STS-122 / 1E

FD 03 Execute Package

MSG	Page(s)	Title
012A	1 - 15	FD03 Flight Plan Revision **(pdf)**
013	16 - 17	FD03 Mission Summary **(pdf)**
009	18 - 20	QD Keying Feature Removal **(pdf)**
010	21 - 23	Center Disk Cover Standoff Bracket Removal **(pdf)**
014	24	FD03 Transfer Message **(pdf)**
015	25	PHA Configuration For EVA **(pdf)**
016	26	CBM Launch Restraints Release **(pdf)**
017A	27	Modification to RWS Drag-Thru-Cable Plan **(pdf)**
018	28 - 31	MTL Supply Jumper Big Picture Words **(pdf)**
019	---	FD02 MMT Summary **(pdf - Electronic Only)**
020	32 - 37	FD03 RELMO and MNVR Pads **(pdf)**

Approved by FAO: *Jennifer Clevenger*

Last Updated: Feb 9 2008 9:23AM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

MSG INDEX

MSG NO.	TITLE
009	QD Keying Feature Removal (16-0989)
010	Center Disk Cover Standoff Bracket Removal (16-0990)
012	FD03 Flight Plan Revision
013	FD03 Mission Summary
014	FD03 Transfer Message (16-0992)
015	PHA Configuration for EVA (16-0997)
016	CBM Launch Restraints Release (16-0993)
017	Modification to RWS Drag-Thru-Cable Plan
018	MTL Supply Jumper Big Picture Words (16-0996)
019	FD02 MMT Summary
020	FD03 RELMO and MNVR Pads

1. We'd like to apologize for waking you up last night with the 'S66 SPLY H2O PRES' message. Below is a short explanation on why the message annunciated.

   At approximately MET 1/07:30, supply water tanks A and B hardfilled nominally and the supply water pressure began to increase. The pressure increased greater than the onboard upper limit (40 psi) which caused a ‘S66 SPLY H2O PRES’ message before the A/B and B/C check valves cracked. The limit has been TMBUed from 40 psi to 45 psi to prevent further nuisance alarms.

2. **Details for the FD3 Waste Water Dump**:
   The simo supply and waste water dumps originally scheduled for FD03 has been changed to a waste water dump only.

   At 1/14:00 MET, perform a waste water dump using SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) p. 5-2. Dump the waste tank to 5%, waste dump valve open duration is approx. 31 minutes. MCC will TMBU all S/W limits.

3. **Details for the Shuttle Condensate Collection:**
   For MS4 at 1/16:45 MET: In Step 1 of the SETUP of SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) p. 5-36, the Y-Y Condensate Hose and CWC s/n 5060 are stowed in MF71M.

4. **Details for the Node 2 O2 System Purge & P/B Setup:**
   For the CDR at 2/00:05 MET, make the following pen & ink changes to NODE 2 O2 SYSTEM PURGE AND SETUP FOR PREBREATHE USING SHUTTLE O2 (ASSY OPS, ACT&C/O):

   In TOOLS AND EQIPMENT REQUIRED:
   GO2 Transfer Flex Hose Assy is located in the Orbiter Windowshade Bag.

   In step 4.7:
   From:
   Close GO2 Transfer Flex Hose Assy bent-end QD.
   Remove plug.
   To:
   Remove plug from GO2 Transfer Flex Hose Assy bent-end QD

5. Preflight you requested the Node 2 Port CBM petal launch restraint release procedure be sent to you. It can be found in MSG 016 (16-0993), in case we get time for that get-ahead on any of our EVA's.

6. During recent joint airlock troubleshooting, PHA QD 26 in the equipment lock was found to have a slightly higher than expected leak rate. As a result, use only the right PHA QD 27 for mask prebreathe operations. Reference MSG 015 (16-0997) for the required configuration. Because of kickload concerns, we want to minimize the amount of time that the Relief Valve and the Tee Assembly are connected to the PHA ports when not in use. Therefore, in procedure 2.305 (10.2 psia Campout Mask Prebreathe) in step 22 (Disconnect PHA from PHA Port), disconnect the Relief Valve and the Tee Assembly, and stow in the PHA bag. This same note will apply to procedure 2.315 (Hygiene Break) in step 27 (Disconnect Relief Valve of PHA from PHA port).

7. After the EMU Prep for Transfer to ISS, you found no moleskin in Hans' ECOK. In addition to Rex's ECOK, you can find more moleskin the Crew Comfort Kit in the Equipment Lock M-02 Bag s/n 1010, EMU Soft Goods, outside pocket. This kit has moleskin and other like items that can be configured for your use.

8. Hans and Leo - Regarding the late-breaking change in the Vestibule Outfitting jumper plan, we have uplinked three documents for your review. JEDI 16-0996 (MSG 018) MTL Supply Jumper Big Picture Words will give an overview, with photos, of the new plan. Two associated contingency procedures have been uplinked in the event they are needed during Vestibule Outfitting: 16-0989 (MSG 009) QD Keying Feature Removal and 16-0990 (MSG 010) Center Disk Cover Standoff Bracket Removal. Please let us know if you have any questions.

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

Activity	Exercise Constraints	
	Shuttle	ISS
OBSS HANDOFF	No exercise while both arms are grappled to OBSS	No exercise while both arms are grappled to OBSS

10. REPLACE PAGES 2-6, 2-8, 3-20 THROUGH 3-29.

THIS PAGE INTENTIONALLY LEFT BLANK

02/09/08 03:04:55

FD03
GMT 02/09/08 (040)
MET Day 001

08 09 10 11 12 13 14 15 16 17 18 19
12 13 14 15 16 17 18 19 20 21 22 23 002/00

STS-122	CDR FRICK	SLEEP; MNVR; WASTE; INIT; POST SLEEP; WASTE; TERM; POST SLEEP; NH; NC4; Ti; ISS RNDZ OPS; APPROACH W/RPM; DOCKING*; PGRPL; GRPB; PWRDN; HATCH OPEN; SFTY BRIEF; BPSMU
STS-122	PLT POINDEXTER	SLEEP; CDM-D; POST SLEEP; RCS*; RCS@; ICMI; MCMU*; GRPB; PWRUP; ISS RNDZ OPS; APPROACH W/RPM; DOCKING*; MNVR-XLV; GRPB; PWRDN; H/O; SSV-2; SFTY BRIEF; EVA XFR
STS-122	MS1 MELVIN	SLEEP; LOG; POST SLEEP; GRPB; PWRUP; POST SLEEP; P/TV02 DOCK S/U; N2*; EXERCISE; N2*; ISS RNDZ OPS; APPROACH W/RPM; DOCKING*; PGRPL; PTV04 SETUP; PTV05 SETUP; SFTY BRIEF; CTB
STS-122	MS2/EV1 WALHEIM	SLEEP; POST SLEEP; ISS RNDZ OPS; OIU*; SSV-3; ISS RNDZ OPS; APPROACH W/RPM; DOCKING*; DOCK; AUDIO; EXERCISE; SFTY BRIEF; EVA XFR
STS-122	MS3/EV2 SCHLEGEL	SLEEP; POST SLEEP; ISS RNDZ OPS; MDDK PREP; EMU RMVL; P/TV02 DOCK OPS; DOCKING*; HATCH LEAK CK; ODS PREP FOR INGR; HATCH OPEN; SFTY BRIEF; EVA XFR
STS-122	MS4/EV3 LOVE	SLEEP; LOG; S/U*; SLVA; POST SLEEP; COND CWC S/U; EXERCISE; MDDK PREP; EMU RMVL; ISS RNDZ OPS; APPROACH W/RPM; DOCKING*; HATCH LEAK CK; ODS PREP FOR INGR; POST RNDZ PGSC CONFG; SFTY BRIEF
UP	FE-2 EXP16 EYHARTS	SLEEP; SETUP; SLVA; POST SLEEP; ISS RNDZ OPS; P/TV02 DOCK OPS; ISS RNDZ OPS; APPROACH W/RPM; SFTY BRIEF
ISS	ISS CDR WHITSON	SLEEP; S/U; SLVA; POST SLEEP; DPC; O2 PR PREP; P/TV RPM VRFY S/U; EXERCISE CEVIS; EXERCISE RED; MIDDAY-MEAL; PREP; 400MM PHOTO; RPMDL; PMA2 CFG; HATCH LEAK CK ISS; HATCH OPEN; SFTY BRIEF; ♣; BPSMU
ISS	FE-1 MALENCHENKO	SLEEP; POST SLEEP; PW; DPC; PRESS; CNFG; STOW; P/TV RPM VRFY S/U; PRESS; VELO; EXERCISE TVIS; MIDDAY-MEAL; CPTCP; 800MM PHOTO; PMA2 CFG; HATCH LEAK CK ISS; CTC; HATCH OPEN; AK1 SMPL; SFTY BRIEF; PW
DN	FE-2 TANI	SLEEP; SLEEP; POST SLEEP; PW; DPC; WINDW; EXERCISE RED; EXERCISE CEVIS; MIDDAY-MEAL; TIMER; TIMER; DOCK VIDEO; PMA2 CFG; CAMD; CCISS; STOW; AUDIO; DCS CNFG; HATCH OPEN; SFTY BRIEF; DCS CNFG

DAY/NIGHT

ORBIT 25 26 27 28 29 30 31 32 33

TDRS W -171.0 E -46.0 Z -275.0

ORB ATT: -ZLV -XVV; -ZLV +YVV; RNDZ; BIAS -XLV -ZVV

NOTES: *SALIVA KIT; *FILTER CHECK; @REG RCNFG; *HEATER RCNFG; *RPRS INIT; *ACT; *RPRS TERM; *1/21:39; ♣C&T-NOD2 VD

REPLANNED

02/09/08 03:04:55

FD03

GMT 02/09/08 (040)

MET Day 002

NO EXERCISE

20 21 22 23 02/10 01 02 03 04 05 06 07

002/00 01 02 03 04 05 06 07 08 09 10 11 12

STS-122	CDR FRICK	BPSMU; O2 RCNFG /PURGE; RMS GRPL; RMS*; PRE SLEEP; EVA1 PROC RVW; PRE SLEEP; PMC A/G; PRE SLEEP; SLEEP
STS-122	PLT POINDEXTER	EVA XFR; CWC#2 INIT; CWC#1 XFER; E-LK PREP; CWC TERM; CWC XFER; PRE SLEEP; EVA1 PROC RVW; PRE SLEEP*; SLEEP
STS-122	MS1 MELVIN	CTB; OBSS GRPL; SSRMS OBSS UNBRTH; UNGRP H/O; PLYBK OPS; EVA1 PROC RVW; PRE SLEEP; SLEEP
STS-122	MS2/EV1 WALHEIM	EVA XFR; REBA*; REBA C/O; E-LK PREP; PRE SLEEP; EVA1 PROC RVW; PRE SLEEP; MASK PB/TOOL CONFIG; 10.2 DPRS; PRE SLEEP; SLEEP
STS-122	MS3/EV2 SCHLEGEL	EVA XFR; REBA*; REBA C/O; E-LK PREP; PRE SLEEP; EVA1 PROC RVW; PRE SLEEP; MASK PB/TOOL CONFIG; PRE SLEEP; SLEEP
STS-122	MS4/EV3 LOVE	OBSS GRPL; MRL@; SSRMS OBSS UNBRTH; RMS SETUP; RMS GRPL; RMS*; PRE SLEEP; EVA1 PROC RVW; PRE SLEEP; SLEEP
UP	FE-2 EXP16 EYHARTS	OBSS GRPL; SSRMS OBSS UNBRTH; UNGRP H/O; SSRMS MNVR; EVA1 PROC RVW; PRE SLEEP; PMC A/G; PRE SLEEP-ISS; SLEEP
ISS	ISS CDR WHITSON	BPSMU; O2 RCNFG /PURGE; PREP WORK; SODF XFER; EVA1 PROC RVW; PRE SLEEP; PFC; PRE SLEEP-ISS; SLEEP
ISS	FE-1 MALENCHENKO	PW; CSA O2 CAL; СОГС ЭЛКТ ФПП INSTL; СОЖ MNT; PREP WORK; DWNLD; EVA1 PROC RVW; PRE SLEEP-ISS; SLEEP
DN	FE-2 TANI	♣; OBSS GRPL; SSRMS OBSS UNBRTH; UNGRP H/O; SSRMS MNVR; EVA1 PROC RVW; DCS; PRE SLEEP-ISS; SLEEP

