STS-118 / 13A.1

FD 07 Execute Package

MSG	Page(s)	Title
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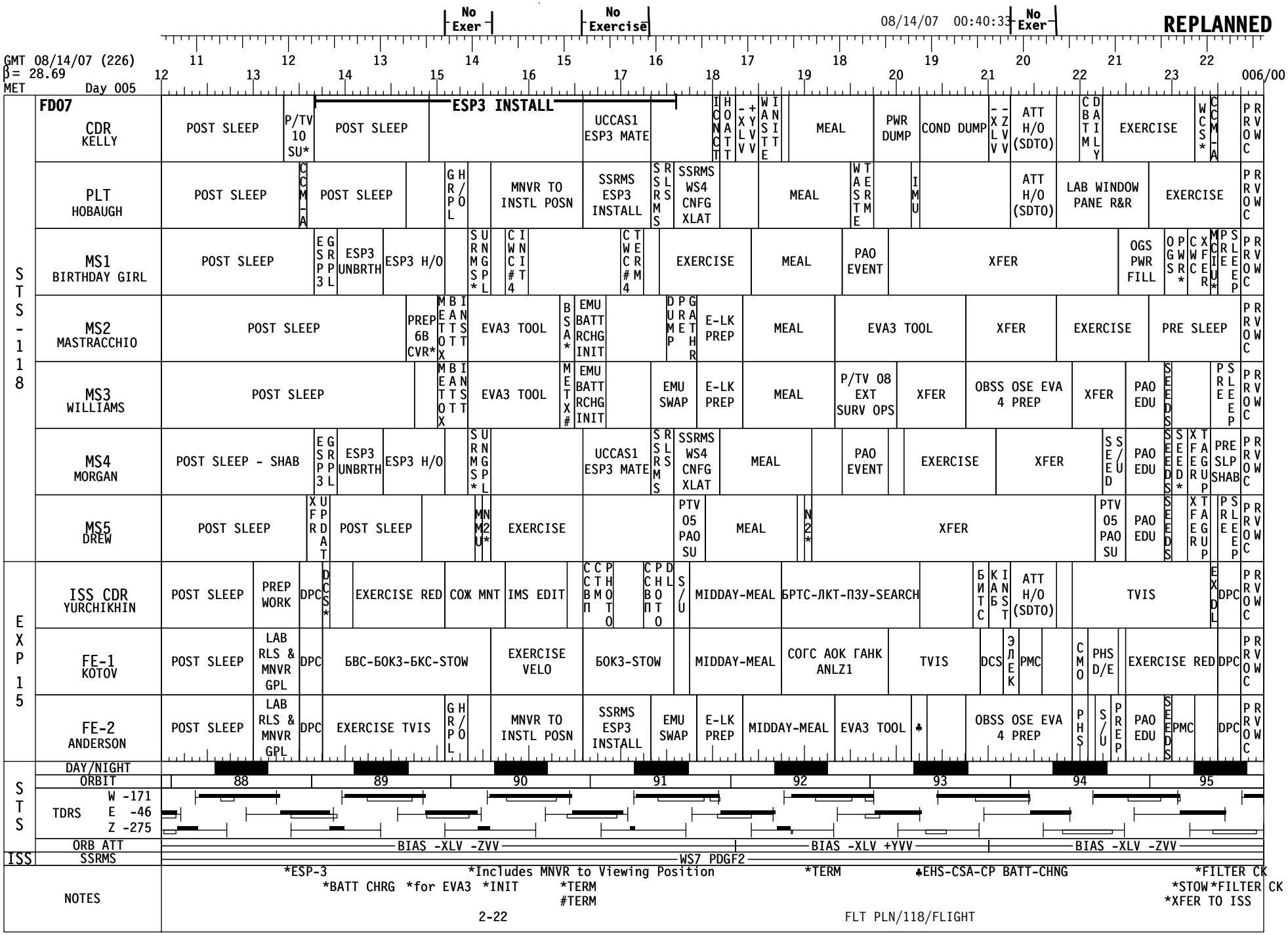
059B	3 - 14	FD07 Flight Plan Revision **(pdf)**
060A	15 - 17	FD07 Mission Summary **(pdf)**
061	18 - 20	FD07 Transfer Message **(pdf)**
062	---	FD06 MMT Summary **(pdf)**
063	---	FD07 PAO Event Summary **(pdf - Electronic Only)**
064	21 - 22	EVA 3 Pen and Ink Changes **(pdf)**
065	---	Dump Pregather and Details **(pdf - Electronic Only)**
056	23 - 29	3.2.502 LAB Window Scratch Pane Assembly R&R **(pdf)**

Approved by FAO: *Roger Smith*

Last Updated: Aug 14 2007 9:35AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*



No Exer
No Exercise
08/14/07 00:40:33
No Exer
REPLANNED
GMT 08/14/07 (226)
β= 28.69
MET Day 005
11 12 13 14 15 16 17 18 19 20 21 22
12 13 14 15 16 17 18 19 20 21 22 23 006/00
FD07
STS-118
CDR KELLY
POST SLEEP
P/TV 10 SU*
POST SLEEP
ESP3 INSTALL
UCCAS1 ESP3 MATE
ICNCT
HOATT
-XLV
+YVV
WASTE
INIT
MEAL
PWR DUMP
COND DUMP
-XLV
-ZVV
ATT H/O (SDTO)
CBTM
DAILY
EXERCISE
WCS*
CCM-A
PROC
RVW
PLT HOBAUGH
POST SLEEP
CCM-A
POST SLEEP
GRPL
H/O
MNVR TO INSTL POSN
SSRMS ESP3 INSTALL
SSRMS
RLS
SSRMS WS4 CNFG XLAT
MEAL
WASTE
TERM
IMU
ATT H/O (SDTO)
LAB WINDOW PANE R&R
EXERCISE
PROC
RVW
MS1 BIRTHDAY GIRL
POST SLEEP
ESP3
GRPL
ESP3 UNBRTH
ESP3 H/O
SRMS*
UNGPL
CWC#4
INIT
CWC#4
TERM
EXERCISE
MEAL
PAO EVENT
XFER
OGS PWR FILL
OGS
PWR*
CWC
XFER
MCIU*
PRE
SLEEP
PROC
RVW
MS2 MASTRACCHIO
POST SLEEP
PREP 6B CVR*
METOX
BATT
INST
EVA3 TOOL
BSA*
EMU BATT RCHG INIT
DUMP
PRE
GATHR
E-LK PREP
MEAL
EVA3 TOOL
XFER
EXERCISE
PRE SLEEP
PROC
RVW
MS3 WILLIAMS
POST SLEEP
METOX
BATT
INST
EVA3 TOOL
METX#
EMU BATT RCHG INIT
EMU SWAP
E-LK PREP
MEAL
P/TV 08 EXT SURV OPS
XFER
OBSS OSE EVA 4 PREP
XFER
PAO EDU
SEEDS
PRE
SLEEP
PROC
RVW
MS4 MORGAN
POST SLEEP - SHAB
ESP3
GRPL
ESP3 UNBRTH
ESP3 H/O
SRMS*
UNGPL
UCCAS1 ESP3 MATE
SSRMS
RLS
SSRMS WS4 CNFG XLAT
MEAL
PAO EVENT
EXERCISE
XFER
SEED
S/U
PAO EDU
SEEDS
SEED*
XFER
TAGUP
PRE SLP SHAB
PROC
RVW
MS5 DREW
POST SLEEP
XFR
UPDAT
POST SLEEP
MMU
MN2*
EXERCISE
PTV 05 PAO SU
MEAL
N2*
XFER
PTV 05 PAO SU
PAO EDU
SEEDS
XFER
TAGUP
PRE
SLEEP
PROC
RVW
EXP 15
ISS CDR YURCHIKHIN
POST SLEEP
PREP WORK
DPC
DCS*
EXERCISE RED
СОЖ MNT
IMS EDIT
CCBП
CTM
PHOTO
CCBП
PHOTO
DL
S/U
MIDDAY-MEAL
БРТС-ЛКТ-ПЗУ-SEARCH
БИТС
КАБ
INST
ATT H/O (SDTO)
TVIS
EXDL
DPC
PROC
RVW
FE-1 KOTOV
POST SLEEP
LAB RLS & MNVR GPL
DPC
БВС-БОКЗ-БКС-STOW
EXERCISE VELO
БОКЗ-STOW
MIDDAY-MEAL
СОГС АОК ГАНК ANLZ1
TVIS
DCS
ЭЛЕК
PMC
CMO
PHS D/E
EXERCISE RED
DPC
PROC
RVW
FE-2 ANDERSON
POST SLEEP
LAB RLS & MNVR GPL
DPC
EXERCISE TVIS
GRPL
H/O
MNVR TO INSTL POSN
SSRMS ESP3 INSTALL
EMU SWAP
E-LK PREP
MIDDAY-MEAL
EVA3 TOOL
♣
OBSS OSE EVA 4 PREP
PHS
S/U
PREP
PAO EDU
SEEDS
PMC
DPC
PROC
RVW
STS
DAY/NIGHT
ORBIT
88 89 90 91 92 93 94 95
TDRS W -171 E -46 Z -275
ORB ATT
BIAS -XLV -ZVV
BIAS -XLV +YVV
BIAS -XLV -ZVV
ISS
SSRMS
WS7 PDGF2
NOTES
*ESP-3
*BATT CHRG
*for EVA3
*Includes MNVR to Viewing Position
*INIT
*TERM
#TERM
*TERM
♣EHS-CSA-CP BATT-CHNG
*FILTER CK
*STOW
*FILTER CK
*XFER TO ISS

