STS-126 / ULF2

FD 03 Execute Package

MSG	Page(s)	Title
011A	1 - 14	FD03 Flight Plan Revision **(pdf)**
012	15 - 16	FD03 Mission Summary **(pdf)**
004	17 - 19	SSC 16 SETUP **(pdf)**
010	20 - 23	Stowage Locations for FD03 (GMT 321) **(pdf)**
013	---	FD03 Transfer Message **(pdf - Electronic Only)**
014	24 - 28	SSRMS DOUG Setup Notes for ULF2 **(pdf)**
015A	29 - 30	FD3 EVA Deltas **(pdf)**
016	31	FD2 MMT Summary **(pdf)**
017	32 - 34	HD Digital Camcorder Dnlk Procedure **(pdf)**
018	35 - 37	Exp 18 / STS-126 Joint Emergency Agreement **(pdf)**
019	38 - 42	FD03 RNDZ PACKAGE **(pdf)**

Approved by FAO: *J. Clevenger*

Last Updated: Nov 16 2008 1:19PM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

MSG INDEX

MSG NO.	TITLE
004	SSC 16 SETUP (18-0213)
010	STOWAGE LOCATIONS FOR FD03 (18-0218)
011	FD03 FLIGHT PLAN REVISION
012	FD03 MISSION SUMMARY
013	FD03 TRANSFER MESSAGE
014	SSRMS DOUG SETUP NOTES FOR ULF2 (18-0212)
015	FD3 EVA DELTAS
016	FD2 MMT SUMMARY
017	HD DIGITAL CC DNLK PROCEDURE
018	EXP 18 / STS-126 JOINT EMERGENCY AGREEMENT (18-0221)
019	FD03 RNDZ PACKAGE

1. For today's cryo config, O2 tanks 1 and 2 will be active with dual heaters and H2 tanks 2 and 4 will be active with dual heaters.

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

   A11 CRYO TK4 HTRS O2 A,B (two) – OFF

2. For your simo dump today, use SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) p. 5-2. MCC will TMBU FDA in steps B and K. Waste dump valve open time will be ~ 30 minutes and will dump the waste tank to 5%. Supply dump valve open time will be 20 minutes.

3. The Y-Y Condensate Hose and CWC for the Shuttle Condensate Collection are located in MF57C. Report CWC serial number to MCC.

4. In an effort to categorize the brake line heaters' effect on the landing gear tire temps, we are asking for a couple actions from you. First, we would like to improve the thermal model of the nose landing gear. In order to do so, we will need to swap to TFL 129 every day for 3 minutes to gather temperature data not available in standard orbit TFLs. You will see the two item entries required for this in your Flight Plan from FD3 through undocking.

   Second, we would like you to activate two brake line heaters during the docked phase in order to evaluate their effect on the tire temps. These heater actions will be added to your Flight Plan on FD9 and then again post undocking.

5. MSG 017 should replace the HD Digital CC Dnlk procedure on pages 2-14 and 2-15 in the Photo/TV Flight Supplement C/L. The updates include steps to configure color bars and a black screen on the camcorder, which is used for pixel correction by the ground.

6. DOUG targets for all of the operations on ULF2 are on board ISS and Msg 014 (ISS 18-0212) SSRMS DOUG Setup Notes for ULF2 is available to assist in DOUG setup if desired for each of the Ops days.

7. The Elbow camera iris control sequence is exhibiting a failure, latching the first Automatic Light Control "ALC" command. This failure is only in automatic iris settings. If no image appears after nominal camera command sequence, push the pnl A7 "ALC" button a second time.

8. Welcome to Station! This is just a friendly reminder that for the docked portion of the mission, a message including stowage locations for all ISS activities will be uplinked and printed on the Shuttle side at crew wake. The stowage locations include unstow and restow information for all activities requiring ISS assets. Please feel free to call if you have any questions.

9. REPLACE PAGES 3-20 THROUGH 3-29.

REPLANNED

FD03
GMT 11/16/08 (321)

MET Day 001 — 12 13 14 15 16 17 18 19 20 21 22 23 11/17 002/00

STS-126	CDR **FERGUSON**	SLEEP; POST SLEEP; MNVR; SIMO INIT; POST SLEEP; RCS*; IMU; GRPR B; GPRP UP; NH; NC4; ISS RNDZ OPS; Ti; RPM APPROACH W/RPM	SSV-2; POST RNDZ PGSC CONFG; GRPR B; GPRP DN; H/O; FES#; !!!; SFTY BRIEF; SOPCUS@; PTV05; EXER
STS-126	R1 PLT **BOE**	SLEEP; POST SLEEP; MCIU*; GRPR B; GPRP UP; ISS RNDZ OPS; APPROACH W/RPM	MNVR; TEA; DOCK AUDIO; GRPR B; GPRP DN; !!!; SFTY BRIEF; OBSS*; PTV06
STS-126	R3/M1 MS1 **PETTIT**	SLEEP; DSLV; POST SLEEP; DSLV; POST SLEEP; ISS RNDZ OPS; APPROACH W/RPM	EXERCISE; !!!!; SFTY BRIEF; MLES; OBSS GRPL
STS-126	EV2 MS2 **BOWEN**	SLEEP; DSLV; POST SLEEP; DSLV; POST SLEEP; SIMO TERM; POST SLEEP; EMU RMVL; COND CWC S/U; SSV-3; RNDZ; EXERCISE; ISS RNDZ OPS; APPROACH W/RPM	PTV04; PTV04 OPS INGR/EGR; !!!!; SFTY BRIEF; CNFG#; DIDB
STS-126	EV1 MS3 **PIPER**	SLEEP; DSLV; POST SLEEP; DSLV; POST SLEEP; ISS RNDZ OPS; EMU RMVL; XFER UPDATE; O2-I; ISS RNDZ OPS; O2-T; EXERCISE; ISS RNDZ OPS; APPROACH W/RPM	HATCH LEAK CK; ODS PREP FOR INGR; HATCH OPEN; AHOY; SFTY BRIEF; DIDB
STS-126	R2/EV3 MS4 **KIMBROUGH**	SLEEP; LOG; POST SLEEP; OAPUCUA#; POSTEP; AMPDCDUK*#; EXERCISE; ISS RNDZ OPS; APPROACH W/RPM	HATCH LEAK CK; ODS PREP FOR INGR; HATCH OPEN; !MAT; SFTY BRIEF; OBSS*; PTV06
UP	FE-2 EXP18 **MAGNUS**	SLEEP; POST SLEEP; EXERCISE; P/TV02 DOCK S/U; P/TV02 DOCK OPS; APPROACH W/RPM	SSC SETUP; EY!!; SFTY BRIEF; IELK
ISS	M2 ISS CDR **FINCKE**	SLEEP; POST SLEEP; PW; SHUTT; DPC; P/TV RPM VRFY S/U; EXERCISE CEVIS; EXERCISE RED; MIDDAY-MEAL; PREP; 8FOMM; RPMDL; PMA2; CFG	HATCH LEAK CK ISS; HATCH OPEN; !!!!; SFTY BRIEF; RTR; OBSS GRPL
ISS	FE-1 **LONCHAKOV**	SLEEP; POST SLEEP; PW; DPC; CNFG; VELO; EXERCISE TVIS; MIDDAY-MEAL; TIMER; TIMER; P/TV DOC	HATCH LEAK CK ISS; COX MNT; COMPCL; !!!!; SFTY BRIEF; IELK
DN	FE-2 **CHAMITOFF**	SLEEP; URN CLCT; INS; POST SLEEP; PW; DPC; P/TV RPM VRFY S/U; EXERCISE RED; EXERCISE CEVIS; MIDDAY-MEAL; PREP; 4FOMM; PMA2; CFG; DEACT	NUTR STOW; DOCK AUDIO; HATCH OPEN; !!!; SFTY BRIEF; VCA

DOCKING*

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; DK; BIAS -XLV -ZVV

NOTES: *HEATER RCNFG; *FILTER CHK; #ACT; *DEACT; #STATUS CHECK; #OFF; @ACT; *H/O; #GALLEY O/N

***1/21:09**

NO EXERCISE
(WHILE OBSS GRAPPLED BY SRMS & SSRMS)

REPLANNED

FD03
GMT 11/17/08 (322)
MET Day 002

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

STS-126	CDR **FERGUSON**	EXER; MDDK XFER; XFER; TAG; MUS; TFL^; PRE SLEEP; PMC A/G; PRE SLEEP; SLEEP
STS-126	R1 PLT **BOE**	OBSS*; OBSS H/O; OBSS H/O FROM SSRMS; EXERCISE; MUS; PRE SLEEP; SLEEP
STS-126	R3/M1 MS1 **PETTIT**	♣; OBSS UNBRTH; UNGRP; H/O; MDDK XFER; XFER; TAG; MUS; PRE SLEEP; XFER; BRIEF; PRE SLEEP; DSLV; SLEEP
STS-126	EV2 MS2 **BOWEN**	DIDB; CNFG*; MDDK XFER; MOP; PRE SLEEP; DSLV; SLEEP
STS-126	EV1 MS3 **PIPER**	EMU@; MDDK XFER; PLYBK; OPS; PRE SLEEP; DSLV; SLEEP
STS-126	R2/EV3 MS4 **KIMBROUGH**	OBSS*; OBSS H/O; OBSS H/O FROM SSRMS; MDDK#; MUS; MOP; PRE SLEEP; SLEEP
UP	FE-2 EXP18 **MAGNUS**	IELK; MDDK XFER; PW; SOKOL LK CK; DPC; PMC; PW; PRE SLEEP-ISS; SLEEP
ISS	M2 ISS CDR **FINCKE**	♣; OBSS UNBRTH; UNGRP; H/O; JRNL; ENTRY; PW; DPC; PW; PRE SLEEP-ISS; SLEEP
ISS	FE-1 **LONCHAKOV**	IELK; PW; SOKOL LK CK; DPC; PW; PRE SLEEP-ISS; SLEEP
DN	FE-2 **CHAMITOFF**	VVCDAS; IELK; SODF XFER; DPC; PW; 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:
♣OBSS GRPL
*H/O
@XFER
*GALLEY MORNING
^129
#STATUS CHECK

STS-126 FD (03)

REPLANNED

GMT Date 11/16 (321) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 001 | STS ATT

13:00 14:00 15:00 16:00

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

14 25 15 26 16 27

- ZLV - XVV - ZLV + YVV

CDR **FERGUSON** | PLT **BOE** | MS1 **PETTIT** | NOTES

FD03 EZ ACTIVITIES:
TEPC (ORB OPS, CREW SYS)
CHECK STATUS
√OCAC FILTER & MDDK DUCT SCREEN
HARD REBOOT ALL PGSCs EXCEPT:
STS-6(WLES),STS-3(KFX),
& OCA ROUTER.

