Post Insertion

STS-124

Mission Operations Directorate
Operations Division

Final
April 18, 2008
MISSION OPERATIONS DIRECTORATE

POST INSERTION
STS-124

FINAL
April 18, 2008

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Flight Data File Manager

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Incorporates the following:

<table>
<thead>
<tr>
<th>482#:</th>
<th>PI-826</th>
<th>PI-830</th>
<th>PI-831</th>
<th>PI-832</th>
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### AREAS OF TECHNICAL RESPONSIBILITY

<table>
<thead>
<tr>
<th>Role</th>
<th>Contact</th>
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<tr>
<td>Publication Manager</td>
<td>DO3/J. Brezovic</td>
<td>281-244-8325</td>
</tr>
<tr>
<td>Alternate Publication Manager</td>
<td>DO3/C. Simon</td>
<td>281-483-0656</td>
</tr>
<tr>
<td>INCO</td>
<td>DS2/J. King</td>
<td>281-483-0776</td>
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<tr>
<td>EECOM</td>
<td>DS4/K. Rogers</td>
<td>281-483-1395</td>
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<td>EGIL</td>
<td>DS4/J. Wilkins</td>
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<td>DS6/M. Hamilton</td>
<td>281-483-0944</td>
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<td>DS2/G. Summers</td>
<td>281-483-9455</td>
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<td>P T/V</td>
<td>DX3/D. Williams</td>
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<tr>
<td>Pointing</td>
<td>DO4/S. Patano</td>
<td>281-244-1137</td>
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POST INSERTION
STS-124
LIST OF EFFECTIVE PAGES

FINAL 04/18/08

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iv ....................................* 124/FIN 1-20 ................................. 124/FIN
v ................................. 124/FIN 1-21 ................................. 124/FIN
vi .................................. 124/FIN 1-22 ................................. 124/FIN
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1-8 ................................. 124/FIN 2-4 ................................. 124/FIN
1-9 ................................. 124/FIN 3-1 .................................* 124/FIN
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1-12 .............................. 124/FIN CC 3-4 .................................* 124/FIN
1-13 .............................. 124/FIN CC 3-5 .................................* 124/FIN
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POST INSERTION CUE CARDS

<table>
<thead>
<tr>
<th>Title</th>
<th>Ref. Page</th>
<th>Card No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFT FLIGHT DECK RECONFIGURATION (Front)...........</td>
<td>CC 3-3</td>
<td>PI-1a/124/O/A</td>
</tr>
<tr>
<td>(Back)..................................................</td>
<td>CC 3-4</td>
<td>PI-1b/124/O/C</td>
</tr>
<tr>
<td>MIDDECK RECONFIGURATION (Front)........................</td>
<td>CC 3-5</td>
<td>PI-2a/124/O/B</td>
</tr>
<tr>
<td>(Back)..................................................</td>
<td>CC 3-6</td>
<td>PI-2b/124/O/A</td>
</tr>
</tbody>
</table>

* – Omit from flight book
This Page Intentionally Blank
<table>
<thead>
<tr>
<th>CONTENTS</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>POST INSERTION PROCEDURES</td>
<td>1-1</td>
</tr>
<tr>
<td>ON-ORBIT SWITCH LIST</td>
<td>1-17</td>
</tr>
<tr>
<td>ORBIT 5/6 DEORBIT</td>
<td>2-1</td>
</tr>
<tr>
<td>CUE CARD CONFIG</td>
<td>3-1</td>
</tr>
</tbody>
</table>
NOTE

The STS-124 Post Insertion contains the nominal procedures from:

MET (DAY/HR:MIN)
000/00:51 TO 000/02:30 – POST INSERTION (Section 1)

The remaining STS-124 flight phases are conducted using the Ascent Checklist, Flight Plan, Deorbit Prep Book, Entry Checklist, EVA Checklist, and Rendezvous Book.
POST INSERTION PROCEDURES
For single PASS GPC failure, build PASS set as follows:

<table>
<thead>
<tr>
<th>FAILED GPC</th>
<th>GPC 1</th>
<th>GPC 2</th>
<th>GPC 3</th>
<th>GPC 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>G2</td>
<td>FD</td>
<td>SM</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>G2</td>
<td>FD</td>
<td>SM</td>
</tr>
<tr>
<td>3</td>
<td>G2</td>
<td>FD</td>
<td>SM</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>G2</td>
<td>SM</td>
<td>FD</td>
<td></td>
</tr>
</tbody>
</table>

In step 1:
- Assign strings 1.3 to one GPC and strings 2.4 to other GPC

**NOTE**
No keyboard entries or sw throws 10 sec:
Before and after moding PASS GPCs to RUN
Before OPS transition or set expansion/contraction requests until new OPS base page is displayed

1. **REASSIGN G2FD STRING TO ANOTHER GPC IN MC 1**
   - **GNC 0 GPC MEMORY**
   - **CONFIG – ITEM 1 +1 EXEC**
   - Modify MC 1 per table
   - BFC CRT DISP – OFF
   - GNC, OPS 106 PRO
   - **GNC 0 GPC MEMORY**
   - CAUTION
   - If BFS is standalone (BFC It flash):
     - BFC CRT DISP – ON
     - BFS, GNC I/O RESET
     - BFC CRT DISP – OFF

2. **MODE G2FD GPC TO OPS 0**
   - **GNC MODE G2FD – STBY (lb-bp)
   - RUN (lb-RUN)**
   - **C3**

3. **LOAD MC 2 INTO G2FD GPC**
   - **CRTX**
   - **PL, GPC/CRT G2FD CPC/X EXEC**
   - X: PL GPC MEMORY
   - **CONFIG – ITEM 45 +2 EXEC**
   - **GPC – ITEM 46 +(G2FD) EXEC**
   - **STORE – ITEM 47 EXEC**
   - Store complete when MC = 02

4. **TRANSITION TO GNC OPS 2**
   - **GNC 0 GPC MEMORY**
   - **CONFIG – ITEM 1 +2 EXEC**
   - Modify MC 2 per table
   - GNC, OPS 201 PRO
   - GNC UNIV PTG

5. **TURN OFF BFC LT**
   - **C3**
   - **C2**
   - **F2,F4**

If no MC = 02 after 30 sec:
   a. On MCC GO, cycle pwr on MMU 1,2
   b. Retry GPC FREEZE DRY (step 3)
   c. If FD successful, continue with step 4
      If not successful and:
      - NO GPCs FAILED: go to step 1, delete GPC 3 from TGT SET, restring 1.3 to GPC 1, and restring 2.4 to GPC 4, try to FD GPC 2 with steps 2,3; then go to step d
      - ONE GPC FAILED: go to step 1, delete attempted FD GPC from TGT SET, restring all strings to lowest ID GPC, try to FD other GPC with steps 2,3; then go to step d
   d. If FD successful, continue with step 4
      If not successful: consider both MMUs failed;
      on MCC GO, perform transition to OPS 3

