STS-130 / 20A

FD 03 Execute Package

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018	24	FD03 EVA Deltas
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Approved by FAO:
A. Cofrin

Last Updated: Feb 9 2010 9:15 PM GMT
JEDI *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v3.0*

Fried Chicken - ISS Style

1) Get Frozen chicken from Glacier.
US SODF: Assy Ops: Payloads: Ascent Chicken Transfer from Glacier to CIR [Combustion integration rack]

WARNING

Protective gloves must be worn when handling frozen Chicken samples or manipulating inner doors, cold trays or samples in Glacier to prevent injury to exposed skin.

2) Lightly cover in butter, salt and spices.
3) Transfer Chicken to CIR (LABS3).
4) Sear each side for 2 min in the CIR.
5) Transfer Chicken to new Food warmer (Transfer item #20.1).
6) Keep warm for 4 hours until ready to serve.

MSG INDEX

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MSG-016	20A Ascent Sample Transfer from Glacier to MELFI
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MSG-018	FD03 EVA Deltas
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MSG-021	Cupola Depressurization (Node 3 Port) with Node 3 FWD MPEV
MSG-022	Cupola Fine Leak Check on Node 3 Deck with Node 3 FWD MPEV
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1. Post-Sleep Cryo Config

For today's Post-Sleep cryo config, O2 tanks 1&2 will be active and H2 Tanks 2 and 5 will be active.

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

A11 CRYO TK4 HTRS O2,H2 A,B (four) - OFF

A15 CRYO TK5 HTRS H2 A,B (two) - AUTO

Pre-Sleep Cryo Config

√MCC for deltas prior to configuring for Pre-Sleep.

For tonight's Pre-Sleep cryo config, Manifold 2 will be closed with O2 and H2 Tanks 2 and 5 active.

A15 CRYO TK5 HTRS O2 A,B (two) - AUTO

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

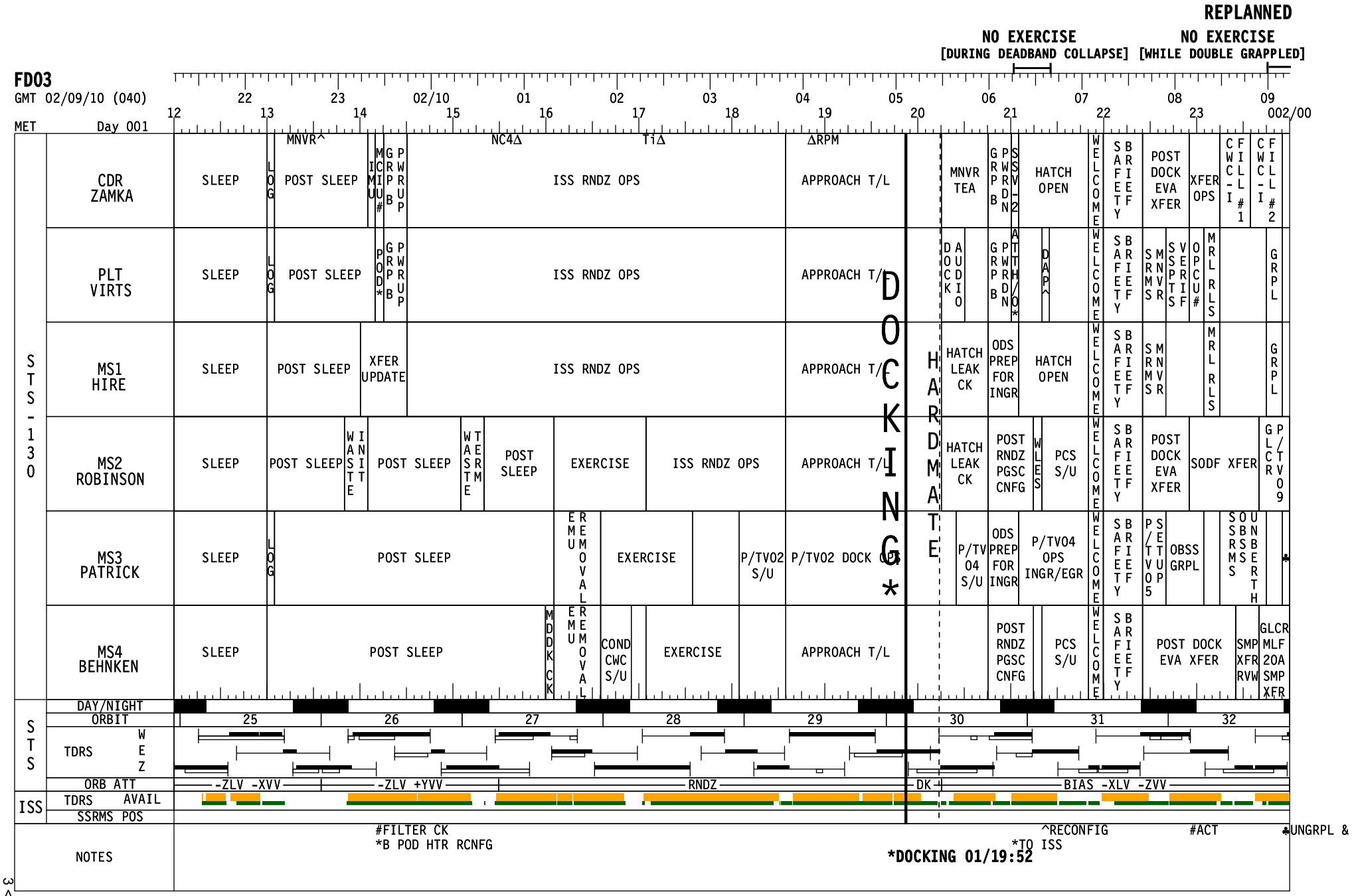
2. Waste Dump Details
   Perform a waste water dump using SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) p. 5-2. Perform Steps C, E, G, and I only. MCC will TMBU FDA in steps B and K. Step C is required to support water fills and N2 represses while docked.

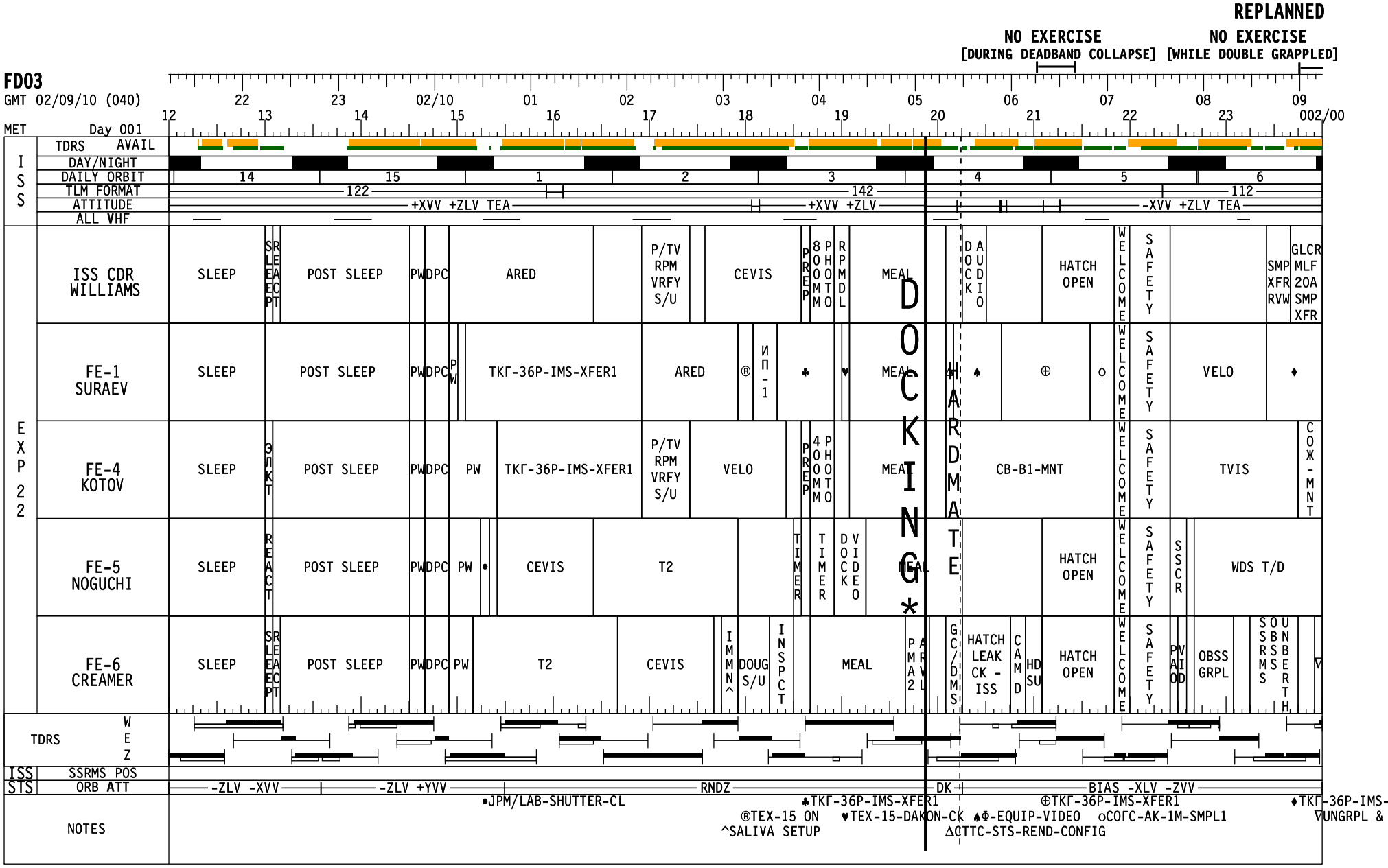
   Dump the waste tank to 5%. Waste dump valve open time will be ~20 minutes.

3. To view the Flight Plan Revision on a station SSC perform the following steps:
   1. Open Internet Explorer
   2. Click on the “Execute Package” Link
   3. Using the Search function, search for “Flight Plan Revision”

   All messages referring to the Flight Plan Revision should be displayed.

