# STS-120/10A

## *FD 14 Execute Package*

| MSG | Page(s) | Title |
|---|---|---|
| 166B | 1 - 14 | FD14 Flight Plan Revision **(pdf)** |
| 167 | 15 - 16 | FD14 Mission Summary **(pdf)** |
| 168 | 17 - 18 | OBSS Maneuver to Hover **(pdf)** |
| 169 | 19 | Starboard Survey Page 7-16 Update **(pdf)** |
| 170 | 20 | FD13 MMT Summary **(pdf)** |

***Approved by FAO:*** *Jennifer Clevenger*

*Last Updated: Nov 5 2007 5:42AM GMT*
***JEDI*** *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

MSG INDEX


| MSG NO. | TITLE |
|---|---|
| 166 | FD14 Flight Plan Revision |
| 167 | FD14 Mission Summary (16-0228) |
| 168 | OBSS Maneuver to Hover |
| 169 | Starboard Survey Page 7-16 Update |
| 170 | FD13 MMT Summary |


1. **Heater Reconfig Details:**
   Make the following changes to HEATER RECONFIG – CONFIG B (ORB OPS,EPS) p6-5, to be performed at ~MET 12/22:25:

   Replace the ML86B:C steps with the following actions:

   ML86B:C cb MNA EXT ARLK HTR
   LINE ZN 1,2 (two) – cl
   STRUC Z1/2/3 – op
   cb MNB EXT ARLK HTR
   LINE ZN 1,2 (two) – op
   STRUC Z1/2/3 – cl

   cb MNB EXT ARLK HTR VEST Z1/2/3 – cl

2. **Condensate Teardown Details:**
   At MET 12/22:25 for SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS), perform TEARDOWN of CWC s/n 5104 and temp stow with CWC s/n 5057 for FD15 Condensate CWC dump.

3. **Simo Dump Details:**
   Perform a simo dump using SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) p5-2. MCC will TMBU limits in steps B and K.

   Supply dump will be 30 minutes.

   Dump the waste tank to 5%. Nozzle open time will be ~35 minutes.

4. A procedure has been uplinked (MSG168) to maneuver the SRMS to OBSS Hover for the start of the surveys. Also, the Imagery Team has requested a repeat of the LCS Characterization during late inspection to compare the condition of the LCH window on FD14 to the condition from FD2. During the OBSS LDRI/IDC RCC Survey - STBD, disregard "IF PERFORMING LATE INSPECTION" on p.7-15 of the PDRS Ops C/L and perform steps 5a, 5b, and 5d to accommodate the LCS checkout request.

5. Page 7-16 in the Generic PDRS OPS C/L needs to be replaced with MSG169. The “WAIT FOR R3” comment from crew review has been included in the changeout page.

6. On FD13, you transferred a total of 6 used STS-120 LiOH canisters back to Shuttle (Middeck Return Items 816 and 817). Four are stowed in the Middeck Floor Starboard 1 (Bag C) and two are stowed in the Middeck Ceiling Starboard 1 (Bag G). Please report the decal numbers to MCC-H to assist in tracking LiOH canisters.

