TERMINAL COUNT DEMONSTRATION (LPS)

Element/End Item: OV-103/104/105
Flow/Usage: ALL
Facility: PAD A
Design Center Concurrence: MSFC/JSC
Category: B
OPR: TCO
TTL ORG: OC

This document contains HAZARDOUS operations.
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1.0 INFORMATION

NOTE

Calibration Data Is Detected
A keyword search performed on this WAD indicates it may contain calibration data recordings. This keyword search is limited and variations other than the USA Writer's Handbook (USA008777) approved format for calibration data recording may not be detected. Calibration data recordings in deviations, attachments, or Pen & Inks will not be detected.
1.1 Objective

1. To demonstrate the sequence of Crew operations required to prepare for Shuttle Launch from Crew suiting through GLS cut-off (T-5 sec.)

2. To evaluate Crew operations time lines established for the Shuttle Launch Terminal Countdown.

3. To evaluate the inter-agency interfaces required to support the Shuttle Launch Terminal Countdown.

4. To interface the Flight Crew and the Launch test team in a Launch dress rehearsal.

5. To demonstrate the Launch cutoff safining steps and recycle to T-20 min.

This procedure is hazardous due to propellants and ordnance aboard the Shuttle, closing of Orbiter hatch (optional) and open loop radiation.

This book contains operations to activate, operate, test, and secure Shuttle systems as called up in the controlling operations of S0017.200.

Bio-med Checkout (Optional)
Shuttle Ascent Switch list
NAVAIDS Securing
OMS/RCS System Secure
SSME System Preps For TCDT
GNC Securing
ECLSS System
Hydraulic System
SRB/ET PIC No/Go Resistance Test
DPS System
MET Initialization and Switch/Circuit Breaker Configuration
RF FEP Source Verification
Orbiter/GSE PIC Resistance Test
Countdown Clock Set
GLS Functional Initialization and LCC Activation
Manual Clock Control
CDC Hold Control
EPDC System Securing
GLS Disk File Load At Backup Console
C&W EMON Activation
Instrumentation System
NAVAIDS Activation and Self Test
GLS Recycle To T-20 Min.
1.2 Special Instructions All Operations

1. DPS special instructions are contained in OMI V9001VL2.

2. Requested countdown clock holds

Start Of CDC Operations To Start Of GLS At T-9 Minutes

A CDC hold may be requested by the Orbiter Test Conductor (OTC), Tank/Booster Test Conductor (TBC), LPS Test Conductor (LPS), Payload Test Conductor (PTC), Flight Crew (CDR, PLT), Flight Director (FLT), Support Test Manager (STM), Superintendent of Range Operations (SRO), Flight Control Officer (FCO), Range Safety Representative (RSR), GSFC STDN station (MILA), and FLT med. The Flight Crew CDC hold will be requested through the OTC on channel 212. The OTC, TBC, LPS, PTC, FLT, STM, SRO, FCO, RSR, MILA, and FLT med CDC hold requests go directly to the NTD on channel 232/212. The NTD will place the NTD CDC hold switch to "hold position" to stop the CDC at the most advantageous time. In all cases, the hold requestor will give a description of the problem and a recommendation.

T-9 Minutes (start GLS) to T-31 Seconds

At start of GLS, all vehicle oriented systems personnel who are implementing Launch Commit Criteria will be active on channel 212 and will request holds through NTD. NTD will determine validity of hold request. OTC, TBC, PTC, LPS, FLT, STM, RSR, MILA and FLT med will request a hold by saying "NTD-(station call sign): hold countdown clock". NTD will place NTD CDC hold switch to "hold position". The CDC will stop at the next GLS pre-planned hold point. The SRO and FCO will request a hold in the same manner. Pre-planned hold points in sequencer are:

T-9 minutes - Start GLS
T-7:30 minutes - OAA Retract
T-5 minutes - APU Start
T-4 minutes - Start Purge Sequence 4
T-2:55 minutes - Start Prepress (LO₂)
T-1:57 minutes - Start Prepress (LH₂)
T-31 seconds - Go For Auto Sequence Start
Ground Launch Sequencer Cutoff

T-9 Minutes (start GLS) to T-31 Seconds

All Launch Commit Criteria monitors requiring an immediate "cutoff" will be active on channel 212. LCC monitors will request a "cutoff" by saying "CGLS- (station call sign): give cutoff". The CGLS will immediately press the CGLS cutoff PFP.

T-31 Seconds to T-0 Seconds

All Launch Commit Criteria monitors requiring an immediate "cutoff" will be active on channel 212. LCC monitors will request a "cutoff" by saying "CGLS' give cutoff". The CGLS will immediately press the CGLS cutoff PFP. In addition as a backup to the CGLS, the NTD, upon hearing "CGLS: give cutoff" by channel 212, will immediately place the NTD CDC hold switch to the "hold position" after the vehicle is safed, the requestor will identify himself (call sign), give description of problem, and make recommendations.

* CGLS GLS cutoff will result in the GLS recycling to T-20 minutes and holding.

** NTD Hold from T-31 seconds to T-0 seconds will result in the GLS recycling to T-20 minutes and holding.

SRO, FCO, and RSR hold from T-31 seconds to T-10 seconds will result in the GLS recycling to T-20 minutes and holding. No requests for cutoff will be made after expected SRB ignition, except if ignition does not occur. In all cases after initiating cutoff, CGLS will verify "cutoff given" on channel 212. For critical events during the last 31 seconds of the countdown, a 2 to 3 second delay is required for observer/monitor/panel operator reaction time between requests for "CGLS-give cutoff" and obtaining a manual cutoff.

3. FC/PRSD system regulators may be adjusted per engineering direction in order to maintain system operating pressures within limits as specified in operating steps of this procedure. Down stream vents may be cycled to provide flow/vent-down on regulators.

4. *FLT support of TCDT is optional. Disregard *FLT call sign in steps with multiple call signs.

5. S0017 is an integrated activity. S0017.100 and S0017.300 are part of the S0017 family series and are considered subtasks of S0017. Accordingly, all constraints for S0017 activities will be controlled by S0017.200.

6. Because S0017.100 and S0017.300 are part of the S0017 family series, they do not require a Task Team Readiness and will be controlled by S0017.200.
### 1.3 Operations List

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<td>NAVAIDS Securing</td>
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<td>WWMS Preps For Switch List</td>
<td>FCP/ C5</td>
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<td>SSME System Preps for TCDT</td>
<td>CME/ C11</td>
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<td>GNC Securing</td>
<td>GNC/ C11</td>
<td>TCO</td>
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<td>ECLSS System</td>
<td>ECL/ C6</td>
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<td>Hydraulics System</td>
<td>HYD/ C8</td>
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<td>SRB PIC No-Go Resistance Test</td>
<td>EDP/ C10</td>
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<td>DPS/ C12</td>
<td>TCO</td>
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<td>MET Initialization and Switch/Circuit Breaker Configuration</td>
<td>FWD/ C10</td>
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<td>RF FEP Source Verification</td>
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<td>Orbiter/GSE PIC Resistance Test</td>
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<td>CDC Control - Set and Resume</td>
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<td>TCO</td>
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<td>GLS Functional Initialization and LCC Activation</td>
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|---|-------------------------------------------------------|------|--------|-----|----|---|------
|47 | Manual Clock Control (CPRO)                          | INTG/INTG | TCO | N | 0.2 | 499|
|48 | CDC Hold Control                                     | INTG/INTG | TCO | N | 0.2 | 501|
|49 | EPDC System Securing                                 | FWD/C10 | TCO | N | 0.3 | 507|
|51 | C&W EMON Activation                                  | TCO/TCO | TCO | N | 0.5 | 513|
|52 | Instrumentation Systems                              | CISL/C9 | TCO | N | 1.0 | 519|
|53 | NAVAIDS Activation                                   | N/A/C2 | COM | Y | 2.0 | 557|
|54 | GLS Recycle to T-20M                                 | INTG/INTG | TCO | N | 0.5 | 691|
|55 | Payload Pre-Ascent Switch List Switch Verification   | TCO/PTC | TCO | N | 0.3 | 741|
|56 | Reserved                                              | NA/NA | NA | N | 0  | 747|
|57 | Reserved                                              | NA/NA | NA | N | 0  | 749|
|58 | Reserved                                              | NA/NA | NA | N | 0  | 751|
|59 | Orbiter - Post Operation MPS/SSME Securing           | MPS/C4 | TCO | N | 2.0 | 753|
|60 | Orbiter - Post Operation Crew Module Platform and Protective Cover Installation | FWD/N/A | TCO | N | 2.0 | 761|
|61 | Orbiter - Post Operation Switchguard Installation    | FWD/N/A | TCO | N | 0.5 | 763|
|62 | Reserved                                              | N/A/N/A | N/A | N | 0  | 781|
|63 | Orbiter - Post Operation GTOE Headset Removal        | FWD/N/A | TCO | N | 0.5 | 783|
|64 | Reserved                                              | N/A/N/A | N/A | N | 0  | 785|
|899| Walkdown Discrepancy List                            | TCO/N/A | TCO | N | N/A | 787|
|E1 | Emergency FIREX Water Flow                           | /      |      |    | 791|
|E2 | Emergency Shutdowns - Orbiter                        | /      |      |    | 799|
|E3 | Emergency Shutdowns - ET                             | /      |      |    | 801|
|E4 | Emergency Shutdowns - SRB                            | /      |      |    | 803|

<p>| | | | | | | |</p>
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</tbody>
</table>
2.0 SAFETY INFORMATION

2.1 Hazards

Exposure to (RF) radiation.

2.2 Safety Requirements

Safety requirements pertinent to this TOP are contained in the Operations Instructions.

2.4 Reference Safety Documentation

<table>
<thead>
<tr>
<th>Number</th>
<th>Rev</th>
<th>Title</th>
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<tr>
<td>KNPR 8715.3</td>
<td>LI</td>
<td>KSC Safety Practices Procedural Requirements</td>
</tr>
<tr>
<td>FSOP 6100</td>
<td>LI</td>
<td>USA Florida Safety Operating Plan</td>
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</table>
3.0 STAGING REQUIREMENTS

3.1 Required Engineering Documentation

3.1.2 Documents

OPERATION 53

<table>
<thead>
<tr>
<th>Document No.</th>
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<tbody>
<tr>
<td>MAXIMO JOB</td>
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<tr>
<td>PLAN 19300-1</td>
<td></td>
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</table>

3.2 Parts, Materials, Equipment, and Special Tools

3.2.8 Personal Protective Equipment

OPERATION 44 Nomenclature

wrist stats
4.0 PLANNING REQUIREMENTS

OIR Required  Yes [   ],  No [ X  ]

The OIR for S0017.300 will be covered by S0017.200.

Predecessors: None
Successors: None
Configuration Required: None

4.1 Critical Skill Requirements

<table>
<thead>
<tr>
<th>Number</th>
<th>Course Title</th>
<th>Operation</th>
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<tr>
<td>028</td>
<td>ELECTRICAL CONNECTOR MATE/DEMATE</td>
<td>29</td>
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<tr>
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<td>ELECTRICAL CONNECTOR MATE/DEMATE</td>
<td>53</td>
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</table>

4.4 Support Services, Commodities, and Equipment

KCCS Consoles Required:  C-1W (Water)  
                          C-1P (Pneumatics)  
                          C-2 (HVAC)  
                          C-3 (Power)
4.4.8 Support

GSS Organization
CWSS
CWSS

COMM Organization
TCD
TCD
TCD
TCD

4.5 Supporting Subtasks

<table>
<thead>
<tr>
<th>Subtask Number</th>
<th>Haz Ind</th>
<th>Subtask Title / Function to be Performed</th>
<th>Calling Op / Step</th>
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<tbody>
<tr>
<td>V9058.002</td>
<td></td>
<td>SSME CONTROLLER NORMAL POWER UP AND DOWN</td>
<td>34-8</td>
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<tr>
<td>V9058.003</td>
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<td>SSME MEMORY LOAD OPERATIONS (LPS)</td>
<td>34-9</td>
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<td>V1123.140</td>
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<td>GNC SYSTEM POWER DOWN</td>
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<td>V9058.002</td>
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<td>SSME CONTROLLER NORMAL POWER UP AND DOWN</td>
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<td>V66-00018</td>
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<td>PROTECTIVE COVER SET, CREW MODULE</td>
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<td>V66-00019</td>
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<td>PLATFORM ACCESS SET A70-0558 AFT</td>
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<td>V66-50009</td>
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<td>INSTALLATION/REMOVAL AIRLOCK OUT</td>
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<td>S9001.102</td>
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<td>SHUTTLE POWER UP/DOWN - VAB/PAD - TCO PRIMARY OPERATIONS</td>
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## 5.0 CONFIGURATION ACCOUNTING AND VERIFICATION

### 5.1 Specific OMRS Requirements Satisfied by this TOP

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0-11
### 5.2 General OMRS Requirements Applicable to this TOP

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<tr>
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<td>VAF;G</td>
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</tbody>
</table>
OPERATION 29  Bio-med Checkout

Shop: **FWD**
Cntrl Rm Console: **N/A**
OPR: **TCO**
Zone: **N/A**
Hazard (Y/N): **N**
Duration (Hrs): **1.0**

---

**NOTE**
Perform this Operation only if Biomed checkout required for S0017.

**Operation Not Performed:** _____
Support Requirements

1. Orbiter Crew module access for Biomedical Technician (BMT)
2. Biomedical Physiosimulator, SCB110002 (GFE)
3. Two Physiosimulator Interface cables, SCA110007 (GFE)
4. Biomed Flight Cables
   V417-778003-001 (87V77W307)
   V417-778004-001 (87V77W308)
5. OI instrumentation DNLK format 129, 160, 169, 173 or 181.

<table>
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<th>Personnel Requirements</th>
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<tbody>
<tr>
<td>BMT</td>
</tr>
<tr>
<td>CBSE</td>
</tr>
<tr>
<td>OETO</td>
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</table>
NOTE
Perform the following step if Biomed Flight Cables are not installed in the Orbiter.

29-1  CBSE  BMT

Pick up two Biomed Flight Cables from Flight Crew Systems bonded storage and transport cables to Orbiter for test:

P/N: V417-778003-001 (87V77307)
P/N: V417-778004-001 (87V77308)

Not Performed:______

T:______

NOTE
BMT to provide Physiosimulator and Physiosimulator Interface Cables from Biomed Lab.

29-2  CBSE  BMT

Deliver following items (from NASA biomed bond room) to Orbiter:

SCB110002 physiosimulator
S/N___________

Two Physiosimulator Interface Cables (SCA110007)
S/N___________
S/N___________

T:______
29-3    CBSE    BMT

**Mate** Physiosimulator Interface Cables to Physiosimulator as follows:

1. Physiosimulator power SW - Off

2. Inspect Physiosimulator Interface Cable (SCA110007) S/N____________ J1 and Physiosimulator (SCB110002) P1. Verify no FOD or bent pins that would interfere with mating.

3. Connect Physiosimulator Interface Cable (SCA110007) S/N____________ J1 to physiosimulator (SCB110002) P1

4. Inspect Physiosimulator Interface Cable (SCA110007) S/N____________ J1 and Physiosimulator (SCB110002) P2. Verify no FOD or bent pins that would interfere with mating.

5. Connect Physiosimulator Interface Cable (SCA110007) S/N____________ J1 to Physiosimulator (SCB110002) P2

T:______

29-4    CBSE    BMT

**Position** physiosimulator with cables on middeck.

T:______
Mate Biomed Flight Cables to Orbiter as follows:

1. IF supplied (and not connected):

   THEN Inspect Biomed Flight Cable (87V77W308) P16 and panel MO62M, middeck RT (J3). Verify no FOD or bent pins that would interfere with mating.

   **OK To Install T:**

   **Connect** Biomed Flight Cable (87V77W308) P16 to panel MO62M, middeck RT (J3).

   **T:**

   **Sub Step 1 Not Performed:**

2. IF supplied (and not connected):

   THEN Inspect Biomed flight Cable (87V77W307) P12 and panel MO62M, middeck ctr (J1). Verify no FOD or bent pins that would interfere with mating.

   **OK To Install T:**

   **Connect** Biomed Flight Cable (87V77W307) P12 to panel MO62M, middeck ctr (J1).

   **T:**

   **Sub Step 2 Not Performed:**
Perform the following:

1. **Inspect** Biomed Flight Cable (87V77W308) P15 and Physiosimulator Interface Cable (SCA110007) P1. Verify no FOD or bent pins that would interfere with mating.

   **OK To Install** T:_____

   **Connect** Biomed Flight Cable (87V77W308) P15 to Physiosimulator Interface Cable (SCA110007) P1.

   T:_____

2. **Inspect** Biomed Flight Cable (87V77W307) P11 and Physiosimulator Interface Cable (SCA110007) P2. Verify no FOD or bent pins that would interfere with mating.

   **OK To Install** T:_____

   **Connect** Biomed Flight Cable (87V77W307) P11 to Physiosimulator Interface Cable (SCA110007) P2.

   T:_____

---

**29-7 CBSE BMT**

SCB110002 Physiosimulator

Astro SW - Off
PWR SW - Off
Meter SW - SCV, hold

**Record** M1 __________ VDC 10-20

Meter SW - Rel

T:_____

---
Power-up Testing

29-8  CBSE

Verify LCC biomed console ready to support.

29-9  CBSE   OETO

PANEL R10

BIOMED CHAN 1 AND CHAN 2
INDICATE SWITCH POSITION:

RECORD CHAN 1 __________ (R10S13)
RECORD CHAN 2 __________ (R10S14)

T:_____ 

29-10  CBSE

VERIFY console telemetry matches switch positions recorded in previous step.

29-11  CBSE   OETO

PANEL R10

BIOMED

CHANNEL 1 SW - MIDDECK CTR   (R10S13)
CHANNEL 2 SW - MIDDECK R   (R10S14)

T:_____ 

29-12  CBSE

VERIFY

BIOMED CHAN 1 SW MIDDECK CTR   V67X0116E
BIOMED CHAN 2 SW MIDDECK RT   V67X0218E
29-13 CBSE BMT

**CONFIGURE PHYSIOSIMULATOR:**
PWR SW - ON
ASTRO SW - A

TIME __________GMT

T: _____

29-14 CBSE

**Verify** receiving biomed data and waveform matches calibration waveform.

V670100A
V670200A

29-15 CBSE BMT

**CONFIGURE PHYSIOSIMULATOR:**
ASTRO SW - OFF
PWR SW - OFF

TIME __________GMT

T: _____

29-16 CBSE OETO

**PANEL R10**
BIOMED CHAN 1 AND CHAN 2
SET CHAN 1 AND CHAN 2 TO POSITION RECORDED PREVIOUSLY (STEP 9)

T: _____

29-17 CBSE

**VERIFY** console telemetry matches switch positions recorded in step 9.
Equipment Disconnect

NOTE
Do not perform the following step if Biomed Flight Cables are to be left in place to support launch.

29-18 CBSE OETO

Demate biomed cables from Orbiter

1. Demate Biomed Flight Cable (87V77W307) P16 from panel MO62M middeck RT (J3). Inspect both connectors, verify no damage.

2. Demate Biomed Flight Cable (87V77W308) P12 from panel MO62M middeck ctr (J1). Inspect both connectors, verify no damage.

Entire Step Not Performed: ______

T: ______

29-19 CBSE OETO

Disconnect Physiosimulator Interface Cables from Biomed Flight Cables as follows:

1. Disconnect Physiosimulator Interface Cable (SCA110007) P1 from Biomed Flight Cable (87V77W308) P15. Inspect both connectors, verify no damage.


T: ______
29-20 CBSE BMT

**Disconnect** Physiosimulator Interface Cables from Physiosimulator as follows:

1. **Disconnect** Physiosimulator Interface Cable (SCA110007) J1 from Physiosimulator (SCB110002) P1. Inspect both connectors, verify no damage.

2. **Disconnect** Physiosimulator Interface Cable (SCA110007) J1 from Physiosimulator (SCB110002) P2. Inspect both connectors, verify no damage.

T:_____

29-21 CBSE BMT

**Remove** physiosimulator, Biomed Flight Cables, and Physiosimulator Interface cables from Orbiter.

T:_____

29-22 CBSE BMT

**Cap & Bag** all cables and return equipment.

T:_____

29-23 CBSE NTD 232

PQCG CMQC

Bio-med Checkout complete.

