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Incorporates the following:

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AREAS OF TECHNICAL RESPONSIBILITY

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<tr>
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<td>DO4/T. Harris</td>
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<tr>
<td>Alternate Book Manager</td>
<td>DO4/R. Smith</td>
<td>281-244-1166</td>
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<tr>
<td>Alternate Book Manager</td>
<td>DO4/M. Gast</td>
<td>281-244-5659</td>
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### POST INSERTION

#### STS-109

**LIST OF EFFECTIVE PAGES**

<table>
<thead>
<tr>
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<tr>
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<td>1-26</td>
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</tbody>
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* – Omit from flight book

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PI/109/FIN A
<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>
</tbody>
</table>
NOTE

The STS-109 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-109 flight phases are conducted using the Ascent Checklist, Flight Plan, Deorbit Prep Book and Entry Checklist.
POST INSERTION PROCEDURES
For single PASS GPC failure, build PASS set as follows:

1. FAILED GPC
2. FAILED GPC
3. FAILED GPC
4. FAILED GPC

1 2 3 4

In step 1:
- Assign strings 1 & 3 to one GPC and strings 2 & 4 to other GPC.

NOTE
Do not perform any keyboard item entries or switch throws 10 sec before and after moding PASS GPCs to RUN or making OPS transition requests.

C,P 1. REASSIGN G2FD STRING TO ANOTHER GPC IN MC1

**CONFIG GPC**

- Item 1 +1 EXEC

**GNC, OPS 106 PRO**

**GNC 0 GPC MEMORY**

**CAUTION**
If BFS is standalone (BFC lt flash):
- BFC CRT DISP – ON
- BFC, GNC I/O RESET
- BFC CRT DISP – OFF

2. MODE G2FD GPC TO OPS 0

**GNC 0 GPC MEMORY**

- Item 1 –+1 EXEC

**GNC, OPS 201 PRO**

**GNC UNIV PTG**

**CAUTION**
If BFS is standalone (BFC lt flash):
- BFC CRT DISP – ON
- BFC, GNC I/O RESET
- BFC CRT DISP – OFF

3. LOAD MC 2 INTO G2FD GPC

**CRT**

- PL, GPC/CRT G2FD GPC/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 (~16 sec)

4. TRANSITION TO GNC OPS 2

**CONFIG GPC**

- Item 1 +2 EXEC

**DUAL G2**

2

**SINGLE G2**

2

12000

10000

**GNC 0 GPC MEMORY**

**CAUTION**
If BFS is standalone (BFC lt flash):
- BFC CRT DISP – ON
- BFC, GNC I/O RESET
- BFC CRT DISP – OFF

5. TURN OFF BFC LT

**C3**

- BFC CRT DISP – ON
- BFS, MSG RESET
- BFC lt – off

**C2**

- BFS, MSG RESET
- BFC lt – off

**C3**

- CRT DISP – OFF

- Store complete when MC = 02 (~16 sec)
6. TRANSITION TO SM OPS 201 (401)

CRTX SM, GPC/CRT SM GPC/X EXEC
X: SM GPC MEMORY
CONFIG – ITEM 1 +4(5) EXEC
Modify MC 4(5) per table
SM, OPS 201(401) PRO
SM ANTENNA

7. SECURE BFS

C3 BFC CRT DISP – ON
C3 BFC CRT DISP – OFF

8. RECONFIG IDPs

C2 IDP/CRT 3 PWR – OFF
R11L \4 PWR – ON
F6, F7, F8 Power OFF MDUs as desired

9. LOAD ORBIT TFLs

C3 \OI PCMMU FORMAT – GPC
SM 62 PCMMU/PL COMM

FORMAT:

CRX
FXD – ITEM 1 EXEC (+)
SEL ID – ITEM 3 +1 0 1 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

Ref ASC for activities from 00:00-00:50 MET

<table>
<thead>
<tr>
<th>CONFIG</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4 (5)</th>
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<tr>
<td>OPS</td>
<td>G1, G6</td>
<td>G2</td>
<td>G3</td>
<td>SM</td>
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<tr>
<td>GPC SEL</td>
<td>1,2,3,4</td>
<td>1.2</td>
<td>1,2,3,4</td>
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</tr>
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</table>

