STS-123 / 1J / A

FD 10 Execute Package

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089	24 - 25	FD10 PAO Event Summary - CBS News, NBC News, WMUR-TV **(pdf)**
090A	26	FD10 Water Notes **(pdf)**
091	27 - 30	2.516 Battery Powered Portable Fan Operations **(pdf)**
092	---	Stowage Locations for FD10 Plan (GMT 079/080) **(pdf - Electronic Only)**

Approved by FAO: *Laura Hearon*

Last Updated: Mar 19 2008 4:22PM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

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91	2.516 Battery Powered Portable Fan Operations
92	Stowage Locations for FD10 Plan (16-1378)

1. Exercise Constraints

   A. The generic exercise constraints that apply to the entire docked timeframe are listed in the table below.

Exercise Constraints Table A: Entire Docked Timeframe

Exercise Constraints
RED limited to 3 sec (squats and heel raises) and 2 sec (situps) between repetitions
HC-1 limited to 3 sec (torso bending and rowing) and 2 sec (hammer throw and forearm bending) between repetitions
Use of theraband or any other exercise band while exercising on Shuttle Ergometer is prohibited, except during EVA prebreathe, and always on CEVIS
Use of ISS hard-mounted exercise equipment during 1-jet PRCS attitude control and reboost is prohibited

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

Exercise Constraints Table B: MT Translation

Activity	Exercise Constraints	
	Shuttle	ISS
MT Translation	No exercise during MT Translation	No unisolated exercise during MT Translation

2. PGSC Transfer

   Here's the big picture plan for the PGSC transfer to ISS, as discussed pre-flight. Let us know if you have any issues.

   We're planning the PGSC reconfig and transfer on FD15, after the PCS Deact (you can then transfer the PCS and PGSC at the same time). We want to transfer the STS7 (WLES Prime) laptop. Prior to transfer, we'll need you to stop the WLES software, power off the laptop, and remove the hard drive and RF card. After that,

we'd like you to bring the STS-3 (KFX) laptop up to the flight deck and configure it as the prime WLES machine. You can place the STS-3 (KFX) laptop on the LAN (from the flight deck) using the RJ-45 hardline connection. The WLES folks want a prime machine available before, during and after undock for MMOD monitoring.
This plan will allow you to use STS4 (Worldmap) for the center line berthing camera for undock. On STS6 (WLES Backup laptop) you'll need to stop the software, and remove the LRU from the serial port.

After the undock and flyaround on FD15, you'll bring up the WLES application in back-up mode on STS6 (RPOP2) as per the nominal plan. At this time, you can also move the STS-3 (KFX) machine back down to the middeck and setup the STS-5 (RPOP) machine as the prime WLES machine.

The transfer list will be updated to show STS7 (WLES) shell (no power supply or hard drive) being transferred to ISS

3. Questions from JAXA

Thank you for reporting the B/C of the Hard Dummy Panel strap you removed from JEM Bag 11 to secure the JTVE Booms. Have you used any other Hard Dummy Panel straps from JEM Bag 11? If so, please call SSIPC with the B/Cs of those straps and their new locations.

We also want to say thank you for the photos you took and down linked yesterday. Though OSTPV shows JLP-JTVE BOOM-ASSY (GMT78/22:43) was completed, we could not find photos you took in {2.106 JTVE BOOM RETRIEVAL AND ASSEMBLY} step 3 in them. Could you downlink the photos of JTVE Boom assembled?

4. MRK Personal Fans

To increase air circulation on Shuttle, you may use the ISS Battery Powered Portable Fans (MRKs) in the Orbiter middeck if desired. The following procedure may be referenced in MSG 091.

Have ISS crewmembers perform Steps 1 and 2 of <u>ECLSS</u>: 2.516 <u>BATTERY POWERED PORTABLE FAN OPERATIONS</u>. The stowage location for 3 MRKs and 12 D-Cell batteries is LAB1P3_C1.

If only using 1 or 2 MRKs on Shuttle, report serial numbers to MCC.

When complete with MRK use, return MRKs and batteries to ISS and report number of batteries used.
Perform Steps 3 and 4 of <u>ECLSS</u>: 2.516 <u>BATTERY POWERED PORTABLE FAN OPERATION.</u>
These fans are required during the ISS stage and must be returned prior hatch closure.

5. REPLACE PAGES 2-32, 2-34,2-36, 3-102 THROUGH 3-111.

REPLANNED
No Unisolated Exercise
(MT Xlate)

03/19/08 11:04:53

GMT 03/19/08 (079) 07 08 09 10 11 12 13 14 15 16 17 18

MET β=42 Day 008 008/00 01 02 03 04 05 06 07 08 09 10 11 12

		FD09			FD10
STS-123	CDR GORIE	PMC OCA	PRE SLEEP*	SLEEP	POST SLEEP
STS-123	PLT JOHNSON	PRE SLEEP		SLEEP	SLEEP POST SLEEP
STS-123	MS1 BEHNKEN	PRE SLEEP		SLEEP	SALOG POST SLEEP
STS-123	MS2 FOREMAN	PRE SLEEP		SLEEP	SALOG POST SLEEP
STS-123	MS3 DOI	PRE SLEEP		SLEEP	POST SLEEP
STS-123	MS4 LINNEHAN	PRE SLEEP		SLEEP	POST SLEEP
DN	FE-2 EYHARTS	PW	PRE SLEEP-ISS	SLEEP (8.5)	SALV POST SLEEP
EXP	ISS CDR WHITSON	PW	PRE SLEEP-ISS	SLEEP (8.5)	POST SLEEP
EXP	FE-1 MALENCHENKO	PREP WORK	PS-ISS; TEX^	SLEEP (8.5)	TEX^ POST SLEEP
UP	FE-2 EXP16 REISMAN	PW	PRE SLEEP-ISS	SLEEP (8.5)	POST SLEEP

STS

DAY/NIGHT

ORBIT 128 129 130 131 132 133 134 135

TDRS W -171 E -46 Z -275

ORB ATT BIAS -XLV -ZVV

NOTES

*LEB TOWEL CHECK ^20 PUMP OFF ^20 PUMP ON

MT Xlate

No Unisolated Exercise (MT Xlate)

