STS-123 / 1J / A

FD 09 Execute Package

MSG	Page(s)	Title
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078	14 - 15	FD09 Mission Summary **(pdf)**
081A	16	FD09 EVA Deltas **(pdf)**
082	17	JLP Picture **(pdf)**
074B	---	Stowage Locations for FD09 Plan (GMT 078/079) **(pdf - Electronic Only)**
079	---	FD08 MMT Summary **(pdf - Electronic Only)**

Approved by FAO: *Laura Hearon*

Last Updated: Mar 18 2008 5:30PM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

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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: SLP to PLB

Activity	Exercise Constraints	
	Shuttle	ISS
SLP Grappled by POA and SSRMS	Exercise allowed only if both SSRMS and POA grapple fixtures rigidized	Exercise allowed only if both SSRMS and POA grapple fixtures rigidized
SLP Berth	No exercise from dual-grapple until at SLP-POA PRE-INSTALL POSN	No exercise from dual-grapple to SLP-POA PRE-INSTALL POSN

2. LEB TOWEL CHECK

Thank you for reporting the condensation on the water line in the LEB yesterday. We have added a timeline callout in pre-sleep and post-sleep for you to check the status of the towel installed yesterday. Please report this status to the MCC. If the towel is saturated, we would like for you to replace the towel with a dry one.

3. O2 Transfer

The O2 transfer that was originally scheduled on FD12 has been removed from the plan per MMT direction. With only a small amount of ullage available in the ISS Hi Pres tanks, the impact to ORCA pump cycle life would not be justified.

4. JLP Rack Config Verification

For all racks in JLP, Check the Lever Knob is in top position of slot.

If the knob is NOT in top position of slot, perform steps 1 to 6.

1. Disengage Rack K-BAR Thumb Latch from Standoff.
2. Loosen K-BAR GSE Boss Fastener.
3. Slide Lever Knob to top position of slot to engage K-Bar Assy.
4. If EPS1, DMS1, WS Rack, Tighten, torque K-Bar GSE Boss fastener to 172 in-lbs (Ratchet, 3/8" Drive; 5/16" Hex Head; (40-200 in-lbs) Trq Wrench).
   If JEMRMS, ICS, SAIBO, RYUTAI, JRSR,
   Tighten K-Bar GSE Boss fastener (Ratchet, 3/8"Drive; 3/8" Hex Head)
5. K-BAR Thumb Latches (two) → top position.
6. Engage rack K-BAR Thumb Latches (two) into standoff Capture Mechanism.

5. ATV Status:

While you were sleeping the ATV lapped you. As of GMT078/1830, it was 640 km in front and 35 km below the mated stack.

6. Comments for Takao's JLP Activities Today:

Per FD6 downlink photo, we noticed on the EPS1 rack that the Lever Knob on the Rack Upper Attachment Mechanism was at the Bottom position. It should be at the Top position. So, we request that you reconfigure the Knob today during JLP RACK CONFIG VERIFICATION. See message 77, item 4 for details.

During JLP PICTURE today, please take photos per message 16-1375 (MSG082).

When you put the card of JAXA POEMS and JLP PICTURE images into the SSC11, please notify the ground that the card contains the requested JAXA images. This will allow the ground to separate those images and get them to JAXA without mistaking them for other images.

7. Questions for Takao

Outstanding job! Takao, you are going extra miles everyday! We should ask you this request in time, but would you please let SSIPC know the following information?

- B/C of 1/2" QD Plug in 1J Activation Kit stowed in NOD2S5_D2 during JLP 1J STOW PREP1. (GMT076).

- B/C of the Hard Dummy Panel Strap which was used for securing JTVE Booms (GMT077). If you haven't used any Hard Dummy Panel Straps, let us know which strap you used for JTVE Boom.

- On FD07 Takao reported that he stowed 6 jettison stowage bags full of foam in the JLP. Can you confirm that this is all of the foam out of the JLP rack front stowage bags and the bags that you have retrieve out of the JLP Endcone. This will allow us to update IMS and get the disposal paperwork started

8. Transfer List

There are no changes to the Transfer List for today. Please reference the hardcopy Transfer List (and if needed, the FD08 Transfer List Excel file, uplinked yesterday to the KFX machine in C:\OCA-up\transfer).

9. WLES Software Recovery

Overnight, STS-7 WLES stopped executing remote commands. We were unable to verify the status of the machine, and attempted to swap to STS-6-RPOP2 as the primary machine in order to execute a series of commands. We were unable to successfully command STS-6-RPOP2 to prime.

We need the following actions to recover WLES on STS-7-WLES and STS-6-RPOP2:

1. Verify status of WLES software on the following laptops:STS-7-WLES, STS-6-RPOP2. Were these machines rebooted last night?