SLEEP | SLEEP | SLEEP

TRANSITION TO RNDZ C/L at MET 01/15:35:00

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

DRY SALIVA CLCT(ORB OPS,SDBI)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

DRY SALIVA CLCT(ORB OPS,SDBI)
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

< MNVR 1/14:20:00

SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS)
Initiate Supply/Waste Dump
Ref. MSG 011 Item 2

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

UPDATE H2O WASTE DUMP QTY

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

RCS/OMS HEATER RECONFIG A
IMU STAR OF OPPTY ALIGN (ORB OPS,GNC)
PRIORITY PWRUP GRP B (ORB PKT, PRIOR PWRDN)
Steps 12 (IMU 1),10,9,6 (Triple G2),5
RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)

L17 Check MCIU filter screen
PRIORITY PWRUP GRP B (ORB PKT, PRIOR PWRDN)
Steps 12 (IMU 1),10,9,6 (Triple G2),5
RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)

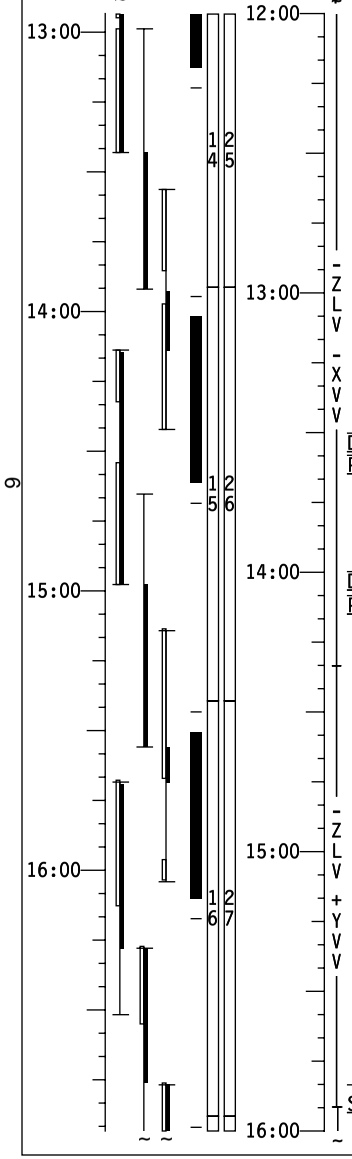
RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)

5

STS-126 FD (03)

REPLANNED

GMT Date 11/16 (321) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 001 | STS ATT



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

-ZLV -XVV

-ZLV +YVV

MS2 **BOWEN**	MS3 **PIPER**	MS4 **KIMBROUGH**	FE-2 (UP) **MAGNUS**	NOTES
SLEEP	SLEEP	SLEEP	SLEEP	
DRY SALIVA CLCT(ORB OPS,SDBI)	DRY SALIVA CLCT(ORB OPS,SDBI)	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)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)		
DRY SALIVA CLCT(ORB OPS,SDBI)	DRY SALIVA CLCT(ORB OPS,SDBI)			
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)			
SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS)			EXERCISE	

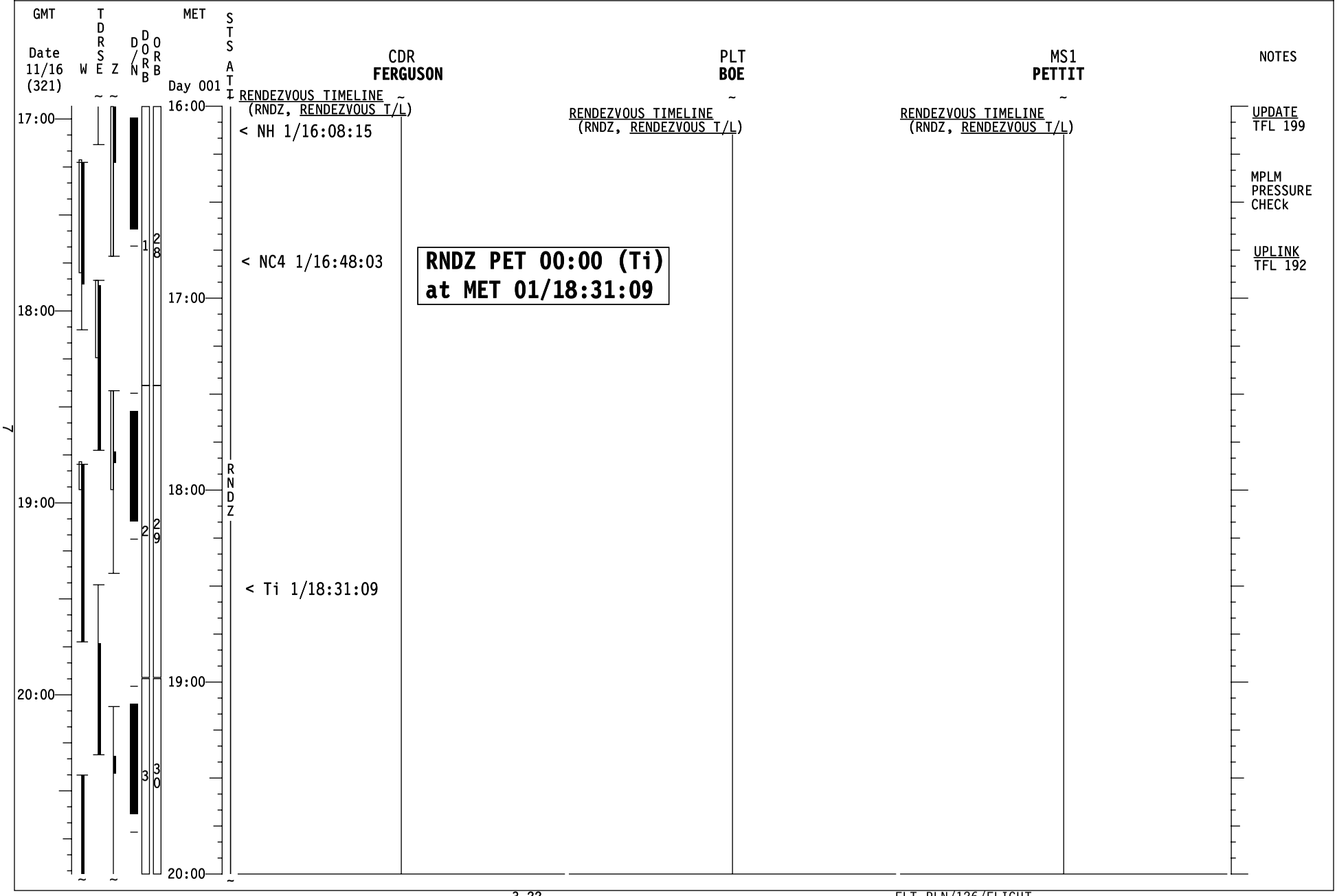
Terminate Supply/Waste Dump

Ref. MSG 011 Item 2

FLT PLN/126/FLIGHT

STS-126 FD (03)

REPLANNED



STS-126 FD (03)

REPLANNED

GMT Date 11/16 (321) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 001 | STS ATT

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

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

RNDZ

MS2 BOWEN

SUPPLY/WASTE WATER DUMP
(ORB OPS, ECLS)
Terminate Supply/Waste Dump
Ref. MSG 011 Item 2

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

EMU REMOVAL
(EVA, AIRLOCK CONFIG)
Disconnect EMUs from AAPs
& Stow in Middeck

SHUTTLE CONDENSATE COLLECTION
(ORB OPS, ECLS)
Perform SETUP
Ref. MSG 011 Item 3

SSV OUTRATE - 3

RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

EXERCISE

RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

MS3 PIPER

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

EMU REMOVAL
(EVA, AIRLOCK CONFIG)
Disconnect EMUs from AAPs
& Stow in Middeck

TRANSFER UPDATE
Ref. MSG 013

O2 REPRESS INIT
OCAC PWR - OFF
C5 DIRECT O2 vlv - OP

RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

O2 REPRESS TERM on MCC GO B

B C5 DIRECT O2 vlv - CL
OCAC PWR - ON

EXERCISE

RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

MS4 KIMBROUGH

SSP1 OIU PWR - OIU 1 ON (tb-UP)

SSPTS APCU 1 ACT
A15 APCU 1 OUTPUT - ON
CONV - ON

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

ON MCC GO: SSPTS APCU 1 DEACT
A15 APCU 1 CONV - OFF
OUTPUT - OFF

MDDK STATUS CHECK (ASSY OPS, P/L)

EXERCISE

RENDEZVOUS TIMELINE
(RNDZ, RENDEZVOUS T/L)

FE-2 (UP) MAGNUS

EXERCISE

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

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

NOTES

8

STS-126 FD (03)

REPLANNED

GMT Date 11/16 (321) | W | TDRS E | Z | D/N | DORB | ORB | MET Day 001 | STS ATT

CDR FERGUSON

APPROACH TIMELINE (RNDZ, CUE CARD)

SSV OUTRATE - 2
POST RNDZ PGSC CONFIG
Configure PGSCs

PRIORITY PWRDN GRP B (ORB PKT, PRIOR PWRDN)
Steps 6 (Single G2) & 12 (IMU 1)
O6 STRK PWR -Z - OFF

JOINT OPS: 3.111 HANDOVER ATTITUDE
CONTROL ORBITER to CMGTA
TOPPING FES DEACTIVATION
(ORB OPS, ECLS)

AHOY !!!

SAFETY BRIEFING

SSPTS ODS CONNECTOR VERIF C
SSPTS OPCU ACT D
P/TV05 ISS INTERNAL OPS (HC)
(PHOTO/TV, SCENES) Setup

EXERCISE

PLT BOE

APPROACH TIMELINE (RNDZ, CUE CARD)

√DAP A/LVLH/VERN
MNVR (TRK) BIAS -XLV -ZVV
TG=2 BV=5 P=159 Y=355 OM=183
Init TRK, DAP:FREE >2 sec
Then: DAP:B12/AUTO/VERN
When in atttude, select DAP A
JOINT OPS: 6.103 HARDLINE AUDIO CONFIG
Steps 1,2,6,7

PRIORITY PWRDN GRP B (ORB PKT, PRIOR PWRDN)
Steps 6 (Single G2) & 12 (IMU 1)
O6 STRK PWR -Z - OFF

AHOY !!!

SAFETY BRIEFING

OBSS HANDOFF FROM SSRMS TO SRMS
(PDRS, OBSS NOMINAL) Steps 1 and 2

P/TV06 ROBOTICS OPERATIONS
(PHOTO/TV, SCENES)
Setup & Ops

MS1 PETTIT

APPROACH TIMELINE (RNDZ, CUE CARD)

C SSPTS ODS CONNECTOR VERIF
A15 ODS MATE X1,X2(two)-ON
√MCC then - OFF

D On MCC GO: A15 OPCU 1,2 CONV (two) - ON
R1 MN BUS TIE B - ON (tb-ON)
C - ON (tb-ON)

EXERCISE

AHOY !!!