1: GNC OMS 2 MNVR COAST
2: GNC OMS 2 MNVR COAST
3: BFS, SYS SUMM 2

C L4:B,Q,R All cbs closed
\J cb AC3 \aA 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, DUPS, GPC FRP–4

PRELIM MIDDECK CONFIG (MID Cue Card)

AFT STATION CONFIG (AFT Cue Card)
10. **RECONFIG GPCs**

O6

- GPC MODE 5
- OUTPUT 5
- OUTPUT (SM GPC)

If no failed GPC:
- √ All CRTs deassigned from FD GPC
- GPC MODE (FD GPC)
- OUTPUT 5
- OUTPUT (SM GPC)
- TERM (tb–bp)
- HALT (tb–bp)
- STBY (tb–bp)
- STBY (tb–RUN)
- HALT (tb–bp)

If single G2 reqd:
- IDP/CRTX MAJ FUNC
- PL

C2

CRTX

- CRT CONFIG – ITEM 1 +2 EXEC

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

- GNC 0 GPC MEMORY
- ITEM 48 EXEC
- SM 0 GPC MEMORY
- ITEM 48 EXEC

- CONFIG – ITEM 45 +2 EXEC
- GPC
- ITEM 46 +2 EXEC
- STORE
- ITEM 47 EXEC
- Store complete when MC = 2 (~30 sec)
- √ All CRTs 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 single G2 reqd:
- √ All CRTs deassigned from FD GPC
- GPC MODE 2
- STBY (tb–bp)
- HALT (tb–bp)
- STBY (tb–RUN)
- HALT (tb–bp)

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

PI LOCKER

When all GPC switch configuration complete, unstow, install GPC MODE switch guard
MS  PGSC UNSTOW/SETUP/ACTIVATION
PGSC ACTIVATION (ORB OPS, PGSC)

MS  CONFIG FOR PLBD OPERATIONS (AFT Cue Card)  4, 1–14

P  PL BUS ACTIVATION
R1  PL PRI MNC – ON (tb-ON)
\`MNB tb – OFF
\`FC3 tb – OFF
\`AUX – MNA(MNB)
\`AUX – OFF

C,P  DON/CONFIG COMM
XX AUD A/G 2 – RCV, tw – 2
XMIT/ICOM MODE – PTT/VOX (recommended)

P  LOAD DAP A5

MNVR TO PLBD OPENING ATT (–ZLY, +YVV)
CRT1  \`TGT ID +2
\`BODY VECT +3
\`P +90
\`Y +0.0
OM +270

DAP:  A/AUTO/ALT
(01:12) Initiate TRK

C  RAD ACT  5

RAD/PLBD OPS NO–GO FOR FOLLOWING FAILURES

<table>
<thead>
<tr>
<th>OMS/RCS</th>
<th>GNC</th>
<th>ECLS/EP1</th>
<th>MECH</th>
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<tbody>
<tr>
<td>2 OMS Engs</td>
<td>2 IMUs</td>
<td>1 H2O or Freon Lp</td>
<td>2 LG DPY METHODS</td>
</tr>
<tr>
<td>1 OMS Eng &amp; 1</td>
<td>3 RGAs</td>
<td>Both RFCAs</td>
<td>PRES or REDNT</td>
</tr>
<tr>
<td>\x RCS jet</td>
<td>3 AAs</td>
<td>Both Cab Fans</td>
<td>WINDOW PANE</td>
</tr>
<tr>
<td>1 OMS Inlet line</td>
<td>3 ADTAs</td>
<td>3 of 6 Av Bay Fans</td>
<td>FAILURE</td>
</tr>
<tr>
<td>OMS Prop Tk Leak</td>
<td>3 Elevon or</td>
<td>2 Fcs</td>
<td>DPS</td>
</tr>
<tr>
<td>Alt RCS He or Prop Leak</td>
<td>BF Pos Fdbks</td>
<td>Any MN or 3σ AC Bus</td>
<td>3 GPCs</td>
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<tr>
<td>\x COMM</td>
<td>(same surface)</td>
<td>Any CNTL or MCP Bus</td>
<td>2 PL MDMs</td>
</tr>
<tr>
<td>No Voice and</td>
<td>2 FCS Ch</td>
<td>3 IMU Fans</td>
<td>2 FF or FA MDMs</td>
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<tr>
<td>No CMD</td>
<td>(same surface)</td>
<td>APU/HYD</td>
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</tbody>
</table>