2. Perform actions on STS-7-WLES and STS-6-RPOP2 laptops:
   a. If WLES software is running:
      Exit WLES Application
   b. Perform reboot on laptop (if not rebooted last night)

   c. Execute steps 5, 7,8 and 10 of (ORB OPS, <u>WLES ACTIVATION AND CHECKOUT)</u>

10. REPLACE PAGES 2-30, 2-32 3-92 THROUGH 3-99.

No Exercise, period !
(SLP Dual-Grapple until
at SLP-POA Pre-Install) 03/18/08 12:11:17

REPLANNED

GMT 03/18/08 (078) 19 20 21 22 23 03/19 01 02 03 04 05 06

MET β=40 Day 007 12 13 14 15 16 17 18 19 20 21 22 23 008/00

STS-123	FD09 CDR GORIE	POST SLEEP* · N2-I · POST SLEEP · EXERCISE · IMU · N2-T · P/TV 06 SU · RMS* · MEAL · P/TV 06 · PRLA CLOSE · OFF DUTY
STS-123	M1 PLT JOHNSON	SLEEP · POST SLEEP · EXERCISE · SPDM STOW ON LAB · MEAL · SPDM RLS · SLP GRAP · SLP POA RLS · SLP BERTH PLB · SLP UNGR · OFF DUTY
STS-123	MS1 BEHNKEN	ASPRN · POST SLEEP · CLPA PACK · EXERCISE · MEAL · XFER BRIEF · EMU RECNFG & SWAP · BATT/XL MINSTOT · E_LK PREP · EMU PREP* · OFF DUTY
STS-123	MS2 FOREMAN	SLEEP · POST SLEEP · FLTR CLN - INSPECT · EXERCISE · MEAL · EMU RECNFG & SWAP · BATT/XL MINSTOT · E_LK PREP · OFF DUTY
STS-123	MS3 DOI	CDM-D · POST SLEEP · EXERCISE · FAN1 · JAXA EPO POEMS · JTVE BOOM ASSY · RMS* · MEAL · JLP RACK CNFG VERIF · JLP PHOTO · FAN0 · PRLA CLOSE · OFF DUTY
STS-123	MS4 LINNEHAN	ASPRN · POST SLEEP · JTVE BOOM ASSY · MEAL · BSA-T · BSA INIT · EXERCISE · MTX-T · MTX-I · OFF DUTY
DN	D2/M2 FE-2 EYHARTS	POST SLEEP · PREP WORK · DPC · SPDM ARM 1 STOW · SPDM ARM 2 STOW · ROLL · SPDM STOW ON LAB · MEAL · DCS · SALV* · VIDEO S/U · TVIS · CTTC TSTOW · W/OFF N2 TO MBS · EXERCISE CEVIS · W/OFF NOD2F RLS · SSRMS XLATE POSN · PW
EXP	ISS CDR WHITSON	POST SLEEP · PREP WORK · DPC · RED · ♣ · POEMS · IFM-CCAA NOISE-T/S · MEAL · GSC SMPL · NOD2SD2 BBA R&R · EXERCISE CEVIS · WRM CWCI · W/OFF N2 TO MBS · WRM CWCT · W/OFF NOD2F RLS · SSRMS XLATE POSN · PW
EXP	FE-1 MALENCHENKO	POST SLEEP · PMC · PREP WORK · DPC · TEX-20-LK CK1-FE · TEX-20 LOAD · TEX20 DNLK · ИМП-1 MN-T · VELO+RED · MEAL · ПИЛЛЕ DWLD PLCMNT · TEX^ · CTTC-AMPLIFIER-R&R · CTTC TSTT · ГАНК ANLZ · TVIS · COЖ · EXER TEXER^ · PREP WORK
UP	D1 FE-2 EXP16 REISMAN	SALV · POST SLEEP · PREP WORK · DPC · SPDM ARM 1 STOW · SPDM ARM 2 STOW · ROLL · MEAL · SPDM RLS · SLP GRAP · SLP POA RLS · SLP BERTH PLB · SLP UNGR · S/U · RED · IMS · PW
STS	DAY/NIGHT	
STS	ORBIT	120 121 122 123 124 125 126 127
STS	TDRS W -171 E -46 Z -275	
	ORB ATT	BIAS -XLV -ZVV
	NOTES	*LEB TOWEL CHECK · ♣CMS-RED-INSPECT · *MNVR SLP VIEW W/OBSS *SETUP · *FOR TPS REPAIR · ^20 PRESS CK

2-30 SPDM BASE CHANGE FLT PLN/123/FLIGHT SSRMS BASE CHANGE

REPLANNED
No Unisolated Exercise
(MT Xlate)

03/18/08 12:11:17

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

STS-123 (FD09)

GMT Date 03/18 (078) | W | TDRSE | Z | DORB | ORB | MET Day 007 | STS ATI | CDR GORIE | PLT JOHNSON | MS3 DOI | MCC | NOTES

12:00 — FLIGHT SLEEP LOG (ORB OPS, SDBI) — CDM DEACT (ORB OPS, CDM DTO)

FD09 EZ ACTIVITES
Check TEPC Status
Hard Reboot PGSCs (Except WLES & RPOP2)

19:00 — 16 — 120

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

*Do LEB TOWEL CHECK. Change out if req'd. Ref. MSG 077, Item 2

13:00

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

20:00 — BIAS-XLV-ZVV

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

N2 RPRS USING PL N2 VLVS Init (ORB OPS,ECLS)
Steps 1,3-7. MCC will TMBU SM FDA

14:00 — 1 — 121

21:00

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

15:00

EXERCISE

22:00 — 2 — 122

EXERCISE

ASSY OPS: 1.106 JLP VENT FAN ACT/DEACT-MKAM Step 1 (Act)
ASSY OPS: 2.111 SPACE LIFE EXP & SPACE POEM DVD PHOTO SESSION
Ref. MSG 074 for Stow Locations

16:00

Page 6

STS-123 (FD09)

GMT Date 03/18 (078) | W | TDRS E | Z | DORB 1 6 2 | ORB 1 2 0 1 2 1 1 2 2 | MET Day 007 | STS ATI

MS1 BEHNKEN | MS2 FOREMAN | MS4 LINNEHAN | NOTES

12:00
FLIGHT SLEEP LOG (ORB OPS, SDBI)
EVA CREW: TAKE 1 ASPIRIN (325mg)