7. REPLACE PAGES 2-50, 2-52, AND 3-152 THROUGH 3-161.

11/04/07 23:44:12 **REPLANNED**

GMT 11/05/07 (309) 04 05 06 07 08 09 10 11 12 13 14 15

MET Day 012 12 13 14 15 16 17 18 19 20 21 22 23 013/00

| | | |
|---|---|---|
| STS-120 | FD14 CDR MELROY | SLEEP; POST SLEEP; GRPB; GRPUP; H/O; MNVR; UNDK; UNDOCK OPS; FLYAROUND/SEP; SEP1; SEP2; MNVR; DUMP; GRPB; PWRDN; MEAL; HTRB; AIPMUU; MNVR; STBD; EXERCISE |
| STS-120 | PLT ZAMKA | SLEEP; LOG; POST SLEEP; DCS; GRPB; GRPUP; OPCU*; POSTSLEEP; UNDOCK OPS; FLYAROUND/SEP; H2O*; SIMO INIT; MEAL; SIMO TERM; EXERCISE; CABT; LEH |
| STS-120 | MS1 PARAZYNSKI | SLEEP; LOG; POST SLEEP; UNDOCK OPS; FLYAROUND/SEP; POST UNDK PGSC CNFG; MEAL; OBSS HOVER MNVR; STBD WING SRVY |
| STS-120 | MS2 WILSON | SLEEP; LOG; POST SLEEP; C/L CAMR INST; UNDOCK OPS; FLYAROUND/SEP; GRPB; PWRDN; MEAL; COND; T/D; STBD WING SRVY |
| STS-120 | MS3 WHEELOCK | SLEEP; LOG; POST SLEEP; C/L CAMR INST; UNDOCK OPS; FLYAROUND/SEP; OIU*; MEAL; EMU INSTL; ♣ |
| STS-120 | MS4 NESPOLI | SLEEP; LOG; POST SLEEP; UNDOCK OPS; FLYAROUND/SEP; SSOR; DEACT; MCIU*; MEAL; OBSS HOVER MNVR; STBD WING SRVY |
| STS-120 | MS5 ANDERSON | SLEEP; LOG; POST SLEEP; P/TV03 S/U; P/TV03 UNDOCK OPS; UNDK PLBK; P/TV3; DEACT; MEAL; EMU INSTL |
| EXP 16 | ISS CDR WHITSON | SLEEP (8.5); POST SLEEP; PREP WORK; DPC; O-OHA TEST; CDRA; EXERCISE CEVIS; UNDOCK; VIDEO; LAB FWD CPA INSTALL; CBCS TARGET INST; MIDDAY-MEAL; HATCH THRML CVR; BPSMU; STOW |
| EXP 16 | FE-1 MALENCHENKO | SLEEP (8.5); POST SLEEP; PREP WORK; DPC; ORENTATION; T15K; PHOTO; ORIENTATION; LAB; EXERCISE VELO; O-OHA; TESTA; ⊕; ELEKT; MIDDAY-MEAL; PFC |
| UP | FE-2 UP TANI | SLEEP (8.5); POST SLEEP; PREP WORK; DPC; VTR CBL; EXERCISE RED; PMA2 DPRT CNFG; EWIS; LAB FWD CPA INSTALL; O-OHA TEST; PMA2; MIDDAY-MEAL; ♦; ® |

DAY/NIGHT

ORBIT 198 199 200 201 202 203 204 205 206

TDRS W -171 E -46 Z -275

ORB ATT BIAS -XLV -ZVV | -XLV +ZVV | FLYAROUND | -ZLV +YVV | STBD

SSRMS WS8

NOTES

*HTR*DEACT

*UNDOCK (12/18:54)

*DEACT ⊕C&T-RS-US COM-CNFG
*Nominal Config
*FILTER CK

♣EXERCISE
♦LAB-HATCH-CL
®PMA2 DEPRE



FLT PLN/120/FLIGHT

3

11/04/07 23:44:12 **REPLANNED**

GMT 11/05/07 (309) 16 17 18 19 20 21 22 23 11/06 01 02 03

MET Day 013 013/00 01 02 03 04 05 06 07 08 09 10 11 12

| | | | |
|---|---|---|---|
| STS-120 | FD14 CDR MELROY | ♣ / MNVR / NOSE / MNVR / PORT / PORT WING SRVY / -ZLV / -XVV / COMM2 / PRE SLEEP / NC5Δ MULT AXIS BURN / PRE SLEEP / PMC A/G / PRE SLEEP | SLEEP |
| STS-120 | PLT ZAMKA | NOSE CAP SURVEY / PORT WING SRVY / OBSS BERTH / RMS / PWDN* / PRE SLEEP / MULT AXIS BURN / PS / CREW CHOICE D/L / PRE SLEEP | SLEEP |
| STS-120 | MS1 PARAZYNSKI | STBD WING SRVY / * / EXERCISE | PRE SLEEP / SLEEP |
| STS-120 | MS2 WILSON | STBD WING SRVY / NOSE CAP SURVEY / PORT WING SRVY / OBSS BERTH / RMS / PWDN* / EXERCISE | PRE SLEEP / SLEEP |
| STS-120 | MS3 WHEELOCK | EXERCISE | PRE SLEEP / SLEEP |
| STS-120 | MS4 NESPOLI | STBD WING SRVY / NOSE CAP SURVEY / EXERCISE / LDRI PLBK | PRE SLEEP / SLEEP |
| STS-120 | MS5 ANDERSON | EXERCISE | PRE SLEEP / SLEEP |
| EXP 16 | ISS CDR WHITSON | ⊕ / TERM* / METX* / EMU CNFG / OBT-COMBO EMER-RVW / EXERCISE RED / DPC | PRE SLEEP / SLEEP (8.5) |
| EXP 16 | FE-1 MALENCHENKO | БРАС ЛЕТ / EMU CNFG / OBT / EXERCISE TVIS / СОЖ MNT / EXER / DPC | PRE SLEEP / SLEEP (8.5) |
| UP | FE-2 UP TANI | PMA2 DEPRESS / CDE / OBT-COMBO EMER-RVW / PMA2 LEAK CK / PMA2 LK CH / PPC / DPC | PRE SLEEP / SLEEP (8.5) |

