# STS-119 / 15A

## *FD 02 Execute Package*

| MSG | Page(s) | Title |
|---|---|---|
| 003A | 1 - 13 | FD02 Flight Plan Revision **(pdf)** |
| 004A | 14 - 15 | FD02 Mission Summary **(pdf)** |
| 005 | 16 | FD02 Transfer Prep **(pdf)** |
| 006 | 17 - 23 | T0 Umbilical Area Inspection Procedure **(pdf)** |

***Approved by FAO:*** *Terry Clancy*

*Last Updated: Mar 16 2009 12:59PM GMT*
***JEDI*** *(**J**oint **E**xecute package **D**evelopment and **I**ntegration), v2.04.0003*

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MSG INDEX

| MSG NO. | TITLE |
|---|---|
| 003 | FD02 Flight Plan Revision |
| 004 | FD02 Mission Summary |
| 005 | FD02 Transfer Prep Message |
| 006 | T0 Umbilical Area Inspection Procedure |

1. Cryo Config

   For today's cryo config, O2 and H2 Tanks 1 and 5 will be active.

   **R1 O2,H2 MANF VLV TK1 (two) - OP (tb-OP)**
   **TK3 HTRS A,B (four) - OFF**

   **A15 CRYO TK5 HTRS O2,H2 A,B (four) - AUTO**

2. T0 Umbilical Area Inspection

   MSG006 contains the T0 Umbilical Area Inspection procedures. You will break out of the generic OBSS survey procedures twice to inspect the T0 area during both the Port and Stbd surveys. This will occur after the Stbd survey step 2 is complete (page 7-11), and after the Port survey step 5 is complete (page 7-41).

3. WLES Troubleshooting on STS-6 PGSC

   We received local timeouts on the WLES (STS-6) PGSC, and swapped to RPOP2 (STS-5) as the primary PGSC overnight. To assist with the recovery of WLES (STS-6) as our primary PGSC, please perform the following:

   A. Verify line of sight (LRU to both CRUs).
   B. Reseat LRU (completely disconnect/reconnect LRU on serial port).
   C. Click "Query Receiver" in GUI System Settings page.
   D. Check if both CRU times are updating in GUI Unit List page.
   E. Notify MCC results

4. AVIU Config for FD2 Inspections

   Due to the failure of the Flight Deck AVIU, the middeck AVIU is currently in use on the Flight Deck. For FD2 Inspections today we would like you to reconfigure that AVIU back to the middeck in order to process the LCS video for downlink.

5. AVIU Troubleshooting

   MS3:

   To aid in troubleshooting, please report the status of these items on the suspect AVIU:

   √Green lt illuminated (when power on)
   √SYNC/VIDEO – VIDEO
   √HI-Z/75 – 75
   √PWR SELECT – LO

6. REPLACE PAGES 2-4 THROUGH 2-5 and 3-8 THROUGH 3-17.

**REPLANNED**

GMT 03/16/09 (075) — 12 13 14 15 16 17 18 19 20 21 22 23

MET Day 000 — 12 13 14 15 16 17 18 19 20 21 22 23 001/00

STS-119 2

**FD02**

| | |
|---|---|
| CDR ARCHAMBAULT | SLEEP; POST SLEEP; G2 EXP; POST SLEEP; NC2^ OMS BURN; -ZLV; -XVV; POST SLEEP; MNVR; STBD; PO/DB@; FCPRG%; CRYO O2 SNSR CK; MNVR; NOSE; NOSE CAP SURVEY; IMU; MEAL; MNVR; PORT; PORT WING SURVEY |
| PLT ANTONELLI | SLEEP; POST SLEEP; ICNCT@; OMS BURN; MMU2*; OBSS UNBERTH; STBD WING SURVEY; NOSE CAP SURVEY; MEAL; O2 INIT; O2 TERM |
| MS1 ACABA | SLEEP; POST SLEEP; OBSS UNBERTH; STBD WING SURVEY; MEAL; EVA PREP FOR XFER |
| MS2 SWANSON | SLEEP; DRYSLV; DRYSLV; POST SLEEP; DRYSLV; POST SLEEP; WLES+; EMU C/O PREP; EMU C/O; DRYSLV; CWC S/U; MEAL; EVA PREP FOR XFER |
| MS3 ARNOLD | SLEEP; DRYSLV; DRYSLV; POST SLEEP; DRYSLV; POST SLEEP; AMVDIDUK#%; EMU C/O PREP; EMU C/O; DRYSLV; ERG SETUP; MEAL; EVA PREP FOR XFER |
| MS4 PHILLIPS | SLEEP; LOG; DRYSLV; DRYSLV; POST SLEEP; DRYSLV; POST SLEEP; STBD WING SURVEY; DRYSLV; ERG SETUP; GAP ACT1; MEAL; PORT WING SURVEY |
| FE-2 EXP18 WAKATA | SLEEP; POST SLEEP; EMU C/O; NOSE CAP SURVEY; MEAL; PORT WING SURVEY |

DAY/NIGHT

ORBIT: 9 10 11 12 13 14 15 16 17

TDRS: W E Z

ORB ATT: -ZLV -XVV; NC2; -ZLV -XVV; BIAS +YSI; BIAS +XSI; BIAS -YSI

NOTES:
*OFF
+TROUBLESHOOT
%MANUAL
@I'CNCT L OMS TO RCS
#CNTLR SWAP
%STATUS CK
@B POD HTR RECONFIG
#RECONFIG

**REPLANNED**

GMT 03/16/09 (075) 03/17 01 02 03 04 05 06 07 08 09 10 11

MET Day 001 001/00 01 02 03 04 05 06 07 08 09 10 11 12

**FD02**

| STS-119 | | |
|---|---|---|
| CDR ARCHAMBAULT | PORT WING SURVEY; -ZLV -XVV; LDRI D/L; PRE SLEEP; PMC A/G; PRE SLEEP; NC3^ +X RCS BURN; G2 CON; MNVR%; PRE SLEEP | SLEEP |
| PLT ANTONELLI | ICNCT+; OBSS BERTH; FCMS OPS; MOP; PRE SLEEP; +X RCS BURN; PRE SLEEP | SLEEP |
| MS1 ACABA | FILTER CLEANING; WLES; P/TV09; GLACIER; MUS; MOP; PRE SLEEP | SLEEP |
| MS2 SWANSON | DRY SLV; C/L CMR INSTL; ODS RING EXT; RNDZ TOOLS C/O; OCA%; MOP; PRE SLEEP; DRY SLV | SLEEP |
| MS3 ARNOLD | DRY SLV; OMS POD SRVY; C/L CMR INSTL; ODS RING EXT; MOP; PRE SLP; CREW@; PRE SLEEP; MDDK#; PRE SLEEP; DRY SLV | SLEEP |
| MS4 PHILLIPS | PORT WING SURVEY; DRY SLV; TRANSFER PREP; RNDZ TOOLS C/O; MUS; PRE SLEEP; DRY SLV | SLEEP |
| FE-2 EXP18 WAKATA | PORT WING SURVEY; OBSS BERTH; GLCR*; DOME GENE STS OPS; PRE SLEEP | SLEEP |