FLIGHT SLEEP LOG (ORB OPS, SDBI)

EVA CREW: TAKE 1 ASPIRIN (325mg)

19:00

13:00

20:00

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

BIAS-XLV-ZVV

14:00

21:00

15:00

CLPA PACK
Ref. Transfer List: Items 702 - 702.9

22:00

16:00

Page 7

STS-123 (FD09)

GMT Date 03/18 (078) | W | TDRS E | Z | DORB 2 3 4 5 | ORB 1 2 2 1 2 3 1 2 4 1 2 5 | MET Day 007 | STS ATI BIAS -XLV -ZVV

CDR GORIE	PLT JOHNSON	MS3 DOI	MCC	NOTES
EXERCISE	EXERCISE	ASSY OPS: 2.111 SPACE LIFE EXP & SPACE POEM DVD PHOTO SESSION Ref. MSG 074 for Stow Locations		
EXERCISE	ROBO: 1.504 SPDM STOW ON LAB PDGF Steps 1-5 Ref. MSG 015	ASSY OPS: 2.106 JTVE BOOM RETRIEVAL & ASSEMBLY Steps 2-3 Ref. MSG 074 for Stow Locations		
IMU STAR OF OPPTY ALIGN (ORB OPS)				
N2 RPRS USING PL N2 VLVS Term (ORB OPS, ECLS) Steps 8-13. MCC will TMBU SM FDA. SLP BERTH VIDEO SETUP Ref. MSG 070				
SLP VIEWING WITH OBSS (PDRS, VIEWING SUPPORT)		SLP VIEWING WITH OBSS (PDRS, VIEWING SUPPORT)		
MEAL	MEAL	MEAL		
	ROBO: 1.504 SPDM STOW ON LAB PDGF (Release) Step 6 Ref. MSG 015			
P/TV06 ROBO OPS (P/TV FS, SCENES) OPS Item 3	ROBO: 1.102 SLP BERTH IN ORBITER Steps 1-3 (Grapple)	JLP RACK CONFIG VERIFICATION Ref. MSG 077, Item 4 Ref. MSG 074 for Stow Locations		
		JLP PICTURE Ref. MSG 082 Ref. MSG 074 for Stow Locations		NO EXERCISE
	ROBO: 1.102 SLP BERTH IN ORBITER Step 4 (MBS POA Release of SLP)			
	ROBO: 1.102 SLP BERTH IN ORBITER Step 5-9	ASSY OPS: 1.106 JLP FAN ACT/DEACT-MKAM Step 2 (Deact)		

Time scale: 16:00, 17:00, 18:00, 19:00, 20:00; 23:00, 00:00, 01:00, 02:00

STS-123 (FD09)

GMT Date 03/18 (078) | W | TDRSE | Z | DORB | ORB | MET Day 007 | STS ATI

MS1 BEHNKEN	MS2 FOREMAN	MS4 LINNEHAN	NOTES
CLPA PACK Ref. Transfer List: Items 702 - 702.9	FILTER CLEANING (IFM, SCHEDULED MAINTENANCE) Inspect filters and clean as necessary	ASSY OPS: 2.106 JTVE BOOM RETRIEVAL AND ASSEMBLY Steps 2-3 Ref. MSG 074 for Stow Locations	
EXERCISE	EXERCISE		
MEAL	MEAL	MEAL	
TRANSFER BRIEF Call down status of CLPA Pack to MCC			
EMU RCNFG & SWAP FOR EVA 4 (EVA, AIRLOCK CONFIG) Ref. MSG 081	EMU RCNFG & SWAP FOR EVA 4 (EVA, AIRLOCK CONFIG) Ref. MSG 081	EVA SYS: 1.605 BSA BATTERY RECHARGE (Term) EVA SYS: 1.605 BSA BATTERY RECHARGE (Init) EMU Batteries s/n 2070 & 2065 removed from EMUs during EMU Reconfig & Swap Ref. MSG 081 REF: STS-123 BATTERY RECHARGE PLAN CC & STS-123 CONSUMABLES TRACKING CC(EVA)	NO EXERCISE

Time scale: 16:00, 17:00, 18:00, 19:00, 20:00; 23:00, 00:00, 01:00, 02:00

DORB: 2, 3, 4, 5; ORB: 122, 123, 124, 125

STS ATI: BIAS-XLV-ZVV

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3-95 FLT PLN/123/FLIGHT

STS-123 (FD09)

GMT Date 03/19 (079) | W | TDRS E | TDRS Z | DORB 5 | DORB 6 | DORB 7 | ORB 125 | ORB 126 | ORB 127 | MET Day 007 | STS ATI | BIAS -XLV -ZVV

MET	CDR GORIE	PLT JOHNSON	MS3 DOI	MCC	NOTES
20:00	P/TV06 ROBO OPS (P/TV FS, SCENES) OPS Item 3	ROBO: 1.102 SLP BERTH IN ORBITER Step 5-9			
21:00	ROBO: 1.102 SLP BERTH IN ORBITER Steps 10-13 (PRLA CLOSE) Ref. MSG 071	ROBO: 1.102 SLP BERTH IN ORBITER Steps 14-15 (Ungrapple)	ROBO: 1.102 SLP BERTH IN ORBITER Steps 10-13 (PRLA CLOSE) Ref. MSG 071		
22:00	OFF DUTY	OFF DUTY	OFF DUTY		
23:00					
00:00					

STS-123 (FD09)

GMT Date 03/19 (079) | W | TDRSE | Z | DORB | ORB | MET Day 007 | STS ATI | MS1 BEHNKEN | MS2 FOREMAN | MS4 LINNEHAN | NOTES

