5

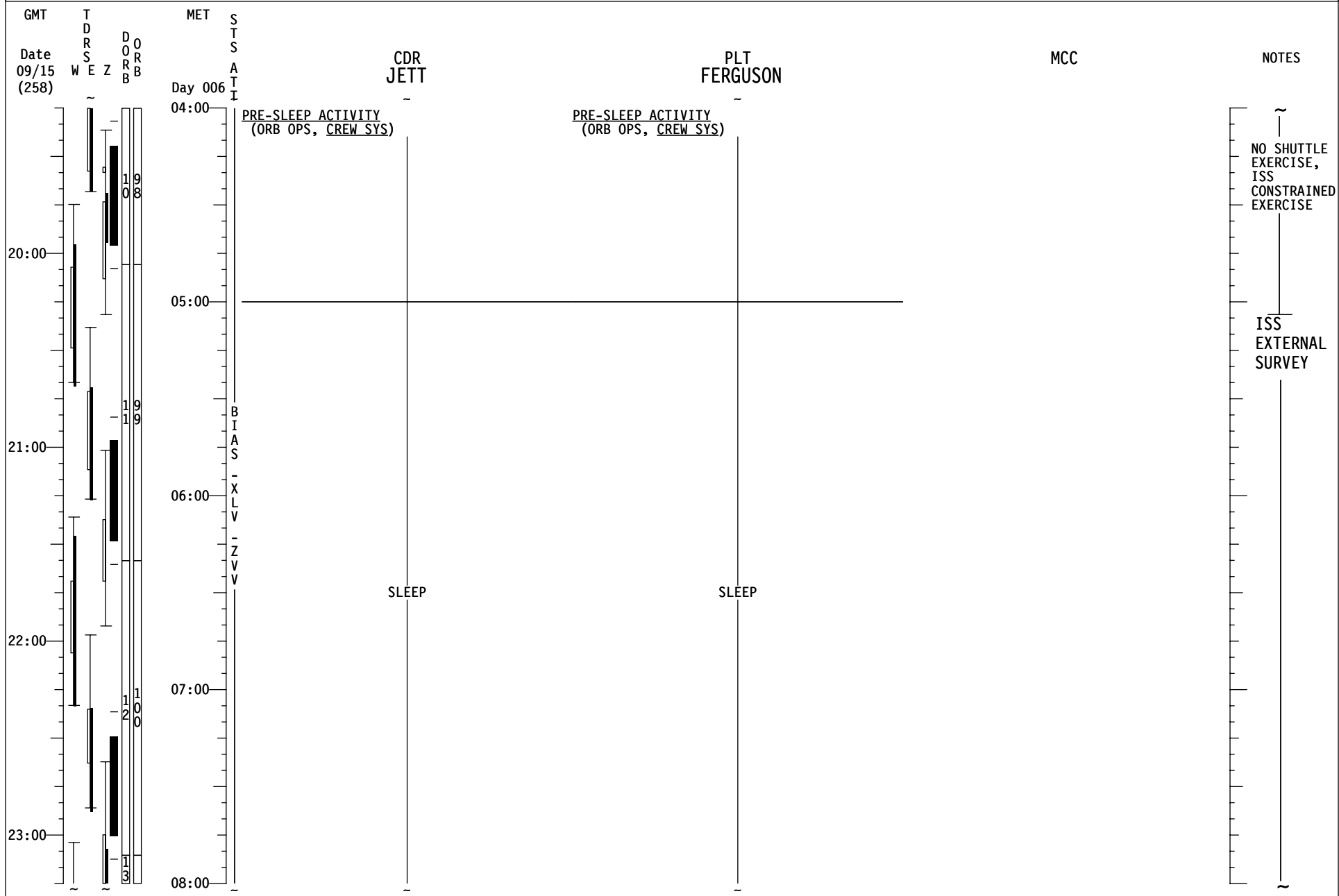
B TV (ILLUMINATOR OPS)
I (PHOTO/TV, CUE CARDS)
A ILLUMINATORS ON - B and C
SM069M LEH 02 8 v1v-OP
PRIVATE MEDICAL CONFERENCE

MISSE 5 CONFIG/TRANSFER
Ref. Transfer List, Item #s 724,
724.1, 724.2, 725, 725.1

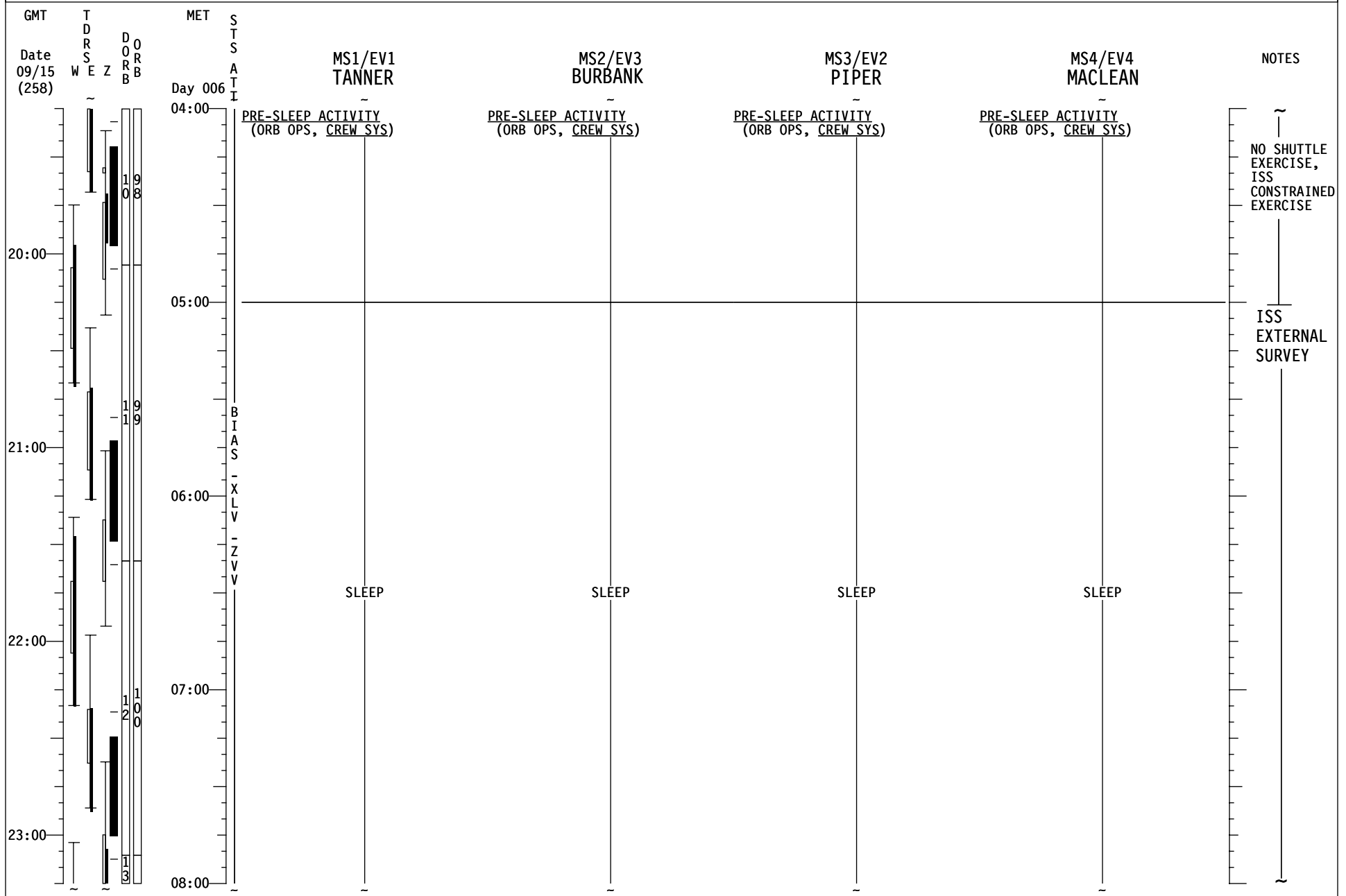
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