*** End of Operation 29 ***
OPERATION 30  Shuttle Ascent Switch List

Shop: TCO
Cntrl Rm Console: TCO
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 2.0
Section 1 - Flight Deck/C&W Setups

<table>
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<tr>
<th>NOTE</th>
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</thead>
<tbody>
<tr>
<td>Asterisk (*) denotes configuration different from Launch Countdown configuration.</td>
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</tbody>
</table>

30-1 OTC ALL

Purpose of this operation is to verify Flight deck and middeck switches are configured for TCDT.

Switches left in other than TCDT T-0 position (ref JSC document) by this switch list must have predefined steps in S0017 to position them to proper position prior to T-0.

All switches (other than those associated with cockpit lighting, Bio-med or PNL MA73C, LT and RT seat 3PH CB's, PNL F9 meter switches, or unspecified/unlabeled switches/circuit breakers) should already be in switch list specified position at time of ascent switch list performance. All unspecified/unlabeled switches - will be in the down (for a 2-position switch) or center (for a 3-position switch), unlabeled talkbacks - barberpole, unlabeled circuit breakers - open, unlabeled rotary switches - full counter clockwise. System engineering personnel must be prepared to explain any differences found and will be required to give a "go" prior to switch being repositioned. Any switches repositioned, other than those exempted above, must be documented in: Switches Repositioned During Ascent Checklist at end of this operation.

Any switch tagged out by LOTO-CM in a position other than that called out by the switchlist will be annotated in the margin by CMQC after TPE verifies the validity of the LOTO-CM tag. No Dev will be required.

Any cockpit troubleshooting activity subsequent to this switch list must return switches to their position prior to troubleshooting. The switch list is divided into two sections and will be performed in parallel with each section performed by an OTC and an ASP. The first section consists of Flight deck panels and C&W setups. The second section consists of AFT Flight deck and middeck panels, airlock and waste management station.

No Crew module vacuuming will be permitted after this time.

All vehicles have different thumbwheel/pushbutton configurations. The generic term pushbutton (PB) will be used regardless of configuration.
Crew Preference Switch guards (Mission Unique)

NOTE
Crew compartment lighting switches may be found in a different position than that published to facilitate Crewman's visibility on panels.

Following Crew preference SW guards to be supplied by VITT.
Flight Deck Switch list: (Part 1)

CAUTION
Do not reposition any switch without obtaining Firing Room concurrence. To do so could cause damage to hardware.

NOTE
All GSE type switch guards or CB guards have been removed per Operation 119 (S0017.100) with exception of:

Baseline Switch guards

1. FOUR RJD DRIVER SW GUARDS
   (PANELS 014, 015, 016)
   (S0007 AND S0017)
2. ONE ROMS ENG VLV (PANEL 016)
3. F/C TO ESS BUS SW GUARDS
   (PANEL R1) (S0017 UNIQUE)
4. CARGO SW GUARDS (PANEL L12)
   (FOR NON-DOD MISSIONS)
5. EIGHT GUARDS FOR SSME PNEUMATICS
   (PANEL R2)
   HE ISOLATION A
   LEFT SW
   CTR SW
   RIGHT SW
   HE ISOLATION B
   LEFT SW
   CTR SW
   RIGHT SW
   PNEUMATICS
   L ENG HE XOVER
   HE ISO SW
6. CREW PREFERENCE GUARDS
Panel L5 (CDR)

30-2 OTC ASP

PANEL L5
LEFT COMM POWER SW - OFF L5A05S001

*** End of Panel L5 (CDR) ***

L Side Ovhd Flood

NOTE
The following is a standalone florescent light under panel O5 adjacent to panel L5.

30-3 OTC ASP

NEAR PANEL O5
L SIDE OVHD FLOOD - BRT

*** End of L Side Ovhd Flood (CDR) ***
Panel L4 (CDR)

30-4 OTC ASP

PANEL L4

ROW B
UTILITY POWER
F1/MO52J
AC1 CB - OPEN L4A04C028

A15/MO13Q
AC3 CB - OPEN L4A04C029

ROW C
AC1
FUEL CELL 1
PUMPS
PH A CB - OPEN* L4A04C065
PH B CB - OPEN* L4A04C066
PH C CB - OPEN* L4A04C067

AC2
FUEL CELL 2
PUMPS
PH A CB - OPEN* L4A04C068
PH B CB - OPEN* L4A04C069
PH C CB - OPEN* L4A04C070

AC3
FUEL CELL 3
PUMPS
PH A CB - OPEN* L4A04C071
PH B CB - OPEN* L4A04C072
PH C CB - OPEN* L4A04C073
PANEL L4 (CONTINUED)

ROW D

<table>
<thead>
<tr>
<th>AC1</th>
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<tbody>
<tr>
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<td>PH A CB - OPEN*</td>
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<td>PH B CB - OPEN*</td>
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<td>PH C CB - OPEN*</td>
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<td>PH B CB - OPEN*</td>
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ROW E

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<td>PH C CB - OPEN*</td>
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<td>PH B CB - OPEN*</td>
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<td>PH A CB - OPEN*</td>
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<tr>
<td></td>
<td>PH C CB - OPEN*</td>
<td>L4A04C11</td>
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</table>
PANEL L4 (CONTINUED)

ROW F

AC1
H2O LOOP PUMP
1A/2
PH A CB - CLOSE L4A04C001
PH B CB - CLOSE L4A04C002
PH C CB - CLOSE L4A04C003

AC2
H2O LOOP PUMP
1B
PH A CB - CLOSE L4A04C004
PH B CB - CLOSE L4A04C005
PH C CB - CLOSE L4A04C006

AC3
H2O LOOP PUMP
2
PH A CB - CLOSE L4A04C007
PH B CB - CLOSE L4A04C008
PH C CB - CLOSE L4A04C009

ROW G

AC1
AV BAY 1
FAN A
PH A CB - CLOSE L4A04C010
PH B CB - CLOSE L4A04C011
PH C CB - CLOSE L4A04C012

AC2
AV BAY 1
FAN B
PH A CB - CLOSE L4A04C013
PH B CB - CLOSE L4A04C014
PH C CB - CLOSE L4A04C015
PANEL L4 (CONTINUED)

AC3
AV BAY 3
FAN A
PH A CB - CLOSE L4A04C016
PH B CB - CLOSE L4A04C017
PH C CB - CLOSE L4A04C018

ROW H

AC1
AV BAY 3
FAN B
PH A CB - CLOSE L4A04C030
PH B CB - CLOSE L4A04C031
PH C CB - CLOSE L4A04C032

AC2
AV BAY 2
FAN A
PH A CB - CLOSE L4A04C033
PH B CB - CLOSE L4A04C034
PH C CB - CLOSE L4A04C035

AC3
AV BAY 2
FAN B
PH A CB - CLOSE L4A04C036
PH B CB - CLOSE L4A04C038
PH C CB - CLOSE L4A04C038

ROW I

AC1
IMU FAN A
PH A CB - CLOSE L4A04C048
PH B CB - CLOSE L4A04C049
PH C CB - CLOSE L4A04C050
PANEL L4 (CONTINUED)

AC2
IMU FAN B
PH A CB - CLOSE L4A04C051
PH B CB - CLOSE L4A04C052
PH C CB - CLOSE L4A04C053

AC3
IMU FAN C
PH A CB - CLOSE L4A04C054
PH B CB - CLOSE L4A04C055
PH C CB - CLOSE L4A04C056

ROW J

AC1
HUMIDITY SEPARATOR
A
PH A CB - CLOSE L4A04C074
PH B CB - CLOSE L4A04C075
PH C CB - CLOSE L4A04C076

AC2
HUMIDITY SEPARATOR
B
PH A CB - CLOSE L4A04C077
PH B CB - CLOSE L4A04C078
PH C CB - CLOSE L4A04C079

AC3
SIG CONDR
HUM SEP
PH A CB - OPEN L4A04C080
IMU FAN
PH B CB - OPEN L4A04C081
PANEL L4 (CONTINUED)

ROW K

AC1

H2O CNTLR 2
PH A CB - CLOSE L4A04C093
CABIN AIR S/C
PH B CB - CLOSE L4A04C094

AC2

CABIN FAN
B
PH A CB - CLOSE L4A04C095
PH B CB - CLOSE L4A04C096
PH C CB - CLOSE L4A04C097

AC3

CABIN FAN
A
PH A CB - CLOSE L4A04C098
PH B CB - CLOSE L4A04C099
PH C CB - CLOSE L4A04C100

ROW L

AC1

CABIN T CNTLR 2
PH A CB - CLOSE L4A04C117
AV BAY 2 S/C
PH B CB - CLOSE L4A04C118

AC2

CABIN T CNTLR 1
PH A CB - CLOSE L4A04C119
AV BAY 3 S/C
PH B CB - CLOSE L4A04C120
PANEL L4 (CONTINUED)

AC3
   H2O CNTLR 1
   PH A CB - CLOSE L4A04C121
   AV BAY 1 S/C
   PH B CB - CLOSE L4A04C122

ROW M
AC1
   FREON LOOP 1
   PUMP A
   PH A CB - CLOSE L4A04C019
   PH B CB - CLOSE L4A04C020
   PH C CB - CLOSE L4A04C021

AC2
   FREON LOOP 1
   PUMP B
   PH A CB - CLOSE L4A04C022
   PH B CB - CLOSE L4A04C023
   PH C CB - CLOSE L4A04C024

AC3
   FREON LOOP 2
   PUMP A
   PH A CB - CLOSE L4A04C025
   PH B CB - CLOSE L4A04C026
   PH C CB - CLOSE L4A04C027

ROW N
AC1
   FREON LOOP 2
   PUMP B
   PH A CB - CLOSE L4A04C039
   PH B CB - CLOSE L4A04C040
   PH C CB - CLOSE L4A04C041
PANEL L4 (CONTINUED)

AC2
FREON FLOW PROP 1
PH A CB - CLOSE  L4A04C042

FREON SIG CONDR
PH B CB - CLOSE  L4A04C043

RAD ISOL A
PH C CB - CLOSE

AC3
FREON FLOW PROP 2
PH A CB - CLOSE  L4A04C045

FREON SIG CONDR
PH B CB - CLOSE  L4A04C046

RAD ISOL B
PH C CB - CLOSE

ROW O
AC1
BLR HYD BYPASS 1B
PH A CB - CLOSE  L4A04C131

HYD QTY 1
PH B CB - CLOSE  L4A04C057

BLR HYD BYPASS 3A
PH C CB - CLOSE  L4A04C133

AC2
BLR HYD BYPASS 1A
PH A CB - CLOSE  L4A04C135

HYD QTY 2
PH B CB - CLOSE  L4A04C060

BLR HYD BYPASS 2B
PH C CB - CLOSE  L4A04C134
PANEL L4 (CONTINUED)

AC3
BLR HYD BYPASS 2A
PH A CB - CLOSE L4A04C132

HYD QTY 3
PH B CB - CLOSE L4A04C063

BLR HYD BYPASS 3B
PH C CB - CLOSE L4A04C136

ROW P
AC1
RAD CNTLR 1B
PH A CB - CLOSE L4A04C128

RAD CNTLR 2B
PH B CB - CLOSE L4A04C044
UNLABELED CB - OPEN

AC2
LG SNSR 2
PH A CB - CLOSE L4A04C059

RAD CNTLR 1A
PH B CB - CLOSE L4A04C129
UNLABELED CB - OPEN

AC3
LG SNSR 1
PH A CB - CLOSE L4A04C062

RAD CNTLR 2A
PH B CB - CLOSE L4A04C047
UNLABELED CB - OPEN
PANEL L4 (CONTINUED)

ROW Q

AC1
LIGHTING
PANEL
L/CTR
PH A CB - CLOSE
L4A04C10
L OVHD
PH B CB - CLOSE
L4A04C10

INST OS
PH C CB - OPEN
L4A04C103

AC2
LIGHTING
PANEL
R OVHD
PH A CB - CLOSE
L4A04C13

RIGHT
PH B CB - CLOSE
L4A04C10

NUMERIC OS
PH C CB - OPEN
L4A04C105

AC3
LIGHTING
COAS
PH A CB - OPEN
L4A04C127

PANEL
MS
PH B CB - OPEN
L4A04C106

OS
PH C CB - OPEN
L4A04C107
PANEL L4 (CONTINUED)

ROW R
AC1
INST R
PH A CB - CLOSE L4A04C126

NUMERIC FWD
PH B CB - CLOSE L4A04C123

AC2
INST OVHD
PH B CB - CLOSE L4A04C124

AC3
INST L/CTR
PH B CB - CLOSE L4A04C125

*** End of Panel L4 (CDR) ***
Panel L1 (CDR)

30-5  OTC  ASP

PANEL L1

HUMIDITY SEP
A SW - OFF
B SW - ON

CABIN TEMP SW - FULL COOL
CABIN TEMP CNTRL SW - OFF

CABIN FAN
A SW - ON
B SW - OFF

IMU FAN
A SW - OFF
B SW - ON
C SW - OFF

H2O PUMP
LOOP 1
GPC/OFF/ON SW - OFF
A/B SW - B

LOOP 2
GPC/OFF/ON SW - ON

H2O LOOP 1 BYPASS
MAN SW - (CENTER)
MODE SW - MAN

H2O LOOP 2 BYPASS
MAN SW - (CENTER)
MODE SW - MAN

AV BAY 1 FAN
A SW - OFF
B SW - ON
PANEL L1 (CDR) (CONTINUED)

AV BAY 2 FAN
A SW - ON
B SW - OFF

AV BAY 3 FAN
A SW - OFF
B SW - ON

FLOW PROP VLV
LOOP 1 SW - CENTER
LOOP 1 TB _____

FLOW PROP VLV
LOOP 2 SW - CENTER
LOOP 2 TB _____

FREON PUMP
LOOP 1 SW - B
LOOP 2 SW - B

RAD CONTROLLER
OUT TEMP SW - NORM
LOOP 1 SW - OFF
LOOP 2 SW - OFF

H2O ALTERNATE PRESS SW - CLOSE

RAD BYPASS VALVE
MAN SEL
1 SW - (CENTER)
2 SW - (CENTER)
1 TB ____ (RAD OR BYP)
2 TB ____ (RAD OR BYP)

MODE
1 SW - MAN
2 SW - MAN

NH3 CONTROLLER
A SW - OFF
B SW - OFF*
PANEL L1 (CDR) (CONTINUED)

FLASH EVAP CONTROLLER
PRI A SW-OFF* L1A02S03
PRI B SW-OFF L1A02S03

SEC
A SPLY/B SPLY SW - A SPLY L1A02S045
GPC/OFF/ON SW - OFF L1A02S033

HI LOAD EVAP SW - ENABLE L1A02S034

TOPPING EVAPORATOR HEATER
NOZZLE
L SW - OFF* L1A02S037
NOZZLE
R SW - OFF* L1A02S038

DUCT SW - OFF* L1A02S039

HI LOAD DUCT HTR SW - OFF* L1A02S041

FIRE SUPPRESSION
AV BAY 1 SW - SAFE L1A01S001
AV BAY 2 SW - SAFE L1A01S002
AV BAY 3 SW - SAFE L1A01S003
AV BAY 1 AGENT DISCH PB - AS IS L1A01S004
AV BAY 2 AGENT DISCH PB - AS IS L1A01S005
AV BAY 3 AGENT DISCH PB - AS IS L1A01S006
AV BAY 1 AGENT DISCH LITE OFF
AV BAY 2 AGENT DISCH LITE OFF
AV BAY 3 AGENT DISCH LITE OFF
PANEL L1 (CDR) (CONTINUED)

SMOKE DETECTION (ALL LITES OFF)

A
- CABIN LITE OFF
- L FLT DECK LITE OFF
- AV BAY 1 LITE OFF
- AV BAY 2 LITE OFF
- AV BAY 3 LITE OFF

B
- PAYLOAD LITE OFF
- R FLT DECK LITE OFF
- AV BAY 1 LITE OFF
- AV BAY 2 LITE OFF
- AV BAY 3 LITE OFF

SENSOR RESET SW - (DOWN)

CIRCUIT TEST SW - OFF

*** End of Panel L1 (CDR) ***
Panel L2 (CDR)

30-6 OTC ASP

PANEL L2

CABIN RELIEF
A SW - (CENTER) L2A01S001
B SW - (CENTER) L2A01S002
A TB ENA L2A01DS001
B TB ENA L2A01DS002

CABIN VENT
VENT ISOL SW - (CENTER) L2A01S003
VENT SW - (CENTER) L2A01S004
VENT ISOL TB CL L2A01D2003
VENT TB CL L2A01DS004

FLASH EVAP
FEEDLINE HTR
A SUPPLY SW - 2 L2A01S023
B SUPPLY SW - 2 L2A01S024

ANTISKID SW - ON L2A01S005

NOSE WHEEL STEERING SW - 1 L2A01S006

BODY FLAP SW - AUTO/OFF
SBTC HANDLE - FULL FWD
ENTRY MODE SW - AUTO

TRIM
ROLL SW - (CENTER)
PITCH SW - (CENTER)

FREON ISOLATION
MODE SW - OFF
LOOP 1 SW - (CENTER)
LOOP 2 SW - (CENTER)
PANEL L2 (CONTINUED)

ATM PRESS CONTROL
  O2 SYS 1 SUPPLY SW - (CENTER)
  O2 SYS 2 SUPPLY SW - (CENTER)
  O2 SYS 1 SUPPLY TB CL*
  O2 SYS 2 SUPPLY TB CL*

  O2 EMER SW - (CENTER)
  O2 EMER TB BP

  O2 XOVR
    SYS 1 SW - CLOSE*
    SYS 2 SW - CLOSE*

N2 SYS 1
  SUPPLY SW - (CENTER)
  REG INLET SW - (CENTER)

  SUPPLY TB OP
  REG INLET TB OP

N2 SYS 2
  SUPPLY SW - (CENTER)
  REG INLET SW - (CENTER)

  SUPPLY TB OP
  REG INLET TB OP

YAW TRIM SW - (CENTER)

O2/N2 CNTLR VLV
  SYS 1 SW - OPEN
  SYS 2 SW - CLOSE

PPO2 SNSR/VLV SW - NORM

*** End of Panel L2 (CDR) ***
CDR Seat

30-7 OTC ASP

CDR SEAT (LOWER LEFT SIDE)

SEAT BUS SEL SW - AC2 (UP)
HORIZ CONTR - (CENTER)
VERT CONTR - (CENTER)

*** End of CDR Seat ***

Panel F1 (CDR)

30-8 OTC ASP

PANEL F1

DC UTILITY POWER SW - OFF F1A01S001
AC UTILITY POWER SW - OFF F1A01S002

*** End of Panel F1 (CDR) ***
Panel F2 (CDR)

30-9 OTC ASP

PANEL F2 (ALL LITES OFF)

BFC PB LITE OFF

BODY FLAP PB
   AUTO LITE OFF
   MAN LITE OFF

SPD BK/THROT PB
   AUTO LITE OFF
   MAN LITE OFF

PITCH
   CSS PB LITE OFF
   AUTO PB LITE OFF

ROLL/YAW
   CSS PB LITE OFF
   AUTO PB LITE OFF

MASTER ALARM PB LITE OFF

DRAG CHUTE ARM PB
   1 LITE OFF
   2 LITE OFF

DRAG CHUTE DPY PB
   1 LITE OFF
   2 LITE OFF

*** End of Panel F2 (CDR) ***
HUD Left (CDR)

30-10 OTC ASP

HUD (LEFT)
  MODE SW - NORM
  DIM/BRT SW - MID RANGE
  BRT SW - AS REQUIRED

*** End of HUD (Left) (CDR) ***
Panel F3 (CDR)

NOTE
In next step, NWS fail lite will be on if NWS CB open on panel O14.