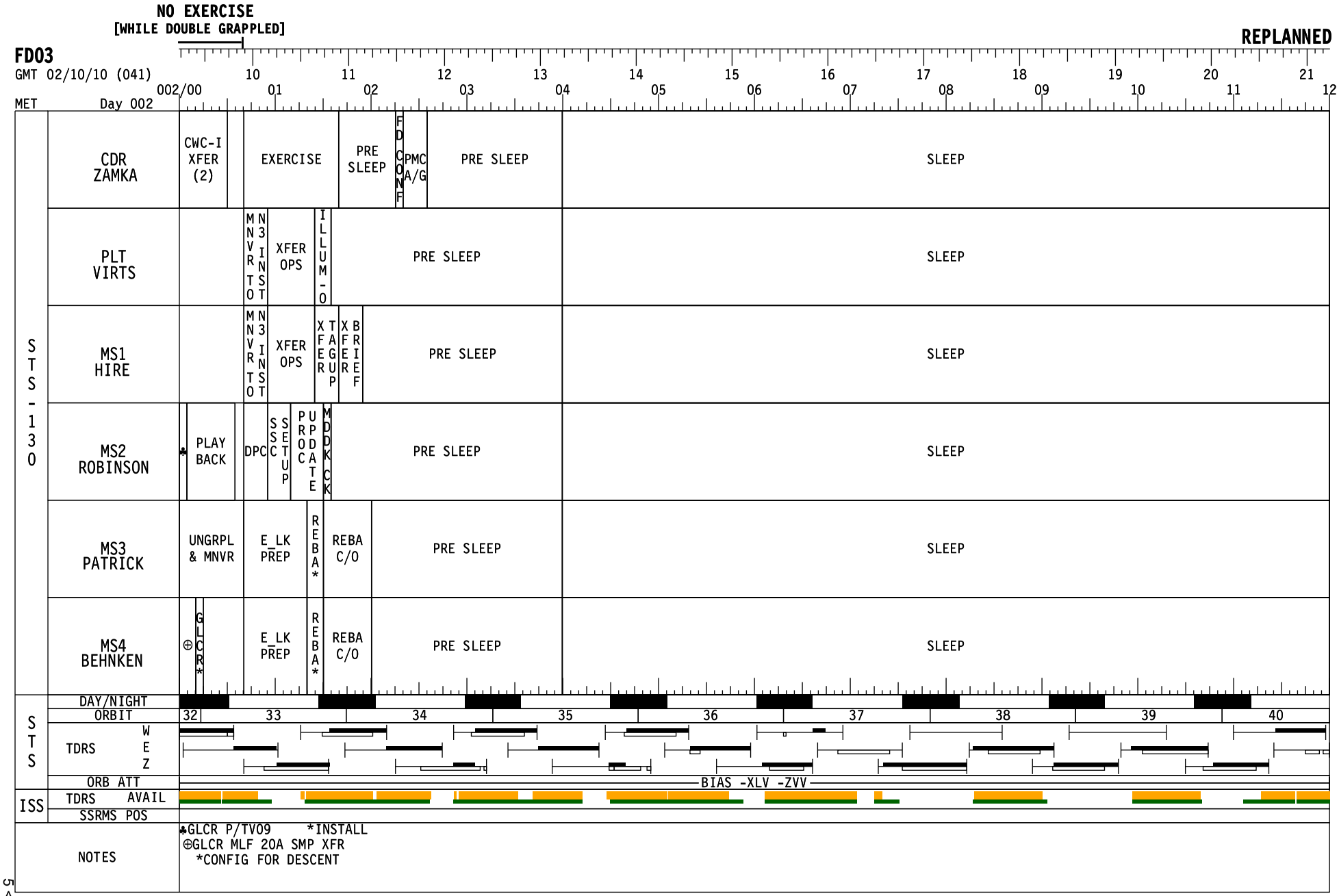
4. REPLACE PAGES 2-6 THROUGH 2-9 and 3-20 THROUGH 3-27.


REPLANNED
NO EXERCISE
[DURING DEADBAND COLLAPSE]
NO EXERCISE
[WHILE DOUBLE GRAPPLED]
FD03
GMT 02/09/10 (040)
MET Day 001
22 23 02/10 01 02 03 04 05 06 07 08 09
12 13 14 15 16 17 18 19 20 21 22 23 002/00
STS-130
CDR ZAMKA
SLEEP
LOG
MNVR^
POST SLEEP
IMU
MCIU#
GRPB
PWRUP
NC4Δ
TiΔ
ISS RNDZ OPS
ΔRPM
APPROACH T/L
MNVR TEA
GRPB
PWRDN
SSV-2
HATCH OPEN
WELCOME
SAFETY
BRIEF
POST DOCK EVA XFER
XFER OPS
CWC-I
FILL #1
CWC-I
FILL #2
PLT VIRTS
SLEEP
LOG
POST SLEEP
POD*
GRPB
PWRUP
ISS RNDZ OPS
APPROACH T/L
DOCKING*
DOCK
AUDIO
GRPB
PWRDN
ATTH/O*
DAP^
WELCOME
SAFETY
BRIEF
SRMS
MNVR
SSPTS
VERIF
OPCU#
MRL RLS
GRPL
MS1 HIRE
SLEEP
POST SLEEP
XFER UPDATE
ISS RNDZ OPS
APPROACH T/L
HARDMATE
HATCH LEAK CK
ODS PREP FOR INGR
HATCH OPEN
WELCOME
SAFETY
BRIEF
SRMS
MNVR
MRL RLS
GRPL
MS2 ROBINSON
SLEEP
POST SLEEP
WASTE
INIT
POST SLEEP
WASTE
TERM
POST SLEEP
EXERCISE
ISS RNDZ OPS
APPROACH T/L
HATCH LEAK CK
POST RNDZ PGSC CNFG
WLES
PCS S/U
WELCOME
SAFETY
BRIEF
POST DOCK EVA XFER
SODF XFER
GLCR
P/TV09
MS3 PATRICK
SLEEP
LOG
POST SLEEP
EMU
REMOVAL
EXERCISE
P/TV02 S/U
P/TV02 DOCK OPS
P/TV04 S/U
ODS PREP FOR INGR
P/TV04 OPS INGR/EGR
WELCOME
SAFETY
BRIEF
P/TV05
SETUP
OBSS GRPL
SSRMS
OBSS
UNBERTH
*
MS4 BEHNKEN
SLEEP
POST SLEEP
MDDK CK
EMU
REMOVAL
COND CWC S/U
EXERCISE
APPROACH T/L
POST RNDZ PGSC CNFG
PCS S/U
WELCOME
SAFETY
BRIEF
POST DOCK EVA XFER
SMP XFR RVW
GLCR MLF 20A SMP XFR
STS
DAY/NIGHT
ORBIT
25 26 27 28 29 30 31 32
TDRS
W
E
Z
ORB ATT
-ZLV -XVV
-ZLV +YVV
RNDZ
DK
BIAS -XLV -ZVV
ISS
TDRS AVAIL
SSRMS POS
NOTES
#FILTER CK
*B POD HTR RCNFG
^RECONFIG
*TO ISS
#ACT
*UNGRPL &
*DOCKING 01/19:52
3<----



*DOCKING 01/19:52

4 <----


NO EXERCISE
[WHILE DOUBLE GRAPPLED]
REPLANNED
FD03
GMT 02/10/10 (041)
MET Day 002
002/00 10 11 12 13 14 15 16 17 18 19 20 21
01 02 03 04 05 06 07 08 09 10 11 12
STS-130
CDR ZAMKA
CWC-I XFER (2)
EXERCISE
PRE SLEEP
FDCONF
PMC A/G
PRE SLEEP
SLEEP
PLT VIRTS
MNVR TO
N3 INST
XFER OPS
ILLUM-O
PRE SLEEP
SLEEP
MS1 HIRE
MNVR TO
N3 INST
XFER OPS
XFER
TAGUP
XFER
BRIEF
PRE SLEEP
SLEEP
MS2 ROBINSON
PLAY BACK
DPC
SSC
SETUP
PROCC
UPDATE
MDK CK
PRE SLEEP
SLEEP
MS3 PATRICK
UNGRPL & MNVR
E_LK PREP
REBA*
REBA C/O
PRE SLEEP
SLEEP
MS4 BEHNKEN
GLCR*
E_LK PREP
REBA*
REBA C/O
PRE SLEEP
SLEEP
STS
DAY/NIGHT
ORBIT
32 33 34 35 36 37 38 39 40
TDRS W E Z
ORB ATT
BIAS -XLV -ZVV
ISS
TDRS AVAIL
SSRMS POS
NOTES
♣GLCR P/TV09 *INSTALL
⊕GLCR MLF 20A SMP XFR
*CONFIG FOR DESCENT

5<----

NO EXERCISE
[WHILE DOUBLE GRAPPLED]

REPLANNED

FD03

GMT 02/10/10 (041)

MET Day 002

002/00 10 11 12 13 14 15 16 17 18 19 20 21 01 02 03 04 05 06 07 08 09 10 11 12

ISS	TDRS AVAIL	
ISS	DAY/NIGHT	
ISS	DAILY ORBIT	6 7 8 9 10 11 12 13 14
ISS	TLM FORMAT	112 122
ISS	ATTITUDE	-XVV +ZLV TEA
ISS	ALL VHF	
EXP 22	ISS CDR WILLIAMS	♣ ⊕ E_LK PREP PW PRE SLEEP-ISS REACT SLEEP
EXP 22	FE-1 SURAEV	♦ DPC МБИ 16 FE1 PRE SLEEP-ISS PMC PS SLEEP
EXP 22	FE-4 KOTOV	СОЖ-МНТ ЭЛКТ DPC ® PW PRE SLEEP-ISS PMC ♥ МБИ-12 SLEEP
EXP 22	FE-5 NOGUCHI	WDS T/D DPC PW PRE SLEEP-ISS REACT SLEEP
EXP 22	FE-6 CREAMER	UNGRPL & MNVR DPC GC/DMS PW PRE SLEEP-ISS REACT SLEEP
TDRS	W	
TDRS	E	
TDRS	Z	
ISS	SSRMS POS	
STS	ORB ATT	BIAS -XLV -ZVV

NOTES

♣GLCR MLF 20A SMP XFR
⊕WRS-QD-CONFIG
♦ТКГ-36Р-IMS-XFER1
®IMS-EDIT
♥PRE SLEEP-ISS

6 <------

STS-130 FD03

GMT Date 02/09 (040) | W | TDRSE | Z | D/N | ORB | MET Day 001 | STS ATI | CDR ZAMKA | PLT VIRTS | MS1 HIRE | Notes

FD03 EZ ACTIVITIES:
√OCAC FILTER
TEPC (STATUS CHECK)
(ORB OPS, CREW SYS)
HARD REBOOT ALL PGSCs EXCEPT:
STS-6(WLES),STS-5(RPOP2),&
OCA ROUTER.

	CDR ZAMKA	PLT VIRTS	MS1 HIRE
	SLEEP	SLEEP	SLEEP
13:00	SLEEP LOGBOOK (ORB OPS, SDBI)	SLEEP LOGBOOK (ORB OPS, SDBI)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	
	< DEU FUTURE MNVR INIT (WASTE DUMP)		
14:00	IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)		TRANSFER UPDATE Ref. Transfer List & MSG 014
	L17 Check MCIU filter screen	RCS/OMS POD HTR RECONFIG A	
	PRIOR PWRUP GRP B(ORB PKT,PRIOR PWRDN) Steps 12 (IMU 2),6 (Triple G2) & 5	PRIOR PWRUP GRP B(ORB PKT,PRIOR PWRDN) Steps 12 (IMU 2),6 (Triple G2) & 5	
	RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)
15:00			
16:00	< NC4 TIG (15:42)		

Transition to RNDZ C/L at MET 1/14:30

RNDZ PET 00:00 (Ti) at MET 1/17:14

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

Time scale: 12:00, 13:00, 14:00, 15:00, 16:00; 22:00, 23:00, 00:00, 01:00

Day 001: 25, 26, 27

7<----

STS-130 FD03

GMT Date 02/09 (040) | W | TDRSE | Z | D/N | ORB | MET Day 001 | STS ATI

MS2 ROBINSON | MS3 PATRICK | MS4 BEHNKEN | Notes

12:00 — SLEEP (MS2, MS3, MS4)

13:00 — POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) (MS2)

SLEEP LOGBOOK (ORB OPS, SDBI) (MS3)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) (MS3)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) (MS4)

14:00 — SUPPLY/WASTE WATER DUMP (Waste Init) (ORB OPS, ECLS) Ref. MSG 011, Item 2 (MS2)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) (MS2)

15:00 — SUPPLY/WASTE WATER DUMP (Waste Term) (ORB OPS, ECLS) Ref. MSG 011, Item 2 (MS2)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) (MS2)