08/14/07 00:40:33 **REPLANNED**

GMT 08/14/07 (226) 23 08/15 01 02 03 04 05 06 07 08 09 10
β = 26.22 006/00 01 02 03 04 05 06 07 08 09 10 11 12
MET Day 006

STS-118	FD07 CDR KELLY	PROC RVW	PRE SLEEP	PMC OCA	PRE SLEEP	SLEEP							FD08 POST SLEEP ♣	
	PLT HOBAUGH	PROC RVW	PRE SLEEP			SLEEP							LOG	POST SLEEP
	MS1 BIRTHDAY GIRL	PROC RVW	PRE SLEEP			SLEEP							SLVA LOG	POST SLEEP
	MS2 MASTRACCHIO	PROC RVW	PRE SLEEP	MASK PB/TOOL CONFIG (10.2 DPRS)	PRE SLEEP	SLEEP — ISS A/L CAMPOUT @ 10.2 psi								POST SLEEP
	MS3 WILLIAMS	PROC RVW	EXERCISE	PRE SLEEP		SLEEP							SLVA LOG	POST SLEEP
	MS4 MORGAN	PROC RVW	XFER BREF	PRE SLEEP - SHAB		SLEEP							SLVA	POST SLEEP - SHAB
	MS5 DREW	PROC RVW	PRE SLEEP			SLEEP								POST SLEEP
EXP 15	ISS CDR YURCHIKHIN	PROC RVW	PMC	PRE SLEEP		SLEEP (8.5)								POST SLEEP
	FE-1 KOTOV	PROC RVW	PROEP WORK	PRE SLEEP		SLEEP (8.5)								POST SLEEP
	FE-2 ANDERSON	PROC RVW	PRE SLEEP	MASK PB/TOOL CONFIG (10.2 DPRS)		SLEEP (8.5) — ISS A/L CAMPOUT @ 10.2 psi								POST SLEEP
STS	DAY/NIGHT													
	ORBIT	95	96	97	98	99	100	101	102	103				
	TDRS W -171													
	TDRS E -46													
	TDRS Z -275													
	ORB ATT	BIAS -XLV -ZVV												
ISS	SSRMS	WS7 PDGF2	MT XLATE TO WS4	WS4 PDGF2										
	NOTES													

♣PMC A/G

MSG INDEX

MSG NO.	TITLE
056	3.2.502 LAB Window Scratch Pane Assembly R&R
058	FD07 Summary Timeline
059	FD07 Flight Plan Revision
060	FD07 Mission Summary
061	FD07 Transfer Message
062	FD06 MMT Summary
063	FD07 PAO Event Summary
064	EVA 3 Pen and Ink Changes
065	Dump Pregather and Details

1. For today's cryo config, H2 Tanks 2 and 5 will be active with dual heaters, and O2 Tank 2 will be active using manual heater ops (single heater). Reference Message 032 for O2 Tank 2 manual heater operations (MCC will TMBU O2 Tank 2 pressure limits).

   R1 CRYO H2 MANF VLV TK2 - OP (tb-OP)
   O2 MANF VLV TK1 - OP (tb-OP)
   TK1 HTRS A, B (two) - OFF
   TK2 HTRS A - ON

   A15 CRYO TK5 HTRS O2 A - OFF

2. Once SSRMS grapple of the ESP3 is complete, you can power the EBCS camera on the Prime string. This will correspond to the left camera. Additionally, a reminder that the release of the ESP3 is an Auto release, so you will need to back off of the grapple fixture while the carriage is extending.

3. There are no SPACEHAB viewport violations for FD07.

4. The table below summarizes the Shuttle and ISS exercise constraints for today. These constraints are also noted in your timelines for your reference.

Activity	Exercise Constraints	
	Shuttle	ISS
ESP-3 HANDOFF	No exercise while both arms are grappled to ESP-3.	No exercise while both arms are grappled to ESP-3.
ESP-3 INSTALL	No exercise during ESP-3 mate.	No exercise during ESP-3 mate.
ATTITUDE HANDOVER DTO	No exercise during Attitude Handover DTO.	No exercise during Attitude Handover DTO.

5. Make the following permanent change to N2 REPRESS USING PAYLOAD N2 VLVS (ORB OPS, ECLS) procedure:

   step 8 was: O2 REG INLET SYS 1(2) - OP

   step 8 is: O2 REG INLET SYS 1 - OP
   √ SYS 2 – CL

6. At your convenience please call down to MCC the serial numbers of the range LAN card that failed on FD02 and the 3com card that failed on FD03.

7. Data for variables in crew procedure 1.902 UCCAS NORMAL MATE.

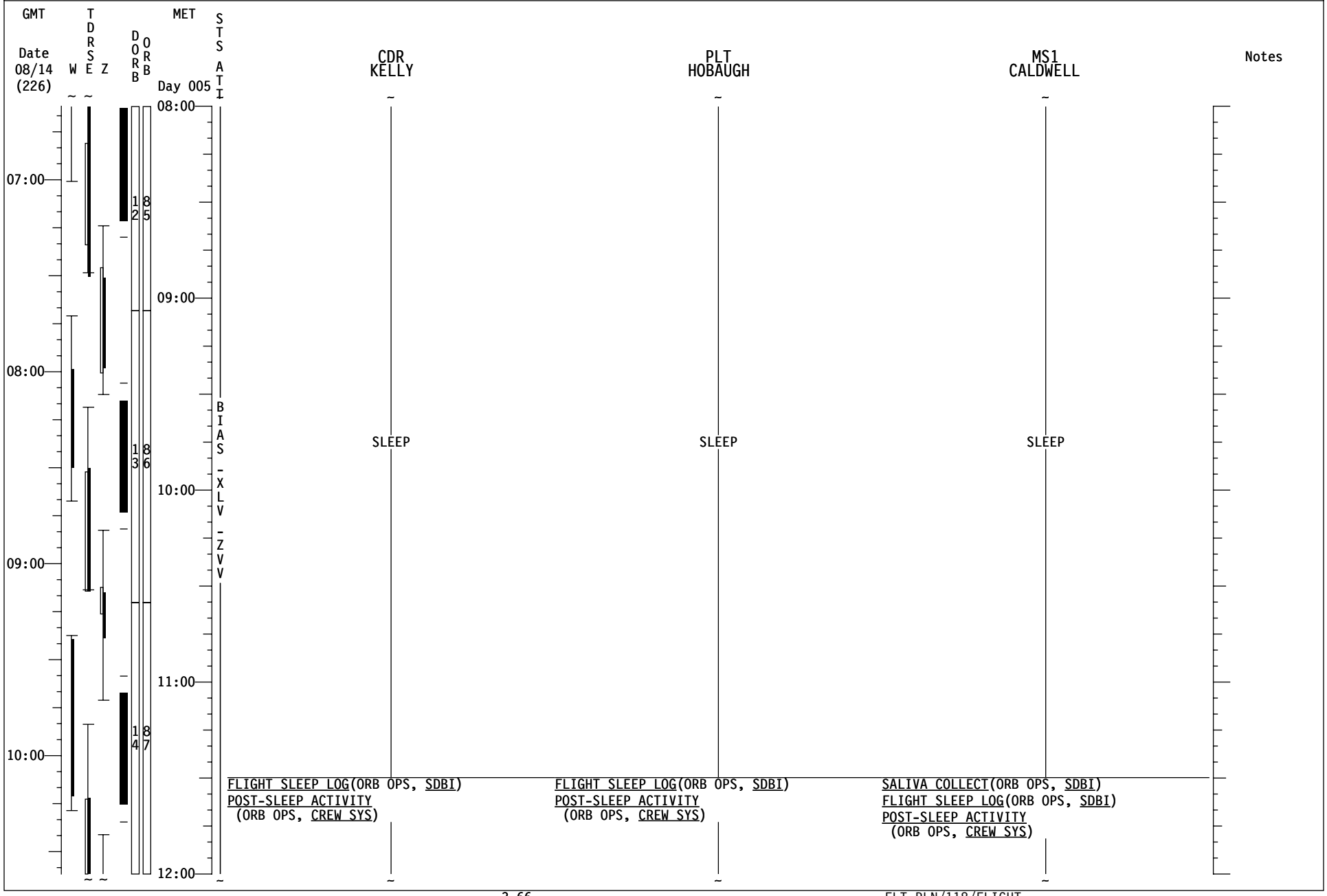
   UCCAS [N] = 1
   Latch IMCA [A] = 1
   Latch RPC [Y] = P31A A RPC 12
   UMA IMCA [B] = 1
   UMA RPC [Z] = P31A A RPC 10
   Payload RPC [W] = P34B E RPC 01
   Safing Cmds PPL ID [D] = 6002
   Safing Default PPL ID [E] = 6002
   Initframe PPL ID [H] = 00010
   1st Stage RPM = 450 rpm
   2nd Stage RPM = 450 rpm

8. We have uplinked another QuickTime video to the ISS SSCs. This is a composite view of the LCS data gathered during Focused Inspection. The new video is located in U:\Temp\STS-118_Tile_Spray_Videos with the file name "STS-118_OBSS-ISIS_Sensor_Status_(Siekierski).mov".