STS-115 (FD07)



STS-115 (FD07)



MSG 075 (13-1228) - FD07 MISSION SUMMARY

Page 1 of 2

1 Good morning Atlantis!

2

3 The Stack is looking wonderful with P3/P4 installed and the new Solar Arrays deployed. We
4 can't take our eyes off of it. Thanks for your excellent work and your patience! All the best for
5 EVA 3 today!

6

7

8

9 YOUR CURRENT ORBIT IS: 190 X 181 NM

10

11 NOTAMS:

12

13 EDW 22/04 CLOSED – ESTIMATED RETURN TIME TBD.

14 EDWARDS (EDW) – 15/33 ELS ONLY – 18L CLOSED

15 WHITE SANDS (NOR) – RED

16 AMBERLY (AMB) - CLOSED

17 ANDERSEN (GUA) - 06L/24R CLOSED, ALTERNATE 06R/24L

18 ANDERSEN BACKUP (UNZ CH 100) VORTAC FREQUENCY CHANGED TO CH 105

19 HALIFAX (CYHZ) – RUNWAY14/32 CLOSED 14-15 SEP

20 ISTRES (FMI) - RUNWAY 33 DISTANCE MARKERS @ 300, 600, 900M

21 LAJES TACAN (LAJ) CH 45 OUT OF SERVICE

22 ORMOND BEACH (OMN) CH 73 AZIMUTH OUT OF SERVICE

23 RIO GALLEGOS (AWG) - NOT APPROVED

24 SALISBURY (SBY CH 49) OUT OF SERVICE (PRIME TACAN FOR WALLOPS)

25 WAKE ISLAND (WAK) - CLOSED

26 WAKE ISLAND (WAK) CH 82 OUT OF SERVICE

27 WILMINGTON (ILM) - CLOSED

28

29 NEXT 2 PLS OPPORTUNITIES:

30

31 EDW15 ORB 95 – 5/23:36 (FEW100 FEW250, 240@16P22)

32 EDW22 ORB 110 – 6/22:24 (SKC, 040@06P13)

33

34 OMS TANK FAIL CAPABILITY:

35

36 L OMS FAILS: YES (SHALLOW TARGETS)

37 R OMS FAILS: NO

38

39 LEAKING OMS PRPLT BURN:

40

41 L OMS LEAK: BURN OUT-OF-PLANE AN+67 <= TIG <= AN+36

42 OTHERWISE BURN RETRO

43 R OMS LEAK: ALWAYS BURN RETRO

44

45 OMS QUANTITIES(%)

46

47 L OMS OX = 33.5 R OMS OX = 33.0

48 FU = 34.5 FU = 33.7

49

50 SUBTRACT I'CNCT COUNTER FOR CURRENT OMS QUANTITIES

51

MSG 075 (13-1228) - FD07 MISSION SUMMARY

Page 2 of 2

1 DELTA V AVAILABLE:

2

3 OMS 344 FPS

4 ARCS (TOTAL ABOVE QTY1) 36 FPS

5 TOTAL IN THE AFT 380 FPS

6

7 ARCS (TOTAL ABOVE QTY2) 70 FPS

8 FRCS (ABOVE QTY 1) 56 FPS

9

10 AFT QTY 1 90 %

11 AFT QTY 2 52 %

12

13

14 THERE ARE NO FAILURE/IMPACT/WORK AROUNDS FOR TODAY.

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MSG 077 - FD07 WATER SUMMARY MESSAGE

1 Today, there will be two CWC fills. For today's CWC fills, use any of the following
2 CWCs: 1077 (on Middeck), or 1030, 1035 (pregathered on ISS), or 1043 located on the
3 Water Wall (NOD1P2).

4
5 Stow Ag biocide kit s/n 1005 in MD Floor Port 1.

6
7 **FD7 Shuttle/ISS H2O Container Fill Details - Shuttle Crew**

8
9 For both CWC Fills #7 and #8, use the following details:

10
11 **SHUTTLE/ISS H2O CONT FILL**
12 **(ORB OPS, ECLS)**

13
14 Ag Biocide is req'd. (Use syringe from Ag biocide kit s/n 1001)
15 Sample is not req'd.
16 Fill Duration: ~50 minutes

17
18
19 After the fills are complete report Serial Numbers and Barcodes to MCC, insert green label
20 in CWC window; apply decals to CWC ends; and mark CWC serial numbers on the
21 end decals. Transfer the two filled CWCs to NOD1P3. If there is insufficient room for the
22 bags at this ISS location, stow CWCs at NOD1P1 and report to MCC.