DAY/NIGHT

ORBIT 206 207 208 209 210 211 212 213

TDRS W -171 E -46 Z -275

ORB ATT STBD NOSE PORT -ZLV -XVV

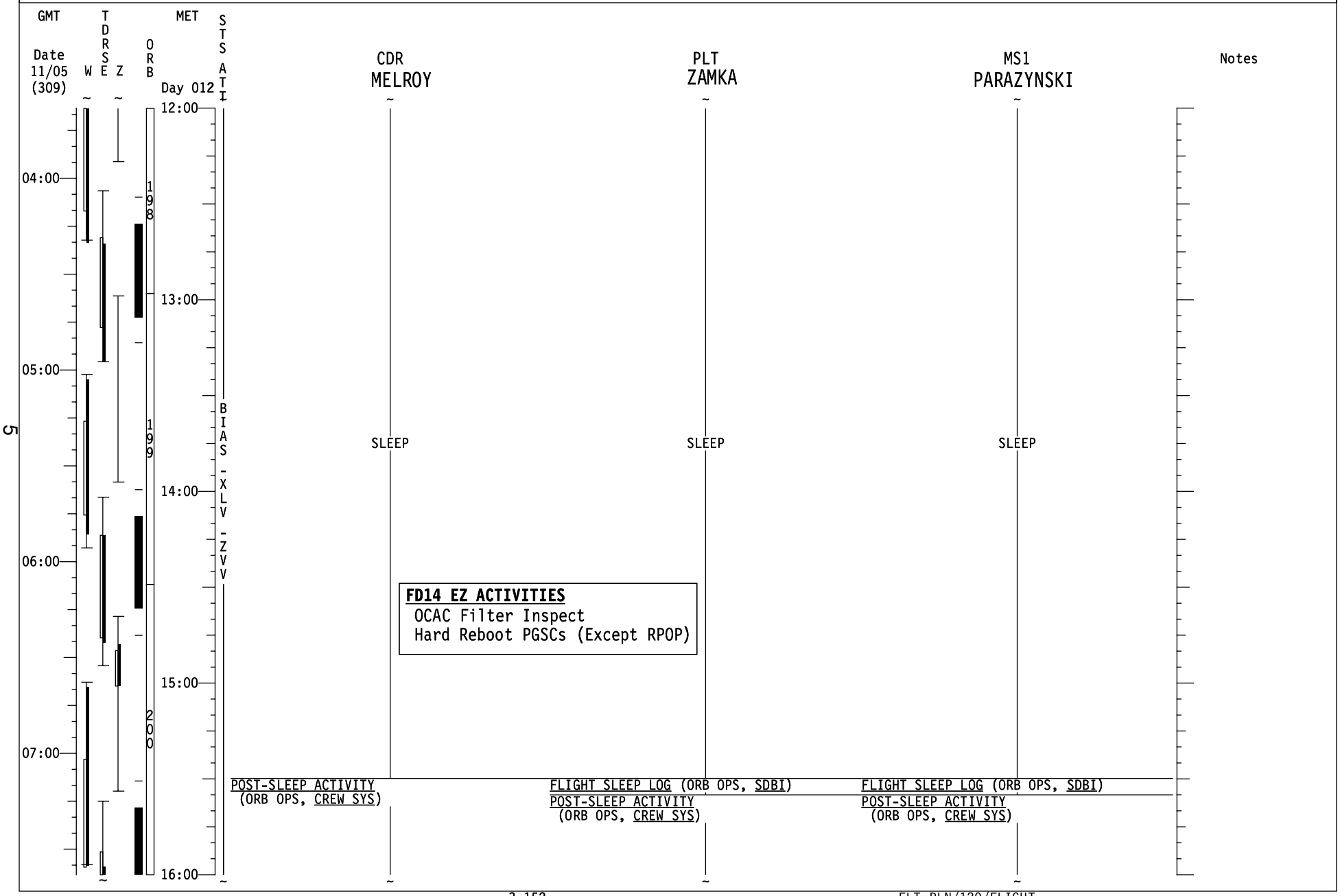
SSRMS WS8

NOTES

♣EXERCISE
⊕BPSMU STOW
*BSA *POST ISS EVA ENT PREP
*TERM
*Stow MPMs
*Stow MPMs

# STS-120 FD 14

**REPLANNED**



# STS-120 FD 14

**REPLANNED**

GMT Date 11/05 (309) | W | TDRSE | Z | ORB | MET Day 012 | STS ATI | MS2 WILSON | MS3 WHEELOCK | MS4 NESPOLI | MS5 ANDERSON | Notes