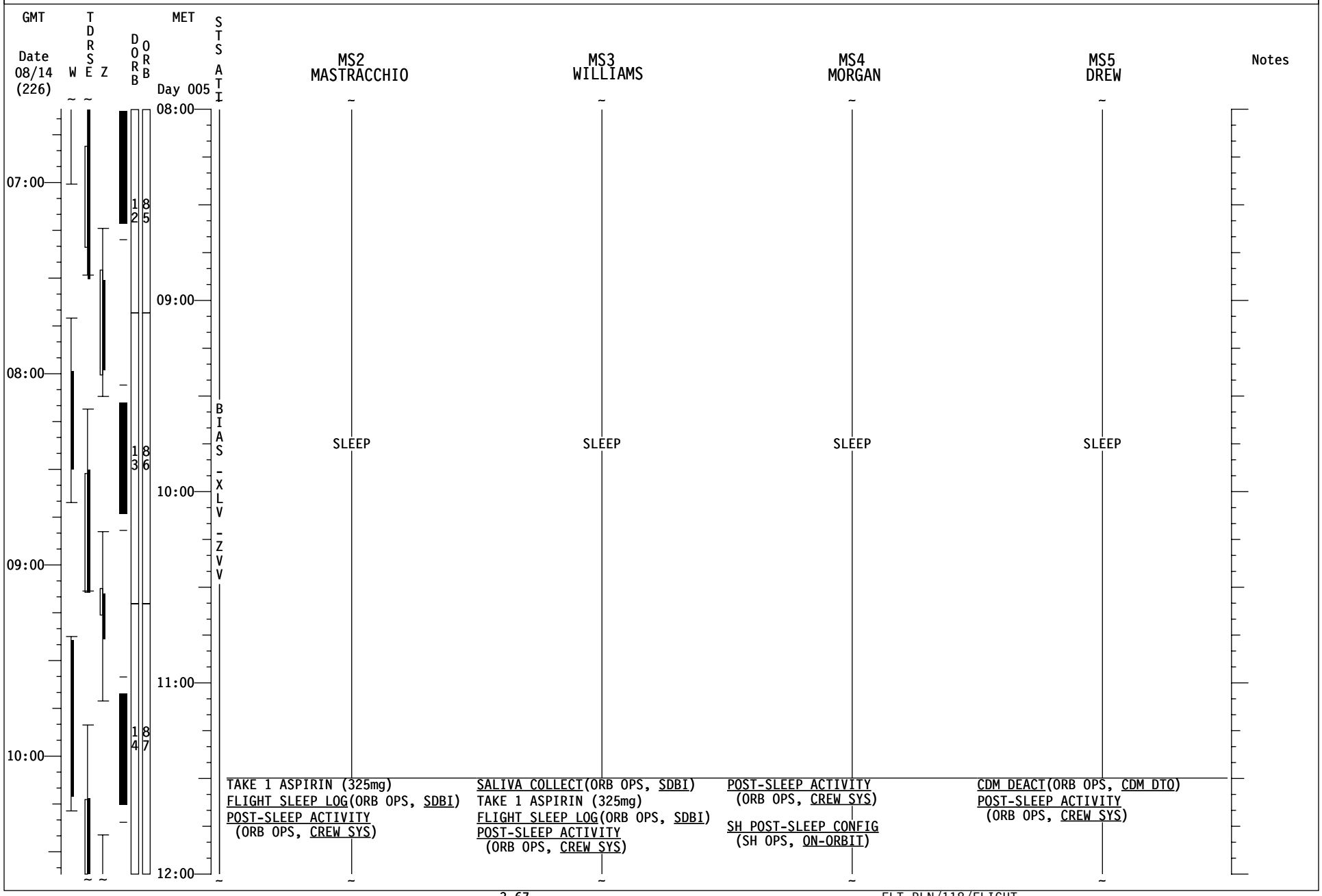
9. For the Attitude Handover SDTO, Draper analysis of the post-docking maneuver indicates you can expect minimal freeplay effects during the manual rate damping. Additionally, MCC will be providing updates to the desired UNIV PTG rates before you get into the procedure.

10. REPLACE PAGES 2-22, 2-24 AND 3-66 THROUGH 3-75.

STS-118 FD07


GMT
Date 08/14 (226)
W
TDRSE
Z
DORB
ORB
MET
Day 005
STS ATI
CDR KELLY
PLT HOBAUGH
MS1 CALDWELL
Notes
07:00
08:00
09:00
10:00
08:00
09:00
10:00
11:00
12:00
1 2 8 5
1 3 8 6
1 4 8 7
BIAS - XLV - ZVV
SLEEP
SLEEP
SLEEP
FLIGHT SLEEP LOG(ORB OPS, SDBI)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
FLIGHT SLEEP LOG(ORB OPS, SDBI)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
SALIVA COLLECT(ORB OPS, SDBI)
FLIGHT SLEEP LOG(ORB OPS, SDBI)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

STS-118 FD07


GMT
Date 08/14 (226)
W
TDRSE
Z
DORB
ORB
MET
Day 005
STS ATI
BIAS-XLV-ZVV
07:00
08:00
09:00
10:00
08:00
09:00
10:00
11:00
12:00
125
136
147
85
86
87
MS2 MASTRACCHIO
MS3 WILLIAMS
MS4 MORGAN
MS5 DREW
Notes
SLEEP
SLEEP
SLEEP
SLEEP
TAKE 1 ASPIRIN (325mg)
FLIGHT SLEEP LOG(ORB OPS, SDBI)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
SALIVA COLLECT(ORB OPS, SDBI)
TAKE 1 ASPIRIN (325mg)
FLIGHT SLEEP LOG(ORB OPS, SDBI)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
SH POST-SLEEP CONFIG
(SH OPS, ON-ORBIT)
CDM DEACT(ORB OPS, CDM DTO)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

STS-118 FD07

GMT Date 08/14 (226) | W | TDRSE | Z | DORB | ORB | MET Day 005 | STS ATI | CDR KELLY | PLT HOBAUGH | MS1 CALDWELL | MS5 DREW | Notes

11:00 12:00 13:00 14:00 15:00 16:00

FD07 EZ ACTIVITES
Wish Tracy a very Happy Birthday!
TEPC(STATUS CHECK)
(ORB OPS, CREW SYS)Step A6
OCAC Filter Inspect
Hard Reboot PGSC (Except WLES & WORLDMAP)

CDR KELLY
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
P/TV10 ESP3 UNBERTH,INSTALL
(P/TV, SCENES) SETUP
Note: ROBO drives OPS
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PLT HOBAUGH
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
CCM-A STATUS CK(PL OPS, CCM-A)
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
ROBO: 1.410 SSRMS ESP3 HANDOFF
Steps 1-4, Grapple
MSG 059, Item 2
ROBO: 1.420 SSRMS ESP3 INSTALL
Steps 1-5, Maneuver to Install

MS1 CALDWELL
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
ESP-3 GRAPPLE
(PDRS, NOMINAL ESP-3 OPS)
ESP-3 UNBERTH
(PDRS, NOMINAL ESP-3 OPS)
ESP-3 HANDOFF
(PDRS, NOMINAL ESP-3 OPS)
ESP-3 UNGRAPPLE
(PDRS, NOMINAL ESP-3 OPS)
Ungrapple & Mnvr to Viewing
STS/ISS H2O CNTR FILL
(ORB OPS,ECLS)Init CWC FILL#4
Duration ~54min, Ref. MSG 053

MS5 DREW
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
DAILY TRANSFER LIST UPDATE
Ref. MSG 061
POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
R13L MMU GN2 SPLY ISOL VLV A-CL(tb-CL)
N2 RPRS USING P/L N2 VLV
(ORB OPS,ECLS) Steps 1-6
MCC will TMBU SM limits
EXERCISE

Notes
NO EXERCISE DURING ESP-3 H/O

STS-118 FD07

GMT Date 08/14 (226) | W | TDRSE | Z | DORB | ORB | MET Day 005 | STS ATI

12:00 – 16:00

11:00 – 14:00

15 88 – 15 89 – 2 90

BIAS - XLV - ZVV

MS2 MASTRACCHIO

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE EVA3 TOOL CNFG(EVA,TIMELINES)
Ref. ISS EVA Task
Checklist 1.220.125 for
6B Cover Installation on ORUs

EVA SYS: 1.515 EMU METOX/LIOH/
BATTERY REPLACEMENT

PRE EVA 3 TOOL CONFIG
(EVA, TIMELINES)

MS3 WILLIAMS

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA SYS: 1.515 EMU METOX/LIOH/
BATTERY REPLACEMENT

PRE EVA 3 TOOL CONFIG
(EVA, TIMELINES)