DAY/NIGHT

ORBIT 17 18 19 20 21 22 23 24 25

TDRS W E Z

ORB ATT -ZLV -XVV NC3 -ZLV -XVV

NOTES
+TK SWITCH *PREP #STATUS CK %-ZLV -XVV & FUTURE
%RATE RECONFIG
@CHOICE D/L



3

# STS-119 FD (02)

GMT Date 03/16 (075) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 000 | STS ATT

CDR ARCHAMBAULT | PLT ANTONELLI | MS1 ACABA | NOTES

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

14 9 15 10 16 11

-ZLV -XVV

SLEEP | SLEEP | SLEEP

**FD02 EZ ACTIVITIES:**
√OCAC FILTER
TEPC (STATUS CHECK)
(ORB OPS, CREW SYS)
HARD REBOOT ALL PGSCs EXCEPT:
STS-6(WLES) & STS-5(RPOP2)

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
√HUM SEP FOR H2O ACCUMULATION

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

POST-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

# STS-119 FD (02)

GMT Date 03/16 (075) | W | TDRSS E | Z | D/N | DORB 14 15 16 | DORB 9 10 11 | MET Day 000 | STS ATT -ZLV -XVV

MS2 SWANSON | MS3 ARNOLD | MS4 PHILLIPS | FE-2 (UP) WAKATA | NOTES

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

SLEEP

LIQUID SLVA SAMPLE(ORB OPS,SDBI)
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)

LIQUID SLVA SAMPLE(ORB OPS,SDBI)
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)

FLIGHT SLEEP LOG (ORB OPS, SDBI)
LIQUID SLVA SAMPLE(ORB OPS,SDBI)
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)

POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)

# STS-119 FD (02)

GMT Date 03/16 (075) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 000 | STS ATT

## CDR ARCHAMBAULT

- G2 SET EXPANSION (ORB OPS,DPS)
  NBAT: 1212
- POST-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
  √HUM SEP FOR H2O ACCUMULATION
- ON-ORBIT OMS BURN
  (ORB OPS, OMS)
- < NC2 TIG (16:59)
- MNVR (TRK) -ZLV -XVV
  TG=2 BV=3 OM=0
  A1/AUTO/VERN, Init TRK
- POST-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
- MNVR (TRK) BIAS +YSI (Stbd Survey)
  TG=4 BV=5 P=0 Y=40 OM=325
  A14/AUTO/VERN,OBSS UNBERTH Complete, Init TRK
- RCS/OMS POD HTR RECONFIG [A]
  R2 BLR CNTLR/HTR(three) -B
- FUEL CELL PURGE - MANUAL (ORB OPS, EPS)
  (Note: In Step 2, FC3 FLOW O2,H2 is not valid)
- CRYO O2 TK HTR SNSR CK
  (ORB OPS, EPS)

## PLT ANTONELLI

- POST-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
- I'CNCT: L OMS TO RCS (ORB PKT, RCS)
- ON-ORBIT OMS BURN
  (ORB OPS, OMS)
- O15 MMU 2 - OFF
- OBSS UNBERTH
  (PDRS, OBSS OPERATIONS)
- OBSS LDRI/IDC RCC SURVEY - STBD
  (PDRS, OBSS OPERATIONS)
  Ref. MSG 003, Item 2
  Ref. MSG 006

## MS1 ACABA

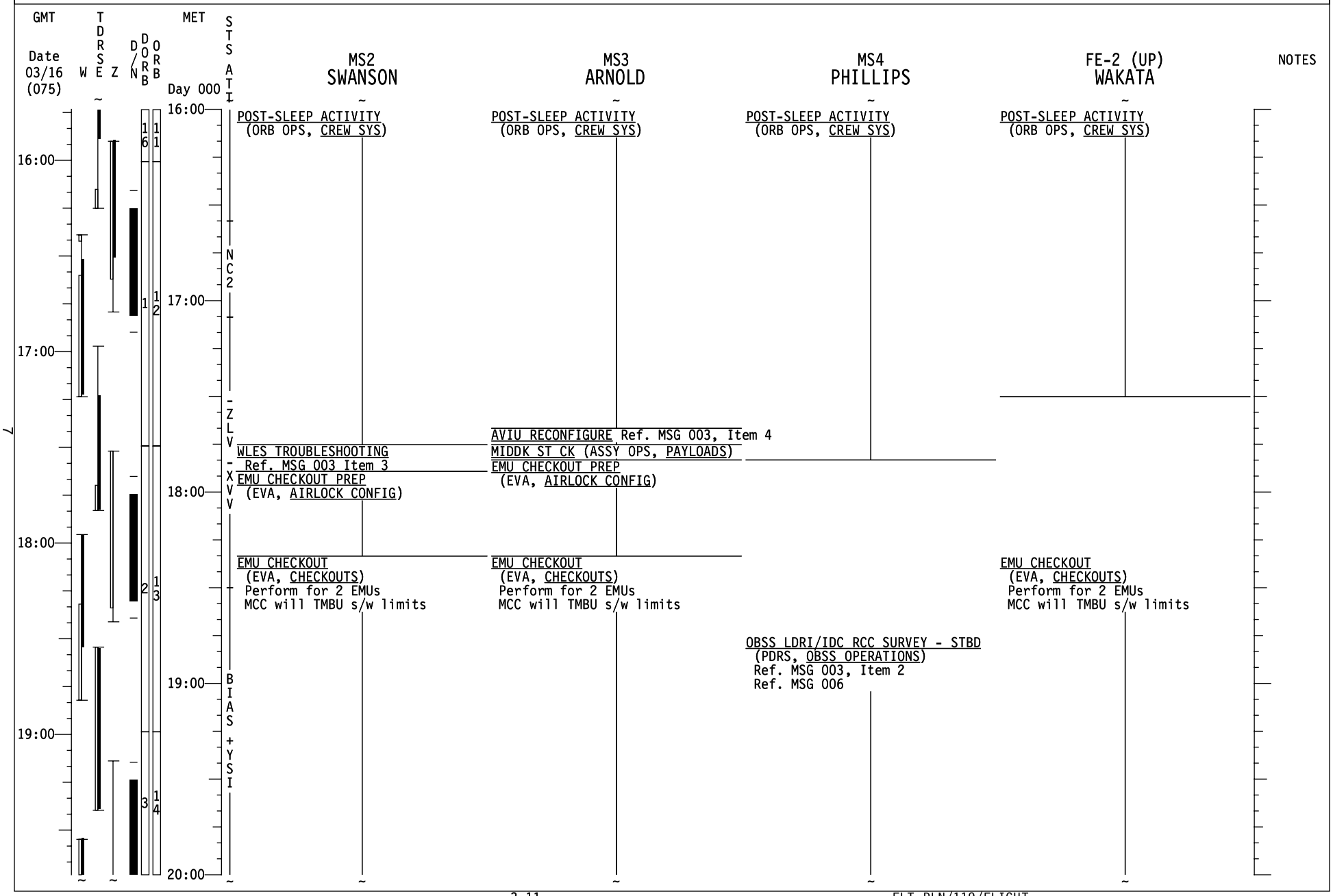
- POST-SLEEP ACTIVITY
  (ORB OPS, CREW SYS)
- OBSS UNBERTH
  (PDRS, OBSS OPERATIONS)
- OBSS LDRI/IDC RCC SURVEY - STBD
  (PDRS, OBSS OPERATIONS)
  Ref. MSG 003, Item 2
  Ref. MSG 006