03/19/08 11:04:53 **REPLANNED**

GMT 03/19/08 (079): 19, 20, 21, 22, 23, 03/20, 01, 02, 03, 04, 05, 06

MET β=44 Day 008: 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 009/00

FD10

STS-123

Crew	Activities (in time order)
CDR GORIE	POST SLEEP; PFC OCA; POST SLEEP; OFF DUTY; JAXA PAO; OFF DUTY; PAO EVENT; MEAL; H/O; MNVR; DUMP; DUMP PWR; EXERCISE; COND; TERM; MNVR; TEA; H/O; IMU; EVA 4 PROC RVW
PLT JOHNSON	POST SLEEP; PFC OCA; OFF DUTY; PAO EVENT; MEAL; EQUIP; GATHR; WASTE; INITT; COND; SWAP; WST-T; CND-I; WCS#; MCIU*; EXERCISE; EVA 4 PROC RVW
MS1 BEHNKEN	POST SLEEP; OFF DUTY; PFC OCA; OFF DUTY; PAO EVENT; MEAL; SNSR; ASSY; DIDB; FILL; DTO; ASSY; T-RAD IV PREP; EVA4 TOOL CONFG; PRE SLEEP; EVA 4 PROC RVW
MS2 FOREMAN	POST SLEEP; OFF DUTY; PFC OCA; OFF; PAO EVENT; MEAL; DIDB; FILL; DTO; ASSY; T-RAD IV PREP; EVA4 TOOL CONFG; PRE SLEEP; EVA 4 PROC RVW
MS3 DOI	POST SLEEP; OFF DUTY; PFC OCA; OFF DUTY; GLA-A; JAXA PAO; GLA-D; OFF DUTY; PAO EVENT; MEAL; CDM BATT CH OUT; FAN1; RACK*; FANO; EXERCISE; EVA 4 PROC RVW
MS4 LINNEHAN	POST SLEEP; OFF DUTY; PFC OCA; OFF DUTY; PAO EVENT; MEAL; CDC; MRKG; T-RAD IV PREP; EVA4 TOOL CONFG; MTX-T; BSA-T; EVA 4 PROC RVW

DN

Crew	Activities (in time order)
FE-2 EYHARTS	POST SLEEP; OFF DUTY; PFC; OFF DUTY; FFQ; TVIS; RED; PAO EVENT; MEAL; HANDOVER; PREP WORK; EVA 4 PROC RVW

EXP

Crew	Activities (in time order)
ISS CDR WHITSON	POST SLEEP; OFF DUTY; EXERCISE CEVIS; RED; JAXA PAO; OFF DUTY; PAO EVENT; ♣; MEAL; DCS; OFF DUTY; PREP WORK; EVA 4 PROC RVW
FE-1 MALENCHENKO	POST SLEEP; OFF DUTY; TVIS; OFF DUTY; PAO EVENT; MEAL; OFF DUTY; ИП-1; MNT; СОЖ; VELO+RED; EXER; PREP WORK; EVA 4 PROC RVW

UP

Crew	Activities (in time order)
FE-2 EXP16 REISMAN	POST SLEEP; OFF DUTY; TVIS; OFF DUTY; S/U; PAO EVENT; MEAL; FFQ; HANDOVER; PREP WORK; EVA 4 PROC RVW

STS

DAY/NIGHT

ORBIT: 135, 136, 137, 138, 139, 140, 141, 142, 143

TDRS: W -171; E -46; Z -275

ORB ATT: BIAS -XLV -ZVV; BIAS -XLV -ZVV (h2o); BIAS -XLV -ZVV

NOTES: MT Xlate; ♣EHS-CSA-O2-READ; *CONFIG CK; #COMPACT; *FILTER CK

03/19/08 11:04:53 **REPLANNED**

GMT 03/20/08 (080) 07 08 09 10 11 12 13 14 15 16 17 18

MET β=45 Day 009 009/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-123	**FD10** CDR GORIE	PRE SLEEP	PMC OCA	*PRE SLEEP																					**FD11** POST SLEEP
	PLT JOHNSON	PRE SLEEP*																						SLEEP	POST SLEEP
	MS1 BEHNKEN	PRE SLEEP			MASK PB/TOOL CONFIG			PRE SLEEP																POST SLEEP	♣
	MS2 FOREMAN	PRE SLEEP			MASK PB/TOOL CONFIG	10.2 DPRS		PRE SLEEP																POST SLEEP	A/L REP ⊕
	MS3 DOI	PRE SLEEP																						POST SLEEP	
	MS4 LINNEHAN	EXERCISE			PRE SLEEP																			POST SLEEP	
DN	FE-2 EYHARTS	SPDM	ARM2^	PREP	WORK	PRE SLEEP-ISS																		POST SLEEP	
EXP	ISS CDR WHITSON	PREP WORK			PRE SLEEP-ISS																			POST SLEEP	
	FE-1 MALENCHENKO	PREP WORK			PRE SLEEP-ISS				МБИ*	TEX^														TEX^ МБИ* HAMPD POST SLEEP	
UP	FE-2 EXP16 REISMAN	SPDM	ARM2^	PREP	WORK	PRE SLEEP-ISS																		SALV POST SLEEP	