MS4 MORGAN

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SH POST-SLEEP CONFIG
(SH OPS, ON-ORBIT)

ESP-3 GRAPPLE
(PDRS, NOMINAL ESP-3 OPS)

ESP-3 UNBERTH
(PDRS, NOMINAL ESP-3 OPS)

ESP-3 HANDOFF
(PDRS, NOMINAL ESP-3 OPS)

ESP-3 UNGRAPPLE
(PDRS, NOMINAL ESP-3 OPS)
Ungrapple & Mnvr to Viewing

FE-2 ANDERSON

POST SLEEP

ROBO: 1.400 SSRMS WALKOFF LAB PDGF TO PDGF 2
Steps 6-10, LAB PDGF Release
& Mnvr to ESP3 Pre-Grapple

DAILY PLANNING CONFERENCE

EXERCISE-TVIS

ROBO: 1.410 SSRMS ESP3 HANDOFF
Steps 1-4, Grapple
MSG 059, Item 2

ROBO: 1.420 SSRMS ESP3 INSTALL
Steps 1-5, Maneuver to Install

Notes

NO EXERCISE DURING ESP-3 H/O

STS-118 FD07

GMT Date 08/14 (226) | W | TDRSE | Z | DORB | ORB | MET Day 005 | STS ATT

16:00 15:00 17:00 16:00 18:00 17:00 19:00 18:00 20:00

BIAS -XLV -ZVV

BIAS -XLV +YVV

CDR KELLY

S&M: 1.902 UCCAS NORMAL MATE
Steps 6-17
Ref. MSG 059, Item 7

I'CNCT: L OMS TO RCS (ORB PKT, RCS)
JNT OPS: 3.110 H/O ATT CNTL
CMG TA TO ORBITER
MNVR (TRK)BIAS -XLV, +YVV (SIMO DUMP)
TG=2 BV=5 P=157 Y=0 OM=193
A12/AUTO/VERN Init TRK [A]

SUPPLY/WASTE WATER DUMP
(ORB OPS, ECLS)Ref. MSG 053 & 065
Initiate Waste Dump

MEAL

PWR DUMP-SUPPLY LINE
(ORB OPS,ECLS)Ref. MSG 053 & 065
Dump S/N 1013,1023,1005,& 2002

PLT HOBAUGH

ROBO: 1.420 SSRMS ESP3 INSTALL
Steps 1-5, Maneuver to Install

ROBO: 1.420 SSRMS ESP3 INSTALL
Step 6, Install

ROBO: 1.420 SSRMS ESP3 INSTALL
Step 7-8, Release and Backoff
Ref. MSG 059, Item 2

ROBO: 1.430 SSRMS ESP3 MANEUVER
FOR TRANSLATE TO WS4
√MCC for KU Protect Box Uplink

[A] When in ATT & jet activity stops:
A12/FREE/VERN
LOAD DAP A15, wait 30 sec.
A15/AUTO/VERN

MEAL

SUPPLY/WASTE WATER DUMP
(ORB OPS, ECLS)Ref. MSG 053 & 065
Terminate Waste Dump

MS1 CALDWELL

STS/ISS H2O CNTR FILL
(ORB OPS, ECLS)Term CWC Fill#4
Ref MSG 053

EXERCISE

MEAL

PUBLIC AFFAIRS EVENT
ISS KU TDRS: 19:25-19:55
Ref. MSG 063

TRANSFER
Ref. Transfer List & MSG 061

MS5 DREW

EXERCISE

P/TV05 ISS INTERNAL OPS
(P/TV, SCENES)
PAO EVENT SETUP

MEAL

N2 REPRESS USING P/L N2 VALVES
(ORB OPS, ECLS) Steps 7-12
Ref. MSG 059, Item 5
MCC will TMBU SM limits

TRANSFER
Ref MDDK Xfer List: Items 43,716
SH Xfer List: Items 632, 131-131.2, 132.1, 133, 133.1, 135, 142-144, 147, 149, 607-609, 639, 640, 730, 747, 173-175, 177, 179-180, 104, 108, 112, 112.1

Ref. MSG 061

Notes

NO EXERCISE DURING ESP-3 MATE

UPLINK
β21 Only
Box C2,D16, D17,R1

UPDATE
H2O WASTE DUMP QTY

STS-118 FD07

GMT Date 08/14 (226) | W E Z | DORB 2 3 4 5 | ORB 90 91 92 93 | MET Day 005

STS ATI: BIAS-XLV-ZVV; BIAS-XLV+YVV

MS2 MASTRACCHIO	MS3 WILLIAMS	MS4 MORGAN	FE-2 ANDERSON	Notes
PRE EVA 3 TOOL CONFIG (EVA, TIMELINES)	PRE EVA 3 TOOL CONFIG (EVA, TIMELINES)		ROBO: 1.420 SSRMS ESP3 INSTALL Steps 1-5, Maneuver to Install	
EVA SYS: 1.605 BSA BATT RECHRG Terminate Steps	EVA SYS: 1.510 METOX REGEN Terminate steps			
EVA SYS: 1.605 BSA BATTERY RECHARGE Initiate steps Charge EMU batteries from EVA2	EVA SYS: 1.605 BSA BATTERY RECHARGE Initiate steps Charge EMU batteries from EVA2	S&M: 1.902 UCCAS NORMAL MATE Steps 6-17 Ref. MSG 059, Item 7	ROBO: 1.420 SSRMS ESP3 INSTALL Step 6, Install	NO EXERCISE DURING ESP-3 MATE
	EMU SWAP FOR EVA 3 (EVA, AIRLOCK CNFG)	ROBO: 1.420 SSRMS ESP3 INSTALL Step 7-8, Release and Backoff Ref. MSG 059, Item 2	EMU SWAP FOR EVA 3 (EVA, AIRLOCK CNFG)	
DUMP PREGATHER AND DETAILS Ref. MSG 065		ROBO: 1.430 SSRMS ESP3 MANEUVER FOR TRANSLATE TO WS4		
EVA SYS: 1.305 EQUIP LOCK PREP Steps 7-34 In Step 34, confirm PBAs for 4 isolated crew	EVA SYS: 1.305 EQUIP LOCK PREP Steps 7-34 In Step 34, confirm PBAs for 4 isolated crew		MED OPS: 2.5.635 CSA - OXYGEN STATUS CHECK, Step 5	
			EVA SYS: 1.305 EQUIP LOCK PREP Steps 7-34 In Step 34, confirm PBAs for 4 isolated crew	
		MEAL		
MEAL	MEAL		MIDDAY-MEAL	
PRE EVA 3 TOOL CONFIG (EVA, TIMELINES)	P/TV08 EXTERNAL SURVEY (P/TV, SCENES) SETUP, Step 2 After Setup, Perform OPS, Item 2		PRE EVA 3 TOOL CONFIG (EVA, TIMELINES)	
		PUBLIC AFFAIRS EVENT ISS KU TDRS: 19:25-19:55 Ref. MSG 063		

STS-118 FD07

GMT Date 08/14 (226) | W | TDRSE | Z | DORB | ORB | MET Day 005 | STS ATI

CDR KELLY

PWR DUMP-SUPPLY LINE
(ORB OPS,ECLS)Ref. MSG 053 & 065
Dump S/N 1013,1023,1005,& 2002

CWC OVERBOARD DUMP
(ORB OPS, ECLS)Dump S/N 5053
Ref. MSG 053 & 065

MNVR BIAS (TRK) -XLV -ZVV (TEA)
TG=2 BV=5 P=155.9 Y=355.5 OM=181.9
A15/FREE/VERN [A]

HANDOVER TO ATTITUDE CONTROL
ORBITER TO CMG-ONLY WITHOUT
RS SMTC
Ref. MSG 044
MSG 059, Item 9

CBTM STATUS CHECK
(PL OPS, CBTM)

EXERCISE

WCS FILTER CHECK [B]

CCM-A STATUS CK(PL OPS, CCM-A)

[B] WCS CRADLE - AUTO INHIBIT
Inspect hose block filter, change if req'd
WCS CRADLE - AUTO

EVA PROCEDURE REVIEW
Ref: EVA 3 BRIEFING CARD
(EVA, TIMELINES)
Ref. MSG 064

PLT HOBAUGH

IMU STAR OF OPPTY ALIGN(ORB OPS,GNC)

[A] Load DAP A12, wait 30 sec.
A12/AUTO/VERN Init TRK

HANDOVER TO ATTITUDE CONTROL
ORBITER TO CMG-ONLY WITHOUT
RS SMTC
Ref. MSG 044
MSG 059, Item 9

IFM: 3.2.502 LAB WINDOW SCRATCH
PANE ASSEMBLY R&R
Ref. SH Xfer List: Items 154 & 747
MSG 056

If req'd, use Safety Goggles and
Dust mask instead of PBA as called
out in the tools section.