16:00 — RNDZ

22:00 — 25

23:00 — 26

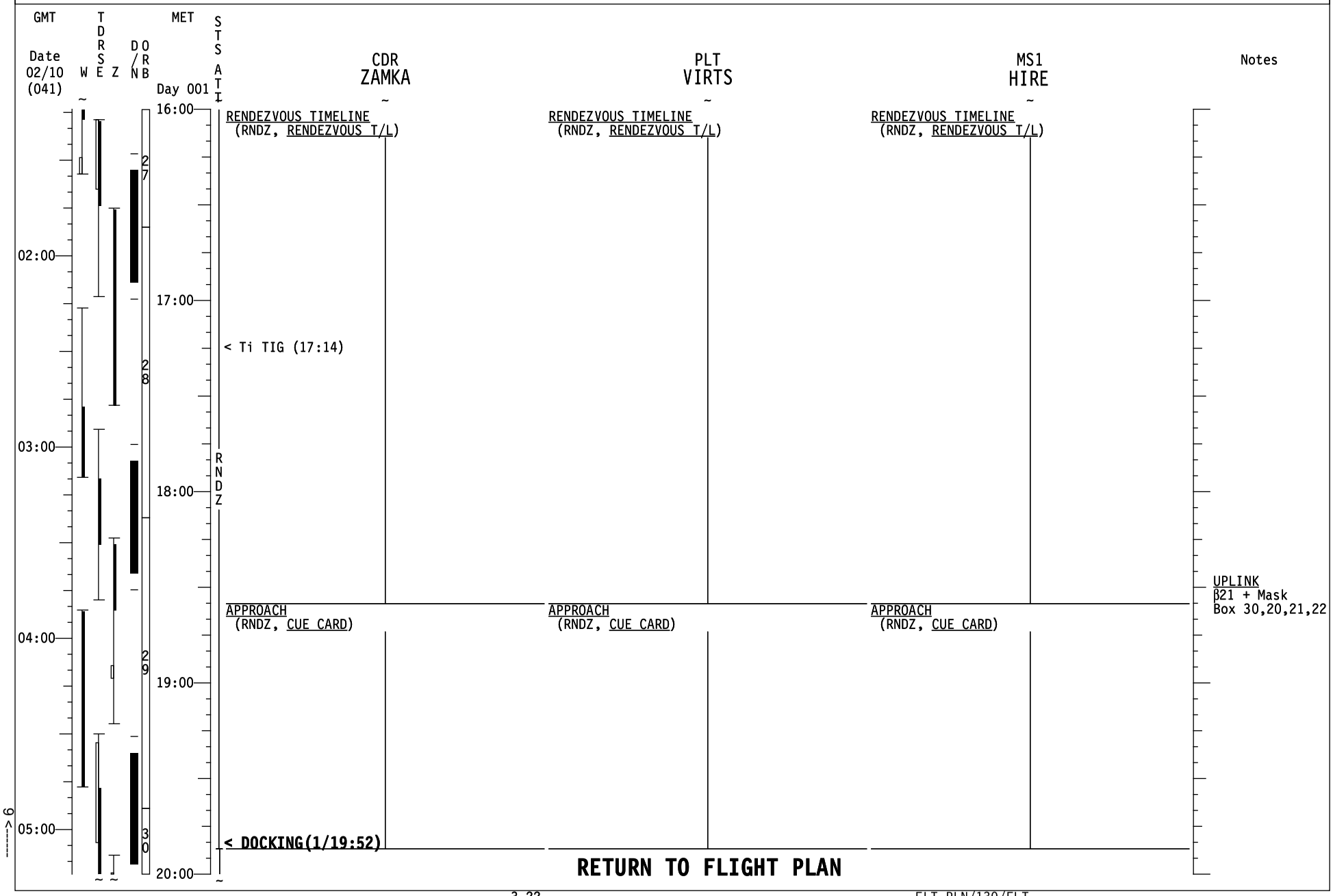
00:00 — 27

01:00

UPDATE H2O WASTE DUMP QTY

8 <------

STS-130 FD03



RETURN TO FLIGHT PLAN

STS-130 FD03

GMT Date 02/10 (041) | W | TDRSE | Z | D/N | ORB | MET Day 001 | STS ATI

MS2 ROBINSON	MS3 PATRICK	MS4 BEHNKEN	Notes
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)	GLACIER STATUS CHECK (ASSY OPS,CC)	
	EMU REMOVAL (EVA, AIRLOCK CONFIG)	EMU REMOVAL (EVA, AIRLOCK CONFIG)	
EXERCISE		SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) Perform SETUP. Hardware stowed in MF57M. Use bag S/N 5030.	
RENDEZVOUS TIMELINE (RNDZ, RENDEZVOUS T/L)	EXERCISE		
		EXERCISE	
	P/TV02 DOCK (PHOTO/TV, SCENES) Perform SETUP		
APPROACH (RNDZ, CUE CARD)	P/TV02 DOCK (PHOTO/TV, SCENES) Perform OPS	APPROACH (RNDZ, CUE CARD)	
< DOCKING(1/19:52)			

Time scale: 02:00, 03:00, 04:00, 05:00; 16:00, 17:00, 18:00, 19:00, 20:00

Day 001: 27, 28, 29, 30

RNDZ

RETURN TO FLIGHT PLAN

10 <-----

STS-130 FD03

GMT Date 02/10 (041) | W | TDRSE | Z | D/N | ORB | MET Day 001 | STS ATT-DK | BIAS -XLV -ZVV

CDR ZAMKA	PLT VIRTS	MS1 HIRE	Notes
	B Single G2 - after MNVR complete Step 3: √MCC or pause ~ 3 min (DAP settling) DAP: as req'd		
MNVR (TRK) BIAS -XLV -ZVV TGT=2 BV=5 P=161.71 Y=359.93 OM=167.13 Init TRK, DAP:FREE > 2 sec, then DAP: A12/AUTO/VERN	JOINT OPS: 6.109 HARDLINE ICOM AUDIO Steps 1,5,6	POST DOCKING HATCH LEAK CHECK (RNDZ, APDS)	UPLINK β21 + Mask Box 20,21,22
PRIOR PWRDN GRP B (ORB PKT,PRIOR PWRDN) Steps 5,6(B) & 12 (IMU 2 STBY) O6 S TRK PWR -Z - OFF	PRIOR PWRDN GRP B (ORB PKT,PRIOR PWRDN) Steps 5,6(B) & 12 (IMU 2 STBY) O6 S TRK PWR -Z - OFF	AIRLOCK PREP FOR INGRESS - AIRLOCK FAN ACTIVE (RNDZ, APDS)	TFL 184
SSV OUTRATE - 2	When ISS is GO for deadband collapse,DAP:B13		NO EXERCISE DURING DEADBAND COLLAPSE
JOINT OPS: 2.104 HATCH OPENING AND SHUTTLE/ISS DUCT INSTALL Perform steps 2-11, 14, & 15 √MCC-H complete with step 1	DAP RECONFIG C	JOINT OPS: 2.104 HATCH OPENING AND SHUTTLE/ISS DUCT INSTALL Perform steps 2-11, 14, & 15 √MCC-H complete with step 1	
	C When ISS is GO for att. control, DAP: FREE Then return to DAP A, √A12/FREE/VERN Reconfig DAP B to B12		
WELCOME	WELCOME	WELCOME	
SAFETY BRIEFING	SAFETY BRIEFING	SAFETY BRIEFING	
POST-DOCKING EVA TRANSFER & RECONFIG (EVA, AIRLOCK CONFIG) Ref. Transfer List:Items 7,11,12,33-37	OBSS GRAPPLE FROM SSRMS (PDRS, OBSS NOMINAL) Steps 1-2	OBSS GRAPPLE FROM SSRMS (PDRS, OBSS NOMINAL) Steps 1-2	
	SSPTS ODS CONNECTOR VERIF A15 ODS MATE X1,X2 (two) - ON √MCC then - OFF		
TRANSFER OPS Ref. Transfer List & MSG 014	SSPTS OPCU ACT D		
	OBSS GRAPPLE FROM SSRMS (PDRS, OBSS NOMINAL) Steps 3-5	OBSS GRAPPLE FROM SSRMS (PDRS, OBSS NOMINAL) Steps 3-5	
CWC-I FILL (ORB OPS, CWC OPS) Fill #1 Ref. MSG 027	D SSPTS OPCU ACT On MCC GO:A15 OPCU 1,2 CONV(two) - ON R1 MN BUS TIE B - ON(tb-ON) C - ON(tb-ON)		
CWC-I FILL (ORB OPS, CWC OPS) Fill #2 Ref. MSG 027	OBSS GRAPPLE FROM SSRMS (PDRS, OBSS NOMINAL) Steps 6-8 EXER CONST	OBSS GRAPPLE FROM SSRMS (PDRS, OBSS NOMINAL) Steps 6-8 EXER CONST	NO EXERCISE WHILE DOUBLE GRAPPLED

Time scale: 06:00, 07:00, 08:00, 09:00; 20:00, 21:00, 22:00, 23:00, 00:00

11 <----

REPLANNED

STS-130 FD03

GMT Date 02/10 (041) | W E Z TDRS | DN/NB ORB | MET Day 001 | STS ATI DK+ BIAS -XLV -ZVV

MET	MS2 ROBINSON	MS3 PATRICK	MS4 BEHNKEN	Notes
20:00	POST DOCKING HATCH LEAK CHECK (RNDZ, APDS)	P/TV04 INGRESS/EGRESS (PHOTO/TV, SCENES) P/TV02 Deact Step 2 FD steps only Airlock Prep steps as shown P/TV02 Deact Step 2 ODS steps P/TV04 Setup		
06:00	POST RNDZ PGSC CONFIG Configure PGSCs per usage chart	AIRLOCK PREP FOR INGRESS - AIRLOCK FAN ACTIVE (RNDZ, APDS)	POST RNDZ PGSC CONFIG Configure PGSCs per usage chart	
21:00	WLES DOCK/UNDK RECOVERY(ORB OPS,WLE SNSRS) JOINT OPS: 6.107 PCS SETUP-SHUTTLE	P/TV04 INGRESS/EGRESS(PHOTO/TV, SCENES) Perform OPS	JOINT OPS: 6.107 PCS SETUP-SHUTTLE	NO EXERCISE DURING DEADBAND COLLAPSE
07:00	WELCOME	WELCOME	WELCOME	
22:00	SAFETY BRIEFING	SAFETY BRIEFING	SAFETY BRIEFING	
08:00	POST-DOCKING EVA TRANSFER & RECONFIG (EVA, AIRLOCK CONFIG) Ref. Transfer List:Items 7,11,12,33-37	P/TV05 ISS INTERNAL OPS (HC) (PHOTO/TV, SCENES) Perform SETUP	POST-DOCKING EVA TRANSFER & RECONFIG (EVA, AIRLOCK CONFIG) Ref. Transfer List:Items 7,11,12,33-37	
		ROBO: 1.110 OBSS UNBERTH AND HANDOFF Steps 1-4.2		
23:00	SODF TRANSFER Ref. Transfer List: Items 14,16 & MSG 023			
		ROBO: 1.110 OBSS UNBERTH AND HANDOFF Steps 4.3-6	20A ASCENT SAMPLE TRANSFER FROM GLACIER TO MELFI REVIEW ONLY and Ref. MSG 015 & 016	
09:00	P/TV09 GLACIER (PHOTO/TV, SCENES) Perform SETUP & OPS		20A ASCENT SAMPLE TRANSFER FROM GLACIER TO MELFI Ref. Transfer List: Item 18 & MSG 016	NO EXERCISE WHILE DOUBLE GRAPPLED
00:00		ROBO: 1.110 OBSS UNBERTH AND HANDOFF Steps 7-9 EXERCISE CONSTRAINT		