20:00

EMU RCNFG & SWAP FOR EVA 4
(EVA, AIRLOCK CONFIG)
Ref. MSG 081

EMU RCNFG & SWAP FOR EVA 4
(EVA, AIRLOCK CONFIG)
Ref. MSG 081

03:00

5 | 125

EXERCISE

EVA SYS: 1.515 EMU METOX/LIOH/
BATTERY REPLACEMENT
REF: STS-123 CONSUMABLE
TRACKING CC (EVA)

EVA SYS: 1.515 EMU METOX/LIOH/
BATTERY REPLACEMENT
REF: STS-123 CONSUMABLE
TRACKING CC (EVA)

21:00

EVA SYS: 1.305 EQUIP LOCK PREP
Steps 1-3 not req'd.
Select Overgloves for EVA use.

Ref. MSG 013
REF: STS-123 CONSUMABLE
TRACKING CC (EVA)

EVA SYS: 1.305 EQUIP LOCK PREP
Steps 1-3 not req'd.
Select Overgloves for EVA use.

Ref. MSG 013
REF: STS-123 CONSUMABLE
TRACKING CC (EVA)

04:00

BIAS-XLV-ZVV

EMU PREP FOR TPS REPAIR
(EVA, TOOLS & STOWAGE)

EVA SYS: 1.510 METOX REGENERATION (Term)

EVA SYS: 1.510 METOX REGENERATION (Init)
METOX cans s/n 20 & 21 removed from EMUs
during EMU Reconfig & Swap
Ref. MSG 081
REF: STS-123 CONSUMABLES TRACKING CC(EVA)

22:00

05:00

23:00

OFF DUTY

OFF DUTY

OFF DUTY

06:00

7 | 127

00:00

STS-123 (FD09)

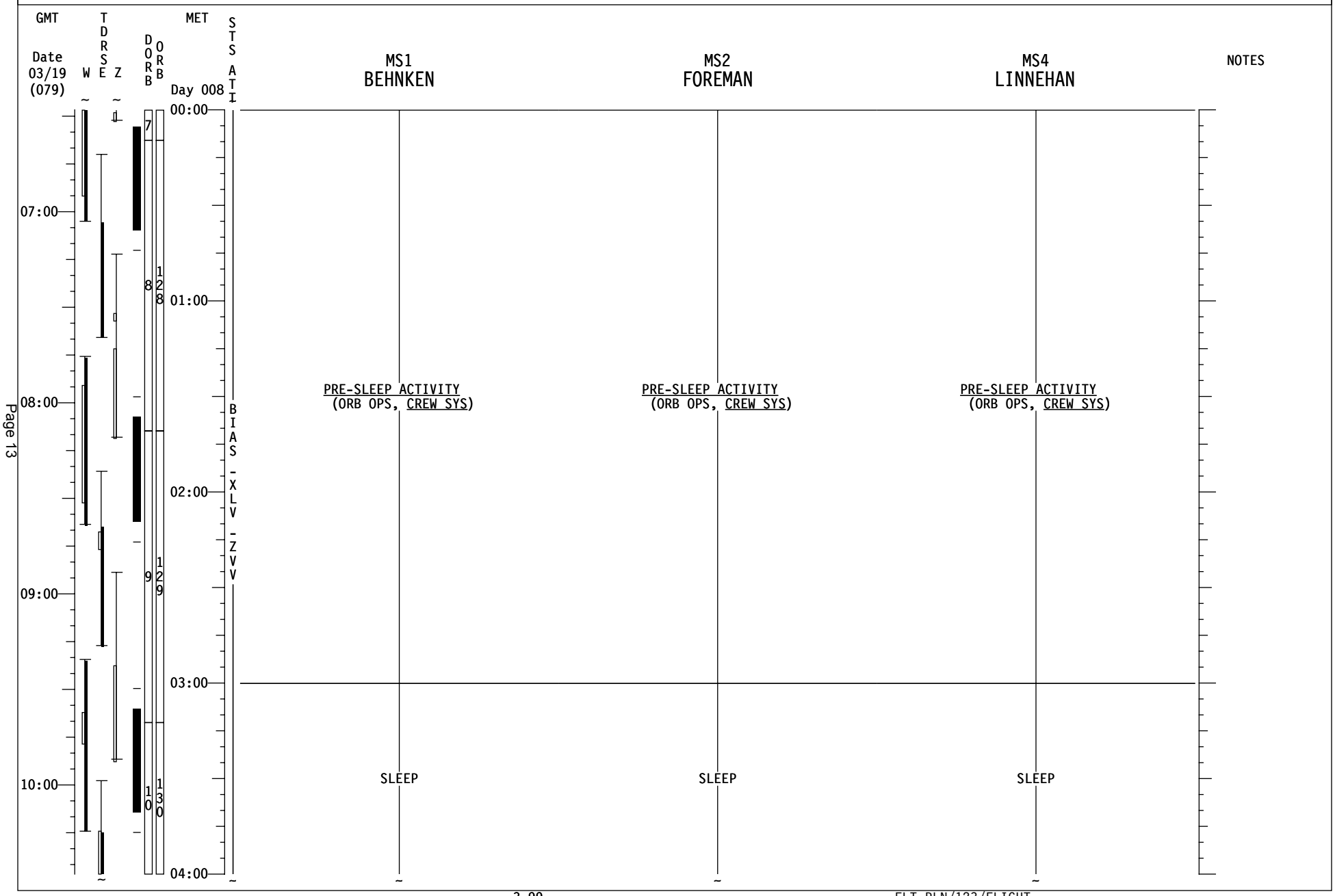
GMT Date 03/19 (079) | W | TDRS E | TDRS Z | DORB 7 | DORB 8 | DORB 9 | DORB 10 | ORB 128 | ORB 129 | ORB 130 | MET Day 008 | STS ATI