DAY/NIGHT

ORBIT 33 34 35 36 37 38 39 40 41

TDRS W -171.0 E -46.0 Z -275.0

ORB ATT BIAS -XLV -ZVV

NOTES

♣DCS CNFG

*INSTALL

@RELEASE

*MNVR-COL VIEW

*√ HUM SEP

STS-122 FD (03)

REPLANNED

GMT Date 02/09 (040) | W | TDRSE | Z | DORB | ORB | MET Day 001 | STS ATT

CDR FRICK | PLT POINDEXTER | MS1 MELVIN | NOTES

08:00 | 09:00 | 10:00 | 11:00

12:00 | 13:00 | 14:00 | 15:00 | 16:00

-ZLV -XVV

-ZLV +YVV

SLEEP | SLEEP | SLEEP

FD03 EZ ACTIVITIES:
OCAC FILTER INSPECTION
HARD REBOOT ALL PGSCs

< MNVR WATER DUMP ATT

SUPPLY/WASTE WATER DUMP
(ORB OPS, ECLS) Init Waste Dump
Ref. MSG 012, Item 2

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

SUPPLY/WASTE WATER DUMP
(ORB OPS, ECLS)
Terminate Waste Dump

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

CDM DEACTIVATION (ORB OPS, CDM DTO)

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

RCS/OMS HEATER RECONFIG [A]

RCS REGULATOR RCNFG (ORB OPS, RCS)

IMU ALIGN - S TRK (ORB OPS, GNC)

L17 Check MCIU filter screen

PRIORITY PWRUP GRP B
(ORB PKT, PRIOR PWRDN)
Steps 12,10,9,6(Triple G2),5

RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

FLIGHT SLEEP LOG (ORB OPS, SDBI)

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRIORITY PWRUP GRP B
(ORB PKT, PRIOR PWRDN)
Steps 12,10,9,6(Triple G2),5

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

[A] A14 RCS/OMS HTR L POD B - OFF
A - AUTO
R POD B - OFF
A - AUTO

UPDATE
H2O WASTE
DUMP QTY

STS-122 FD (03)

REPLANNED

GMT Date 02/09 (040) | W | TDRSE | Z | DORB | ORB | MET Day 001 | STS ATT

MS2 WALHEIM | MS3 SCHLEGEL | MS4 LOVE | FE-2 (UP) EYHARTS | NOTES

08:00 | 09:00 | 10:00 | 11:00

12:00 | 13:00 | 14:00 | 15:00 | 16:00

-ZLV -XVV -ZLV +YVV

14 25 | 15 26 | 16 27

SLEEP | SLEEP | SLEEP | SLEEP

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

FLIGHT SLEEP LOG (ORB OPS, SDBI)
SETUP FOR SALIVA SAMPLE CLCT (ORB OPS, SDBI)
LIQUID SLVA SAMPLE(ORB OPS,SDBI) Ref. Transfer List: Item 27.5
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

SETUP FOR SALIVA SAMPLE CLCT (ORB OPS, SDBI)
LIQUID SLVA SAMPLE (ORB OPS, SDBI) Ref. Transfer List: Item 27.5
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

STS-122 FD (03)

REPLANNED

GMT Date 02/09 (040) | W | TDRSE | Z | DORB | ORB | MET Day 001 | STS ATT | CDR FRICK | PLT POINDEXTER | MS1 MELVIN | NOTES

12:00 13:00 14:00 15:00

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

RNDZ

1 2 8

2 2 9

3 3 0

RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

< NH 1/16:30:23

< NC4 1/17:20:17

< Ti 1/18:51:58

TRANSITION TO RNDZ C/L at MET 01/15:51:58

RNDZ PET 00:00 (Ti) at MET 01/18:51:58

RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

P/TVO2 DOCK
(PHOTO/TV, SCENES)
Setup

N2 REPRESS USING PAYLOAD N2 VLVS A

A N2 REPRESS USING PAYLOAD N2 VLVS
(ORB OPS, ECLS)
Steps 1-5, On MCC Go, perform step 6
MCC will TMBU all S/W limits

EXERCISE

N2 REPRESS USING PAYLOAD N2 VLVS B
RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

B N2 REPRESS USING PAYLOAD N2 VLVS
(ORB OPS, ECLS)
On MCC Go, perform steps 7-12
MCC will TMBU all S/W limits

STS-122 FD (03)

REPLANNED

GMT Date 02/09 (040) | W | TDRSE | Z | DORB | ORB | MET Day 001 | STS ATT

MS2 WALHEIM	MS3 SCHLEGEL	MS4 LOVE	FE-2 (UP) EYHARTS	NOTES
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)				
		SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) Perform SETUP Ref. MSG 012, Item 3	RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	
	RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)			
SSP1 OIU PWR - OIU 1 ON (tb-UP)				TFL 192
SSV OUTRATE - 3				
RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)		EXERCISE	P/TV02 DOCK (PHOTO/TV, SCENES) Ops	
	MIDDECK PREP (EVA, EVA PREP) Steps 9-12,16	MIDDECK PREP (EVA, EVA PREP) Steps 9-12,16		
	EMU REMOVAL (EVA, AIRLOCK CONFIG)	EMU REMOVAL (EVA, AIRLOCK CONFIG)		
			RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	
	P/TV02 DOCK (PHOTO/TV, SCENES) Ops	RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)		

Time scale: 12:00, 13:00, 14:00, 15:00; 16:00, 17:00, 18:00, 19:00, 20:00

DORB: 1, 2, 3; ORB: 28, 29, 30; STS ATT: RNDZ

STS-122 FD (03)

REPLANNED

GMT Date 02/09 (040) | W | TDRSE | Z | DORB | ORB | MET Day 001 | STS ATT

CDR FRICK	PLT POINDEXTER	MS1 MELVIN	NOTES
RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	
APPROACH TIMELINE (RNDZ, CUE CARD CONFIG)	APPROACH TIMELINE (RNDZ, CUE CARD CONFIG)	APPROACH TIMELINE (RNDZ, CUE CARD CONFIG)	UPLINK β21 Only Box 90
			UPLINK β21 Only Box 20,21
DOCKING (21:39)	**RETURN TO FLIGHT PLAN**		
OBSS HANDOFF FROM SSRMS (NODE 2) TO SRMS (PDRS, OBSS NOMINAL) Pre-Grapple MNVR, Steps 1-2	√DAP A/LVLH/VERN MNVR (TRK) BIAS -XLV, -ZVV TG=2 BV=5 P=160 Y=354 OM=191 Init TRK, DAP:FREE >2 sec Then: DAP:A12/AUTO/VERN	OBSS HANDOFF FROM SSRMS (NODE 2) TO SRMS (PDRS, OBSS NOM) Pre-Grpl MNVR, Steps 1-2	
PRIORITY PWRDN GRP B (ORB PKT) Steps 6(Single G2) and 12 06 S TRK PWR -Z - OFF	PRIORITY PWRDN GRP B (ORB PKT) Steps 6(Single G2) and 12 06 S TRK PWR -Z - OFF		
JOINT OPS: 2.104 HATCH OPENING AND STS/ISS DUCT INSTALLATION MCC-H will perform Steps 1,12-13 & 16	JOINT OPS: 3.111 HANDOVER ATTITUDE CONTROL ORBITER to CMGTA SSV OUTRATE - 2	P/TV04 INGRESS/EGRESS (PHOTO/TV, SCENES) Setup	TFL 184
	A Configure BPSMU & RWS Cables Ref. MSG 017 and Transfer List, Item 1, 801 & 802	P/TV05 ISS INTERNAL OPS (HC) (PHOTO/TV, SCENES) Setup Ref. MSG 017	
SAFETY BRIEFING	SAFETY BRIEFING	SAFETY BRIEFING	
P/TV05 ISS INTERNAL OPS A (PHOTO/TV, SCENES)	POST-DOCKING EVA TRANSFER/ RECONFIG (EVA, AIRLOCK CONFIG)	CTB TRANSFER Ref. Transfer List, Item 7	

Time scale: 16:00, 17:00, 18:00, 19:00; 20:00, 21:00, 22:00, 23:00, 00:00

STS ATT: RNDZ, DOCK, BIAS -XLV -ZVV

DOCKING (21:39)

DOCK

BIAS -XLV -ZVV

STS-122 FD (03)

REPLANNED

GMT Date 02/09 (040) | W | TDRSE | Z | DORB | ORB | MET Day 001 | STS ATT

MS2 WALHEIM	MS3 SCHLEGEL	MS4 LOVE	FE-2 (UP) EYHARTS	NOTES
RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	P/TVO2 DOCK (PHOTO/TV, SCENES) Ops	RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	
APPROACH TIMELINE (RNDZ, CUE CARD CONFIG)		APPROACH TIMELINE (RNDZ, CUE CARD CONFIG)	APPROACH TIMELINE (RNDZ, CUE CARD CONFIG)	
JOINT OPS: 6.109 H/L ICOM AUDIO Steps 1,5, & 6	POST DOCKING HATCH LEAK CHECK (RNDZ, APDS)	POST DOCKING HATCH LEAK CHECK (RNDZ, APDS)		
EXERCISE	A/L PREP FOR INGRESS - BOOSTER FAN ACTIVE (RNDZ, APDS)	A/L PREP FOR INGRESS - BOOSTER FAN ACTIVE (RNDZ, APDS)		
	JOINT OPS: 2.104 HATCH OPENING AND STS/ISS DUCT INSTALLATION MCC-H will perform Steps 1,12-13 & 16	POST RNDZ PGSC CONFIG Configure PGSCs per Usage Chart		
SAFETY BRIEFING	SAFETY BRIEFING	SAFETY BRIEFING	SAFETY BRIEFING	
POST-DOCKING EVA TRANSFER/ RECONFIG (EVA, AIRLOCK CONFIG)	POST-DOCKING EVA TRANSFER/ RECONFIG (EVA, AIRLOCK CONFIG)			

STS-122 FD (03)

REPLANNED

GMT Date 02/09 (040) | W | TDRSE | Z | DORB | ORB | MET Day 002 | STS ATT

20:00 | 21:00 | 22:00 | 23:00

6 | 3 3 | 7 | 3 4 | 8 | 3 5

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

BIAS-XLV-ZVV

CDR FRICK

P/TV05 ISS INTERNAL OPS (PHOTO/TV, SCENES)
(See pg.3-24 for details)

NODE 2 O2 SYSTEM PURGE AND SETUP FOR PREBREATHE USING SHUTTLE O2
(ASSY OPS, ACT&C/O)
Steps 4-12

Ref. MSG 012, Item 4
Ref. Transfer List: Item 21

Do not perform step 12.3.
Leave A/L10A2 panel temp stowed to provide passive ventilation during 1E docked ops.