## NOTES

- UPDATE ORBITAL MNVR PAD

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

# STS-119 FD (02)


GMT
Date 03/16 (075)
W
TDRSE
Z
D/N
DORB
ORB
MET
Day 000
STS ATT
16:00
17:00
18:00
19:00
20:00
NC2
-ZLV
-XVV
BIAS +YSI
MS2 SWANSON
MS3 ARNOLD
MS4 PHILLIPS
FE-2 (UP) WAKATA
NOTES
POST-SLEEP ACTIVITY (ORB OPS, CREW SYS)
WLES TROUBLESHOOTING Ref. MSG 003 Item 3
EMU CHECKOUT PREP (EVA, AIRLOCK CONFIG)
EMU CHECKOUT (EVA, CHECKOUTS) Perform for 2 EMUs MCC will TMBU s/w limits
AVIU RECONFIGURE Ref. MSG 003, Item 4
MIDDK ST CK (ASSY OPS, PAYLOADS)
OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS) Ref. MSG 003, Item 2 Ref. MSG 006

# STS-119 FD (02)

GMT Date 03/16 (075) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 000 | STS ATT

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

3 4 5 6 | 14 15 16 17

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

BIAS +XSI

BIAS -YSI

## CDR ARCHAMBAULT

MNVR (TRK) BIAS +XSI (Nose Cap Survey)
TG=4 BV=5 P=330 Y=0 OM=190
A14/AUTO/VERN,SURVEY STBD Cmplt, Init TRK

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

IMU STAR OF OPPTY ALIGN (ORB OPS, GNC)

MEAL

MNVR (TRK) BIAS -YSI (Port Survey)
TG=4 BV=5 P=0 Y=323 OM=195
A14/AUTO/VERN, RCC SURVEY-PORT Step 3,
Init TRK

OBSS LDRI/IDC RCC SURVEY-PORT
(PDRS, OBSS OPERATIONS)
Ref. MSG 003, Item 2
Ref. MSG 006

## PLT ANTONELLI

OBSS LDRI/IDC RCC SURVEY - STBD
(PDRS, OBSS OPERATIONS)
Ref. MSG 003, Item 2
Ref. MSG 006

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

MEAL

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

O2 REPRESS TERM on MCC GO
C5 DIRECT O2 vlv - CL
OCAC PWR - ON

## MS1 ACABA

OBSS LDRI/IDC RCC SURVEY - STBD
(PDRS, OBSS OPERATIONS)
Ref. MSG 003, Item 2
Ref. MSG 006

MEAL

EVA PREP FOR TRANSFER TO ISS
(EVA, AIRLOCK CONFIG)

NOTES

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# STS-119 FD (02)

GMT Date 03/16 (075) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 000 | STS ATT

| MS2 SWANSON | MS3 ARNOLD | MS4 PHILLIPS | FE-2 (UP) WAKATA | NOTES |
|---|---|---|---|---|
| EMU CHECKOUT (EVA, CHECKOUTS) Perform for 2 EMUs MCC will TMBU s/w limits | EMU CHECKOUT (EVA, CHECKOUTS) Perform for 2 EMUs MCC will TMBU s/w limits | OBSS LDRI/IDC RCC SURVEY - STBD (PDRS, OBSS OPERATIONS) Ref. MSG 003, Item 2 Ref. MSG 006 | EMU CHECKOUT (EVA, CHECKOUTS) Perform for 2 EMUs MCC will TMBU s/w limits | |
| DRY SALIVA CLCT(ORB OPS,SDBI) | DRY SALIVA CLCT(ORB OPS,SDBI) | DRY SALIVA CLCT(ORB OPS,SDBI) | | |
| SHUTTLE/ISS H2O CNTR FILL (ORB OPS, ECLS) Perform EQUIP PREP and WATER TRANSFER HOSE PURGE Sample/Purge Kit is stowed in Bag D Ref. Transfer List: Resupply Item 12.3 | CYCLE ERGOMETER OPS (ORB OPS, CREW SYS) Perform ERGOMETER SETUP | CYCLE ERGOMETER OPS (ORB OPS, CREW SYS) Perform ERGOMETER SETUP | OBSS LDRI-IDC RCC SURVEY-NOSE CAP (PDRS, OBSS OPERATIONS) | |
| | | NLP VACCINE-3 ACTIVATION (ASSY OPS,PAYLOADS) Activate GAPs 1-8 | | |
| MEAL | MEAL | MEAL | MEAL | |
| EVA PREP FOR TRANSFER TO ISS (EVA, AIRLOCK CONFIG) | EVA PREP FOR TRANSFER TO ISS (EVA, AIRLOCK CONFIG) | OBSS LDRI/IDC RCC SURVEY-PORT (PDRS, OBSS OPERATIONS) Ref. MSG 003, Item 2 Ref. MSG 006 | OBSS LDRI/IDC RCC SURVEY-PORT (PDRS, OBSS OPERATIONS) Ref. MSG 003, Item 2 Ref. MSG 006 | |

Time scale: 20:00, 21:00, 22:00, 23:00, 00:00

STS ATT: BIAS +XSI; BIAS -YSI

Sample: 3, 4, 5, 6; 14, 15, 16, 17

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# STS-119 FD (02)