SAFETY BRIEFING

WLES DOCK/UNDOCK RECOVERY (ORB OPS, WLES)

ROBOTICS: 1.110 OBSS UNBERTH & HANDOFF
Steps 1-5.2

NOTES

UPLINK
β21 + MASK
Box 30,40, 41

UPLINK
β21 + MASK
Box 40,41, 60
UPLINK
TFL 184

RETURN TO FLIGHT PLAN

DOCKING (01/21:09)

RNDZ | DK | BIAS -XLV -ZVV

STS-126 FD (03)

REPLANNED

GMT Date 11/16 (321) | W | TDRS E | Z | D/N | DORB | ORB | MET Day 001 | STS ATT

MS2 **BOWEN**	MS3 **PIPER**	MS4 **KIMBROUGH**	FE-2 (UP) **MAGNUS**	NOTES
APPROACH TIMELINE (RNDZ, CUE CARD)	APPROACH TIMELINE (RNDZ, CUE CARD)	APPROACH TIMELINE (RNDZ, CUE CARD)	APPROACH TIMELINE (RNDZ, CUE CARD)	
P/TV04 INGRESS/EGRESS (PHOTO/TV, SCENES) Setup	POST DOCKING HATCH LEAK CHECK (RNDZ, APDS)	POST DOCKING HATCH LEAK CHECK (RNDZ, APDS)		
P/TV04 INGRESS/EGRESS (PHOTO/TV, SCENES) Ops	A/L PREP FOR INGRESS -AIRLOCK FAN ACTIVE (RNDZ, APDS)	A/L PREP FOR INGRESS -AIRLOCK FAN ACTIVE (RNDZ, APDS)		
	JOINT OPS: 2.104 HATCH OPENING & SHUTTLE/ISS DUCT INSTALLATION √MCC-H complete with step 1 Perform step 2-15	JOINT OPS: 2.104 HATCH OPENING & SHUTTLE/ISS DUCT INSTALLATION √MCC-H complete with step 1 Perform step 2-15	SSC 16 SETUP Ref. MSG 004	
AHOY!!!	AHOY!!!	AHOY!!!	AHOY!!!	
SAFETY BRIEFING	SAFETY BRIEFING	SAFETY BRIEFING	SAFETY BRIEFING	
GALLEY OVRNIGHT CONFIG (ORB OPS,ECLS) DIDB FILL FILL 8 DIDBs FROM GALLEY REMOVE GAS DISPOSE OF FILL TOOL IN WET TRASH	DIDB FILL FILL 8 DIDBs FROM GALLEY REMOVE GAS DISPOSE OF FILL TOOL IN WET TRASH	OBSS HANDOFF FROM SSRMS TO SRMS (PDRS, OBSS NOMINAL) Steps 1 & 2 P/TV06 ROBOTICS OPERATIONS (PHOTO/TV, SCENES) Setup & Ops	IELK INSTALL & C/O Ref. Middeck Transfer List: Item 23,23.1 Ref. MPLM Return Transfer List: Item 767	

STS-126 FD (03)

REPLANNED

GMT Date 11/17 (322) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 002 | STS ATT

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

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

6 3 3 7 3 4 8 3 5

BIAS - XLV - ZVV

CDR FERGUSON

EXERCISE

MIDDECK XFER
Ref. Middeck Transfer List

TRANSFER TAGUP
Coordinate with xfer counterpart

MUS LOG (ASSY OPS, PAYLOADS)

TFL 129 FOR NLG E

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

√Hum Seps for H2O Accumulation

PRIVATE MEDICAL CONFERENCE (A/G)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

E SM SPEC 62
ITEM 1 -EXEC
Wait 3 MINUTES
ITEM 2 -EXEC
RESUME

PLT BOE

OBSS HANDOFF FROM SSRMS TO SRMS
(PDRS, OBSS NOMINAL) Steps 3-5

OBSS HANDOFF FROM SSRMS TO SRMS
(PDRS, OBSS NOMINAL) Steps 6-8

OBSS HANDOFF FROM SSRMS TO SRMS
(PDRS, OBSS NOMINAL) Step 9

EXERCISE

MUS LOG (ASSY OPS, PAYLOADS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MS1 PETTIT

ROBOTICS: 1.110 OBSS UNBERTH & HANDOFF
Steps 1-5.2

ROBO: 1.110 OBSS UNBERTH & HANDOFF
Steps 5.3-9

ROBO: 1.111 OBSS RELEASE AT HANDOFF

MIDDECK XFER
Ref. Middeck Transfer List

TRANSFER TAGUP
Coordinate with xfer counterpart

MUS LOG (ASSY OPS, PAYLOADS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

TRANSFER BRIEF
Call down status to MCC

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

NOTES

NO EXERCISE WHILE OBSS GRAPPLED BY SRMS & SSRMS

STS-126 FD (03)

REPLANNED

GMT Date 11/17 (322) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 002 | STS ATT

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

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

6 3 3 7 3 4 8 3 5

BIAS - XLV - ZVV

MS2 BOWEN

DIDB FILL
FILL 8 DIDBs FROM GALLEY
REMOVE GAS
DISPOSE OF FILL TOOL IN WET TRASH

√ All EVA drink bags fills complete
THEN: GALLEY MORNING CONFIG
(ORB OPS, ECLS)

MIDDECK XFER
Ref. Middeck Transfer List

MOP QUESTIONNAIRE
(ASSY OPS, PAYLOADS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MS3 PIPER

EMU TRANSFER TO ISS
Ref. MIDDECK TRANSFER LIST:
Items 51,52

MIDDECK XFER
Ref. MSG013
Ref. MIDDECK TRANSFER LIST:
Items 5,5.1,5.1.1,13,13.1-13.4,
24,25,29,46,46.1,46.2,716

CANNON G1 HD DIGITAL CC DNLK
Ref. MSG 017
KU TDRW (02:15-02:51)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MS4 KIMBROUGH

OBSS HANDOFF FROM SSRMS TO SRMS
(PDRS, OBSS NOMINAL)Steps 3-5

OBSS HANDOFF FROM SSRMS TO SRMS
(PDRS, OBSS NOMINAL) Steps 6-8

OBSS HANDOFF FROM SSRMS TO SRMS
(PDRS, OBSS NOMINAL)Step 9

MDDK STATUS CHECK (ASSY OPS, P/L)
MUS LOG (ASSY OPS, PAYLOADS)
MOP QUESTIONNAIRE
(ASSY OPS, PAYLOADS)
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

FE-2 (UP) MAGNUS

IELK INSTALL & C/O
Ref. Middeck Transfer List:
Item 23,23.1
Ref. MPLM Return Transfer List:
Item 767

MIDDECK XFER
Ref. Middeck Transfer List

PREP WORK

SOKOL LEAK CHECK

DAILY PLANNING CONFERENCE (DPC)

PRIVATE MEDICAL CONFERENCE (A/G)