ORB: 198, 199, 200

STS ATI: BIAS-XLV-ZVV

| MS2 WILSON | MS3 WHEELOCK | MS4 NESPOLI | MS5 ANDERSON |
|---|---|---|---|
| SLEEP | SLEEP | SLEEP | SLEEP |
| FLIGHT SLEEP LOG (ORB OPS, SDBI) | FLIGHT SLEEP LOG (ORB OPS, SDBI) | FLIGHT SLEEP LOG (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) |

# STS-120 FD 14

**REPLANNED**

GMT Date 11/05 (309) | TDRS W E Z | ORB 201 202 203 | MET Day 012 | STS ATT

CDR MELROY | PLT ZAMKA | MS1 PARAZYNSKI | Notes

16:00 — BIAS -XLV -ZVV

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

A RCS Reg Reconfig (B to A)

07/08 He Press B (three) - OP (tb-OP)
A (three) - OP (tb-OP)
B (three) - CL (tb-CL)
A (three) - GPC (tb-OP)

B 06 S TRK PWR-Z-ON
GNC I/O RESET
Step 6 (In Step 6, Triple G2)

17:00

Prior to Grp B PWRUP Perform A

DATE/TIME SET FOR DCS 760 S/N 1016 Ref: MSG 122

PRIOR PWRUP GRP B (OPCL, PRIOR PWRDN) B

JNT OPS: 3.110 H/O ATT CONTROL CMG TA TO ORB A15 OPCU1,2 CONV(two) - OFF
MNVR (TRK) -XLV +ZVV (UNDOCK) R1 MN BUS TIE A - OFF (tb-OFF)
TG=2 BV=5 P=180 Y=000 OM=000 C - OFF (tb-OFF)
A12/AUTO/VERN On MCC Go, Init TRK

18:00 — -XLV +ZVV

UNDOCKING AND SEPARATION (RNDZ, UNDOCK/SEP T/L)

**< UNDOCK 18:54**

SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L)

19:00 — FLYAROUND

UPLINK
B21 Only
+ Box B1

20:00

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

7

# STS-120 FD 14

**REPLANNED**

GMT Date 11/05 (309) | W | TDRSE | Z | ORB | MET Day 012 | STS ATT

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

201 | 202 | 203

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

BIAS -XLV -ZVV | -XLV +ZVV | FLYAROUND

| MS2 WILSON | MS3 WHEELOCK | MS4 NESPOLI | MS5 ANDERSON | Notes |
|---|---|---|---|---|
| POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) | POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) | POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) | POST-SLEEP ACTIVITY (ORB OPS, CREW SYS) | |
| C/L CAMR INSTALL (PHOTO/TV, C/L CAMR) Perform Step 1 only | C/L CAMR INSTALL (PHOTO/TV, C/L CAMR) Perform Step 1 only | | P/TV03 UNDOCK (PHOTO/TV, SCENES) Perform SETUP | |
| UNDOCKING AND SEPARATION (RNDZ, UNDOCK/SEP T/L) | UNDOCKING AND SEPARATION (RNDZ, UNDOCK/SEP T/L) | UNDOCKING AND SEPARATION (RNDZ, UNDOCK/SEP T/L) | P/TV03 UNDOCK (PHOTO/TV, SCENES) Perform OPS | |
| **< UNDOCK 18:54** | | | | |
| SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L) | SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L) | SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L) | | |