PRLA CLOSE

MA73C:A 1. MCA LOGIC MNC MID 2 – OFF
:B MCA LOGIC MNB MID 4 – OFF

A6U 2. √PL RETEN PL SEL – 1
√LAT 1,2,3,4 (four) – OFF (tb-REL)

SM 97 PL RETENTION

√PL SEL 1 LAT 1,2,3,4 (eight) – '0'

* If any LAT msw shows '1', drive *
* for single motor time (60 sec) *

R13L 3. PL RETEN LOGIC PWR SYS 1,2 (two) – ON
BAY MECH PWR SYS 1,2 (two) – ON

NOTE

Any single motor times (>30 sec)

A6U 4. PL RETEN LAT 1,2 (two) – LAT
(tb-LAT, 60 sec max)
– OFF

5. 3,4 (two) – LAT
(tb-LAT, 60 sec max)
– OFF

R13L 6. PL RETEN LOGIC PWR SYS 1,2 (two) – OFF
BAY MECH PWR SYS 1,2 (two) – OFF

A6U 7. PL RETEN PL SEL – MON

MA73C:A 8. MCA LOGIC MNC MID 2 – ON
:B MCA LOGIC MNB MID 4 – ON

PRLA

13-1231 (MSG 079) – EVA 3 Detailed Timeline Pen and Inks
Page 1 of 1

1 In addition to the changeout pages contained in messages 13-1232, please make the
2 following pen and ink changes.
3
4 On FS 7-66 RELEASE P4 PV RADIATOR CINCHES/WINCHES (EVA, EVA 3) for EV2
5 column:
6
7 before step 1 add:
8 0. Stow MISSE 5
9
10 FROM:
11 1. Retrieve P3 ORU bag
12
13 TO:
14 1. Retrieve P3 Crewlock bag
15
16 add:
17 3a. Translate to SO Port; clear safety tether from cable guide; inspect for damage
18
19 FROM:
20 7. Stow P3 ORU bag on P3 face 1
21
22 TO:
23 7. Stow P3 Crewlock bag on P3 face 1
24
25 On FS 7-82 MISSE 5 RETRIEVAL (EVA, EVA 3)
26
27 This task will now be performed by EV2.
28 After step 12 add:
29
30 12a. Translate to P6 HH 5309
31 12b. Tether swap to SO Safety Tether; verify hook locked
32 12c. Retrieve Airlock Safety Tether
33
34 On FS 7-87 DTO 851 IR CAMERA - WLE IMAGERY (EVA, GET AHEADS)
35
36 FROM:
37 **Daytime 1 WLE** (any panels) Lighting: Any time during daylight
38
39 **Daytime 2 WLE** (any panels) Lighting: Any time during daylight
40
41 TO:
42 **Daytime 1 WLE** (any panels reflecting direct sunlight) Lighting: Any time during
43 daylight
44
45 **Daytime 2 WLE** (any panels reflecting direct sunlight) Lighting: Any time during
46 daylight
47
48 FROM:
49 14. Record 20-sec movie, call start and stop times to IV
50
51 TO:
52 14. Record 5-min movie, call start and stop times to IV

MSG 080 - UPDATED MIDDECK BAG A LAYOUT AND ENTRY LOCKER LAYOUT

CDR BRENT JETT
 PLT CHRIS FERGUSON
 M/S #1 JOE TANNER
 M/S #2 DANIEL BURBANK
 M/S #3 HEIDEMARIE STEFANYSHYN-PIPER
 M/S #4 STEVEN MACLEAN

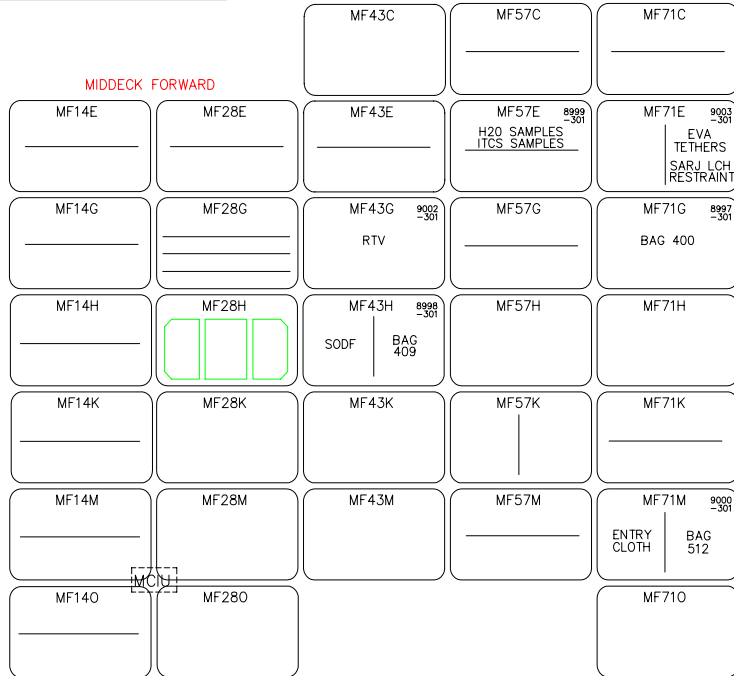
MODULAR LOCKER LAYOUT DESCENT

| | | | | | |
|-------------|--------------|-------|--------------|-------------|--------------|
| PANTRY FOOD | 1622 -308 | MF57A | 1622 -308 | PANTRY FOOD | 1622 -302 |
|-------------|--------------|-------|--------------|-------------|--------------|

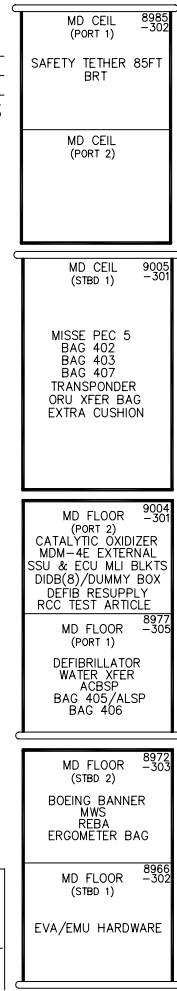
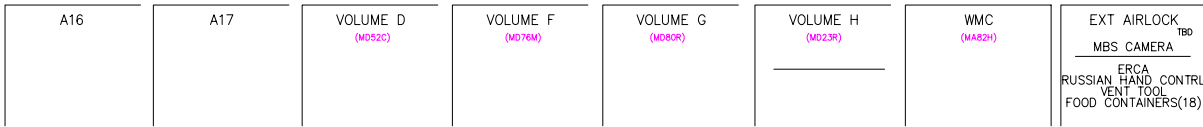
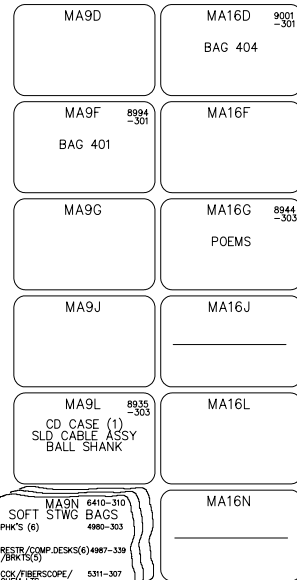
LEADER: KURTIS GOTHREUX
 DATE: 9-15-06
 LAUNCH: 9-9-06
 FLIGHT: STS-115/12A SSRMS
 VEHICLE: OV-104
 CREW: 6 MAN 11 + 1 + 2 DAYS
 RQMTS: SRMS, ERGOMETER,
 SORG, NO RCRS,
 SLEEPING BAGS