12 <------

STS-130 FD03

GMT Date 02/10 (041) | W | TDRSE | Z | D/N | ORB | MET Day 002 | STS ATI

CDR ZAMKA

- 00:00 — CWC-I TRANSFER
  Transfer 2 CWC-Is to ISS
- 01:00 — EXERCISE
- 02:00 — PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
  √ HUM SEP FOR H2O ACCUMULATION
- 03:00 — FLIGHT DIRECTOR CONFERENCE
  PRIVATE MEDICAL CONFERENCE
  L9 PAYLOAD STATION A/G (two) - OFF
  Perform via A/G2
- 04:00 — PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)

PLT VIRTS

- OBSS GRAPPLE FROM SSRMS
  (PDRS, OBSS NOMINAL)
  Steps 9-10
- TRANSFER OPS
  Ref. Transfer List & MSG 014
- TV (ILLUMINATOR OPS) (PHOTO/TV, CC)
  ILLUMINATORS OFF - ALL
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)

MS1 HIRE

- OBSS GRAPPLE FROM SSRMS
  (PDRS, OBSS NOMINAL)
  Steps 9-10
- TRANSFER OPS
  Ref. Transfer List & MSG 014
- TRANSFER TAGUP
  Coordinate with transfer counterpart
- TRANSFER BRIEF
  Call down status to MCC
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)

Notes

NO EXERCISE WHILE DOUBLE GRAPPLED

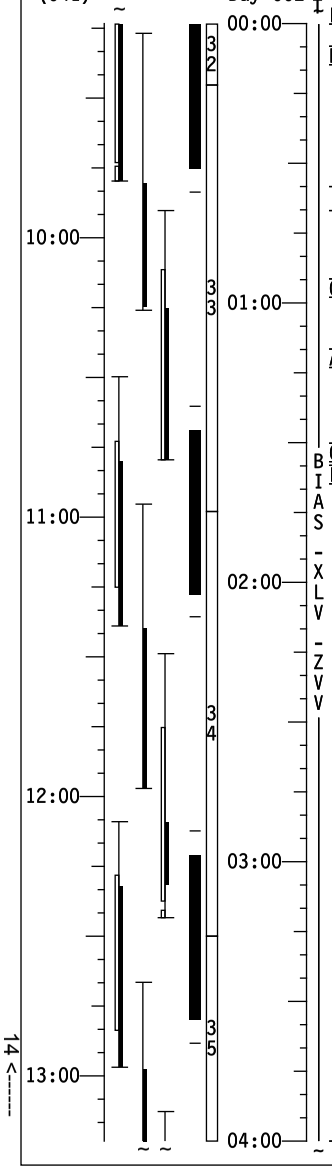
BIAS - XLV - ZVV

CREW WAKE AT 02/12:00

13 <-----

STS-130 FD03

GMT Date 02/10 (041) | W | TDRSE | Z | D/N | ORB | MET Day 002 | STS ATT



MS2 ROBINSON

P/TV09 GLACIER (PHOTO/TV, SCENES)
Perform SETUP & OPS

DIGITAL VIA VTR
(CUE CARD, DIGITAL PLAYBACK)
CENTERLINE DOCKING VIDEO
KU TDRW: 00:05-00:29
KU TDRW: 00:30-00:33
Gimbal Flip: 00:22

DAILY PLANNING CONFERENCE

ORBITER SSC SETUP
Ref. MSG 017, Perform Steps 1 & 2

ASSY OPS PROCEDURE UPDATES
Ref. MSG 024

GLACIER STATUS CHECK (ASSY OPS,CC)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MS3 PATRICK

ROBO: 1.110 OBSS UNBERTH AND HANDOFF
Steps 7-9
EXERCISE CONSTRAINT

EVA SYSTEMS: 1.305 EQUIPMENT LOCK PREP
Steps 1-3 already complete
In step 27, use Vacuum Manometer s/n 13

EVA SYSTEMS: 1.307 REBA INSTALLATION
Swap LiOHs in EMUs 3004/3005
Verify EMU battery & LiOH S/Ns with MCC
Ref.STS-130 Consumables Tracking CC(EVA)

EVA SYSTEMS: 1.403 REBA POWERED HARDWARE CHECKOUT

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MS4 BEHNKEN

20A ASCENT SAMPLE TRANSFER FROM GLACIER TO MELFI
Ref. Transfer List: Item 18 & MSG 016

GLACIER CONFIG FOR DESCENT(ASSY OPS,P/L)

EVA SYSTEMS: 1.305 EQUIPMENT LOCK PREP
Steps 1-3 already complete
In step 27, use Vacuum Manometer s/n 13

EVA SYSTEMS: 1.307 REBA INSTALLATION
Swap LiOHs in EMUs 3004/3005
Verify EMU battery & LiOH S/Ns with MCC
Ref.STS-130 Consumables Tracking CC(EVA)

EVA SYSTEMS: 1.403 REBA POWERED HARDWARE CHECKOUT

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

Notes

NO EXERCISE WHILE DOUBLE GRAPPLED

CREW WAKE AT 02/12:00

14 <-----

3-27

FLT PLN/130/FLT

Good Morning Endeavor!!!!

Thanks for the great inspection day yesterday!

We are all excited about today's planned rendezvous and docking!!!!

Be sure and give the station crew a big hug from all of us!!!!

Have fun!!!

YOUR CURRENT ORBIT IS: 187 X 165 NM

NOTAMS:

EDW -	TEMP RWY IN USE. PERM RWY CLOSED FOR CONSTRUCTION.
EDW -	LAKEBED RWYS RED.
NOR -	LAKEBED RWYS USABLE. DRYING OUT.
WAL-	CLOSED.
ZZA -	ARRESTING NET INSTALLED 40M FROM END OF RWY 30L.
ESN -	RWY 03R/21L CLOSED. 03L/21R USABLE.
GUA -	RWY 06L/24R RWY END LIGHTS OUT OF SERVICE.
PTN -	CLOSED FOR RUNWAY CONSTRUCTION.
IKF -	NOT USABLE. NO AGREEMENT.
BEN -	NOT RECOMMENDED/NOT SUPPORTED.

NEXT 2 PLS OPPORTUNITIES:

NOR17	ORB 32 – 1/23:32	SCT050	BKN150	OVC250	7	130/7P12
EDT22R	ORB 48 – 2/23:54	SCT120			7	260/5P8

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 = 30.0	R OMS	OX = 30.4
	FU = 29.7		FU = 30.2

DELTA V AVAILABLE:

OMS	275 FPS
ARCS (TOTAL ABOVE QTY1)	36 FPS
TOTAL IN THE AFT	311 FPS
ARCS (TOTAL ABOVE QTY2)	65 FPS
FRCS (ABOVE QTY 1)	27 FPS
AFT QTY 1	82 %
AFT QTY 2	44 %

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

Good morning Kay, Terry, & Steve,

We have enjoyed watching your first two days in space, and are very excited that you will be beginning transfer today! In addition to several timelined items, you have some XFER OPS time once hatches are open. As outlined in the choreography, you will need this time to prepare the WRS items Jeff will need first thing tomorrow morning. We have provided the FD03 choreography below, and the future choreography at the end of this message. Details for the XFER OPS blocks have been provided for each day, based on the amount of time currently scheduled.

Today is your largest uplink – we have provided an updated highlighted ascent middeck map, updates to resupply, and all your return pages. We have several page changeouts to resupply – this is primarily due to incorporation of the late stow items.

The Transfer List Excel file, FD03_Transfer_List_STS130.xls, is located on the KFX machine in **C:\OCA-up\transfer** (and available via the **PGSC homepage**).

For ISS, the Transfer List Excel file, FD03_Transfer_List_STS130.xls, is located in **K:\OCA-up\transfer**.

<u>Change Pages</u>
Please incorporate uplink pages as follows:

In the Transfer List **LAYOUTS** tab
Replace the following page:
Layouts – 1

In the Transfer List **RESUPPLY** tab
Replace the following pages:
Resupply – 1, 3, 4, 5, 6, 7, 10, 11

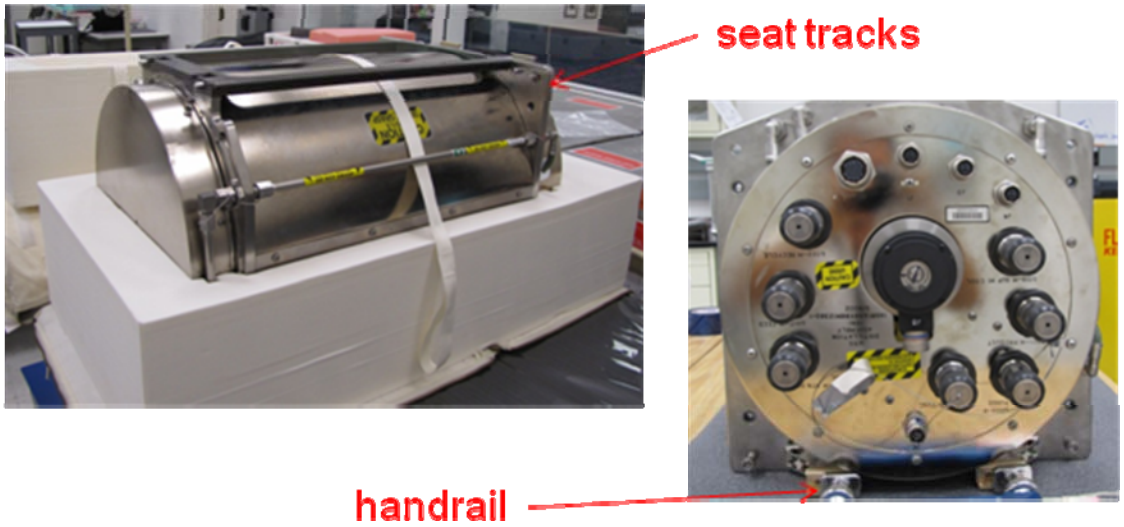
Add the following pages:
Resupply – 13, 14

In the Transfer List **RETURN** tab
Add the following pages:
Return – 1 through 7

<u>FD03 Choreography</u>

- Zamka, Robinson, Behnken: Transfer EVA h/w to ISS per POST DOCK EVA XFER activity (Items 7, 11, 12, 33-37)
- Robinson: Transfer SODF to ISS during SODF XFER activity (Items 14, 16)
- Behnken & Williams: Transfer cold samples from shuttle Glacier to ISS MELFI per GLCR MLF 20A SMP XFR activity (Item 18)
- Robinson: Transfer SSC to shuttle during SSC SETUP activity (Item 739)
- XFER OPS:
    - Zamka: Transfer WPA External Filter hardware (items 800 and 800.1 through 800.4) – Jeff will need one of these items shortly after docking.
    - Prepare WRS DA and FCPA for Jeff's FD04 WRS activities:

        - Transfer 5 MLE bag A with Distillation Assembly to the Lab and prepare for Jeff (Item 9). Recommend that you transfer Bag A, then flip the foam box over in the bag so that it is ready for Jeff first thing in the morning. See picture below as a reminder for the DA configuration. Jeff will use an 8.5" handrail to handle the DA, and this will be in his stowage note.
        - Transfer FCPA (item 3) and temp stow near the WRS2 rack (LAB1P4)
    - Transfer APEX-Cambium h/w (Item 19)



Have a great docking day!