EXERCISE

EVA PROCEDURE REVIEW
Ref: EVA 3 BRIEFING CARD
(EVA, TIMELINES)
Ref. MSG 064

MS1 CALDWELL

TRANSFER
Ref. Transfer List & MSG 061

PWR FILL (OGS PWR)
(ORB OPS, ECLS)
Perform WATER FILL #1
OGS PWR S/N 2002, Ref. MSG 053

OGS PWR TRANSFER
Transfer OGS PWR S/N 2002 to ISS
Ref. MSG 053

CWC TRANSFER
Transfer 1 CWC bag to ISS
Ref. MSG 053

L17 Check MCIU filter screen

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA PROCEDURE REVIEW
Ref: EVA 3 BRIEFING CARD
(EVA, TIMELINES)
Ref. MSG 064

MS5 DREW

TRANSFER
Ref MDDK Xfer List: Items 43,716
SH Xfer List: Items 632,
131-131.2, 132.1, 133, 133.1,
135, 142-144, 147, 149,
607-609, 639, 640, 730, 747,
173-175, 177, 179-180, 104,
108, 112, 112.1

Ref. MSG 061

P/TV05 ISS INTERNAL OPS
(P/TV, SCENES)
PAO EVENT SETUP

PUBLIC AFFAIRS EVENT
EDUCATIONAL EVENT
KU TDRW: 22:32-22:53
Ref. MSG 054

SEED PHOTO(PL OPS,EPO)PHOTO

DAILY STS/ISS CREW
TRANSFER TAGUP

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA PROCEDURE REVIEW
Ref: EVA 3 BRIEFING CARD
(EVA, TIMELINES)
Ref. MSG 064

Notes

NO EXERCISE DURING ATT H/O

STS-118 FD07

GMT Date 08/14 (226) | W E Z | DORB 5 6 7 | ORB 93 94 95 | MET Day 005 | STS ATI BIAS-XLV-ZVV

MS2 MASTRACCHIO	MS3 WILLIAMS	MS4 MORGAN	FE-2 ANDERSON	Notes
PRE EVA 3 TOOL CONFIG (EVA, TIMELINES)			PRE EVA 3 TOOL CONFIG (EVA, TIMELINES)	
	TRANSFER Ref. Transfer List & MSG 061	EXERCISE		
	OBSS OSE PRE EVA CONFIG (EVA, TOOLS AND STOWAGE) Prep for EVA 4		OBSS OSE PRE EVA CONFIG (EVA, TOOLS AND STOWAGE) Prep for EVA 4	
TRANSFER Ref. Transfer List & MSG 061		TRANSFER Ref MDDK Xfer List: Items 43,716 SH Xfer List: Items 632, 131-131.2, 132.1, 133, 133.1, 135, 142-144, 147, 149, 607-609, 639, 640, 730, 747, 173-175, 177, 179-180, 104, 108, 112, 112.1		NO EXERCISE DURING ATT H/O
		Ref. MSG 061	PRE-EVA PHS EVAL	
EXERCISE	TRANSFER Ref. Transfer List & MSG 061	EPO EDU SEED PHOTOS (PL OPS, EPO) SETUP	PAO SETUP PAO-PREP	
	PUBLIC AFFAIRS EVENT EDUCATIONAL EVENT KU TDRW: 22:32-22:53 Ref. MSG 054	PUBLIC AFFAIRS EVENT EDUCATIONAL EVENT KU TDRW: 22:32-22:53 Ref. MSG 054	PUBLIC AFFAIRS EVENT EDUCATIONAL EVENT KU TDRW: 22:32-22:53 Ref. MSG 054	
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	SEED PHOTO(PL OPS,EPO)PHOTO	SEED PHOTO(PL OPS,EPO)PHOTO EPO EDU SEED PHOTOS (PL OPS, EPO)STOW & DCS760 DEACT	SEED PHOTO(PL OPS,EPO)PHOTO PRIVATED MEDICAL CONF - ISS	
		DAILY STS/ISS CREW TRANSFER TAGUP		
	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS) SH PRE-SLEEP CONFIG (SH OPS, ON-ORBIT)	DAILY PLANNING CONFERENCE	
EVA PROCEDURE REVIEW Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 064	EVA PROCEDURE REVIEW Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 064	EVA PROCEDURE REVIEW Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 064	EVA PROCEDURE REVIEW Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 064	

STS-118 FD07

GMT Date 08/14 (226) | W | TDRSE | Z | DORB | ORB | MET Day 006 | STS ATI

CDR KELLY	PLT HOBAUGH	MS1 CALDWELL	MS5 DREW	Notes
EVA PROCEDURE REVIEW Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 064	EVA PROCEDURE REVIEW Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 064	EVA PROCEDURE REVIEW Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 064	EVA PROCEDURE REVIEW Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 064	
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
PMC: NETMEETING VID CONF (ORB OPS, PGSC) Omit VLHS item in Step 1, Omit Step 3 Use A/G2 for audio & KFX PGSC				UPLINK D21 Only Box D22,R1 OCA-PMC
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)				
SLEEP	SLEEP	SLEEP	SLEEP	UPLINK D21 Only Box D18, R1

Time scale: 23:00, 00:00, 01:00, 02:00, 03:00, 04:00

Orbit scale: 7 95, 8 96, 9 97, 10 98

BIAS_XLV_ZVV

NOTE: WAKEUP @ 6/11:30

STS-118 FD07

GMT Date 08/14 (226) | W | TDRSE | Z | DORB | ORB | MET Day 006 | STS ATI | MS2 MASTRACCHIO | MS3 WILLIAMS | MS4 MORGAN | FE-2 ANDERSON | Notes

23:00 | 00:00 | 01:00 | 02:00 | 03:00 | 04:00

DORB: 7 95 | 8 96 | 9 97 | 10 98

BIAS-XLV-ZVV

MS2 MASTRACCHIO

EVA PROCEDURE REVIEW
Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES)
Ref. MSG 064

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

EVA SYS: 2.305 10.2 PSIA CAMPOUT MASK PREBREATHE

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

SLEEP

MS3 WILLIAMS

EVA PROCEDURE REVIEW
Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES)
Ref. MSG 064

EXERCISE

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

SLEEP

MS4 MORGAN

EVA PROCEDURE REVIEW
Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES)
Ref. MSG 064

DAILY TRANSFER BRIEFING

PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)

SH PRE-SLEEP CONFIG (SH OPS, ON-ORBIT)

SLEEP

FE-2 ANDERSON

EVA PROCEDURE REVIEW
Ref: EVA 3 BRIEFING CARD (EVA, TIMELINES)
Ref. MSG 064

PRE SLEEP

EVA SYS: 2.305 10.2 PSIA CAMPOUT MASK PREBREATHE

SLEEP (8.5)

NOTE: WAKEUP @ 6/11:30

Good Morning Endeavour!

Happy Birthday Tracy!!!! And in honor of your birthday today, as you begin your 91st orbit in space, the ISS will begin its 50,000th orbit (since FEL). This corresponds to ISS traveling about 2.1 billion km in almost 3170 days!

Once again we want to give all of you a huge thank you for the super job each of you did supporting the EVA yesterday.

We are looking forward to the results of the Handover DTO that you are doing today. Many folks have put a lot of effort into the plan. It will be very interesting to see how feasible this plan would be to use if we ever got into a situation where it was needed!

Folks continue to work hard on the ground to assess the TPS damage. Thanks to your focused inspection, we have great data on the damage site. The Damage Assessment Team is working from this data to more accurately model the site for CFD testing and analysis, as well as building up actual damaged tile samples to run through the arc-jet. We estimate that we'll be able to know if we can clear the damage to land as-is about the time you complete EVA-3. **This means we'll go ahead and execute through EVA-3 as per the preflight plan.** If a repair is needed, we would target EVA-4 on FD10 at the earliest, possibly moving it to FD11. We're also working options to take advantage of the cryo margins and add even more docked time to complete TPS repairs. The primary option being looked at for repair will be using the OBSS (with both EVA crewmembers) to do emittance wash followed by an STA-54 underfill of the damaged section using T-RAD. The RMS/OBSS positions are being developed and analyzed, but expectations are that the repair position will have similar stability to what we tested on STS-121. All of this is very preliminary, with lots of forward work ahead. Again, no decision has been made to execute a repair. The FD06 MMT Summary message has details on the TPS as well.

Right now, this is all that we know! We expect to learn a lot more tomorrow and will update you throughout the day!

Questions are always welcome!!

Have a great day installing the ESP3!!!