PREP WORK

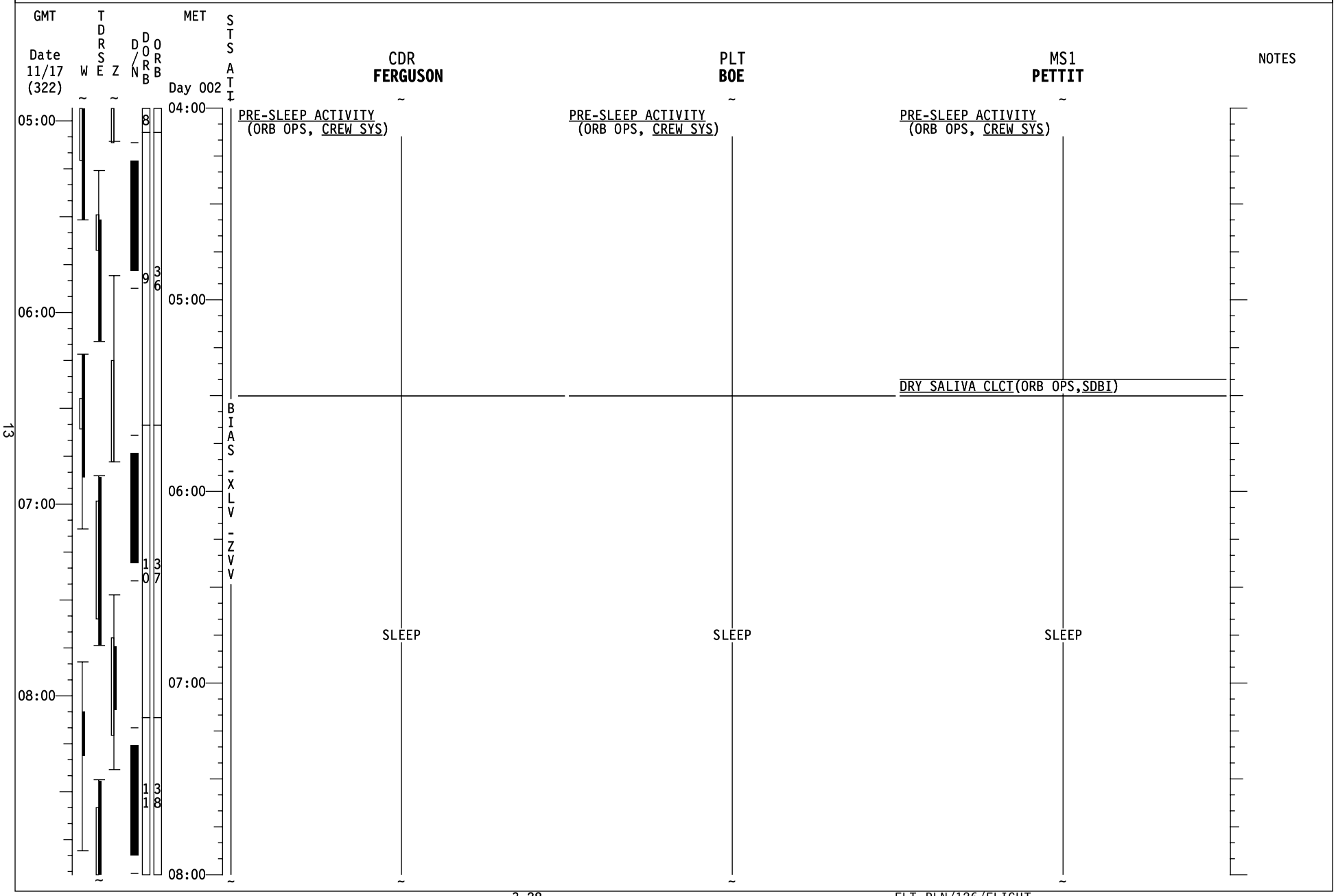
PRE SLEEP-ISS

NOTES

NO EXERCISE WHILE OBSS GRAPPLED BY SRMS & SSRMS

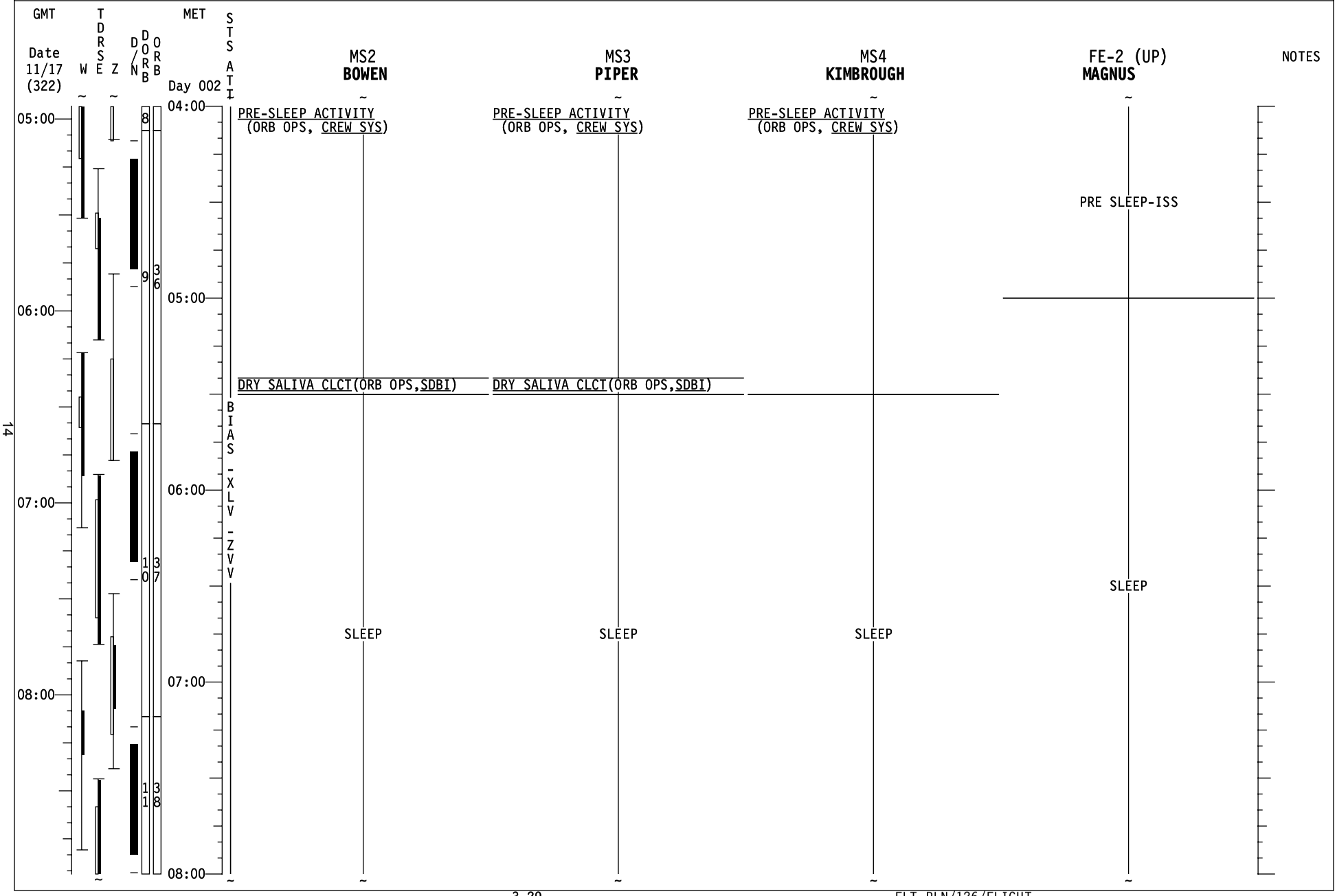
STS-126 FD (03)

REPLANNED



STS-126 FD (03)

REPLANNED



Good Morning Endeavour!!

All of you did an awesome job yesterday!

Have a great rendezvous day!

YOUR CURRENT ORBIT IS: 132 X 114 NM

NOTAMS:

NOTAMS - ONE CHANGE

ILM – RWY 06/24 CLOSED.
EDW – EDT IN USE FOR STS-126. EDW ELS DAY / VFR ONLY.
EDW – LAKEBED RUNWAY 15/33 ELS ONLY. OTHER LAKEBED RWYS RED.
NOR – LAKEBED RUNWAYS GREEN.
DOV – RWY 14/32 CLOSED.
HAW – RWY 13 THLD DISPLACED, 9,019' USABLE.
AMB – RWY 15/33 CLOSED.
YHZ – RWY 05/23 CLOSED.
YYT – RWY 16/34 CLOSED.
IKF – NOT USABLE. NO AGREEMENT.
BEN – NOT RECOMMENDED/NOT SUPPORTED.
ZZA – FIRST 600M (~2,000') OF RWY 30L NOT AVAILABLE. 10,200' REMAINING.

NEXT 2 PLS OPPORTUNITIES:

EDT04L ORB 33 – 2/00:24 FEW250 7 040/07P9
EDT04L ORB 49 – 3/00:50 SKC 7 040/07P9

OMS TANK FAIL CAPABILITY:

L OMS FAILS: NO
R OMS FAILS: NO

LEAKING OMS PRPLT BURN:

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

OMS QUANTITIES(%)

L OMS OX = 33.8 R OMS OX = 34.0
FU = 33.5 FU = 33.8
Subtract interconnect counter for current OMS quantities.

DELTA V AVAILABLE:

OMS	311 FPS
ARCS (TOTAL ABOVE QTY1)	28 FPS
TOTAL IN THE AFT	339 FPS
ARCS (TOTAL ABOVE QTY2)	57 FPS
FRCS (ABOVE QTY 1)	39 FPS
AFT QTY 1	86 %
AFT QTY 2	48 %

SYSTEM	FAILURE	IMPACT	WORK AROUND
EPS	Fuel Cell 1 H2 flowmeter is erratic. (SPEC 69 FUEL CELLS, FC 1 FLOW H2).	Loss of insight into Fuel Cell 1 H2 flow.	None. MCC has additional insight into the health of Fuel Cell 1. Onboard FDA has been inhibited.
INST/COMM	Elbow Camera Automatic Light Control (ALC) command sequence	Additional command needed to activate automatic iris control	After Elbow Camera selection and standard iris control “ALC” – “AVG”, push “ALC” a second time to activate iris.

END OF PAGE 2 OF 2, MSG 012

OBJECTIVE:
This will convert Aft Flight Deck laptop to SSC Client.

UNSTOW:

A31p 60 GB Hard Drive	P/N: SEG33115359-301	S/N: 1326
A31p UltraPort Camera	P/N: SEG33115371-301	
Wireless Network Card	P/N: 1F15983-1	

Aft Flight Deck PCS

SETUP AFT FLIGHT DECK PCS AS SSC16

1. √Aft Flight Deck PCS pwr – OFF

2. Swap hard drive with A31P 60GB hard drive (s/n 1326) (Refer to 2.405 A31P 60 GB HARD DRIVE CHANGEOUT, steps 4 through 14 (POC: NOMINAL: THINKPAD), then:

3. Temp stow original hard drive

4. Open small cover above Interposer (Refer to Figure 1)

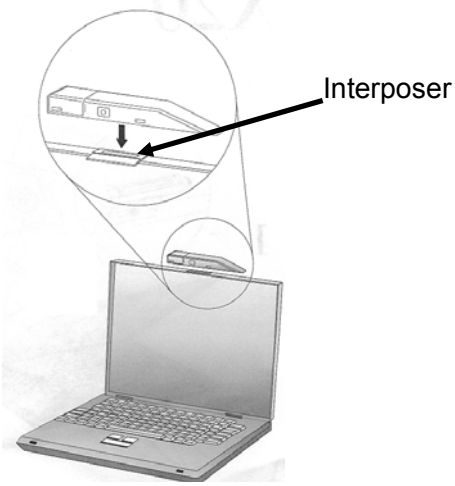


Figure 1 - A31p UltraPort Camera Position

5. Move and hold Release Latch towards angled side of A31p UltraPort camera. Align metal legs below A31p Ultraport camera with holes inside Interposer and place camera on Interposer (Refer to Figures 1 and 2)

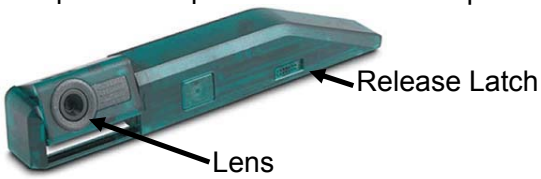


Figure 2 - A31p UltraPort Camera

6. Release latch to properly secure A31p UltraPort camera.

7. √A31p UltraPort camera properly secured and does not disconnect.
8. Rotate lens so that lens is directed towards user. (Refer to Figure 2)

9. Insert Wireless Network Card into top-most PCMCIA card slot

10. Aft Deck PCS pwr – ON (Henceforth referred to as SSC16)

SSC16

11. Log into SSC16 as crewmember
    For appropriate logon information, refer to {5.202 SSC USER LOGON ACCOUNTS} (POC: REFERENCE: OPS LAN)

12. Verify connectivity to ISS_AP1 or ISS_AP2 (Refer to Figure 3)

13. √Signal strength > 2 (Refer to Figure 3)

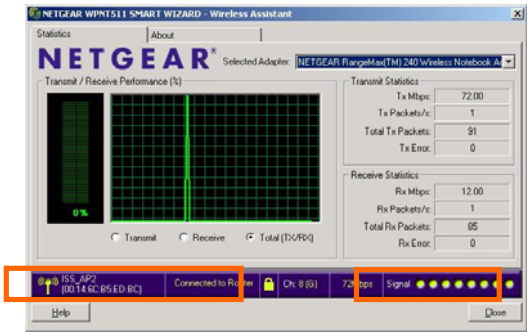


Figure 3: Netgear Wireless Assistant

****

If Netgear monitor does not appear or low to no connectivity

Eject Wireless Network Card from PCMCIA slot

RJ-45 Ethernet cable →|← SSC16 Ethernet port

sel Start > Settings > Control Panel

Double-click Network Connection

Right-click Local Area Connection (Refer to Figure 4)

sel Enable (Refer to Figure 4)