- The 20A Transfer Team

20A Transfer Choreography

<u>FD04</u>

- Jeff: Transfer waste water samples per WPA-WWT-OFFLOAD activity (Item 737)
- XFER OPS:
    - Once Jeff has removed the Distillation Assembly, complete items 9.1 and 9.2. Bag A can be transferred back to shuttle (item 700).
    - Once Jeff has removed the old FCPA, use the foam from the new one to pack this for return (item 731)
    - Transfer 5 MLE bags B, F, H to Columbus (Items 6, 8, 10)
    - Transfer Nanoskeleton h/w (Item 15)
    - Complete unconstrained swaps:
        - Multimeters: Items 1 and 722
        - CDRA beds: Items 8.1 and 608
        - Torque wrench: Items 10.3 and 730
    - Complete unpack of Bag B (items 10.1 and 10.2)
    - Unpack Seat 7 Bag (Items 30, 31, and 32)

FD05

- XFER OPS:
  - Robinson: Prep items needed for N3 vestibule outfitting (Items 6.1, 6.2, 6.3) Move foam from these items per return items 716 and 717.
  - Complete unpack of Bags D and E (Items 4, 4.1, 5, and 13)
  - Soichi: Transfer items with special packing: 610, 611, 711, 723
  - Work on unconstrained middeck locker resupply transfers to ISS (Items 2, 21, 22, 26, 27, 28, and 38)

FD06 (no xfer brief)

- Williams: Transfer GSC per EHS-N3 AIR-SAMPLE activity (Item 719)
- Noguchi: Retrieve PEPS items from N3 CTBs per PEPS UNSTOW activity (Items 42.1, 45.1)
- Creamer: Retrieve NPV and S0 cable from N3 CTB per EVA H/W UNSTOW activity (Items 48.1, 48.2)
- Patrick: Transfer CGBAs per CGBA UNIT SWAP activity (Items 29, 706)

FD07

- Virts: Transfer LiOH between Node 3, Middeck, and ISS stockpile per LiOH TRANSFER activity (items 44, 44.1, 48, 48.3, 802, 803, 736)
- Virts & Hire: Relocate D4 and D5 ISP CTBs per ISP STOWAGE TRANSFER activity (items 41, 42, 43, 45, 46, 47, 49, 49.1, 50)
- XFER OPS:
  - Complete Food Warmer swap: Item 20, 20.1, and 718

FD08

- Creamer: Transfer Node 3 ITCS sample per N3-LTL-ITCS-SAMPLE activity (Item 740)
- Behnken & Williams: Transfer cold samples from ISS MELFI to shuttle Glacier per MLF GLCR 20A SMP XFR activity (Item 721)
- XFER OPS:
  - Transfer PWR (Item 17 and 725)
  - Work on return transfers to 5 MLE Bags (items 600, 602, 603, 604, 732)
  - Swap Potable Sample Adapters (items 801 and 735)
  - Transfer Seat 7 Bag return item: 406

FD09

- Virts: Return old C&W panel per C&W PANEL COVER DEPLOY activity (Item 705)
- XFER OPS:
  - Swap MPCs (Items 40, 720)

FD10

- XFER OPS:
  - Continue return transfers (items 400, 401, 402, 403, 403.2, 403.3, 404, 601, 605)

FD11

- Williams: Transfer returning blood sample per BLD STW activity (Item 704)
- Creamer: Transfer returning saliva sample per SLV STW activity (Item 728)
- Robinson: Transfer AFD PCS per AFT PCS XFER activity (Item 39)
- Robinson: Transfer SSC back to ISS during SSC RETURN activity (Item 804)
- Behnken: Transfer SAFER to shuttle per SAFER XFER activity (Item 714)
- Patrick & Behnken: Transfer EVA items to shuttle per EVA RECONFIG & XFER activity (Items 702, 712, 713, 715)
- Noguchi: Transfer returning RAMs to shuttle per RAM INSTALL activity (Item 726)
- Noguchi: Transfer DCBs to shuttle per DCB XFR activity (Item 709, 710)
- XFER OPS:
    - Complete water hardware transfers (items 24, 25, 729)
    - Transfer Return to Houston Imagery ziplock (item 727)
    - Transfer remaining 5 MLE bags (items 408, 701, 703)
    - Transfer remaining items (items 707, 708, 738)

5 MLE Bag Plan (9 total)

- Bags B & H: to Columbus for temp stow (FD03-11)
- Bag F: to Columbus permanently (return prepacked 5 MLE in its place FD11)
- Bags C, D & E: remain on shuttle for unpacking/repacking
- Bag A: contains UPA DA, temp stow in Lab for FD04
- Bags G & I: handled via EVA procedures (G will be temp stowed in Node 1)

Jeff and Bob:
Today you will be transferring JAXA samples from the Middeck Glacier unit to MELFI-1 (JEM). Below are some suggestions and constraints to keep in mind while performing this activity. This message should be reviewed in conjunction with the procedure.

1. Refer to 22-0651 (MSG 016) 20A Ascent Sample Transfer from Glacier to MELFI {Uplinked Procedures: US SODF: Assembly Ops: 22-0651 (MSG 016) 20A Ascent Sample Transfer from Glacier to MELFI }
2. You are both scheduled to assist each other with sample and Double Coldbag handling at the Middeck Glacier and the ISS MELFI-1.
3. To protect the samples during transport, you will use a Double Coldbag and icepacs pulled from MELFI-1 (JEM). You will retrieve these items before accessing the JAXA samples located in the Middeck Glacier unit.
4. Once you have retrieved the JAXA samples from Glacier, you will place them between the two icepacs inside the Double Coldbag for protection during transfer to MELFI-1 (JEM).
5. Minimize MELFI door open time to help reduce moisture and protect other samples. Note that standard timing restrictions on MELFI do <u>not</u> apply for this activity.
6. Minimize the amount of time that retrieved samples are exposed to ambient air to prevent science warm-up/loss.
7. Close Double Coldbag lid except when inserting frozen items.
8. Don’t use excessive force to close the lid as the bag’s insulation panels may be damaged.
9. If a MELFI tray gets stuck when opening a Dewar, use the Coldplate/Wireway Cover to aid in the removal of the tray.

OBJECTIVE:
This procedure provides steps to relocate SSC 20 from ISS to the Orbiter and to return SSC 20 back to ISS prior to Orbiter Undock.

UNSTOW:

25' PGSC DC Power Cable	P/N: SED33103334-311
A31p 28V DC Power Supply	P/N: SEG33116428-301
10' Enhanced A31p 16V DC Power Cable	P/N: SEG33116459-301

1. DISCONNECT SSC 20 IN ISS LAB

WARNING
Do not connect or disconnect loads when a circuit is powered. This presents a shock hazard.

ISS LAB 1.1 √SSC Client (SSC 20) – OFF

1.2 √SSC 20 Power Supply – OFF

1.3 SSC 20 ←|→ A31p 16V DC Power Cable

2. RELOCATE AND RECONFIGURE SSC 20

Orbiter 2.1 Relocate SSC 20 to Orbiter

ML60E (LW MAR) 2.2 Unstow 25' PGSC DC Power Cable, A31p 28V DC Power Supply, and 10' Enhanced A31p 16V DC Power Cable

F1 2.3 √DC UTIL PWR MNB – OFF

2.4 25' PGSC DC Power Cable →|← A31p 28V DC Power Supply

2.5 10' Enhanced A31p 16V DC Power Cable →|← A31p 28V DC Power Supply

2.6 SSC 20 →|← 10' Enhanced A31p DC Power Cable

2.7 25' PGSC DC Power Cable →|← DC UTIL PWR MNB outlet

F1 2.8 DC UTIL PWR MNB - ON

2.9 sw A31p 28V DC Power Supply → ON

2.10 √SSC 20 → ON

2.11 √NetGear Wireless Assistant window for Access Point connectivity and signal strength (refer to Figure 1)

2.12 Notify **MCC-H** Orbiter SSC Client is operational

Figure 1: NetGear Wireless Assistant Information

3. DISCONNECT SSC 20

Orbiter 3.1 sw A31p 28V DC Power Supply → OFF

F1 3.2 DC UTIL PWR MNB - OFF

3.3 SSC 20 ←|→ 10’ Enhanced A31p 16V DC Power Cable

3.4 10’ Enhanced A31p DC Power Cable ←|→ A31p 28V DC Power Supply

3.5 25’ PGSC DC Power Cable ←|→ A31p 28V DC Power Supply

3.6 25’ PGSC DC Power Cable ←|→ DC UTIL PWR MNB outlet

ML60E (LW MAR) 3.7 Stow 25’ PGSC DC Power Cable, 2A31p 28V DC Power Supply, and 10’ Enhanced A31p 16V DC Power Cable

4. TRANSFER SSC 20 TO ISS AND STOW

ISS 4.1 Relocate SSC 20 to ISS and stow per stowage note

Bob, Nick, and Steve,

Great to see you all in orbit. We are excited to watch you all in your EVA1 activities coming up in the next few days. Now that we know the Beta angles for each of your EVAs, we have listed the thermal constraints for each EVA. We have also included a few Pen and Inks for the procedures.

1. EVA Beta Angle dependant constraints
    - EVA 1 (Beta Angle = -13.3)
        - The NH3 Jumper Bag has no thermal constraints at the Lab Nadir location or the Lab/Node 1 Port/Nadir location between EVA 1 and 2. If time permits after ISS LTA Cables and Avionics Lines, you have a GO to perform “GET-AHEAD - NH3 JUMPER BAG RELOCATE” on FS 7-121

    - EVA 2 (Beta Angle = -3.4)
        - To prevent QD exposure to direct sunlight for over 20 minutes (cumulative), the Lab and Node 3 NH3 Jumper QDs can remain uncovered for no more than 4.5 hours (3 orbits). Please make note of this in the CAUTION block at the top of FS 7-62.

    - EVA 3 (Beta Angle = +10.9)
        - To prevent QD exposure to direct sunlight for over 20 minutes (cumulative), the Lab and Node 3 NH3 Jumper QDs can remain uncovered for no more than 3 hours (2 orbits). Please make note of this in the CAUTION block at the top of FS 7-98.

2. On page FS 7-70, EV2 column, delete step 2 (no longer applicable)

3. On page FS 7-103, change step 1:
    - WAS: Translate to A/L HR 0559 (aft hatch)
    - IS: Translate to NOD1 HR 0118 (radial port)

4. On the CONSUMABLES TRACKING CUE CARD & FS CC 10-15; first column, fourth row:
    - WAS: EVA 3 (FD9)
    - IS: EVA 3 (FD10)

22-0604 (MSG 019) – Exp 22 and STS-130/20A Emergency Response Agreements
Page 1 of 1

The following points summarize the joint emergency response agreed to in training between the STS-130/20A commander Zamka and Expedition 22 commander Williams.