**POST INSERTION**
Ref ASC for activities from 00:00-00:50 MET

<table>
<thead>
<tr>
<th>MEMORY CONFIGURATION TABLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONFIG</td>
</tr>
<tr>
<td>OPS GPC</td>
</tr>
<tr>
<td>GPC SEL</td>
</tr>
<tr>
<td>STR</td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
<tr>
<td>P/L</td>
</tr>
<tr>
<td>CRT</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

1: GNC OMS 2 MNVR COAST 2: GNC OMS 2 MNVR COAST

C L4:B.Q,R All cbs closed
L4:D,E All cbs open
L4:J cb AC3 A SIG CONDR HUM SEP – cl
   B SIG CONDR IMU FAN – cl

SPECIALIST SEAT EGRESS
C,P
CONFIG GPCs FOR OPS 2
(USE DUAL G2 CONFIG)
If two PASS GPCs failed, \MCC
If BFS engaged: Go to MAL, GPS, GPC FRP-4

PL BUS ACTIVATION
R1 PL CAB – MNA
   AUX – ON

PRELIM MIDDECK CONFIG (MID Cue Card)
MS

AFT STATION CONFIG (AFT Cue Card)
MS

CONF
<table>
<thead>
<tr>
<th>STR</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

SM GPC MEMORY
CONFIG – ITEM 1 +4(5) EXEC
Modify MC 4(5) per table
NOTE
Expect multiple msgs, Master Alarm, SM Alert

SM, OPS 201(401) PRO
SM ANTENNA
C3
\UP (EN) – UL CNTL AUTO – ITEM 35 EXEC

SM 1 DPS UTILITY
PL 1/2 4

SECO BFS
C3 BFS CRT DISP – ON
CRT3 BFS, GNC, OPS 000 PRO
C3 BFS CRT DISP – OFF
\All IDPs deassigned from BFS
O6 GPC MODE 5 – STBY (tb-RUN)

RECONFIG MEDs
C3
\CP PCMMU FORMAT – GPC
SM 62 PCMMU/PL COMM

FORMAT:
CRT
FXD – ITEM 1 EXEC (*)
SEL ID – ITEM 3 +1 8 8 EXEC
LOAD – ITEM 4 EXEC
   \RUN, CPLT
SEL ID – ITEM 3 +1 0 3 EXEC
LOAD – ITEM 4 EXEC
   \RUN, CPLT
PGM – ITEM 2 EXEC

SM ANTENNA

LOAD ORBIT TFLs
C3
\CP PCMMU FORMAT – GPC
SM 62 PCMMU/PL COMM

FORMAT:
CRT
FXD – ITEM 1 EXEC (*)
SEL ID – ITEM 3 +1 8 8 EXEC
LOAD – ITEM 4 EXEC
   \RUN, CPLT
SEL ID – ITEM 3 +1 0 3 EXEC
LOAD – ITEM 4 EXEC
   \RUN, CPLT
PGM – ITEM 2 EXEC

SM ANTENNA
10. **RECONFIG GPCs**

**C6**

GPC MODE 5 – HALT (tb-bp)
OUTPUT 5 – NORM (tb-bp)
OUTPUT (SM GPC) – TERM (tb-bp)

If no failed GPC:

√ All IDPs deassigned from FD GPC
GPC MODE (FD GPC) – STBY (tb-bp)
– HALT (tb-bp)
– STBY (tb-RUN)
– HALT (tb-bp)

If single G2 reqd:

IDP/CRTX MAJ FUNC – PL
GPC/CRTX 2/X EXEC

X: PL GPC MEMORY
CONFIG – ITEM 45 +2 EXEC
GPC – ITEM 46 +2 EXEC
STORE – ITEM 47 EXEC
Store complete when MC = 2 (~30 sec)
√ All IDPs deassigned from FD GPC
GPC MODE 2 – STBY (tb-bp)
– HALT (tb-bp)
– STBY (tb-RUN)
– HALT (tb-bp)

Perform ERR LOG RESET
GNC 0 GPC MEMORY
ITEM 48 EXEC
SM 0 GPC MEMORY
ITEM 48 EXEC

If PASS GPC failed from ASCENT and dual G2 reqd, use G2FD to form G2 RS:

CRT

<table>
<thead>
<tr>
<th>CONFIG</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPC</td>
<td>XY</td>
</tr>
<tr>
<td>STR</td>
<td>1 X</td>
</tr>
<tr>
<td></td>
<td>2 Y</td>
</tr>
<tr>
<td></td>
<td>3 X</td>
</tr>
<tr>
<td></td>
<td>4 Y</td>
</tr>
<tr>
<td>PL</td>
<td>1/2 0</td>
</tr>
</tbody>
</table>

Modify MC 2 per table
GNC, OPS 201 PRO
GNC UNIV PTG

If PASS GPC failed from ASCENT and single G2 reqd:

√ All IDPs deassigned from FD GPC
GPC MODE (FD GPC) – STBY (tb-bp)
– HALT (tb-bp)
– STBY (tb-RUN)
– HALT (tb-bp)

If GPC failed from ASCENT,
Perform MAL, DPS, GPC FRP-1 as time permits

PI LOCKER
When all GPC switch configuration complete,
unstow, install GPC MODE switchguard
**MS CONFIG FOR PLBD OPERATIONS** (AFT Cue Card) 4, 1-14

**WCS CONFIG/ACT** (MID Cue Card) 5, 1-16

**SWITCH CONFIG/GALLEY ACT** (MID Cue Card) 6, 1-16

LOAD DAP A5

**MNVR TO PLBD OPENING ATT** (-ZLV, +YYV)

- **CRT1**
  - TGT ID +2
  - BODY VECT +3
  - P +90
  - Y +0.0
  - OM +270

- **DAP**: A/AUTO/ALT
- **Initiate TRK**

**RAD ACT** 7

**If RAD flow has been initiated manually, delay RAD ACT until MCC call or until RAD OUT T low**

**L1**
- **RAD BYP VLV MODE (two) – AUTO**
- **CNTLR LOOP (two) – AUTO A**

  Wait 90 sec
  * RAD BYP VLV tb (two) – RAD
  * If RAD BYP VLV 1(2) tb – BYP:
  * RAD CNTLR LOOP 1(2) – MAN
  * Wait 90 sec
  * RAD BYP VLV 1(2) tb – RAD
  * If RAD BYP VLV 1(2) tb still BYP or bp:
  * RAD BYP VLV MODE 1(2) – MAN
  * Hold 3 sec or until tb - BYP
  * If RAD BYP VLV 1(2) tb – bp:
  * RAD CNTLR LOOP 1(2) – AUTO B
  * After 10 sec, RAD BYP VLV MODE 1(2) – AUTO
  * Wait 90 sec
  * RAD BYP VLV 1(2) tb – RAD
  * If RAD BYP VLV 1(2) tb – bp:
  * RAD BYP VLV MODE 1(2) – MAN
  * MAN SEL 1(2) – RAD FLOW
  * Hold 3 sec or until tb - BYP
  * If RAD BYP VLV 1(2) tb – bp:
  * RAD CNTLR LOOP 1(2) – AUTO B
  * After 10 sec, RAD BYP VLV MODE 1(2) – AUTO
  * Wait 90 sec
  * RAD BYP VLV 1(2) tb – RAD
  * If RAD BYP VLV 1(2) tb – bp:
  * RAD CNTLR LOOP 1(2) – AUTO B
  * After 10 sec, RAD BYP VLV MODE 1(2) – AUTO
  * Wait 90 sec
  * RAD BYP VLV 1(2) tb – RAD