ML60B
 ML60E
 ML60J
 ML60M

MIDDECK FORWARD



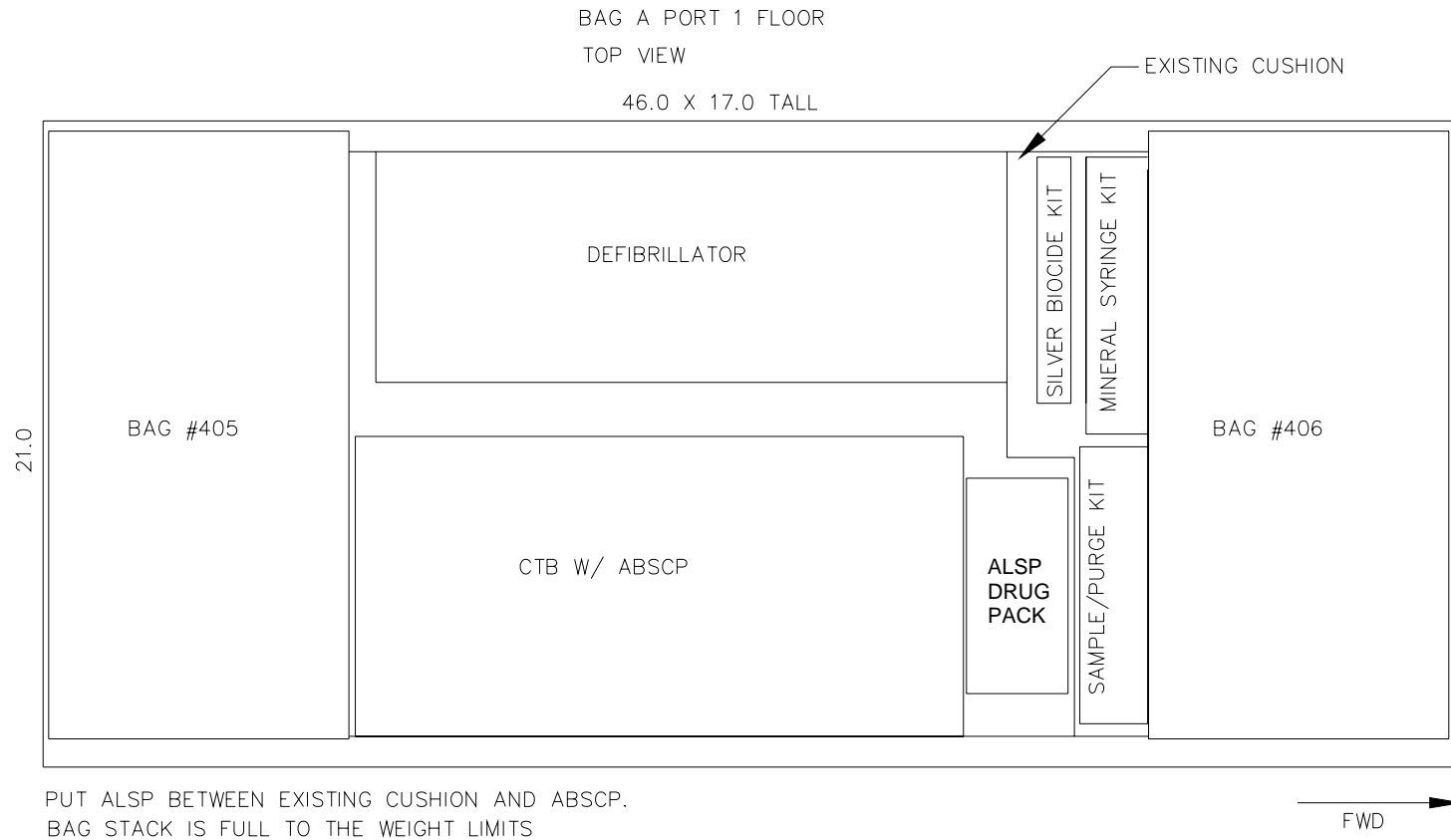
MIDDECK AFT



NOTE: LOCKER LAYOUTS ARE FOR REFERENCE ONLY AND ARE NOT RELEASED DRAWINGS.
 FOR RELEASED DRAWINGS, REFER TO CCCD DRAWING # SGD32104438.

DWG NO. SGD32104438
 /USR/DWGS/LOCKER/STS115
 CCFE: T. HUNT
 483-3063

MSG 080 - UPDATED MIDDECK BAG A LAYOUT AND ENTRY LOCKER LAYOUT



13-1232 (MSG 081) – EVA Changeout Pages
Page 1 of 10

- 1 The following pages replace the published versions in the EVA checklist. A big picture
2 description of the changes for each page follows.
3
- 4 EVA 3 SUMMARY TIMELINE: The content is identical to msg 70 (13-1225). The tasks now
5 include page number references for the activities with new pages.
6
- 7 EVA 3 INHIBIT PAD: This page only effects the second page of the inhibit pad. It adds a
8 callout to lock the TRRJ at -20 for the SASA R&R task. This only affects MCC, no crew
9 action required.
10
- 11 EVA 3 EGRESS/SETUP: Because Heide's first task is to retrieve MISSE 5, steps have been
12 added after egress to translate up P6 with a tether swap at the handrail immediately nadir of
13 the one at which Joe performs his swap.
14
- 15 P3 CLEANUP: RPDA Shroud removal steps are deleted. IEA MMOD Cover Bolts have
16 been added to Heide. P4 APFR reconfiguration steps are added as a 12a.1 get ahead. The
17 S0 safety tether stowage handrail is changed to one slightly more nadir to clear the MT
18 translation path and a verification is added to make sure the tether cable is retracted.
19
- 20 INSTALL SGANT AGIT HEAT SHIELD: Step 7 is added to define areas where photographs
21 are desired.
22
- 23 EWIS ANTENNA INSTALLATION: Only changes are to the IV column comm config steps
24 based on the DAIU failure.
25
- 26 IR CAMERA GET AHEADS: This page adds additional objectives for IR camera movies.
27
- 28 POST EVA 3 TOOL CONFIG: Includes tool changes to the post EVA config due to modified
29 EVA.
30
31
32
33
34
35