YOUR CURRENT ORBIT IS: 186 x 183 NM

NOTAMS:

EDW – EDWARDS: RWY 15/33 ELS ONLY. RWY 18L NOT USABLE.
NOR – NORTHRUP: ALL RWYS ARE RED – WET.
YHZ – HALIFAX: RWY 14/32 CLOSED DAILY 1130Z-2100Z 13 AUG TO 17 AUG.
RWY 23 THDL DISPLACED 1,200' 1130Z-2100Z 13 AUG TO 17 AUG.
NKT – CHERRY POINT: RWY 14R/32L CLOSED 13 AUG TO 16 SEP.
MRN – CLOSED TO DOD OPERATIONS 1900Z TO 0259Z DAILY.
WAK – WAKE ISLAND: CLOSED DUE TO RECONSTRUCTION.
YYR – GOOSE BAY: RWY 08/26 CLOSED. 16/34 AVAILABLE.
ZZA – ZARAGOZA: INSTALLING MOBILE NATO BARRIER.
IKF – KEFLAVIK: NO AGREEMENT FOR USE.
AWG – RIO GALLEGOS: NO AGREEMENT FOR USE

NEXT 2 PLS OPPORTUNITIES:

EDW22 ORB 95 – 5/23:39 (SCT100 SCT250 230/15P23)
EDW22 ORB 110 – 6/22:26 (FEW050 BKN120 BKN250 230/14P22)

OMS TANK FAIL CAPABILITY:

PRE-ESP3 HANDOFF
L OMS FAIL: YES (SHALLOW TARGETS)
R OMS FAIL: YES (SHALLOW TARGETS)

POST-ESP3 HANDOFF
L OMS FAIL: NO
R OMS FAIL: NO

LEAKING OMS PRPLT BURN:

PRE-ESP3 HANDOFF
L OMS LEAK: BURN OUT-OF-PLANE AN+79 <= TIG <= AN+30
OTHERWISE BURN RETROGRADE
R OMS LEAK: BURN OUT-OF-PLANE AN+78 <= TIG <= AN+30
OTHERWISE BURN RETROGRADE

POST-ESP3 HANDOFF
L OMS LEAK: ALWAYS BURN RETROGRADE
R OMS LEAK: ALWAYS BURN RETROGRADE

OMS QUANTITIES(%)
L OMS OX = 45.9 R OMS OX = 44.9
FU = 46.0 FU = 44.9

SUBTRACT I'CNCT COUNTER FOR CURRENT OMS QUANTITIES

DELTA V AVAILABLE:

PRE-ESP3 HANDOFF

OMS	436 FPS
ARCS (TOTAL ABOVE QTY1)	38 FPS
TOTAL IN THE AFT	474 FPS
ARCS (TOTAL ABOVE QTY2)	68 FPS
FRCS (ABOVE QTY 1)	32 FPS
AFT QTY 1	83 %
AFT QTY 2	45 %

POST-ESP3 HANDOFF

OMS	378 FPS
ARCS (TOTAL ABOVE QTY1)	39 FPS
TOTAL IN THE AFT	417 FPS
ARCS (TOTAL ABOVE QTY2)	69 FPS
FRCS (ABOVE QTY 1)	32 FPS
AFT QTY 1	83 %
AFT QTY 2	45 %

THERE ARE NO FAILURE/IMPACT/WORK AROUNDS FOR TODAY

Good morning Barb, Al & Dave,

After studying the very detailed calldown last night, we have several follow up questions below. You completed approximately 20% more than we expected yesterday. You are now approximately 38% complete with SH transfers and 60% complete with MDDK transfers. There are a few updates to the Spacehab Transfer List book today.

Since Tracy is doing transfers for us today, we'd like to extend our happy birthday wishes to her.

For STS, the Transfer List Excel file, FD07_TransferList_STS118.xls, is located on the KFX machine in **C:\OCA-up\transfer**.

For ISS, the Transfer List Excel file, FD07_TransferList_STS118.xls, is located in **K:\OCA-up\transfer**.

We found the photos of the special foam ops – thanks so much – we've forwarded them to the KSC guys.

Q&As:

Q1 : Item 183 (1.0 CTB EMCS/ELITE/HRF): You called this down as complete on FD04, but we neglected to ask you if it was stowed inside LAB1S4_D2 or if it was stowed on that rack front (the notes in the TL gave you the option to do either).

Q2: Item 438 (0.5 CTB Sample Tube/CDMK/CSA-CP Resupply Kit): You called down 438.12 was stowed, but not 438. We thought you might have already put item 438 in Bag A because you've removed the 0.5 and 1.0 of PBA/QDMs from Bag A. Please confirm if 438 is complete.

Q3: Item 627 (IELK in AP04): Please confirm the 2 large pieces of foam from banisters in ascent AS01 and AS03 were stowed in this 5MLE. Thank you!

Q4: Item 628 (Моноблок CA325): This item returns in the AP01 location (in the AS01 ascent 5MLE bag). You called down that this 5MLE was packed and stowed for return. Please confirm that item 628 is stowed in this 5MLE bag at AP01.

Q5: Item 417 (old ISS EMU Umbilical): You called item 19 (ziplock for returning IEU) as complete, but not 417. Please confirm if item 417 is complete or just temp stowed in SH.

Q6: Item 175 (LiOH Bag 5): You called that item 176 (new ISS EMU Umbilical) as complete, but not 175, which was stowed in the double stowage rack in front of item 176. Please confirm if item 175 is also complete or just temp stowed in SH.

Q7: Item 739 (1.0 CTB PBA/QDM): You called this item as complete. It should be stowed in SF10. Item 180 (ISL MOD KIT (NODE 2)) launched in SF10, which we haven't heard is complete yet. Please confirm if item 180 has been transferred to ISS and the location of item 739.

Q8: Item 741 (0.5 CTB QDM): You called this item as complete. It should be stowed in PF18 for return. We think you are still working in the MESS rack and don't believe these rack fronts are reinstalled. Please confirm location of item 741.

Q9: Item 429 (0.5 CTB KURS Components): You called this item as complete. It should be stowed in SF12b for return. Item 182 (LiOH Bag1) launched in this location, which we haven't heard is complete yet. Please confirm if item 182 has been transferred to ISS and the location of item 429.

A1: Item 744 (empty 0.5 CTB from FC11): You called down that this wouldn't fit in the 5MLE bag returning at AS01 with the two returning coldbags (items 632 and 633). Alternate location is inside item 726 (CEVIS/4PU ISIS Dwr 3.0 CTB). You'll see this reflected in the SH TL book, in both the return and swap (ISIS section) tabs.

For today – FD07 Choreography

Middeck
- Items 33, 34: Transfer items from Bag C to ISS.
- Items 43, 716: Multimeter swap

Spacehab
- Item 632: Finish packing up 5MLE launched at **AP01** with coldbags; **strap at AS01**
- Transfer remaining resupply items from fwd bulkhead
- Items 607-609, 639, 640, 730, 747: Pack up MESS rack for return
  - Stow old scratch pane in MESS Rack after Lab Window Scratch Pane R&R
- Reinstall PF rack front trays (60 min)
- Item 434.30 (Fyodor/Oleg): Pack HRM Chest Straps for return after last FD7 exercise ops
- Items 173-175, 177, 179-180: continue transferring SF rack items to ISS
- Transfer remaining resupply from Aft bulkhead to ISS.
- Install ANITA Interferometer in locker in lab
- Items 172, 178, 181, 182: Temp stow LiOH Swap bags in SH
- Begin packing return item in SF Rack

Please update the Spacehab Transfer List as follows:

In **LAYOUTS** tab:
Replace Page SL-10
Make Pen and Ink changes to Page SL-6:
Delete 'Return item 744' from AS01 5MLE bag
Add ' Return item 744' to AC17 3.0 CTB

In **SWAB** tab:
Replace Swap Page 8

In **RETURN** tab:
Replace Return Page 23
Replace Return Page 25

In **REFERENCES** tab:
Replace Page SH REF -8

<u>For tomorrow - FD08 Choreography</u>

Middeck

- Items 701 (Fyodor): Stow БОК-3 items after timelined activity БОК-3 STOW in Bag C

Middeck/Spacehab:

- Items 172, 178, 181, 182, 749-752, 718 (Al): LiOH swaps from MDDK and to/from ISS.
- Item 700 (Fyodor): Transfer returning AMP to MDDK after AMP RESUPPLY

Spacehab

- Items 732, 733, 734 (Tracy/Barb): Configure MISSEs for return; temp stow in SH or in node

Please call us if you have questions.
- The Transfer Team

Rick, Tracy, and Clay, we have a couple of last minute notes and reminders before EVA3 tomorrow. Thanks for the MISSE photos yesterday. If there are any changes from the nominal plan we'll let you know later today. You Rock!

- Rick and Clay, while translating underneath the MT/MBS there are some ungrounded connecters (issue briefed during quarantine). The connectors are ~ 2ft zenith of the UMA HRs you translate on, please stay nadir of the UMAs as you translate to avoid contacting these connecters.