**L2**
- **FREON ISOL MODE – AUTO**

**NOTE**

If NO-GO for RAD/PLBD OPS due to 2 FCs failed:
- Go to CONT DEORB, LOSS OF 2 FC ORB 2 OR 3, at TIG-1:30

If NO-GO due to any other failure:
- Go to CONT DEORB, LAUNCH DAY ORBIT 3, at TIG-2:00

**RAD/PLBD OPS NO-GO FOR FOLLOWING FAILURES**

<table>
<thead>
<tr>
<th>OMS/RCs</th>
<th>GNC</th>
<th>ECLS/EPS</th>
<th>MECH</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 OMS Engs &amp; 1</td>
<td>2 IMUs</td>
<td>1 H2O or Freon Lp</td>
<td>2 LG DFY METHODS</td>
</tr>
<tr>
<td>+X RCS jet</td>
<td>3 RGAs</td>
<td>Both RFTCs</td>
<td>PRES or REDNT</td>
</tr>
<tr>
<td>OMS Inlet line</td>
<td>3 AAs</td>
<td>Both Cab Fans</td>
<td>WINDOW PANE</td>
</tr>
<tr>
<td>OMS Prop Tk Leak</td>
<td>3 ADTAs</td>
<td>3 of 6 Av Bay Fans</td>
<td>FAILURE</td>
</tr>
<tr>
<td>At RCS He or Prop Leak</td>
<td>3 Elelons or 2 FCs</td>
<td>3 Elelons or 2 FCs</td>
<td>3 GPCs</td>
</tr>
<tr>
<td>(same surface)</td>
<td>(same surface)</td>
<td>Any MN or 34 Ac Bus</td>
<td>3 GPCs</td>
</tr>
<tr>
<td>COMM</td>
<td>2 FCS Ch</td>
<td>IMU Fans</td>
<td>2 FF FA MDMs</td>
</tr>
<tr>
<td>No Voice and No CMD</td>
<td>(same surface)</td>
<td>2 FCS Ch</td>
<td>2 AUHYD</td>
</tr>
</tbody>
</table>

**APU/HD/WSB**

**ORB 3 DEORBIT** 8

If NO-GO for RAD/PLBD OPS due to 2 FCs failed:
- Go to CONT DEORB, LOSS OF 2 FC ORB 2 OR 3, at TIG-1:30

If NO-GO due to any other failure:
- Go to CONT DEORB, LAUNCH DAY ORBIT 3, at TIG-2:00

**MS OPEN PLBDs, AUTO MODE, 18, 1-11**

**NOTE**: CAUTION BLOCK on 1-11

**MS ELBOW CAMR PICTURE 20, 1-6**
**STAR TRKR ACTIVATION/DOOR OPEN**

C06  S TRK PWR (two) – ON
   GNC I/O RESET
   S TRK DR CNTL SYS (two) – OP (start timer)
      √POS tb (two) – bp
   When both tb – OP (8-24 sec), or either tb – bp for > 24 sec,
      CNTL SYS (two) – OFF
   * If tb – bp > 8 sec, notify MCC  *

1: GNC 22S TRK/COAS CNTL
   STAR TRK – ITEM 3,4 EXEC
   1: GNC 21 IMU ALIGN
   RESUME

**ELBOW CAMR PICTURE**

Document Elbow Camr position via D2Xs photo from W10 per the following:
   Lens, 28-70 mm set at 70 mm (stowed in Vol 3B)
   Exp Mode – P
   √Meter – Matrix
   Sun(Earth)shine reqd
<table>
<thead>
<tr>
<th>Time</th>
<th>Task Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MET</td>
<td>1: GNC UNIV PTG</td>
</tr>
<tr>
<td>01:30</td>
<td>2: SM PL BAY DOORS</td>
</tr>
<tr>
<td></td>
<td>4: SM PL BAY DOORS</td>
</tr>
<tr>
<td></td>
<td>A5(B1) AUTO ALT RT 0.2 DB 5.0</td>
</tr>
<tr>
<td></td>
<td>MCC &amp; CREW: GO for orbit ops</td>
</tr>
<tr>
<td></td>
<td>C O6 UHF MODE sel – OFF</td>
</tr>
<tr>
<td></td>
<td>MS KU–BD ANT DEPLOY (ORB OPS, COMM/INST)</td>
</tr>
<tr>
<td></td>
<td>KU–BD ANT ACTIVATION (ORB OPS, COMM/INST)</td>
</tr>
<tr>
<td></td>
<td>C,P SEAT EGRESS</td>
</tr>
<tr>
<td>01:35</td>
<td>C,P CLOTHING CONFIG 9</td>
</tr>
<tr>
<td></td>
<td>MS CLOTHING CONFIG (MID,AFT Cue Cards) 10, 1-14, 1-15</td>
</tr>
<tr>
<td></td>
<td>01:40</td>
</tr>
<tr>
<td></td>
<td>MS CLOTHING CONFIG (MID,AFT Cue Cards) 10, 1-14, 1-15</td>
</tr>
<tr>
<td></td>
<td>01:45</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>01:50</td>
<td>C POST PLBD OPS RAD CONFIG 11</td>
</tr>
<tr>
<td></td>
<td>MS SPECIALIST SEAT REMOVAL/STOWAGE</td>
</tr>
<tr>
<td>01:55</td>
<td>C STAR TRKR ACTIVATION/DOOR OPEN 12, 1-6</td>
</tr>
<tr>
<td></td>
<td>MS ESCAPE POLE STOWAGE (MID Cue Card) 13, 1-16</td>
</tr>
<tr>
<td>02:00</td>
<td></td>
</tr>
</tbody>
</table>

**CLOTHING CONFIG 9**
- Doff, stow:
  - Harness, Boots, LES
  - Stow gloves in Helmet
  - Remove radiation dosimeter from LES and insert in inflight garments
- Doff, stow in Wet Trash:
  - UCD (clamp if used)
  - Emesis Bag, if used (unstow new bag)

**POST PLBD OPS RAD CONFIG 11**
- C 1: SM 88 APU/ENVIRON THERM
  - NOTE
    - FREON LOOP RAD OUT temps will not drop to normal operating range (< 60 deg) until ~15 min after doors are opened
  - L1 NH3 CNTLR B(A) – OFF
  - ✓ RAD BYP VLV tb (two) – RAD
  - ✓ H2O LOOP 2 BYP MODE – AUTO
  - CRT1 When FREON LOOP RAD OUT T < 60 deg:
    - L1 HI LOAD EVAP – OFF
- 1: GNC UNIV PTG