CDR GORIE	PLT JOHNSON	MS3 DOI	MCC	NOTES
NETMEETING VIDEO CONFERENCING (ORB OPS, PGSC) Private Medical Conference KU TDRW: 23:52-00:26 [A]				OCA-PMC
[A] Omit VLHS item in Step 1 Omit Step 3 Use A/G2 for Audio and inform MCC which PGSC will be used.				
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS) *Do LEB TOWEL CHECK. Change out if req'd. Ref. MSG 077, Item 2	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
SLEEP	SLEEP	SLEEP		

00:00 01:00 02:00 03:00 04:00 07:00 08:00 09:00 10:00

BIAS -XLV -ZVV

STS-123 (FD09)


GMT
Date 03/19 (079)
W
TDRSE
Z
DORB
ORB
MET
Day 008
STS ATI
BIAS -XLV -ZVV
MS1 BEHNKEN
MS2 FOREMAN
MS4 LINNEHAN
NOTES
00:00
01:00
02:00
03:00
04:00
07:00
08:00
09:00
10:00
7
8
9
10
128
129
130
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)
SLEEP
SLEEP
SLEEP

We're considering some deltas to your MAUI DTO. The details aren't clear yet but so far it involves you unstowing some surfboards, Hawaiian shirts and ukuleles. We'll send up stowage locations once we have a plan put together.

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.

NEXT 2 PLS OPPORTUNITIES:

EDW22 ORB 126 – 07/21:57 (SCT250 230/07P11)
EDW22 ORB 142 – 08/22:19 (FEW120 SCT 250 270/07P11)

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 FROM CURRENT OMS QUANTITIES

DELTA V AVAILABLE:

OMS	342 FPS
ARCS (TOTAL ABOVE QTY 1)	40 FPS
TOTAL IN THE AFT	382 FPS
ARCS (TOTAL ABOVE QTY 2)	72 FPS
FRCS (ABOVE QTY 1)	23 FPS
AFT QTY 1	79 %
AFT QTY 2	41 %

END OF PAGE 1 OF 2, MSG 078

SYSTEM	FAILURE	IMPACT	WORK AROUND
ECLS	Off nominal noise emanating from Cabin Temp Controller 1	None	Swapped to Cabin Temp Controller 2, noise stopped.

END OF PAGE 2 OF 2, MSG 078

Fantastic job on EVA 3! Mr. Dextre is complete. Great teamwork.

EVA Big Picture

We've decided that we will not have any deltas to EVA 4 due to the MISSE installation issue on EVA 3. We're currently looking at ways to address the installation of MISSE such that everyone will be good with the plan. If that occurs, we are looking at EVA 5 for performing another attempt at installation. We'll provide more details for the EVA 5 procedure review when a decision is made.

EMU Procedure Deltas

Due to Mike's RTV loss on his gloves in EVA 2, he will need to swap to his backup gloves during the EMU Reconfig/Swap scheduled for today. We also would like you to remove the Metox cans and EMU batteries from the EMUs before reconfiguring them. The Metox cans and EMU batteries will be regenerated/recharged today. Please pen and ink the following changes into the **EMU RECONFIG/SWAP FOR EVA 4** procedure, FS 2-15.

1. Add step 3a. Remove Metox can s/n 21. Install vent port plugs (stowed in EMU Equipment Bag) or Install Metox can for EVA 4.
2. Add step 3b. Remove EMU battery s/n 2065.
3. Add step 6a. Remove Metox can s/n 20. Install vent port plugs (stowed in EMU Equipment Bag).
4. Add step 6b. Remove EMU battery s/n 2070.
5. In step 29, strike through "leave gloves connected" and write in "Swap Fm Prime gloves for Fm Back Up gloves (s/n 6066)"
6. Update diagram on FS 2-20 with Fm B/U glove s/n 6066.

Fm B/U gloves (s/n 6066) are located in Stbd 1 MD Floor Bag. Mike's prime gloves (s/n 6065) can be placed back in the Stbd 1 MD Floor Bag.

Please pen and ink the following changes to the **STS-123 Consumables Tracking Cue Card**.

In the FD9 row, replace Regen Metox 0017, 0019 with s/n 0020, 0021

Mike,

Concerning the pressure on your instep, we recommend you remove the heel pads from your LCVG to provide greater front to back movement for your feet. Stow heel pads in Fm ECOK. Also, the ground has come up with a suggestion on how to alleviate the shoulder soreness you experienced during EVA 2. You can gain an extra ½ inch of suit length (shoulder to heel) by taking the cams on the waist brief to Long-Long (currently in Short-Long) and the leg cams to Short-Short (currently in Short-Long). This will also provide 1 inch of extra easement in the shoulder to crotch length, which will give you a little more room to "crouch" down in the EMU to relieve any shoulder pressure. You can reference the STS-123 Nominal EMU Sizing Matrix on page FS 12-27 for the cam swaps. Please report your final config to MCC-H. We do have one additional question about the foot pressure you experienced during your last EVA. Was the instep contact constant or intermittent?

Bob and Rick,
The Glove Team has reviewed the photos that you sent down post EVA 3 and they have determined that both of your EMU Gloves are go for EVA. The overgloves that Rick used are also go for EVA. The overgloves that Bob used can be used again if you trim the loose RTV prior to EVA 4. Keep that in mind when you get to the EMU Reconfig/Swap for EVA 4 activity.