| TIME (HR : MIN) | IV | 12A EVA 3-REPLANNED EV1 | EV2 |
|--------------------|--|--|---|
| 00:00 | | POST DEPRESS (00:05) | POST DEPRESS (00:05) |
| | ISS: LOCK 2B (STBD) & 4B(PORT) SAWS ISS: P6 S-BAND DEACT | EVA 3 EGRESS/SETUP (00:15) (new FS 7-63) | EVA 3 EGRESS/SETUP (00:15) (new FS 7-63) |
| | | INSTALL P6 BGA SHOULDER BOLT RETAINERS (00:55) • Engage P6 4-bar hinge lock • BGA Bolt Retainer Installation | MISSE 5 RETRIEVE (00:30) (FS 7-82) |
| | | | RELEASE PVR CINCHES/WINCH (00:50) • Translate to P3 & stow ORU bag |
| | 01:00 ISS: P6 S-BAND ACT ISS: UNLOCK 2B & 4B SAWS SHUTTLE: THRUSTER INHIBIT ISS: DESAT INHIBIT SHUTTLE & ISS: RESUME NOM ATT CTRL | RELEASE PVR CINCHES/WINCH (00:25) | |
| | | P3 CLEANUP (00:30) (new FS 7-73) • APFR P4-20 [6,WW,A,10] (reconfig only) (Get Ahead) • APFR P4-05 to P4-17 [5,RR,J,12] (Get Ahead) | P3 CLEANUP (00:30) (new FS 7-73) • Release IEA MMOD Cover Bolts (Get Ahead) |
| | 02:00 ISS: Z1 SASA DEACT | SASA R&R (02:00) • Spare SASA Z1 to S1 | SASA R&R (01:50) • Spare SASA Z1 to S1 |
| | ISS: S1 S-BAND DEACT | • Remove failed SASA & temp stow | • Remove failed SASA & temp stow |
| | ISS: S1 SASA HTR DEACT | • Install spare SASA on S1 | • Install spare SASA on S1 |
| | 03:00 ISS: S1 SASA HTR ACT | • Failed SASA S1 to Z1 | • Failed SASA S1 to Z1 |
| | ISS: Z1 SASA ACT | • Install shrouds on failed SASA | • Install shrouds on failed SASA |
| | ISS: S1 HTR (BSP/XPDR) DEACT | • Cleanup | S1 S-BAND BSP & XPDR R&R (01:00) |
| | 04:00 ISS: KU-BAND ANT - PARK | INSTALL SGANT AGIT HEAT SHIELD (00:20)(new FS 7-81) | |
| | ISS: Close Lab Window Shutter ISS: KU-BAND ANT - UNPARK | EWIS ANTENNA INSTALLATION (00:50) (new FS 7-89) | |
| | ISS: ISS S1 S-BAND ACT | | EWIS ANTENNA INSTALLATION (01:00) (new FS 7-89) |
| | ISS: Deactivate SSSR (UHF) | DTO 851 IR CAMERA – WLE IMAGERY (00:40) (FS 7-87) | |
| | ISS: Activate SSSR (UHF) | EVA 3 CLEANUP/INGRESS (00:25) | EVA 3 CLEANUP/INGRESS (00:25) |
| | 06:00 | PRE REPRESS (00:05) | PRE REPRESS (00:05) |

EVA 3 INHIBIT PAD (Cont)

USOS

| | |
|---------------------|--|
| PCU | |
| | <u>NOTE</u> |
| | PCUs may require up to 1 hr warm-up period before they are operational |
| MCC-H | <ol style="list-style-type: none"> 1. √PCUs (two) operational in discharge mode and one of the following: <ol style="list-style-type: none"> a. CCS PCU EVA Hazard Control enabled b. No more than two arrays unshunted c. No more than two arrays pointed < 90 degrees from velocity vector 2. One or no PCUs operational in discharge mode and one of the following: <ol style="list-style-type: none"> a. No more than two arrays unshunted b. No more than two arrays pointed < 90 degrees from velocity vector |
| Lab Window | |
| IV | <ol style="list-style-type: none"> 1. Close window shutter if EV crew less than 10 ft/3.5m from window |
| SARJ | |
| MCC-H | <ol style="list-style-type: none"> 1. √DLA (1) – LOCKED 2. All motor setpoints set to zero 3. All motors deselected |
| OR | <ol style="list-style-type: none"> 4. Both DLAs – LOCKED |
| MISSE PEC 5 | |
| MCC-H | <ol style="list-style-type: none"> 1. √MISSE PEC 5 – RESET, record timer information |
| Ground Radar | |
| MCC-H | <ol style="list-style-type: none"> 1. √TOPO/RIO & FDO console, ground radar restrictions in place for EVA |

| | |
|----------------|---|
| S1 TRRJ | |
| MCC-H | <ol style="list-style-type: none"> 1. √TRRJ at -20° gamma 2. DLA (1) - LOCKED |



EVA 3 EGRESS/SETUP (00:15)

| IV | EV1 (FF) | EV2 (FF) |
|---|---|--|
| <p>MCC-H 1. Verify P6 BGAs locked and P6 S-Band Antenna inhibited</p> | <p>Initial Condition: Waist Tether (R) to UIA D-ring</p> <p><u>EGRESS</u></p> <ol style="list-style-type: none"> 1. Hand off P3 Crewlock bag to EV2 2. Attach S0 Safety Tether to D-ring extender (R); verify hook locked 3. Egress A/L w/ P6 crewlock bag 4. √SAFER man isol vlv – open (down) 5. √SAFER HCM – closed (down) 6. Close A/L thermal cover 7. Inspect airlock safety tether 8. Retrieve airlock safety tether <p><u>SETUP</u></p> <ol style="list-style-type: none"> 9. Translate to P6 Long Spacer HH 5312 10. Install airlock safety tether, verify hook locked 11. Tether swap to airlock safety tether; verify hook locked <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;"><u>WARNING</u></p> <p>P6 trunnion pin may exceed touch temperature</p> <p>MISSE 5 does not meet kickload requirements. Avoid contact with payload</p> </div> <ol style="list-style-type: none"> 12. Translate to P6 zenith bulkhead | <p>Initial Condition: Waist Tether (L) to A/L D-ring</p> <p><u>EGRESS</u></p> <ol style="list-style-type: none"> 1. Open A/L thermal cover 2. Egress airlock 3. Inspect S0 safety tethers (2) 4. Attach S0 Safety Tether to D-ring extender (R); verify hook locked 5. √SAFER man isol vlv – open (down) 6. √SAFER HCM – closed (down) 7. Receive P3 Crewlock bag from EV1 8. Stow P3 Crewlock bag on aft side of A/L-HR-0506 9. Release S0 Safety Tether and give to EV1 10. Give EV1 GO for egress 11. Inspect airlock safety tether 12. Retrieve airlock safety tether <p><u>SETUP</u></p> <ol style="list-style-type: none"> 13. Translate to P6 Long Spacer HH 5309 14. Install airlock safety tether, verify hook locked 15. Tether swap to airlock safety tether; verify hook locked <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;"><u>WARNING</u></p> <p>P6 trunnion pin may exceed touch temperature</p> <p>MISSE 5 does not meet kickload requirements. Avoid contact with payload</p> </div> |