**QUICKDON MASKS SETUP 19**
- Connect QDM COMM to HIU
- Connect QDM O2 to LEH hose
- Verify operation
- Temp stow QDM/HIU assembly
MET
DAY 000
02:00
A5 (B1)
AUTO
ALT
RT 0.2
DB 5.0
02:05
A5 (B1)
AUTO
VERN
RT 0.05
DB 1.0
02:10
MS
AIRLOCK SETUP FOR INGRESS 15, 1-16
P
WB STEAM VENT HTR ACT
R2
\BLR CNTLR/HTR (three) – A
PWR (three) – ON
C
CONFIG VERNIER CONTROL
\MCC GO for vernier control
O16:F
RJD MANF LS/F5/RS DRIVER – ON, wait 5 sec
DAP: A/AUTO/VERN
02:15
L2
Remove, stow (on PNL L2/FDF FD locker)
NWS sw flex extension
02:20
MS
HYD THERMAL CONDITIONING-ENABLE
R2
HYD CIRC PUMP (three) – GPC
02:25
P
SUPPLY WATER CONFIG 14
MS
RESET C/W (AFT Cue Card) 16, 1–14
FAUCETS
FAUCETS
02:30
MS
SUPPLY WATER CONFIG (ORB OPS, EPS)
Stow POST INSERTION, go to FLIGHT PLAN, FLT DAY 1

1: GNC UNIV PTG
2: SM ANTENNA
4: SM ANTENNA

NOTE
Do not perform until blocks 5 and 6 are performed

L1
FLASH EVAP CNTLR PRI A – OFF
R11L
SPLY H2O DUMP ISOL VLV – OP (tb-OP)
\XOVR VLV – CL (tb-CL)
TKB INLET – CL (tb-CL)
TKA OUTLET – OP (tb-OP)
ML86B:A
cb MNB SPLY H2O TKB INLET – op
MNC SPLY H2O XOVR VLV – op
CRITICAL Monitoring:
SM SYS SUMM 2
CRT
If FREON EVAP OUT TEMP > 41 and ≤ 47 degF:
L1
RAD CNTLR OUT TEMP – HI
CRT
When FREON EVAP OUT TEMPERATURE > 50 degF,
L1
RAD CNTLR OUT TEMP – NORM, then immediately:
FLASH EVAP CNTLR PRI B – ON
CRT
If FREON EVAP OUT TEMP ≤ 41 or > 47 degF:
L1
FLASH EVAP CNTLR PRI B – ON
DETAILED PLBD OPENING PROCEDURES

- If no motion determined visually or 'OP/CL' not blank within 10 sec after cmd.
- PL BAY DR – STOP, perform MAL, MECH, 9.1a
- If latch not 'OP' in single mtr time, PL BAY DR – STOP, perform MAL, MECH, 9.1d
- If door motion stops and not 'OP', PL BAY DR – STOP, perform MAL, MECH, 9.1f
- If SM GPC fails during this operation, PL BAY DR SYS (two) – DSBL – STOP
- Perform PASS SM GPC FAIL (ORB PKT, DPS)

CAUTION
Use MANUAL mode for subsequent BFS PLBD ops if BFS AUTO sequence has been interrupted by reversing latch/door drive direction or if MANUAL mode has already been used during mission.

NOTE
Note any single mtr operations (continue ops) (single mtr times = 2X listed dual motor times). If one mtr in each of two separate latch gangs fails:
- PL BAY DR – STOP

MANUAL PLBD OPENING PROCEDURE

- Select CENTER LATCHES 1-4,13-16 – ITEM 4,5 EXEC (*)
- PL BAY DR – STOP
- Deselect CENTER LATCHES 1-4,13-16 – ITEM 6,7 EXEC (no *)
- Select PORT FWD,AFT LATCHES – ITEM 11,12 EXEC (*)
- PL BAY DR – STOP
- Deselect PORT FWD,AFT LATCHES – ITEM 13 EXEC (no *)
- POST-PLBD OPENING CLEANUP
- Select PORT DOOR – ITEM 13 EXEC (*)
- PL BAY FLOOD (all) – OFF

POST-PLBD OPENING CLEANUP
- Select PORT DOOR – ITEM 13 EXEC (no *)
- PL BAY FLOOD (all) – OFF
<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>MTR 1</th>
<th>MTR 2</th>
<th>PLBD DISPLAY MDM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AC/ MCA</td>
<td>CNTL</td>
<td>MDM</td>
</tr>
<tr>
<td>LATCH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-8</td>
<td>1/MID3</td>
<td>AB3/AB2</td>
<td>PL1</td>
</tr>
<tr>
<td>9-12</td>
<td>1/MID1</td>
<td>AB3/AB1</td>
<td>PL1</td>
</tr>
<tr>
<td>1-4</td>
<td>1/MID3</td>
<td>AB3/AB2</td>
<td>PL1</td>
</tr>
<tr>
<td>13-16</td>
<td>3/MID4</td>
<td>CA3/CA2</td>
<td>PL2</td>
</tr>
<tr>
<td>S FWD</td>
<td>1/MID1</td>
<td>AB3/AB1</td>
<td>PL1</td>
</tr>
<tr>
<td>S AFT</td>
<td>3/MID4</td>
<td>CA3/CA2</td>
<td>PL2</td>
</tr>
<tr>
<td>S DOOR</td>
<td>1/MID1</td>
<td>AB3/AB1</td>
<td>PL1</td>
</tr>
<tr>
<td>P FWD</td>
<td>1/MID1</td>
<td>AB3/AB1</td>
<td>PL1</td>
</tr>
<tr>
<td>P AFT</td>
<td>1/MID3</td>
<td>AB3/AB2</td>
<td>PL1</td>
</tr>
<tr>
<td>P DOOR</td>
<td>3/MID4</td>
<td>CA3/CA2</td>
<td>PL2</td>
</tr>
</tbody>
</table>
AFT FLIGHT DECK RECONFIGURATION

AFT STATION CONFIG

POST SEAT EGRESS
O14:D  cb MNA CAB VENT – op
      ISOL – op
A14  RCS/OMS HTR FWD RCS
      L POD (two) – A AUTO
      R POD (two) – A AUTO, B OFF
      OMS CRSFD LINES (two) – A AUTO, B OFF
      \FWD,AFT RCS JET (ten) – AUTO
PDIP 1  KU BAND RATE – LO
A12  APU HTR LUBE OIL LN (three) – A AUTO
ON-ORBIT CONFIG
Don headset (if reqd)
If WCCS flown, perform STD WCCS CONFIG (ORB OPS, COMM/INST)
If flight deck handheld mic/speaker operation:
R10  MS AUD PWR – AUD/TONE
      A/G1  – T/R, tw – 2
      A/G2  – RCV, tw – 2
      A/A  – RCV, tw – 2
      ICOM A – T/R, tw – 2
      B – RCV, tw – 2
      XMIT/ICOM MODE sel – PTT/PTT
A11  MS COMM CCU PWR – OFF
      Connect HHMIC to MHA
      MS COMM CCU PWR – ON
R6, L5  CCU PWR – OFF
A13  OS AUD SPKR PWR sel – SPKR
      MSTR SPKR VOL sel – as reqd
R6, L5  HIU VOL (two) – minimum, full ccw
A1L  S-BD PM MODE – TDRS DATA
      NSP DATA RATE RCV – HI
      XMIT – HI
      CODING (two) – ON
A1R  S-BD FM DATA SOURCE sel – MMU 2 (rot)
      AUD CTR VOICE RCD SEL CH 1 sel – OFF
      2 sel – OFF