Please make the following pen and ink changes to the EVA 3 timeline:

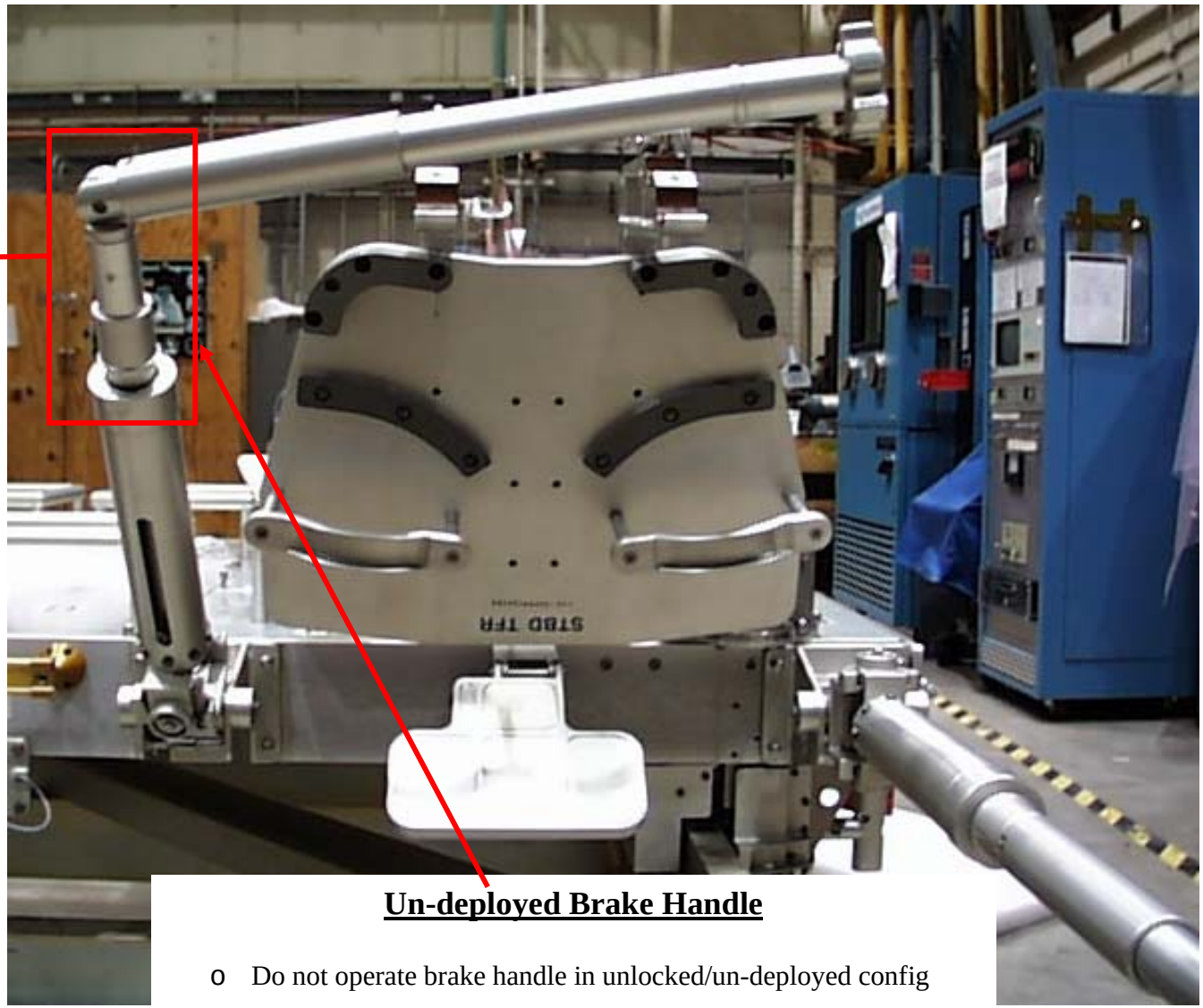
- On page 7-90 in the EVA FS C/L, please pen and ink the following warning: "If Z1 SASA gimbal bolt task is done during a day pass, turn off glove heaters to avoid violating glove bladder temperature limits."

- On page 7-86 in the EV1 Column, step 39 change the following (desired for 10A Prep)
  WAS: AL WIF 11 [3, PP, F,6]
  IS: AL WIF 10 low profile; report settings

- It appears that on some CETA Cart brake handles, the locking collars have somehow been released and the brake handles are slightly bent over. The brake handles cannot be used in this unlocked config. You will need to straighten and lock the stbd/nadir brake handle on CETA 2 prior to use (ref. FS 7-77 prior to step 9 in the EV3 column). See attached file for a reminder of how the brake handle works (spring-loaded cover with J-lock). Time permitting, please straighten and lock the port/zenith brake handle on CETA 1 which is also unlocked.

- We'd like to add one Get Ahead to the list today: retrieve the Lg/Sm RET left on the ESP2 CMG if time allows.

DEPLOYED VS UN-DEPLOYED CETA BRAKE HANDLE



Deployed and Locked Brake Handle

- Brake handle must be straight
- J-hook must be engaged

Un-deployed Brake Handle

- Do not operate brake handle in unlocked/un-deployed config

OBJECTIVE:
Remove and replace damaged Scratch Pane Assembly.

LOCATION:
Installed: LAB1D3
Stowed: √Inventory Management System (IMS)

CREW:
One

DURATION:
1 hr

PARTS:
Scratch Pane Assembly P/N 683-11563-2 (reference Spacehab Transfer List Item # 154)

MATERIALS:
Gray Tape (LAB1S4)
Sharpie
For Pane Cleaning (if required)
Water from SM Galley
Klear Screen cleaning fluid (P/N SED33102528-325) - A16 (Shuttle Camera Bag)
FFTD & GAMAH Seal Maintenance Kit (LAB1P5_A1):
GAMAH Seal Maintenance Kit Ziplock:
Latex Gloves
Dry Wipes (P/N SEG33107170-306)
0.5 CTB: CHECS, Water Microbiology Hardware S/N 1081 (LAB1D4_A1):
Microbiology Water Analysis Syringe 60cc P/N KLSK270248-302

TOOLS:
Vacuum Cleaner (NOD1SD4)
Eye Protection (ISS Deployed)
Portable Breathing Apparatus (PBA) (LAB1P0)
Leather Gloves (NOD1O2)
DCS 760 Camera
ISS IVA Toolbox (NOD1D4_G2):
Drawer 2:
7/16" Socket, 3/8" Drive
Ratchet, 3/8" Drive
(40-200 in-lbs) Trq Wrench, 3/8" Drive

REFERENCED PROCEDURE(S):
None

1. SAFING WORKSITE

WARNING
Failure to remove power can result in electrical shock hazard.

1.1 √Scratch Pane Assembly RTD/Heater power off:

PCS LAB: TCS: IATCS Details: LAB Window Heater Commands
LAB Window Heater Commands
'Commands'
√CLC – Inh

'Telemetry'
sel RPCM LA1B B RPC 10

RPCM LA1B B RPC 10

cmd RPC Position – Open (Verify – Op)
cmd Close Cmd – Inhibit (Verify – Inh)

WARNING
Injury or death to personnel can occur if glass fragments are allowed to escape during Scratch Pane Assembly removal.

1.2 If broken glass hazard exists, don protective gear (gloves, eye protection, and PBA) and prepare Vacuum Cleaner, vacuum as required.

2. ACCESSING WORKSITE

2.1 If required, remove equipment that is attached to the window frame.

2.2 √Window Shutter closed, rotate Handwheel Assembly ↶ (approx 1.5 revs).

3. REMOVAL OF SCRATCH PANE ASSEMBLY

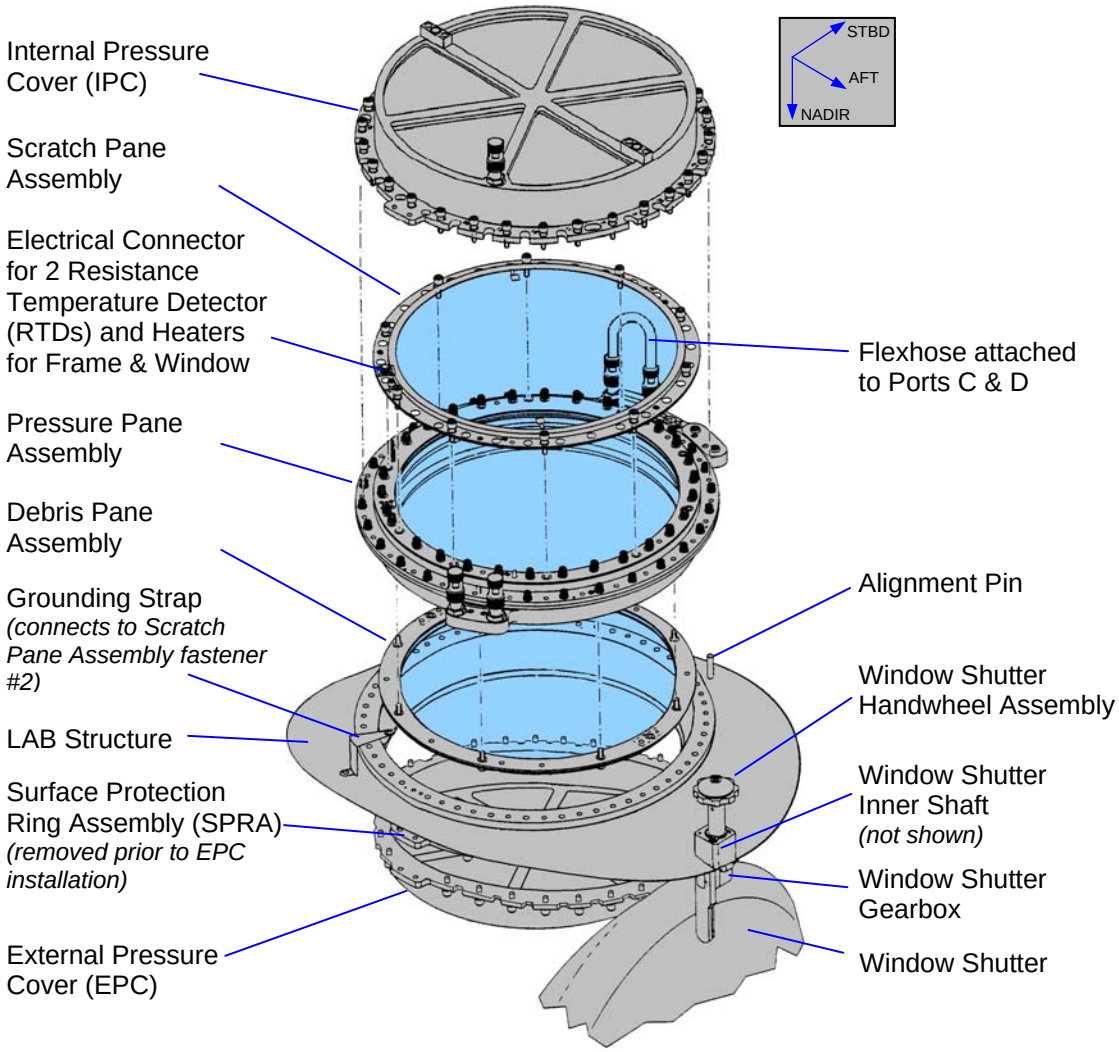


Figure 1.- Lab Window Assembly, Internal and External Pressure Covers.