GENERAL

- Emergency response will be conducted per published procedures: EMER-1 SODF, Joint Emergency Egress (JEE), Joint Emergency Undock and Separation (JEUS) and "ISS Ammonia Response – Shuttle Crew" cue card in Joint Operations SODF , and Orbit Pocket Checklist in Shuttle FDF.
- ISS crew has the lead for response in any ISS Emergency case. If no ISS crewmember is available to initiate alarms and response actions, Shuttle crewmembers may do so.
- Shuttle crew has the lead for response in any Shuttle Emergency case.
- Shuttle crewmembers will use Shuttle PBA masks for initial response whenever practical, in order to preserve ISS mask supply for ISS crewmember use.
- JEE cue cards will be posted in PMA2, in the ISS Airlock (2 copies), and in the Shuttle airlock by the ODS.
- "ISS Ammonia Leak – Shuttle Crew" cue cards will be posted in PMA2 and in the ISS A/L on the spaghetti panel.
- In a JEE scenario, MS2 (Robinson) will get a GO from CDR (Zamka) for the Node2 Forward hatch closure on the big loop (S/G1-A/G1).
- Shuttle crewmember responsibilities will be divided as follows:
    - CDR (Zamka): EVA equipment retrieval from ISS. JEE/JEUS procedure execution. Maintain comm with ISS and MCC-H.
    - MS3 (Patrick), MS4 (Behnken): EVA equipment retrieval from ISS.
    - MS2 (Robinson): Crew headcount at Node2 forward hatch. Hatch closures per JEE (Node 2 forward hatch on CDR go; subsequent hatch closures will be reported to CDR).
    - MS1 (Hire): Shuttle comm config. Assist MS2 with hatch closures.
    - PLT (Virts): O2/N2 disconnects, Shuttle Airlock fan deactivation.

RAPID DEPRESS

- No unique comments.

FIRE

- In the event of a Shuttle fire, the crew will also activate the ISS Fire alarm to stop ISS ventilation.
- In the event of smelling smoke, the crew will annunciate on the Big Loop and the shuttle crew will egress to the shuttle.

TOXIC ATM

- If MCC-H sees indications of an ammonia leak, MCC-H will make the following call on the big loop (S/G1-A/G1): **"Ammonia Leak, Execute Emergency Response – I say again – Ammonia Leak, Execute Emergency Response."**
- No equipment from ISS will be retrieved for return on Shuttle in an ammonia response (including EMUs).
- If the alarm is being initiated for a toxic substance other than ammonia, the crew will announce on the Big Loop prior to depressing the ATM alarm.

DURATION: 45 Minutes

INSTRUCTIONS:

Transfer and temp stow SODF CTB, S/N 1271, B/C 010607J, from MF14E to LAB1P6 rack front. (EMER 1, EMER 2, Warning, Emer and Warning PCNs, Leak Pinpoint Repair book and cue cards will be deployed at a later time).

Joint Mission Cue Card Deploy

Verify cue cards required for Joint Mission located in "Joint Operations Cue Cards – Transfer to ISS" ziplock have been deployed.

All items on this list were stowed in MF14H.

Cue Card Contents "Joint Operations Cue Cards – Transfer to ISS":

10.102 Joint Emergency Egress (can be placed in STS or ISS common trash at undock) [QTY:3]
- ❑ 1 on Shuttle side of hatch
- ❑ 1 in Node 2 FWD
- ❑ 1 in Airlock

10.103 Joint Emergency Ingress (can be placed in STS or ISS common trash at undock) [QTY:1]
- ❑ 1 on ISS side of hatch

WHC Cue Card Deploy

Gather the following from the CTB: "FD3 Deploy" ziplock

In the **WHC**:

Deploy:
- ❑ 2.301 WHC Nominal Operations Cue Card
- ❑ WHC Malfunctions Cue Card
- ❑ Discard replaced cue card in the ISS common trash.

Leak Pinpoint Repair Kit Deploy

Gather the following from the "FD3 Deploy" ziplock, Leak Pinpoint Repair Kit [QTY:1]

In the **PMA1**:

Place in the ISS common trash:
- ❑ Leak Pinpoint and Repair Kit (Cover says: Starting with ISS-17A) _____

Deploy:
- ❑ Leak Pinpoint and Repair Kit (Cover says: Starting with ISS-20A) _____

22-0656 (MSG 024) 20A ASSEMBLY OPERATIONS INCORPORATION INSTRUCTIONS

1. At your convenience, print 2 copies with the Shuttle printer of each of the following procedures for later incorporation on MS2 at MET 2/01:10:
    - 22-0635 (MSG 020) Node 1 and Node 3 Potable Water and Urine Bus Purge with Vacuum Backfill of Potable Water Bus
    - 22-0636 (MSG 021) Cupola Depressurization (Node 3 Port) with Node 3 FWD MPEV
    - 22-0637 (MSG 022) Cupola Fine Leak Check on Node 3 Deck with Node 3 FWD MPEV

2. Retrieve the 2 copies of the 20A ISS Assembly Operations book (Cover says: Applicable for ISS-20A) from locker MF14H.

3. In each book, after page 624, add procedures:
    - 22-0635 (MSG 020) Node 1 and Node 3 Potable Water and Urine Bus Purge with Vacuum Backfill of Potable Water Bus
    - 22-0636 (MSG 021) Cupola Depressurization (Node 3 Port) with Node 3 FWD MPEV
    - 22-0637 (MSG 022) Cupola Fine Leak Check on Node 3 Deck with Node 3 FWD MPEV

4. Restow the 2 copies of the 20A Assembly Operations book (Cover says: Applicable for ISS-20A) to locker MF14H**.**

5. **Report completion to MCC-H.**

Preliminary Burn TIGs

	MET	
NC4	001:15:42:17.648	
NCC	001:16:16:36.000	
TI	001:17:14:18.000	PET = 0:0 ; SS - 36 MIN
MC1	001:17:34:18.000	
MC2	001:18:04:12.000	ET = 0:0
MC3	001:18:21:12.000	MC2 + 17 MIN
MC4	001:18:31:12.000	MC2 + 27 MIN
DOCK	001:19:52:00.000	

PRELIMINARY ORBIT MANEUVER PAD FOR NC4 (RNDZ C/L, pg. 3-4)

OMS BOTH	1	X
L	2	
R	3	
RCS SEL	4	
TV ROLL	5	000
TRIM LOAD P	6	(+)0.6
LY	7	(-)5.7
RY	8	(+)5.7
WT	9	247257
TIG	10	01/15:42:17.6
TGT PEG 7 ΔVX	19	(+)022.3
ΔVY	20	(+)000.0
ΔVZ	21	(+)000.2

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

BURN ATT		
R	24	221
P	25	031
Y	26	009

ΔVTOT		022.3
TGO		00:14
VGO	X	(+)021.5
VGO	Y	(+)000.0
VGO	Z	(+)005.8

	HA	HP
TGT	187	(+)177

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 GPC3 as 2nd gimbal fail on the Right.

PRELIMINARY ORBIT MANEUVER PAD FOR Ti (RNDZ C/L, pg. 3-6)

OMS BOTH	1	
L	2	X
R	3	
RCS SEL	4	
TV ROLL	5	000
TRIM LOAD P	6	(+)0.6
LY	7	(+)4.7
RY	8	(-)4.8
WT	9	246707
TIG	10	01/17:14:18.0
TGT PEG 7 ΔVX	19	(+)006.7
ΔVY	20	(-)000.5
ΔVZ	21	(-)000.2

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

BURN ATT

R	24	228
P	25	022
Y	26	020

ΔVTOT	006.7
TGO	00:08

VGO	X	(+)006.3
VGO	Y	(+)001.3
VGO	Z	(+)001.7

	HA	HP
TGT	187	(+)181

OMS GMBL CK:

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

NOTES

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

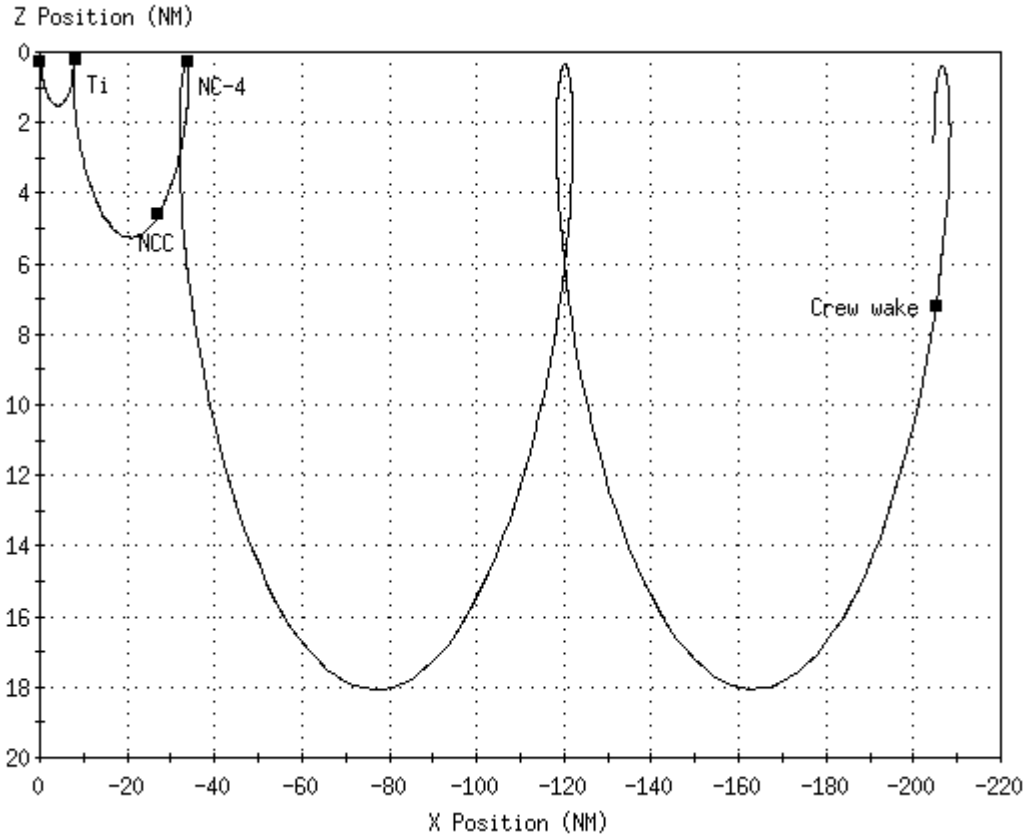
TIG SLIP: If Ti not started by nominal TIG + __ min go to Ti DELAY, 5-27

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

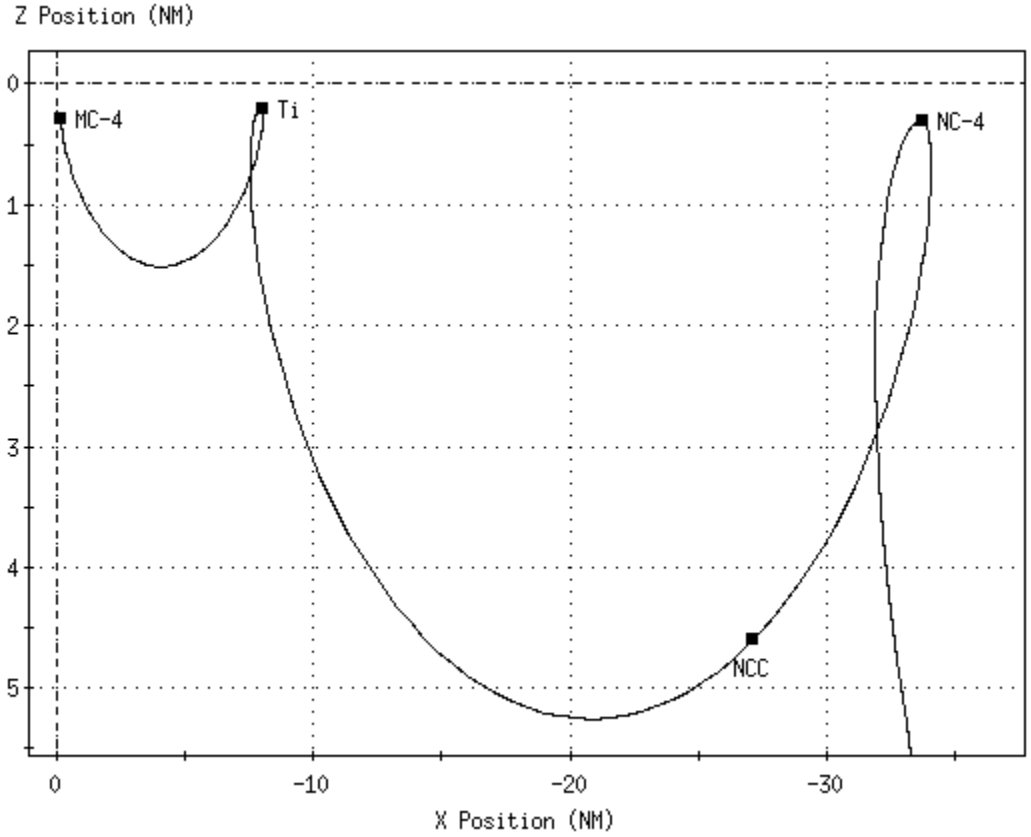
Ti DELAY

TGT PEG 7 ΔVX	19	(-)
ΔVY	20	(-)
ΔVZ	21	(-)
NEW Ti (BASETIME)		01/18:45:38.0

NOTES


Z Position (NM)
0
2
4
6
8
10
12
14
16
18
20
Ti
NC-4
NCC
Crew wake
0
-20
-40
-60
-80
-100
-120
-140
-160
-180
-200
-220
X Position (NM)