30-11 OTC ASP

PANEL F3

DRAG CHUTE JETT PB
  1 LITE OFF
  2 LITE OFF

HUD (LEFT)
  PWR SW - OFF

TRIM (LEFT)
  RHC/PANEL SW - INHIBIT
  PANEL SW - ON

NWS FAIL LITE OFF

ANTISKID FAIL LITE OFF

DRAG CHUTE ARM PB
  1 LITE OFF
  2 LITE OFF

DRAG CHUTE DPY PB
  1 LITE OFF
  2 LITE OFF

TRIM (RIGHT)
  RHC/PANEL SW - INHIBIT
  PANEL SW - ON

HUD (RIGHT)
  PWR SW - OFF

*** End of Panel F3 (CDR) ***
HUD (Right) (PLT)

30-12 OTC ASP

HUD (RIGHT)
  MODE SW - NORM
  DIM/BRT SW - MID RANGE
  BRT SW - AS REQUIRED

*** End of HUD (Right) (PLT) ***
Panel F4 (PLT)

30-13 OTC ASP

PANEL F4 (ALL LITES OFF)

DRAG CHUTE JETT PB
  1 LITE OFF
  2 LITE OFF
MASTER ALARM PB LITE OFF F4A04S001

PITCH
  AUTO PB LITE OFF F4A04S002
  CSS PB LITE OFF F4A04S003

ROLL/YAW
  AUTO PB LITE OFF F4A04S005
  CSS PB LITE OFF F4A04S006

SPD BK/THROT PB
  AUTO LITE OFF
  MAN LITE OFF

BODY FLAP PB
  AUTO LITE OFF
  MAN LITE OFF

BFC PB LITE OFF

*** End of Panel F4 (PLT) ***
Panel F6 (CDR)

OTC    ASP

30-14

Panel F6

BFC DISENGAGE SW - (RIGHT)  F6A05S006
HUD DATA BUS SW - 1
RANGE SAFE ARM LITE OFF
MDU (CDR 1) POWER SW - ON
   BRT SW - AS REQUIRED
MDU (CDR 2) POWER SW - ON
   BRT SW - AS REQUIRED

LANDING GEAR
LEFT TB UP
NOSE TB UP
RIGHT TB UP
ARM PB - AS IS
   LIGHT OFF
DN PB - AS IS
   LIGHT OFF

HSI SELECT
MODE SW - ENTRY  F6A05S003
SOURCE (OV-103/104)
   TACAN/NAV/MLS SW - NAV  F6A05S004
SOURCE (OV-105)
   GPS/NAV/MLS SW - NAV  F6A05S004
1/2/3 SW - 1  F6A05S005

RDR ALTM SW - 1

FLT CNTRL POWER SW - ON

ADI
ATTITUDE SW - REF  F6A06S005
ERROR SW - MED  F6A06S006
RATE SW - MED  F6A06S007
ABORT MODE SW - OFF  F6A08S001
ABORT PB LITE OFF  F6A08S002
ATT REF PB - AS IS
RCS COMMAND (ALL LITES OFF)
ROLL L LITE OFF
ROLL R LITE OFF
PITCH U LITE OFF
PITCH D LITE OFF
YAW L LITE OFF
YAW R LITE OFF

AIR DATA SW - NAV

*** End of Panel F6 (CDR) ***
Panel F7 (CDR)

30-15 OTC ASP

PANEL F7
CAUTION/WARNING ANNUNCIATOR PANEL
REPORT STATUS:
(ALL LITES OFF UNLESS TANKS NOT LOADED)
FWD RCS LITE _____
LEFT RCS LITE _____
RIGHT RCS LITE _____
LEFT OMS LITE _____
RIGHT OMS LITE _____
OMS KIT LITE _____
HYD PRESS LITE ON
MPS LITE ON

MDU (CRT 1) POWER SW - ON
BRT SW - AS REQUIRED

MDU (CRT 2) POWER SW - ON
BRT SW - AS REQUIRED

MDU (CRT 3) POWER SW - ON
BRT SW - AS REQUIRED

MDU (MFD 1) POWER SW - ON
BRT SW - AS REQUIRED

MDU (MFD 2) POWER SW - ON
BRT SW - AS REQUIRED

MAIN ENGINE STATUS
LEFT LITES (TWO) OFF
CTR LITES (TWO) OFF
RIGHT LITES (TWO) OFF
SM ALERT LITE OFF

*** End of Panel F7 (CDR) ***
Panel F8 (PLT)

30-16 OTC ASP

PANEL F8
HUD DATA BUS SW - 4

MDU (PLT 1) POWER SW - ON
BRT SW - AS REQUIRED

MDU (PLT 2) POWER SW - ON
BRT SW - AS REQUIRED

LANDING GEAR
ARM PB - AS IS                      F8A05S001
DN PB - AS IS                       F8A05S002
ARM LITE OFF
DN LITE OFF
LEFT TB UP
NOSE TB UP
RIGHT TB UP

HSI SELECT
MODE SW - ENTRY                    F8A05S003
SOURCE (OV-103/104)
TACAN/NAV/MLS SW - NAV             F8A05S004
SOURCE (OV-105)
GPS/NAV/MLS SW - NAV               F8A05S004
1/2/3 SW - 2                       F8A05S005
RDR ALTM SW - 2

PLT CNTLR PWR SW - ON

ADI
ATTITUDE SW - REF                F8A04S005
ERROR SW - MED                   F8A04S006
RATE SW - MED                    F8A04S004

ATT REF PB - AS IS
AIR DATA SW - NAV               F8A04S004

*** End of Panel F8 (PLT) ***
Panel F9 (PLT)

30-17   OTC    ASP

PANEL F9

   AC VOLTS SW - AS REQUIRED     F9A00S001
   DC VOLT/AMP SW - SIGNAL       F9A00S002
   STRENGTH MAIN VOLTS B

*** End of Panel F9 (PLT) ***
Panel R1 (PLT)

30-18 OTC ASP

PANEL R1

POWER DISTRIBUTION

CONTROL BUS PWR

- MN A SW - (DOWN) R1A01S001
- MN B SW - (DOWN) R1A01S002
- MN C SW - (DOWN) R1A01S003

NOTE

ESS bus to FC switchguards will remain installed for this test.

ESS BUS SOURCE

- MN B/C SW - ON R1A01S004
- MN C/A SW - ON R1A01S005
- MN A/B SW - ON R1A01S006
- FC1 SW - OFF (GUARDED SW GUARD TO REMAIN INSTLD) R1A01S007
- FC2 SW - OFF (GUARDED SW GUARD TO REMAIN INSTLD) R1A01S008
- FC3 SW - OFF (GUARDED SW GUARD TO REMAIN INSTLD) R1A01S009

FC/MAIN BUS

- A SW - (CENTER) R1A01S010
- B SW - (CENTER) R1A01S011
- C SW - (CENTER) R1A01S012
- A TB OFF*
- B TB OFF*
- C TB OFF*

MN BUS TIE

- A SW - (CENTER) R1A01S013
- B SW - (CENTER) R1A01S014
- C SW - (CENTER) R1A01S015
- A TB OFF
- B TB OFF
- C TB OFF
<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obtain the power distribution payload switch positions and talkback</td>
</tr>
<tr>
<td>indications from the VITT office.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>30-19</th>
<th>OTC</th>
<th>ASP</th>
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</thead>
<tbody>
<tr>
<td>PANEL  R1</td>
<td>POWER DISTRIBUTION</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PAYLOAD</td>
<td></td>
</tr>
<tr>
<td>CABIN SW - _____</td>
<td>R1A01S025</td>
<td></td>
</tr>
<tr>
<td>PRI MN B SW - (CENTER)</td>
<td>R1A01S026</td>
<td></td>
</tr>
<tr>
<td>PRI MN B TB _____</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRI FC 3 SW - (CENTER)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRI FC 3 TB _____</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRI MN C SW - (CENTER)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PRI MN C TB _____</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AUX SW - _____</td>
<td>R1A01S029</td>
<td></td>
</tr>
<tr>
<td>AFT MN B SW - _____</td>
<td>R1A01S030</td>
<td></td>
</tr>
<tr>
<td>AFT MN C SW - _____</td>
<td>R1A01S031</td>
<td></td>
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<tr>
<td>30-20</td>
<td>OTC</td>
<td>ASP</td>
</tr>
<tr>
<td>-------</td>
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</tr>
</tbody>
</table>

**PANEL R1**

**POWER DISTRIBUTION**

<table>
<thead>
<tr>
<th>INV POWER</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SW - (CENTER)</td>
<td>R1A01S016</td>
</tr>
<tr>
<td>2 SW - (CENTER)</td>
<td>R1A01S017</td>
</tr>
<tr>
<td>3 SW - (CENTER)</td>
<td>R1A01S018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1 TB ON</th>
<th>2 TB ON</th>
<th>3 TB ON</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>INV/AC BUS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SW - (CENTER)</td>
<td>R1A01S019</td>
</tr>
<tr>
<td>2 SW - (CENTER)</td>
<td>R1A01S020</td>
</tr>
<tr>
<td>3 SW - (CENTER)</td>
<td>R1A01S021</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1 TB ON</th>
<th>2 TB ON</th>
<th>3 TB ON</th>
</tr>
</thead>
</table>

**AC CONTR**

**AC1**

| PH A CB - OPEN | R1A01C001 |
| PH B CB - OPEN | R1A01C002 |
| PH C CB - OPEN | R1A01C003 |

**AC2**

| PH A CB - OPEN | R1A01C004 |
| PH B CB - OPEN | R1A01C005 |
| PH C CB - OPEN | R1A01C006 |

**AC3**

| PH A CB - OPEN | R1A01C007 |
| PH B CB - OPEN | R1A01C008 |
| PH C CB - OPEN | R1A01C009 |
PANEL R1 (Continued)

AC BUS SNSR
1 SW - AUTO TRIP* R1A01S022
2 SW - AUTO TRIP* R1A01S023
3 SW - AUTO TRIP* R1A01S024

CRYO
O2 MANIFOLD VLV
TANK 1 SW - (CENTER) R1A02S002
TANK 2 SW - (CENTER) R1A02S005
TANK 1 TB OP R1A02DS003
TANK 2 TB OP R1A02DS007

O2 TK 1 HEATERS
A SW - OFF* R1A02S008
B SW - OFF R1A02S009
RESET/TEST SW - (CENTER) R1A02S010

O2 TK 2 HEATERS
A SW - OFF* R1A02S013
B SW - OFF R1A02S014
RESET/TEST SW - (CENTER) R1A02S015

O2 TK 3 HEATERS
A SW - OFF R1A02S021
B SW - OFF R1A02S022
RESET/TEST SW - (CENTER) R1A02S023

FUEL CELL 1 REAC SW - (CENTER) R1A02S001
FUEL CELL 3 REAC SW - (CENTER) R1A02S007
FUEL CELL 2 REAC SW - (CENTER) R1A02S004

FUEL CELL 1 REAC O2 TB OP R1A02DS001
FUEL CELL 1 REAC H2 TB OP R1A02DS002

FUEL CELL 3 REAC O2 TB OP R1A02DS005
FUEL CELL 3 REAC H2 TB OP R1A02DS006

FUEL CELL 2 REAC O2 TB OP R1A02DS009
FUEL CELL 2 REAC H2 TB OP R1A02DS010
PANEL R1 (Continued)

FUEL CELL
1 SW - (CENTER) R1A02S016
2 SW - (CENTER) R1A02S017
3 SW - (CENTER) R1A02S018

READY FOR LOAD
1 TB BP* R1A02DS011
2 TB BP* R1A02DS012
3 TB BP* R1A02DS013

COOLANT PUMP DELTA P
1 TB BP* R1A02DS014
2 TB BP* R1A02DS015
3 TB BP* R1A02DS016

H2 MANIFOLD VLV
TANK 1 SW - (CENTER) R1A02S003
TANK 2 SW - (CENTER) R1A02S006
TANK 1 TB OP R1A02DS004
TANK 2 TB OP R1A02DS008

H2 TK 1 HEATERS
A SW - OFF* R1A02S011
B SW - OFF R1A02S012

H2 TK 2 HEATERS
A SW - OFF* R1A02S019
B SW - OFF R1A02S020

H2 TK 3 HEATERS
A SW - OFF R1A02S024
B SW - OFF R1A02S025

*** End of Panel R1 (PLT) ***
Panel R2 (PLT)

30-21 OTC ASP

Panel R2

MPS

PRPLT DUMP

SEQUENCE SW - GPC  R2A02S001
BACKUP LH2 VLV SW - GPC  R2A02S002

ENGINE POWER

LEFT AC2 SW - OFF*  R2A02S004
CTR AC1 SW - OFF*  R2A02S003
RIGHT AC3 SW - OFF*  R2A02S005
LEFT AC3 SW - OFF*  R2A02S007
CTR AC2 SW - OFF*  R2A02S006
RIGHT AC1 SW - OFF*  R2A02S008

HE ISOLATION A

LEFT SW - CLOSE* (GUARDED)  R2A02S056
(SW GUARD TO REMAIN INSTLD)
CTR SW - CLOSE* (GUARDED)  R2A02S055
(SW GUARD TO REMAIN INSTLD)
RIGHT SW - CLOSE* (GUARDED)  R2A02S057
(SW GUARD TO REMAIN INSTLD)

HE ISOLATION B

LEFT SW - CLOSE* (GUARDED)  R2A02S013
(SW GUARD TO REMAIN INSTLD)
CTR SW - CLOSE* (GUARDED)  R2A02S012
(SW GUARD TO REMAIN INSTLD)
RIGHT SW - CLOSE* (GUARDED)  R2A02S014
(SW GUARD TO REMAIN INSTLD)

PNEUMATICS

L ENG HE XOVR SW - CLOSE*  R2A02S054
(GUARDED)
(SW GUARD TO REMAIN INSTLD)
HE ISOL SW - CLOSE* (GUARDED)  R2A02S015
(SW GUARD TO REMAIN INSTLD)
LH2 ULLAGE PRESS SW - AUTO
### PANEL R2 (Continued)

**HE INTERCONNECT**

<table>
<thead>
<tr>
<th>Switch Type</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEFT SW</td>
<td>GPC</td>
</tr>
<tr>
<td>CTR SW</td>
<td>GPC</td>
</tr>
<tr>
<td>RIGHT SW</td>
<td>GPC</td>
</tr>
</tbody>
</table>

**APU/HYD**

**READY TO START**

- 1 TB BP
- 2 TB BP
- 3 TB BP

**APU OPERATE**

<table>
<thead>
<tr>
<th>Switch Type</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SW</td>
<td>OFF</td>
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<tr>
<td>2 SW</td>
<td>OFF</td>
</tr>
<tr>
<td>3 SW</td>
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**APU SPEED SELECT**

<table>
<thead>
<tr>
<th>Switch Type</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 SW</td>
<td>NORM</td>
</tr>
<tr>
<td>2 SW</td>
<td>NORM</td>
</tr>
<tr>
<td>3 SW</td>
<td>NORM</td>
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**HYD MAIN PUMP PRESS**

<table>
<thead>
<tr>
<th>Switch Type</th>
<th>Specification</th>
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<tbody>
<tr>
<td>1 SW</td>
<td>NORM</td>
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<tr>
<td>2 SW</td>
<td>NORM</td>
</tr>
<tr>
<td>3 SW</td>
<td>NORM</td>
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</table>

**APU FUEL TK VLV ENABLE**

<table>
<thead>
<tr>
<th>Circuit</th>
<th>Description</th>
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<tbody>
<tr>
<td>1A</td>
<td>CB - OPEN</td>
</tr>
<tr>
<td>1B</td>
<td>CB - OPEN</td>
</tr>
<tr>
<td>2A</td>
<td>CB - OPEN</td>
</tr>
<tr>
<td>2B</td>
<td>CB - OPEN</td>
</tr>
<tr>
<td>3A</td>
<td>CB - OPEN</td>
</tr>
<tr>
<td>3B</td>
<td>CB - OPEN</td>
</tr>
</tbody>
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**HYD CIRC PUMPS**

<table>
<thead>
<tr>
<th>Switch Type</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>1 SW</td>
<td>GPC</td>
</tr>
<tr>
<td>2 SW</td>
<td>GPC</td>
</tr>
<tr>
<td>3 SW</td>
<td>GPC</td>
</tr>
</tbody>
</table>
PANEL R2 (Continued)

APU CNTLR PWR
1 SW - OFF  R2A02S032
2 SW - OFF  R2A02S033
3 SW - OFF  R2A02S034

APU FUEL TK VLV
1 SW - CLOSE  R2A02S035
2 SW - CLOSE  R2A02S036
3 SW - CLOSE  R2A02S037

APU AUTO SHUT DOWN SW
1 SW - ENABLE  R2A02S022
2 SW - ENABLE
3 SW - ENABLE

BOILER CNTLR/HTR
1 SW - OFF*  R2A02S041
2 SW - OFF*  R2A02S042
3 SW - OFF*  R2A02S043

BOILER PWR
1 SW - OFF*  R2A02S038
2 SW - OFF*  R2A02S039
3 SW - OFF*  R2A02S040

BOILER N2 SUPPLY
1 SW - OFF  R2A02S044
2 SW - OFF  R2A02S045
3 SW - OFF  R2A02S046

NOTE
ET umb TB will indicate BP if AFT MCA logic not on.

ET UMBILICAL DOOR
MODE SW - GPC  R2A02S040
CENTERLINE LATCH SW - GND  R2A02S048
CENTERLINE LATCH TB BP
PANEL R2 (Continued)

LEFT
DOOR SW - OFF (CENTER)         R2A02S049
DOOR TB OP
LATCH SW - OFF (CENTER)         R2A02S050
LATCH TB REL

RIGHT
DOOR SW - OFF (CENTER)         R2A02S051
DOOR TB OP
LATCH SW - OFF (CENTER)         R2A02S052
LATCH TB REL

*** End of Panel R2 (PLT) ***
Panel R4 (PLT)

30-22 OTC ASP

PANEL R4

HYDRAULICS

BRAKE HEATER
A SW - OFF R4A04S028
B SW - OFF R4A04S029
C SW - OFF R4A04S030

BRAKE ISOL VALVE
1 SW - GPC (CENTER)
2 SW - GPC (CENTER)
3 SW - GPC (CENTER)
1 TB AS IS *
2 TB AS IS *
3 TB AS IS *

MPS/TVC ISOL VLV
SYS 1 SW - GPC (CENTER)
SYS 2 SW - GPC (CENTER)
SYS 3 SW - GPC (CENTER)
SYS 1 TB AS IS
SYS 2 TB AS IS
SYS 3 TB AS IS

MAIN PROPULSION SYSTEM

ENGINE CNTLR HTR
LEFT SW - OFF R4A04S004
CTR SW - OFF R4A04S003
RIGHT SW - OFF R4A04S005

MANF PRESS
LO2 SW - GPC R4A04S001
LH2 SW - GPC R4A04S002
PANEL R4 (Continued)

PROPELLANT FILL/DRAIN

LO2
OUTBD SW - GND  R4A04S006
INBD SW - GND   R4A04S007

LH2
OUTBD SW - GND  R4A04S008
INBD SW - GND   R4A04S009

H2 PRESS LINE VENT SW - GND  R4A04S010

LO2 PREVALVE
LEFT SW - GPC  R4A04S012
CTR SW - GPC   R4A04S011
RIGHT SW - GPC R4A04S013

LH2 PREVALVE
LEFT SW - GPC  R4A04S015
CTR SW - GPC   R4A04S014
RIGHT SW - GPC R4A04S016

LG EXTEND ISO VLV SW - GPC

LG EXTEND ISO VLV TB CLOSE

FEEDLINE RLF ISOL
LO2 SW - GPC  R4A04S017
LH2 SW - GPC  R4A04S018

LG/NWS HYD SYS SW - AUTO 1/2

*** End of Panel R4 (PLT) ***
Panel R6 (PLT)

30-23 OTC ASP

PANEL R6
RIGHT COMM POWER SW  -  OFF

*** End of Panel R6 (PLT) ***

R Side Overhead Flood (PLT)

NOTE
The following is a standalone florescent light under panel O9.