R14:C  cb MNB KU ANT HTR – cl
        UHF EVA (two) – cl
:D  Close left to right all cbs
:E  Close left to right all cbs
R11L  IDP/CRT 4 PWR – ON
R12  VPU PWR – ON (LED on)
      AFD 1 – ON (if desired)
L10  Remove, stow VIP, VTR covers
A15  cb CNTL PWR PTU 1.2 (two) – cl
      PTU/MAIN BUS A,B (two) – ON (tb-ON)
      OPCU 1,2 V-ADJ (two) – CMD
O17:A  ATVC (four) – OFF
:B  EIU (three) – OFF
:D  MEC 1 – OFF, wait 2 sec, then
      2 – OFF
\PL BUS ACTIVATION complete
L12  SSP1  cb PDIP 1 PWR 2/KU BAND RLY – cl
      PDIP 1 PWR 1 – cl
      SW PWR 1 – cl
SSP2  cb PDIP 2 PWR 2 – cl
      PDIP 2 PWR 1 – cl
R12 (OPP)  cb OBSS SW PWR – cl
      OBSS SW PWR – ON
      (OBSS)
      RSC PWR – ON
Unstow, deploy reqd FDF

MET     MS AFT ACTIONS
00:51  SPECIALIST SEAT EGRESS
00:59  AFT STATION CONFIG
01:03  CONFIG FOR PLBD OPERATIONS
01:41  CLOTHING CONFIG
01:54  SPECIALIST SEAT REMOVAL/STOWAGE
02:01  AIRLOCK SETUP FOR INGRESS
02:21  RESET C/W
**AFT FLIGHT DECK RECONFIGURATION**

### CONFIG FOR PLBD OPERATIONS  4

<table>
<thead>
<tr>
<th>SET UP LIGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>A6U ANNUN BUS SEL – MNC</td>
</tr>
</tbody>
</table>

**NOTE**

Minimum operating time for PLB Floodlights is 10 min.
Light must be OFF for minimum of 10 min UNBLOCKED, 16 min BLOCKED prior to reuse. ~3 min to full bright

| A7U PL BAY FLOOD AFT (two) – OFF |
| PL BAY FLOOD MID (two) – OFF |
| PL BAY FLOOD FWD (two) – ON |
| BHD – N/A |

Record MET: _____/_____:_____ 
* If PLB Floodlight not ON to full bright within 5 min: *

**SET UP P/TV**

Perform ACTIVATION, OPERATION (Cue Card, TV), AUTO OPS only for camera A(D)
Perform PLBD VTR RECORDING (Cue Card)

### CLOTHING CONFIG  10

Doff, stow:
- Harness, Boots, LES
- Stow gloves in Helmet
- Remove radiation dosimeter from LES and insert in inflight garments

Doff, stow in Wet Trash:
- UCD (clamp if used)
- Emesis Bag, if used (unstow new bag)

### RESET C/W  16

<table>
<thead>
<tr>
<th>R13U</th>
</tr>
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<tbody>
<tr>
<td>PARAMETER NAME</td>
</tr>
<tr>
<td>FREON LOOP EVAP OUT T1</td>
</tr>
<tr>
<td>T2</td>
</tr>
<tr>
<td>CABIN O2 FLOW 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>R13U</th>
</tr>
</thead>
<tbody>
<tr>
<td>PARAMETER NAME</td>
</tr>
<tr>
<td>MPS He TK P C</td>
</tr>
<tr>
<td>L</td>
</tr>
<tr>
<td>R</td>
</tr>
<tr>
<td>MPS He REG P C</td>
</tr>
<tr>
<td>L</td>
</tr>
<tr>
<td>R</td>
</tr>
<tr>
<td>HYD P 1</td>
</tr>
<tr>
<td>2</td>
</tr>
<tr>
<td>3</td>
</tr>
</tbody>
</table>
MIDDECK RECONFIGURATION

PRELIM MIDDECK CONFIG [2]

**WARNING**
Eye and skin damage can occur in as little as 10 sec

INSTALL FILTERS
Don Sunglasses
Unstow, install: Side Hatch UV Filter and Locking Device, and Pyro Box Safing Pin

PRESS H₂O TKA
SPLY H₂O GNZ Tk VENT v/v – PRESS
A SPLY v/v – OP

**NOTE**
Disregard possible ‘S66 WASTE H₂O PRES’ fault msg

COMM CONFIG
Unstow: headsets, handheld mic, and/or wireless comm (see WCCS Cue Card), if flown
If WCCS flown, perform STD WCCS CONFIG (ORB OPS, COMM/INST)
If middeck handheld mic/speaker ops:

MO42F
MIDDECK SPKR AUD A/G 1 – T/R, tw-2
A/G 2 – RCV, tw-2
A/A – RCV, tw-2
ICOM A – T/R, tw-2
ICOM B – RCV, tw-2
XMIT/ICOM MODE – PTT/PTT
SPKR PWR – SPKR
MSTR SPKR VOL – 8

MO39M
MIDDECK COMM CCU PWR – OFF
Connect HHMIC to CCU
MIDDECK COMM CCU PWR – ON

FDF CONFIG
Stow in Helmet Bag: ASCENT Cue Cards, ASC, ASC PKT, SYS AOA
Unstow Jettison Stowage Bag, mark “Return to Houston”
Place Helmet Bag in Return to Houston Bag

ML86B:C
cb MNA EXT ARLK HTR LINE ZN1,2 (two) – cl
STRUC Z1/2/3 – cl

Unstow VW Bags

MET | MS AFT ACTIONS
--- | ---
00:51 | SPECIALIST SEAT EGRESS
00:58 | PRELIM MIDDECK CONFIG [2]
01:06 | WCS CONFIG/ACT [5]
01:07 | SWITCH CONFIG/GALLEY ACT [6]
01:41 | CLOTHING CONFIG [10]
01:45 | QUICKDON MASKS SETUP [19]
01:54 | SPECIALIST SEAT REMOVAL/STOWAGE
01:59 | ESCAPE POLE STOWAGE [13]
02:01 | AIRLOCK SETUP FOR INGRESS [15]

CLOTHING CONFIG [10]
Doff, stow:
Harness, Boots, LES
Stow gloves in Helmet
Remove radiation dosimeter from LES and insert in inflight garments
Doff, stow in Wet Trash:
UCD (clamp if used)
Emesis Bag, if used (unstow new bag)