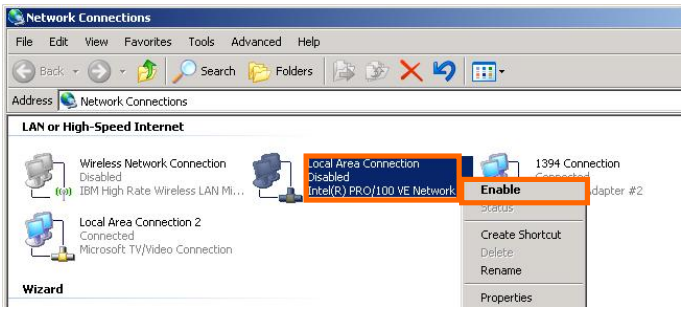


Figure 4: Network Connections

Open PingMaster and verify connectivity to OpsLAN

Close all windows

****

Contents:

Timeline Procedures:
NUTR/REP-FE2 URN-CLT
NUTR/REP-FE2 URN-INS
NUTR/REP-FE2 URN-STW
ISS-HATCH LEAK CHECK
ISS-HATCH OPEN

Tasklist Procedures:
P/TV-DCS D2X-CLN
S&M-LAB1S3-PREP
S&M-LAB1P4-PREP
S&M-LAB1D4-PREP

Timeline Procedures:

NUTR/REP-FE2 URN-CLT **NUTR/REP-FE2 URN-INS** **NUTR/REP-FE2 URN-STW**						
2.003 NUTRITION URINE COLLECTION WITH REPOSITORY						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**Crew Pref**	Kapton Tape 1"	528-41353-1	-	-	
2	**Temp Stow**	Ziplock	-	-	-	Size is crew pref, use to gather dry trash.
3	**JPM1D4_B1**	Dewar ASE Pouch	03298	03J	MEFDAP03J	
4		White Gloves	03291-1	Any	Any	
Type: Restow			IMS Plan: No			
5	**Stage for Trash**	HRF Urine Containment Bag	SDD46107234-306	-	-	Per CCD
6	**JPM1D4** Dewar 1, Tray B, Section 4	Samples	-	-	-	Bundled with Kapton Tape.
7	**JPM1F1_D2** 1.0 CTB: HRF, S/N 1036, B/C 002921J	Urine Collection Kit	SJG46116435-303	-	HRF07943J	
8	**JPM1F5_G1** 1.0 CTB, S/N 1246, B/C 010582J	Sample Tube Dispenser	SEG46116931-331	-	HRF05472J	

ISS-HATCH LEAK CHECK						
2.102 POST DOCKING HATCH LEAK CHECK - ISS						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**NOD1D0** 0.5 CTB: ISA/ Multimeter items for ULF-2, S/N 1240, B/C 010421J	VAJ-78-1 5ft	683-17111-1	-	00002677J	
2		MPEV Internal Sampling Adapter (ISA)	97M55830-1	2	000002M	
3		ISA Scopemeter Pressure Probe	1525,760MMHGA/ 30PSIA	005023439991	000009M	Attached to MPEV ISA
4	**LAB1P6**	Multimeter Kit	10118-10018-04	1017	-	
5		Multimeter	87	-	00072526K	Labeled “V’ger”
6	**Crew Pref**	Earplugs	28-00-05	-	-	

ISS-HATCH OPEN						
2.104 HATCH OPENING AND SHUTTLE/ISS DUCT INSTALLATION						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**NOD1O4_C1** 0.5 CTB: Rubber Gloves, S/N 1159, B/C 006608J	Nitrile Gloves Assy	SEG33116807-301	-	-	Substitute for Rubber Gloves if none found.
2		Deerskin Gloves	528-41517-2	-	-	
3	**Crew Pref**	Towel	-	-	-	
4		Flashlight				
5	**NOD2D0**	DOCKING MECHANISM ACCESSORY KIT	33У.9962.003	-	-	Mesh bag
6		Ручка	11Ф732.Г1021-ОА	-	-	APAS Hatch Tool
7		Cleaning Pads	33У.9938.002	-	-	
8		Hatch Cover	33У.9936.021	-	-	APAS Hatch Cover
9		Standoff Cover Bag Assy	SEM39125998-301	-	-	Docking Target Standoff Cross Bag
10		Target Base Cover Assy	SEM39125997-301	-	-	Docking Target Base Plate Cover
11		1 1/2 Inch Wrench	528-20942-1	-	-	1 1/2" Open End Wrench

Tasklist Procedures:

P/TV-DCS D2X-CLN						
18- 0071 3.499 D2Xs SENSOR CLEANING						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**LAB1P4**	Water Microbiology Kit	SEG46119990-303	1001	CHCWMK01J	
2		Microbiology Water Analysis Syringe 60cc	KLSK270248-302	-	-	No needle

S&M-LAB1S3-PREP						
1.215 PREPARE LAB FOR RACK INSTALLATION ON ULF2						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**Crew Pref**	Digital Camera				
2	**COL1O4_A2** 1.0 CTB: Mechanical Umbilical Assy, Pushrod Assy S/M S/N 1148, B/C 004142J	ARIS - Pivot Fitting Bottom Left	683-61711-31	**REPORT**	**REPORT**	**Report S/N's to MCC-H**
3		ARIS - Pivot Fitting Bottom Right	683-61711-32	**REPORT**	**REPORT**	
Type: Restow			IMS Plan: No			
4	**NOD1S4_G**	Rack UIP Closeout Panel	683-60410-1	**REPORT**	**REPORT**	**Report S/N's to MCC-H**
5		Rack Upper Closeout Seal	683-60431-2	**REPORT**	**REPORT**	
6	**COL1O4_A2** 1.0 CTB: Mechanical Umbilical Assy, Pushrod Assy S/M S/N 1148, B/C 004142J	Rack Grounding Strap Bracket	683-56200	**REPORT**	**REPORT**	
7		Rack Grounding Strap Bracket	683-56200	**REPORT**	**REPORT**	
8		IHI/MHI Pivot Fitting Bottom, Left	683-20100-1	**REPORT**	**REPORT**	
9		IHI/MHI Pivot Fitting Bottom, Right	683-20100-2	**REPORT**	**REPORT**	

S&M-LAB1P4-PREP						
1.215 PREPARE LAB FOR RACK INSTALLATION ON ULF2						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**Crew Pref**	Digital Camera	-	**-**	-	
Type: Restow			IMS Plan: No			
2	**COL1O4_A2** 1.0 CTB: Mechanical Umbilical Assy, Pushrod Assy S/M S/N 1148, B/C 004142J	ARIS - Pivot Fitting Bottom Right	683-61711-32	**REPORT**	**REPORT**	**Report S/N's to MCC-H**

S&M-LAB1D4-PREP						
1.215 PREPARE LAB FOR RACK INSTALLATION ON ULF2						
Type: Standard			IMS Plan: No			
#	**LOCATION**	**ITEM NAME**	**P/N**	**S/N**	**B/C**	**Notes**
1	**Crew Pref**	Digital Camera	-	**-**	-	
Type: Restow			IMS Plan: No			
2	**COL1O4_A2** 1.0 CTB: Mechanical Umbilical Assy, Pushrod Assy S/M S/N 1148, B/C 004142J	ARIS - Pivot Fitting Bottom Right	683-61711-32	**REPORT**	**REPORT**	**Report S/N's to MCC-H**

DOUG Setup for FD03 (OBSS Handoff)

1. For **stand-alone** procedure review, perform {1.301 DOUG Startup Procedure}, step 2 (SODF: POC: Activation and Checkout: DOUG)

2. For **SSRMS real-time support**, perform {1.301 DOUG Startup Procedure}, step 1 (SODF: POC: Activation and Checkout: DOUG)
   2.1 Set SSC volume such that tones are audible.

3. Configure for current ISS configuration and bring up displays.
   3.1 File ► Load State
      3.1.1 From Load State Dialog box, select "**1.110 OBSS Unberth and Handoff"**, open

4. Confirm steps **4.1-4.2** are complete with loaded state file, otherwise complete these steps as needed.
   4.1 Reconfig ► SSRMS
      4.1.1 In SSRMS Reconfig Dialog box, select 'SSRMS_BASE_B'.
      4.1.2 In SSRMS Reconfig Dialog box, select 'SSRMS ->NODE2_PDGF'.
      4.1.3 *In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_5'*.
   4.2 JntSystems ► RMS
      4.2.1 In the RMS Dialog box enter "22.7, 57.5, -27.4, -99.3, 11.8, -97.9"
      4.2.2 In the SPDM Dialog box enter:
         "-50, -90, -45, 80, 45, -45, -90, 0, -37.5, -45, -110, -45, 45, -70, 0.1"
      4.2.3 In the JEM Dialog box enter "0, 90, -149, -31, 0, 0"
   4.3 Display ► Puddle Plot Shoulder/Wrist
   4.4 For real-time support, Display ► Show SSRMS Target
   4.5 For Real-time support, Options ► SSRMS Proximity, set all distances to 24 (inches)

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use Page Up and Page Down keys to scroll through Target selections.

Procedure	Step	Starting Target		
		Camera	**SSRMS**	**RMS**
1.110 OBSS GRAPPLE	2		1.110 Step 2 - Stage Park	

5. For procedure "1.110 OBSS Unberth and Handoff" Step 4 configure for current ISS configuration.
   5.1 Reconfig ► Orbiter Inspection
      5.1.1 In Orbiter Inspection Dialog box, select 'OBSS_GF2_to SSRMS'

6. For procedure "1. 111 OBSS Release at Handoff" Step 2 configure for current ISS configuration.
   6.1 Reconfig ► Orbiter Inspection
      6.1.1 In Orbiter Inspection Dialog box, select 'OBSS_GF1_to_SRMS'.

DOUG Setup for FD04 (MPLM Unberth and Install)

1. For **stand-alone** procedure review, perform {1.301 DOUG Startup Procedure}, step 2 (SODF: POC: Activation and Checkout: DOUG)

2. For **SSRMS real-time support**, perform {1.301 DOUG Startup Procedure}, step 1 (SODF: POC: Activation and Checkout: DOUG)
   2.1 Set SSC volume such that tones are audible.

3. Configure for current ISS configuration and bring up displays.
   3.1 File ► Load State
      3.1.1 From Load State Dialog box, select "**1.210 Berthed MPLM Grapple"**, open
      -or-
      3.1.2 Reconfig ► Configs_for_ROBOTICS_DAYS
         3.1.2.1 In Configs_for_ROBOTICS_DAYS Dialog box, select 'MPLM_Unberth/Install_Config'

4. Confirm steps **4.1-4.2** are complete with loaded state file, otherwise complete these steps as needed.
   4.1 Reconfig ► SSRMS
      4.1.1 In SSRMS Reconfig Dialog box, select 'SSRMS_BASE_B'.
      4.1.2 In SSRMS Reconfig Dialog box, select 'SSRMS ->NODE2_PDGF'.
      4.1.3 In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_WS5'.
   4.2 Reconfig ►Orbiter Inspection.
      4.2.1 In Orbiter Inspection Dialog box, select 'OBSS_GF1_to_SRMS' (SRMS @ 62.5, 25.0, -23.0, 0.0, -13.2, -21.9)
      4.2.2 In the SPDM Dialog box enter:
         "-50, -90, -45, 80, 45, -45, -90, 0, -37.5, -45, -110, -45, 45, -70, 0.1"
      4.2.3 In the JEM Dialog box enter "0, 90, -149, -31, 0, 0"
   4.3 Display ► Puddle Plot Shoulder/Wrist
   4.4 For real-time support, Display ► Show SSRMS Target
   4.5 For Real-time support, Options ► SSRMS Proximity, set all distances to 24 (inches)

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use Page Up and Page Down keys to scroll through Target selections.