30-24 OTC ASP

NEAR PANEL O9
RIGHT SIDE OVERHEAD FLOOD  -  BRT

*** End of R Side Overhead Flood (PLT) ***
Panel C2 (CDR)

30-25 OTC ASP

PANEL C2

IDP/CRT 1
POWER SW - ON C2A02S001
MAJ FUNC SW - GNC C2A02S002

IDP/CRT 3
POWER SW - ON
MAJ FUNC SW - GNC

IDP/CRT 2
POWER SW - ON
MAJ FUNC SW - GNC

IDP/LEFT CRT SEL SW - AS IS C2A02S007
IDP/RIGHT CRT SEL SW - AS IS

EVENT TIMER
MODE SW - DOWN C2A02S009
CONTROL SW - (CENTER) C2A02S010

TIMER SET PB'S - 0900

TIMER SW - (CENTER)
Panel C3 (CDR)

30-26 OTC ASP

PANEL C3

OMS ENG
  LEFT SW - OFF C3A01S001
  RIGHT SW - OFF C3A01S002

BFC CRT
  DISPLAY SW - OFF C3A01S017
  SELECT SW - 3 + 1 C3A01S018

FCS CHANNEL
  1 SW - AUTO C3A01S006
  2 SW - AUTO C3A01S007
  3 SW - AUTO C3A01S008
  4 SW - AUTO C3A01S009

BODY FLAP SW - AUTO/OFF

AIR DATA PROBE STOW
  LEFT SW - INHIBIT C3A01S019
  RIGHT SW - INHIBIT C3A01S020

MAIN ENGINE
  LIMIT SHUT DN SW - AUTO C3A01S011

MAIN ENGINE SHUTDOWN
  LEFT LITE OFF
  CTR LITE OFF
  RIGHT LITE OFF

ROLL TRIM SW - (CENTER) C3A01S015

PITCH TRIM SW - (CENTER) C3A01S016

SBTC HANDLE - FULL FWD
PANEL C3 (Continued)

ORBITAL DAP - (ALL LITES OFF)
SELECT
A LITE OFF C3A06S001
B LITE OFF C3A06S002

CONTROL
AUTO LITE OFF
INRTL LITE OFF
LVLH LITE OFF
FREE LITE OFF

MANUAL MODE
TRANSLATION (ALL LITES OFF)
X
SPARE (BLANK PBI)
LITE OFF C3A06S016
NORM LITE OFF C3A06S019
PULSE LITE OFF C3A06S022

Y
LOW Z LITE OFF C3A06S017
NORM LITE OFF C3A06S020
PULSE LITE OFF C3A06S023

Z
HIGH Z LITE OFF C3A06S018
NORM LITE OFF C3A06S021
PULSE LITE OFF C3A06S024

ROTATION
ROLL
PRI LITE OFF
DISC RATE LITE OFF
PULSE LITE OFF

PITCH
ALT LITE OFF
DISC RATE LITE OFF
PULSE LITE OFF

YAW
VERN LITE OFF
DISC RATE LITE OFF
PULSE LITE OFF
PANEL C3 (Continued)

SRB SEPARATION
  MAN/AUTO SW - AUTO  C3A07S001
  SEP LITE - OFF      C3A07S002

ET SEPARATION
  MAN/AUTO SW - AUTO  C3A07S003
  SEP LITE - OFF      C3A07S004

YAW TRIM SW - (CENTER)  C3A07S005

AUDIO CENTER SW - 1   C3A07S006

OI PCMMU
  PWR SW - OFF        C3A07S007
  FORMAT SW - GPC     C3A07S008

S-BAND PM
  CONTROL SW - CMD   C3A07S009

NOTE
When switching S-band PM antenna selector switch, pause a minimum of 2 sec in each position.

ANTENNA SW - GPC       C3A07S010

AIR DATA PROBE
  LEFT SW - STOW      C3A06S008
  RIGHT SW - STOW     C3A06S009

FUEL CELL REAC VLV
  1 SW - DOWN
  2 SW - DOWN
  3 SW - DOWN
  1 CB - OPEN
  2 CB - OPEN
  3 CB - OPEN
PANEL C3 (Continued)

UPLINK SW - ENABLE  

MASTER MADS POWER SW - ON

CAUTION/WARNING
MEMORY SW - (CENTER)  
MODE SW - NORM

NOTE
For questions about switch position, contact CPLE.

NOTE
Perform next five switch settings for OV-103/OV-105.

PAYLOAD SAFING
1 SW - SAFE (OV-105)
RTG PUMP - PRI (OV-103)
2 SW - SAFE  
3 SW - SAFE  
4 SW - SAFE  
5 SW - SAFE

Not Performed:______

NOTE
Perform next five switch settings for OV-104.

RTG PUMP SW - PRI  

RTG SHORT
PRI
ENA/DSBL SW - DSBL  
SHORT/OFF SW - OFF

SEC
ENA/DSBL SW - DSBL  
SHORT/OFF SW - OFF

Not Performed:______
PANEL C3 (Continued)

EMERGENCY LIGHTING SW - OFF/ON   C3A05S015

*** End of Panel C3 (CDR) ***
Panel C5 (PLT)

30-27 OTC ASP

PANEL C5
DIRECT O2 VALVE - CLOSED (AFT)

*** End of Panel C5 (PLT) ***

PLT Seat

30-28 OTC ASP

PLT SEAT (LOWER LEFT)

SEAT BUS SEL SW - AC3 (DOWN)
HORIZ CONTR - (CENTER)
VERT CONTR - (CENTER)

*** End of PLT Seat ***

Panel C6 (PLT)

30-29 OTC ASP

PANEL C6
LEH O2 1 VLV - CLOSE
LEH O2 2 VLV - CLOSE
LEH O2 3 VLV - CLOSE
LEH O2 4 VLV - CLOSE

*** End of Panel C6 (PLT) ***
Panel C7 (PLT)

30-30 OTC ASP

PANEL C7
LEH O2 SUPPLY
SYS 1 VLV - OPEN
SYS 2 VLV - OPEN

*** End of Panel C7 (PLT) ***

Panel O1 (CDR)

30-31 OTC ASP

PANEL O1
COAS SW - OFF  O1A01S001
GPC STATUS (MATRIX) LITES OFF  O1A01XDS1
AIR TEMP SW - AS IS*  O1A01S002
H2O PUMP OUT PRESS SW - AS IS*  O1A01S003
FREON SW - AS IS*  O1A01S004
O2/N2 FLOW SW - AS IS*  O1A01S005
PPO2 SW - AS IS*  O1A01S006

*** End of Panel O1 (CDR) ***
### Panel O2 (CDR)

<table>
<thead>
<tr>
<th>30-32 OTC ASP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANEL O2</td>
</tr>
<tr>
<td>CRYO</td>
</tr>
<tr>
<td>O2 HTR ASSY TEMP SW - TK1 1</td>
</tr>
<tr>
<td>O2/H2 SW - TK 1</td>
</tr>
<tr>
<td>FUEL CELL STACK TEMP SW - 1</td>
</tr>
</tbody>
</table>

*** End of Panel O2 (CDR) ***

### Panel O3 (PLT)

<table>
<thead>
<tr>
<th>30-33 OTC ASP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANEL O3</td>
</tr>
<tr>
<td>RCS/OMS PRESS SW - RCS HE X 10</td>
</tr>
<tr>
<td>RCS/OMS PRPLT QTY SW - OMS FUEL</td>
</tr>
<tr>
<td>MISSION TIME SW - MET</td>
</tr>
</tbody>
</table>

*** End of Panel O3 (CDR) ***
Panel O5 (CDR)

30-34  OTC  ASP

Panel O5

Left Audio

TACAN ID (OV-103/OV-104)
- ON/OFF SW - OFF  O0500S012
- 1/2/3 SW - 1  O0500S013

Unlabeled Switches (OV-105)
- LEFT SW - AS REQD  O0500S012
- RIGHT SW - AS REQD  O0500S013

VOX Sens SW - AS IS

A/G
- 1 SW - T/R  O0500S002
- 2 SW - T/R  O0500S003

A/A SW - T/R  O0500S001

ICOM
- A SW - T/R  O0500S004
- B SW - T/R  O0500S005

Power SW - AUD/TONE  O0500S006
CONTROL SW - NORM  O0500S009

Xmit/ICOM Mode SW - PTT/VOX

Volume

A/G
- 1 PB - AS IS
- 2 PB - AS IS

A/A PB - AS IS
ICOM
   A PB - AS IS
   B PB - AS IS
TACAN PB - 5 (OV-103/OV-104)
TACAN PB - AS IS (OV-105)
PAGE SW - (DOWN)

*** End of Panel O5 (CDR) ***
Panel O6 (CDR)

NOTE
Panel and instrument switches (four) will be "1/4 BRT" for night Launch.

30-35 OTC ASP

PANEL O6
LIGHTING PANEL
LEFT/CENTER SW - OFF O6A06R003
LEFT OVERHEAD SW - OFF O6A06R004

INSTRUMENT
LEFT/CTR SW - OFF O6A06R005
OVERHEAD SW - (AS REQUIRED) O6A06R006

LEFT GLARESHIELD FLOOD
BRIGHT/VAR/OFF SW - VAR O6A06S001
DIM/BRT SW - (AS REQUIRED) O6A06R001

LEFT SEAT CTR CNSL FLOOD
SEAT/OFF/CTR CNSL SW - OFF
DIM/BRT SW - BRT

NOTE
Star tracker door TB may be BP if MCA logic not on.

STAR TRACKER
DOOR POSITION
-Y TB CL
-Z TB CL

DOOR CONTROL
SYS 1 SW - OFF O6A06S002
SYS 2 SW - OFF O6A06S003
POWER
-Y SW - OFF O6A06S004
-Z SW - OFF O6A06S005
PANEL 06 (Continued)

UHF
SPLX/EVA XMIT FREQ SW - 259.7/414.2
SPLX EVA PWR AMPL SW - ON
SPLX SQUELCH SW - ON
EVA STRING SW - 1
ENCRIPT SW - ON
UHF MODE SW - SPLX

ANNUNCIATOR
LAMP TEST SW - (CENTER)  O6A06S014

BUS SELECT
ACA 1 SW - MN A          O6A06S012
ACA 2/3 SW - MN B         O6A06S013

INTENSITY
BRIGHT/VAR SW - BRIGHT   O6A06S051
LOW/MED SW - MED         O6A06R002

MASTER TIMING UNIT SW - AUTO  O6A06S015

MDM
PL1 SW - ON              O6A06S052
PL2 SW - ON              O6A06S020
PL3 SW - OFF             O6A06S025

INTEGRATED DISPLAY PROCESSOR
1 SW - (DOWN)            O6A06S016
2 SW - (DOWN)            O6A06S017
3 SW - (DOWN)            O6A06S018
4 SW - (DOWN)            O6A06S019

MDM
FLT CRIT AFT
FA1 SW - ON              O6A06S021
FA2 SW - ON              O6A06S022
FA3 SW - ON              O6A06S023
FA4 SW - ON              O6A06S024
 PANEL O6 (Continued)

**FLT CRIT FWD**

- FF1 SW - ON O6A06S026
- FF2 SW - ON O6A06S027
- FF3 SW - ON O6A06S028
- FF4 SW - ON O6A06S029

**GENERAL PURPOSE COMPUTER**

**POWER**

- 1 SW - ON O6A06S030
- 2 SW - ON O6A06S031
- 3 SW - ON O6A06S032
- 4 SW - ON O6A06S033
- 5 SW - ON O6A06S034

**OUTPUT**

- 1 SW - NORMAL O6A06S035
- 2 SW - NORMAL O6A06S036
- 3 SW - NORMAL O6A06S037
- 4 SW - NORMAL O6A06S038
- 5 SW - NORMAL O6A06S039

- 1 TB GRAY
- 2 TB GRAY
- 3 TB GRAY
- 4 TB GRAY
- 5 TB BP

**INITIAL PROGRAM LOAD**

- 1 PB - AS IS O6A06S040
- 2 PB - AS IS O6A06S041
- 3 PB - AS IS O6A06S042
- 4 PB - AS IS O6A06S043
- 5 PB - AS IS O6A06S044

**IPL SOURCE SW - OFF** O6A06S045
PANEL O6 (Continued)

MODE
1 SW - RUN  O6A06S046
2 SW - RUN  O6A06S047
3 SW - RUN  O6A06S048
4 SW - RUN  O6A06S049
5 SW - STBY  O6A06S050

1 TB RUN
2 TB RUN
3 TB RUN
4 TB RUN
5 TB RUN

*** End of Panel O6 (CDR) ***
Panel O7 (PLT)

30-36 OTC ASP

**IF** IN SUPPORT OF OV-103 OR OV-104,

**THEN**

**PANEL O7**

**TACAN 1**
- MODE SW - OFF  O7A07S001
- ANT SEL SW - AS IS  O7A07S002
- CHANNEL PB'S - AS IS  O7A07S00

**TACAN 2**
- MODE SW - OFF  O7A07S003
- ANT SEL SW - AS IS  O7A07S004
- CHANNEL PB'S - AS IS  O7A07S00

**TACAN 3**
- MODE SW - OFF  O7A07S005
- ANT SEL SW - AS IS  O7A07S006
- CHANNEL PB'S - AS IS  O7A07S00

**Not Performed:** ______
PANEL 07 (Continued)

IF IN SUPPORT OF OV-105,

THEN

PANEL 07

GPS 1
  PRE AMPL
   UPPER SW - OFF
   LOWER SW - OFF
   ENCRYPT SW - NORMAL
   POWER SW - OFF

GPS 2
  PRE AMPL
   UPPER SW - OFF
   LOWER SW - OFF
   ENCRYPT SW - NORMAL
   POWER SW - OFF

GPS 3
  PRE AMPL
   UPPER SW - OFF
   LOWER SW - OFF
   ENCRYPT SW - NORMAL
   POWER SW - OFF

Not Performed:____

AFT LEFT RCS

HE PRESS
  A SW - GPC*  07A07S010
  B SW - GPC*  07A07S011
  A TB __*
  B TB __*

TANK ISOLATION

1/2 SW - GPC  07A07S016
  1/2 TB __*

3/4/5
  A SW - GPC  07A07S017
  B SW - GPC  07A07S018
  A TB __*
  B TB __*
PANEL 07 (Continued)

MANIFOLD ISOLATION

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<tbody>
<tr>
<td>1</td>
<td>SW</td>
<td>GPC</td>
<td>O7A07S022</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>SW</td>
<td>GPC</td>
<td>O7A07S023</td>
<td></td>
<td></td>
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<tr>
<td>3</td>
<td>SW</td>
<td>GPC</td>
<td>O7A07S024</td>
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</tr>
<tr>
<td>4</td>
<td>SW</td>
<td>GPC</td>
<td>O7A07S025</td>
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<tr>
<td>5</td>
<td>SW</td>
<td>GPC</td>
<td>O7A07S026</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>TB</td>
<td>___*</td>
<td></td>
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NOTE

Left and right RCS crossfeed switches will be in closed position if any OMS pod was removed with hardfilled RCS manifolds and propellant servicing has not yet occurred. Otherwise, the switches will be in GPC position.

LEFT RCS CROSSFEED

<p>| | | | | | |</p>
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<tbody>
<tr>
<td>1/2</td>
<td>SW</td>
<td>___*</td>
<td>O7A07S032</td>
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</tr>
<tr>
<td>3/4/5</td>
<td>SW</td>
<td>___*</td>
<td>O7A07S033</td>
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</tr>
<tr>
<td>1/2</td>
<td>TB</td>
<td>___*</td>
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<td></td>
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<tr>
<td>3/4/5</td>
<td>TB</td>
<td>___*</td>
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MASTER RCS CROSSFEED SW - OFF O7A07S036

AFT RIGHT RCS

HE PRESS

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</thead>
<tbody>
<tr>
<td>A</td>
<td>SW</td>
<td>GPC*</td>
<td>O7A07S013</td>
<td></td>
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<tr>
<td>B</td>
<td>SW</td>
<td>GPC*</td>
<td>O7A07S014</td>
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</tr>
<tr>
<td>A</td>
<td>TB</td>
<td>___*</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>B</td>
<td>TB</td>
<td>___*</td>
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TANK ISOLATION

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<tbody>
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<td>1/2</td>
<td>SW</td>
<td>GPC</td>
<td>O7A07S019</td>
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</tr>
<tr>
<td>1/2</td>
<td>TB</td>
<td>___*</td>
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<td></td>
</tr>
<tr>
<td>3/4/5</td>
<td>A</td>
<td>SW</td>
<td>GPC</td>
<td>O7A07S020</td>
<td></td>
</tr>
<tr>
<td>3/4/5</td>
<td>B</td>
<td>SW</td>
<td>GPC</td>
<td>O7A07S021</td>
<td></td>
</tr>
<tr>
<td>3/4/5</td>
<td>A</td>
<td>TB</td>
<td>___*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/4/5</td>
<td>B</td>
<td>TB</td>
<td>___*</td>
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</table>
PANEL O7 (Continued)

MANIFOLD ISOLATION
1 SW - GPC  07A07S027
2 SW - GPC  07A07S028
3 SW - GPC  07A07S029
4 SW - GPC  07A07S030
5 SW - GPC  07A07S031

1 TB __ *  
2 TB __ *  
3 TB __ *  
4 TB __ *  
5 TB __ *

RIGHT RCS CROSSFEED
1/2 SW - __*  07A07S034
3/4/5 SW - __*  07A07S035

1/2 TB __*  
3/4/5 TB __*

*** End of Panel O7 (PLT) ***
Panel O8 (PLT)

30-37

Panel and instrument switches (four) will be "1/4 BRT" for night Launch.

NOTE

 Ottc  a8p

Panel O8

RADAR ALTIMETER
1 SW - OFF  O8A01S004
2 SW - OFF  O8A01S005

MLS
1 SW - OFF  O8A01S008
2 SW - OFF  O8A01S009
3 SW - OFF  O8A01S010

CHANNEL
1 TW - 6  O8A01S011
2 TW - 6
3 TW - 6

RIGHT SEAT/CTR CNSL FLOOD
SEAT/OFF/CTR SW - OFF  O8A1S001
DIM/BRT SW - BRT  O8A1R001

LIGHTING

Panel
RIGHT SW - OFF  O8A01R002
RIGHT OVERHEAD SW - OFF  O8A01R003
RIGHT INSTRUMENT SW - OFF  O8A01R004
NUMERIC SW - BRT  O8A01R005

RIGHT GLARESHIELD FLOOD
BRIGHT/VAR/OFF SW - VAR  O8A01S003
DIM/BRT SW - (AS REQUIRED)  O8A01R001

OMS KIT
HE PRESS/VAPOR ISOL
A SW - CLOSE  O8A01S001
B SW - CLOSE  O8A01S002
PANEL 08 (Continued)

TANK ISOLATION
A SW - CLOSE  O8A01S006
B SW - CLOSE  O8A01S007
A TB BP
B TB BP

LEFT OMS
HE PRESS/VAPOR ISOL
A SW - CLOSE*  O8A01S012
B SW - CLOSE*  O8A01S013

TANK ISOLATION
A SW - GPC  O8A1S019
B SW - GPC  O8A1S020
A TB ___*  
B TB ___*

LEFT OMS CROSSFEED
A SW - GPC  O8A01S026
B SW - GPC  O8A01S027
A TB ___*  
B TB ___*

RIGHT OMS
HE PRESS/VAPOR ISOL
A SW - CLOSE*  O8A01S014
B SW - CLOSE*  O8A01S015

TANK ISOLATION
A SW - GPC  O8A01S021
B SW - GPC  O8A01S022
A TB ___*  
B TB ___*

RIGHT OMS CROSSFEED
A SW - GPC  O8A01S028
B SW - GPC  O8A01S029
A TB ___*  
B TB ___*
PANEL O8 (Continued)

FWD RCS
HE PRESS
A SW - GPC*  O8A01S016
B SW - GPC*  O8A01S017

A TB ***
B TB ***

TANK ISOLATION
1/2 SW - GPC  O8A01S023
3/4/5 SW - GPC  O8A01S024
1/2 TB ***
3/4/5 TB ***

MANIFOLD ISOLATION
1 SW - GPC  O8A01S030
2 SW - GPC  O8A01S031
3 SW - GPC  O8A01S032
4 SW - GPC  O8A01S033
5 SW - GPC  O8A01S034

1 TB ***
2 TB ***
3 TB ***
4 TB ***
5 TB ***

ANNUNCIATOR LAMP TEST SW-(CENTER)  O8A01S018

*** End of Panel O8 (PLT) ***
Panel O9 (PLT)

30-38 OTC ASP

PANEL O9
RIGHT AUDIO
POWER SW - AUD/TONE O9A09S006
A/G
1 SW - T/R O9A09S002
2 SW - T/R O9A09S003
A/A SW - T/R O9A09S001
ICOM
A SW - T/R O9A09S004
B SW - T/R O9A09S005
VOX SENS SW - AS IS