QUICKDON MASKS SETUP [19]
Connect QDM COMM to HIU
Connect QDM O₂ to LEH hose
Verify operation
Temp stow QDM/HIU assembly
MIDDECK RECONFIGURATION

WCS CONFIG/ACT 5

WCS SWITCH CONFIGURATION
ML86B:A cb MNA H2O LINE HTR A – cl
:B WASTE H2O DUMP ISOL – cl
:MNA,MNB VAC VENT ISOL VLV (two) – cl
:F WCS CNTRL (two) – cl
:ML86B:B cb MNA WASTE H2O DUMP ISOL – cl
:cb MNA,MNB VAC VENT ISOL VLV (two) – cl
:cb MNA,MNB WCS CNTRL (two) – cl
:cb MNB VAC VENT NOZ HTR – cl
:ML86B:F cb MNA FLOODS WMC/MO13Q – cl

MA73C:E All cbs closed except:
:cb AC3 PL 3Φ – op

ML31C WASTE H2O DUMP ISOL VLV – OP (tb-OP)
:VAC VENT ISOL VLV BUS SEL – MNA
:NOZ HTR – ON
:ISOL VLV CNTRL – OP (tb-OP)

* If VAC VENT ISOL VLV CNTRL tb – CL or bp:
* VAC VENT ISOL VLV BUS SEL – MNB
* ISOL VLV CNTRL – OP (tb-OP)
* If VAC VENT ISOL VLV CNTRL tb still CL or bp:

\* MCC for further actions

WCS ACTIVATION

Foot/Toe Restraints – down, locked
VAC VLV – OP
Unstow urinal hose from Velcro strap, install hose in cradle
\* CRADLE – AUTO
\* MODE – AUTO
FAN SEP SEL sw – 1
Unstow hose from cradle (\*Airflow)
\* WCS ON IT – on
Stow hose in cradle
\* WCS ON IT – off
Unstow, install WCS Container, Bag & Hose, Mirror, Elbow Bag Dispenser, First Day Clothing
\* Ventline mated in aux Wet Trash
Perform URINE PRETREAT SETUP
(Cue Card, URINE PRETREAT CHANGEOUT)

SWITCH CONFIG/GALLEY ACT 6

MA73C:F cb AC1 MAR 3Φ – cl
:G cb AC3 GALLEY FAN (three) – cl

ML86B:A All cbs closed except: MNB H2O LINE HTR B – op
:B All cbs closed
:E All cbs closed except: FLOOD TUNNEL ADAPTER (three) – op
:F All cbs closed
:G All cbs closed except: ESS1BC FLOOD TUNNEL ADAPTER 1 – op

R11L:G SPLY H2O GALLEY SPLY VLV – OP (tb-OP)

GALLEY H2O HTRS (two) – ON
OVEN/RHS – ON
Unstow, install Personal Hygiene Hose

ESCAPE POLE STOWAGE 13

Remove large Port Pin
Slide back – Safing Latch
Retract, hold Locking Pin (Ring)
Remove Large Pin
Release Locking Pin (Ring)
Remove STBD Pip Pin
Stow Pole
Reinstall Large Pin

AIRLOCK SETUP FOR INGRESS 15

MA73C:G 1. cb AC 1,2 ARLK TNL FAN A,B (six) – cl
Inner Hatch 2. Equal vlv caps (two) – remove
3. Open hatch per decal
4. Equal vlv (two) – OFF, install caps
MDDK 5. Remove diffuser from aft middeck floor fitting and temp stow
EXT A/L 6. Unstow bypass duct from Tunnel extension wall
7. Attach free end to aft middeck floor fitting
MO13Q 8. ARLK 2 – ON/OFF
AW18A 9. LTG FLOOD 1(3,4) – ON (as reqd)
10. \* Airflow at top of external airlock halo
11. \* NEG CAB PRESS RELIEF vlv cover (two) – CL (pushed in)
## ON-ORBIT SWITCH LIST

<table>
<thead>
<tr>
<th>LEFT SEAT</th>
<th>RIGHT SEAT</th>
<th>AFT</th>
<th>MIDDECK-FWD</th>
<th>MIDDECK-AFT</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1</td>
<td>O16</td>
<td>C5</td>
<td>ML86B</td>
<td>MA73C</td>
</tr>
<tr>
<td>L2</td>
<td>O8</td>
<td>C6</td>
<td></td>
<td>MO32M</td>
</tr>
<tr>
<td>O6</td>
<td>O14</td>
<td>C7</td>
<td></td>
<td>MO69M</td>
</tr>
<tr>
<td>O7</td>
<td>O15</td>
<td></td>
<td></td>
<td>MO63P</td>
</tr>
<tr>
<td>O8</td>
<td>R1</td>
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<tr>
<td>O14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O15</td>
<td></td>
<td></td>
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</tbody>
</table>

### CIRCUIT BREAKER SNAP RING COLOR CODES

<table>
<thead>
<tr>
<th>COLOR</th>
<th>CONFIGURATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Open at all times</td>
</tr>
<tr>
<td>Green</td>
<td>Open on-orbit only</td>
</tr>
<tr>
<td>Yellow</td>
<td>Open ascent, close per procedure</td>
</tr>
<tr>
<td>Orange</td>
<td>Open orbit through entry</td>
</tr>
<tr>
<td>Blank (no ring)</td>
<td>Always closed or as required</td>
</tr>
</tbody>
</table>
OV103, OV104
OV103, OV105

PNL MO32M

OPEN

CLOSE

80V64TP156

LEH O₂ 5

MO32M

OPEN

CLOSE

80V64TP157

LEH O₂ 6

PNL MO69M

OPEN

CLOSE

80V64TP158

LEH O₂ 7

MO69M

OPEN

CLOSE

80V64TP159

LEH O₂ 8

DIRECT OXYGEN
ORBIT 5/6 DEORBIT
PEN AND INKS TO NOMINAL POST INSERTION FOR ORBIT 5/6 DEORBIT

WARNING
If AV BAY FIRE (ASC PKT, PWRDN or ORBIT PKT, PWRDN) has been completed and the associated AC BUS, FF MDM, or FMCA is not recovered, \MCC for Vent Door config. Certain failure combinations will cause multiple vent doors to remain open during entry.