MSG 082 (16-1375) - JLP PICTURE

No.	Hardware	Location	Reference Procedure
1	EPS1 Rack Overview	JLP1S2	2.100 JLP Rack reconfiguration - EPS1, DMS1, WS
2	EPS1 Rack K-Bar Right		
3	EPS1 Rack K-Bar Left		
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Timeline Procedures:

P/TV-EVA DCS-TRNARND						
2.725 760 EVA CAMERA TURNAROUND - CAMERA ONLY						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**ISS Deployed** or **LAB1D3**	PCMCIA 1GB Microdrive	SEZ33112992-301	-	-	
2		1GB EVA Flash Card [QTY: 2]	SEZ33118356-301	-	-	**REPORT** S/N to MCC-H.
3		Lens Cloth Kit	SED33102528-330	-	-	
4	**ISS DEPLOYED** or **A/L D2_Behind Closeout** 1.0 CTB: EVA CAMERA ASSESSORIES s/n 1221, b/c 006717J	Tie Wrap [QTY: 4]	SDD13101649-302	-	-	AKA Zip Ties. **REPORT** to MCC-H the total number used for inventory management.

EHS-GSC-OPS						
2.6.240 GRAB SAMPLE CONTAINER: GSC - OPERATIONS						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**LAB1D4_C1**	GSC [QTY: 3]	SDD46108778-301	Crew Pref	Crew Pref	**REPORT** S/N to MCC-H

IMMN-CRW SALIVA-S/U						
2.002 Saliva Collection for Integrated Immune						
Type: Standard			**IMS Plan: No**			
#	LOCATION	ITEM NAME	P/N	S/N	B/C	Notes
1	**CM1PO_4_438_КЭП**	Integrated Immune Saliva Collection Kit	SJG46121521-301	1006	HRF07568J	Leo

WRM-CWC-FILL-INIT						
2.701 CWC FILL FROM LAB CONDENSATE TANK						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**LAB1O6**	FSS-70-1 Jumper	683-17111-19	000001	00004672J	
2	**NOD1D2**	CWC	SEG33113140-305	1054	00059251J	
3	**Crew Pref**	Towel	Any	-	-	

JLP JTVE BOOM ASSY						
2.106 JTVE BOOM RETRIEVAL AND ASSEMBLY						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**JLP1S1_A1** M01 CTB: CTB-J-M1 S/N 1022	MLI Boom Port/Fwd	T7-53426-101	001	PTCMB001N	
2		MLI Boom Port/Aft	T7-53426-161	001	PTCMB002N	
3	**NOD2 Deployed** Mesh Bag: VOK Tools	Ratchet, 1/4" Drive	TM830			
4		1/8" Hex Head, 1/4" Drive	TMA4E			
5	**NOD1D4_G2** ISS IVA Toolbox Drawer 2	(5-35 in-lbs) Trq Driver, 1/4" Drive	SEG33117289-301			
6	**NOD1D4_G2** ISS IVA Toolbox Drawer 3	#0 Phillips Screwdriver	SSDEP30B			
7	**JLP1S0** 24" x 24" Ziplock Bag labeled "JEM Straps	Hard Dummy Panel Strap	80AS51745-105	-	Crew Pref	**REPORT** B/C to SSIPC.
8	**Crew Pref**	DCS 760 Camera	SEZ33113001-302	ANY	ANY	
Type: Restow			IMS Plan: No			
9	**JLP1P2 DMS1 Rack Front**	JTVE Boom-Port, Fwd	80A44090-101	001	VDSBOOM1N	Secured by Hard Dummy Panel strap not to interfere with JLP1P1 ICS Rack
10		JTVE Boom Handle	80A44099-101	-	JTVEH001N	
11		JTVE Boom-Port, Aft	80A44090-102	-	VDSBOOM2N	
12		JTVE Boom Handle	80A44099-102	-	JTVEH002N	

JAXA EPO POEMS						
SPACE LIFE EXP AND SPACE POEM DVD PHOTO SESSION						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**NOD2D2** 1.0 CTB: CTB-U-S2, S/N 1002, B/C 1CTB0002N	Ziplock "JAXA EPO Kit"	J-CE-1-001	-	JEP00001N	**Keep** Ziplock.
2		Space Poem DVD	J-SP-001	001	JEP00041N	
3		Space Life Exp	J-SL-001	001	JEP00031N	
4	**NOD2 Deployed** Mesh Bag: VOK Tools	DCS 760 Camera	SEZ33113001-302	-	-	
5	**ISS Deployed**	DCS Rechargeable Battery	SDZ33112993-802	Crew Pref	Crew Pref	
6		PCMCIA 1GB Microdrive	SEZ33112992-301	Crew Pref	Crew Pref	
7		SB-28 Flash	SED33104064-303	Crew Pref	Crew Pref	

JLP RACK CONFIG VERIFICATION JLP PICTURE						
None						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
5	**NOD2 Deployed** Mesh Bag: VOK Tools	5/16" Hex Head, 3/8" Drive	FA10E	-	-	
6		Ratchet, 3/8" Drive	F830	-	-	
7		3/8" Hex Head, 3/8" Drive	FA12E	-	-	
5		(40-200 in-lbs) Trq Wrench, 3/8" Drive	SEG33117289-302	-	-	
13	**Crew Pref**	DCS 760 Camera	SEZ33113001-302	ANY	ANY	

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)	-	-	-	

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	

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.