1


Z Position (NM)
0
1
2
3
4
5
MC-4
Ti
NC-4
NCC
0
-10
-20
-30
X Position (NM)

2

MSG 026 - FD03 CREW CHOICE DOWNLINK

TDRS	AOS	LOS	Delta (min)	Notes
E-275	2/01:01	2/01:33	32	Gimbal flip at 2/01:25; Analog only
W-171	2/01:35	2/02:00	25	
E-275	2/02:52	2/03:04	12	Gimbal flip at 2/02:57; Analog only
W-171	2/03:05	2/03:36	31	

Note: Please notify MCC-H 10 minutes prior to the event to allow for ground network configuration.

END OF PAGE 1 OF 1, MSG 026

CWC-I FILLS

INIT ← Fill Duration ~10 minutes → TERM

	CWC-I Fill No.	CWC Launch Location	Record S/N Used	Disinfect QDs	Report CWC-I S/N To MCC	TERM at MET:	Cap R-Y Hose	Verify Label In Windows	Sample Ref: Kit Table	Transfer To:
☐	1	NOD2O2 Mesh Bag ☐ 2010 ☐ 2011 ☐ 2012 ☐ 2013 ☐ 2014 ☐ 2015 ☐ 2016 ☐ 2017		☐	☐		☐	☐ Purple	☐ S/N 1001 (Note A)	☐ JLP1S2 panel front
☐	2			☐	☐		☐	☐ Purple		☐
☐	3			☐	☐		☐	☐ Purple	☐ S/N 1001 (Note A)	☐
☐	4			☐	☐		☐	☐ Purple		☐
☐	5			☐	☐		☐	☐ Purple	☐ S/N 1001 (Note A)	☐
☐	6			☐	☐		☐	☐ Purple		☐
☐	7			☐	☐		☐	☐ Purple	☐ S/N 1001 (Note A)	☐
☐	8			☐	☐		☐	☐ Purple		☐

CWC-I Fill Notes:

A. Stow filled sample bags in MF43H.

B. Rough handling may cause leakage.

C. Pregathered Mesh Bags originally located in NOD2O2. Some CWCs may still contain residual water and will be located outside of bags. Prior to filling, report if bag has a significant amount of residual water.

Kit Table

Kit	S/N	Stowage Location	Undock Location
Sample/Purge Kit	1001	MF57K	MF57K

FINAL

CWC AND PWR FILLS

	CWC Fill No.	CWC Launch Location	Record S/N Used	Disinfect QDs	INIT ← Fill Duration ~52 minutes → Mineral Syringe Kit Ref: Kit Table	Ag Biocide Kit Ref: Kit Table	TERM at MET:	TERM Cap Water Transfer Hose	Sample/Purge Kit Ref: Kit Table	Verify Label In Window	Report CWC S/N to MCC	Transfer To:	
☐	1	At NOD2O2 in M-02 Bag S/N 1026 (Note D)	1075	☐		S/N 1001 ☐		☐	S/N 1001 (Note A) ☐	Green ☐	☐	☐	JLP1P2 Panel Front
☐	2	At NOD2O2 in M-02 Bag S/N 1026 (Note D) 1021 ☐ 1050 ☐ 1051 ☐ 1069 ☐ 1073 ☐		☐		S/N 1001 ☐		☐		Green ☐	☐	☐	
☐	3			☐		S/N 1001 ☐		☐		Green ☐	☐	☐	
☐	4			☐		S/N 1001 ☐		☐		Green ☐	☐	☐	
☐	5			☐		S/N 1001 ☐		☐		Green ☐	☐	☐	JLP1F1 Panel Front
☐	6			☐		S/N 1001 ☐		☐		Green ☐	☐	☐	
☐	7	At NOD2O2 (Note D) 1008 ☐ 1072 ☐ 1086 ☐		☐		S/N 1006 ☐		☐		Green ☐	☐	☐	JLP1F2 Panel Front
☐	8			☐		S/N 1006 ☐		☐		Green ☐	☐	☐	
☐	9			☐		S/N 1006 ☐		☐		Green ☐	☐	☐	

CWC Fill Notes:

A. Stow filled sample bags in MF43H.

B. Rough handling may cause leakage.

C. Fill each CWC for 52 min or Term CWC Fill on MCC call.

D. Pregathered M-02 & Mesh Bags originally located in NOD2O2. Some CWCs may still contain residual water and will be located outside of bags. Prior to filling, report if bag has a significant amount of residual water.

Kit Table

Kit	S/N	Stowage Location	Undock Location
Mineral Syringe Kit (No Planned Use)	1003	MA9D/F	MA9D/F
Ag Biocide Kit	1001	M-02 Bag S/N 1026 (Note D)	MF57K
	1006	MF57K	M-02 Bag S/N 1026 (Note D)
Sample/Purge Kit	1001	MF57K	MF57K

	PWR No.	PWR S/N	Stowage Location	Actions
☐	1	1005	A/L1D1_B1	Vent, fill, and return to A/L1D1_B1

PWR Fill Notes: Do not detach PWR (EMU H2O Recharge Bag) QD restraint during PWR ops.

FINAL

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DOUG Setup for OBSS Unberth and Handoff

1. For **stand-alone** procedure review, perform {22-0491 2.7.501 DOUG Startup Procedure}, step 2 (Uplinked Procedures: US SODF: POC)

2. For **SSRMS real-time support**, perform {22-0491 2.7.501 DOUG Startup Procedure }, step 1 (Uplinked Procedures: US SODF: POC)
   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 Step 01 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_A'.
      4.1.2 In SSRMS Reconfig Dialog box, select 'SSRMS ->NODE2_PDGF'.
      4.1.3 *In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_4'.*
   4.2 JntSystems ► RMS
      4.2.1 In the RMS Dialog box enter '22.7, 57.5, -27.5, -99.2, 11.7, -97.7'
   4.3 Reconfig ► Orbiter Inspection
      4.3.1 In Orbiter_Inspection Reconfig Dialog box, select 'OBSS_to_STBD_MPMs'
   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) and ensure all boxes are checked
   4.7 For real-time support to display VPP (Vegas) tool, Press Shift+V

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use the Options ► Targets Dialog box to quickly select the first desired target and ensure 'Targ SSRMS' is checked.

Procedure	Step	Starting Target		
		SSRMS	**RMS**	**Camera**
1.110 OBSS Unberth and Handoff	2	1.110 Step 02 OBSS Pre-Grapple	SRMS OBSS Handoff Pre-Grapple	1.110 Step 01 OBSS Unberth and Handoff

Notes:
- Use Page Up and Page Down keys to scroll through Target selections.
- Following steps are used to reconfigure scene at Proper time.

5. For procedure “1.110 OBSS Unberth and Handoff” Step 3 configure for current configuration.
   5.1 Reconfig ► ORBITER_INSPECTION
      5.1.1 In ORBITER_INSPECTION Reconfig Dialog, select ‘OBSS_GF2_to_SSRMS’
6. For procedure “1.110 OBSS Unberth and Handoff” Step 7 configure for current configuration.
   6.1 Reconfig ► ORBITER_INSPECTION
      6.1.1 In ORBITER_INSPECTION Reconfig Dialog, select ‘OBSS_GF1_to_SRMS’

DOUG Setup for Berthed Node 3 Grapple

1. For **stand-alone** procedure review, perform {22-0491 2.7.501 DOUG Startup Procedure}, step 2 (Uplinked Procedures: US SODF: POC)

2. For **SSRMS real-time support**, perform {22-0491 2.7.501 DOUG Startup Procedure }, step 1 (Uplinked Procedures: US SODF: POC)
   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 Step 01 Berthed Node 3 Grapple"**, 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_A'.
      4.1.2 In SSRMS Reconfig Dialog box, select 'SSRMS ->NODE2_PDGF'.
      4.1.3 *In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_4'.*
   4.2 JntSystems ► RMS
      4.2.1 In the RMS Dialog box enter '64.0, 44.7, -20.0, -10.0, 11.2, 30.0'
   4.3 Reconfig ► Orbiter Inspection
      4.3.1 In Orbiter_Inspection Reconfig Dialog box, select 'OBSS_GF1_to_SRMS'
   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) and ensure all boxes are checked
   4.7 For real-time support to display VPP (Vegas) tool, Press Shift+V

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use the Options ► Targets Dialog box to quickly select the first desired target and ensure 'Targ SSRMS' is checked.

Procedure	Step	Starting Target		
		SSRMS	**RMS**	**Camera**
1.210 SSRMS Berthed Node 3 Grapple	2	1.210 Step 02 Node 3 Pre-Grapple	SRMS Node 3 Install Viewing	1.210 Step 01 Berthed Node 3 Grapple

Notes:
- Use Page Up and Page Down keys to scroll through Target selections.

DOUG Setup for Node 3 Unberth to Install

1. For **stand-alone** procedure review, perform {22-0491 2.7.501 DOUG Startup Procedure}, step 2 (Uplinked Procedures: US SODF: POC)

2. For **SSRMS real-time support**, perform {22-0491 2.7.501 DOUG Startup Procedure }, step 1 (Uplinked Procedures: US SODF: POC)
   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 "**1.220 Step 01 Node 3 Unberth to Install"**, 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_A'.
      4.1.2 In SSRMS Reconfig Dialog box, select 'SSRMS ->NODE2_PDGF'.
      4.1.3 *In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_4'.*
   4.2 JntSystems ► RMS
      4.2.1 In the RMS Dialog box enter '64.0, 44.7, -20.0, -10.0, 11.2, 30.0'
   4.3 Reconfig ► Orbiter Inspection
      4.3.1 In Orbiter_Inspection Reconfig Dialog box, select 'OBSS_GF1_to_SRMS'
   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) and ensure all boxes are checked
   4.7 For real-time support to display VPP (Vegas) tool, Press Shift+V

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use the Options ► Targets Dialog box to quickly select the first desired target and ensure 'Targ SSRMS' is checked.