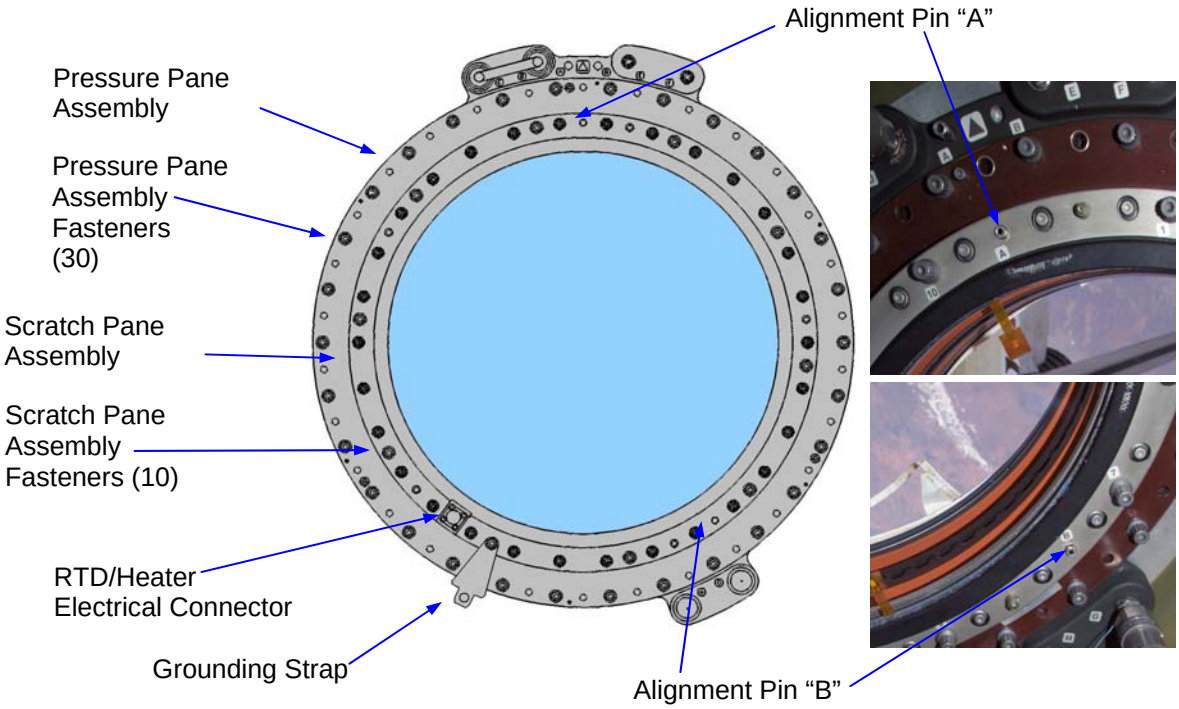


Figure 2.- Scratch Pane Assembly installed on Pressure Pane Assembly.

3.1 Demate Scratch Pane Assembly RTD/Heater cable on lower portion of frame.
Refer to Figure 2.

3.2 Secure Scratch Pane Assembly RTD/Heater cable away from window (Gray Tape).

NOTE
Grounding strap is attached to wall structure and fastener number 2. The grounding strap has a spade tongue terminal, therefore loosening fastener number 2 will detach grounding strap from Scratch Pane Assembly .

3.3 Unfasten Scratch Pane Assembly fasteners (ten) (Ratchet, 3/8" Drive; 7/16" Socket).
Refer to Figure 2.

3.4 Remove damaged Scratch Pane Assembly from window.
Label metal frame of Scratch Pane Assembly as “damaged”, temporarily stow (Gray Tape, Sharpie).

3.5 Photograph damaged Scratch Pane Assembly (DCS 760 Camera).

4. INSTALLATION OF SCRATCH PANE ASSEMBLY

4.1 Inspect Pressure Pane Assembly for damage.
If Pressure Pane Assembly is damaged, √**MCC-H** for instructions.

4.2 If dust or dirt is visible on primary pressure pane of Pressure Pane Assembly:

4.2.1 Don gloves.

4.2.2 Open dry wipe package.

CAUTION
Excessive pressure or heavy scrubbing may scratch the glass. Only apply light pressure when cleaning.
Wiping particulate from glass using a dry wipe may scratch the glass. Before wiping particulate from glass using dry wipe, blow off particulate using a syringe or gently flip it off using a dry wipe.
Residue accumulation on dry wipe may scratch the glass. To prevent scratching glass, only use dry wipe surface once. Fold dry wipe to provide virgin surfaces for use during cleaning process.
The use of excessive water may result in water spots which could be as bad as the existing residue. Minimize the use of water during cleaning.
Using contaminated gloves will further contaminate the glass. Use only clean gloves to touch glass. Skin oils will transfer to gloves then to glass surface. Don new gloves after touching bare flesh or other contaminated surfaces.

4.2.3 Use syringe to provide puffs of air to remove particulates on glass (Syringe).

4.2.4 Use dry wipe (flipping motion) to remove remaining particulates on glass (Dry Wipe).

4.2.5 Lightly dampen new dry wipe with de-ionized water (new Dry Wipe, Water).

4.2.6 Remove dust and/or residue, always wiping in one direction, folding dry wipe as required (dampened Dry Wipe).

4.2.7 If dust returns to window surface, lightly dampen new dry wipe with KlearScreen and repeat step 4.2.6.

4.2.8 If accumulation of particulates or residue present at edge of window frame, remove with corner of dry wipe (dampened Dry Wipe).

4.2.9 Doff gloves, dispose of used wipes and clean up area.

4.2.10 Photodocument cleaned surface of pane (DCS 760 Camera).

4.3 If dust or dirt visible on outboard surface of Scratch Pane Assembly , repeat step 4.2 to clean.

4.4 Position replacement Scratch Pane Assembly on window, aligning holes on Scratch Pane Assembly marked “A” and “B” with alignment pins on Pressure Pane Assembly frame.
Refer to Figure 2.

CAUTION
Failure to tighten fasteners in labeled sequence may result in damage to Scratch Pane Assembly. Labels are found on the Scratch Pane Assembly frame.

4.5 Engage Scratch Pane Assembly fasteners onto window by hand (ten), reconnecting grounding strap with fastener number 2.

4.6 Tighten, torque fasteners (ten) to 40 in-lbs following sequence found on numbered labels on Scratch Pane Assembly frame (Ratchet, 3/8" Drive; 7/16" Socket; (40-200 in-lbs) Trq Wrench).

4.7 Torque fasteners (ten) to 60 in-lbs following same torquing sequence (7/16" Socket; (40-200 in-lbs) Trq Wrench).

4.8 √Torque on each fastener at 60 in-lbs following same torquing sequence (ten) (7/16" Socket; (40-200 in-lbs) Trq Wrench).

4.9 If dust or dirt is visible on inboard surface of Scratch Pane Assembly, repeat step 4.2 to clean.

4.10 Mate Scratch Pane Assembly RTD/Heater cable on lower portion of frame.

5. CHECKOUT

5.1 Scratch Pane Assembly RTD/Heater power on:

PCS

LAB: TCS: IATCS Details: LAB Window Heater Commands

LAB Window Heater Commands

‘Telemetry’
sel RPCM LA1B B RPC 10

RPCM LA1B B RPC 10

cmd Close Cmd – Enable (Verify – Ena)
cmd RPC Position – Close (Verify – Cl)

LAB Window Heater Commands

'Commands'
cmd CLC – Ena (Verify – Ena)

6. CLOSEOUT
   6.1 Photograph newly installed Scratch Pane Assembly (DCS 760 Camera).

   6.2 If required, reinstall equipment that was previously attached to window frame.

   6.3 Check for FOD within 3' radius.

7. POST MAINTENANCE
   7.1 Downlink DCS photos when possible.

   7.2 Stow tools, equipment, damaged Scratch Pane Assembly. Update IMS.