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	

FD08 MMT Summary

The FD08 MMT met to review mission progress. The signatures from the SPDM Brake Run In Tests and diagnostic tests were analyzed and the brake system is performing according to specification. The ISS Program has decided that O2 transfer to the ISS will not be performed on STS-123. Also, the team has concluded that the pressure decay observed on the APU 1 Fuel Tank is a GN2 leak and the APU should be treated as a healthy system. Everyone is looking forward to EVA #3!

APU 1 Fuel Tank Pressure Decay: The Orbiter Project Office presented their assessment of the APU 1 Fuel Tank pressure decay. This was an exhaustive study that involved peer reviews from engineers from multiple NASA centers. The APU 1 Fuel Tank pressure has been decreasing approximately 4 psi/day. The STS-123 pressure decrease signature is very similar to the GN2 leak that was seen on the APU 1 Fuel Tank on STS-121. When Endeavour last flew on STS-118, this pressure decrease was not present and only minor insulation work was performed on the fuel side of the tank in addition to the nominal ground processing leading up to STS-123.

The team used a physics-based approach to characterize the leak. Three different leak scenarios were analyzed including, a fuel line leak between the tank and the fuel isolation valves, a fuel leak originating from the fuel tank, and a fuel leak from the external fuel servicing QD located on the port sidewall panel. When all three scenarios were examined, the insulation and environmental conditions result in the hydrazine fuel freezing in the immediate locality of the leak. Based on this, if a fuel leak was present, the leak would likely result in a frozen plug, stable pressures, or temperature transducer excursions if the leak was originating from the fuel tank. The fact that the pressure decrease in the fuel tank has shown a consistent leak rate strongly suggests that the APU 1 fuel tank is experiencing a GN2 leak. Based on this extensive work, the team recommends running APU 1 nominally for both FCS Checkout and for entry.