MET ACTIVITY

ASAP
Perform PRIORITY PWRDN GROUPS A & B (ORB PKT, PRIOR PWRDN) with following deltas:

DELETE: HI LOAD DUCT HTR OFF in Group A Pwrnd
PRI RJDs DRIVER & LOGIC OFF in Group B Pwrnd

When PRIORITY PWRDN is complete, return to Nominal Post Insertion, 1-5, completing all activities except the following:

MET 1:28 OPEN PLBDs
MET 1:36 KU-BD ANT DEPLOY
   KU-BD ANT ACTIVATION
MET 1:52 POST PLBD OPS RAD CONFIG
MET 1:54 SPECIALIST SEAT REMOVAL/STOWAGE
MET 1:57 ESCAPE POLE STOWAGE
MET 2:01 AIRLOCK SETUP FOR INGRESS
MET 2:05 CONFIG VERNIER DRIVERS

1:00
If Both Voice and Command Unavailable:
Perform GPS INCORPORATION (ORB OPS, GNC)

2:12
CONFIG CONTROLS FOR ON-ORBIT, 1-17 thru 1-26 (SWITCH PICTORIALS)
NOTE: Some of these switch throws will have been done during PRIORITY POWERDOWNS

DELETE: HI LOAD DUCT HTR – OFF, on 1-19

2:30
Add following MNVR: MNVR (TRK) –ZLV, +YVV
   TG = 2   BV = 3   OM = 270
## PEN AND INKS TO NOMINAL D/O PREP FOR ORBIT 5/6 DEORBIT

<table>
<thead>
<tr>
<th>TIG-</th>
<th>ACTION</th>
<th>PROCEDURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:57</td>
<td>Delete</td>
<td>COLDSOAK INITIATE 2</td>
</tr>
<tr>
<td>3:35</td>
<td>Delete</td>
<td>SPECIALIST SEAT INSTALLATION</td>
</tr>
<tr>
<td>3:30</td>
<td>Move to TIG-2:30</td>
<td>DPS CONFIG FOR D/O PREP 4a</td>
</tr>
<tr>
<td>3:15</td>
<td>Move to TIG-2:20</td>
<td>DED DISP ENT CONFIG 6</td>
</tr>
<tr>
<td>3:00</td>
<td>Add</td>
<td>GNC FRP-3 (MAL, GNC FRPs) to recover IMU 2</td>
</tr>
<tr>
<td>2:56</td>
<td>Delete</td>
<td>RAD BYPASS/FES C/O (ORB OPS, ECLS)</td>
</tr>
<tr>
<td>2:55</td>
<td>Delete</td>
<td>CONFIG FOR PLBD CLOSING 7</td>
</tr>
<tr>
<td>2:40</td>
<td>Delete</td>
<td>PLBD CLOSING 9</td>
</tr>
<tr>
<td>2:40</td>
<td>Add</td>
<td>PWRDN BACKOUT (Group A &amp; B) (ORB PKT, PRIOR PWRDN) (Delete IMU 2 recovery step)</td>
</tr>
<tr>
<td>2:26</td>
<td>Delete</td>
<td>POST CLOSING CONFIG 10</td>
</tr>
</tbody>
</table>
CUE CARD CONFIG
AFT FLIGHT DECK RECONFIGURATION

**POST SEAT EGRESS**
- O14:D cb MNA CAB VENT – op
- ISOL – op

**AFT STATION CONFIG**
- A14 RCS/OMS HTR FWD RCS – A AUTO
  - L POD (two) – A AUTO, B OFF
  - R POD (two) – A AUTO, B OFF
  - OMS CRSFD LINES (two) – A.AUTO, B OFF
  - FWD,AFT RCS JET (ten) – AUTO

**PDIP 1**
- KU BAND RATE – LO

**A12**
- APU HTR LUBE OIL LN (three) – A AUTO

**ON-ORBIT CONFIG**
- Don headset (if reqd)
- If WCCS flown, perform STD WCCS CONFIG (ORB OPS, COMM/INST)
  - If flight deck handheld mic/speaker operation:
    - R10 MS AUD PWR – AUD/TONE
    - A/G1 – T/R, tw – 2
    - A/G2 – RCV, tw – 2
    - A/A – RCV, tw – 2
    - ICOM A – T/R, tw – 2
    - B – RCV, tw – 2
    - XMIT/ICOM MODE sel – PTT/PTT

**A11**
- MS COMM CCU PWR – OFF
- Connect HMMIC to MHA
- MS COMM CCU PWR – ON

**R6, L5**
- CCU PWR – OFF
- OS AUD SPKR PWR sel – SPKR
- MSTR SPKR VOL sel – as reqd

**A13**
- HLI VOL (two) – minimum, full ccw

**R6, L5**
- S-BD PM MODE – TDRS DATA
- DSP DATA RATE RCV – HI
- XMIT – HI
- CODING (two) – ON

**A1L**
- S-BD FM DATA SOURCE sel – MMU 2 (rot)
- AUD CTR VOICE RCD SEL CH 1 sel – OFF
  - 2 sel – OFF

**R14:**
- C cb MNB KU ANT HTR – cl
  - UHF EVA (two) – cl
  - D Close left to right all cbs
  - E Close left to right all cbs

**R11L**
- IDP/CRT 4 PWR – ON

**R12**
- VPU PWR – ON (LED on)
- AFD 1 – ON (if desired)

**L10**
- Remove, stow VIP, VTR covers

**A15**
- cb CNTL PWR PTU 1,2 (two) – cl
- PTU/MAIN BUS A,B (two) – ON (tb-ON)
- OPCU 1,2 V-ADJ (two) – CMD

**O17:A**
- ATVC (four) – OFF
  - B EIU (three) – OFF
  - D MEC 1 – OFF, wait 2 sec, then
  - 2 – OFF

**L12**
- Unstow, deploy reqd FDF

**SSP1**
- cb PDIP 1 PWR 2/KU BAND RLY – cl
  - PDIP 1 PWR 1 – cl
  - SW PWR 1 – cl

**SSP2**
- cb PDIP 2 PWR 2 – cl
  - PDIP 2 PWR 1 – cl

**R12 (OPP)**
- cb OBSS SW PWR – cl
  - OBSS SW PWR – ON

**OBSS**
- RSC PWR – ON

**MET**
- 00:51 SPECIALIST SEAT EGRESS
- 00:59 AFT STATION CONFIG
- 01:03 CONFIG FOR PLBD OPERATIONS
- 01:41 CLOTHING CONFIG
- 01:54 SPECIALIST SEAT REMOVAL/STOWAGE
- 02:01 AIRLOCK SETUP FOR INGRESS
- 02:21 RESET C/W

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**CC 3-3**
AFT FLIGHT DECK RECONFIGURATION

CONFIG FOR PLBD OPERATIONS

A6U

SET UP LIGHTS
ANNUN BUS SEL – MNC

NOTE
Minimum operating time for PLB Floodlights is 10 min.
Light must be OFF for minimum of 10 min UNBLOCKED, 16 min BLOCKED prior to reuse. ~3 min to full bright

A7U

PL BAY FLOOD AFT (two) – OFF
MID (two) – OFF
FWD (two) – ON
BHD – N/A

Record MET: / / : : :

* If PLB Floodlight not ON to full bright within 5 min: *
* (Aft) PL BAY FLOOD – OFF

SET UP P/TV
Perform ACTIVATION, OPERATION (Cue Card, TV), AUTO ONS only for camera A(D)
Perform PLBD VTR RECORDING (Cue Card)

CLOTHING CONFIG

Doff, stow:
Harness, Boots, LES
Stow gloves in Helmet
Remove radiation dosimeter from LES and insert in inflight garments