# STS-120 FD 14

**REPLANNED**

GMT Date 11/05 (309) | W | TDRSE | Z | ORB | MET Day 012 | STS ATT

| R3 CDR MELROY | R2,R1 PLT ZAMKA | R1 MS1 PARAZYNSKI | Notes |
|---|---|---|---|
| SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L) **<SEP1, 20:09** **<SEP2, 20:37** | SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L) | SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L) | |
| MNVR (TRK) -ZLV +YVV (H2O DUMP) TG=2 BV=3 OM=270 A1/AUTO/VERN Init TRK<br>PRIOR PWRDN GRP B (OPCL, PRIOR PWRDN) Steps 5,6,9,10,12 (In step 6, Single G2) (In step 12, IMU 1 STBY -ITEM 21 EXEC) | NOMINAL H2O CONFIG (ORG OPS, ECLS) TOPPING FES STARTUP not re'd. On MCC go, L1 FLASH EVAP CNTLR PRI A - ON<br>SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Initiate Supply/Waste Dump Ref: MSG 166, Item 3 | POST UNDOCK PGSC CONFIG Configure PGSCs per Usage Chart. For RPOP2: Connect WLE receiver to COM 1, then start WLES application in backup mode. | UPLINK B21 + Mask |
| MEAL | MEAL | MEAL | |
| HEATER RECONFIG-CONFIG B (ORB OPS, EPS) Ref: MSG 166, Item 1<br>A12 APU HTR GAS GEN/FUEL PUMP 2 - B AUTO<br>IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)<br>MNVR (TRK) BIAS +YSI (STBD SURVEY) TG=4 BV=5 P=000 Y=040 OM=035 A14/AUTO/VERN, On MCC Go, Init TRK | SUPPLY/WASTE WATER DUMP (ORB OPS, ECLS) Terminate Simo Dump | OBSS MANUEVER TO HOVER Ref. MSG 168 | |
| EXERCISE | EXERCISE | OBSS LDRI/IDC RCC SURVEY-STBD (PDRS, NOMINAL) Disregard "If Late Inspection" box on p.7-15 Perform Steps 5a,5b & 5d Ref: MSG 169 (Page 7-16 changeout) | |
| | CABIN TEMP CONTROLLER RECNFG 2(1) (ORB OPS, ECLS)<br>M069M LEH O2 8 vlv - OP | | |

Time scale: 12:00, 13:00, 14:00, 15:00; 20:00, 21:00, 22:00, 23:00, 00:00

STS ATT: -ZLV +YVV; STBD

ORB: 203, 204, 205, 206

# STS-120 FD 14

**REPLANNED**

GMT Date 11/05 (309) | W | TDRSE | Z | ORB | MET Day 012 | STS ATT

| Time | R2,R1 MS2 WILSON | MS3 WHEELOCK | R2,R1 MS4 NESPOLI | MS5 ANDERSON | Notes |
|---|---|---|---|---|---|
| 20:00 | SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L) | SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L) | SEP/FLYAROUND (RNDZ, UNDOCK/SEP T/L) | P/TV03 UNDOCK (PHOTO/TV, SCENES) Perform OPS | |
| | | | | PLAYBACK (DIGITAL) (PHOTO/TV, CUE CARD) UNDOCK, KU TDRE (20:30-21:03) | |
| | | SSV OUTRATE - 4 SSP1 OIU PWR - OIU 1 OFF, √tb-bp Expect S62 BCE BYP PSP1 msg. | JNT OPS: 6.106 SSOR DEACTIVATION | | UPLINK TFL 188 |
| 21:00 | PRIOR PWRDN GRP B (OPCL, PRIOR PWRDN) Steps 5,6,9,10,12 (In step 6, Single G2) (In step 12, IMU 1 STBY -ITEM 21 EXEC) | | L17 Check MCIU filter screen | P/TV03 UNDOCK (DEACT) (PHOTO/TV, SCENES) Deact | |
| | MEAL | MEAL | MEAL | MEAL | |
| 22:00 | SHUTTLE CONDENSATE COLLECTION (ORB OPS, ECLS) Perform TEARDOWN Ref: MSG 166, Item 2 | EMU INSTALLATION (EVA, AIRLOCK CONFIG) | OBSS MANUEVER TO HOVER Ref. MSG 168 | EMU INSTALLATION (EVA, AIRLOCK CONFIG) | |
| 23:00 | OBSS LDRI/IDC RCC SURVEY-STBD (PDRS, NOMINAL) Disregard "If Late Inspection" box on p.7-15 Perform Steps 5a,5b & 5d Ref: MSG 169 (Page 7-16 changeout) | | OBSS LDRI/IDC RCC SURVEY-STBD (PDRS, NOMINAL) Disregard "If Late Inspection" box on p.7-15 Perform Steps 5a,5b & 5d Ref: MSG 169 (Page 7-16 changeout) | | |
| | | EXERCISE | | | |
| 00:00 | | | | | |

Time scale: 12:00, 13:00, 14:00, 15:00

ORB: 203, 204, 205, 206

STS ATT: -ZLV +YVV, STBD

# STS-120 FD 14

**REPLANNED**

GMT Date 11/05 (309) | W | TDRSE | Z | ORB | MET Day 013 | STS ATT

## R3 CDR MELROY

EXERCISE

MNVR (TRK) BIAS +XSI (NOSE CAP SURVEY)
TG=4 BV=5 P=330 Y=000 OM=073
A14/AUTO/VERN, On MCC Go, Init TRK

MNVR (TRK) BIAS -YSI (PORT SURVEY)
TG=4 BV=5 P=000 Y=323 OM=250
A14/AUTO/VERN,On MCC Go,Init TRK

OBSS LDRI/IDC RCC SURVEY-PORT
(PDRS, NOMINAL)