OBSS HANDOFF FROM SSRMS (NODE 2) TO SRMS (PDRS, OBSS NOMINAL)
Grapple, Steps 6-7

OBSS MANEUVER TO COLUMBUS VIEWING POSITION (PDRS, OBSS NOMINAL)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA1 PROCEDURE REVIEW
Ref: EVA1 BRIEFING CARD
(EVA, TIMELINES)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRIVATE MEDICAL CONFERENCE
Perform via A/G2

PLT POINDEXTER

POST-DOCKING EVA TRANSFER/ RECONFIG
(EVA, AIRLOCK CONFIG)

SHUTTLE/ISS H2O CNTR FILL
(ORB OPS, ECLS)INIT FILL #2
Ref. MSG 005, Fill Dur ~52 min

CWC TRANSFER
Transfer 1 CWC to ISS

EVA SYSTEMS: 1.305 EQUIPMENT LOCK PREP
Steps 1-3 & 10-11 not req'd
Ref. MSG 015

Ref: STS-122 CONSUMABLES TRACKING CC (EVA)

SHUTTLE/ISS H2O CNTR FILL
(ORB OPS, ECLS)
Perform FILL TERMINATION

CWC TRANSFER
Transfer 1 CWC to ISS

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EVA1 PROCEDURE REVIEW
Ref: EVA1 BRIEFING CARD
(EVA, TIMELINES)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

√HUM SEP for H2O Accumulation

MS1 MELVIN

CTB TRANSFER
Ref. Transfer List, Item 7

ROBOTICS: 1.110 OBSS GRAPPLE

ROBOTICS: 1.111 OBSS MANEUVER TO HANDOFF

ROBOTICS: 1.112 OBSS UNGRAPPLE
Steps 1-2

PLAYBACK (DIGITAL)
(PHOTO/TV, CUE CARD)
DOCKING VIDEO
KU TDRW (02:21-02:56)

EVA1 PROCEDURE REVIEW
Ref: EVA1 BRIEFING CARD
(EVA, TIMELINES)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

NOTES

UPLINK
β21 + Mask
Box 20,21

NO EXERCISE WHILE BOTH ARMS GRAPPLED TO OBSS

STS-122 FD (03)

REPLANNED

GMT Date 02/09 (040) | W | TDRSE | Z | DORB | ORB | MET Day 002 | STS ATT

MS2 WALHEIM	MS3 SCHLEGEL	MS4 LOVE	FE-2 (UP) EYHARTS	NOTES
POST-DOCKING EVA TRANSFER/ RECONFIG (EVA, AIRLOCK CONFIG)	POST-DOCKING EVA TRANSFER/ RECONFIG (EVA, AIRLOCK CONFIG)	ROBOTICS: 1.110 OBSS GRAPPLE	ROBOTICS: 1.110 OBSS GRAPPLE	
EVA SYSTEMS: 1.307 REBA INSTALL/ REMOVAL Perform INSTALLATION Steps 1-11 EVA SYSTEMS: 1.403 REBA POWERED HARDWARE C/O	EVA SYSTEMS: 1.307 REBA INSTALL/ REMOVAL Perform INSTALLATION Steps 1-11 EVA SYSTEMS: 1.403 REBA POWERED HARDWARE C/O	OBSS HANDOFF FROM SSRMS (NODE 2) TO SRMS (PDRS, OBSS NOMINAL) MRL Release, Steps 3-5 ROBOTICS: 1.111 OBSS MANEUVER TO HANDOFF	ROBOTICS: 1.111 OBSS MANEUVER TO HANDOFF	
EVA SYSTEMS: 1.305 EQUIPMENT LOCK PREP Steps 1-3 & 10-11 not req'd Ref. MSG 015 Ref: STS-122 CONSUMABLES TRACKING CC (EVA)	EVA SYSTEMS: 1.305 EQUIPMENT LOCK PREP Steps 1-3 & 10-11 not req'd Ref. MSG 015 Ref: STS-122 CONSUMABLES TRACKING CC (EVA)	SETUP RMS WORKSTATION		
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	OBSS HANDOFF FROM SSRMS (NODE 2) TO SRMS (PDRS, OBSS NOMINAL) Grapple, Steps 6-7	ROBOTICS: 1.112 OBSS UNGRAPPLE Steps 1-2	NO EXERCISE WHILE BOTH ARMS GRAPPLED TO OBSS
		OBSS MANEUVER TO COLUMBUS VIEWING POSITION (PDRS, OBSS NOMINAL) PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	ROBOTICS: 1.112 OBSS UNGRAPPLE Maneuver to Overnight Park Step 3	
EVA1 PROCEDURE REVIEW Ref: EVA1 BRIEFING CARD (EVA, TIMELINES)	EVA1 PROCEDURE REVIEW Ref: EVA1 BRIEFING CARD (EVA, TIMELINES)	EVA1 PROCEDURE REVIEW Ref: EVA1 BRIEFING CARD (EVA, TIMELINES)	EVA1 PROCEDURE REVIEW Ref: EVA1 BRIEFING CARD (EVA, TIMELINES)	
PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE SLEEP - ISS	

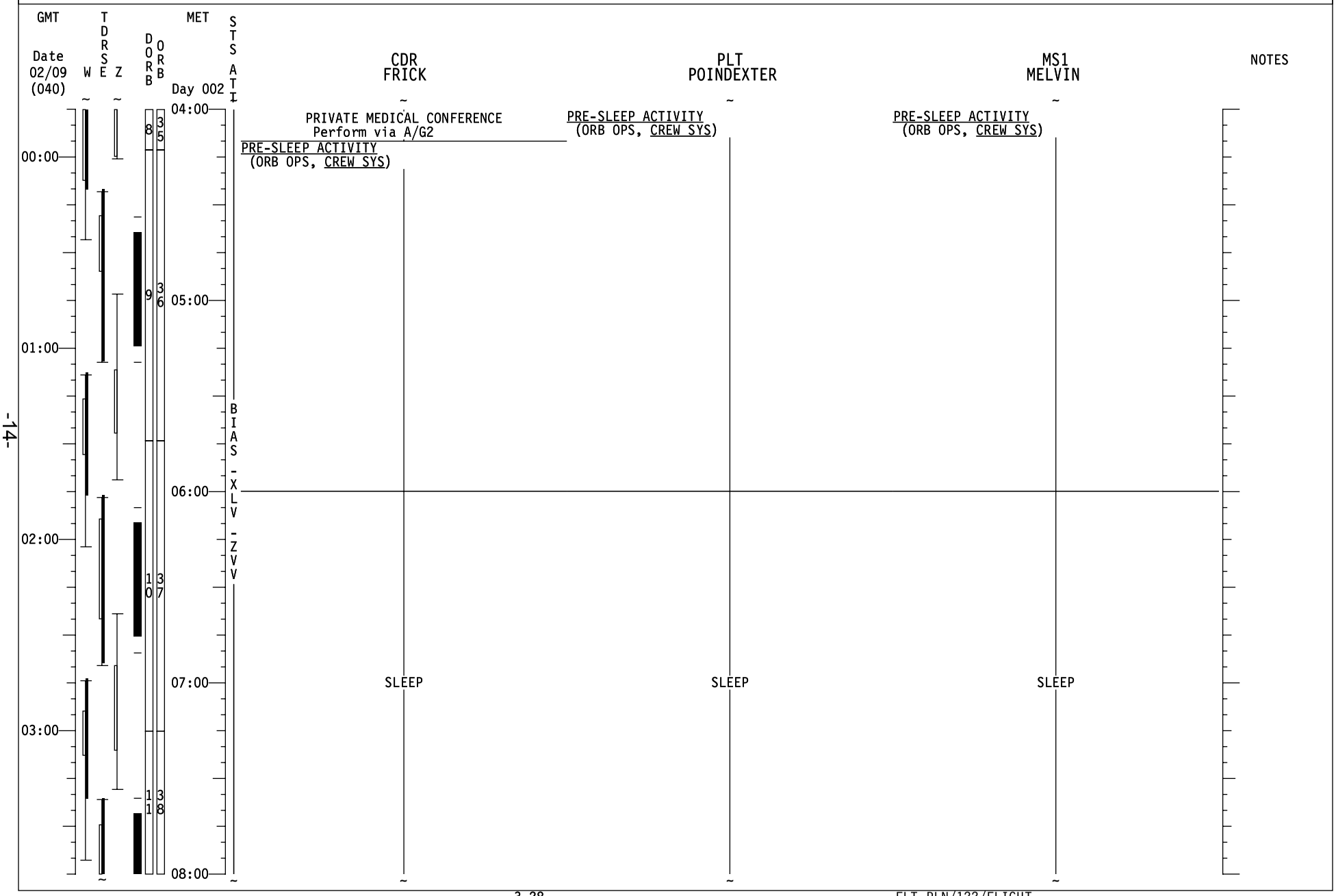
Time scale: 20:00, 21:00, 22:00, 23:00; 00:00, 01:00, 02:00, 03:00, 04:00

STS ATT: BIAS - XLV - ZVV

DORB: 6, 7, 8; ORB: 33, 34, 35

STS-122 FD (03)

REPLANNED



STS-122 FD (03)

REPLANNED

GMT Date 02/09 (040) | W | TDRSE | Z | DORB | ORB | MET Day 002 | STS ATT | MS2 WALHEIM | MS3 SCHLEGEL | MS4 LOVE | FE-2 (UP) EYHARTS | NOTES

Time	MS2 WALHEIM	MS3 SCHLEGEL	MS4 LOVE	FE-2 (UP) EYHARTS
04:00	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE SLEEP - ISS
	EVA SYS: 2.305 10.2 PSIA CAMPOUT MASK PREBREATHE	EVA SYS: 2.305 10.2 PSIA CAMPOUT MASK PREBREATHE		PRIVATE MEDICAL CONFERENCE Perform via A/G2
	Ref: PRE EVA 1 TOOL CONFIG (EVA, TIMELINES)	Ref: PRE EVA 1 TOOL CONFIG (EVA, TIMELINES)		
	Ref: STS-122 CONSUMABLES TRACKING CC (EVA)	Ref: STS-122 CONSUMABLES TRACKING CC (EVA)		
05:00				PRE SLEEP - ISS
	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)	PRE-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
06:00				
07:00	SLEEP	SLEEP	SLEEP	SLEEP
08:00				

STS ATT: BIAS -XLV -ZVV

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

DORB: 8, 9, 10, 11

ORB: 35, 36, 37, 38

Good Morning Atlantis!!!!