STS

DAY/NIGHT

ORBIT 143 144 145 146 147 148 149 150 151

TDRS W -171 E -46 Z -275

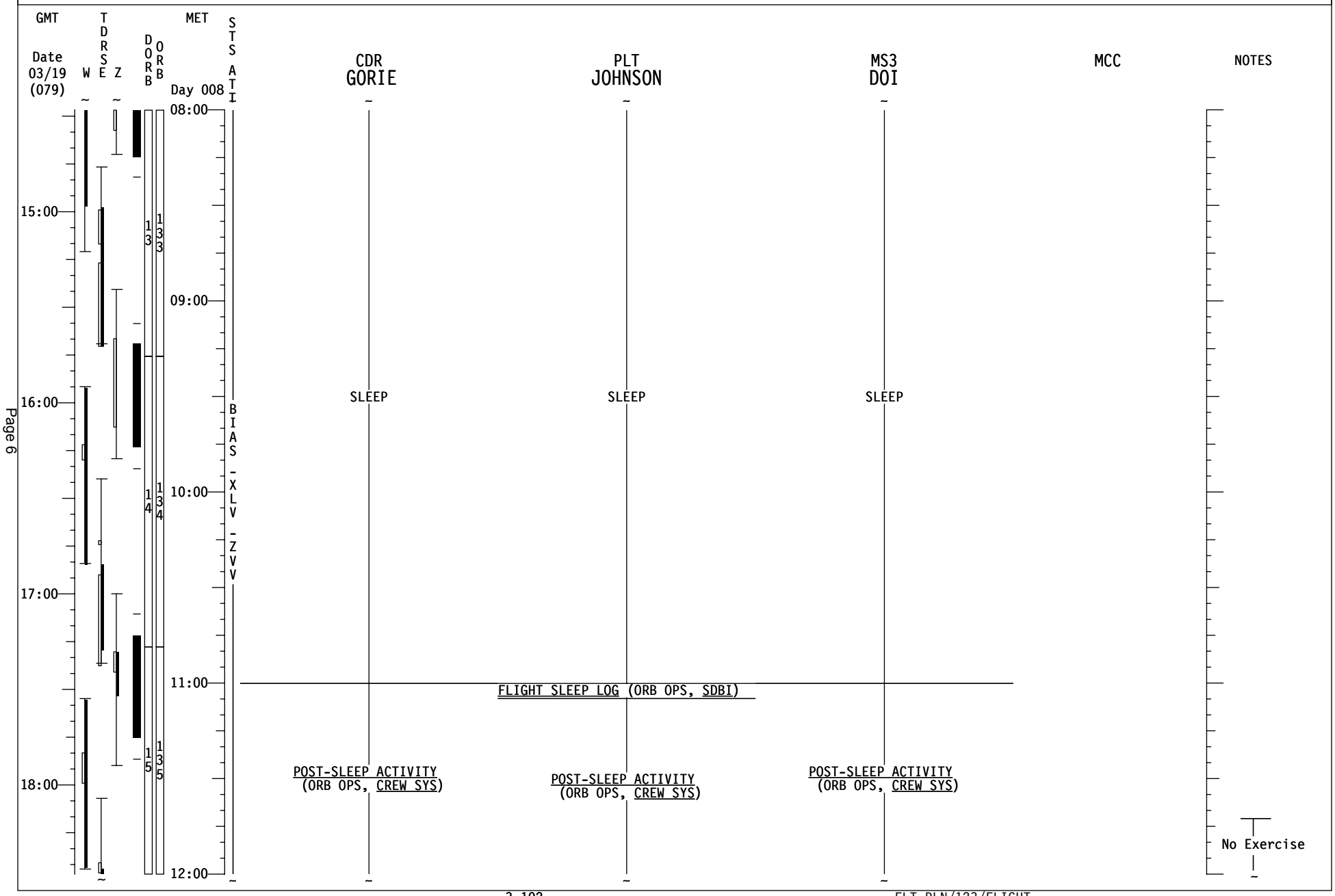
ORB ATT BIAS -XLV -ZVV

NOTES

^CONFIG *LEB TOWEL CHECK *12 EXP INIT
*HUM SEP CHECK ^20 PUMP OFF

♣HYG BRK/ P
⊕HYG BRK/ P
*12 EXP DSCNCT
^20 PUMP ON

STS-123 (FD09)


GMT
Date 03/19 (079)
W
TDRSE
Z
DORB
ORB
MET
Day 008
STS ATI
CDR GORIE
PLT JOHNSON
MS3 DOI
MCC
NOTES
08:00
09:00
10:00
11:00
12:00
15:00
16:00
17:00
18:00
13
14
15
133
134
135
BIAS-XLV-ZVV
SLEEP
SLEEP
SLEEP
FLIGHT SLEEP LOG (ORB OPS, SDBI)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
No Exercise

STS-123 (FD09)

GMT Date 03/19 (079) | W | TDRSE | Z | DORB 13 | DORB 14 | DORB 15 | ORB 133 | ORB 134 | ORB 135 | MET Day 008 | STS ATI

BIAS -XLV -ZVV

MET	MS1 BEHNKEN	MS2 FOREMAN	MS4 LINNEHAN	NOTES
08:00				
09:00	SLEEP	SLEEP	SLEEP	
10:00				
11:00	LIQ SALIVA & LOG (ORB OPS, SDBI)	LIQ SALIVA & LOG (ORB OPS, SDBI)		
12:00	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	No Exercise

15:00 16:00 17:00 18:00

STS-123 (FD10)

GMT Date 03/19 (079) | W | TDRSE | Z | DORB 15 1 2 3 | ORB 135 136 137 138 | MET Day 008 | STS ATI BIAS-XLV-ZVV

MET	CDR GORIE	PLT JOHNSON	MS3 DOI	MCC	NOTES
12:00					
19:00	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)				No Exercise
		POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
13:00	NETMEETING VIDEO CONFERENCING(ORB OPS,PGSC) Private Family Conference A KU TDRW: 12:57-13:26		POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)		OCA-PFC
20:00	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)				
		NETMEETING VIDEO CONFERENCING(ORB OPS,PGSC) Private Family Conference A KU TDRE: 13:47-14:01			OCA-PFC
14:00			OFF DUTY		
21:00			NETMEETING VIDEO CONFERENCING(ORB OPS,PGSC) Private Family Conference A KU TDRW: 14:32-15:01		OCA-PFC
15:00	OFF DUTY	OFF DUTY			
22:00			OFF DUTY		
16:00					

FD10 EZ ACTIVITES
Check TEPC Status
OCAC Filter Inspect
Hard Reboot PGSCs (Except WLES & RPOP2)

A Omit VLHS item in Step 1
Omit Step 3
Use A/G2 for Audio and KFX PGSC

STS-123 (FD10)

GMT Date 03/19 (079) | W | TDRSE | Z | DORB 1 5 | DORB 2 | DORB 3 | ORB 1 3 5 | ORB 1 3 6 | ORB 1 3 7 | ORB 1 3 8 | MET Day 008 | STS ATI

BIAS -XLV -ZVV

MET	MS1 BEHNKEN	MS2 FOREMAN	MS4 LINNEHAN	NOTES
12:00				
19:00				No Exercise
13:00	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
20:00				
14:00				
21:00	OFF DUTY			
15:00	NETMEETING VIDEO CONFERENCING(ORB OPS,PGSC) Private Family Conference [A] KU TDRE: 15:06-15:39	OFF DUTY	OFF DUTY	OCA-PFC
22:00	OFF DUTY			
16:00				

[A] Omit VLHS item in Step 1
Omit Step 3
Use A/G2 for Audio and KFX PGSC

STS-123 (FD10)

GMT Date 03/19 (079) | W | TDRSE | Z | DORB | ORB | MET Day 008 | STS ATI

CDR GORIE | PLT JOHNSON | MS3 DOI | MCC | NOTES

16:00 — 17:00 — 18:00 — 19:00 — 20:00 — 23:00 — 00:00 — 01:00 — 02:00

DORB 3 — ORB 138
DORB 4 — ORB 139
DORB 5 — ORB 140

STS ATI: BIAS -XLV -ZVV

CDR GORIE

- OFF DUTY
- PUBLIC AFFAIRS EVENT ISS KU TDRE: 16:40-17:14
- OFF DUTY
- PUBLIC AFFAIRS EVENT ISS KU TDRE: 18:23-18:52
- MEAL

PLT JOHNSON

- OFF DUTY
- PUBLIC AFFAIRS EVENT ISS KU TDRE: 18:23-18:52
- MEAL

MS3 DOI

- OFF DUTY
- POWER ON JLP GLAs BY SRCA
- PUBLIC AFFAIRS EVENT ISS KU TDRE: 16:40-17:14
- POWER OFF JLP GLAs BY SRCA
- OFF DUTY
- PUBLIC AFFAIRS EVENT ISS KU TDRE: 18:23-18:52
- MEAL

STS-123 (FD10)

GMT Date 03/19 (079) | W | TDRSE | Z | DORB 3 4 5 | ORB 138 139 140 | MET Day 008 | STS ATI

MS1 BEHNKEN | MS2 FOREMAN | MS4 LINNEHAN | NOTES

16:00 17:00 18:00 19:00 20:00 23:00 00:00 01:00 02:00

A Omit VLHS item in Step 1
Omit Step 3
Use A/G2 for Audio and KFX PGSC

OFF DUTY

NETMEETING VIDEO CONFERENCING(ORB OPS,PGSC)
Private Family Conference A
KU TDRW: 16:21-16:36 — OCA-PFC