TACAN ID (OV-103/OV-104)
ON/OFF SW - OFF
1/2/3 SW - AS IS

UNLABELED SWITCHES (OV-105)
LEFT SW - AS REQD
RIGHT SW - AS REQD

PAGE SW - (DOWN) O9A09S008

VOLUME O9A09S009
A/G
1 PB - AS IS
2 PB - AS IS
A/A PB - AS IS

ICOM
A PB - AS IS
B PB - AS IS
TACAN PB - 5 (OV-103/OV-104)
TACAN PB - AS IS (OV-105)

XMIT/ICOM MODE SW - PTT/VOX O9A09S01

CONTROL SW - NORM

*** End of Panel O9 (PLT) ***
Panel O13 (CDR)

30-39 OTC ASP

**PANEL O13**

**ROW A**

ESS 1BC

- C/W A CB - CLOSE 013A13C001
- MN A CONTR CB - OPEN 013A13C002
- AC 1 SNSR CB - CLOSE 013A13C003
- MTU A CB - CLOSE 013A13C004

**ROW B**

ESS 1BC

CRYO CNTRL

- O2 TK2 CB - OPEN* 013A13C007
- H2 TK2 CB - OPEN* 013A13C008

CRYO QTY

- O2 TK2 CB - OPEN* 013A13C020
- H2 TK2 CB - OPEN* 013A13C021

**ROW C**

ESS 2CA

- C/W B CB - CLOSE 013A13C009
- MN B CONTR CB - OPEN 013A13C010
- AC 2 SNSR CB - CLOSE 013A13C011
- MTU B CB - CLOSE 013A13C012

**ROW D**

ESS 2CA

CRYO CNTRL

- O2 TK1 CB - OPEN* 013A13C014
- H2 TK1 CB - OPEN* 013A13C015

CRYO QTY

- O2 TK1 CB - OPEN* 013A13C022
- H2 TK1 CB - OPEN* 013A13C023
PANEL O13 (Continued)
ROW E
ESS 3AB
MN C CONTR CB - OPEN 013A13C016
AC 3 SNSR CB - CLOSE 013A13C017
GPC STATUS CB - CLOSE 013A13C018

*** End of Panel O13 (PLT) ***
Panel O14 (CDR)

30-40 OTC ASP

PANEL O14
ROW A
BRAKES MN A SW - ON O14A14S001
RGA 1 SW - ON O14A14S002
IMU 1 SW - ON O14A14S011
FC 1 CNTLR SW - OFF* O14A14S012

ROW B
MN A
OPERATIONAL INST
SIG CONDR
OF 1/4 A CB - CLOSE O14A14C002
OM 1/2 A CB - CLOSE O14A14C003

MDM
OF 1/2 A CB - CLOSE O14A14C004
OF 3/4 A CB - CLOSE O14A14C005

H2O BYP LOOP 1 SNSR CB - CLOSE O14A14C035
TIRE PRESS CB - CLOSE

MN C CONTR CB - OPEN O14A14C038

MISSION TIMER FWD CB - CLOSE O14A14C01

EVENT TIMER AFT CB - CLOSE O14A14C013
PANEL O14 (Continued)

ROW C
MN A
TACAN 1 CB - CLOSE (OV-103/OV-104)

CRYO O2 HTR TK1 SNSR1 CB - CLOSE 014A14C006

SMOKE DETN
L/R FLT DK CB - CLOSE 014A14C007
BAY 2A/3B CB - CLOSE 014A14C008

FIRE SUPPR BAY 3 CB - CLOSE 014A14C00

UTILITY POWER O19/M052JCB - CLOSE 014A14C010

FLOOD LEFT CNSL CB - CLOSE 014A14C011

ANNUN FWD ACA 1 CB - CLOSE 014A14C033

RAD ISOL CONTLR CB - CLOSE

ROW D
MN A
FREON
RAD CNTLR
1 CB - CLOSE 014A14C014
2 CB - CLOSE 014A14C015

NOTE
Perform next GPS switch verifications for OV-105 only.

GPS 1 (OV-105)
PRE AMPL
UPPER CB - CLOSED
LOWER CB - CLOSED

Not Performed: _____
PANEL O14 (Continued)

NOTE
Perform next GPS switch verifications for OV-104 only.

GPS 1 (OV-104)
PRE AMPL
  UPPER CB - OPEN
  LOWER CB - OPEN

Not Performed:______

NOTE
Perform next GPS switch verifications for OV-103 only.
Switch positions will be specified by VITT.

GPS
PRE AMPL
  UC CB - ______
  LC CB - ______

Not Performed:______

ATM PRESS CONTROL
  N2 SUPPLY 1 CB - CLOSE  O14A14C01
  O2/N2 CNTLR 1 CB - CLOSE  O14A14C01
  O2 XOVR 1 CB - CLOSE  O14A14C02
  N2 REG INLET 1 CB - CLOSE  O14A14C02
  CABIN VENT CB - CLOSE  O14A14C02
  CABIN VENT ISOL CB - CLOSE  O14A14C03

ROW E
MN A
  RADAR ALTM 1 CB-CLOSE  O14A14C024
  MLS 1 CB - CLOSE  O14A14C025
  ADTA 1 CB - CLOSE  O14A14C026
  STAR TRKR -Z CB - CLOSE  O14A14C027
  ACCEL 1 CB - CLOSE  O14A14C028
PANEL O14 (Continued)

DDU
  LEFT CB - CLOSE  O14A14C030
  AFT CB - OPEN  O14A14C031
  NOSE WHEEL STEERING CB - CLOSE  O14A14C023

ROW F
  MMU 1 SW - AS IS*  O14A14S013

RJDA 1A
  L2/R2 MANF
    LOGIC SW - ON  O14A14S003
    DRIVER SW - OFF  O14A14S004
    (GUARDED AND LOCKED)
    (SW GUARD TO REMAIN INSTLD)

RJDA 2A
  L4/R4 MANF
    LOGIC SW - ON  O14A14S005
    DRIVER SW - OFF  O14A14S006
    (GUARDED AND LOCKED)
    (SW GUARD TO REMAIN INSTLD)

RJDF 1B
  F1 MANF
    LOGIC SW - ON  O14A14S007
    DRIVER SW - OFF  O14A14S008
    (GUARDED AND LOCKED)
    (SW GUARD TO REMAIN INSTLD)

  L OMS ENG VLV SW - OFF (GUARDED)  O14A14S009
    (SW GUARD TO REMAIN INSTLD)

  ASA 1 SW - ON  O14A14S010

*** End of Panel O14 (PLT) ***
Panel O15 (PLT)

30-41 OTC ASP

PANEL O15
ROW A
BRAKES MN B SW - ON 015A15S01

RGA
  2 SW - ON 015A15S02
  4 SW - ON 015A15S13
  IMU 2 SW - ON 015A15S10

FC 2 CNTLR SW - OFF* 015A15S11

ROW B
MN B
OPERATIONAL INST
  SIG CONDR
    OM3 A CB - CLOSE 015A15C02
    OF 1/4 B CB - CLOSE 015A15C03
    OF 2/3 A CB - CLOSE 015A15C04
    OM 1/2 B CB - CLOSE 015A15C05

  MDM OF 1/2 B CB - CLOSE 015A15C05

  H2O BYP LOOP 2 SNSR CB - CLOSE 015A15C035

  TIRE PRESS CB - CLOSE

  MN A CONTR CB - OPEN 015A15C03

  MISSION TIMER AFT CB - CLOSE 015A15C12

  EVENT TIMER FWD CB - CLOSE 015A15C13
PANEL O15 (Continued)

ROW C
MN B

TACAN 2 CB - CLOSE (OV-103)

GPS 2
  PREAMPL
    UPPER CB - CLOSE (OV-104/105)

CRYO O2 HTR TK 2 SNSR 2
  CB - CLOSE 015A15C06

SMOKE DETN BAY 1B/3A CB - CLOSE 015A15C07

FIRE SUPPR BAY 1 CB - CLOSE 015A15C08

UTILITY POWER F1/MO13Q CB - OPEN 015A15C09

FLOOD
  RIGHT CNSL CB - CLOSE 015A15C10
  LEFT CTR CB - CLOSE 015A15C11

ANNUNCIATOR
  FWD
    ACA 1 CB - CLOSE 015A15C32
    ACA 2/3 CB - CLOSE 015A15C34
  AFT
    ACA 4/5 CB - CLOSE 015A15C33

ROW D
MN B

FREON
  RAD CNTLR
    1 CB - CLOSE 015A15C014
    2 CB - CLOSE 015A15C015

NOSE WHEEL STEERING CB - CLOSE
PANEL 015 (Continued)

ATM PRESS CONTROL
  PPO2C CABIN DP/DT CB - CLOSE 015A15C017
  N2 SUPPLY 2 CB - CLOSE
  O2/N2 CNTLR 2 CB - CLOSE 015A15C018
  O2 XOVR 2 CB - CLOSE 015A15C019
  N2 REG INLET 2 CB - CLOSE 015A15C020
  CABIN RELIEF A CB - CLOSE 015A15C022

GPS 2
  PREAMPL
    LOWER CB - CLOSE (OV-104/105)

ROW E

MN B
  RADAR ALTM 2 CB-CLOSE 015A15C23
  MLS 2 CB - CLOSE 015A15C24
  ADTA 2 CB - CLOSE 015A15C25
  STAR TRKR -Y CB - CLOSE 015A15C26

ACCEL 2 CB - CLOSE 015A15C27

DDU
  LEFT CB - CLOSE 015A15C29
  RIGHT CB - CLOSE 015A15C30

TACAN 2 CB - CLOSE (OV-104 ONLY)

DRAG CHUTE SYS 2 CB - CLOSE

ROW F

MMU 2 SW - AS IS* 015A15S1

RJDA 1B
  L1/L5/R1 MANF
    LOGIC SW - ON 015A15S03

L1/R1 MANF
  DRIVER SW - OFF 015A15S04
  (GUARDED AND LOCKED)
  (SW GUARD TO REMAIN INSTLD)
PANEL O15 (Continued)

RJDF 1A
F2 MANF
  LOGIC SW - ON O15A15S07
  DRIVER SW - OFF O15A15S08
  (GUARDED AND LOCKED)
  (SW GUARD TO REMAIN INSTLD)

ASA 2 SW - ON O15A15S09

ACCEL 4 SW - ON O15A15S14

*** End of Panel O15 (PLT) ***
Panel O16 (PLT)

30-42  OTC   ASP

PANEL O16
ROW A
BRAKES MN C SW - ON   O16A16S01
RGA 3 SW - ON          O16A16S02
IMU 3 SW - ON          O16A16S10
FC 3 CNTLR SW - OFF*  O16A16S11

ROW B
MN C
OPERATIONAL INST
SIG CONDR
OM3 B CB - CLOSE
OF 2/3 B CB - CLOSE   O16A16C0
MDM OF 3/4 B CB - CLOSE O16A16C03
MN B CONTR CB - OPEN  O16A16C30
AUX TIMING BUFFER CB - CLOSE

ROW C
MN C

TACAN 3 CB - CLOSE (OV-103/104)

CRYO O2 HTR
TK 1 SNSR 2 CB - CLOSE   O16A16C04
TK 2 SNSR 1 CB - CLOSE   O16A16C05
SMOKE DETN
CABIN CB - CLOSE         O16A16C006
BAY 1A/2B CB - CLOSE     O16A16C007

FIRE SUPPR BAY 2 CB - CLOSE O16A16C008

UTILITY POWER A11/A15/MO30F
CB - CLOSE               O16A16C09

FLOOD RIGHT CTR CB - CLOSE O16A16C10

ANNUNCIATOR
FWD ACA 2/3 CB - CLOSE   O16A16C25
AFT ACA 4/5 CB - CLOSE   O16A16C26
PANEL 016 (Continued)

ROW D

NOTE
Perform next GPS switch verifications for OV-105 only.

GPS 3 (OV-105)
PRE AMPL
UPPER CB - CLOSE
LOWER CB - CLOSE

Not Performed:_____

NOTE
Perform next GPS switch verifications for OV-104 only.

GPS 3 (OV-104)
PRE AMPL
UPPER CB - OPEN
LOWER CB - OPEN

Not Performed:_____

NOTE
Perform next GPS switch verifications for OV-103 only. Switch positions will be specified by VITT.

GPS
PRE AMPL
UC CB - ______
LC CB - ______

Not Performed:_____
PANEL 016 (Continued)

H2O ALT PRESS CB - CLOSE 016A16C015

ATM PRESS CONTR
O2 EMER CB - OPEN 016A16C016
CABIN RELIEF B CB - CLOSE 016A16C017

ROW E
MN C
MLS 3 CB - CLOSE 016A16C18
ADTA
3 CB - CLOSE 016A16C19
4 CB - CLOSE 016A16C20
DDU
RIGHT CB - CLOSE 016A16C22
AFT CB - OPEN 016A16C23

RCS/OMS PRPLT QTY GAUGE CB - CLOSE 016A16C24
DRAG CHUTE SYS 1 CB - CLOSE

ROW F
RJDA 2B
L3/R3/R5 MANF
LOGIC SW - ON 016A16S03
L3/R3 MANF
DRIVER SW - OFF 016A16S04
(GUARDED AND LOCKED)
(SW GUARD TO REMAIN INSTLD)
RJDF 2A
F3 MANF
LOGIC SW - ON 016A16S05
DRIVER SW - OFF 016A16S06
(GUARDED AND LOCKED)
(SW GUARD TO REMAIN INSTLD)
PANEL O16 (Continued)

RJDF 2B
F4/F5 MANF
   LOGIC SW - ON   O16A16S12
F4 MANF
   DRIVER SW - OFF  O16A16S13
   (GUARDED AND LOCKED)
   (SW GUARD TO REMAIN INSTLD)

R OMS ENG VLV SW - OFF (GUARDED)  O16A16S0
   (SW GUARD TO REMAIN INSTLD)

ASA
   3 SW - ON   O16A16S08
   4 SW - ON   O16A16S09

ACCEL 3 SW - ON   O16A16S14

RJD MANF
L5/F5/R5
   DRIVER SW - OFF (GUARDED AND LOCKED)
   (SW GUARD TO REMAIN INSTLD)

*** End of Panel O16 (PLT) ***
Panel O17 (PLT)

30-43  OTC  ASP

PANEL O17
ROW A
ATVC
  1 SW - ON  O17A17S01
  2 SW - ON  O17A17S02
  3 SW - ON  O17A17S03
  4 SW - ON  O17A17S04

ROW B
EIU
  L-C SW - OFF*  O17A17S08
  C-R SW - OFF*  O17A17S07
  R-L SW - OFF*  O17A17S09

ROW C
SIGNAL CONDITIONER
FREON
  A SW - AC2  O17A17S01
  B SW - AC3  O17A17S01
  OL 1/2 SW - ON  O17A17S13
  OR 1/2 SW - ON  O17A17S14

ROW D
SIG CONDR OA 1/2/3 SW - ON  O17A17S17

MDM OA 1/2/3 SW - ON  O17A17S19

MEC
  1 SW - ON  O17A17S05
  2 SW - ON  O17A17S06

*** End of Panel O17 (PLT) ***
Panel O19 (CDR)

30-44  OTC  ASP

**PANEL O19**

- TV PWR SW - OFF  
- DC UTILITY POWER MNA SW - OFF  
- COAS PWR SW - OFF

*** End of Panel O19 (PLT) ***

*** End of Flight Deck Switch list ***
Caution and Warning Setups

Panel O13 (CDR)

NOTE
Following steps cycle power to C/W in order to reset memory to PROM values, then set parameter Launch limits.

C/W master alarm will occur in next step. Advise CISL.

30-45  OTC       ASP

PANEL O13
ROW C
    ESS 2CA
        C/W B CB - OPEN  13A13C009

ROW A
    ESS 1BC
        C/W A CB - OPEN  13A13C001

NOTE
C/W master alarm will occur in following step. Advise CISL.

30-46  OTC       ASP

PANEL O13
ROW C
    ESS 2CA
        C/W B CB - CLOSE 13A13C009

ROW A
    ESS 1BC
        C/W A CB - CLOSE  13A13C001
30-47       OTC       ASP

Master Alarm PB - Press and Release

Verify Master Alarm Lite Off

*** End of Panel O13 (CDR) ***
Panel R13 (MS1)

**NOTE**
Next step will inhibit C&W parameters. Use the C/W parameter switch on the lower right not the C/W parameter status switch on the upper left.

**NOTE**
Parameters 055, 065, 075, 085, 095 and 097 support Powered Payload C&W parameters and will be inhibited for flight until a Powered Payload requires their use.

30-48 OTC ASP

**PERFORM** THE FOLLOWING FOR LISTED PARAMETERS:

**PANEL R13U**

**CAUTION AND WARNING**

PARAMETER SELECT PB'S - **XXX**

PARAM SW - INHIBIT, REL

<table>
<thead>
<tr>
<th>XXX</th>
</tr>
</thead>
<tbody>
<tr>
<td>000 (PRSD O2 TK 1 HTR CNTL PRESS)*</td>
</tr>
<tr>
<td>006 (FRCS OXID TK PRESS)*</td>
</tr>
<tr>
<td>007 (LEFT OMS OXID TK PRESS)*</td>
</tr>
<tr>
<td>008 (APU 1 EGT)</td>
</tr>
<tr>
<td>009 (MPS HE C TK PRESS)*</td>
</tr>
<tr>
<td>010 (PRSD O2 TK 2 HTR CNTL PRESS)*</td>
</tr>
<tr>
<td>016 (FRCS FUEL PRESS)*</td>
</tr>
<tr>
<td>017 (LEFT OMS FUEL PRESS)*</td>
</tr>
<tr>
<td>018 (APU 2 EGT)</td>
</tr>
<tr>
<td>019 (MPS HE L TK PRESS)*</td>
</tr>
<tr>
<td>020 (PRSD O2 TK3 HTR CNTL PRESS)*</td>
</tr>
<tr>
<td>026 (FRCS LEAK)*</td>
</tr>
<tr>
<td>028 (APU 3 EGT)</td>
</tr>
<tr>
<td>029 (MPS HE R TK PRESS)*</td>
</tr>
<tr>
<td>030 (PRSD O2 TK 4/5 HTR CNTL PRESS)*</td>
</tr>
<tr>
<td>034 (ECLSS PP02 SENSOR A)*</td>
</tr>
<tr>
<td>036 (LEFT RCS OXID PRESS)*</td>
</tr>
<tr>
<td>037 (RIGHT OMS OXID PRESS)*</td>
</tr>
<tr>
<td>039 (MPS ENG 1 REG PRESS)*</td>
</tr>
</tbody>
</table>
PANEL R13U (Continued)

040 (PRSD 02 TK5 HTR CNTL PRESS)*
044 (ECLSS PP02 SENSOR B)*
046 (LEFT RCS FUEL PRESS)*
047 (RIGHT OMS FUEL PRESS)*
049 (MPS ENG 2 REG PRESS)*
050 (PRSD H2 TK 1 HTR CNTL PRESS)*
055 (PAYLOAD WARNING A)
056 (LEFT RCS LEAK)*
059 (MPS ENG 3 REG PRESS)*
060 (PRSD H2 TK 2 HTR CNTL PRESS)*
061 (PRSD 02 TK4 HTR 1 TEMP)*
062 (FC1 STACK TEMP)*
065 (PAYLOAD WARNING B)
066 (RIGHT RCS OXID PRESS)*
070 (PRSD H2 TK3 HTR CNTL PRESS)*
071 (PRSD 02 TK4 HTR 2 TEMP)*
072 (FC2 STACK TEMP)*
075 (PAYLOAD WARNING C)
076 (RIGHT RCS FUEL PRESS)*
077 (OMS KIT OXID TK ULL)
080 (PRSD H2 TK 4/5 HTR CNTL PRESS)*
081 (PRSD 02 TK5 HTR 1 TEMP)*
082 (FC3 STACK TEMP)*
085 (PAYLOAD WARNING D)
086 (RIGHT RCS LEAK)*
087 (OMS KIT FUEL TK ULL)
090 (PRSD H2 TK5 HTR CNTL PRESS)*
092 (FC1 COOLANT PUMP)*
095 (PAYLOAD WARNING E)
097 (PAYLOAD CAUTION)
102 (FC2 COOLANT PUMP)*
112 (FC3 COOLANT PUMP)
30-49  OTC   ASP

IF for OV-104,

THEN Perform the following for listed parameters:

PANEL R13U
CAUTION AND WARNING
  PARAMETER SELECT PB’S - XXX
  PARAM SW - INHIBIT, REL

XXX
054 (SYS 1 N2 FLOWRATE)
064 (SYS 2 N2 FLOWRATE)

Not Performed:______

30-50  OTC   ASP

PANEL R13U
CAUTION/WARNING
  PARAM STATUS SW - INHIBITED, HOLD

REPORT ALL STATUS LITES THAT ARE ON
  PARAM STATUS SW - REL

30-51  OTC   CISL

Record inhibited parameters in C&W log
NOTE
The next 3 steps will set the Caution and Warning upper limits.