Thank you for the great day yesterday!

Like you, we are all looking forward to docking with station today! It is just so thoughtful on your part to plan your arrival to happen on Peggy's birthday!!

YOUR CURRENT ORBIT IS: 136 X 126 NM

NOTAMS:

EDW – LAKEBED RUNWAYS RED.
NOR – LAKEBED RUNWAYS GREEN.
NKT – RWYS 05L/23R + 14L/32R NOT USABLE.
HAW – RWY 31 CLOSED; RWY 13 TODA 8,994'.
WAK – NOT USABLE.
IKF – NOT USABLE.
DIW – TACAN OTS.
LAJ – TACAN CH 45 OTS.
NGU – TACAN CHANNEL CHANGED TO CH 22.
BEN – POLITICALLY NOT RECOMMENDED/NOT SUPPORTED.
DOV – 14/32 CLOSED.
ZZA – FIRST 600M (~2,000') OF RWY 30L NOT AVAILABLE. 10,200' REMAINING.
JDG – DIEGO GARCIA: CLOSED FRI 1800Z - MON 0100Z.

NEXT 2 PLS OPPORTUNITIES:

EDW04 ORB 33 – 2/00:30 (FEW200 030/6P11)
EDW22 ORB 49 – 3/00:50 (FEW030 BKN250 270/2P3)

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 = 34.2 R OMS OX = 34.8
FU = 34.5 FU = 34.6

DELTA V AVAILABLE:

OMS	322 FPS
ARCS (TOTAL ABOVE QTY1)	39 FPS
TOTAL IN THE AFT	361 FPS
ARCS (TOTAL ABOVE QTY2)	68 FPS
FRCS (ABOVE QTY 1)	28 FPS
AFT QTY 1	82 %
AFT QTY 2	44 %

SYSTEM	FAILURE	IMPACT	WORK AROUND
PDRS	Stbd Aft MRL Sys 2 LAT msw not achieved due to driving single motor. Known problem due to rigging.	None	Use S94 Stbd Aft sys 1 and tb for Stbd Latch indications. Release indications will be nominal

END OF PAGE 2 OF 2, MSG 013

OBJECTIVE:
Remove keying feature from low pressure quick disconnects.

DURATION:
30 minutes

CREW:
Two

MATERIALS:
Ziplock
sharpie

TOOLS:
MWA Utility Kit:
  Seat Track Restraint
  Clamp
ISS IVA TOOLBOX
Drawer 2:
  1/16” Hex Head, 1/4” Drive
  5/64” Hex Head, 1/4” Drive
Drawer 4:
  Folding L Wrench Set, 1/16” L Wrench
  Metric Folding L Wrench, 2mm L Wrench

REFERENCED PROCEDURES:
A.2.6 MAINTENANCE WORK AREA (MWA) INSTALLATION

NOTE
1. Notify **MCC-H** if other tools are used. Other tools may be more apporpriate for this activity.

2. Step 1 not required if Male QD is installed.

1. SETUP WORK AREA
   1.1 If MWA Work Surface Area is not deployed
   Perform {A.2.6 MAINTENANCE WORK AREA (MWA) INSTALLATION}, step 2 only (SODF: IFM: REFERENCE: APPENDIX A: ISS IVA TOOLS)

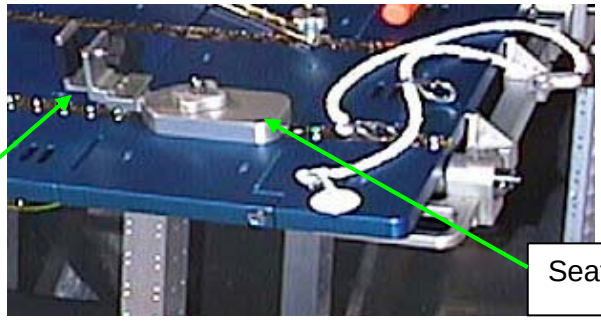


Figure 1.- MWA Work Surface Area with components installed

1.2 Install ORU Clamp onto Seat Track Restraint (two).
Install Seat Track Restraints onto MWA.

1.3 Secure QD in clamps.

2. REMOVE KEYING ON QD

NOTE
QD cap will first be loosened and not removed to prevent keying and retaining ring from floating off upon release.

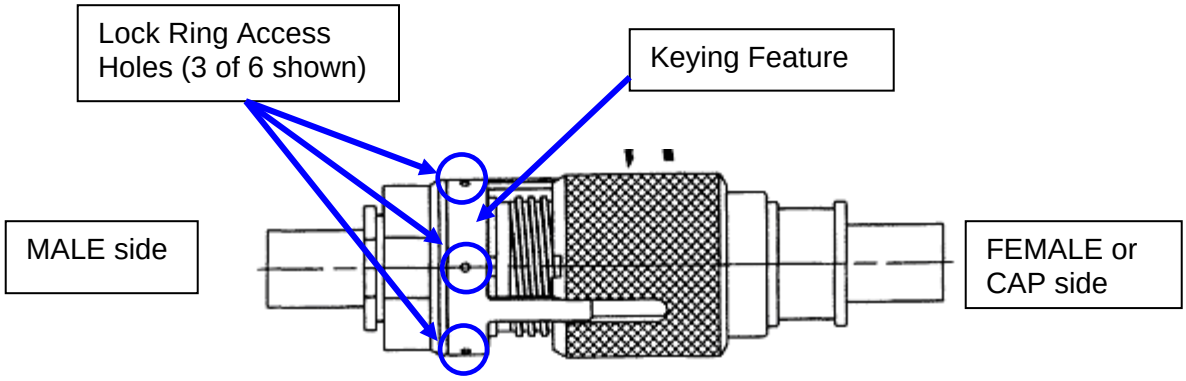
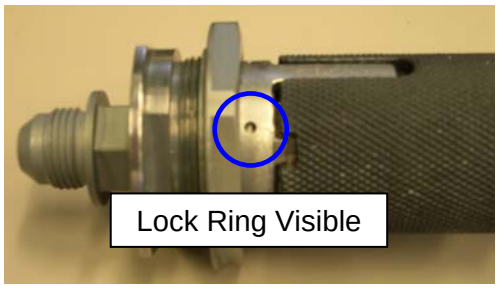


Figure 2.- Quick Disconnect

2.1 Loosen QD cap revealing a gap of approximatly 1/2”.
Ensure that keying feature is free to rotate.
Refer to Figure 2.



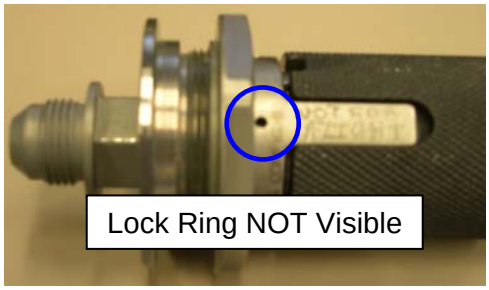


Figure 3.- Quick Disconnect Access Holes

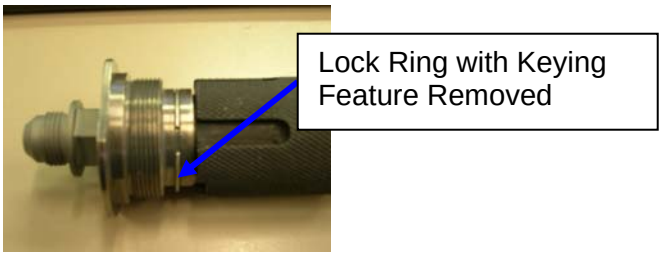


Figure 4.- Quick Disconnect with keying removed.

2.2 Inspect access holes (six) for lock ring.
Only use access holes where lock ring is present.
Each crew member, working opposite of one another, should pick two adjacent holes to use (four holes total).

2.3 Insert each tool (four) through access holes, where lock ring is visible (four)
(1/16” Hex Head)
(5/64” Hex Head)
(Folding L Wrench Set, 1/16” L Wrench)
(Metric Folding L Wrench, 2mm L Wrench)
Refer to Figure 3.

<u>NOTE</u>

1. If locking ring does not release within a few seconds, move tool to new hole and repeat release steps.

2. When locking ring is released, keying feature will be free floating.

3. A third crew member may pull on the keying feature to help free it from the lock ring.

2.4 Use tools (four) to depress locking ring until keying feature is freed.

2.5 Remove cap, keying feature and lock ring.
Temporarily stow loose parts in a ziplock.
Label ziplock “QD Locking Feature and Lock Ring” (sharpie)

2.6 Notify **MCC-H** of task completion.

16-0990 CENTER DISK COVER STANDOFF BRACKET REMOVAL

OBJECTIVE:
Remove the forward-zenith Center Disk Cover Standoff Bracket from the Node 2 Stbd vestibule. The bracket was found to interfere with the installation of the insulated MTL Supply and Nitrogen jumper during vestibule outfitting.

LOCATION:
Node 2 Stbd Vestibule

DURATION:
30 minutes

CREW:
One

MATERIALS:
12” x 12” Ziplock
Sharpie
Gray Tape
Flashlight

TOOLS:
DCS 760 Camera
ISS IVA TOOLBOX
Drawer 2:
  Ratchet, 1/4” Drive
  3/16” Hex Head, 1/4” Drive
  5/16” Hex Head, 3/8” Drive
  1/4” to 3/8” Adapter
Drawer 3:
  #2 Phillips Head Driver, 3/8” Drive

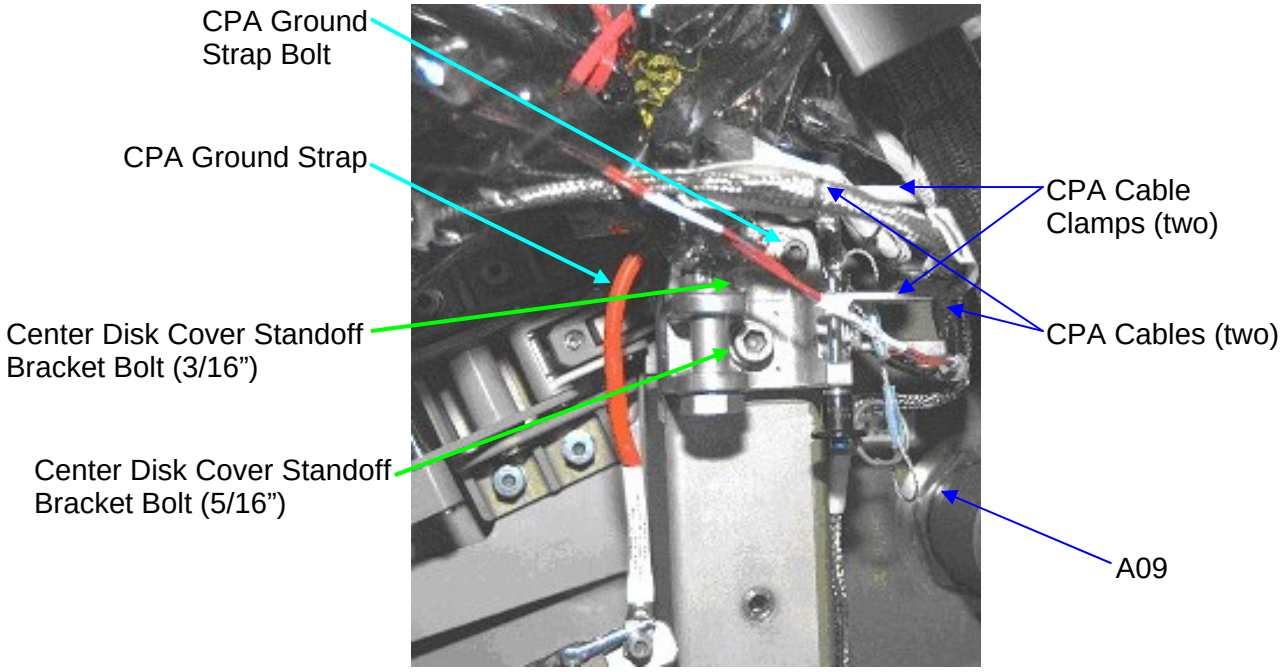


Figure 1. - View Looking Towards Node 2 from Inside Vestibule
(Node 2 Hatch Shown Closed)

BRACKET REMOVAL

Refer to Figure 1.