P3 CLEANUP (00:45)

| IV | EV1 (FF) | EV2 (FF) |
|----|--|--|
| | <p><u>APFR RELOCATION (12A.1 GET AHEAD)</u></p> <ol style="list-style-type: none"> 1. APFR Reconfigure P4-20 [6,WW,A,10] Nadir/Aft 2. APFR P4-05 to P4-17 [5,RR,J,12] Zenith/Aft <p><u>TRANSLATE TO S0</u></p> <ol style="list-style-type: none"> 3. Retrieve ESC 4. Tool inventory 5. Retrieve P3 Crewlock bag 6. Tether swap to S0 safety tether; verify hook locked 7. Retrieve 85 ft P3 safety tether 8. Translate to S0 port, tether swap to airlock safety tether at S0 HH-3529; verify hook locked 9. Translate to airlock 10. Temp stow ESC 11. Stow P3 Crewlock bag near airlock 12. Install 85 ft safety tether on A/L external D-Ring; verify hook locked 13. Tether swap to 85 ft safety tether; verify hook locked | <p><u>RELEASE IEA MMOD COVER BOLTS</u></p> <ol style="list-style-type: none"> 1. PGT[B7 25.5 ft-lb, CCW1 10 RPM, MTL 30.5]-6 ext 7/16: Unfasten IEA MMOD Cover bolts (4), 1 turn <ul style="list-style-type: none"> <input type="checkbox"/> Bolt #1 <input type="checkbox"/> Bolt #2 <input type="checkbox"/> Bolt #3 <input type="checkbox"/> Bolt #4 <p><u>TRANSLATE TO S0</u></p> <ol style="list-style-type: none"> 2. Tool inventory 3. Tether swap to S0 safety tether; verify hook locked 4. Retrieve 85 ft safety tether 5. Translate to S0 port; tether swap to airlock safety tether at HH-3530; verify hook locked 6. Move safety tether from HH-3530 to HH-3539; verify hook locked 7. Verify safety tether fully retracted 8. Translate to airlock 9. Temp stow 85 ft tether near airlock |

INSTALL SGANT AGIT HEAT SHIELD (00:20)

| IV | EV1 (FF) |
|--|--|
| <p>1. Verify w/MCC-H: Ku band Antenna PARKED in AGIT Heat Shield install position EI = 0 deg, XEL = 0 deg</p> <ul style="list-style-type: none"> <input type="checkbox"/> Autotrack Continuous Retry Inhibited <input type="checkbox"/> TRC PLC reset <input type="checkbox"/> TRC pointing mode inhibited <p>2. Inform MCC-H: When EV1 clear of AGIT</p> | <p>1. Temp stow PGT on P3 Crewlock bag</p> <p>2. Retrieve AGIT Heat Shield and ESC from crewlock bag stowed at airlock toolbox</p> <div style="border: 2px solid black; padding: 5px; margin: 10px 0;"> <p style="text-align: center;"><u>WARNING</u></p> <p>Potential sharp edge ~5 inch long located approx 17 in to 12 in from outboard end of Z1 HR 6061. Avoid contact with this area</p> </div> <p>3. Translate to Z1 port Ku antenna boom HR 6061(long)</p> <p>4. Inspect discolored area near antenna; report condition </p> <p>5. BRT to Ku boom handrail HH 6062</p> <p>6. Install AGIT Heat Shield, secure with 2 quarter turn fasteners </p> <p>7. Take photos of the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> SGANT dish black mark <input type="checkbox"/> SGANT gimbals – silver Teflon tape <input type="checkbox"/> All side of SGTRC Z93 (ORU on KU boom) <input type="checkbox"/> Wave guide on boom between SGTRC and SGANT AGIT where wave guide not covered |

POST EVA 3 TOOL CONFIG

| | | | |
|----|----|----|----------------------------|
| P6 | P3 | S1 | EV 1 |
| | | | MWS |
| | | | BRT (L) |
| | | | RET (eq-eq) |
| | | | Wire Ties (2) |
| | | | T-Bar |
| | | | RET (eq-eq) |
| | | | RET (eq-eq) w/pip pin |
| | | | Adj Equip Tethers (2) |
| | | | Wire Ties (2) |
| | | | Shuttle Small Trash Bag |
| | | | Swing Arm (R) |
| | | | PGT |
| | | | 7/16 (wobble) Socket-6 ext |
| | | | RET (eq-eq) |
| | | | ESC |
| | | | Waist Tether (R) |

| | | |
|----|----|----------------------------|
| P3 | S1 | EV 2 |
| | | MWS |
| | | BRT (L) |
| | | RET (eq-eq) |
| | | Wire Ties (2) |
| | | T-Bar |
| | | RET (eq-eq) |
| | | RET (eq-eq) w/PIP pin |
| | | Adj Equip Tethers (2) |
| | | Wire Tie |
| | | Shuttle Small Trash Bag |
| | | Swing Arm (R) |
| | | PGT |
| | | 7/16 (wobble) Socket-6 ext |
| | | RET (eq-eq) |
| | | Waist Tether (L) |

| | |
|----|----------------------------|
| | AIRLOCK CONFIG |
| | Staging Bag |
| | Fuse Tether |
| | PGT |
| | PGT Battery |
| | PGT Battery |
| | Connector Cleaner Tool Kit |
| | Wire Tie Caddy |
| | WIF Adapter w/PIP pin |
| | RAD |
| | Probe |
| | EVA Scraper |
| | Spare Safety Tethers (2) |
| P3 | P3 Crewlock Bag |
| | Ratchet Wrench |
| | 7/16 (rigid) socket-9 ext |
| | Socket Caddy |
| | 7/16 (wobble) socket-6 ext |
| | 7/16 (rigid) socket-2 ext |