GMT Date 03/16 (075) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 001 | STS ATT

CDR ARCHAMBAULT | PLT ANTONELLI | MS1 ACABA | NOTES

00:00 — OBSS LDRI/IDC RCC SURVEY-PORT
(PDRS, OBSS OPERATIONS)
Ref. MSG 003, Item 2
Ref. MSG 006

I'CNCT TK SWITCH: FROM L TO R OMS FEED (ORB PKT, RCS)

MNVR (TRK) -ZLV -XVV
TG=2 BV=3 OM=0
A14/AUTO/VERN, RCC SURVEY-PORT
Step 10 complete, Init TRK

OBSS BERTH
(PDRS, OBSS OPERATIONS)

01:00 — PLAYBACK (DIGITAL)
(PHOTO/TV, CUE CARD)
LDRI SURVEYS
KU TDRE (01:09-02:02)

FC MONITORING SYS (FCMS) OPS
(ORB OPS, EPS)

FILTER CLEANING
(IFM, SCHEDULED MAINTENANCE)

-ZLV

02:00 — PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

-XVV

MOP (ASSY OPS, PAYLOADS)

WLES RNDZ TOOLS C/O PREP
(ORB OPS FS, WLE SENSORS)

UPDATE TFL 192

O6 √UHF MODE - OFF
PRIVATE MEDICAL CONFERENCE

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

P/TV09 GLACIER (PHOTO/TV, SCENES)
Photos

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MUS (ASSY OPS, PAYLOADS)
MOP (ASSY OPS, PAYLOADS)

03:00 — PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

UPDATE TFL 188

ON-ORBIT +X RCS BURN
(ORB OPS, RCS)

ON-ORBIT +X RCS BURN
(ORB OPS, RCS)

04:00

# STS-119 FD (02)

GMT Date 03/16 (075) | W | TDRSE | Z | D/N | DORB | ORB | MET Day 001 | STS ATI

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

6 7 7 8 8 9

- ZLV - XVV

## MS2 SWANSON

DRY SALIVA CLCT(ORB OPS,SDBI)

C/L CAMR INSTALL
(PHOTO/TV, C/L CAMR)
Setup & Align C/L Camera

DOCKING MECH INITIALIZATION
DOCKING MECH POWERUP
DOCKING RING EXTENSION
DOCKING MECH POWERDOWN
(RNDZ, APDS)

RNDZ TOOLS CHECKOUT
(RNDZ, RNDZ TOOLS)

L10(MUX)√MUX/VTR/CC PWR-ON(LED ON)
RECONFIGURE OCA DOWNLINK RATE
(ORB OPS,PGSC) Perform Part C,
Omit Step 4

MOP (ASSY OPS, PAYLOADS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

## MS3 ARNOLD

DRY SALIVA CLCT(ORB OPS,SDBI)

P/TV08 EXTERNAL SURVEY
(PHOTO/TV, SCENES)OMS POD SURVEY
Setup, Perform Step 1 OPS,
Perform Item 1

C/L CAMR INSTALL
(PHOTO/TV, C/L CAMR)
Setup & Align C/L Camera

DOCKING MECH INITIALIZATION
DOCKING MECH POWERUP
DOCKING RING EXTENSION
DOCKING MECH POWERDOWN
(RNDZ, APDS)

MOP (ASSY OPS, PAYLOADS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PLAYBACK OPERATIONS (PHOTO/TV,CC)
KU TDRW (02:45-03:39)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

MDDK ST CK (ASSY OPS, PAYLOADS)
Perform Step 1 only

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

## MS4 PHILLIPS

OBSS LDRI/IDC RCC SURVEY-PORT
(PDRS, OBSS OPERATIONS)
Ref. MSG 003, Item 2
Ref. MSG 006

DRY SALIVA CLCT(ORB OPS,SDBI)

TRANSFER PREP
Ref. MSG 005
Ref. Transfer List: Resupply
Items 11.1, 12.1, 12.2 & 12.3

RNDZ TOOLS CHECKOUT
(RNDZ, RNDZ TOOLS)

MUS (ASSY OPS, PAYLOADS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

## FE-2 (UP) WAKATA

OBSS LDRI/IDC RCC SURVEY-PORT
(PDRS, OBSS OPERATIONS)
Ref. MSG 003, Item 2
Ref. MSG 006

OBSS BERTH
(PDRS, OBSS OPERATIONS)

GLACIER PREP FOR SAMPLE TRANSFER
(ASSY OPS, GLACIER)

DOME GENE CELL FIXATION IN
SHUTTLE
(ASSY OPS, DOME GENE)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

NOTES

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# STS-119 FD (02)

GMT Date 03/17 (076) | W | TDRSE | Z | D/N | DORB 8 9 10 11 | ORB 19 20 21 22 | MET Day 001 | STS ATT

CDR ARCHAMBAULT | PLT ANTONELLI | MS1 ACABA | NOTES

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

ON-ORBIT +X RCS BURN
(ORB OPS, RCS)
< NC3 TIG (04:10)

G2 SET CONTRACTION (ORB OPS,DPS)
NBAT: 1111

MNVR (TRK) -ZLV -XVV & FUTURE LOAD B

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

B MNVR (TRK) -ZLV -XVV
TG=2 BV=3 OM=0
A1/AUTO/VERN, Init TRK
FUTURE LOADED MNVR (DUMP)
MNVR (TRK) -ZLV -YVV
TGT=2 BV=3 OM=270
A1/AUTO/VERN, 01/14:30, Init TRK

-ZLV -XVV

ON-ORBIT +X RCS BURN
(ORB OPS, RCS)