If NO–GO for RAD/PLBD OPS, go to ORB 3 DEORBIT  6

MS  OPEN PLBDS, AUTO MODE, 1–11

RAD ACT  5

NOTE
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) – AUTO B
* 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
* MAN SEL 1(2) – RAD FLOW
* Hold 3 sec or until 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 – RAD
* If RAD BYP VLV 1(2) tb still bp:
* Do not select alternate RAD CNTLR

L2  FREON ISOL MODE – AUTO

ORB 3 DEORBIT  6

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
**STAR TRKR ACTIVATION/DOOR OPEN**

<table>
<thead>
<tr>
<th>C</th>
<th>O6</th>
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<tbody>
<tr>
<td>S TRK PWR (two) – ON</td>
<td>GNC I/O RESET</td>
</tr>
<tr>
<td>S TRK DR CNTL SYS (two) – OP (start timer)</td>
<td>√POS tb (two) – bp</td>
</tr>
<tr>
<td>When both tb – OP (8-24 sec), or either tb – bp for &gt; 24 sec, CNTL SYS (two) – OFF</td>
<td></td>
</tr>
</tbody>
</table>

* If tb – bp > 8 sec, notify MCC *

1: GNC 22 S TRK/COAS CNTL

STAR TRK – ITEM 3,4 EXEC

1: GNC 21 IMU ALIGN

RESUME

**SUPPLY WATER CONFIG**

| R11L |
| SPLY H2O DUMP ISOL VLV – OP (tb–OP) |
| XOVR VLV – OP (tb–OP) |

**NOTE**

Do not perform until blocks 11 and 12 are performed
MCC & CREW:  GO FOR ORBIT OPS
O6  UHF MODE Sel – OFF
KU_BD ANT DEPLOY (ORB OPS, COMM/INST)
KU_BD ANT ACTIVATION (ORB OPS, COMM/INST)
C,P  SEAT EGRESS
C,P  CLOTHING CONFIG 7
MS  CLOTHING CONFIG (MID, AFT Cue Cards) 8, 1–14, 1–15
MS  QUICKDON MASKS SETUP
Unstow, install, verify operation
If time permits: OCAC SETUP (ORB OPS, CREW SYS)
C, P  POST PLBD OPS RAD CONFIG 9
MS  SPECIALIST SEAT REMOVAL/STOWAGE
C  STAR TRKR ACTIVATION/DOOR OPEN 10, 1–6
MS  WCS CONFIG/ACT (MID Cue Card) 11, 1–16
MS  SWITCH CONFIG/GALLEY ACT (MID Cue Card) 12, 1–16
MS  ESCAPE POLE STOWAGE (MID Cue Card) 13, 1–16
P  SUPPLY WATER CONFIG 14, 1–6

CLOTHING CONFIG 7
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 9
C
1: SM 88 APU/ENVIRON THERM

NOTE
FREON LOOP RAD OUT temps will not drop to their normal operating range (< 60 deg) until ~15 min after doors are opened
L1  NH3_CNTL R A(B) – OFF
\sqrt{RAD BYP VLV t (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
02:00
A5(B1)
AUTO
ALT
RT 0.2
DB 5.0

MS
AIRLOCK SETUP FOR INGRESS 15, 1-16

02:05
P
APU STEAM VENT HTR ACT
R2
\BLR CNTLR/HTR (three) – A
PWR (three) – ON

02:10
C
CONFIG VERNIER CONTROL
\MCC: Go for vernier control
O16:F
RJD MANF L5/F5/R5 DRIVER – ON, wait 5 sec
DAP: A/AUTO/VERN

02:15
C,MS
CONFIG CONTROLS FOR ON-ORBIT
Perform steps on 1–17 thru 1–26
Unstow, install HUD covers (two)
L2
Remove, stow (on PNL L2/FDF FD locker)
NWS sw flex extension