| | |
|----|-------------------------|
| P6 | A/L |
| | P6 Crewlock Bag |
| | ISS GP Caddy |
| | IV Adjustable Wrench |
| | AGIT Heat Shield |

| |
|---------------------------------|
| A/L |
| MISSE 5 w/Clamp |
| 85 ft safety tethers (2) |

| |
|-----------------------------|
| Lab |
| EWIS Large ORU Transfer Bag |
| Fuse Tether |
| MMOD Tools (2) |
| Small ISS Trash Bag |

| | |
|----|------------------------------------|
| S1 | Med ORU Transfer Bag |
| | Old BSP |
| | Protective Cover |
| | RET |
| | Old XPDR |
| | Protective Cover |
| | RET |
| | MUT-MUT (on outside of bag) |
| | Adj Equip Tether |

| |
|------------------------|
| IR Camera Crewlock Bag |
| IR Camera |
| EHIP Battery |

AIRLOCK EXTERIOR

| | |
|----------------|-------------------------|
| A/L TOOLBOX #1 | APFR [12,MM][9,MM,F,12] |
| Safety Tether | - HH 0506 |
| Safety Tether | - HH 0506 |

S0 TRUSS

| | |
|---------------|--------------|
| Safety Tether | - S0 HH 3529 |
| Safety Tether | - S0 HH 3539 |

Z1 TRUSS

| | |
|------------------|-----------------|
| APFR w/AIA Z1-11 | [2,TT,H,11] |
| IAPFR Z1-01 | [12, PP, F, 12] |

P4 TRUSS

| | |
|------------|-------------|
| APFR P4-20 | [6,WW,A,10] |
| APFR P4-17 | [5,RR,J,12] |

Highlight indicates location change during EVA

IR CAMERA GET AHEADS

| IV | EV1 OR EV2 (FF) | |
|--|---|--|
| <p>A. Trailing EEATCS: Camera Time: _____ Start Time: _____ Stop Time: _____</p> <p>B. STBD EEATCS: Camera Time: _____ Start Time: _____ Stop Time: _____</p> <p>C. P4 PVTCS Radiator: Camera Time: _____ Start Time: _____ Stop Time: _____</p> <p>D. P6 PVTCS Radiator: Camera Time: _____ Start Time: _____ Stop Time: _____</p> <p>E. Deep space, Earth, or IR Camera RCU: Camera Time: _____ Start Time: _____ Stop Time: _____</p> | <p style="text-align: center;"><u>Record movies of the following objectives, using procedures on FS 7-87:</u></p> <p><input type="checkbox"/> A. Trailing EEATCS Radiator (pan along either side of the radiator length w/ ½ the radiator in view, outermost 3 panels are most desirable)</p> <p><input type="checkbox"/> B. STBD EEATCS Radiator (pan along either side of the radiator length w/ ½ the radiator in view)</p> <p><input type="checkbox"/> C. P4 PVTCS Radiator (just deployed)</p> <p><input type="checkbox"/> D. P6 PVTCS Radiator (pan along either side of the radiator length w/ ½ the radiator in view, outermost 3 panels are most desirable)</p> <p><input type="checkbox"/> E. Deep space, Earth, or IR Camera RCU – ~30-sec</p> | |

EWIS ANTENNA INSTALLATION (01:30)

| IV | EV1 (FF) | EV2 (FF) | | | | | | | | | | | | | | | | | | |
|--|----------------|----------|--|------|-------|--------|--------------|--|--|--------------|--|--|--------------|--|--|--------------|--|--|---|--|
| <p>IV 1. Notify MCC-H when ready to reconfigure ISS SSSR (UHF) Big Loop communication</p> <p>MCC-H 2. Deactivate SSSR (UHF)</p> <p>MCC-H 3. Ground controllers will "TIE" A/G #1 and S/G #1 in MCC</p> <p>NOTE: ICOM A is the only voice comm between the shuttle and ISS</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th colspan="3" style="text-align: center;">EWIS Handrails</th> </tr> <tr> <th style="text-align: center;">Bolt</th> <th style="text-align: center;">Turns</th> <th style="text-align: center;">Torque</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">HH 0298 stbd</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">HH 0298 port</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">HH 0297 stbd</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">HH 0297 port</td> <td></td> <td></td> </tr> </tbody> </table> | EWIS Handrails | | | Bolt | Turns | Torque | HH 0298 stbd | | | HH 0298 port | | | HH 0297 stbd | | | HH 0297 port | | | <ol style="list-style-type: none"> 1. Retrieve EWIS bag from airlock 2. Translate to Lab forward end cone OIH 0278; fairlead on Lab 0219 with adjustable tether 3. Stow EWIS bag between Lab HH 0206/0207 and 0266 <p><u>INSTALL EWIS OIH ANTENNA OIH</u></p> <ol style="list-style-type: none"> 4. Retrieve ANT 11 (OIH 0298) 5. Translate to Lab OIH 0278 6. Attach BRT and rigidize 7. PGT[B1 12.0 ft-lb, CCW2 30 RPM, MTL 30.5]-6 ext 7/16: Release OIH 0278 fasteners (2) (8 turns) 8. Install EWIS LAB OIH ANT 11 (HH 0298), antenna pointing nadir 9. PGT[A2 3.8 ft-lb, CW2 30 RPM, MTL 30.5]-6 ext 7/16: Install EWIS OIH ANT 11 fasteners (2) (8 turns) 10. Stow OIH 0278 in EWIS bag 11. Retrieve ANT 12 (OIH 0297) 12. Translate to Lab OIH 0276 13. Attach BRT and rigidize 14. PGT[B1 12.0 ft-lb, CCW2 30 RPM, MTL 30.5]-6 ext 7/16: Release OIH 0276 fasteners (2) (8 turns) 15. Install EWIS LAB OIH ANT 12 HH (0297), antenna pointing nadir 16. PGT[A2 3.8 ft-lb, CW2 30 RPM, MTL 30.5]-6 ext 7/16: Install EWIS LAB OIH ANT 12 (HH 0297) fasteners (2) (8 turns) 17. Remove caps from ANT 12 J1 and ANT 11 J1 18. Stow OIH 0276 in EWIS bag 19. Stow caps in ISS trash bag <p><u>ROUTE CABLE TO ANTENNAS</u></p> <ol style="list-style-type: none"> 20. Retrieve EWIS cable P2; release wire ties as required 21. Remove cap from EWIS cable P2; stow in ISS trash bag 22. Translate to EWIS LAB OIH ANT 12 with P2 23. Mate EWIS cable P2 to ANT 12 J1 24. Route cable to ANT 11; wire tie as required 25. Remove remaining caps (3) from EWIS cable; stow in ISS trash bag | |
| EWIS Handrails | | | | | | | | | | | | | | | | | | | | |
| Bolt | Turns | Torque | | | | | | | | | | | | | | | | | | |
| HH 0298 stbd | | | | | | | | | | | | | | | | | | | | |
| HH 0298 port | | | | | | | | | | | | | | | | | | | | |
| HH 0297 stbd | | | | | | | | | | | | | | | | | | | | |
| HH 0297 port | | | | | | | | | | | | | | | | | | | | |