NOTE
Center Disk Cover Standoff Bracket Bolts, Shims under Bracket Bolts and CPA Cable Clamps and Fastening Hardware are all non-captive. To mitigate FOD, stow loose parts in Ziplock Bag as bolts are removed.

1. Retrieve 12" x 12" Ziplock Bag.
   Label "NOD2 STBD Center Disk Cover Standoff Bracket -- Loose Parts" (Sharpie).

2. Locate Node 2 Forward Zenith Center Disk Cover Standoff Bracket. Remove Pip Pin as required for fastener access.

3. Remove CPA Cable Clamps (two), Bolts (one each clamp) securing CPA cables (Ratchet, 1/4" Drive; 1/4"-3/8" Adapter; #2 Phillips Head Driver, 3/8" Drive).

4. Remove CPA Ground Strap, Bolt (one) (Ratchet, 1/4" Drive; 3/16" Hex Head).

NOTE
Shims, which are used under the 3/16" bolts, will become free after the next two bolts are removed.

5. <u>Removing Center Disk Cover Standoff Bracket</u>
   Remove Center Disk Cover Standoff Bracket, Bolt (one, 3/16”) (Ratchet, 1/4" Drive; 3/16" Hex Head).

   Remove Center Disk Cover Standoff Bracket, Bolt (one, 5/16”) (Ratchet, 1/4" Drive; 1/4”-3/8” Adapter; 5/16” Hex Head, 3/8” Drive).

   Remove CBM Center Disk Cover Bracket.

   After stowing all loose parts in “NOD2 STBD Center Disk Cover Standoff Bracket -- Loose Parts” Ziplock Bag, stow bag inside vestibule (Gray Tape).

6. Photo document removed bracket and loose parts bag (DCS 760 Camera).

7. Notify **MCC-H** of task completion.
   Stow tools and materials.

Good morning Leland & Stan,

Today we've added two additional BNC cables to the Transfer List. These are items 801 and 802 and are needed for the BPSMU/RWS activity scheduled on Steve later today.

The Transfer List Excel file, FD03_TransferList_STS122.xls, is located on the KFX machine in **C:\OCA-up\transfer**.

For ISS, the Transfer List Excel file, FD03_TransferList_STS122.xls, is located in **K:\OCA-up\transfer**.

Q&As:
A: Item 26.12 (Movie DVD): Leo was unable to locate this DVD during FD02 XFER PREP. We suggest looking in the bag containing Christmas gifts in MA16G.

FD03 Choreography

- Item 1, 801, & 802 (Steve): Deploy RWS Drag-through extensions during BPSMU/RWS activity.
- Item 7 (Leland): Transfer CSA ADAPTER/GSC 1.0 CTB (s/n 1306) during "CTB XFER" for CSA O2 CAL.
- Items 4, 29-33: Transfer OTSD, EMUs and EVA mesh bags to ISS during EVA XFER
- Item 21 (Peggy): Transfer GO2 Transfer Flex Hose Assy for O2 RCNFG/PURGE
- Item 39 (Dan): Transfer 0.5 CTB ISS PHOTO/TV RESUPPLY KIT for DCS CNFG
- Items 40 & 41 (Peggy): Transfer ODF to ISS during SODF XFER.

Please update the Transfer List as follows:

In **LAYOUTS** tab:
Add page L-1

In **RESUPPLY** tab:
Replace the following pages:
Resupply Page 2
Resupply Page 5
Resupply Page 6
Resupply Page 7
Resupply Page 10
Resupply Page 12

Call us with any questions.

- The Transfer Team

16-0997 (MSG 015) – PHA Configuration for EVA
Page 1 of 1

ECLSS engineering has requested that we minimize the cycling of the left PHA port (QD026) in the Equipment Lock. Based on past troubleshooting, QD026 has a higher than expected leak rate. Until the QD gets R&R'd, use a Tee Assy to support both PHA bags on the right PHA port (QD027).

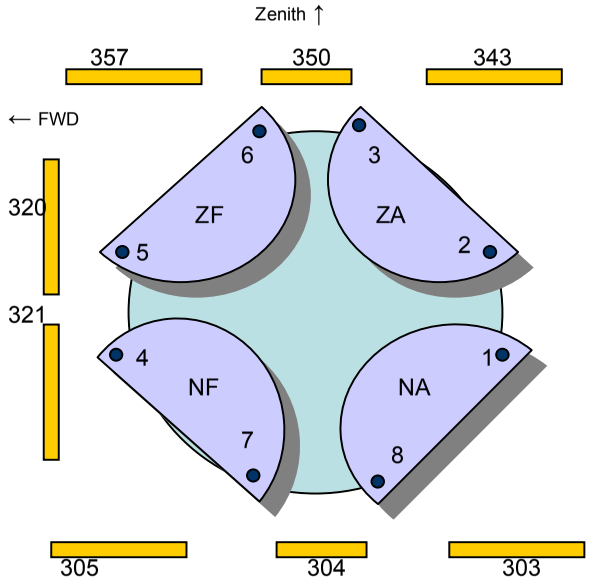
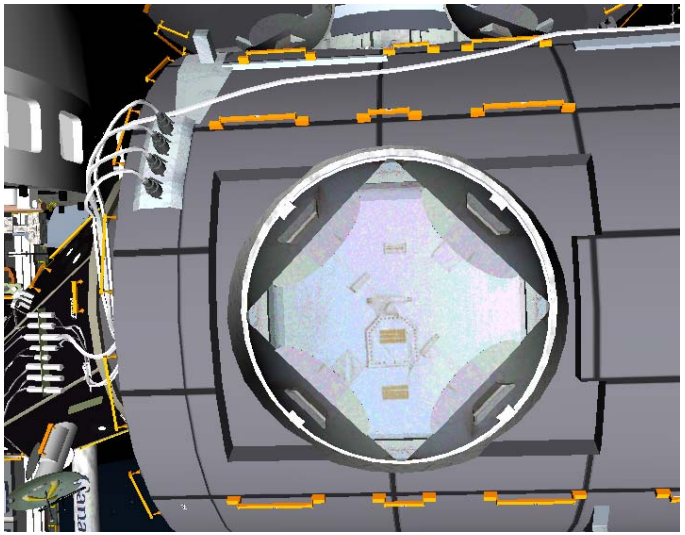
Please perform the following actions:

1. During Equipment Lock Prep, please configure the PHA bags accordingly:

   Relief Valve Assy (1) →|← Tee Assy (1) →|← 120-ft PHA Bag (2)

2. During all of your campout EVA prep activities, please connect the Relief Valve Assy only to the right PHA port (QD027).

GET AHEAD- NODE 2 PORT ACBM LAUNCH LOCKS (00:20)

IV	EV1/EV2 – (FF)
 Launch lock latch release using Adj. Eq. tether  	**RELEASE PORT PCBM PETAL LAUNCH LOCKS** (00:20) CAUTION Both petal launch locks must be engaged to allow for translation on the petal 1. Translate to Node 2 port CBM 2. Release LR 1 by using HR 343 and holding petal ZA 3. Release LR 2 by using HR 343 4. Release LR 3 using HR 350 5. Release LR 4 using HR 357 and holding petal ZF 6. Release LR 5 using HR 357 7. Release LR 6 using HR 350 8. Translate to nadir side 9. Release LR's 7 and 8 using HR 304 **CLEANUP** 10. Inspect gloves  Node 2 Port CBM

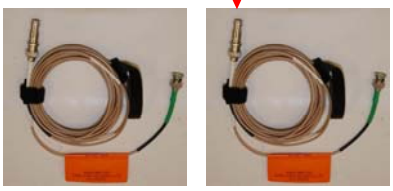
For MS1 or CDR, please obtain (2) additional BNC-BNC cables in preparation for P/TV05 ISS Internal Ops (Photo/TV, Scenes) at MET 001/23:00 and MET 001/23:45, respectively. One cable is located in Vol 3B and the other is in a Ziplock labeled "Entry Video" within the A17 DTV bag. See attachment for pictures of BNC-BNC cables. Once the cables are acquired, they should be connected to the existing RWS Drag-thru-Cable Extensions to the end with the BNC Straight adapter. The ISS crew has prepared their half of the cables to receive these extensions. The final connection to the RWS Drag-thru-Cables on ISS will proceed as previously planned; these will be left on station.

The workaround for Entry Video will use the BNC-BNC cable currently used for Mon 2 C-in (between MUX VTR Mon and the Bal/Unbal transformer) to replace the cable from the “Entry Ziploc".

BNC-BNC cable in Vol 3B
VIU LCD Cbl 20’ - SED39122260-320
S/N 1014

BNC-BNC cable in A17 DTV bag
BNC Video Cbl 15’ - SED33105779-301
S/N 5015

Connect new cables to each of the existing extensions



Proceed as previously planned

Peggy, Dan, Hans and Leo,

MTL Supply Jumper Big Picture Words - Kudos for having the forethought to request that we fly up the extra TCS Vestibule Omega Jumpers in the Vestibule Outfitting Kit!! We now can put one of them to good use. Due to some late-breaking analysis, it seems that without the JEM installed, the MTL Vestibule Supply Jumper (to Columbus) will be cold enough to condense. So, we'll now use the extra LTL Omega Supply Jumper, which is insulated, in place of the uninsulated MTL Omega Supply Jumper in the Forward Vestibule Quadrant. Analysis shows these two supply jumpers are fully interchangable, including QD keying. However, we have uplinked a procedure to remove the keying feature from the QD, if it becomes necessary.