02:20
P
HYD THERMAL CONDITIONING–ENABLE
R2
HYD CIRC PUMP (three) – GPC

02:25
MS
RESET C/W (AFT Cue Card) 16, 1–14

02:30
MS
FUEL CELL VI PERFORMANCE PLOT (ORB OPS, EPS)

Stow POST INSERTION, go to FLIGHT PLAN, FLT DAY 1
MANUAL PLBD OPENING/FIT TEST PROCEDURES

1. If no motion determined visually or ‘OP/CL’ not blank within 10 sec after cmd,
   PL BAY DR – STOP, perform MAL, MECH.
2. If latch not ‘OP’ in single mtr time,
   PL BAY DR – STOP, perform MAL, MECH.
3. If door motion stops and not ‘OP’,
   PL BAY DR – STOP, perform MAL, MECH.
4. If SM GPC fails during this operation:
   PL BAY DR SYS 1,2 (two) – DSBL
   PL BAY DR – STOP
   Perform PASS SM GPC FAIL (ORB PKT, DPS)
5. If BFS AUTO sequence has been interrupted by reversing latch/door drive
   direction, or if MANUAL has been used at any time during the mission,
   use MANUAL mode for all subsequent BFS PLBD OPS

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 DOOR - STOP

OPEN CENTER LATCHES

1. Select CENTER LATCHES 5–8,9–12 – ITEM 4,5 EXEC (+)
2. Deselect CENTER LATCHES 5–8,9–12 – ITEM 4,5 EXEC (no +)
3. Select CENTER LATCHES 1–4,13–16 – ITEM 6,7 EXEC (+)
4. Deselect CENTER LATCHES 1–4,13–16 – ITEM 6,7 EXEC (no +)

OPEN STBD FWD, AFT LATCHES & DOOR

9. Select STBD FWD,AFT LATCHES – ITEM 8,9 EXEC (+)
10. Deselect STBD FWD,AFT LATCHES – ITEM 8,9 EXEC (no +)

POST-PLBD OPENING CLEANUP

17. PL BAY DR – OP
18. PL BAY DR – STOP
19. PL BAY DR – CL
20. PL BAY DR – STOP

CLOSE STBD DOOR

21. PL BAY DR – CL
22. PL BAY DR – STOP
23. PL BAY DR – OP
24. PL BAY DR – STOP
25. Deselect STBD DOOR – ITEM 10 EXEC (no +)

OPEN PORT FWD, AFT LATCHES & DOOR

26. Select PORT FWD,AFT LATCHES – ITEM 11,12 EXEC (+)
27. PL BAY DR – OP
28. PL BAY DR – STOP
29. Deselect PORT FWD,AFT LATCHES – ITEM 11,12 EXEC (no +)
30. Select PORT DOOR – ITEM 13 EXEC (+)
31. PL BAY DR – OP
32. PORT DOOR – RDY, blank
   After 15 sec:
33. PL BAY DR – STOP

CLOSE PORT DOOR

34. PL BAY DR – STOP
35. PL BAY DR – OP
36. PL BAY DR – STOP
37. Deselect PORT DOOR – ITEM 13 EXEC (no +)

POST-PLBD OPENING CLEANUP

38. PL BAY DR SYS 1,2 (two) – DSBL
39. AC POWER OFF – ITEM 2 EXEC (+)
40. SM, OPS X01 PRO (if PASS SM)
41. After floodlights ON > 25 min:
   PL BAY FLOOD (all) – OFF
**FUNCTION**

<table>
<thead>
<tr>
<th></th>
<th>PLBD CONTROL</th>
<th></th>
<th>PLBD DISPLAY MDM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MTR 1</td>
<td>MTR 2</td>
<td></td>
</tr>
<tr>
<td>MTR 2</td>
<td>C</td>
<td>O</td>
<td>R</td>
</tr>
<tr>
<td>MTR 1</td>
<td>A</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AC/ MCA</td>
<td>CNTL</td>
<td>MDM</td>
</tr>
<tr>
<td>LATCH</td>
<td>5-8</td>
<td>1/MID3</td>
<td>AB3/AB2</td>
</tr>
<tr>
<td></td>
<td>9-12</td>
<td>1/MID1</td>
<td>AB3/AB1</td>
</tr>
<tr>
<td></td>
<td>1-4</td>
<td>1/MID3</td>
<td>AB3/AB2</td>
</tr>
<tr>
<td></td>
<td>13-16</td>
<td>3/MID4</td>
<td>CA3/CA2</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 3