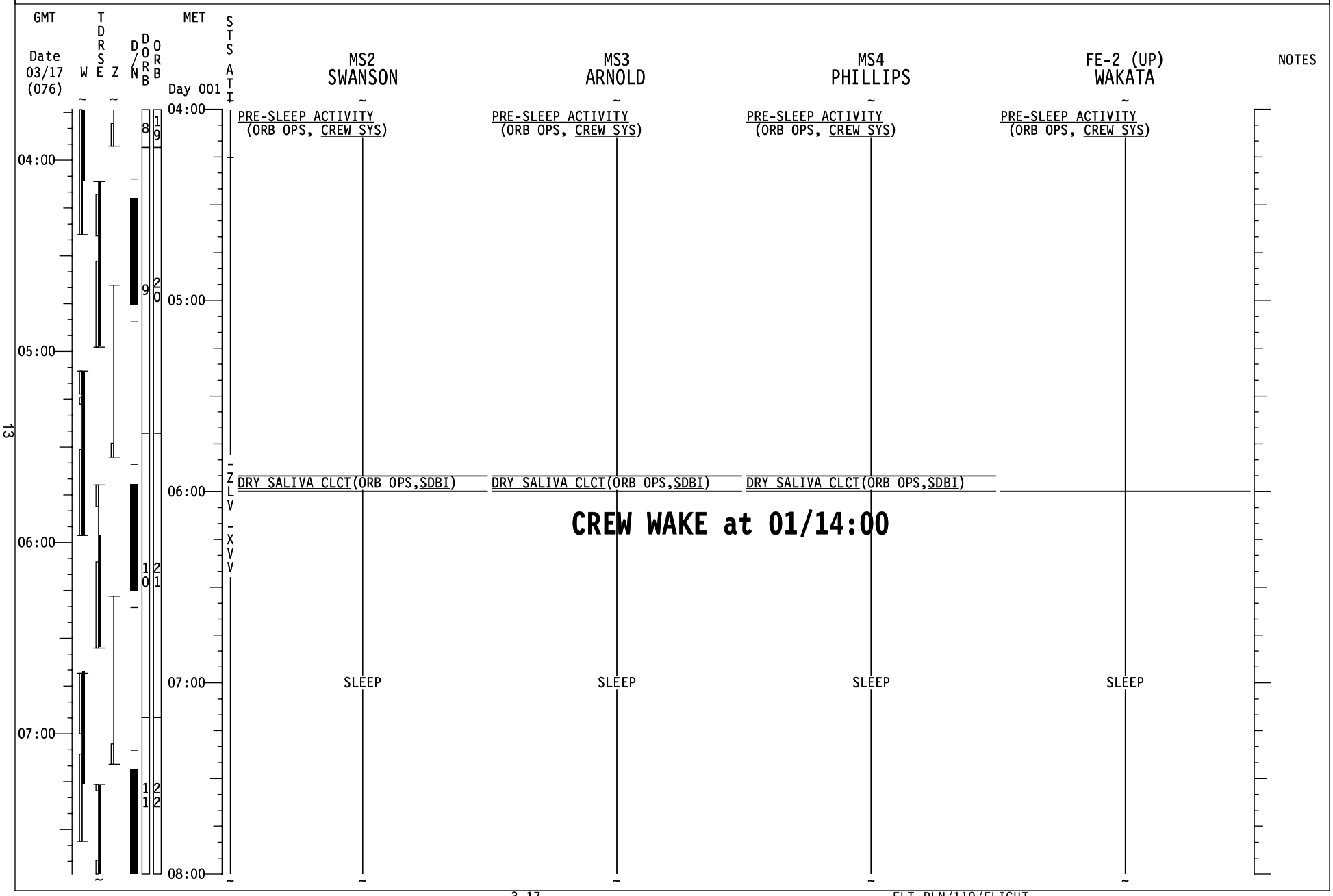
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)

**CREW WAKE at 01/14:00**

SLEEP | SLEEP | SLEEP

# STS-119 FD (02)


GMT
Date 03/17 (076)
W
TDRSE
Z
D/N
DORB
DORB
MET
Day 001
STS ATT
MS2 SWANSON
MS3 ARNOLD
MS4 PHILLIPS
FE-2 (UP) WAKATA
NOTES
04:00
05:00
06:00
07:00
08:00
8
9
10
11
19
20
21
22
PRE-SLEEP ACTIVITY
(ORB OPS, CREW SYS)
DRY SALIVA CLCT(ORB OPS,SDBI)
-ZLV
-XVV
CREW WAKE at 01/14:00
SLEEP

Good Morning Discovery!

From Mike Leinbach during the post-launch news conference:"I’ve seen a lot of launches, and this was the most visibly beautiful launch I’ve ever seen."  Great start!

YOUR CURRENT ORBIT IS: 140 X 125 NM

NOTAMS:

EDW - EDW IN USE.  EDT ELS DAY / VFR ONLY.
EDW - LAKEBED RUNWAYS RED - WET.
NOR - LAKEBED RUNWAYS GREEN.
FMH - TACAN PVD103 DME ONLY.
DOV - RWY 14/32 CLOSED.
WAK - TACAN AWK82 OTS.
HAW - TACAN ASI59 DME OTS.
IKF - NOT USABLE.  NO AGREEMENT.
BEN - NOT RECOMMENDED/NOT SUPPORTED.

NEXT 2 PLS OPPORTUNITIES:

EDW22 ORB 17 – 1/00:37 FEW250 7 250/14P22
EDW22 ORB 33 – 2/00:35 FEW250 7 260/10P16

OMS TANK FAIL CAPABILITY:

PRE NC-4:
L OMS FAILS: YES
R OMS FAILS: YES

POST NC-4:
L OMS FAILS: NO
R OMS FAILS: NO

LEAKING OMS PRPLT BURN:

PRE NC-4:
L OMS LEAK: ALWAYS BURN OUT OF PLANE ASAP
R OMS LEAK: ALWAYS BURN OUT OF PLANE ASAP

POST NC-4:
L OMS LEAK: ALWAYS BURN RETROGRADE
R OMS LEAK: ALWAYS BURN RETROGRADE

OMS QUANTITIES(%)

PRE NH:
L OMS OX = 54.2 R OMS OX = 52.8
FU = 53.7 FU = 52.5

POST NH / PRE NC-4:
L OMS OX = 44.1 R OMS OX = 42.3
FU = 43.6 FU = 42.1

POST NC-4 :
L OMS OX = 35.2 R OMS OX = 35.1
FU = 34.7 FU = 35.0

DELTA V AVAILABLE:

| | PRE NH | POST NH / PRE NC-4 | POST NC-4 |
|---|---|---|---|
| OMS | 519 FPS | 413 FPS | 331 FPS |
| ARCS (TOTAL ABOVE QTY1) | 51 FPS | 51 FPS | 26 FPS |
| TOTAL IN THE AFT | 570 FPS | 464 FPS | 357 FPS |
| ARCS (TOTAL ABOVE QTY2) | 79 FPS | 79 FPS | 55 FPS |
| FRCS (ABOVE QTY 1) | 50 FPS | 49 FPS | 38 FPS |
| AFT QTY 1 | 92 % | 91 % | 86 % |
| AFT QTY 2 | 54 % | 53 % | 48 % |

| SYSTEM # | FAILURE | IMPACT | WORK AROUND |
|---|---|---|---|
| EPS | FC3 O2 flow meter instrumentation was lost. | Loss of FC3 reactant flow insight (The H2 flowmeter was unpowered prior to flight due to an anomaly on STS-124). Fuel cell flows are used to monitor fuel cell purges and fuel cell health. | FC3 O2 Flow FDA has been inhibited. MCC will use cryo pressures, purge line temps, and FC Performance to verify FC3 purge flow. |

END OF PAGE 2 OF 2, MSG 004A

John & Ricky,

Since there have been a number of changes to the mission, for John's Transfer Prep time today we wanted to give you this big picture of the impact to the transfer plan.