But wait, there's more! Since this spare LTL Omega Supply Jumper is insulated, we believe it will interfere with one of the CBM Center Disk Cover Brackets and cause the Supply jumper to protrude a little bit into the hatch corridor. We also think that if the bracket remains installed it will be difficult to install the QD Insulation Mitten on the Node 2 side. Later in the outfitting procedure, the bracket may also make it difficult to install the Nitrogen Jumper behind the MTL TCS Supply Jumper (the bracket makes it difficult to rotate the now-insulated, MTL Omega Supply Jumper out of the way to use the dreaded FFTD on the Nitrogen Jumper Gamah Fitting). Dan and Hans, you may remember we saw a similar issue during OOCT on the LTL Omega jumpers, prompting us to use straight TCS Insulated Jumpers in those locations (aft quadrant).

The CBM Center Disk Cover Bracket removal has two little gotchas: 1) none of the hardware is captive: p-clamp fastening and mounting hardware, as well as a plethora of stacked shims behind each of the mounting bolts, and 2) there are two locating pins on the bracket that are inserted into tight-fitting holes on the bulkhead, which can make it difficult to remove the bracket. We think that it will take 15 minutes to remove the bracket, or up to 30 minutes if you have to struggle due to the tight locating pins.

We have **not** updated the Vestibule Outfitting Procedure with this change. Rather, we are simply telling you to exchange the MTL Supply Jumper with the 'spare' LTL Omega Supply jumper in Step 9 of Columbus Vestibule Outfitting (Assy Ops book). **It will be your call** as to whether the CBM Center Disk Cover Bracket really needs to be removed, as we think it will. It may be that only the cable P-Clamps need to removed. In either case, we have a procedure in the IPV Uplinked Procedures folder with all the info you need. Use care to avoid insulation damage in any event. You can remove the bracket at any time and just bag, tag and gray tape the loose parts inside the Vestibule.

Reference Products:
{ US_SODF; Assembly Operations ISS - 1E: Activation and Checkout; Columbus Vestibule Outfitting}
{Uplinked Procedures; Assembly Ops; 16-0990 Center Disk Cover Standoff Bracket Removal}
{Uplinked Procedures; IFM; 16-0989 QD Keying Feature Removal}

Here are some pictures from Building 9 Vestibule Outfitting Trainer and from OOCT to help familiarize yourself with above issues.

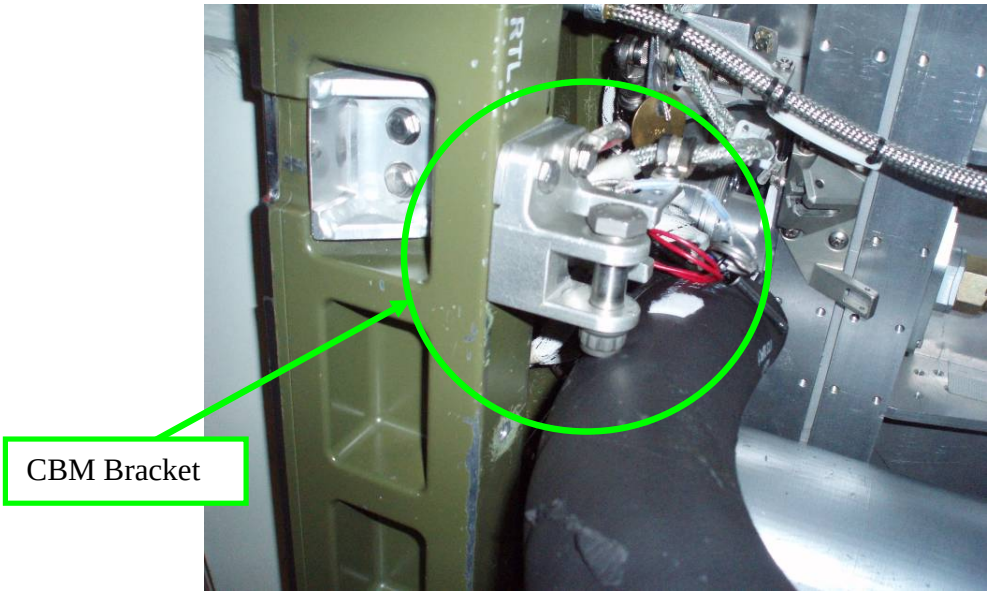


Figure 1: Building 9 Vestibule Trainer - Forward Quadrant 'spare' LTL Omega Supply Jumper and CBM Center Disk Cover Bracket Interference

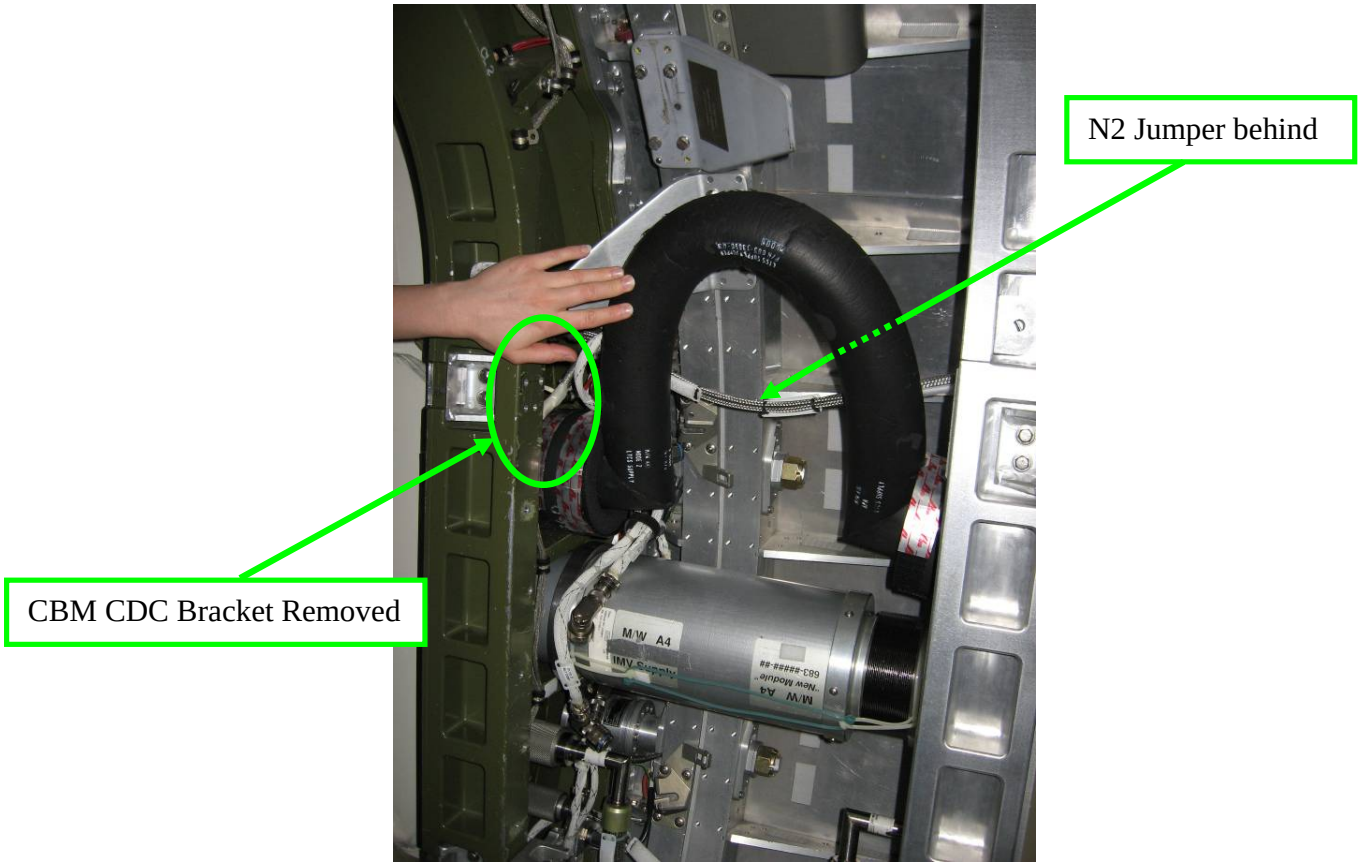


Figure 2: Building 9 Vestibule Trainer - LTL Omega Supply Jumper installed in MTL Supply Location - CBM Center Disk Cover (CDC) Bracket Removed