30-52 OTC ASP

IF for OV-103,

THEN Perform the following:

PANEL R13U
CAUTION/WARNING
LIMIT SET
  LIMIT SW - UPPER

PARAMETER SELECT PB'S - 079
  (MPS LH2 MANF PRESS)
LIMIT SET
  VALUE PB'S - 3.25
  FUNC SW - SET/THEN READ
VERIFY 079 = 3.25

PARAMETER SELECT PB'S - 074
  (CABIN FAN DELTA PRESS)
LIMIT SET
  VALUE PB'S - 4.25
  FUNC SW - SET/THEN READ
VERIFY 074 = 4.25

PARAMETER SELECT PB'S - 004
  (CABIN PRESS)
LIMIT SET
  VALUE PB'S - 3.85
  FUNC SW - SET/THEN READ
VERIFY 004 = 3.85

(Continued on Next Page)
PANEL R13U (Continued)

PARAMETER SELECT PB'S - 007  
(LT OMS OXID TANK ULL PRESS)  
LIMIT SET  
VALUE PB'S - 3.60  
FUNC SW - SET/THEN READ  
VERIFY 007 = 3.60

PARAMETER SELECT PB'S - 017  
(LT OMS FUEL TANK ULL PRESS)  
LIMIT SET  
VALUE PB'S - 3.60  
FUNC SW - SET/THEN READ  
VERIFY 017 = 3.60

PARAMETER SELECT PB'S - 037  
(RT OMS OXID TANK ULL PRESS)  
LIMIT SET  
VALUE PB'S - 3.60  
FUNC SW - SET/THEN READ  
VERIFY 037 = 3.60

PARAMETER SELECT PB'S - 047  
(RT OMS FUEL TANK ULL PRESS)  
LIMIT SET  
VALUE PB'S - 3.60  
FUNC SW - SET/THEN READ  
VERIFY 047 = 3.60

PARAMETER SELECT PB'S - 107  
(FREON LOOP 1 EVAP OUT TEMP)  
LIMIT SET  
VALUE PB'S - 4.30  
FUNC SW - SET/THEN READ  
VERIFY 107 = 4.30

(Continued on Next Page)
PANEL R13U (Continued)

PARAMETER SELECT PB'S - 117  
(FREON LOOP 2 EVAP OUT TEMP)  
LIMIT SET  
VALUE PB'S - 4.30  
FUNC SW - SET/THEN READ  
VERIFY 117 = 4.30

PARAMETER SELECT PB'S - 039  
(MPS ENG 1 HE REG OUT PRESS)  
LIMIT SET  
VALUE PB'S - 4.00  
FUNC SW - SET/THEN READ  
VERIFY 039 = 4.00

PARAMETER SELECT PB'S - 049  
(MPS ENG 2 HE REG OUT PRESS)  
LIMIT SET  
VALUE PB'S - 4.00  
FUNC SW - SET/THEN READ  
VERIFY 049 = 4.00

Not Performed:______
30-53 OTC ASP

IF for OV-104,

THEN Perform the following:

**PANEL R13U**

**CAUTION/WARNING**

LIMIT SET

LIMIT SW - UPPER

PARAMETER SELECT PB'S - 079 (MPS LH2 MANF PRESS)

LIMIT SET

VALUE PB'S - 3.25

FUNC SW - SET/THEN READ

**VERIFY** 079 = 3.25

PARAMETER SELECT PB'S - 074 (CABIN FAN DELTA PRESS)

LIMIT SET

VALUE PB'S - 4.25

FUNC SW - SET/THEN READ

**VERIFY** 074 = 4.25

PARAMETER SELECT PB'S - 004 (CABIN PRESS)

LIMIT SET

VALUE PB'S - 3.85

FUNC SW - SET/THEN READ

**VERIFY** 004 = 3.85

PARAMETER SELECT PB'S - 105 (H2O LOOP 1 PUMP OUT PRESS)

LIMIT SET

VALUE PB'S - 2.75

FUNC SW - SET/THEN READ

**VERIFY** 105 = 2.75

(Continued on Next Page)
PARAMETER SELECT PB'S - 007  
(LT OMS OXID TANK ULL PRESS)  
LIMIT SET  
VALUE PB'S - 3.70  
FUNC SW - SET/THEN READ  
VERIFY 007 = 3.70

PARAMETER SELECT PB'S - 017  
(LT OMS FUEL TANK ULL PRESS)  
LIMIT SET  
VALUE PB'S - 3.60  
FUNC SW - SET/THEN READ  
VERIFY 017 = 3.60

PARAMETER SELECT PB'S - 037  
(RT OMS OXID TANK ULL PRESS)  
LIMIT SET  
VALUE PB'S - 3.60  
FUNC SW - SET/THEN READ  
VERIFY 037 = 3.60

PARAMETER SELECT PB'S - 047  
(RT OMS FUEL TANK ULL PRESS)  
LIMIT SET  
VALUE PB'S - 3.60  
FUNC SW - SET/THEN READ  
VERIFY 047 = 3.60

PARAMETER SELECT PB'S - 107  
(FREON LOOP 1 EVAP OUT TEMP)  
LIMIT SET  
VALUE PB'S - 4.30  
FUNC SW - SET/THEN READ  
VERIFY 107 = 4.30

(Continued on Next Page)
PARAMETER SELECT PB'S - 117  
(FREON LOOP 2 EVAP OUT TEMP)  
LIMIT SET  
VALUE PB'S - 4.30  
FUNC SW - SET/THEN READ  
VERIFY 117 = 4.30  

PARAMETER SELECT PB'S - 039  
(MPS ENG 1 HE REG OUT PRESS)  
LIMIT SET  
VALUE PB'S - 4.10  
FUNC SW - SET/THEN READ  
VERIFY 039 = 4.10  

PARAMETER SELECT PB'S - 024  
(SYS 2 O2 FLOWRATE)  
LIMIT SET  
VALUE PB'S - 4.00  
FUNC SW - SET/THEN READ  
VERIFY 024 = 4.00  

PARAMETER SELECT PB'S - 014  
(SYS 1 O2 FLOWRATE)  
LIMIT SET  
VALUE PB'S - 4.00  
FUNC SW - SET/THEN READ  
VERIFY 014 = 4.00  

Not Performed:______
IF for OV-105,

THEN Perform the following:

**PANEL R13U**

**CAUTION/WARNING**

**LIMIT SET**

**LIMIT SW - UPER**

**PARAMETER SELECT PB'S - 079**
(MPS LH2 MANF PRESS)

**LIMIT SET**

**VALUE PB'S - 3.25**

**FUNC SW - SET/THEN READ**

**VERIFY 079 = 3.25**

**PARAMETER SELECT PB'S - 074**
(CABIN FAN DELTA PRESS)

**LIMIT SET**

**VALUE PB'S - 4.25**

**FUNC SW - SET/THEN READ**

**VERIFY 074 = 4.25**

**PARAMETER SELECT PB'S - 007**
(LT OMS OXID TANK ULL PRESS)

**LIMIT SET**

**VALUE PB'S - 3.60**

**FUNC SW - SET/THEN READ**

**VERIFY 007 = 3.60**

**PARAMETER SELECT PB'S - 017**
(LT OMS FUEL TANK ULL PRESS)

**LIMIT SET**

**VALUE PB'S - 3.60**

**FUNC SW - SET/THEN READ**

**VERIFY 017 = 3.60**

(Continued on Next Page)
PARAMETER SELECT PB'S - 037
(RT OMS OXID TANK ULL PRESS)
LIMIT SET
  VALUE PB'S - 3.60
  FUNC SW - SET/THEN READ
VERIFY 037 = 3.60

PARAMETER SELECT PB'S - 047
(RT OMS FUEL TANK ULL PRESS)
LIMIT SET
  VALUE PB'S - 3.60
  FUNC SW - SET/THEN READ
VERIFY 047 = 3.60

PARAMETER SELECT PB'S - 004
(CABIN PRESS)
LIMIT SET
  VALUE PB'S - 3.90
  FUNC SW - SET/THEN READ
VERIFY 004 = 3.90

PARAMETER SELECT PB'S - 059
(ENG 3 HELIUM REG PRESS)
LIMIT SET
  VALUE PB'S - 3.90
  FUNC SW - SET/THEN READ
VERIFY 059 = 3.90

PARAMETER SELECT PB'S - 039
(ENG 1 HELIUM REG PRESS)
LIMIT SET
  VALUE PB'S - 4.10
  FUNC SW - SET/THEN READ
VERIFY 039 = 4.10

(Continued on Next Page)
PARAMETER SELECT PB'S - 107  
(FREON LOOP 1 EVAP OUT TEMP) 
LIMIT SET  
VALUE PB'S - 4.30  
FUNC SW - SET/THEN READ  
VERIFY 107 = 4.30 

PARAMETER SELECT PB'S - 117  
(FREON LOOP 2 EVAP OUT TEMP) 
LIMIT SET  
VALUE PB'S - 4.30  
FUNC SW - SET/THEN READ  
VERIFY 117 = 4.30 

PARAMETER SELECT PB'S - 014  
(SYS 1 O2 FLOWRATE) 
LIMIT SET  
VALUE PB'S - 4.00  
FUNC SW - SET/THEN READ  
VERIFY 014 = 4.00 

PARAMETER SELECT PB'S - 024  
(SYS 2 O2 FLOWRATE) 
LIMIT SET  
VALUE PB'S - 4.00  
FUNC SW - SET/THEN READ  
VERIFY 024 = 4.00 

PARAMETER SELECT PB'S - 054  
(SYS 1 N2 FLOWRATE) 
LIMIT SET  
VALUE PB'S - 4.00  
FUNC SW - SET/THEN READ  
VERIFY 054 = 4.00 

PARAMETER SELECT PB'S - 064  
(SYS 2 N2 FLOWRATE) 
LIMIT SET  
VALUE PB'S - 4.00  
FUNC SW - SET/THEN READ  
VERIFY 064 = 4.00 

Not Performed:_____
NOTE
The next 3 steps will set the Caution and Warning lower limits.

30-55 OTC ASP

IF for OV-103,

THEN Perform the following:

PANEL R13U
CAUTION/WARNING
LIMIT SET
  LIMIT SW - LOWER

PARAMETER SELECT PB'S - 106
  (FREON LOOP 1 FLOWRATE)
LIMIT SET
  VALUE PB'S - 0.80
  FUNC SW - SET/THEN READ
VERIFY 106 = 0.80

PARAMETER SELECT PB'S - 116
  (FREON LOOP 2 FLOWRATE)
LIMIT SET
  VALUE PB'S - 0.80
  FUNC SW - SET/THEN READ
VERIFY 116 = 0.80

PARAMETER SELECT PB'S - 074
  (CABIN FAN DELTA PRESS)
LIMIT SET
  VALUE PB'S - 2.60
  FUNC SW - SET/THEN READ
VERIFY 074 = 2.60

(Continued on Next Page)
PANEL R13U (CONTINUED)

PARAMETER SELECT PB'S - 039
   (ENG 1 HELIUM REG PRESS)
LIMIT SET
   VALUE PB'S - 3.30
   FUNC SW - SET/THEN READ
VERIFY 039 = 3.30

PARAMETER SELECT PB'S - 049
   (ENG 2 HELIUM REG PRESS)
LIMIT SET
   VALUE PB'S - 3.35
   FUNC SW - SET/THEN READ
VERIFY 049 = 3.35

PARAMETER SELECT PB'S - 004
   (CABIN PRESS)
LIMIT SET
   VALUE PB'S - 3.45
   FUNC SW - SET/THEN READ
VERIFY 004 = 3.45

Not Performed:______
IF for OV-104,

THEN Perform the following:

**PANEL R13U**

**CAUTION/WARNING**

**LIMIT SET**

**LIMIT SW - LOWER**

**PARAMETER SELECT PB'S - 074**

(CABIN FAN DELTA PRESS)

**LIMIT SET**

VALUE PB'S - 2.60

FUNC SW - SET/THEN READ

**VERIFY** 074 = 2.60

**PARAMETER SELECT PB'S - 116**

(FREON LOOP 2 FLOWRATE)

**LIMIT SET**

VALUE PB'S - 0.80

FUNC SW - SET/THEN READ

**VERIFY** 116 = 0.80

**PARAMETER SELECT PB'S - 106**

(FREON LOOP 1 FLOWRATE)

**LIMIT SET**

VALUE PB'S - 0.80

FUNC SW - SET/THEN READ

**VERIFY** 106 = 0.80

**PARAMETER SELECT PB'S - 105**

(H2O LOOP 1 PUMP OUT PRESS)

**LIMIT SET**

VALUE PB'S - 0.75

FUNC SW - SET/THEN READ

**VERIFY** 105 = 0.75

(Continued on Next Page)
PARAMETER SELECT PB'S - 004  
(CABIN PRESS)  
LIMIT SET  
VALUE PB'S - 3.45  
FUNC SW - SET/THEN READ  
VERIFY 004 = 3.45  

Not Performed:______
IF for OV-105,

THEN Perform the following:

**PANEL R13U**

**CAUTION/WARNING**

**LIMIT SET**

LIMIT SW - LOWER

PARAMETER SELECT PB'S - 059  
(ENG 3 HELIUM REG PRESS)

**LIMIT SET**

VALUE PB'S - 3.30

FUNC SW - SET/THEN READ

**VERIFY** 059 = 3.30

PARAMETER SELECT PB'S - 039  
(ENG 1 HELIUM REG PRESS)

**LIMIT SET**

VALUE PB'S - 3.45

FUNC SW - SET/THEN READ

**VERIFY** 039 = 3.45

PARAMETER SELECT PB'S - 004  
(CABIN PRESS)

**LIMIT SET**

VALUE PB'S - 3.45

FUNC SW - SET/THEN READ

**VERIFY** 004 = 3.45

PARAMETER SELECT PB'S - 074  
(CABIN FAN DELTA PRESS)

**LIMIT SET**

VALUE PB'S - 2.60

FUNC SW - SET/THEN READ

**VERIFY** 074 = 2.60

(Continued on Next Page)
PARAMETER SELECT PB'S - 106  
(FREON LOOP 1 FLOWRATE)  
LIMIT SET  
VALUE PB'S - 0.80  
FUNC SW - SET/THEN READ  
VERIFY 106 = 0.80

PARAMETER SELECT PB'S - 116  
(FREON LOOP 2 FLOWRATE)  
LIMIT SET  
VALUE PB'S - 0.80  
FUNC SW - SET/THEN READ  
VERIFY 116 = 0.80

Not Performed:______
30-58 OTC ASP

PANEL R13U
CAUTION/WARNING
  MEMORY SW - CLEAR, RELEASE
  MEMORY SW - READ, HOLD

REPORT ALL MATRIX LIGHTS ON
RECORD IN OMI S0017.300, FIGURE 30-1. SECTION P-4

30-59 OTC ASP

PANEL R13U
CAUTION/WARNING
  PARAM STATUS SW - INHIBITED, HOLD

REPORT ALL MATRIX LIGHTS OFF
RECORD IN OMI S0017.300, FIGURE 30-1, SECTION P-2
(ENABLED PARAMETERS)

30-60 OTC ASP

PANEL R13U

CAUTION/WARNING
  PARAM STATUS SW - (CENTER)
  MEMORY SW - (CENTER)
  LAMP TEST SW - (CENTER)
  PARAM SELECT PB’S - 120

LIMIT SET
  VALUE PB’S - 0.00
  LIMIT SW - LOWER
  FUNC SW - (CENTER)

PARAM SW - (CENTER)

*** End of Panel R13U (MS1) ***
Panel F7

30-61 OTC ASP

PANEL F7

REPORT ALL CAUTION AND WARNING ANNUNCIATORS ON
RECORD IN OMI S0017.300, FIGURE 30-1, SECTION P-1

*** End of Panel F7 ***

*** End of Caution &Warning Setups ***
Section 2 - AFT Flight Deck/Middeck

**NOTE**

Asterisk (*) denotes configuration different from Launch countdown configuration.

30-62 OTC ALL

Purpose of this operation is to verify Flight deck and middeck switches are configured for TCDT.

Switches left in other than TCDT T-0 position (ref JSC document) by this switch list must have predefined steps in S0017 to position them to proper position prior to T-0.

All switches (other than those associated with cockpit lighting, Bio-med or PNL MA73C LT and RT seat 3PH CB's) should already be in switch list specified position at time of ascent switch list performance. System engineering personnel must be prepared to explain any differences found and will be required to give a "Go" prior to switch being repositioned. Any switches repositioned, other than those exempted above, must be documented in Switches Repositioned During Ascent Checklist at end of this operation.

Any cockpit troubleshooting activity subsequent to this switch list must return switches to their position prior to troubleshooting.

The switch list is divided into two sections and will be performed in parallel with each section performed by an OTC and an ASP. The first section consists of Flight deck panels and C&W setups. The second section consists of AFT Flight deck and middeck panels, airlock and waste management station.

All vehicles have different thumbwheel/pushbutton configurations. The generic term pushbutton (PB) will be used regardless of configuration.

*** End of AFT Flight Deck/Middeck ***
NOTE
Crew compartment lighting switches may be found in a different position than that published to facilitate Crewman's visibility on panels.

All GSE type switch guards or CB guards have been removed per Operation 119 (S0017.100) with exception of:

Baseline Switch guards

1. FOUR RJD DRIVER SW GUARDS
   (PANELS 014, 015, 016)
   (S0007 AND S0017)
2. ONE ROMS ENG VLV (PANEL 016)
3. F/C TO ESS BUS SW GUARDS
   (PANEL R1) (S0017 UNIQUE)
4. CARGO SW GUARDS (PANEL L12)
   (FOR NON-DOD MISSIONS)
5. EIGHT GUARDS FOR SSME PNEUMATICS
   (PANEL R2)
   HE ISOLATION A
   LEFT SW
   CTR SW
   RIGHT SW
   HE ISOLATION B
   LEFT SW
   CTR SW
   RIGHT SW
   PNEUMATICS
   L ENG HE XOVER
   HE ISO SW
6. CREW PREFERENCE GUARDS
Crew Preference Switch guards (Mission Unique)

**NOTE**
Following Crew preference switch guards to be supplied by VITT.
AFT Flight Deck Switch list

Panel R10 (MS1)

30-63 OTC ASP

PANEL R10

MISSION STATION AUDIO
  POWER SW - AUD/TONE R10A2S006
  A/G
    1 SW - T/R R10A2S002
    2 SW - T/R R10A2S003
  A/A SW - T/R R10A2S001
  ICOM
    A SW - T/R R10A2S004
    B SW - T/R R10A2S005
  VOX SENS SW - AS IS R10A2R00

  PAGE SW - (DOWN) R10A2S008

VOLUME
  A/G
    1 PB - AS IS
    2 PB - AS IS
    A/A PB - AS IS
  ICOM
    A PB - AS IS
    B PB - AS IS

  XMIT/ICOM MODE SW - PTT/VOX R10A2R00

MS LIGHTING
  PANEL SW - OFF R10A2R003
  FLOOD
    ON/OFF SW - ON (FOR DAY LAUNCH)
    - OFF (FOR NIGHT LAUNCH)
    DIM/BRT SW - BRT R10A2R003
  BIOMED
    CHANNEL 1 SW - MIDDECK CTR R10A2S013
    CHANNEL 2 SW - MIDDECK R R10A2S014

*** End Of Panel R10 (MS1) ***
Panel R11U (MS1)

30-64 OTC ASP

PANEL R11U
MDU (CRT 4)
  POWER SW - ON
  BRT SW - AS REQUIRED

FUEL CELL
  GPC PURGE SEQ SW - (DOWN) R11A1S00
  GPC PURGE SEQ ON TB BP R11A1DS0
  PURGE HEATER SW - OFF* R11A1S00

PURGE VALVES
  1 SW - CLOSE* R11A1S00
  2 SW - CLOSE* R11A1S00
  3 SW - CLOSE* R11A1S00

STARTUP HEATER
  1 SW - ENABLE R11A1S00
  2 SW - ENABLE R11A1S00
  3 SW - ENABLE R11A1S00

H2O LINE HTR SW - OFF* R11A1S00
H2O RELIEF HTR SW - OFF* R11A1S01

*** End of Panel R11U (MS1) ***
Panel R11L (MS1)

30-65 OTC ASP

**PANEL R11L**

ENCYPOR SW - NORM
MS AUDIO CONTROL SW - NORM

IDP/CRT 4

- POWER SW - ON
- MAJ FUNC SW - _____

**NOTE**

TB's may indicate BP if panel ML86B CB's not yet closed.