## R2,R1 PLT ZAMKA

OBSS LDRI/IDC RCC SURVEY-NOSE CAP
(PDRS, NOMINAL)

OBSS LDRI/IDC RCC SURVEY-PORT
(PDRS, NOMINAL)

OBSS BERTH
(PDRS, NOMINAL)
Record Camera D

## R1 MS1 PARAZYNSKI

OBSS LDRI/IDC RCC SURVEY-STBD
(PDRS, NOMINAL)
Disregard "If Late Inspection"
box on p.7-15
Perform Steps 5a,5b & 5d
Ref: MSG 169 (Page 7-16 changeout)

POST ISS EVA ENT PREP
(EVA, POST EVA ENT PREP)
Inner Hatch Equal vlv (two) - NORM, install caps
* If outer hatch leaking or intergrity suspect: *
* Equal vlv(two) -OFF , install caps *

EXERCISE

Notes

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

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

206 207 208

STBD NOSE PORT

# STS-120 FD 14

**REPLANNED**

GMT Date 11/05 (309) | W | TDRSE | Z | ORB | MET Day 013 | STS ATT

**R2,R1** MS2 WILSON | MS3 WHEELOCK | **R2,R1** MS4 NESPOLI | MS5 ANDERSON | Notes

16:00 | 17:00 | 18:00 | 19:00

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

206 | 207 | 208

STBD | NOSE | PORT

**R2,R1 MS2 WILSON**

OBSS LDRI/IDC RCC SURVEY-STBD
(PDRS, NOMINAL)
Disregard "If Late Inspection"
box on p.7-15
Perform Steps 5a,5b & 5d
Ref: MSG 169 (Page 7-16 changeout)

OBSS LDRI/IDC RCC SURVEY-NOSE CAP
(PDRS, NOMINAL)

OBSS LDRI/IDC RCC SURVEY-PORT
(PDRS, NOMINAL)

OBSS BERTH
(PDRS, NOMINAL)
Record Camera D

**MS3 WHEELOCK**

EXERCISE

**R2,R1 MS4 NESPOLI**

OBSS LDRI/IDC RCC SURVEY-STBD
(PDRS, NOMINAL)
Disregard "If Late Inspection"
box on p.7-15
Perform Steps 5a,5b & 5d
Ref: MSG 169 (Page 7-16 changeout)

OBSS LDRI/IDC RCC SURVEY-NOSE CAP
(PDRS, NOMINAL)

EXERCISE

**MS5 ANDERSON**

EXERCISE

# STS-120 FD 14

**REPLANNED**

GMT Date 11/05 (309) | TDRS W E Z | ORB | MET Day 013 | STS ATT

**R3** CDR MELROY | **R2,R1** PLT ZAMKA | **R1** MS1 PARAZYNSKI | Notes

04:00
- MNVR (TRK) -ZLV -XVV
  TG=2 BV=3 OM=0
  A1/AUTO/VERN Init TRK
- COMM STRING 1 C/O (PART B)
  (ORB OPS, COMM/INST)
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)

RMS PWRDN (PDRS, RMS PWRDN)
Stow MPMs
PORT RMS HTR B-AUTO, A-OFF

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
√Hum Seps for H2O Accumulation

20:00

209

05:00
- ON-ORBIT MULTI-AXIS RCS BURN
  (ORB OPS, RCS)
- < NC5 TIG (##:##)
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)

ON-ORBIT MULTI-AXIS RCS BURN
(ORB OPS, RCS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

21:00

-ZLV -XVV

06:00
- PRIVATE MEDICAL CONFERENCE
  O6 √UHF MODE - OFF

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PLAYBACK (DIGITAL)
(PHOTO/TV, CUE CARD)
Crew Choice
KU TDRW (05:43-06:40)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

22:00

210

07:00
- PRE-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)

23:00

211

08:00

**Crew Wake at 13/16:00**

13

# STS-120 FD 14

**REPLANNED**

GMT Date 11/05 (309) | W | TDRSE | Z | ORB | MET Day 013 | STS ATT

**R2,R1** MS2 WILSON | MS3 WHEELOCK | **R2,R1** MS4 NESPOLI | MS5 ANDERSON | Notes

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

ORB: 209, 210, 211

04:00
05:00
06:00
07:00
08:00

STS ATT: -ZLV -XVV

RMS PWRDN (PDRS, RMS PWRDN)
Stow MPMs
PORT RMS HTR B-AUTO, A-OFF

EXERCISE

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PLAYBACK (DIGITAL)
(PHOTO/TV, CUE CARD)
LDRI SURVEYS
TDRW (04:03-05:00)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

**Crew Wake at 13/16:00**

Good Morning Discovery!!!

What can we say except have a great undocking today!