Within the current timeline, there is not enough time available to complete all the preflight planned transfers. We hope to gain time if focused inspection is not required, but we will not have that information until the end of FD04. For now, we are not deleting any items from your transfer list, but we will direct you to the highest priority items in the FD03 and FD04 transfer message choreographies. This will set us up for either situation and still includes transferring the 5 MLE bags first. You will not have as much time on docking day to offload the 5 MLEs from the middeck but they can be completed the next day if needed.

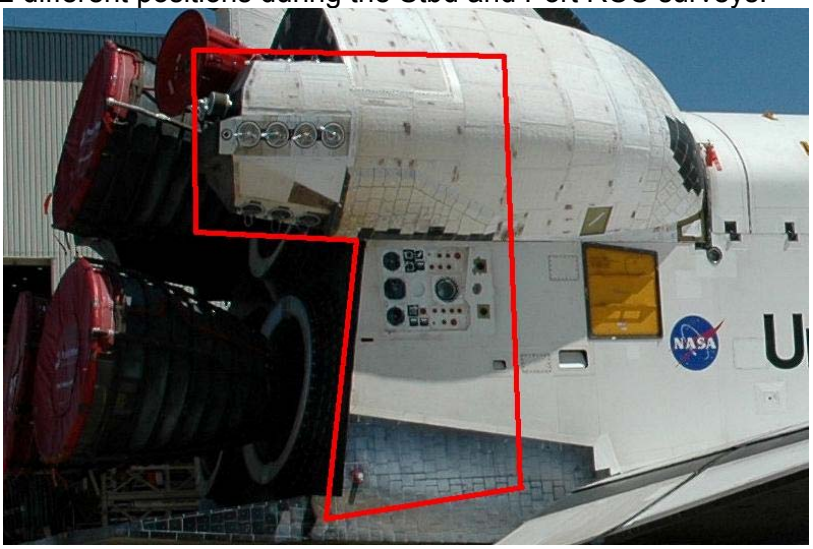
<u>FD02 Transfer Choreography</u>
These activities will remove the items from Bags C and D that need to be left on the middeck:

- Resupply item 11.1: Remove DIDBs for EVA use from Bag C and temp stow
- Resupply items 12.1 & 12.2: Remove the 2 CWCs and Mineralization Kit from Bag D and temp stow
- Resupply item 12.3: Verify Sample/Purge Kit is removed from Bag D and temp stowed. Swanny should have already needed this item for his CWC S/U activity earlier in the day.

Enjoy your first full day on orbit and let us know if you have any questions!

- The 15A Transfer Team

The following procedure modifications are required to obtain ITVC imagery at 2 different positions during the Stbd and Port RCC surveys:



1. STBD SURVEY

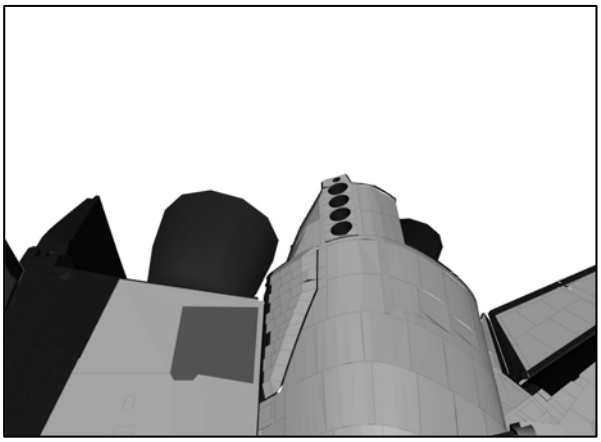
NOTE
All PAN/TILT operations should be done
in LOW RATE while viewing T-0 area.
Ensure field of view is in focus at each point

a. At the end of the OBSS LDRI/IDC RCC SURVEY – STBD, Step 2 MNVR TO FLAT FIELD POSN while at the FLAT FIELD posn,

A7U MUX 1L ← MIDDECK
LDRI MODE 2 pb - push (ITVC video)
DTV ← PL2

Record PAN: _____
TILT: _____

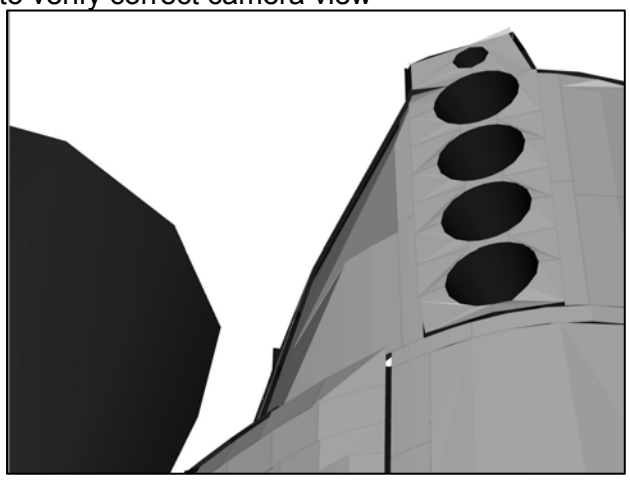
PAN/TILT to match ITVC view shown below



**ITVC: +177,-213**

END OF PAGE 1 OF 1, MSG 006

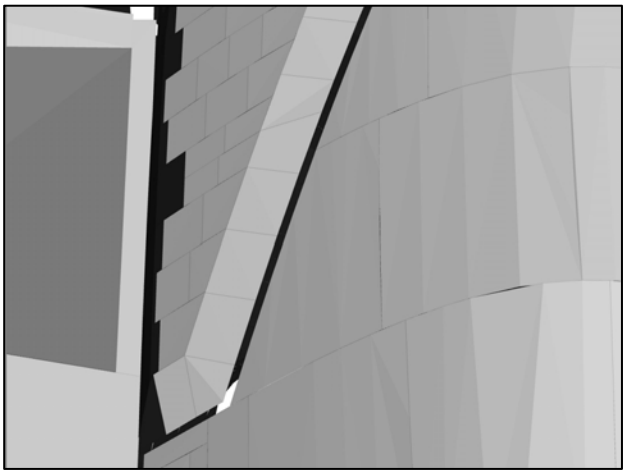
b. Zoom ITVC to HFOV = 14°
√MCC to verify correct camera view