NETMEETING VIDEO CONFERENCING(ORB OPS,PGSC)
Private Family Conference A
KU TDRW: 18:00-18:26 — OCA-PFC

PUBLIC AFFAIRS EVENT
ISS KU TDRE: 18:23-18:52

MEAL

BIAS-XLV-ZVV

STS-123 (FD10)

GMT Date 03/20 (080) | W | TDRS E | TDRS Z | DORB 6 7 8 | ORB 141 142 143 | MET Day 008 | STS ATI

CDR GORIE

- 20:00 — JOINT OPS: 3.110 H/O ATT CONTROL CMG TA to ORB [B]
- MNVR (TRK) BIAS -XLV -ZVV (DUMP) TG=2 BV=5 P=162 Y=355 OM=193 A/AUTO/VERN Init TRK
- PWR DUMP - SUPPLY LINE (ORB OPS, ECLS) Ref. MSG 090
- BIAS -XLV -ZVV (h2o) — EXERCISE
- 21:00
- 22:00 — CWC OVERBOARD DUMP (ORB OPS, ECLS) Terminate Condensate Dump Ref. MSG 090
- MNVR (TRK) TEA TG=2 BV=5 P=162 Y=355 OM=177 A/AUTO/VERN Init TRK
- JOINT OPS: 3.111 H/O ATT CONTROL ORB to CMG TA [C]
- BIAS -XLV -ZVV
- 23:00 — IMU STAR OF OPPTY ALIGN (ORB OPS)
- EVA 4 PROCEDURE REVIEW REF: EVA 4 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 087
- 00:00

PLT JOHNSON

- GATHER DUMP EQUIPMENT Ref. MSG 090
- SUPPLY/WASTE WATER DUMP (ORB OPS,ECLS) Initiate Waste Dump Ref. MSG 090
- SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) CHANGEOUT Ref. MSG 090
- SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Waste Dump
- CWC OVERBOARD DUMP (ORB OPS, ECLS) Initiate Condensate Dump Ref. MSG 090
- WCS COMPACTOR OPS (DUAL-VANE) (ORB OPS, CUE CARD) L17 Check MCIU filter screen
- EXERCISE
- EVA 4 PROCEDURE REVIEW REF: EVA 4 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 087

MS3 DOI

- CDM SETUP & BATT CH OUT (ORB OPS, CDM DTO) Attach CDM in Location 4
- ASSY OPS: 1.106 JLP VENT FAN ACT/DEACT-MKAM Step 1 (Act)
- JLP RACK CONFIG CHECK Confirm K-Bar of WS rack (JLP1A1)is engaged into the capture mechanism completely, confirm other JLP racks.
- ASSY OPS: 1.106 JLP FAN ACT/DEACT-MKAM Step 2 (Deact)
- EXERCISE
- EVA 4 PROCEDURE REVIEW REF: EVA 4 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 087

MCC

- [B] Prior to H/O of Attitude Control from ISS to Orbiter:
  Change VERN ROT RATE
  SPEC 20 DAP CONFIG
  ITEM 23 + 0.05 EXEC
  I'CNCT TK SWITCH:
  From R to L OMS FEED (OPCL, RCS)
- [C] After H/O of Attitude Control from Orbiter to ISS:
  Reload DAP A12
  SPEC 20 DAP CONFIG
  ITEM 1 + 12 EXEC

NOTES

- UPDATE H2O WASTE DUMP QTY

STS-123 (FD10)

GMT Date 03/20 (080) | W | TDRS E | Z | DORB 6 7 8 | ORB 141 142 143 | MET Day 008 | STS ATI

STS ATI: BIAS-XLV-ZVV (h2o); BIAS-XLV-ZVV

GMT	MS1 BEHNKEN	MS2 FOREMAN	MS4 LINNEHAN	NOTES
20:00	TEMPERATURE SNSR ASSEMBLY (EVA, TOOLS & STOWAGE)			
	DIDB FILL Use DIDBs from Be, Fm ECOKs Fill/instl in EMUs	DIDB FILL Use DIDBs from Be, Fm ECOKs Fill/instl in EMUs		
03:00	DTO SAMPLE BAG ASSEMBLY (EVA, TOOLS & STOWAGE)	DTO SAMPLE BAG ASSEMBLY (EVA, TOOLS & STOWAGE)	CIPA DISCARD CONTAINER (CDC) MARKING (EVA, TOOLS & STOWAGE)	
	T-RAD IV PREPARATION T-RAD TRANSFER (EVA, TOOLS & STOWAGE)	T-RAD IV PREPARATION T-RAD TRANSFER (EVA, TOOLS & STOWAGE)	T-RAD IV PREPARATION T-RAD TRANSFER (EVA, TOOLS & STOWAGE)	
21:00				
04:00	PRE EVA 4 TOOL CONFIG (EVA, TIMELINES)	PRE EVA 4 TOOL CONFIG (EVA, TIMELINES)	PRE EVA 4 TOOL CONFIG (EVA, TIMELINES)	
22:00				
05:00			EVA SYS: 1.510 METOX REGENERATION (Term)	
	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	EVA SYS: 1.605 BSA BATTERY RECHARGE (Term)	
23:00				
06:00	EVA 4 PROCEDURE REVIEW REF: EVA 4 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 087	EVA 4 PROCEDURE REVIEW REF: EVA 4 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 087	EVA 4 PROCEDURE REVIEW REF: EVA 4 BRIEFING CARD (EVA, TIMELINES) Ref. MSG 087	
00:00				

STS-123 (FD10)

GMT Date 03/20 (080) | W | TDRSE | Z | DORB 8 9 10 11 | ORB 143 144 145 146 | MET Day 009 | STS ATI

CDR GORIE | PLT JOHNSON | MS3 DOI | MCC | NOTES

00:00

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

07:00

NETMEETING VIDEO CONFERENCING (ORB OPS, PGSC)
Private Medical Conference
KU TDRW: 00:19-00:49 [D]

OCA-PMC

[D] Omit VLHS item in Step 1
Omit Step 3
Use A/G2 for Audio and KFX PGSC

01:00

08:00

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
√ HUM SEP for H2O Accumulation

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

*Do LEB TOWEL CHECK.
Change out if req'd.