EWIS ANTENNA INSTALLATION (01:30) (Cont)

| IV | EV1 (FF) | EV2 (FF) |
|---|---|---|
| <p>WHEN EWIS CONNECTOR MATES COMPLETE:</p> <p>MCC-H 4. Ground controllers will "Break the TIE" of A/G #1 and S/G #1 in MCC</p> <p>MCC-H 5. Activate SSSR (UHF)</p> <p><u>NOTE:</u> BIG LOOP COMM IS VIA UHF</p> | <p><u>MATE EWIS CABLE TO LAB</u></p> <p>26. Attach MMOD T-handle tool to shield</p> <p>27. BRT to Lab HH 0206</p> <p>28. Remove MMOD shield using MMOD T-handle tool and temp stow</p> <p>29. Re-install MMOD shield</p> <p>30. Install MMOD shield center fastener</p> <p>31. Install remaining MMOD shield fasteners</p> <p>32. Inventory EWIS ORU bag</p> <p>33. Retrieve EWIS bag; translate to airlock</p> <p>34. Stow EWIS bag</p> | <p><u>MATE EWIS CABLE TO LAB</u></p> <p>1. Assist EV1 with removal of MMOD shield using MMOD T-handle tool</p> <p>2. Release MLI fastener and peel back MLI to expose electrical connector P16</p> <p>3. ON MCC-H GO – Demate Lab P16 connector from Lab J16</p> <p>4. Mate P16A to J16</p> <p>5. Mate J16A to P16</p> <p>6. Feed cable to MMOD shield exit point</p> <p>7. Re-install MLI and MLI fastener</p> <p>8. Mate EWIS cable P1 to ANT11 J1</p> |

FD6 MMT Crew Summary

The main topic of discussion at today's MMT was the work performed overnight by the ISS team to recover SARJ DLA-2. Thanks to some hard work from the ground and the crew, we are back on the nominal timeline and ready to support EVA 3. Several items were reviewed by the MMT, such as the standard post-launch ascent assessments, the best estimate of the relative motion of the bolts that went overboard during the EVAs, and some minor anomaly resolutions. Also, the MMT gave formal direction to the ops team to execute the planned flyaround. There are no requirements at this time to insert an extra docked day and undock is still planned for FD9.

SARJ DLA-2 - There were multiple instances of string 2 DLA-2 tooth crashes during the SARJ checkout activity. After multiple recovery attempts, the ISS ground team successfully engaged the DLA-2 by commanding directly to a lower tier MDM and running a malfunction procedure that reset the SARJ position in the software. This workaround obviously prevented many undesirable downstream timeline/assembly impacts. Both the Shuttle and the Station Programs were very impressed with the innovative work done by the ground team to resolve this issue in a timely fashion.

Overboard Bolt Relative Motion- Although there is no available tracking to confirm the location of the two bolts that were lost overboard during EVAs 1 and 2, analysis has shown the bolts will be phasing in front of the mated stack and are not a concern. An average drag estimate places both bolts below and in front of the mated stack by at least 10 nmi at an MET of 5/07:00. A range of drag and separation velocities were analyzed to arrive at this conclusion and this issue is now considered to be closed.

Ku-Band Antenna Slew - During the P3/P4 unberth, the Ku-Band antenna failed to slew to the designated GPC angles. This anomaly is now resolved. The problem was caused by the MCA Logic switch configurations that were implemented into the unberthing procedure to protect against an inadvertent OBSS release. The same MCA Logic power provides the Ku electronics assembly with a deploy discrete. When the electronics assembly did not detect the deploy discrete, it moded to an idle configuration per the design.

Flyaround - There are acceptable propellant margins to support a one lap flyaround at 600 ft per the trained procedures. Based on available analysis, the only acceptable configuration for the flyaround is with the OBSS berthed.

Several Shuttle Program elements brought in their post-launch ascent assessments. The following is a summary of their reports:

SRB/RSRM - There were no hardware issues to report during Open Assessment based on engineering evaluation criteria and previous flight experience. There were zero RSRM squawks, 7 SRB squawks, and zero In Flight Anomalies noted to date. A "dark puff" at the beginning of motor tailoff was noted in the RSRM plume during imagery analysis. This "puff" coincides with a nozzle vectoring event and has been seen in previous flights. Experts conclude this is not an issue.

MSG 082 (13-1233) - FD06 MMT SUMMARY

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1 **Pad and MLP** - With the exception of an MLP smoke detection system issue, there were no
2 significant issues to report. At T-0, numerous smoke detectors in numerous compartments
3 of the MLP transitioned to "ON". Reset attempts of the detectors did not clear and prompted
4 KSC personnel to release Halon into the affected MLP compartments. Fire crew inspections
5 revealed no presence of an actual fire. Subsequent investigations showed an incorrect
6 smoke detector configuration as the culprit.

7
8 **ET** - All systems were nominal except for the LH2 liquid level sensor #3 that failed wet on
9 the first launch attempt and an LO2 Cable Tray accelerometer instrumentation anomaly,
10 which is still under investigation. The preliminary TPS loss assessment indicates that foam
11 loss events were within programmatic specifications (NSTS 060559).

12
13 **SSME** - The performance on all three of the main engines was characterized as nominal.
14 The preliminary Isp reconstruction of 452.7 seconds correlates well with the ground-based
15 performance tag of 452.0 seconds. There was a noisy signal that was observed on the
16 center main engine HPFTP speed channel B beginning ~250 sec after main engine start.
17 This measurement is used as a part of the ignition confirmation redline during the start
18 transient, but is not used during mainstage. A potential In Flight Anomaly may follow.

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