Doff, stow in Wet Trash:
UCD (clamp if used)
Emesis Bag, if used (unstow new bag)

RESET C/W

R13U

PARAMETER NAME C/W CH UPPER LIMIT
FREON LOOP EVAP OUT T1 107 1.90V/64.8 deg
T2 117 1.90V/64.8 deg
CABIN O2 FLOW 2 24 4.65V/4.65 LBM/HR

R13U

PARAMETER NAME C/W CH ENA/INH
MPS He TK P C 9 INH
L 19 INH
R 29 INH
MPS He REG P C 39 INH
L 49 INH
R 59 INH
HYD P 1 99 INH
2 109 INH
3 119 INH
**MIDDECK RECONFIGURATION**

**PRELIM MIDDECK CONFIG**

- **WARNING**
  Eye and skin damage can occur in as little as 10 sec

- **INSTALL FILTERS**
  - Don Sunglasses
  - Unstow, install: Side Hatch UV Filter and Locking Device, and Pyro Box Safing Pin

- **PRESS H2O TKA**
  - SPLY H2O GNZ TK VENT vlv – PRESS
  - A SPLY vlv – OP

- **NOTE**
  - Disregard possible ‘S66 WASTE H2O PRES’ fault msg

**COMM CONFIG**

- Unstow: headsets, handheld mic, and/or wireless comm (see WCCS Cue Card), if flown
- If WCCS flown, perform STD WCCS CONFIG (ORB OPS, COMM/INST)
- If middeck handheld mic/speaker ops:
  - MIDDECK SPKR AUD A/G 1 – T/R, tw-2
  - A/G 2 – RCV, tw-2
  - A/A – RCV, tw-2
  - ICOM A – T/R, tw-2
  - B – RCV, tw-2
  - XMIT/ICOM MODE – PTT/PTT
  - SPKR PWR – SPKR
  - MSTR SPKR VOL – 8

- **MO42F**
  - MIDDECK COMM CCU PWR – OFF
  - MIDDECK COMM CCU PWR – ON

**FDF CONFIG**

- Stow in Helmet Bag: ASCENT Cue Cards, ASC, ASC PKT, SYS AOA
- Unstow Jettison Stowage Bag, mark “Return to Houston”
- Place Helmet Bag in Return to Houston Bag

- **ML86B:C**
  - cb MNA EXT ARLK HTR LINE ZN1,2 (two) – cl
  - STRUC Z1/2/3 – cl
  - Unstow VW Bags

**CLOTHING CONFIG**

- Doff, stow: Harness, Boots, LES
- Stow gloves in Helmet
- Remove radiation dosimeter from LES and insert in inflight garments
- Doff, stow in Wet Trash: UCD (clamp if used)
- Emesis Bag, if used (unstow new bag)

**QUICKDON MASKS SETUP**

- Connect QDM COMM to HIU
- Connect QDM O2 to LEH hose
- Verify operation
- Temp stow QDM/HIU assembly

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**MET MS AFT ACTIONS**

- 00:51 SPECIALIST SEAT EGRESS
- 00:58 PRELIM MIDDECK CONFIG 2
- 01:06 WCS CONFIG/ACT 5
- 01:07 SWITCH CONFIG/GALLEY ACT 6
- 01:41 CLOTHING CONFIG 10
- 01:45 QUICKDON MASKS SETUP 19
- 01:54 SPECIALIST SEAT REMOVAL/Stowage 3
- 01:59 ESCAPE POLE STOWAGE 13
- 02:01 AIRLOCK SETUP FOR INGRESS 15

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(reduced copy)
MIDDECK RECONFIGURATION

WCS CONFIG/ACT

WCS SWITCH CONFIGURATION
- ML86B:A cb MNA H2O LINE HTR A – cl
- WASTE H2O DUMP ISOL – cl
- MNA,MNB VAC VENT ISOL VLV (two) – cl
- WCS CNTLR (two) – cl
- MNB VAC VENT NOZ HTR – cl
- :F MNA FLOODS WMC/MO13Q – cl

- MA73C:E All cbs closed except:
  - cb AC3 PL 3φ – op

- ML31C WASTE H2O DUMP ISOL VLV – OP (tb-OP)
- VAC VENT ISOL VLV BUS SEL – MNA
- NOZ HTR – ON
- ISOL VLV CNTL – OP (tb-OP)

- If VAC VENT ISOL VLV CNTL tb– CL or bp:
  - VAC VENT ISOL VLV BUS SEL – MNB
  - CNTL – OP (tb-OP)
  - If VAC VENT ISOL VLV CNTL tb still CL or bp:
  - MCC for further actions

WCS ACTIVATION
- WCS Foot/Toe Restraints – down, locked
- VAC VLV – OP
- Unstow urinal hose from Velcro strap, install hose in cradle
  - CRADLE – AUTO
  - MODE – AUTO
  - FAN SEP SEL sw – 1
- Unstow hose from cradle (Airflow)
- WCS ON It – on
- WCS ON It – off
- Unstow, install WCS Container, Bag & Hose, Mirror, Elbow Bag Dispenser, First Day Clothing
- Ventline mated in aux Wet Trash
- Perform URINE PRETREAT SETUP
  - (Cue Card, URINE PRETREAT CHANGEOUT)

SWITCH CONFIG/GALLEY ACT

- MA73C:F cb AC1 MAR 3φ – cl
- :G cb AC3 GALLEY FAN (three) – cl
- ML86B:A All cbs closed except: MNB H2O LINE HTR B – op
- :B All cbs closed
- :E All cbs closed except: FLOOD TUNNEL ADAPTER (three) – op
- :F All cbs closed
- :G All cbs closed except: ESS1BC FLOOD TUNNEL ADAPTER 1 – op
- R11L:G SPLLY H2O GALLEY SPLLY VLV – OP (tb-OP)
- GALLEY H2O HTRS (two) – ON
- OVEN/RHS – ON

- Unstow, install Personal Hygiene Hose

ESCAPE POLE STOWAGE

- Remove large Port Pin
- Slide back – Safing Latch
- Retract, hold Locking Pin (Ring)
- Remove Large Pin
- Release Locking Pin (Ring)
- Remove STBD Pip Pin
- Stow Pole
- Reinstall Large Pin

AIRLOCK SETUP FOR INGRESS

- MA73C:G 1. cb AC1.2 ARLK TNL FAN A,B (six) – cl
- Inner Hatch 2. Equal vlv caps (two) – remove
- 3. Open hatch per decal
- 4. Equal vlv (two) – OFF, install caps
- MDDK 5. Remove diffuser from aft middeck floor fitting and temp stow
- EXT A/L 6. Unstow bypass duct from Tunnel extension wall
- MO13Q 7. Attach free end to aft middeck floor fitting
- AW18A 8. ARLK 2 – ON/OFF
- 9. LTG FLOOD 1(3,4) – ON (as reqd)
- 10. Airflow at top of external airlock halo
- 11. NEG CAB PRESS RELIEF vlv cover (two) – CL (pushed in)