BIAS -XLV -ZVV

02:00

09:00

03:00

10:00

SLEEP | SLEEP | SLEEP

04:00

STS-123 (FD10)

GMT Date 03/20 (080) | W | TDRSE | Z | DORB | ORB | MET Day 009 | STS ATI

MET	MS1 BEHNKEN	MS2 FOREMAN	MS4 LINNEHAN	NOTES
00:00	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	EXERCISE	
01:00	EVA SYS: 2.305 10.2 PSIA CAMPOUT MASK PREBREATHE REF: PRE EVA 4 TOOL CONFIG (EVA, TIMELINES) REF: 123 CONSUMABLES TRACKING CC (EVA)	EVA SYS: 2.305 10.2 PSIA CAMPOUT MASK PREBREATHE REF: PRE EVA 4 TOOL CONFIG (EVA, TIMELINES) REF: 123 CONSUMABLES TRACKING CC (EVA)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
02:00	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
03:00	SLEEP	SLEEP	SLEEP	
04:00				

07:00 08:00 09:00 10:00

DORB: 8 9 10 11

ORB: 143 144 145 146

STS ATI: BIAS-XLV-ZVV

MSG 086 - FD10 MISSION SUMMARY

Bonjour Endeavour!
Well, with the enormous work that was accomplished in just one short week (so you know, the CSA folks are smiling from coast to coast back up North) you guys truly deserve a mid-mission break. In case you wonder what to do to occupy yourself during your free time, please note that stampeding toward the IP phones is not an option.
Oh and by the way, ATV/Jules Verne has arrived in its parking spot, 1000 miles in front of you, and is eagerly awaiting your departure so it can make its approach.

YOUR CURRENT ORBIT IS: 186 X 181 NM

NOTAMS:

EDW –	LAKEBED RUNWAYS RED.
NOR –	LAKEBED RUNWAYS GREEN.
HAW –	RWY 31 CLOSED. RWY 13 TODA 8,994'.
WAK –	CLOSED. NOT USABLE.
IKF –	NO AGREEMENT. NOT USABLE.
BEN –	POLITICALLY NOT RECOMMENDED/NOT SUPPORTED.
ZZA –	FIRST 600M (~2,000') OF RWY 30L NOT AVAILABLE. 10,200' REMAINING.
GUA -	RWY 06L BARRIER UP 1565' FROM THRESHOLD. RWY 24R BARRIER UP 1785' FROM THRESHOLD

NEXT 2 PLS OPPORTUNITIES:

EDW22 ORB 142 – 08/22:19 (FEW 120 SCT 250 270/10P15)
EDW22 ORB 157 – 09/21:07 (SCT 250 280/06P10)

OMS TANK FAIL CAPABILITY:

L OMS FAIL: NO R OMS FAIL: NO

LEAKING OMS PRPLT BURN:

L OMS LEAK: ALWAYS BURN RETROGRADE
R OMS LEAK: ALWAYS BURN RETROGRADE

OMS QUANTITIES(%)

L OMS	OX = 34.7	R OMS	OX = 33.8
	FU = 34.3		FU = 33.6

SUBTRACT I'CNCT COUNTER FOR CURRENT OMS QUANTITIES

DELTA V AVAILABLE:

OMS	340 FPS
ARCS (TOTAL ABOVE QTY 1)	41 FPS
TOTAL IN THE AFT	381 FPS
ARCS (TOTAL ABOVE QTY 2)	73 FPS
FRCS (ABOVE QTY 1)	21 FPS

END OF PAGE 1 OF 2, MSG 086

MSG 086 - FD10 MISSION SUMMARY

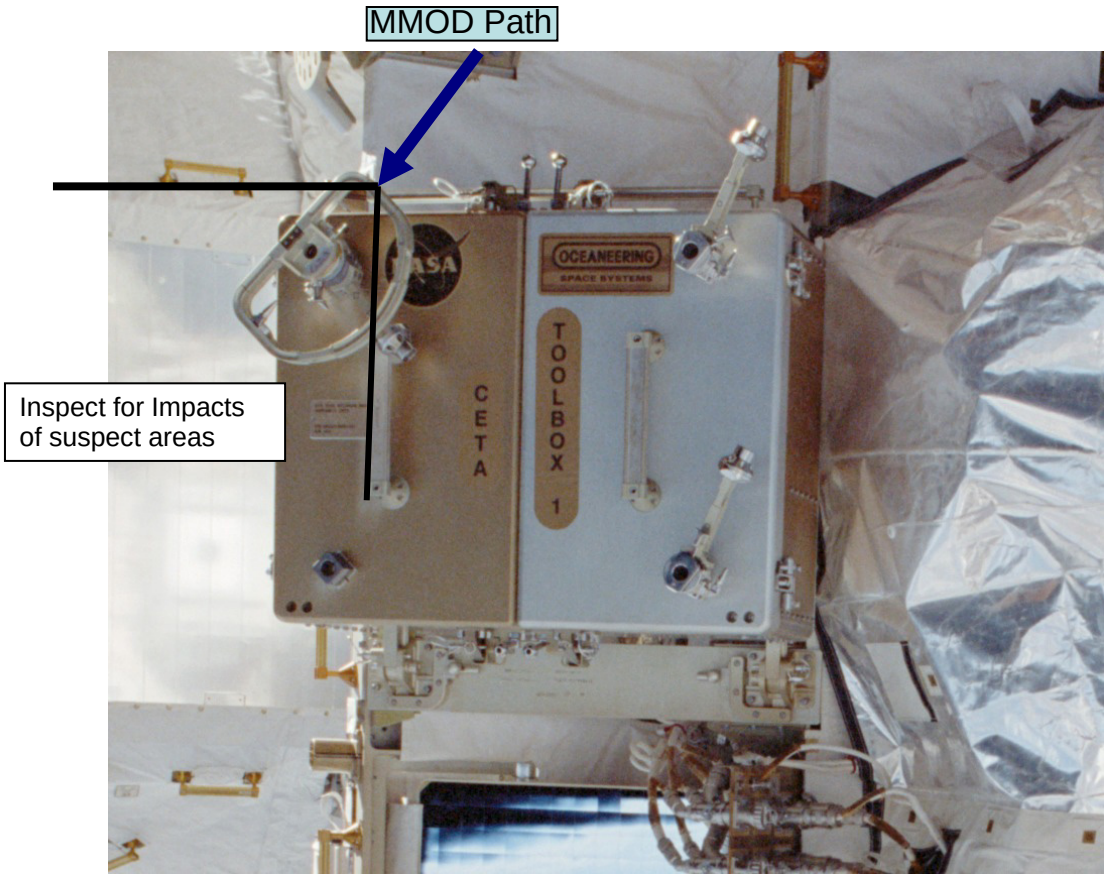
AFT QTY 1	79 %
AFT QTY 2	41 %

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

END OF PAGE 2 OF 2, MSG 086

Rick, Mike and Bob,
Three down, two to go. We have a couple of minor additions to the EVA 4 timeline outlined below.