YOUR CURRENT ORBIT IS: 188 X 181 NM

NOTAMS:

EDW – RWY 15/33 ELS ONLY. RWY 18L – CLOSED.
NOR – GREEN.
YHZ – DME CH 98 OUT OF SERVICE.
WAL – RWY 04/22 CLOSED.
NTU – RWY 23L CLOSED 1100 - 2300 MON THRU FRI.
RWY 32L/14R CLOSED.
RWY 05R FIRST 3000' CLOSED, 8997' REMAINING.
NKT – FIRST 1000' OF RWY 23L & 32R CLOSED.
LAJ – REQUIRES 30 MIN. NOTICE TO CLEAR RWY 2300-0900Z DAILY EXCEPT SUNDAY.
FFA – NOT SUPPORTED.
JDG – DIEGO GARCIA: CLOSED 1800 - 0100Z.
WAK – UNUSABLE.
AMB – UNUSABLE.
IKF – NO AGREEMENT FOR USE.
AWG – NO AGREEMENT FOR USE.
BEN – POLITICALLY NOT RECOMMENDED/NOT SUPPORTED.

NEXT 2 PLS OPPORTUNITIES:

EDW04 ORB 207 – 13/02:18 (SCT250 060/06P12)
EDW22 ORB 223 – 14/02:42 (SCT250 060/06P12)

OMS TANK FAIL CAPABILITY:

L OMS FAIL: NO R OMS FAIL: NO

LEAKING OMS PRPLT BURN:

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

OMS QUANTITIES(%)

L OMS OX = 33.5 R OMS OX = 33.5
FU = 33.1 FU = 33.4

SUBTRACT I'CNCT COUNTER FOR CURRENT OMS QUANTITIES

DELTA V AVAILABLE:

| | |
|---|---|
| OMS | 335 FPS |
| ARCS (TOTAL ABOVE QTY1) | 42 FPS |
| TOTAL IN THE AFT | 377 FPS |
| | |
| ARCS (TOTAL ABOVE QTY2) | 76 FPS |
| FRCS (ABOVE QTY 1) | 0 FPS |
| | |
| AFT QTY 1 | 66 % |
| AFT QTY 2 | 28 % |

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

## OBSS MANEUVER TO HOVER

1. SETUP

NOTE
Assumed starting posn is UNDOCK

SM 94 PDRS CONTROL
√PL ID, ITEM 3: 2
√INIT ID, ITEM 24: 2

A7U CCTV – config as reqd

2. MNVR TO OBSS HOVER

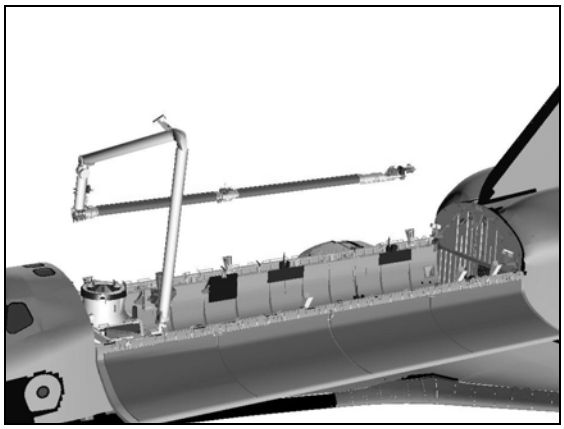
RHC RATE – as reqd (VERN within 10 ft)
BRAKES – OFF (tb-OFF)
MODE – SINGLE, ENTER

Mnvr to OBSS HOVER posn:

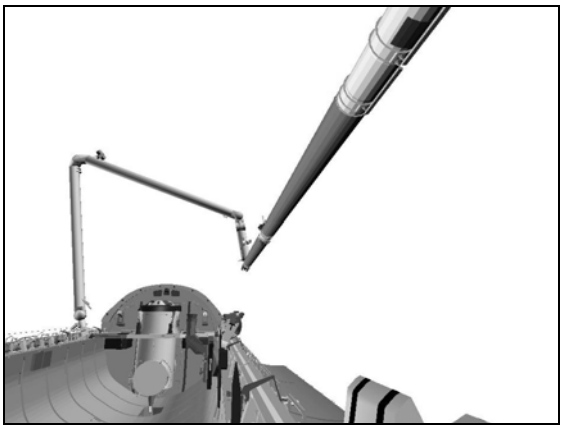
| | | SY | SP | EP | WP | WY | WR | |
|---|---|---|---|---|---|---|---|---|
| Undock | | +25.8 | +66.3 | -49.0 | -85.9 | +10.7 | -100.7 | |
| 1: | SP + | | +80.2 | | | | | |
| 2: | WY – | | | | | 0.0 | | |
| 3: | SY – | -89.9 | | | | | | |
| 4: | WP + | | | | -20.0 | | | |
| 5: | WR – | | | | | | -250.1 | |
| 6: | WP – | | | | -59.8 | | | |
| 7: | EP – | | | -118.8 | | | | |
| OBSS Hover | | -89.9 | +80.2 | -118.8 | -59.8 | 0.0 | -250.1 | |
| | | X | Y | Z | PITCH | YAW | ROLL | PL ID |
| | | -1271 | +134 | -532 | 0 | 0 | 11 | 2 |