**SUPPLY H2O**

- TK A INLET SW - (CENTER) R11A2S00
- TB OP R11A2D20
- TK A OUTLET SW - (CENTER) R11A2S00
- TB CL R11A2DS0
- DUMP ISOL VLV SW - (CENTER) R11A2S00
- TB BP R11A2DS0

- DUMP VLV SW - (CENTER) R11A2S00
- TB BP R11A2DS0
- DUMP VLV ENABLE

- NOZ HTR SW-OFF R11A2S01
- TK B INLET SW - (CENTER) R11A2S00
- TB OP R11A2DS0
- TK B OUTLET SW - (CENTER) R11A2S01
- TB OP R11A2DS0
- CROSSOVER VLV SW - (CENTER) R11A2S00
- TB CL R11A2DS0
- GALLEY SPLY VLV SW - (CENTER) R11A2S01
- TB BP R11A2DS0
- TK C INLET SW - (CENTER) R11A2S01
- TB OP R11A2DS0
- TK C OUTLET SW - (CENTER) R11A2S01
- TB OP R11A2DS0
- B SPLY ISOL VLV SW - (CENTER) R11A2DS0
- TB OP R11A2DS0

*** End of Panel R11L ***
Panel R12 (MS1)

30-66  OTC    ASP

IF VPU FLOWN ON PANEL R12,

THEN PERFORM
PANEL R12
VPU POWER SW - OFF

Not Performed:______

30-67  OTC    ASP

IF OPP FLOWN ON PANEL R12,

THEN PERFORM
PANEL R12U (OPP)
OBSS SW PWR CB1 - OPEN
OBSS SW PWR SW - OFF

Not Performed:______

30-68  OTC    ASP

IF OBSS FLOWN ON PANEL R12,

THEN PERFORM
PANEL R12U (OBSS)
S1 SW - (DOWN)
RSC PWR SW - OFF
ITVC ENA SW - OFF
SPEE PWR SW - OFF
S5 SW - (DOWN)
S6 SW - (DOWN)

Not Performed:______
Panel R13U (MS1)

30-69 OTCA28

PANEL R13U

CAUTION/WARNING
TONE VOLUME
A ADJUST SCREW - AS IS
B ADJUST SCREW - AS IS

PARAM STATUS SW - (CENTER) R13A1S001
MEMORY SW - (CENTER) R13A1S002
LAMP TEST SW - (CENTER) R13A1S003
PARAM SEL PB'S - 120

LIMIT SET
VALUE PB'S - 000
LIMIT SW - LOWER R13A1S007
FUNC SW - (CENTER) R13A1S008

PARAM SW - (CENTER) R13A1S009

*** End Of Panel R13U (MS1) ***
## Panel R13L (MS1)

### NOTE
Radiator TB will indicate BP if AFT MCA logic is not on.

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<td>PL BAY DOOR</td>
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<tr>
<td>SYS 1 SW - DISABLE</td>
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<td>SYS 2 SW - DISABLE</td>
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<td>PL BAY MECH PWR</td>
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<td>SYS 1 SW - OFF</td>
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<td>SYS 2 SW - OFF</td>
<td>R13A2S002</td>
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<td>PL BAY DOOR SW - STOP</td>
<td>R13A2S003</td>
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<td>TB AS IS</td>
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<td><strong>RADIATOR</strong></td>
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<td>LATCH CONTROL</td>
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<tr>
<td>SYS A SW - OFF</td>
<td>R13A2S004</td>
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<tr>
<td>SYS B SW - OFF</td>
<td>R13A2S006</td>
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<tr>
<td>STBD TB LAT</td>
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<td>PORT TB LAT</td>
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<td><strong>RADIATOR CONTROL</strong></td>
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<td>SYS A SW - OFF</td>
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<td>SYS B SW - OFF</td>
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<td>PORT TB STO</td>
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<td><strong>KU ANTENNA</strong></td>
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<tr>
<td>DIRECT STOW SW - OFF</td>
<td>R13A2S012</td>
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<td><strong>DEPLOY/GND/STOW SW - GND</strong></td>
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<tr>
<td>TB - STO</td>
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</table>
PANEL R13L (Continued)

MANNED MANEUV UNIT
GN2 SPLY ISOL VLV
  A SW - (CTR)        R13A2S01
  A TB BP            R13A2DS9
  B SW - (CTR)        R13A2S01
  B TB BP            R13A2DS8

*** End Of Panel R13L (MS1) ***
Panel A1U (MS1)

30-71 OTC ASP

**PANEL A1U**

SIGNAL STRENGTH SW - S-BAND PM A1A01S001

SLEW
- AZIMUTH SW - (CENTER) A1A01S002
- ELEV SW - (CENTER) A1A01S003
- RATE SW - SLOW A1A01S004

KU BAND
- SCAN WARN TB BP
- TRACK TB BP
- SEARCH TB BP

CONTROL SW - COMMAND

KU BAND SW - MAN SLEW
KU BAND SEARCH SW - DOWN

- POWER SW - OFF
- MODE SW - RDR PASSIVE
- RADAR OUTPUT SW - HIGH

KU SIG PROC
- HI DATA RATE SW - TV
- LOW DATA RATE SW - MMU1

TAGS SW - CLEAR

*** End Of Panel A1U (MS1) ***
## Panel A1L (MS1)

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<td>S-BAND PAYLOAD</td>
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<tr>
<td>CONTROL SW - COMMAND</td>
<td>A1A02S001</td>
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<tr>
<td>ANT POLAR SW - L CIRC</td>
<td>A1A02S002</td>
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<td>XMTR PWR SW - LOW</td>
<td>A1A02S004</td>
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<td>CHANNEL SELECT</td>
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<td>INTRG 1 PB'S - 910</td>
<td>A1A02S007</td>
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<td>INTRG 2 PB'S - 910</td>
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<td>FREQ SWEEP SW - OFF</td>
<td>A1A02S008</td>
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<tr>
<td>MOD SW - OFF</td>
<td>A1A02S009</td>
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<td><strong>POWER</strong></td>
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<tr>
<td>SYSTEM SW - OFF</td>
<td>A1A02S013</td>
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<tr>
<td>SELECT SW - PSP</td>
<td>A1A02S014</td>
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<tr>
<td>PSP CMD OUTPUT SW - PL UMB</td>
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<tr>
<td>PL DATA INTLVR POWER SW - ON</td>
<td>A1A02S016</td>
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</tbody>
</table>
30-73  OTC  ASP

PANEL A1L (A1L CONTINUED)

S-BAND PM
ANT SW ELEC SW - 1  A1A02S00
PRE AMPL SW - 1  A1A02S010
PWR AMPL
  STANDBY SW - 1  A1A02S011
  OPERATE SW - 1  A1A02S012
MODE SW - STDN HI  A1A02S006
XPNDR SW - 1  A1A02S016

NETWORK SIG PROC
DATA RATE
  XMIT SW - HIGH  A1A02S018
  RCV SW - HIGH  A1A02S019

UPLINK DATA SW - S-BD  A1A02S020
CODING
  XMIT SW - OFF  A1A02S021
  RCV SW - ON  A1A02S022

POWER SW - 1  A1A02S023

ENCRYPTION
  PWR SW - ON
  MODE SW - SELECT
  SELECT SW - RCV
Panel A1R (MS1)

NOTE
All unlabeled switches on Panel A1R “AS-REQUIRED.”

30-74 OTC ASP

PANEL A1R
S-BAND FM
- CONTROL SW - COMMAND A1A03S001
- ANT SW - GPC A1A03S002
- POWER SW - 1 A1A03S003
- DATA SOURCE SW - ME A1A03S004
30-75 OTC ASP

PANEL A1R
AUDIO CENTER
VOICE RECORD SELECT
CHANNEL 1 SW - ICOM A A1A03S015
CHANNEL 2 SW - ICOM B A1A03S016

DOCKING RING - (7 SW'S OFF)
TONE SW - OFF A1A02S017
PAGE SW - OFF A1A03S018
A/G
1 SW - OFF A1A03S019
2 SW - OFF A1A03S020
A/A SW - OFF A1A03S021
ICOM
A SW - OFF A1A03S022
B SW - OFF A1A03S023

SPACELAB - (7 SW'S OFF)
TONE SW - OFF A1A03S02
PAGE SW - OFF A1A03S02
A/G
1 SW - OFF A1A03S02
2 SW - OFF A1A03S02
A/A SW - OFF A1A03S02
ICOM
A SW - OFF A1A03S02
B SW - OFF A1A03S03

UHF
A/G
1 SW - OFF A1A03S031
2 SW - OFF A1A03S032
A/A SW - OFF A1A03S033
PL BAY OUTLETS
ICOM
A SW - OFF A1A03S034
B SW - OFF A1A03S035

*** End Of Panel A1R (MS1) ***
AFT MDU (Orbit Station)

30-76 OTC ASP

PANEL AFT MDU
POWER SW - AS IS*
BRT SW - AS REQUIRED

*** End Of AFT MDU (Orbiter Station) ***

Panel A6U (MS1)

30-77 OTC ASP

PANEL A6U
SENSE SW - (-) Z
FLT CNTLR POWER SW - OFF
ATT REF PB - AS IS
UNLABELED ROTARY SW - FULL COUNTER CLOCKWISE

ADI
ATTITUDE SW - INRTL
ERROR SW - MED
RATE SW - MED

ORBITAL DAP (ALL LITES OFF)
SELECT
A LITE OFF
B LITE OFF

CONTROL
AUTO LITE OFF
INRTL LITE OFF
LVLH LITE OFF
FREE LITE OFF
PANEL A6U (Continued)

MANUAL MODE (ALL LITES OFF)
TRANSLATION
X
SPARE (BLANK PBI)
LITE OFF A6A01S014
NORM LITE OFF A6A01S020
PULSE LITE OFF A6A01S026
Y
LOW Z LITE OFF A6A01S015
NORM LITE OFF A6A01S021
PULSE LITE OFF A6A01S027
Z
HIGH Z LITE OFF A6A01S016
NORM LITE OFF A6A01S022
PULSE LITE OFF A6A01S028

ROTATION
ROLL
PRI LITE OFF
DISC RATE LITE OFF
PULSE LITE OFF
PITCH
ALT LITE OFF
DISC RATE LITE OFF
PULSE LITE OFF
YAW
VERN LITE OFF
DISC RATE LITE OFF
PULSE LITE OFF

ORBIT STATION LIGHTING
FLOOD
ON/OFF SW - ON
DIM/BRT SW - BRT
PANEL SW - OFF
INSTRUMENT SW - OFF
NUMERIC SW - OFF
PANEL A6U (Continued)

ANNUNCIATOR
   BUS SELECT SW - OFF
   LAMP TEST SW - (CENTER)
   INTENSITY
      BRIGHT/VAR SW - VAR
      LOW/MED SW - MED

PAYLOAD RETENTION
   LOGIC POWER
      SYS 1 SW - OFF
      SYS 2 SW - OFF

PAYLOAD SELECT SW - MON

PAYLOAD RETENTION LATCHES
   READY TO LATCH
      1 TB BP
      2 TB BP
      3 TB BP
      4 TB BP
      5 TB BP

   LATCH SWS
      1 SW - OFF
         TB BP
      2 SW - OFF
         TB BP
      3 SW - OFF
         TB BP
      4 SW - OFF
         TB BP
      5 SW - OFF
         TB BP

EVENT TIMER
   SET PBS - (AS REQUIRED)
   MODE SW - UP
   CONTROL SW - (CENTER)
   TIMER SW - (CENTER)

*** End Of Panel A1R (MS1) ***
Panel A6L

30-78  OTC       ASP

PANEL A6L  
DOCKING SYSTEM POWER

ESS 1BC SYS PWR CNTL SYS 1 CB - OPEN  
ESS 1BC DEPRESS SYS 1 VENT ISOL CB - OPEN

MAIN A DEPRESS SYS 1 VENT CB - OPEN  
MAIN A DOCK LIGHT TRUSS FWD CB - OPEN  
MAIN A DOCK LIGHT VEST PORT CB - OPEN

ESS 2CA SYS PWR CNTL SYS 2 CB - OPEN  
ESS 2CA DEPRESS SYS 2 VENT ISOL CB - OPEN

MAIN B DEPRESS SYS 2 VENT CB - OPEN  
MAIN B DOCK LIGHT AFT CB - OPEN  
MAIN B DOCK LIGHT VEST STBD CB - OPEN

MAIN A LOGIC 3 CB - OPEN  
MAIN A LOGIC 1 CB - OPEN

MAIN B LOGIC 1 CB - OPEN  
MAIN B LOGIC 2 CB - OPEN

MAIN C LOGIC 2 CB - OPEN  
MAIN C LOGIC 3 CB - OPEN

PMA 2/3 GRP 1 HOOKS SYS A OPEN CB - OPEN  
PMA 2/3 GRP 1 HOOKS SYS A CLOSE CB - OPEN  
PMA 2/3 GRP 1 HOOKS SYS B OPEN CB - OPEN  
PMA 2/3 GRP 1 HOOKS SYS B CLOSE CB - OPEN

PMA 2/3 GRP 2 HOOKS SYS A OPEN CB - OPEN  
PMA 2/3 GRP 2 HOOKS SYS A CLOSE CB - OPEN  
PMA 2/3 GRP 2 HOOKS SYS B OPEN CB - OPEN  
PMA 2/3 GRP 2 HOOKS SYS B CLOSE CB - OPEN
PANEL A6L (Continued)
SYSTEM POWER SYS 1 SW - (CENTER)
SYSTEM POWER SYS 1 TB OFF
SYSTEM POWER SYS 2 SW - (CENTER)
SYSTEM POWER SYS 2 TB OFF
PYRO POWER MN A SW - OFF
PYRO POWER MN C SW - OFF

PMA 2/3 HOOKS GROUP SYS A SW - (CENTER)
PMA 2/3 HOOKS GROUP SYS A TB - BP
PMA 2/3 HOOKS GROUP SYS B SW - (CENTER)
PMA 2/3 HOOKS GROUP SYS B TB - BP

VESTIBULE DEPRESS VALVE SYS 1 VENT ISOL SW - (CENTER)
VESTIBULE DEPRESS VALVE SYS 1 VENT ISOL TB - BP
VESTIBULE DEPRESS VALVE SYS 1 VENT SW - (CENTER)
VESTIBULE DEPRESS VALVE SYS 1 VENT TB - BP
VESTIBULE DEPRESS VALVE SYS 2 VENT ISOL SW - (CENTER)
VESTIBULE DEPRESS VALVE SYS 2 VENT ISOL TB - BP
VESTIBULE DEPRESS VALVE SYS 2 VENT SW - (CENTER)
VESTIBULE DEPRESS VALVE SYS 2 VENT TB - BP

PSU POWER MNA SW - OFF
PSU POWER MNB SW - OFF
LIGHTS TRUSS FWD SW - OFF
LIGHTS TRUSS AFT SW - OFF
VESTIBULE PORT SW - OFF
VESTIBULE STBD SW - OFF

*** End Of Panel A6L ***
PANEL A6L

MADS
- POWER MN B CB - CLOSE A6A2C01

RECORDE
- POWER SW - OFF* A6A2S01
- PB FWD SW - CMD A6A2S03

STRAIN GAGE SW - PCM ENA A6A2S04
WIDEBAND/ACIP PCM SW - CMD A6A2S05

PCM
- CMD/ON SW - CMD A6A2S06
- RCD MODE SW - SAMPLE A6A2S02

FDM
- CONTROL SW - DATA A6A2S07
- MAN CALBR SW - DC 0 A6A2S08

ACIP HTR SW - OFF A6A2S09

Not Performed:______

*** End Of Panel A6L (MS1) ***
## Panel A7U (MS1)

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<tr>
<td>MASTER ALARM LITE - OFF</td>
<td>A7A07S05</td>
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<td>PAYLOAD BAY FLOOD</td>
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<td>AFT</td>
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<tr>
<td>STBD SW - OFF</td>
<td>A7A07S001</td>
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<tr>
<td>PORT SW - OFF</td>
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<td>PORT SW - OFF</td>
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<td>DOCKING SW - OFF</td>
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<td>FWD BHD SW - OFF</td>
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<td>LIGHT SW - OFF</td>
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<td>CAMERA SW - ELBOW</td>
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<td>WIRELESS VIDEO</td>
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<td>HEATER SW - OFF</td>
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<td>POWER SW - OFF</td>
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<tr>
<td>AFT RHC - AS IS</td>
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</table>
OTC      ASP

PANEL A7U (CONTINUED)

TV

TV POWER
CONTROL SW - COMMAND
CONTROL UNIT SW - OFF

CAMERA POWER
A SW - (CENTER)
B SW - (CENTER)
C SW - (CENTER)
D SW - (CENTER)
RMS SW - (CENTER)

A TB OFF
B TB OFF
C TB OFF
D TB OFF
RMS TB OFF

TV

DOWNLINK SW - ENABLE
SYNC SW - NORMAL
30-82 OTC ASP

PANEL A7U (CONTINUED)
VIDEO INPUT (ALL LITES OFF)
  A LITE OFF A7A07S027
  B LITE OFF A7A07S028
  C LITE OFF A7A07S029
  D LITE - OFF A7A07S03
  RMS LITE - OFF A7A07S03
  FLT DECK LITE - OFF A7A07S03
  MID DECK LITE - OFF A7A07S05
  PL 1 LITE - OFF A7A07S03
  PL 2 LITE - OFF A7A07S03
  PL 3 LITE - OFF A7A07S03
  MUX 1 LITE - OFF A7A07S03
  MUX 2 LITE - OFF A7A07S03
  TEST LITE - OFF A7A07S03

VIDEO OUTPUT (ALL LITES OFF)
  MON 1 LITE - OFF A7A07S01
  DNLK LITE - OFF A7A07S02
  MON 2 LITE - OFF A7A07S02
  DTV LITE - OFF A7A07S02
  MUX 1 L LITE - OFF A7A07S02
  MUX 1 R LITE - OFF A7A07S02
  MUX 2 L LITE - OFF A7A07S02
  MUX 2 R LITE - OFF A7A07S02

CAMERA COMMAND
  PAN/TILT SW - LOW RATE A7A07S039
  FOCUS SW - (CENTER) A7A07S040
  ZOOM SW - (CENTER) A7A07S041
  IRIS SW - (CENTER) A7A07S042
  TILT SW - (CENTER) A7A07S043
  PAN SW - (CENTER) A7A07S044

MENU (3 LITES OFF)
MODE (3 LITES OFF)