1) Z1 Toolbox Inspection during EVA 4:
Mike, when you restow the D-handle we would like you to inspect the tool box for any collateral MMOD damage. WVS imagery of any findings would be appreciated as able. Debris would be in a 90 degree splash area on the Z1 toolbox.
☐ Insert this inspection step between Steps 2 & 3 for EV2 on pg 7-115



2) OTCM 2 Sock blanket get ahead for EVA 4:
Bob, if time permits we would like you to remove the OTCM 2 sock blanket as a get ahead after stowing the TRAD hardware. We have found an SPDM position that will give you free float access to the blankets. You will be able to use the OTP and Lab HHs to access the sock blanket, wrist MLI flaps, and the remaining SJEU cover 2.7 straps. In reviewing photos, it looks like SJEU cover 2.6 straps have come loose. If you are able to access these straps, may be a bit of a reach, please pat them back down. A change-out page for 7-128 is provided.

3) Inspect Bob's waist tether hook for damage:
There is concern that when you used the hook to tap on MISSE PIP pins, it could have damaged the hook. Please verify no damage or sharp edges on hook.

4) PGT 5 question:
Rick, could you determine which collar was slipping out of position to cause the collar error problem? Does it still seem to be loose? (Note: when in manual ratchet, the collar error will not be announced. When the PGT is returned to motor, any of the collars being between positions will cause the message);
→ Leave this PGT 5 as the backup in the Staging bag.

5) Bob and Mike, we are working on a plan to revisit MISSE 6 on EVA 5. A preliminary timeline is included. We will have more details for you after EVA 4, but imagine a hammer, wire ties, and replacement PIP pins.

6) We'd like to have the EMU's checked for STA-54 contamination during Post EVA 4. Please pen and ink the following to the two STS-123 versions of ISS EVA Systems checklist.

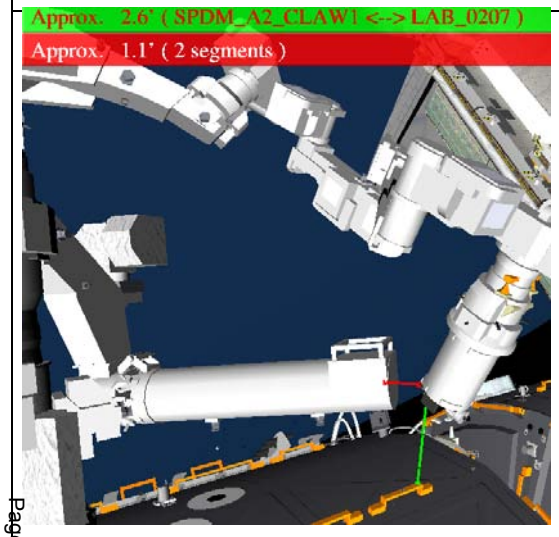
In **1.240 POST EVA**

Add step 10b. For EVA 4 Inspect EMUs for any STA-54 contamination. Photograph findings and report results to MCC-H.

7) If you find you have extra time on your hands and want to start putting away tools, we have uplinked the 1J/A EVA Tool Restow Matrix. Ref MSG 16-1381 (ISS only msg).

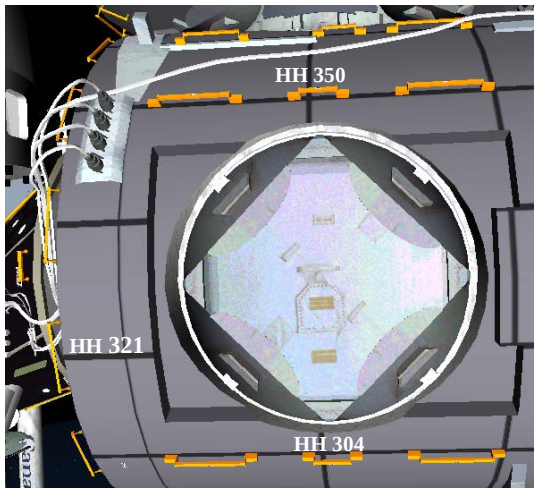
OTCM 2 SOCK REMOVAL/NODE 2 ACBM LAUNCH LOCKS

IV



Arm 2 OTCM sock removal posn

1. Give MCC GO for petal deploy (to 45 deg)
2. Give MCC GO to continue petal deploy



Port Node 2 CBM

EV1 (FF)

EV1 - OTCM 2 SOCK REMOVAL (00:20)

NOTE:
It is acceptable to translate on the OTP square grid, but not the SPDM Arms.

1. Translate along port/nadir HH path to SPDM (Lab HH 206)
2. Remove OTCM 2 sock blanket; stow behind MWS
3. Roll down wrap blanket tabs
4. Replace MLI flaps (4) over Arm 2 wrist clamp interface (attach solid and barber poll side first)
5. Fold over Velcro strap to cover SJEU cover 2.7 grounding patches
6. If accessible, tack SJEU cover 2.6 straps back in place.

GET-AHEAD – NADIR NODE 2 ACBM PIP PIN RETRIEVAL (00:40)

7. Assist EV2 as time permits

EV2 (FF)

EV2 - PORT CBM PETAL LAUNCH LOCKS (00:15)

CAUTION
Both petal launch locks must be engaged to allow for translation on the petals

1. EV2 – Release Node 2 Port CBM petal launch locks (use Adj Eq Tether as reqd):
   - ❑ Release two aft latches (on petal)
   - ❑ Release two zenith latches: use HR 0350
   - ❑ Release two fwd latches: use HR 0321
   - ❑ Release two nadir latches: use HR 0304

GET-AHEAD – NADIR NODE 2 ACBM PIP PIN RETRIEVAL (00:40)

2. Translate to Node 2 fwd endcone (nadir/port path on Lab/Node 2)
3. Release Node 2 Nadir CBM petal launch locks (use Adj Eq Tether as reqd):
   - ❑ Release two aft latches (on petal)
   - ❑ Release two port latches: use HR 0356
   - ❑ Release two fwd latches: use HR 0309
   - ❑ Release two stbd latches: use HR 0355
4. Give IV GO for petal deploy
5. Verify petal deployment motion; give IV GO to continue deploy
6. Inspect for pin in access points
   - ❑ 4 quadrants where petals used to be
   - ❑ Open CBCS flap; inspect though opening

If PIP pin is found:
- ❑ As reqd, use wire-tie (from BRT) to move PIP pin into reach envelope
- ❑ Discard PIP pin in small trash bag OR report direction and velocity of departure

If PIP pin cannot be removed:
- ❑ Describe location and security
- ❑ Verify PIP Pin is not interfering with Latch and Petal motion (depress RTL)
- ❑ Verify PIP Pin is not interfering with hatch Mechanism
- ❑ Verify PIP Pin is not interfering with RTL motion

If PIP pin not found:
- ❑ Press down RTL at each quadrant; to verify not jammed by PIP pin