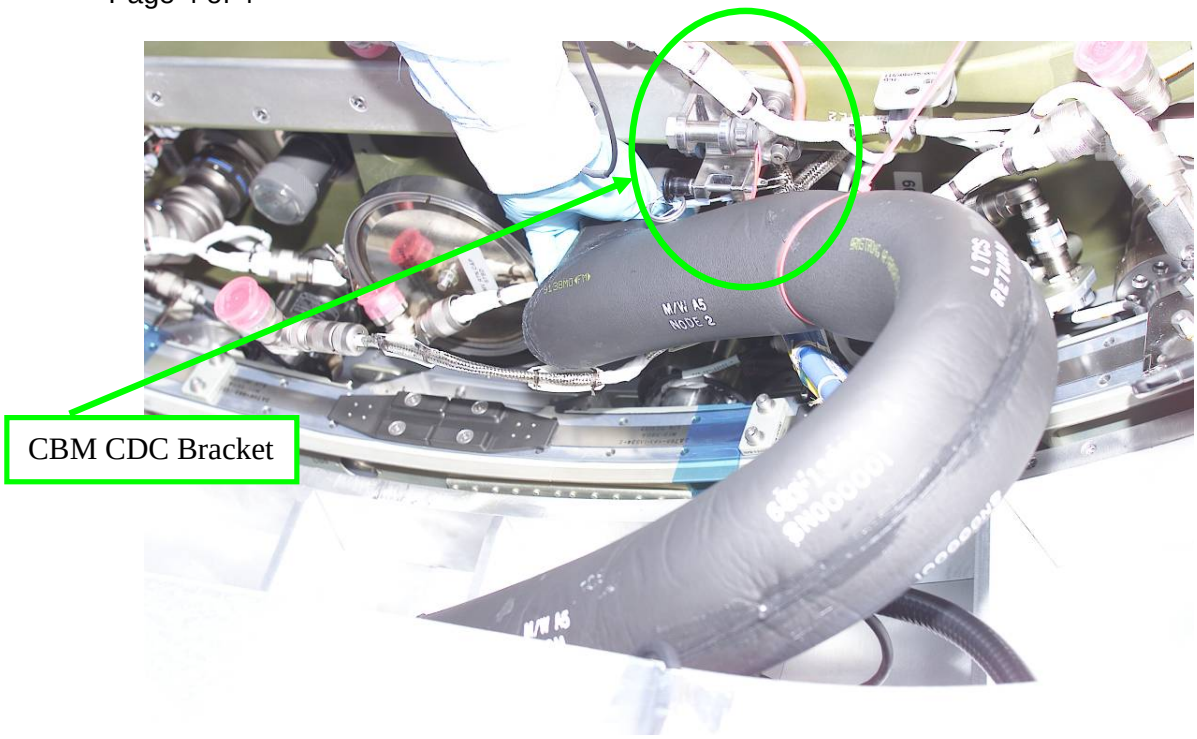


Figure 3: OOCT - Aft Quadrant LTL Omega Jumper Interference

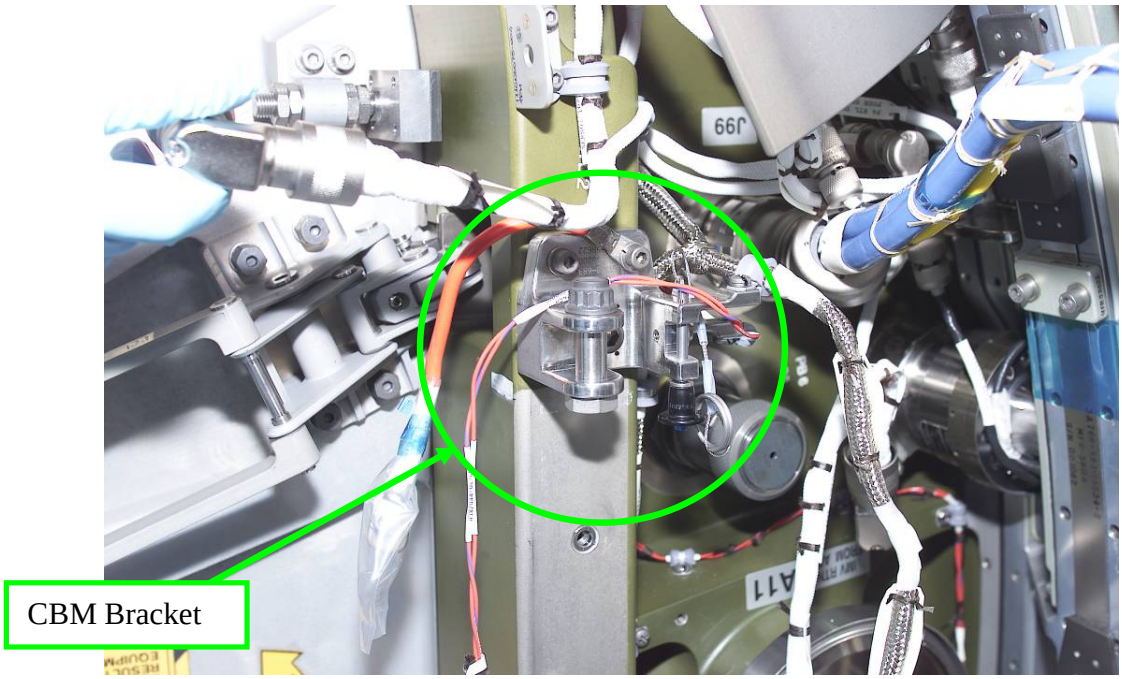


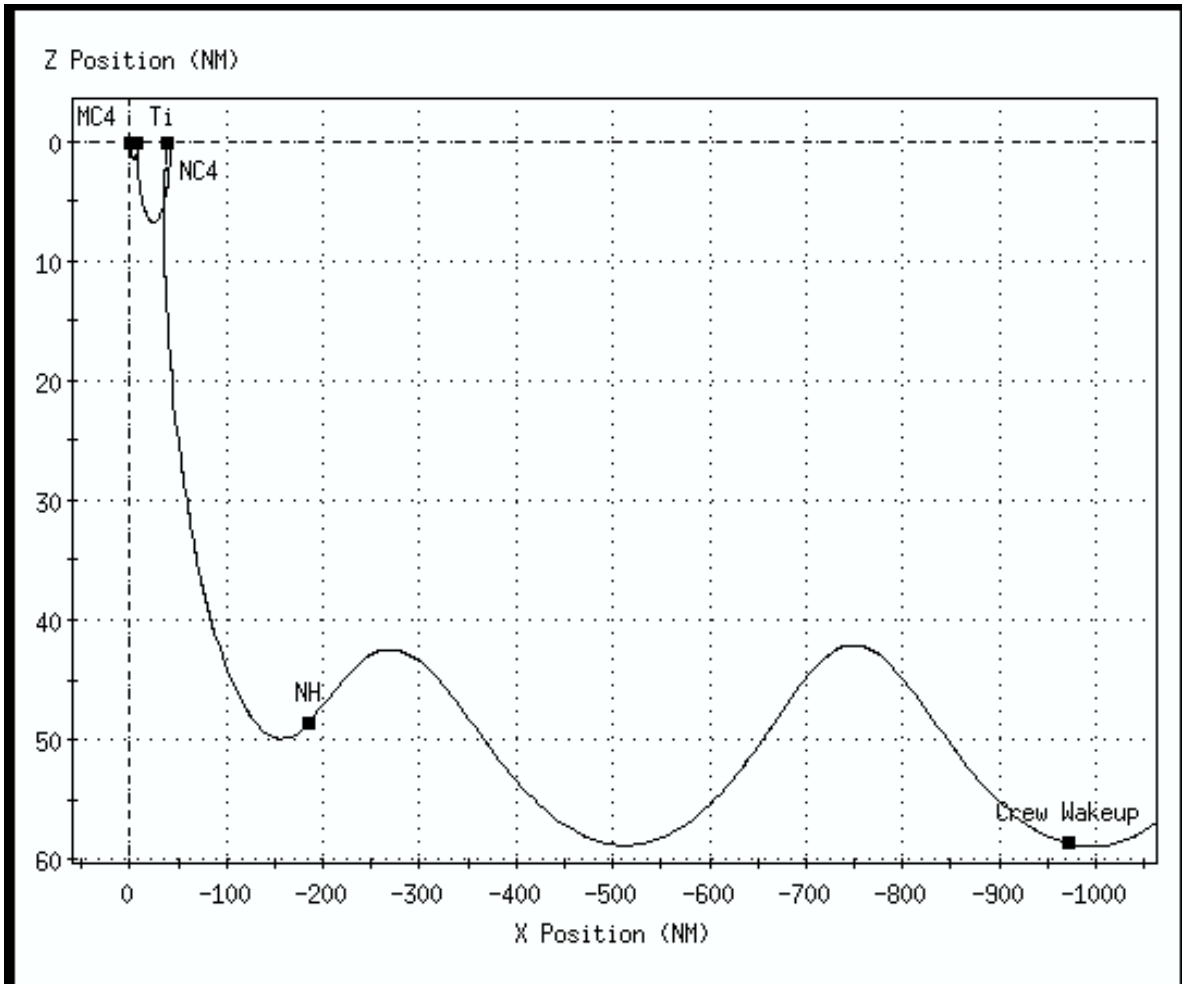
Figure 4: OOCT - Aft Quadrant CBM Center Disk Cover Bracket - Forward Quadrant Bracket is similar

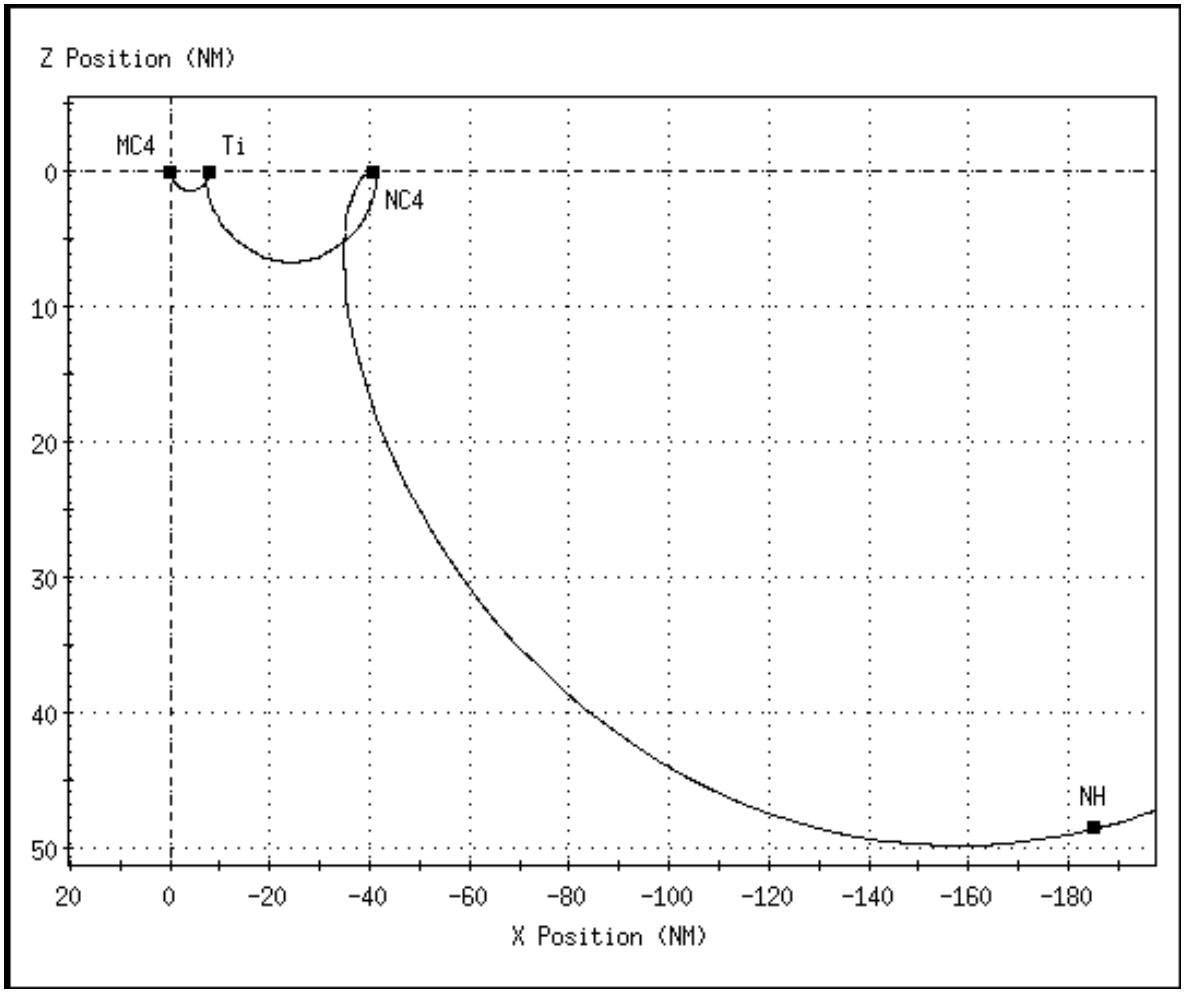
FLIGHT NOTE

TO: FD, CAPCOM, FAO, RENDEZVOUS, PROP, GC
FROM: FDO
SUBJECT: MANEUVER TIGS

COPIES: 1

	MET	
NH	001:16:30:32.232	
NC4	001:17:20:25.337	
NCC	001:17:54:16.000	
TI	001:18:51:58.000	PET = 0:0 ; SS - 38 MIN 30 SEC
MC1	001:19:11:58.000	
MC2	001:19:41:52.000	ET = 0:0
MC3	001:19:58:52.000	MC2 + 17 MIN
MC4	001:20:08:52.000	MC2 + 27 MIN


Z Position (NM)
MC4
Ti
NC4
NH
Crew Wakeup
0
10
20
30
40
50
60
0
-100
-200
-300
-400
-500
-600
-700
-800
-900
-1000
X Position (NM)


Z Position (NM)
MC4
Ti
NC4
NH
0
10
20
30
40
50
20
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
X Position (NM)

PRELIMINARY ORBIT MANEUVER PAD FOR NH (PADS RNDZ p.3-2)