**POST SEAT EGRESS**

| O14:D | cb MNA CAB VENT – op | ISOL – op |
| 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 |

If flown:

| PDIP | √KU BAND RATE – OFF |
| L12/A1 | cb PDIP PWR 1 – cl |
| 2/KuBAND RLY – cl |
| A7 | WIRELESS VIDEO HTR – ON |
| A12 | APU HTR LUBE OIL LINES (three) – A AUTO |

**CAUTION**

Take GAS GEN/FUEL PUMP Htrs to A AUTO if APU FUEL T PUMP OUT/BYP LN (S88 APU/ENVIRON THERM) exceeds lower FDA limit

### ON-ORBIT CONFIG

Don headset (if reqd)

If WCCS, perform STD WCCS CONFIG (ORB OPS, COMM/INST)

If flight deck handheld mic/speaker operation:

| A13 | OS 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 | OS COMM CCU PWR – OFF |

Disconnect MHA from CCU (if not reqd)

Connect HHMIC to CCU

| R6, L5 | OS COMM CCU PWR – ON |
| A13 | CCU PWR – OFF |
| OS AUD SPKR PWR sel – SPKR |
| MSTR SPKR VOL sel – As Req’d |
| 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 – OPS RCDR (rot) |
| AUD CTR VOICE RCD SEL CH 1 sel – OFF |
| 2 sel – OFF |

### MET MS AFT ACTIONS

| 00:53 | SPECIALIST SEAT EGRESS |
| 00:59 | AFT STATION CONFIG 3 |
| 01:01 | PGSC UNSTOW/SETUP/ACTIVATION (ORB OPS, PGSC) |
| 01:03 | CONFIG FOR PLBD OPERATIONS 4 |
| 01:41 | CLOTHING CONFIG 8 |
| 01:52 | SPECIALIST SEAT REMOVAL/STOWAGE |
| 02:24 | RESET C/W 16 |
**CONFIG FOR PLBD OPERATIONS**

**A6U**

**ANNUN BUS SEL – MNC**

**NOTE**
Minimum operating time for PLB Floodlights is 25 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**

<table>
<thead>
<tr>
<th>AFT (two)</th>
<th>ON</th>
</tr>
</thead>
<tbody>
<tr>
<td>MID (two)</td>
<td>ON</td>
</tr>
<tr>
<td>FWD (two)</td>
<td>OFF</td>
</tr>
</tbody>
</table>

Record MET: _____/_____:_____

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

**SET UP P/TV**

Go to ACTIVATION, OPERATION (Cue Card, TV)

---

**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**

<table>
<thead>
<tr>
<th>PARAMETER NAME</th>
<th>C/W CH</th>
<th>UPPERLIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREON LOOP EVAP OUT T1</td>
<td>107</td>
<td>1.90V/64.8 deg</td>
</tr>
<tr>
<td>T2</td>
<td>117</td>
<td>1.90V/64.8 deg</td>
</tr>
<tr>
<td>CABIN PRESS</td>
<td>4</td>
<td>3.85V/15.36 psia</td>
</tr>
</tbody>
</table>

**R13**

<table>
<thead>
<tr>
<th>PARAMETER NAME</th>
<th>C/W CH</th>
<th>ENA/INH</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPS He TK P C</td>
<td>9</td>
<td>INH</td>
</tr>
<tr>
<td>L</td>
<td>19</td>
<td>INH</td>
</tr>
<tr>
<td>R</td>
<td>29</td>
<td>INH</td>
</tr>
<tr>
<td>MPS He REG P C</td>
<td>39</td>
<td>INH</td>
</tr>
<tr>
<td>L</td>
<td>49</td>
<td>INH</td>
</tr>
<tr>
<td>R</td>
<td>59</td>
<td>INH</td>
</tr>
<tr>
<td>HYD P 1</td>
<td>99</td>
<td>INH</td>
</tr>
<tr>
<td>2</td>
<td>109</td>
<td>INH</td>
</tr>
<tr>
<td>3</td>
<td>119</td>
<td>INH</td>
</tr>
</tbody>
</table>
MIDDECK RECONFIGURATION