7. Leave CBCS flap open

16-1379 (MSG 087) – FD10 EVA Deltas
Page 3 of 4

EVA 5 Summary Timeline

TIME (HR : MIN)	IV/SSRMS	1JA EVA 5 EV1 – Be (FF)	EV2 – Fm (FF)
00:00 ---		**POST DEPRESS** (00:05)	**POST DEPRESS** (00:05)
		A/L EGRESS AND SETUP (00:40)	**A/L EGRESS AND SETUP** (00:40)
	• SRMS ungrapple OBSS		
		OBSS KEEP-ALIVE UMBILICAL INSTALL (01:35)	**OBSS KEEP-ALIVE UMBILICAL INSTALL** (01:35)
01:00 ---		• Install Stanchion/avionics box	• APFR setup • Install Stanchion/avionics box • Mate W22/W23 connectors to A114
	• SSRMS mnvr to UMBILICAL INSTALL	• Install KAD	• Monitor OBSS clearance
	• SSRMS mnvr to PITCH posn	• Install P411 connector	• Mate W21 connectors to avionics box
02:00 ---	• Power up OBSS KA • SSRMS: MNVR TO EVA HANDOFF posn • SSRMS: SEMI-MANUAL RELEASE	• Verify P411 connector illuminated	
		OBSS STOW (01:15)	**OBSS STOW** (01:15)
		• Capture OBSS inboard striker bar	• Capture OBSS outboard striker bar
		• Route W21 harness	• Install OBSS cover
03:00 ---		• OBSS stow cleanup	• OBSS stow cleanup
		MISSE 6 PEC INSTALL/DEPLOY (02:10)	**STBD SARJ INSPECTION** (02:10)
		• Retrieve MISSE 6 tools from A/L	▪ Datum-A “divot” inspection (cover 18) ▪
04:00 ---		• Tether swap to Node 2 endcone	▪ Single Cover Inspection (cover 16) ▪
		• Retrieve bent PEC (fwd) • Install bent PEC on LWAPA (port)	▪ Single Cover Inspection (cover 9)
		▪ Retrieve straight PEC (aft) ▪ Install straight PEC on LWAPA (stbd)	• Single Cover Inspection (cover 8)
		▪ Mate connectors	• Single Cover Inspections (6 & 11)
05:00 ---		▪ Deploy PECs ▪ Photograph PECs	
		▪ Tether swap	
		CLEANUP AND INGRESS (00:40)	**CLEANUP AND INGRESS** (00:40)
06:00 ---			
		PRE REPRESS (00:05)	**PRE REPRESS** (00:05)

1. GATHER DUMP EQUIPMENT

In preparation for the upcoming PWR and CWC dump activities, you will need to pregather the following equipment prior to the dumps:

a. LAB1P1(WDS): OGS PWR S/N 2004
b. Middeck: Retrieve empty CWC S/N 5093 from Middeck Ceiling Port 2 (Bag F)
c. Contingency Hose and Cable Kit (CHCK): B-B hose with R-Y QD adapter and Y-Y hose (the same ones used on FD07), and SPLY H2O Dumpline Purge Device
d. Breakout box locker (MF28O): Waste Water Dump (WWD) Filter (used FD07)

2. SHUTTLE CONDENSATE COLLECTION

Just prior to performing the CWC OVERBOARD DUMP, perform CHANGEOUT of SHUTTLE CONDENSATE COLLECTION (ORB OPS,ECLS), p. 5-36. Changeout CWC S/N 5075 with the empty CWC S/N 5093. Temp stow full CWC S/N 5075 for the CWC dump.

3. WASTE WATER DUMP

Perform a Waste Water Dump using SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) p. 5-2. MCC will TMBU limits in steps B and K.

Prior to opening the dump valve, verify with MCC-H that ISS arrays are in proper config.

Dump the waste tank to 5%. Waste nozzle open time will be ~20 minutes.

4. PWR DUMP – SUPPLY LINE

Dump PWR S/N 2004 using PWR DUMP – SUPPLY LINE (ORB OPS, ECLS) p. 5-40. MCC will TMBU limits in steps 2 and 7.

Prior to opening the dump valve, verify with MCC-H that ISS arrays are in proper config.

Nozzle temperature increase is an indication that the PWR is completely vented.

After the PWR is vented, temp stow the empty PWR near the galley for refilling on FD12. Stow the B-B hose and R-Y QD in the ziplock bag marked “USED” and stow the ziplock bag in the CHCK.

5. CWC OVERBOARD DUMP

After completing the Waste Water Dump and PWR Dump, dump CWC S/N 5075 using CWC OVERBOARD DUMP (ORB OPS, ECLS) p. 5-32. MCC will TMBU limits in steps B and H.

Waste nozzle open time will be ~55 minutes. When the CWC dump is complete, stow the empty CWC in the Middeck Ceiling Port 2 (Bag F) for future use.

END OF PAGE 1 OF 1, MSG 090A

2.516 BATTERY POWERED PORTABLE FAN OPERATIONS

(ECLSS/7A - ALL/FIN 2) Page 1 of 4 pages

TOOLS REQUIRED:

Battery Powered Portable Fan Assembly P/N SEG11100291-703
D-Cell Batteries (four)
Flexible Bracket
4" Common Tip Screwdriver
Gray Tape
Screens (Interior and Exterior)

1. FAN SCREEN INSTALLATION

WARNING
The edges of the screen perforations are very sharp. Please handle very carefully.

1.1. √Fan Power – Off

1.2. Open the fan blade section as far as it will rotate (90 degrees) from the fan base.

1.3. Insert the rolled edge of the interior screen, with the 2 large radiuses on each corner, into the well.

Refer to Figure 1.

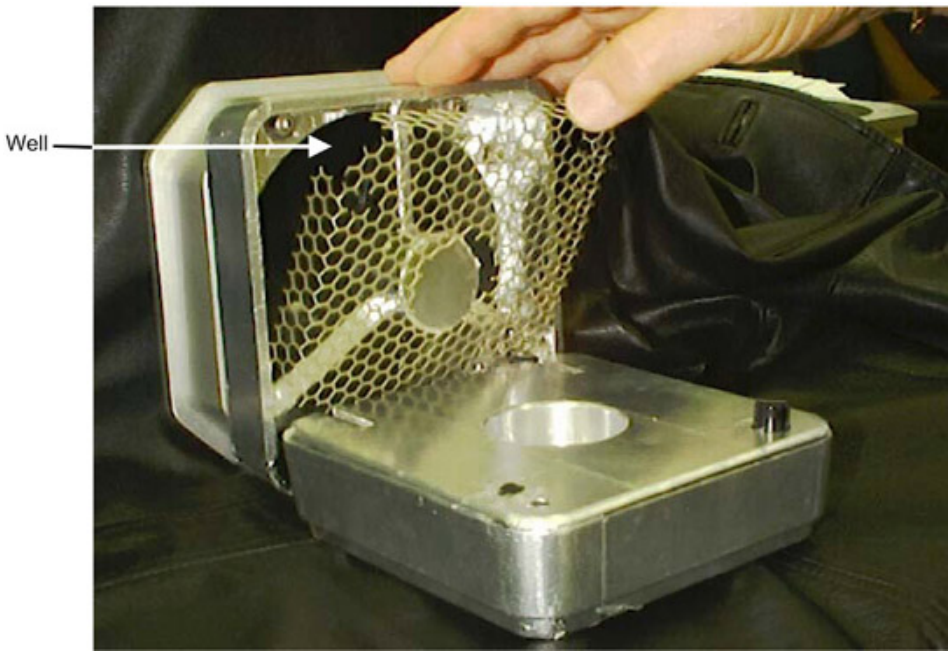


Figure 1 . Fan Blade Section Open.