Procedure	Step	Starting Target		
		Camera	**SSRMS**	**RMS**
1.210 Berthed MPLM Grapple	1		1.210 Step 1 - OBSS Back-off	

5. For procedure "1.210 Berthed MPLM Grapple" Step 4 configure for current ISS configuration
   5.1 Reconfig ► MPLM
      5.1.1 In MPLM Reconfig Dialog box, select 'MPLM_GF1 >SSRMS'

6. For procedure "1.220 MPLM Unberth to Install" Step 4 configure for current ISS configuration
   6.1 Reconfig ► MPLM
      6.1.1 In MPLM Reconfig Dialog box, select 'MPLM >NODE2'

NOTE: If MPLM needs to be installed on Node 2 Zenith, refer to starting target 'CONT MPLM Step 1 - Low Hover'

DOUG Setup for FD05 (EVA1)

1. For **stand-alone** procedure review, perform {1.301 DOUG Startup Procedure}, step 2 (SODF: POC: Activation and Checkout: DOUG)

2. For **SSRMS real-time support**, perform {1.301 DOUG Startup Procedure}, step 1 (SODF: POC: Activation and Checkout: DOUG)

   2.1 Set SSC volume such that tones are audible.

3. Configure for current ISS configuration and bring up displays.
   3.1 File ► Load State
      3.1.1 From Load State Dialog box, select "**1.310 - NTA Return and FHRC Retrieve"**, open
      -or-
      3.1.2 Reconfig ► Configs_for_ROBOTICS_DAYS
         3.1.2.1 In Configs_for_ROBOTICS_DAYS Dialog box, select 'EVA1_Config'

4. Confirm steps **4.1-4.3** are complete with loaded state file, otherwise complete these steps as needed.
   4.1 Reconfig ► SSRMS
      4.1.1 In SSRMS Reconfig Dialog box, select 'SSRMS_BASE_B'.
      4.1.2 In SSRMS Reconfig Dialog box, select 'SSRMS ->NODE2_PDGF'.
      4.1.3 In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_WS5'.
   4.2 Reconfig ►MPLM
      4.2.1 In MPLM Dialog box, select 'MPLM>Node2'
   4.3 Reconfig ► Orbiter Inspection
      4.3.1 *In Orbiter Inspection Dialog box, select 'OBSS_GF1_to_SRMS' (SRMS @ 62.5, 25.0, -23.0, 0.0, -13.2, -21.9)*
      4.3.2 In the SPDM Dialog box enter:
         "-50, -90, -45, 80, 45, -45, -90, 0, -37.5, -45, -110, -45, 45, -70, 0.1"
      4.3.3 In the JEM Dialog box enter "0, 65, 15, -65, -180, 0"
   4.4 Display ► Puddle Plot Shoulder/Wrist
   4.5 For real-time support, Display ► Show SSRMS Target
   4.6 For Real-time support, Options ► SSRMS Proximity, set all distances to 24 (inches)

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use Page Up and Page Down keys to scroll through Target selections.

Procedure	Step	Starting Target		
		Camera	**SSRMS**	**RMS**
1.310 - NTA Return and FHRC Retrieve	1		1.310 Step 2 - Overnight Park	

NOTE: If NTA cannot be removed from ESP3 and FHRC needs to be installed on ESP3 site 6, refer to starting target 'CONT EVA FHRC Step 1 - ESP3 Clearance'

If the NTA cannot be installed on the LMC and needs to return to ESP3 site 3, refer to starting target 'CONT EVA NTA Step 1 - Cont 1'

DOUG Setup for FD07 (EVA2)

1. For **stand-alone** procedure review, perform {1.301 DOUG Startup Procedure}, step 2 (SODF: POC: Activation and Checkout: DOUG)

2. For **SSRMS real-time support**, perform {1.301 DOUG Startup Procedure}, step 1 (SODF: POC: Activation and Checkout: DOUG)
   2.1 Set SSC volume such that tones are audible.

3. Configure for current ISS configuration and bring up displays.
   3.1 File ► Load State
      3.1.1 From Load State Dialog box, select "**1.410 - CETA Cart Relocate"**, open
      -or-
      3.1.2 Reconfig ► Configs_for_ROBOTICS_DAYS
         3.1.2.1 In Configs_for_ROBOTICS_DAYS Dialog box, select 'EVA2_Config'

4. Confirm steps **4.1-4.3** are complete with loaded state file, otherwise complete these steps as needed.
   4.1 Reconfig ► SSRMS
      4.1.1 In SSRMS Reconfig Dialog box, select 'SSRMS_BASE_B'.
      4.1.2 In SSRMS Reconfig Dialog box, select 'SSRMS ->NODE2_PDGF'.
      4.1.3 In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_WS6'.
   4.2 Reconfig ►MPLM
      4.2.1 In MPLM Dialog box, select 'MPLM>Node2'
   4.3 Reconfig ► Orbiter Inspection
      4.3.1 In Orbiter Inspection Dialog box, select 'OBSS_GF1_to_SRMS' (SRMS @ 62.5, 25, -50, -90, -13.2, 30)
      6.1.2 In the SPDM Dialog box enter:
         "-50, -90, -45, 80, 45, -45, -90, 0, -37.5, -45, -110, -45, 45, -70, 0.1"
      6.1.3 In the JEM Dialog box enter "-7, -33.8, -45.1, -136.3, -5.8, 176"
   4.4 Display ► Puddle Plot Shoulder/Wrist
   4.5 For real-time support, Display ► Show SSRMS Target
   4.6 For Real-time support, Options ► SSRMS Proximity, set all distances to 24 (inches)

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use Page Up and Page Down keys to scroll through Target selections.

Procedure	Step	Starting Target		
		Camera	**SSRMS**	**RMS**
1.410 EVA - CETA Cart Relocation	2		1.410 Step 2 - Overnight Park	

DOUG Setup for FD12 (MPLM Uninstall)

1. For **stand-alone** procedure review, perform {1.301 DOUG Startup Procedure}, step 2 (SODF: POC: Activation and Checkout: DOUG)

2. For **SSRMS real-time support**, perform {1.301 DOUG Startup Procedure}, step 1 (SODF: POC: Activation and Checkout: DOUG)
   2.1 Set SSC volume such that tones are audible.

3. Configure for current ISS configuration and bring up displays.
   3.1 File ► Load State
      3.1.1 From Load State Dialog box, select '**1.240 Node 2 Mated MPLM Grapple**', open
      -or-
      3.1.2 Reconfig ► Configs_for_ROBOTICS_DAYS
         3.1.2.1 In Configs_for_ROBOTICS_DAYS Dialog box, select 'EVA3_EVA4_MPLM_Uninstall'

4. Confirm steps **4.1-4.3** are complete with loaded state file, otherwise complete these steps as needed.
   4.1 Reconfig ► SSRMS
      4.1.1 In SSRMS Reconfig Dialog box, select 'SSRMS_BASE_B'.
      4.1.2 In SSRMS Reconfig Dialog box, select 'SSRMS ->NODE2_PDGF'.
      4.1.3 In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_6'.
   4.2 Reconfig ► MPLM
      4.2.1 In MPLM Dialog box, select 'MPLM>Node2'
   4.3 Reconfig ► Orbiter Inspection
      4.3.1 In Orbiter Inspection Dialog box, select 'OBSS_GF1_to_SRMS' (SRMS @ 62.5, 25.0, -23.0, 0.0, -13.2, -21.9)
      4.3.2 In the SPDM Dialog box enter:
         "-50, -90, -45, 80, 45, -45, -90, 0, -37.5, -45, -110, -45, 45, -70, 0.1"
      4.3.3 In the JEM Dialog box enter "0, 90, -149, -31, 0, 0"
   4.4 Display ► Puddle Plot Shoulder/Wrist
   4.5 For real-time support, Display ► Show SSRMS Target
   4.6 For Real-time support, Options ► SSRMS Proximity, set all distances to 24 (inches)

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use Page Up and Page Down keys to scroll through Target selections.

Procedure	Step	Starting Target		
		Camera	SSRMS	RMS
1.240 Node 2 Mated MPLM Grapple	2		1.240 Step 2 - Overnight Park	

5. For procedure "1.240 Node 2 Mated MPLM Grapple" Step 5 configure for current ISS configuration.
   5.1 Reconfig ► MPLM
      5.1.1 In MPLM Reconfig Dialog box, select 'MPLM_GF1 >SSRMS'

6. For procedure "1.250 Node 2 Mated MPLM Grapple" Step 12 configure for current ISS configuration.
   6.1 Reconfig ► MPLM
      6.1.1 In MPLM Reconfig Dialog box, select 'MPLM >BAY'

FD3 EVA Deltas

Fergie,
Per Mike's request, he will be assisting you with EVA Prep for EVA 3 and Sandy will be assisting with EVA 4. This is a swap from the original plan.

Heide and Steve,
Great job yesterday on getting your suits checked out and ready to go for the mission. We have several procedural pen and ink updates for you which are listed below.

EVA Timeline and Inhibit Pad Deltas

A. The Wheel Bogie PIP Pin was never found during the increment Tool Config. However, the probe is an acceptable alternate tool for Wheel Bogie R&R, so you can delete references to the Wheel Bogie PIP Pin in the Pre Tool Configs. Note, the probe is in the staging bag.

B. Based on new analysis, the original APFR overnight stow plan will not work because the SSRMS wrist roll between EVAs 1 and 2 requires 10" clearance between the ingress aid and all SSRMS surfaces. We suggest stowing the APFR in CETA 1 WIF 2, in any clocking that does not contact structure (i.e. brake handles).

C. We need to add clarification words in the TUS block of the Inhibit Pad for EVAs 1, 2, and 4. The inhibit is only required if the wire conductors are visible.

Please incorporate the following P&I's to address the above issues:

1) On pg 7-6, EVA 1 Pre Tool Config, Staging Bag, delete "Wheel Bogie PIP Pin"

2) On pg 7-9, EVA 1 Inhibit Pad, USOS Block, TUS Block, after "TUS" add "(if wire conductors visible)

3) On pg 7-17, EV1 step 3, change first line to:
3. Tether to APFR, "retrieve, and relocate to CETA 1 WIF 2 [__, FF, F, 12], Report Clocking."