OMS BOTH	1	X
L	2	
R	3	
RCS SEL	4	
TV ROLL	5	000
TRIM LOAD P	6	(+)0.7
LY	7	(-)5.7
RY	8	(+)5.7
WT	9	251461
TIG	10	01/16:30:32.2
TGT PEG 7 ΔVX	19	(+)091.1
ΔVY	20	(+)000.0
ΔVZ	21	(+)003.3

RCS SEL: [ ] +X [ ] -X [ ] MULTI-AXIS

BURN ATT		
R	24	040
P	25	177
Y	26	039

ΔVTOT		091.1
TGO		00:59
VGO	X	(+)088.0
VGO	Y	(+)000.0
VGO	Z	(+)023.7

	HA	HP
TGT	182	(+)129

NOTES

OMS GMBL CK:

	PRE	POST-BURN
L PRI		X
L SEC		
R PRI		X
R SEC		
NONE	X	

RCS I'CNCT:
- [ ] L OMS → RCS
- [ ] R OMS → RCS
- [X] NONE

DOWN MODE OPTIONS:
- [X] 2 OMS → 1 OMS
- [ ] 1 OMS → RCS
- [ ] NONE

OMS HE REG TEST: [ ] NONE

	L GPC	L OP	L CL	R GPC	R OP	R CL
A		X			X	
B	X			X		

-X RCS BURNS:

	BURN ATT		LVLH ATT
P 15	N/A	R	N/A
Y 16	N/A	P	N/A
OM 17	N/A	Y	N/A

ORBIT BURN MONITOR

GPC FILL-INS 1 (3)
- [X] CRIT BURN
- [ ] NON-CRIT BURN

MAX TIG SLIP ___ MIN.
- [ ] DO NOT UPDATE TIG
- [ ] UPDATE TIG AFTER ___ MIN.

NOTES

Treat loss of gpc 3 as second gimbal fail on the Right

PRELIMINARY ORBIT MANEUVER PAD FOR NC4 (PADS RNDZ p.3-4)

OMS BOTH 1	X	
L 2		
R 3		
RCS SEL 4		+X / -X / MULTI-AXIS
TV ROLL 5	000	
TRIM LOAD P 6	(+)0.7	
LY 7	(-)5.7	
RY 8	(+)5.7	
WT 9	249214	
TIG 10	01/17:20:25.3	
TGT PEG 7 ΔVX 19	(+)075.8	
ΔVY 20	(+)000.0	
ΔVZ 21	(+)002.2	

BURN ATT		
R 24	311	
P 25	342	
Y 26	334	

ΔVTOT	075.8	
TGO	00:48	
VGO X	(+)073.2	
VGO Y	(+)000.0	
VGO Z	(+)019.7	
	HA	HP
TGT	183	(+)171

NOTES

OMS GMBL CK:

	PRE	POST-BURN
L PRI		X
L SEC		
R PRI		X
R SEC		
NONE	X	

RCS I'CNCT:

- [ ] L OMS → RCS
- [ ] R OMS → RCS
- [X] NONE

DOWN MODE OPTIONS:

- [X] 2 OMS → 1 OMS
- [ ] 1 OMS → RCS
- [ ] NONE

OMS HE REG TEST: [ ] NONE

	L GPC	L OP	L CL	R GPC	R OP	R CL
A	X			X		
B		X			X	

-X RCS BURNS:

	BURN ATT		LVLH ATT
P 15	N/A	R	N/A
Y 16	N/A	P	N/A
OM 17	N/A	Y	N/A

ORBIT BURN MONITOR

GPC FILL-INS 1 (3)

- [X] CRIT BURN
- [ ] NON-CRIT BURN

MAX TIG SLIP ___ MIN.

- [ ] DO NOT UPDATE TIG
- [ ] UPDATE TIG AFTER ___ MIN.

NOTES

Treat loss of gpc 3 as second gimbal fail on the Right

PRELIMINARY ORBIT MANEUVER PAD FOR Ti (PADS RNDZ p. 3-6)

OMS BOTH	1	
L	2	X
R	3	
RCS SEL	4	
TV ROLL	5	000
TRIM LOAD P	6	(+)0.7
LY	7	(+)4.8
RY	8	(-)4.8
WT	9	247359
TIG	10	01/18:51:58.0
TGT PEG 7 ΔVX	19	(+)009.1
ΔVY	20	(-)000.1
ΔVZ	21	(+)000.1

RCS SEL:
- [ ] +X
- [ ] -X
- [ ] MULTI-AXIS

BURN ATT

R	24	309
P	25	331
Y	26	327

ΔVTOT		009.1
TGO		00:12
VGO	X	(+)008.6
VGO	Y	(+)001.8
VGO	Z	(+)002.3

	HA	HP
TGT	184	(+)176

NOTES

OMS GMBL CK:

	PRE	POST-BURN
L PRI		X
L SEC		
R PRI		X
R SEC		
NONE	X	

RCS I'CNCT:
- [ ] L OMS → RCS
- [ ] R OMS → RCS
- [X] NONE

DOWN MODE OPTIONS:
- [ ] 2 OMS → 1 OMS
- [X] 1 OMS → RCS
- [ ] NONE

OMS HE REG TEST:

[ ] NONE

	L GPC	L OP	L CL	R GPC	R OP	R CL
A			X			
B		X				

-X RCS BURNS:

	BURN ATT				LVLH ATT		
P	15	N	/	A	R	N	/	A
Y	16	N	/	A	P	N	/	A
OM	17	N	/	A	Y	N	/	A

ORBIT BURN MONITOR

GPC FILL-INS 1 (3)
- [X] CRIT BURN
- [ ] NON-CRIT BURN

TIG SLIP: If Ti not started by nominal TIG + ___ min go to Ti DELAY, 5-27

Max Ti DELAY TIG slip ___ min.
- [ ] DO NOT UPDATE TIG
- [ ] UPDATE TIG AFTER ___ MIN.

Ti DELAY

TGT PEG 7 ΔVX	19	(-)
ΔVY	20	(-)
ΔVZ	21	(-)

NEW Ti (BASETIME) 01/20:23:13.0

NOTES

FD02 MMT Summary

The FD02 MMT met to review mission progress with only a few items of discussion. These include ascent imagery and orbiter systems. At the time of the MMT, the OBSS scan of the port wing was in progress. FD2 inspection data and RPM imagery will be reviewed at the FD3 and FD4 MMTs. SRB video should be available for review on FD05.

Imagery - The team is reviewing all available imagery. This imagery includes the ET LOx Feedline camera, ground cameras, debris radar, and crew handheld cameras used for ET photography. The preliminary characterization is that the debris environment was nominal.

Several debris events were noted, but only one was observed to impact the orbiter. This single debris event occurred at 7:20.1 MET which is well after the Aerodynamic Sensitive Transport Time (<2:15 MET). The RPM pictures will verify the status of the Orbiter TPS. See Figure 1.

Wing Leading Edge Impact System - As discussed pre-flight, the data from the WLEIS will be recorded on board and collected post flight.

Orbiter Systems Status - Atlantis is performing extremely well. A few systems items were reviewed, but all are considered within our nominal experience base. The systems items mentioned include an H2 manifold pressure spike which is possible when tanks are full, the ET umbilical well camera imagery download problems, and the Ku antenna self test fault associated with the Active Radar Mode that is not used for ISS rendezvous.

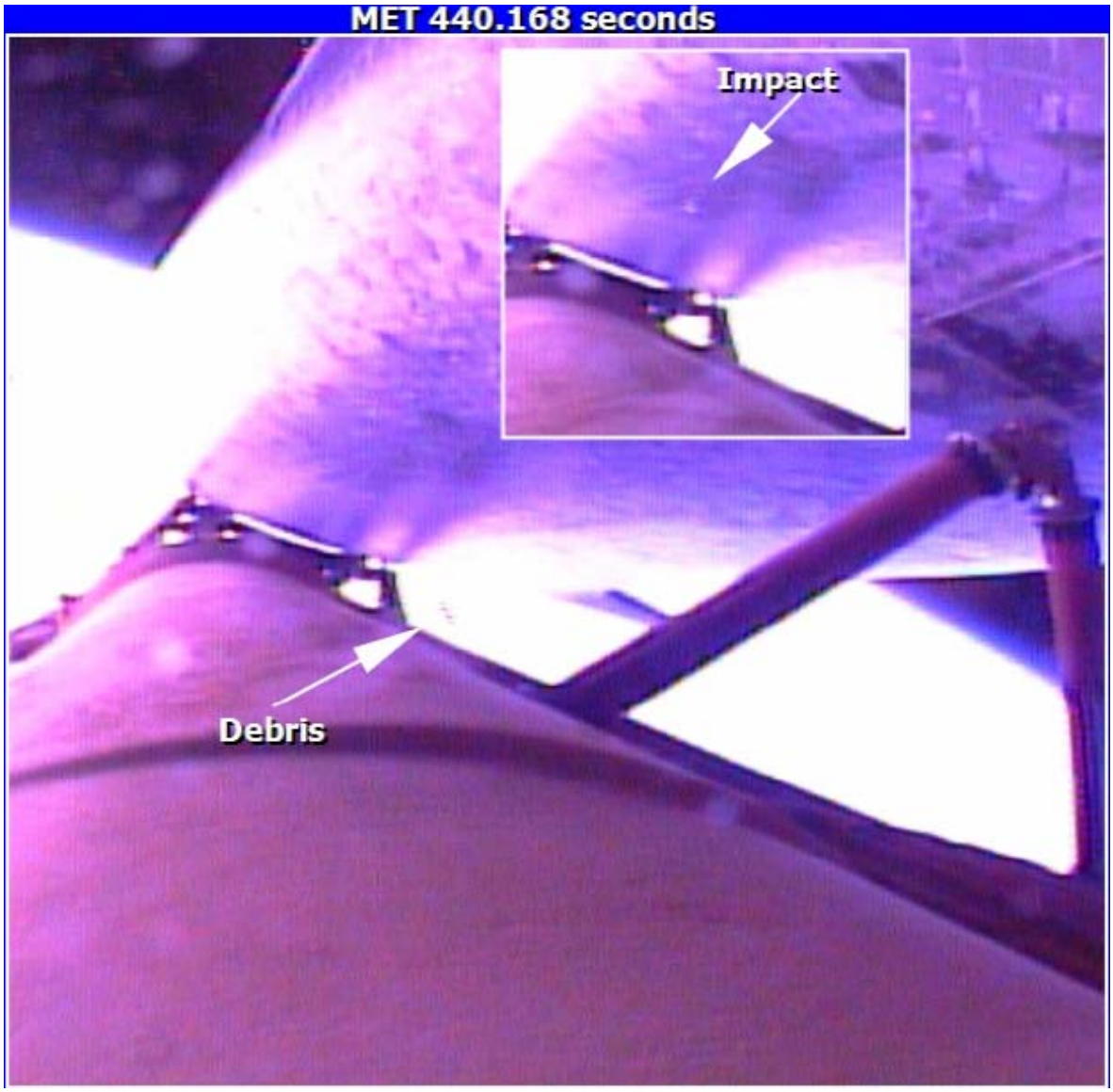


Figure 1 - 7:20.1 MET Debris