**PRELIM MIDDECK CONFIG**

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

**PRESS H2O TKA**
ML26C SPLY H2O GN2 Tk VENT vlv – PRESS
A SPLY vlv – OP

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

**COMM CONFIG**
Unstow: Headsets, Handheld Microphone, and/or wireless comm (see WCCS Cue Card), if flown
If WCCS, perform STD WCCS CONFIG (ORB OPS, COMM/INST)
If middeck handheld microphone/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
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:F All cbs closed, except: MNA FLOODS EXT A/L 1/4 – op
unlabeled cb – op
MNB FLOODS EXT A/L 2/3 – op
MNC unlabeled cb – op
:G All cbs closed, except: FLOOD TNL ADAPT – op
ESS 2CA unlabeled cb (two) – op

Unstow VW Bags

**MET**

<table>
<thead>
<tr>
<th>MS MIDDECK ACTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>00:53</td>
</tr>
<tr>
<td>00:57</td>
</tr>
<tr>
<td>01:41</td>
</tr>
<tr>
<td>01:52</td>
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<tr>
<td>01:56</td>
</tr>
<tr>
<td>01:57</td>
</tr>
<tr>
<td>01:58</td>
</tr>
</tbody>
</table>

**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)
### WCS CONFIG/ACT 11

**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
    - WCS CNTLR (two) – cl
    - MNB VAC VENT NOZ HTR – cl
  - :F
    - MNA FLOODS WMC/MO13Q – cl
- MA73C:E
  - All cbs closed (WCS) except:
    - cb AC2 PL 3f – op
    - cb AC3 PL 3f – op
- ML31C
  - WASTE H2O DUMP ISOL VLV – OP (tb-OP)
  - \(^\wedge\)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: *
  - * \(^\wedge\)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
  - \(^\wedge\)CRADLE – AUTO
  - \(^\wedge\)MODE – AUTO
  - FAN SEP SEL sw – 1
  - Unstow hose from cradle (\(^\wedge\)Airlow)
  - \(^\wedge\)WCS ON It – on
  - Stow hose in cradle
  - \(^\wedge\)WCS ON It – off
  - Unstow, install WCS Container, Bag & Hose, Mirror, Elbow Bag
  - Dispenser, First Day Clothing
  - Ventline mated in aux Wet Trash

### SWITCH CONFIG/GALLEY ACT 12

- MA73C:G
  - cb AC3 GALLEY FAN (three) – cl
- ML86B:A
  - All cbs closed except: MNB H2O LINE HTR B – op
  - :B
    - All cbs closed except: MNB WASTE H2O TK1 DRAIN – op
  - :E
    - All cbs closed except: CO2 SYS 1,2 CNTRL, CO2 COMM INSTR – op
    - FLOOD TNL ADAPT (three) – 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

**Inner Hatch**

1. EQUAL vlv caps (two) – remove, stow

  **CAUTION**

  Hold hatch away from airlock to Avoid damaging vent duct

2. EQUAL vlv (two) – NORM
3. Open and stow hatch
4. EQUAL vlv (two) – OFF
5. Rotate vent duct into airlock
6. Attach free end to cabin middeck floor air fitting
7. LTG FLOOD (four) – ON (as reqd)

- AW18A
- LTG FLOOD (four) – ON (as reqd)
### 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>O8</td>
<td>C5</td>
<td>ML86B</td>
<td>MA73C</td>
</tr>
<tr>
<td>L2</td>
<td>O16</td>
<td>C6</td>
<td></td>
<td>MO32M</td>
</tr>
<tr>
<td>O6</td>
<td>R1</td>
<td>C7</td>
<td></td>
<td>MO69M</td>
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<tr>
<td>O7</td>
<td>R11L</td>
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<td></td>
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</tr>
<tr>
<td>O8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O15</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend**

- **- up**
- **- center**
- **- down**
- **R** - as reqd
- Boxed items indicate switch configured during On-ORBIT SWITCH CONFIGURATION
- White area indicates switch verified during ON-ORBIT SWITCH CONFIGURATION
- Indicates switch/display not checked during ON-ORBTT SWITCH/VERIF

**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>