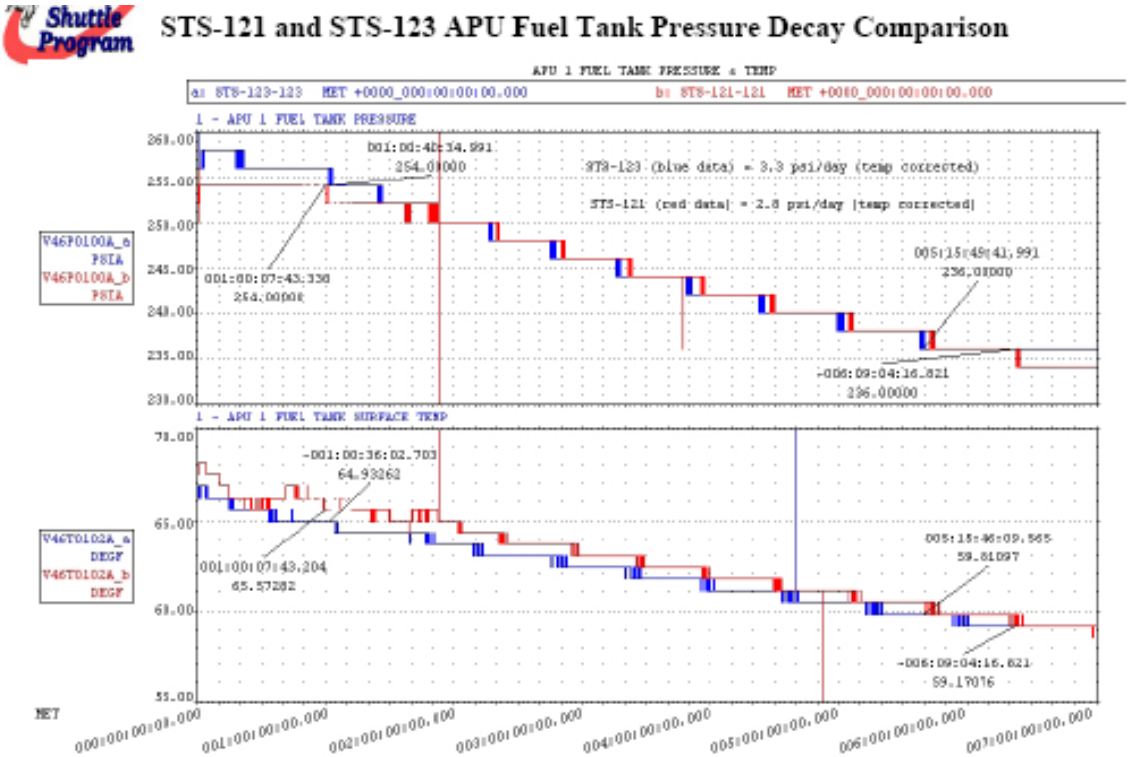

Figure 1 - comparison between STS-123 and STS-121 pressure decay

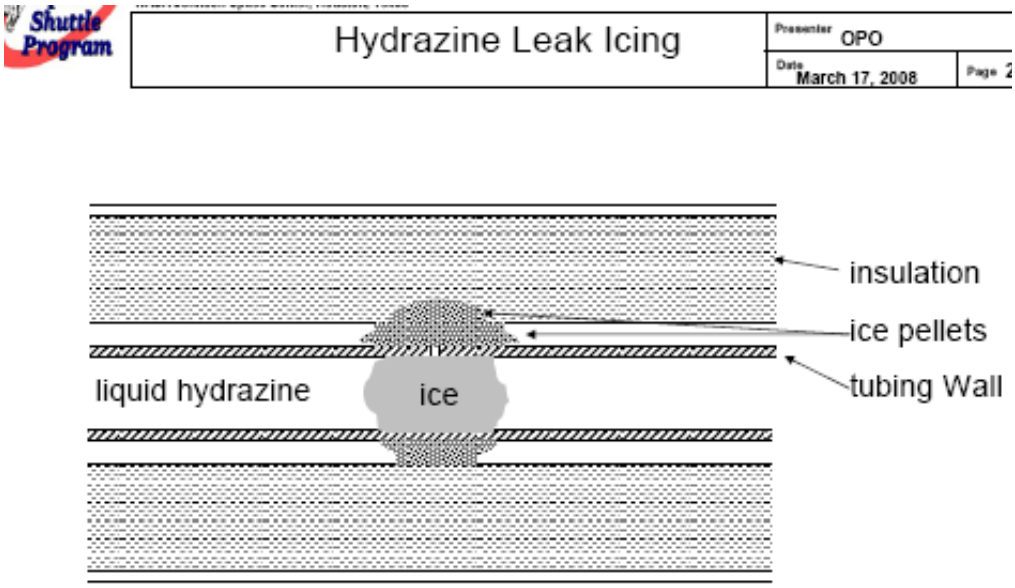

Figure 2 - Physics of Hydrazine line leak

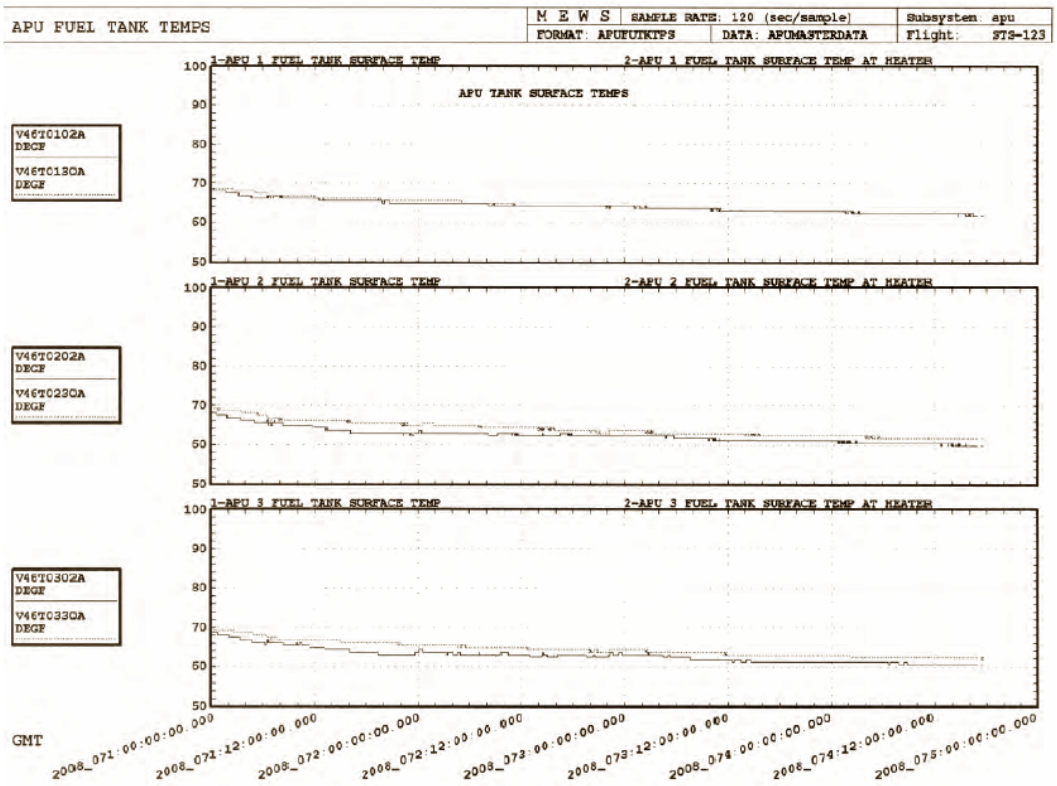

Figure 3 - APU Fuel Tank temperatures

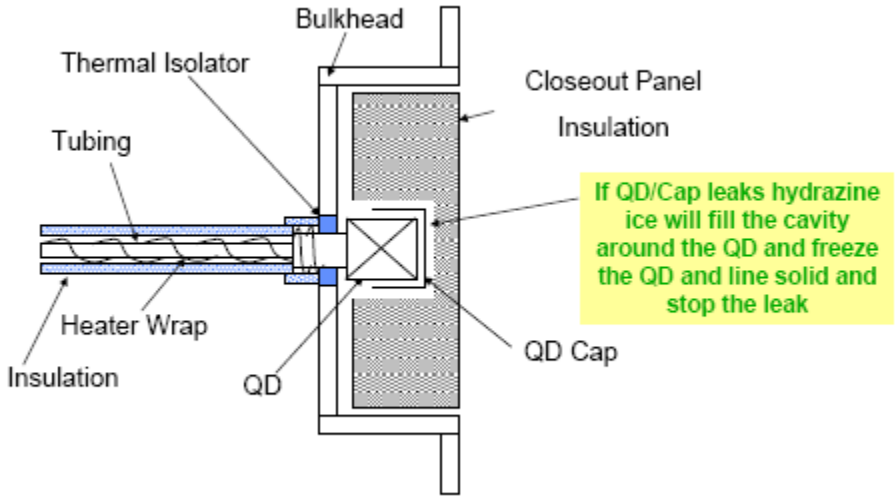

Figure 4 - Hydrazine QD Configuration