4) On pg 7-39, EVA 2 Pre Tool Config, Staging Bag, delete "Wheel Bogie PIP Pin"

5) On pg 7-42, EVA 2 Inhibit Pad, USOS Block, TUS Block, after "TUS", add "(if wire conductors visible)"

6) On pg 7-47, EV3 step 12, change first line to:
12. Retrieve APFR from CETA 1 WIF 2 and install on SSRMS: [12, FF, F, 12]

7) On pg 7-73, EVA 3 Pre Tool Config, Staging Bag, delete "Wheel Bogie PIP Pin"

8) On pg 7-85, EVA 4 Pre Tool Config, Staging Bag, delete "Wheel Bogie PIP Pin"

9) On pg 7-88, EVA 2 Inhibit Pad, USOS Block, TUS Block, after “TUS”, add "(if wire conductors visible)”

10) On pg 16-3, Cribsheet, CETA Cart, Block A, step 3, add:
“- Use probe (Staging Bag) instead of wheel bogie PIP pin”

FD02 MMT Summary

The FD02 MMT met today to review mission progress with only a few items of discussion. These included orbiter systems and ascent imagery. At the time of the MMT, the OBSS scans were in progress.

Orbiter Systems - The MMT briefly reviewed the systems anomalies that are currently being tracked. Each issue was only briefly discussed since the teams are still reviewing the issues. These included:

- The Ku antenna auto handover and PSP configuration issues were briefly mentioned at the MMT. The team is beginning to review the details of these problems and will report back to the MMT in the coming days.

- The separate Ku antenna auto track problem was also briefly discussed. The problem is believed to be at the DEA or the EA Ku electronics. A similar problem occurred previously that was in the EA-1 that did not affect the rendezvous radar. If required, procedures and propellant do support a failed rendezvous radar approach.

- The OMS Xfeed Heater A is still under evaluation. On FD01, the Low Point Drainline Temp declined to 45 deg F prior to swapping to the B heaters. The B heater is performing nominally. On the previous flight, the heater cycled on about 55 deg F; however, data review shows that on the first flight of Endeavour (STS-49), the same heater cycled on the first time at 40 deg F. From docking through entry, the attitude is such that the affected area of the crossfeed line is expected to remain thermally stable and likely above limits without the heater. This next worst failure will be analyzed in the coming days.

Imagery - A quick look at the available imagery was provided. The MMT reviewed the release of a small piece of debris, suspected to be FRSI blanket above the T0 LH2 umbilical plate. The release occurred at MET 26 sec. The standard review process will continue for this item, but it is not believed this will be a thermal concern during entry since the umbilical plate itself is just painted aluminum. The black tiles on the OMS pod adjacent to the FRSI blanket are there for durability and not thermal reasons. Post MMT Update: You did a great job providing a great view of the suspect area. Interestingly, the area looked nominal. Obviously, the team will continue to analyze the imagery and the inspection data.

CANON G1 (Continued)

HD DIGITAL CC DNLK

Notify MCC, configuring for HD TV dnlk

Config H/W per dwg at right

CC — For cable strain relief attach MPC-to-G1 Cable
Velcro strap to CC strap

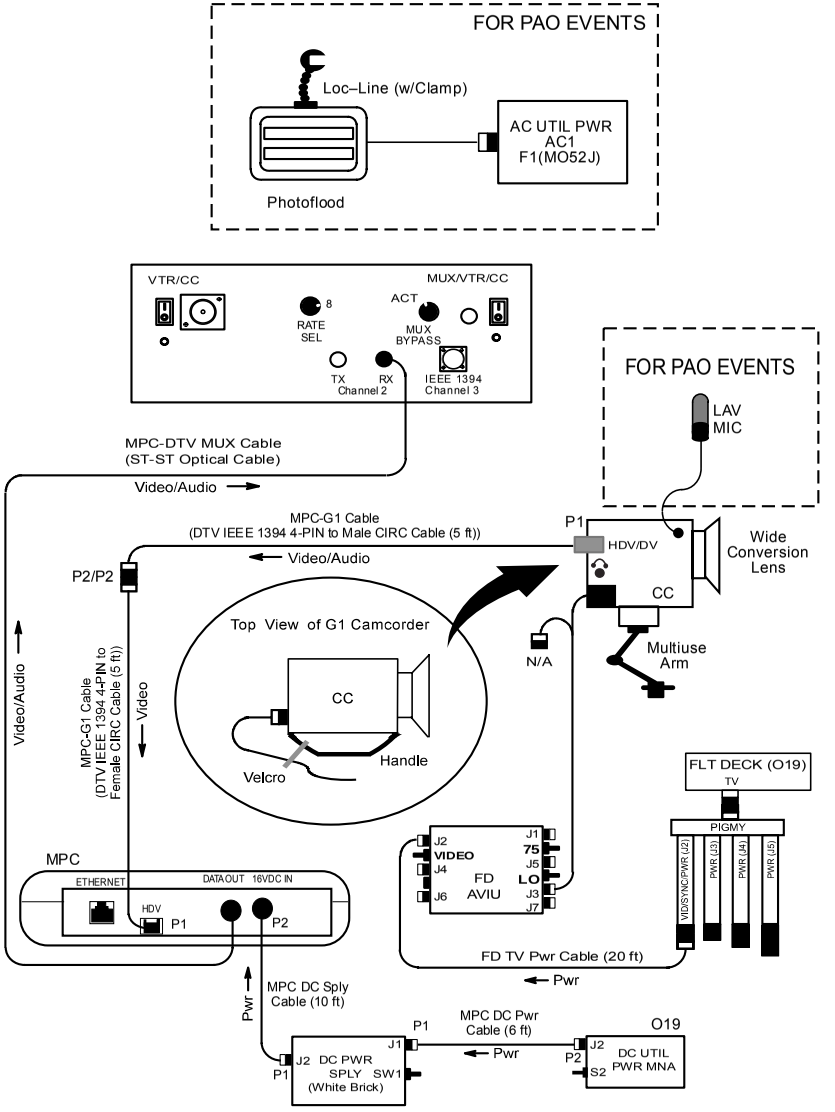
AVIU — SYNC/VIDEO – VIDEO
HI-Z/75 – 75
PWR SELECT – LO

O19 — √TV PWR – ON

CC — √Wide Conversion Lens installed
Install LAV MIC
√ND FILTER – OFF
√OUTPUT – CAM
√ –
√STANDBY/LOCK – STANDBY
PWR dial – "green"
Mount Camcorder

L10 (MUX) — √MUX/VTR/CC PWR – off (LED off)
√VTR/CC/PWR – off (LED off)
Disconnect CHANNEL 3 IEEE 1394 Cable
MUX/VTR/CC PWR – on (LED on)
√MUX BYPASS – ACT
√CHANNEL 0,1 RATE SEL – 1
√2 RATE SEL – 8

O19 — DC UTIL PWR MNA – ON
MPC PWR SPLY — DC PWR SPLY PWR SW1 – ON
MPC — PWR-ON (HDV, TAXI, 5V, 3V green LEDs on)



jsc48038_126_021.cvx

CANON G1 (Continued)

HD DIGITAL CC DNLK (Continued)

L10 (MUX)	√CHANNEL 2 F/O OK,DATA LEDS on
F1(MO52J)	AC UTIL PWR AC1 – ON
Photoflood	ON/OFF – ON HI/LO – HI
Cabin Lts	Flt Deck – ON Lts in FOV – OFF as reqd Lt Shades – install as reqd Window Shades – install as reqd
CC	√Scene composition Adjust Camr angle for best framing
LAV MIC	PWR – ON (talk),OFF (listen)

√MCC if Black video and color bars reqd
If reqd:
PWR dial - Av
Aperture - close
√Av CLOSE displayed on top left of LCD
AGC - OFF
√GAIN sw - L
√±0dB displayed on LCD
OUTPUT - BARS

When MCC says done w/bars:
OUTPUT - CAM

When MCC says done w/black screen test:
PWR dial - “green” ☐

CANON G1 (Continued)

HD DIGITAL CC DNLK (Concluded)

	When dnlk complete:
CC	PWR dial – OFF
O19	TV PWR – OFF as reqd
MPC	PWR – OFF
PWR SPLY	DC PWR SPLY PWR SW1 – OFF
O19	DC UTIL PWR MNA – OFF
L10 (MUX)	MUX/VTR/CC PWR – off (LED off) Connect CHANNEL 3 IEEE 1394 Cable
	Notify MCC, returned to SD TV dnlk
	Go to DEACTIVATION (Cue Card, TV) as reqd

Exp 18 / STS-126 Joint Emergency Agreement

General

- JEE cue cards will be posted in A/L and PMA2. Leave A/L cue card for ISS use. Hardcopy of JEUS at RWS.
- If possible, ground and both CDRs should confirm JEE is in progress. Would like Capcom to echo on S/G2.
- Preferred to make all calls on the Big Loop.
- Soyuz emergency requiring ISS crew to deorbit does not imply a STS emergency.
- If ISS crew egresses to Soyuz, will be out of comm unless ground ties loops together.
- Over-riding philosophy is to take immediate safing steps (fight fire, collect EMUs, etc.) then quickly egress to shuttle.
- When possible, use the buddy system.
- ISS crew generally pushes ATM/FIRE/DpDt pushbutton unless situation is obvious (i.e. Fire)
    - STS crew encouraged to push Tox Atm if recognizable NH3 leak
    - Treat STS messages as if ISS (“ISS Tox Atm”, etc.)
        - Pending Shuttle activities, there are time periods in which the ISS alarms may NOT annunciate on STS
- Shuttle alarms passed via BPSMU. Otherwise no indication of shuttle alarm unless passed over big loop.
- If SSRMS grappled to OBSS or MPLM while in MPMs (PRLAs), STS will vacate ISS and let MCC perform the ungrapple. If EV crew on arm, operator will let MCC know what they are doing based on the situation.
- If an emergency occurs when each crew is on their own vehicle, Shuttle crew will come back onto the ISS to get their EMUs (if the emergency is not in their direct path) while the ISS crew will deal with the emergency.

Specific Responsibilities

- Kimbrough, Piper, or Pettit will retrieve 22’ and 28’ hose from seat 7, 6 to close hatch during Fire or Tox Atm
- Kimbrough is responsible for counting heads. Kimbrough (pri)/ Piper (sec) will be responsible for hatch closures and reporting closures to CDR. Shuttle crew will notify ISS crew and MCC when Node 2 Fwd hatch is closed.
- Pettit backs up Kimbrough for O2/N2 disconnect and duct stow.
- Boe (Pri) for putting RMS in safe config for un-docking until Kimbrough available

EVA

- If in campout with A/L depress imminent and PHA Ports don't work, use PBA if necessary for emergency.
  - If PBA donned, wear to shuttle for egress. If fighting fire in path, stay back 1 m due to oxygen from PBA.
- Piper (pri) and Bowen (sec) will retrieve EMUs using cue card in the Joint Airlock.
  - Identify EMUs for return using expedited doff cue card for ISS crew awareness.
- EV crew always recovers in ISS A/L unless directed otherwise.
  - Can recover in STS A/L on MCC call.
- If Piper on SSRMS w/ FHRC or NTA continue w/ RWS vacant to complete JOCAS or let the ground finish.