BRAKES – ON (tb-ON)

DAP: A14/AUTO/VERN(FREE)



**BIRD'S EYE**



**CCTV C (10,15)**

3. SENSOR SETUP

R12(VPU) Green Jumper – LDRI/ITVC

A15 APCU 2 CONV – OFF
wait 10 seconds
APCU 2 CONV – ON

Perform LCC ACTIVATION (LCS Cue Card, P/TV)

A7U DTV ← PL2

CAMR CMD PAN/TILT – HI RATE
PAN – L (to hard stop)
TILT – UP (to hard stop)
PAN/TILT – RESET, HI RATE (LO within 10°)
PAN: +103 (right)
TILT: -260 (down)

Go to OBSS LDRI/IDC RCC Survey – STBD (PDRS, NOMINAL)

b. LCS Characterization

Allow arm motion to damp-out for 30 sec, then:

LCC/PGSC
Minimize, do not close IDC software
Maximize LCC software
sel 'Scanning' 'Detailed Area Scan'
sel – Area Scan 11
**cmd** Start Area Scan (verify Scan Status: Complete)

sel – Area Scan 12
**cmd** Start Area Scan (verify Scan Status: Complete)
sel – Area Scan 13
**cmd** Start Area Scan (verify Scan Status: Complete)

c. IDC Characterization

LCC/PGSC
Minimize, do not close LCC software
Maximize IDC software
sel 'RCC-Day' or 'RCC-Night' from drop-down menu per real-time conditions
sel 'Acquire Set'
√'Acquiring Set' displayed
√'Waiting for User Command' displayed after set

d. Reconfigure for Survey Activities

SM 94 PDRS CONTROL
START PT – ITEM 17 +1 3 EXEC

BRAKES – OFF (tb-OFF)
MODE – AUTO 1, ENTER (READY lt on)

* If unable to enter AUTO mode (no AUTO READY lt): *
* √POR coordinates and adjust as reqd *

SM 169 PDRS STATUS
Monitor ACAS progress

A7U
√DTV ← PL2
√VIDEO OUT – not DTV
√VIDEO IN – not PL2 ← *WAIT FOR R3*

L10(VTR)
REC pb – push, hold
PLAY pb – push, simo (red ●)

6. STBD LDRI ACAS, CONTINUE WITH SECTION 2 AND 3

| Section 2 & 3 Clearance Views | Cameras |
|---|---|
| OBSS-to-PLBD | ELBOW[1], D[2], RSC, C[3] |
| OBSS-to-Wing | ELBOW[1], D[2], RSC, C[3] |
| RMS-to_Orbiter | C, A, ELBOW[4] |
| [1] No good after X ~ -1120(pt 14)<br>[2] No good between X ~ -962(pt 16) and X ~ -1014(pt 17) | [3] Good after X ~ -1024(pt 15)<br>[4] Good after X ~ -1041(pt 19) |

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FD 13 MMT Summary

The MMT met briefly today to review mission progress, systems status, and take a first look at EOM weather. The MMT was polled for tomorrow's undocking and all members were GO. The ISS program was very appreciative of the extraordinary efforts and achievements accomplished on this flight. The ISS Program also has laid out a preliminary timeline that supports launch of Atlantis as scheduled in December, and the Shuttle program reiterated the plans for the December 6 launch of STS-122/1E.

**OBSS Sensors** - Today's checkouts confirmed that the LDRI, IDC, ITVC and PTU are fully functional and ready to support tomorrow's late inspection. The LCS hardware appears nominal, and the unexpected indications from the LCS checkout are likely associated with the software and not thermally related. If there is time tomorrow, the LCS checkout steps, which are part of the STBD survey procedures, will be performed to gather more data on the status of the LCS.

**Landing Weather** - The MMT took a quick look at EOM KSC weather. A dry front is predicted to move through KSC about 12 hours before landing resulting in strong head winds on the 33 approach but still within Flight Rule limits. A full entry brief will be provided to the MMT tomorrow including the complete weather forecast.