**ITVC: +177,-213 HFOV: 14**

L10(VTR) √Recorders - ON

c. TILT down to -226

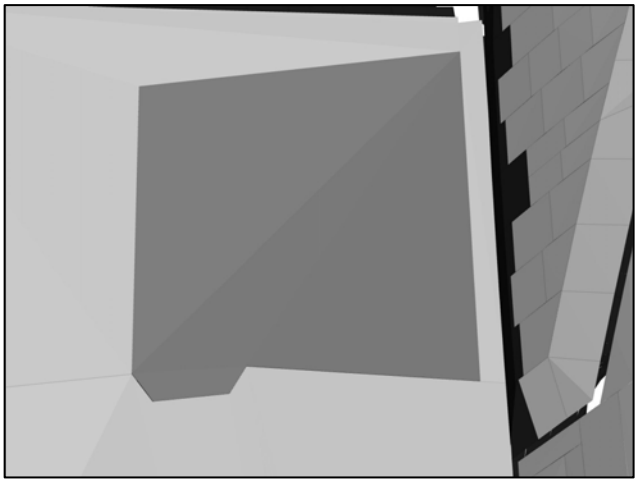


**ITVC: +177,-226 HFOV: 14**

d. PAN left to +167

NOTE

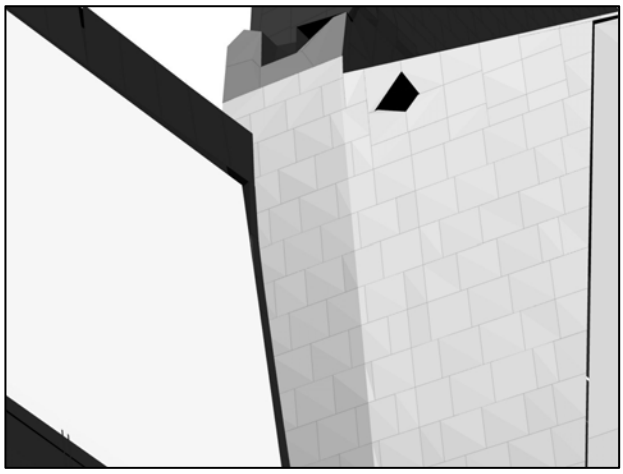
Stop PAN motion for 5 seconds when STBD umbilical in center of view



**ITVC: +167,-226 HFOV: 14**

e. PAN left to +144

√MCC to verify adequate coverage



**ITVC: +144,-226 HFOV: 14**

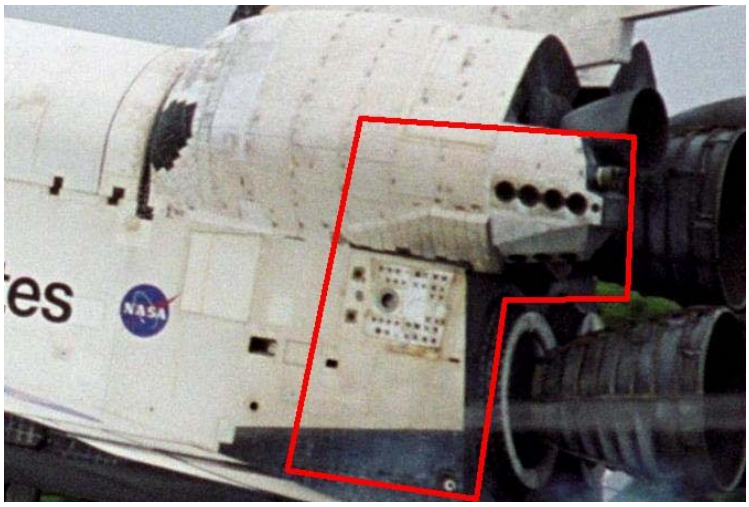
f. Zoom ITVC fully out

PAN/TILT to values recorded at start of procedure

A7U MUX 1L ← MIDDECK
LDRI MODE 6 pb - push (brighter flickering LDRI video)
√ DTV ← PL2
VID OUT - not DTV
VID IN - not PL2

END OF PAGE 3 OF 3, MSG 006

Continue with, OBSS LDRI/IDC RCC SURVEY – STBD, Step 3 MNVR TO STBD LDRI ACAS START POSN.



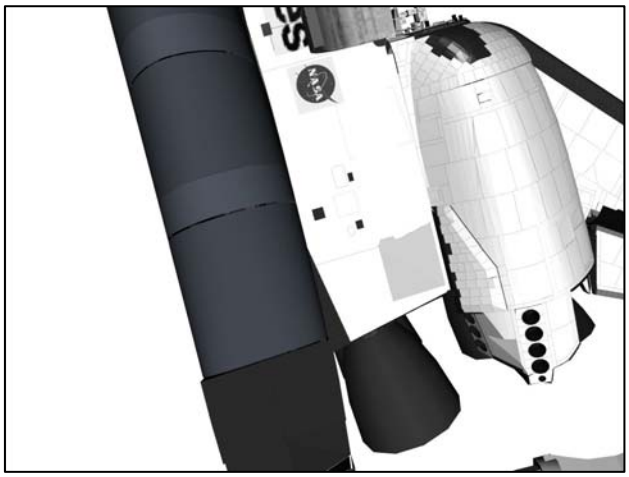
2. PORT SURVEY

NOTE
All PAN/TILT operations should be done
in LOW RATE while viewing T-0 area.
Ensure field of view is in focus at each point

a. At the end of the OBSS LDRI/IDC RCC SURVEY - PORT, Step 5 PORT LDRI ACAS, SECTIONS 2 AND 3 while paused at Pt 114 in the port auto sequence,

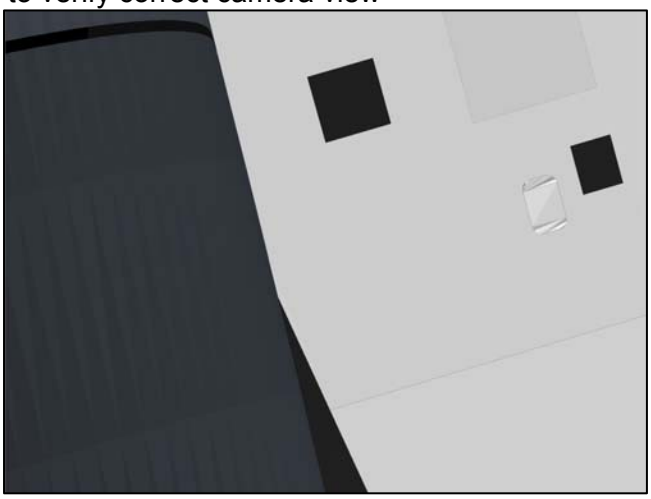
A7U MUX 1L ← MIDDECK
LDRI MODE 2 pb - push (ITVC video)
DTV ← PL2