Depress

- If shuttle crew feels pressure changing in ears, confirm with ISS crew member before annunciating.
- If dP/dt during Campout, EV crew will talk to ground on Big Loop before taking action unless it's an obvious large leak in A/L.
- Shuttle crew will notify ISS crew when Node 2 Fwd hatch is closed and additional information about hatch pulling away or slamming shut.

Toxic Atmosphere

- Ammonia -
  - Shuttle crew - don masks, push ATM button on C&W panel if not already in alarm, close Node 2 Fwd hatch, if contamination suspected doff clothes in PMA2, close APAS hatch.
  - Shuttle crew is not expected to retrieve EMUs in this situation.
  - All crews will verify levels of ammonia in own vehicles using ammonia detection kit.
- Other unidentified odor or spill - do not push ATM button; notify ISS crew.
  - Talk plan on Big Loop before taking additional actions.

Fire

- Shuttle crew can push fire button for any fire with visible smoke or flame.
- If only indication is burning odor, preferred to talk to ISS crew before pushing button.
- Should annunciate alarm before attempting to extinguish fire. Should call over ATU visible fire, or smoke.
- Shuttle crew can use fire extinguishers to fight a visible fire or smoke billowing from an obvious source until ISS crew arrives, then egress to shuttle.
- Shuttle crew does not need to unpower rack using rack power switch for smoke coming from rack.

- For Shuttle fire, if safe enough call ISS crew on Big Loop to push the button before using Halon extinguishers.
  - Goal is to stop ventilation before or as soon as possible to prevent spreading Halon to ISS.

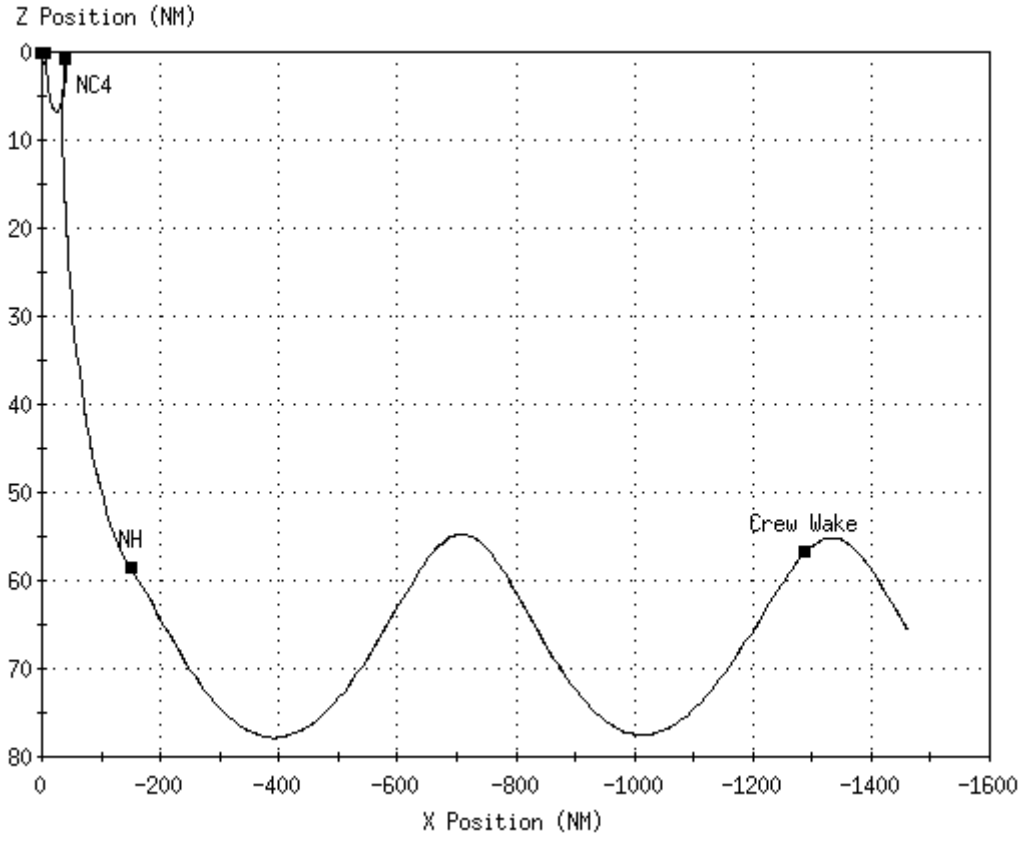
FLIGHT NOTE

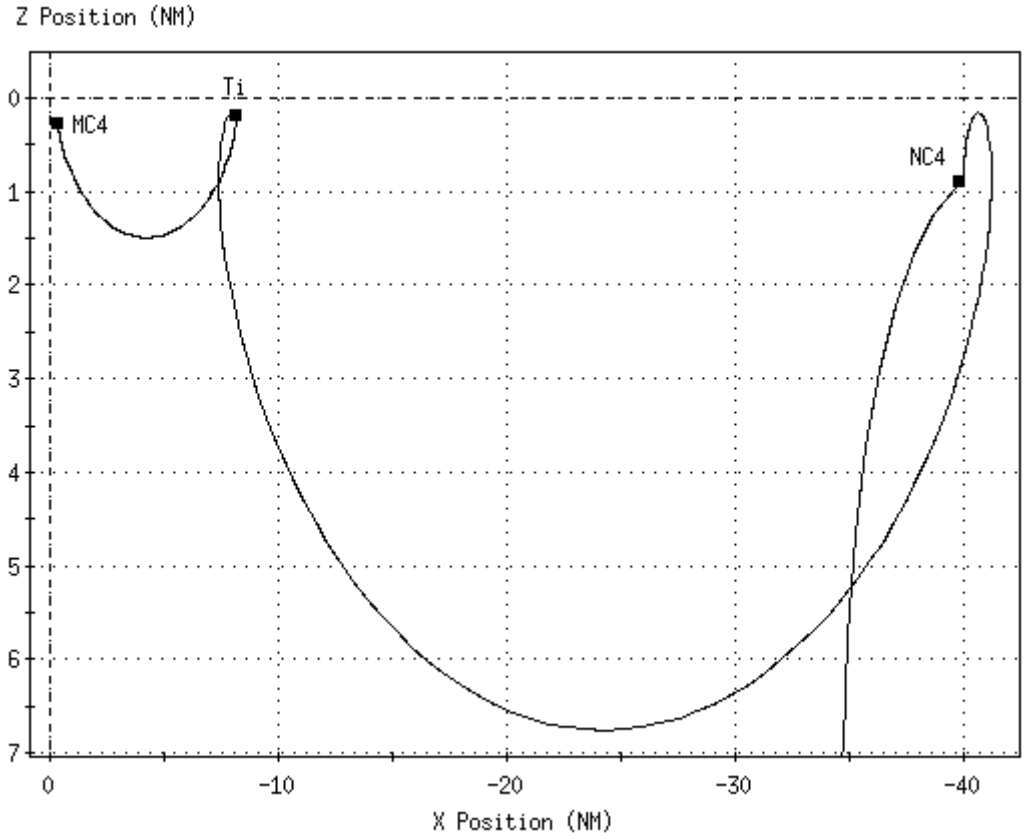
TO: FD, CAPCOM, FAO, RENDEZVOUS, PROP, GC
FROM: FDO
SUBJECT: MANEUVER TIGS

COPIES: 1

	MET	
NH	001:16:08:15.300	
NC4	001:16:48:03.300	
NCC	001:17:33:27.000	
TI	001:18:31:09.000	PET = 0:0 ; SS - 36 MIN
MC1	001:18:51:09.000	
MC2	001:19:21:03.000	ET = 0:0
MC3	001:19:38:03.000	MC2 + 17 MIN
MC4	001:19:48:03.000	MC2 + 27 MIN
DOCK	001:21:09:15.000	

1/ 2


Z Position (NM)
0
10
20
30
40
50
60
70
80
NC4
NH
Crew Wake
0
-200
-400
-600
-800
-1000
-1200
-1400
-1600
X Position (NM)


Z Position (NM)
0
1
2
3
4
5
6
7
Ti
MC4
NC4
0
-10
-20
-30
-40
X Position (NM)

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

OMS BOTH	1	X
L	2	
R	3	
RCS SEL	4	
TV ROLL	5	000
TRIM LOAD P	6	(+)0.5
LY	7	(-)5.7
RY	8	(+)5.7
WT	9	252294
TIG	10	01/16:08:15.3
TGT PEG 7 ΔVX	19	(+)125.7
ΔVY	20	(+)000.0
ΔVZ	21	(+)006.2

RCS SEL: +X, -X, MULTI-AXIS

BURN ATT		
R	24	325
P	25	270
Y	26	049

ΔVTOT		125.9
TGO		01:21
VGO	X	(+)121.4
VGO	Y	(+)000.0
VGO	Z	(+)033.2

	HA	HP
TGT	191	(+)127

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 NC-4 (RNDZ C.L. 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	(+)0.5	
LY 7	(-)5.7	
RY 8	(+)5.7	
WT 9	249168	
TIG 10	01/16:48:03.3	
TGT PEG 7 ΔVX 19	(+)094.6	
ΔVY 20	(+)000.0	
ΔVZ 21	(+)003.4	

BURN ATT	
R 24	049
P 25	113
Y 26	326

ΔVTOT	094.7
TGO	01:00
VGO X	(+)091.3
VGO Y	(+)000.0
VGO Z	(+)024.9

	HA	HP
TGT	193	(+)180

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 (RNDZ C.L. p. 3-6)

OMS BOTH	1	
L	2	X
R	3	
RCS SEL	4	
TV ROLL	5	000
TRIM LOAD P	6	(+) 0.5
LY	7	(+) 4.9
RY	8	(−) 5.1
WT	9	246843
TIG	10	01/18:31:09.0
TGT PEG 7 ΔVX	19	(+) 009.4
ΔVY	20	(−) 000.7
ΔVZ	21	(−) 000.4

RCS SEL: +X / -X / MULTI-AXIS

BURN ATT R	24	026
P	25	072
Y	26	289

ΔVTOT		009.5
TGO		00:12
VGO	X	(+) 008.9
VGO	Y	(+) 001.9
VGO	Z	(+) 002.4
TGT	HA	192
	HP	(+) 184

NOTES

OMS GMBL CK:

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

-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.

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

Ti DELAY

NEW Ti (BASETIME) 01/20:02:49.0

NOTES