Procedure	Step	Starting Target		
		SSRMS	**RMS**	**Camera**
1.220 SSRMS Unberth to Install	9	1.220 Step 09 Node 3 Low Hover	SRMS Node 3 Install Viewing	1.220 Step 01 Node 3 Unberth to Install

Notes:
- Use Page Up and Page Down keys to scroll through Target selections.
- Following steps are used to reconfigure scene at Proper time.

5. For procedure “1.220 SSRMS Node 3 Unberth to Install” Step 1 configure for current configuration.
   5.1 Reconfig ► NODE3
      5.1.1 In NODE3 Reconfig Dialog, select ‘NODE3 -> SSRMS’
6. For procedure “1.220 SSRMS Node 3 Unberth to Install” Step 16 configure for current configuration.
   6.1 Reconfig ► NODE3
      6.1.1 In NODE3 Reconfig Dialog, select ‘NODE3 -> NODE_PORT_CBM’

DOUG Setup for Contingency FI Support (if required)

1. For **stand-alone** procedure review, perform {22-0491 2.7.501 DOUG Startup Procedure}, step 2 (Uplinked Procedures: US SODF: POC)

2. For **SSRMS real-time support**, perform {22-0491 2.7.501 DOUG Startup Procedure }, step 1 (Uplinked Procedures: US SODF: POC)
   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 Step 01 Node 3 Release and Walkoff to Lab PDGF"**, open
   NOTE: There are no separate state files for 2.310 or 2.315

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_A'.
      4.1.2 In SSRMS Reconfig Dialog box, select 'SSRMS ->NODE2_PDGF'.
      4.1.3 *In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_4'.*
   4.2 JntSystems ► RMS
      4.2.1 In the RMS Dialog box enter '64.0, 44.7, -20.0, -10.0, 11.2, 30.0'
   4.3 Reconfig ► Orbiter Inspection
      4.3.1 In Orbiter_Inspection Reconfig Dialog box, select 'OBSS_GF1_to_SRMS'
   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) and ensure all boxes are checked
   4.7 For real-time support to display VPP (Vegas) tool, Press Shift+V

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use the Options ► Targets Dialog box to quickly select the first desired target and ensure 'Targ SSRMS' is checked.

Procedure	Step	Starting Target		
		SSRMS	**RMS**	**Camera**
2.310 SSRMS Node 3 Release and maneuver to FI Support	2	2.310 Step 02 Node 3 Backoff	SRMS Node 3 Install Viewing	2.310 Node 3 Release and Maneuver to FI

Notes:
- Use Page Up and Page Down keys to scroll through Target selections.

DOUG Setup for Node 3 Release and Walkoff to Lab

1. For **stand-alone** procedure review, perform {22-0491 2.7.501 DOUG Startup Procedure}, step 2 (Uplinked Procedures: US SODF: POC)

2. For **SSRMS real-time support**, perform {22-0491 2.7.501 DOUG Startup Procedure }, step 1 (Uplinked Procedures: US SODF: POC)
   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 Step 01 Node 3 Release and Walkoff to Lab PDGF"**, 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_A'.
      4.1.2 In SSRMS Reconfig Dialog box, select 'SSRMS ->NODE2_PDGF'.
      4.1.3 *In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_4'.*
   4.2 JntSystems ► RMS
      4.2.1 In the RMS Dialog box enter '64.0, 44.7, -20.0, -10.0, 11.2, 30.0'
   4.3 Reconfig ► Orbiter Inspection
      4.3.1 In Orbiter_Inspection Reconfig Dialog box, select 'OBSS_GF1_to_SRMS'
   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) and ensure all boxes are checked
   4.7 For real-time support to display VPP (Vegas) tool, Press Shift+V

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use the Options ► Targets Dialog box to quickly select the first desired target and ensure 'Targ SSRMS' is checked.

Procedure	Step	Starting Target		
		SSRMS	**RMS**	**Camera**
1.310 SSRMS Node 3 Release and Walkoff to Lab PDGF	1	1.310 Step 01 Node 3 Installed at Node 1 Port	SRMS Node 3 Install Viewing	1.310 Step 01 Node 3 Release and Walkoff to Lab PDGF

Notes:
- Use Page Up and Page Down keys to scroll through Target selections.

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DOUG Setup for Node 2 Release and Maneuver to Overnight Park

1. For **stand-alone** procedure review, perform {22-0491 2.7.501 DOUG Startup Procedure}, step 2 (Uplinked Procedures: US SODF: POC)

2. For **SSRMS real-time support**, perform {22-0491 2.7.501 DOUG Startup Procedure }, step 1 (Uplinked Procedures: US SODF: POC)
   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 "**1.320 Step 01 Node 2 Release and Maneuver to Overnight Park"**, 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 -> LAB_PDGF'.
      4.1.3 *In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_4'.*
   4.2 JntSystems ► RMS
      4.2.1 In the RMS Dialog box enter '64.0, 44.7, -20.0, -10.0, 11.2, 30.0'
   4.3 Reconfig ► Orbiter Inspection
      4.3.1 In Orbiter_Inspection Reconfig Dialog box, select 'OBSS_GF1_to_SRMS'
   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) and ensure all boxes are checked
   4.7 For real-time support to display VPP (Vegas) tool, Press Shift+V

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use the Options ► Targets Dialog box to quickly select the first desired target and ensure 'Targ SSRMS' is checked.

Procedure	Step	Starting Target		
		SSRMS	**RMS**	**Camera**
1.320 SSRMS Node 2 Release and Maneuver to Overnight Park	1	1.320 Step 01 Lab Grappled	SRMS Node 3 Install Viewing	1.320 Step 01 Node 2 Release and Maneuver to Overnight Park

Notes:
- Use Page Up and Page Down keys to scroll through Target selections.

DOUG Setup for Cupola Grapple, Cupola Relocate

1. For **stand-alone** procedure review, perform {22-0491 2.7.501 DOUG Startup Procedure}, step 2 (Uplinked Procedures: US SODF: POC)

2. For **SSRMS real-time support**, perform {22-0491 2.7.501 DOUG Startup Procedure }, step 1 (Uplinked Procedures: US SODF: POC)
   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 Step 01 Cupola Relocate"**, 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 -> LAB_PDGF'
      4.1.3 *In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_4'*
   4.2 JntSystems ► RMS
      4.2.1 In the RMS Dialog box enter '64.0, 44.7, -20.0, -10.0, 11.2, 30.0'
   4.3 Reconfig ► Orbiter Inspection
      4.7.1 In Orbiter_Inspection Reconfig Dialog box, select 'OBSS_GF1_to_SRMS'
   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) and ensure all boxes are checked
   4.7 For real-time support to display VPP (Vegas) tool, Press Shift+V

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use the Options ► Targets Dialog box to quickly select the first desired target and ensure 'Targ SSRMS' is checked.

Procedure	Step	Starting Target		
		SSRMS	**RMS**	**Camera**
1.410 SSRMS Cupola Relocate	1	1.410 Step 01 Overnight Park	SRMS Node 3 Install Viewing	1.410 Step 01 Cupola Relocate

Notes:
- Use Page Up and Page Down keys to scroll through Target selections.
- Following steps are used to reconfigure scene at Proper time.

5. For procedure “1.410 SSRMS Cupola Relocate” Step 1 configure for current configuration if cupola MLI exists.
   5.1 Reconfig ► CUPOLA
      5.1.1 In CUPOLA Reconfig Dialog, select ‘Remove/Replace_CUPOLA_MLI’
6. For procedure “1.410 SSRMS Cupola Relocate” Step 4.2 configure for current configuration.
   6.1 Reconfig ► CUPOLA
      6.1.1 In CUPOLA Reconfig Dialog, select ‘CUPOLA_GF2 -> SSRMS’
7. For procedure “1.410 SSRMS Cupola Relocate” Step 12 configure for current configuration.
   7.1 Reconfig ► CUPOLA
      7.1.1 In CUPOLA Reconfig Dialog, select ‘CUPOLA -> NODE3_NADIR_CBM’

<u>DOUG Setup for PMA3 Relocate</u>

1. For **stand-alone** procedure review, perform {22-0491 2.7.501 DOUG Startup Procedure}, step 2 (Uplinked Procedures: US SODF: POC)

2. For **SSRMS real-time support**, perform {22-0491 2.7.501 DOUG Startup Procedure }, step 1 (Uplinked Procedures: US SODF: POC)
   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 "**1.510 Step 01 Cupola Release and PMA3 Relocate"**, 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 -> LAB_PDGF'
      4.1.3 *In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_4'*
   4.2 JntSystems ► RMS
      4.2.1 In the RMS Dialog box enter '64.0, 44.7, -20.0, -10.0, 11.2, 30.0'
   4.3 Reconfig ► Orbiter Inspection
      4.7.2 In Orbiter_Inspection Reconfig Dialog box, select 'OBSS_GF1_to_SRMS'
   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) and ensure all boxes are checked
   4.7 For real-time support to display VPP (Vegas) tool, Press Shift+V

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use the Options ► Targets Dialog box to quickly select the first desired target and ensure 'Targ SSRMS' is checked.

Procedure	Step	Starting Target		
		SSRMS	**RMS**	**Camera**
1.510 SSRMS Cupola Release and PMA3 Relocate	1	1.510 Step 01 Cupola Install	SRMS Node 3 Install Viewing	1.510 Step 01 Cupola Release and PMA3 Relocate

Notes:
- Use Page Up and Page Down keys to scroll through Target selections.
- Following steps are used to reconfigure scene at Proper time.

5. For procedure “1.510 SSRMS Cupola Release and PMA3 Relocate” Step 5.3 configure for current configuration.
   5.1 Reconfig ► PMA3
      5.1.1 In PMA3 Reconfig Dialog, select ‘PMA3_GF1 -> SSRMS’
6. For procedure “1.510 SSRMS Cupola Release and PMA3 Relocate” Step 15 configure for current configuration.
   6.1 Reconfig ► PMA3
      6.1.1 In PMA3 Reconfig Dialog, select ‘PMA3 -> NODE3’

DOUG Setup for Maneuver to TRRJ Viewing and Node 2 Grapple

1. For **stand-alone** procedure review, perform {22-0491 2.7.501 DOUG Startup Procedure}, step 2 (Uplinked Procedures: US SODF: POC)

2. For **SSRMS real-time support**, perform {22-0491 2.7.501 DOUG Startup Procedure }, step 1 (Uplinked Procedures: US SODF: POC)
   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 "**1.520 Step 01 Maneuver to TRRJ Viewing and Node 2 Grapple"**, 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 -> LAB_PDGF'
      4.1.3 *In SSRMS Reconfig Dialog box, select 'MT_to_WORKSITE_4'*
   4.2 JntSystems ► RMS
      4.2.1 In the RMS Dialog box enter '64.0, 44.7, -20.0, -10.0, 11.2, 30.0'
   4.3 Reconfig ► Orbiter Inspection
      4.7.3 In Orbiter_Inspection Reconfig Dialog box, select 'OBSS_GF1_to_SRMS'
   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) and ensure all boxes are checked
   4.7 For real-time support to display VPP (Vegas) tool, Press Shift+V

Notes:
- Use the Home Key to cycle through the Camera, SSRMS and SRMS Targets.
- Use the Options ► Targets Dialog box to quickly select the first desired target and ensure 'Targ SSRMS' is checked.

Procedure	Step	Starting Target		
		SSRMS	**RMS**	**Camera**
1.520 SSRMS Maneuver to TRRJ Viewing and Node 2 Grapple	1	1.520 Step 01 PMA3 Backoff	SRMS Node 3 Install Viewing	1.520 Step 02 Maneuver to TRRJ Viewing

Notes:
- Use Page Up and Page Down keys to scroll through Target selections.