2.516 BATTERY POWERED PORTABLE FAN OPERATIONS

(ECLSS/7A - ALL/FIN 2) Page 2 of 4 pages

Figure 2 . Interior Screen Insertion.

1.4. Slowly slide the interior screen onto the blade motor housing until the interior screen is flush with the frame edge.

The hole for the speed control should be in the upper right hand corner.

Refer to Figure 2.

1.5. Secure interior screen in place using Gray Tape along the top edge.

1.6. Install the exterior screen using Gray Tape around the perimeter.

Refer to Figure 3.

2.516 BATTERY POWERED PORTABLE FAN OPERATIONS

(ECLSS/7A - ALL/FIN 2) Page 3 of 4 pages

Figure 3 . Exterior Screen Installation.

2. BATTERY INSTALLATION AND PORTABLE FAN ACTIVATION

2.1. √Fan Power – Off

2.2. Open battery compartment using screwdriver.
Install four Batteries.
Close compartment.

2.3. Fan Power → High

NOTE
Low power position setting has been disabled.

2.4. √Fan RPM control position – Full ↷

2.5. √Fan is running

2.6. Deploy fans where required for ventilation using flexible bracket and handrail clamps.

3. FAN SCREEN REMOVAL

3.1. Open the fan blade section as far as it will rotate (90 degrees) from the fan base.

3.2. Remove the tape and exterior screen from the interior screen.

3.3. Reach through the front blade side of the fan and lightly press on the interior screen to slide it off the rear of the motor housing.

2.516 BATTERY POWERED PORTABLE FAN OPERATIONS

3.4. Remove both the interior and exterior screens from the well.

3.5. Bag the screens to cover the sharp edges.

4. FAN STOWAGE AND BATTERY REMOVAL

NOTE
Battery removal should be performed if the Fan is going to be stowed for extended periods of time.

4.1. √Fan Power – Off

4.2. Open battery compartment using Screwdriver.
Uninstall the four Batteries.
Close compartment.

4.3. Repeat steps 4.1 and 4.2 for extra Fans to be stowed.

4.4. Fold fan.

4.5. Stow D-Cell Batteries

If Batteries are used, then dispose of them.

4.6. Stow Portable Fan Assemblies.

Contents:

Timeline Procedures:

NONE

Tasklist Procedures:
HRF RACK ACOUSTIC MOVE
MELFI-VEL STRAP-RMV
MSG-BATTERY-REMOVE
EHS-CO2-SDTO MON
TRQ-FSS-JMPR-QD
NOD2SD2-BBA-R&R

Timeline Procedures:

NONE

Tasklist Procedures:

HRF RACK ACOUSTIC MOVE						
2.026 HRF Rack Acoustic Closeout Placement and Drawer Modifications						
Type: Standard			**IMS Plan: No**			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**Crew Preference**	Cable Tie [6]	-	**-**	**-**	
2	**LAB1P4_J2**	HRF ISIS Holder	SDG46118532-301	**-**	**-**	
3	**LAB1S2_C2**	HRF CSD Holder	SDG46118533-301	**-**	**-**	
4	**LAB1S2_K1**	HRF Rack Acoustic Closeout	SEG46118506-301	**-**	**-**	
5		HRF Workstation 2 Closeout	SEG46118506-303	**-**	**-**	

MELFI-VEL STRAP-RMV						
4.008 MELFI REMOVAL OF VELCRO STRAPS FROM DEWARS						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**Crew Preference**	12 X 12 ziplock bag	-	-	-	
2	**LAB1O4_B1**	WHITE GLOVES	03291-1	any	any	
Type: Restow			IMS Plan: No			
3	**Dry Trash**	**Velcro straps**	-	-	-	

MSG-BATTERY-REMOVE						
4.036 MSG VIDEO RECORDER BATTERY REMOVAL						
Type: Standard			**IMS Plan: No**			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**NOD1O4_C1** Ziplock Pantry (a.k.a. Large Ziplock)	6x6 Ziplock Bag [6]	-	-	-	
2		12x12 Ziplock Bag	-	-	-	
3	**COL1O4_C1** 1.0 CTB Labeled MSG HARDWARE 2 S/N 1317 B/C 010653J	MSG 8MM VIDEO RECORDER	7009.80.AE	01-474	00MSG003M	
4		MSG DIGITAL VIDEO RECORDER	7009.80.AD	01-472	00MSG004M	
Type: Restow			**IMS Plan: No**			
5	**COL1O4_A1** 1.0 CTB MSG Hardware S/N 1323 B/C 010659J	12x12 Ziplock Bag Labeled " VaLi Batteries Return to MSFC"	-	-	-	
6		VaLi Batteries (6 Used)	-	-	-	

EHS-CO2-SDTO MON						
16-0876 CARBON DIOXIDE MAPPING AND PERSONAL MONITORING						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**LAB1S3**	CDM	SEG46117194-302	1013	-	
2	**LAB1D4_A2**	CDMK	WLSD210121-301	1008	00057887J	
3		Belt Pouch Assembly	WLSD210122-301	-	-	
4		CDMK Nomex Belt	WLSD210121-301	-	-	
5	**LAB1D4_C2**	CSA-CP Data Cable	KLSD210045-801	1002	-	Used to download data to MEC.

TRQ-FSS-JMPR-QD						
16-1060 QD TIGHTENING OF FSS JUMPERS						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**LAB1O6** 1.0 CTB: FSS, S/N 1136, B/C 004130J	FSS-64-2 Jumper	683-17111-22	000001	00006441J	CWC M ADAPTER
2		FSS-68-1 Jumper	683-17111-13	000001	00006442J	JUMPER ADAPTER-3/4M
3		FSS-68-2 Jumper	683-17111-14	000001	00006415J	
4		FSS-69-1 Jumper	683-17111-15	000001	00006418J	JUMPER ADAPTER-3/4F
5		FSS-69-2 Jumper	683-17111-16	000001	00006443J	JUMPER ADAPTER-3/4F
6		FSS-77-1	683-17111-17	000001	00012275J	
7		FSS-77-2	683-17111-18	000001	00012274J	

NOD2SD2-BBA-R&R						
1.2.403 BASEPLATE BALLAST ASSEMBLY R&R						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**LAB1O5_G**	Baseplate Ballast Assembly	219011	127	00035238K	
Type: Restow			IMS Plan: No			
2	**LAB1O5_G**	Baseplate Ballast Assembly	219011	73	00002617M	