PAN/TILT to match ITVC view shown below



**ITVC: +85,-110**

b. Zoom ITVC to HFOV = 10°
√MCC to verify correct camera view



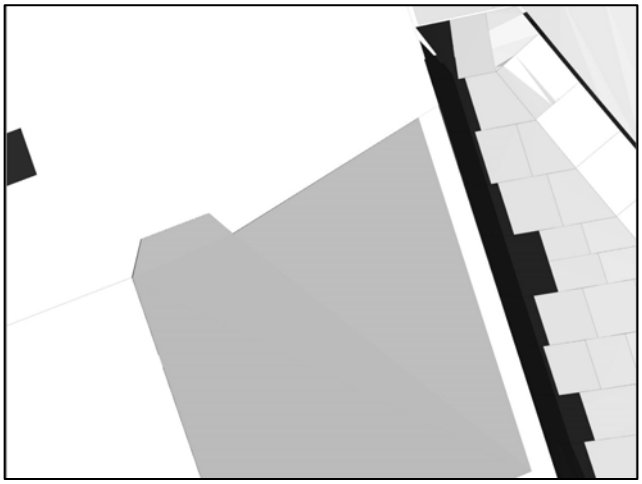
**ITVC: +85,-110 HFOV: 10**

L10(VTR) REC pb - push, hold
PLAY pb - push, simo (red •)

c. PAN left to +75

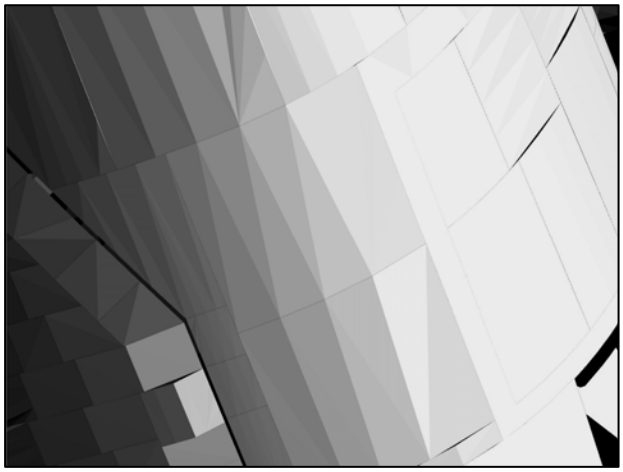
NOTE

Stop PAN motion for 5 seconds when PORT umbilical in center of view



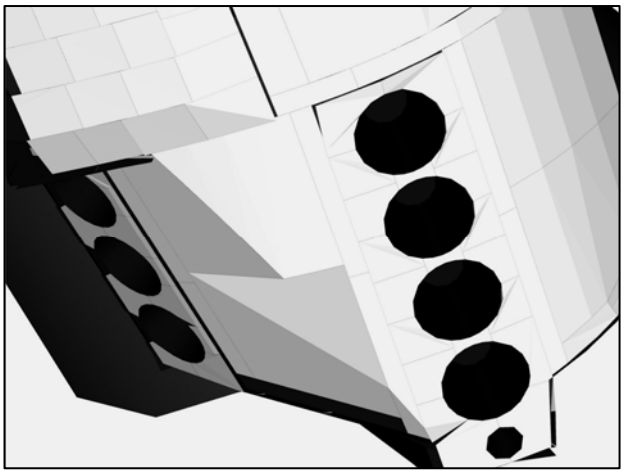
**ITVC: +75,-110 HFOV: 10**

d. PAN left to +64



**ITVC: +64,-110 HFOV: 10**

e. TILT down to -117

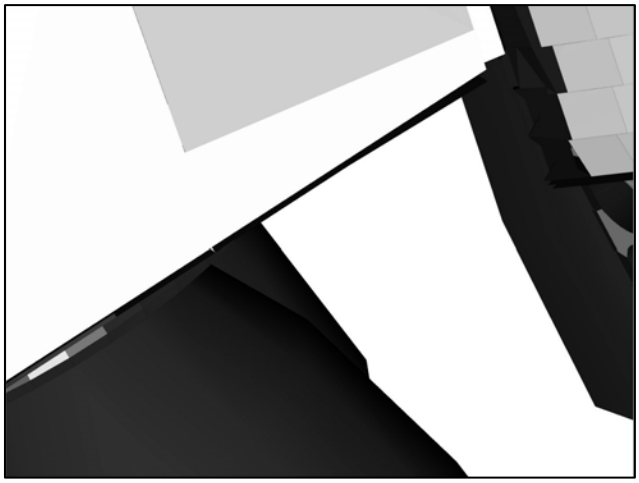


**ITVC: +64,-117 HFOV: 10**

f. PAN right to +74

NOTE

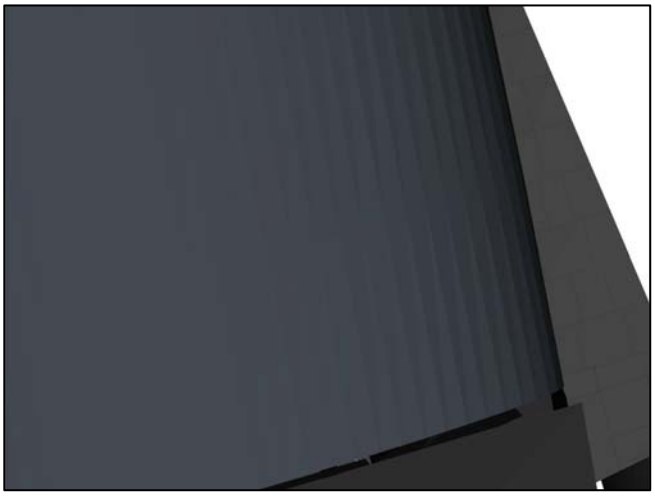
Stop PAN motion for 5 seconds when PORT umbilical in center of view



**ITVC: +74,-117 HFOV: 10**

g. PAN right to +88

√MCC to verify adequate coverage, then
STOP pb - push (no red •)



**ITVC: +88,-117 HFOV: 10**

h. Zoom ITVC fully out

A7U MUX 1L ← MIDDECK
LDRI MODE 6 pb - push (brighter flickering LDRI video)
√ DTV ← PL2
VID OUT - not DTV
VID IN - not PL2

Continue with OBSS LDRI/IDC RCC SURVEY - PORT, Step 6 PORT LDRI ACAS, SECTION 4.

END OF PAGE 7 OF 7, MSG 006