*** End Of Panel A7U (MS1) ***
Panel A7L (APDS Control Panel) (MS1)

30-83  OTC  ASP

**PANEL A7L**
APDS CONTROL PANEL
CNTL PNL PWR A SW - OFF
CNTL PNL PWR B SW - OFF
CNTL PNL PWR C SW - OFF
HTRS/DCU PWR H1 SW - OFF
HTRS/DCU PWR H2/DCU SW - OFF
HTRS/DCU PWR H3/DCU SW - OFF
APDS PWR ADS SW - OFF
ADS LIGHT - OFF
APDS PWR BDS SW - OFF
BDS LIGHT - OFF
APDS PWR CDS SW - OFF
CDS LIGHT - OFF
LAMP TEST LIGHT - OFF
STATUS LITES (ALL 36 LITES OFF)

PYROS AP SW - OFF
AP LIGHT - OFF
PYROS BP SW - OFF
BP LIGHT - OFF
PYROS CP SW - OFF
CP LIGHT - OFF
PYRO PROTECT/CIRC OFF LITES (2) - OFF

APDS CONTROL COMMANDS (ALL 8 LITES OFF)
Panel A8U (MS1)

30-84 OTC ASP

IF PANEL A8U (RMS) INSTALLED,

THEN PERFORM
PANEL A8U
MODE MATRIX (ALL 12 LITES OFF)
   BRAKES SW - ON
   TB OFF

   SAFING SW - AUTO (CENTER)
   TB BP

   MODE
   SELECT SW - TEST
   ENTER PBI - AS IS
   AUTO SEQ SW - (CENTER)
   LITES (2) - OFF

   SOFTWARE STOP TB GRAY

   CAUTION WARNING
   TONE VOL AS IS
   RMS C/W LITES (11) OFF

MASTER ALARM LITE - OFF

RATE
   MIN TB OFF
   HOLD TB OFF
   SCALE TB GRAY
END EFFECTOR
   MODE SW - OFF
   MAN CONTR SW - (CENTER)
   (ALL TB'S BP)
PANEL A8U (Continued)

BACKUP CONTROL
   JOINT SW - SHOULDER YAW
   PAYLOAD RELEASE SW - OFF
   DIRECT DRIVE SW - (CENTER)

PARAMETER
   SELECT SW - PORT TEMP LED/ABE/ID

LIGHTING/
   ANNUN/NUM
      BRIGHT SW - VAR (DOWN)
      BRIGHT/VAR SW - LOW

PANEL/INST SW - OFF
   JOINT
      SELECT SW - CRIT TEMP
      SINGLE/DIRECT DRIVE SW - (CENTER)

SHOULDER BRACE RELEASE SW - (CENTER)
TB BP

Not Performed:_____

*** End Of Panel A8U (MS1) ***
Panel A8L (MS1)

30-85 OTC ASP

**IF** PANEL A8L (RMS and/or OBSS) INSTALLED,

**THEN PERFORM**

**PANEL A8L**

STARBOARD RMS (OBSS)

**DEPLOY/STOW SW** - OFF

TB STO (BP IF MPM NOT INSTALLED;

DPY IF OBSS DEPLOYED FOR PAYLOAD OPS)

RETENTION LATCHES

**RELEASE/LATCH SW** - OFF

TB LAT (BP IF OBSS AND MPM’s NOT INSTALLED;

REL IF OBSS NOT INSTALLED)

READY FOR LATCH

AFT TB GRAY (BP IF OBSS AND/OR MPMs

NOT INSTALLED)

MID TB GRAY (BP IF OBSS AND/OR MPMs

NOT INSTALLED)

FWD TB GRAY (BP IF OBSS AND/OR MPMs

NOT INSTALLED)

HEATER

A SW - OFF

B SW - OFF

RMS SELECT SW - OFF

RMS POWER SW - OFF

PORT RMS

**DEPLOY/STOW SW** - OFF

TB STO (BP IF MPM NOT INSTALLED;

DPY IF RMS DEPLOYED FOR PAYLOAD OPS)
PANEL A8L (Continued)

RETENTION LATCHES
RELEASE/LATCH SW - OFF
   TB LAT (BP IF RMS AND MPM'S NOT INSTALLED; REL IF RMS NOT INSTALLED)

READY FOR LATCH
   AFT TB GRAY (BP IF RMS AND/OR MPM’s NOT INSTALLED)
   MID TB GRAY (BP IF RMS AND/OR MPM’s NOT INSTALLED)
   FWD TB GRAY (BP IF RMS AND/OR MPM’s NOT INSTALLED)

HEATER
   A SW - OFF
   B SW - OFF

Not Performed:_____

*** End Of Panel A8L (MS1) ***

RMS RHC (MS1)

NOTE
The following switch is located on the RMS RHC, located to right of panel A8U.

30-86 OTC ASP

IF RMS RHC IS INSTALLED,

THEN PERFORM
RMS RHC
   RATE SW - VERNIER

Not Performed:_____
Panel A2 (PS1)

30-87 OTC ASP

**Panel A2**
DIGI-DIS SELECT SW - EL/AZ
X-PNTR SCALE SW - X10

*** End Of Panel A2 (PS1) ***

Panel A4 (PS1)

30-88 OTC ASP

**Panel A4**
MISSION TIMER - MET A4A04S00

Panel A3U (PS1)

30-89 OTC ASP

**Panel A3U** (TV MON 1)
POWER LITE - OFF
POWER SWITCH - OFF
SELECT PB - AS IS
FUNCTION SW - (CENTER)
CONTRAST - AS IS
BRIGHTNESS - AS IS
COLOR - AS IS
TINT - AS IS

*** End Of Panel A3U (PS1) ***
Panel A3L (PS1)

30-90     OTC     ASP

**Panel A3L (TV MON 2)**
POWER LITE - OFF
POWER SWITCH - OFF
SELECT PB - AS IS
FUNCTION SW - (CENTER)
CONTRAST - AS IS
BRIGHTNESS - AS IS
COLOR - AS IS
TINT - AS IS

*** End Of Panel A3L (PS1) ***
Panel L9 (PS1)

30-91 OTC ASP

PANEL L9

PS FLOOD
ON/OFF SW - ON (FOR DAY LAUNCH)
ON/OFF SW - OFF (FOR NIGHT LAUNCH)
DIM/BRT SW - BRT L9A02R003

PAYLOAD STATION AUDIO
POWER SW - AUD/TONE L9A02S006
A/G
1 SW - T/R L9A02S002
2 SW - T/R L9A02S003
A/A SW - T/R L9A02S001
ICOM
A SW - T/R L9A02S004
B SW - T/R L9A02S005
VOX SENS SW - AS IS L9A02R00
PAGE SW - (DOWN) L9A02S00
VOLUME L9A02S009
A/G
1 PB - AS IS
2 PB - AS IS
A/A PB - AS IS
ICOM
A PB - AS IS
B PB - AS IS
XMIT/ICOM MODE SW - PTT/PTT L9A02S01

*** End Of Panel L9 (PS1) ***
Panel L10 (MS1)

30-92 OTC ASP

IF AVIU IS INSTALLED IN PANEL L10,

THEN PERFORM
PANEL L10U

OPEN STOWAGE CONTAINER
AVIU, QTY - 2
SYNC/VIDEO SW - VIDEO
PWR SELECT SW - HIGH
HI-Z/75 SW - HI-Z
CLOSE STOWAGE CONTAINER

Not Performed:______
IF DTV IS INSTALLED IN PANEL L10,

THEN PERFORM

**Panel L10L (MUX)**
- VTR/CC PWR - 1 (UP)
- MUX BYPASS - ACT
- MUX/VTR/CC - 0 (DOWN)
- CHANNEL 0
  - RATE SEL - 1
- CHANNEL 1
  - RATE SEL - 1
- CHANNEL 2
  - RATE SEL - 8

**Panel L10L (VIP)**
- REMOVE COVER
  - PWR - 0 (DOWN)
  - ATU - REC
  - CCTV VIDEO IN - J3
- INSTALL COVER

**Panel L10L (VTR)**
- REMOVE COVER
  - VERIFY ALL LTS OFF
  - ON/STANDBY LT - OFF
  - TIMER - REC
  - AUDIO OUTPUT SELECT - CH 1/2
  - PHONE LEVEL - MIDRANGE
  - KEY INH - OFF
  - CHARACTER DISPLAY (LCD) - ON (NO BLACK BACK)
  - DISPLAY SELECT - DATA
  - CHARACTER DISPLAY - OFF
  - INPUT SELECT - VIDEO
  - COUNTER SELECT - TC
  - AUDIO INPUT - FIX
  - AUDIO REC LEVEL CH-1 - AS IS
  - AUDIO REC LEVEL CH-2 - AS IS
- INSTALL COVER

Not Performed:______
Panel L11 (MS1)

30-94  OTC    ASP

IF PAYLOAD DATA INTERFACE PANEL IS INSTALLED ON
L11U
AND MPLM OVERLAY INSTALLED,

THEN PERFORM
PANEL L11U (PDIP#2)

PAYLOAD DATA INTERFACE PANEL
   MPLM DATA SW - OIU (CENTER)
   DC POWER 1 SW - OFF
   DC POWER 2 SW - OFF

Not Performed:______

30-95  OTC    ASP

PANEL L11U (PDIP#2)

IF PAYLOAD DATA INTERFACE PANEL IS INSTALLED ON
L11U
AND T-0/OIU/OIU OVERLAY INSTALLED,

THEN PERFORM:

PAYLOAD DATA INTERFACE PANEL
   T-0/OIU/OIU SW - OIU (CENTER)
   DC POWER 1 SW - OFF
   DC POWER 2 SW - OFF

Not Performed:______
30-96 OTC ASP

PANEL L11U (PDIP #2)

IF PAYLOAD DATA INTERFACE PANEL IS INSTALLED ON L11U
AND AMS 1553 DATA OVERLAY INSTALLED,

THEN PERFORM

PAYLOAD DATA INTERFACE PANEL
   AMS 1553 DATA SW - T-0 (CENTER)
   DC POWER 1 SW - OFF
   DC POWER 2 SW - OFF

Not Performed:______
Panel L12 (MS1)

NOTE
Perform the following two steps for the STS-135 mission only.

30-97

OTC

ASP

PANEL L12U (SSP-1)
VERIFY ALL TB’S BP

S1 SW - (CENTER) L12ULS01
S2 SW - (CENTER) L12ULS02
APCU 1 CONV SW - OFF L12ULS03
APCU 1 OUTPUT RLY SW - OPEN L12ULS04
S5 SW - (CENTER) L12ULS05
APCU 2 CONV SW - OFF L12ULS06
APCU 2 OUTPUT RLY SW - OPEN L12ULS07
SW PWR 1 CB2 - OPEN L12ULS10
PDIP 1 PWR 2 KUBAND RLY CB1 - OPEN L12ULCB1
MPLM CHAN 1 HTR PWR SW - OFF L12ULS08
S9 SW - (CENTER) L12ULS09
S10 SW - (DOWN) L12ULS10
MPLM CHAN 2 HTR PWR SW - OFF L12ULS11
S12 SW - (CENTER) L12ULS12
S13 SW - (CENTER) L12URS13
S14 SW - (CENTER) L12URS14
TCS PWR SW - OFF L12URS15
S16 SW - (DOWN) L12URS16
PSSC DEPLOY SW - (CENTER) L12URS17
PSSC PRE-ARM SW - SAFE L12URS18
S19 SW - (DOWN) L12URS19
SW PWR 2 CB4 - OPEN L12URCB4
X1/X2 SW PDIP 1 PWR 1 CB3 - OPEN L12URCB3
ODS CONN MATE X1 TLM PWR SW - OFF L12URS20
S21 SW - (CENTER) L12URS21
ODS CONN MATE X2 TLM PWR SW - OFF L12URS22
PSSC ARM SW - SAFE L12URS23
OIU PWR SW - OFF L12URS24

Not Performed:_____
30-98  OTC  ASP

PANEL L12L (SSP-2)
VERIFY ALL TB'S BP

S1 SW - (CENTER)         L12LLS01
S2 SW - (CENTER)         L12LLS02
MPLM KEEL CAM PWR SW - OFF L12LLS03
MPLM KEEL CAM HTR/ILLUM PWR SW - OFF L12LLS04
S5 SW - (CENTER)         L12LLS05
S6 SW - (DOWN)           L12LLS06
S7 SW - (DOWN)           L12LLS07
SW PWR 3 CB - OPEN       L12LLCB2
PDIP 2 PWR 2 MPLM RLY CB1 - OPEN L12LLCB1
S8 SW - (DOWN)           L12LLS08
S9 SW - (CENTER)         L12LLS09
TRIDAR PWR SW - OFF      L12LLS10
S11 SW - (DOWN)          L12LLS11
C/L CAM PWR SW - OFF     L12LLS12
S13 SW - (CENTER)        L12LRS13
S14 SW - (CENTER)        L12LRS14
S15 SW - (DOWN)          L12LRS15
S16 SW - (DOWN)          L12LRS16
S17 SW - (CENTER)        L12LRS17
S18 SW - (DOWN)          L12LRS18
S19 SW - (DOWN)          L12LRS19
CB4 - OPEN              L12LRCB4
PDIP 2 PWR 1 CB3 - OPEN  L12LRCB3
S20 SW - (DOWN)          L12LRS20
S21 SW - (CENTER)        L12LRS21
S22 SW - (DOWN)          L12LRS22
S23 SW - (DOWN)          L12LRS23
S24 SW - (CENTER)        L12LRS24

Not Performed:______
30-99 OTC ASP

PANEL L12L (PDIP#1)

IF PAYLOAD DATA INTERFACE PANEL IS INSTALLED ON L12L,

THEN PERFORM

PAYLOAD DATA INTERFACE PANEL
  KU BAND RATE SW - OFF
  DC POWER 1 SW - OFF
  DC POWER 2 SW - OFF

Not Performed:______

Panel A15 (PS1)

30-100 OTC ASP

PANEL A15
  PS COMM CCU PWR SW - OFF A15A1S001
  DC UTILITY POWER MN C SW - OFF A15A1S002
  AC UTILITY POWER AC 3 SW - OFF A15A1S003

30-101 OTC ASP

PANEL A15
ROW A
  CRYO TANK 5 HEATERS
    O2
      A SW - OFF A15A15S0
      B SW - OFF A15A15S0
      RESET/TEST SW - (CTR)

    H2
      A SW - OFF A15A15S0
      B SW - OFF A15A15S0
30-102  OTC      ASP

**IF** VEHICLE IS OV-103 or OV-105,

**THEN** PERFORM:

**PANEL A15 (CONTINUED)**

**ROW B**

PTU

- PTU 1 TB - OFF
- 2 TB - OFF
- CNTL PWR
  - PTU 1 CB - OPEN
  - PTU 2 CB - OPEN

**ROW C (TB’S ON ROW B)**

PTU

- PTU/MAIN BUS
  - A SW - (CENTER)
  - B SW - (CENTER)
- ODS MATE
  - X1 SW - OFF
  - X2 SW - OFF

**ROW D**

PTU

- OPCU 1
  - CONV SW - OFF
  - V-ADJ
    - CMD/PNL SW - OFF
    - UP/DOWN SW - (CENTER)
- APCU 1
  - CONV SW - OFF
  - OUTPUT SW - OFF

**ROW E**

PTU

- OPCU 2
  - CONV SW - OFF
  - V-ADJ
    - CMD/PNL SW - OFF
    - UP/DOWN SW - (CENTER)
- APCU 2
  - CONV SW - OFF
  - OUTPUT SW - OFF
ROW F
UNLABELED SW’S (FIVE) - OFF (CENTER)

ROW G
UNLABELED SW’S (FIVE) - OFF (CENTER)

ROW H
UNLABELED CB’S (SIX) - OPEN

ROW I
UNLABELED CB’S (SIX) - OPEN

ROW J
UNLABELED CB’S (SIX) - OPEN

ROW K
UNLABELED CB’S (SIX) - OPEN

Not Performed:______
IF VEHICLE IS OV-104,

THEN PERFORM:
PANEL A15

ROW B
PPCA CONT PWR
  1/3 ESS 1BC CB - OPEN
  2/4 ESS 2CA CB - OPEN

ROW C
PALLET POWER
  MNA PPCA - 1/3 SW - (CENTER)  TB OFF
  MNB PPCA - 2/4 SW - (CENTER)  TB OFF

PALLET HEATERS
  A SW - OFF
  B SW - OFF

ROW D
PALLET CRYO TANK HEATERS
  TANK 6/10
    O2
      A SW - OFF
      B SW - OFF
      RESET/TEST SW - (CENTER)
    H2
      A SW - OFF
      B SW - OFF

ROW E
PALLET CRYO TANK HEATERS
  TANK 7/11
    O2
      A SW - OFF
      B SW - OFF
      RESET/TEST SW - (CENTER)
    H2
      A SW - OFF
      B SW - OFF
PANEL A15 (Continued)

ROW F
PALLET CRYO TANK HEATERS
TANK 8/12
O2
  A SW - OFF
  B SW - OFF
  RESET/TEST SW - (CENTER)
H2
  A SW - OFF
  B SW - OFF

ROW G
PALLET CRYO TANK HEATERS
TANK 9/13
O2
  A SW - OFF
  B SW - OFF
  RESET/TEST SW - (CENTER)
H2
  A SW - OFF
  B SW - OFF

ROW H
PALLET CRYO
ESS 1BC
TANK 6/10
CNTLR
  O2 CB - OPEN
  H2 CB - OPEN
TANK 6 QTY
  O2 CB - OPEN
  H2 CB - OPEN

MN A
TANK 6/10
  O2 HTR
    SNSR 1 CB - OPEN

MN B
TANK 6/10
  O2 HTR
    SNSR 2 CB - OPEN
PANEL A15 (Continued)

ROW I
Pallet CRYO
ESS 1 BC
TANK 7/11
CNTLR
O2 CB - OPEN
H2 CB - OPEN
TANK 7 QTY
O2 CB - OPEN
H2 CB - OPEN
MN A
TANK 7/11
O2 HTR
SNSR 1 CB - OPEN
MN B
TANK 7/11
O2 HTR
SNSR 2 CB - OPEN

ROW J
Pallet CRYO
ESS 2 CA
TANK 8/12
CNTLR
O2 CB - OPEN
H2 CB - OPEN
TANK 8 QTY
O2 CB - OPEN
H2 CB - OPEN
MN A
TANK 8/12
O2 HTR
SNSR 1 CB - OPEN
MN B
TANK 8/12
O2 HTR
SNSR 2 CB - OPEN
PANEL A15 (Continued)

ROW K
PALLET CRYO
  ESS 2 CA
  TANK 9/13
  CNTLR
    O2 CB - OPEN
    H2 CB - OPEN
  TANK 9 QTY
    O2 CB - OPEN
    H2 CB - OPEN

MN A
  TANK 9/13
  O2 HTR
    SNSR 1 CB - OPEN

MN B
  TANK 9/13
  O2 HTR
    SNSR 2 CB - OPEN

Not Performed:______

*** End Of Panel A15 (PS1) ***
Panel A14 (PS1)

<table>
<thead>
<tr>
<th>OTC</th>
<th>ASP</th>
</tr>
</thead>
</table>

**PANEL A14**

**RCS/OMS HEATERS**
- FWD RCS SW - OFF A14A14S03

**LEFT POD**
- A AUTO SW - OFF A14A14S01
- B AUTO SW - OFF A14A14S02

**RIGHT POD**
- A AUTO SW - OFF A14A14S04
- B AUTO SW - OFF A14A14S05

**OMS**
- KIT SW - OFF A14A14S06

**CRSFD LINES**
- A AUTO SW - A AUTO A14A14S07
- B AUTO SW - B AUTO A14A14S08

**FWD RCS JET**
- 1 SW - AS IS* A14A14S14
- 2 SW - AS IS* A14A14S15
- 3 SW - AS IS* A14A15S16
- 4 SW - AS IS* A14A14S17
- 5 SW - AS IS* A14A14S18

**AFT RCS JET**
- 1 SW - AS IS* A09A09S09
- 2 SW - AS IS* A14A14S10
- 3 SW - AS IS* A14A14S11
- 4 SW - AS IS* A14A14S12
- 5 SW - AS IS* A14A14S13
NOTE
Perform the Cargo Coolant Loop Heaters switch verification for OV-103 and OV-105.

PANEL A14 (Continued)

CARGO COOLANT LOOP HEATERS
  ORBITER ACCUM A AUTO SW - OFF
  ORBITER ACCUM B AUTO SW - OFF
  ORBITER ACCUM C AUTO SW - OFF
  CARGO LINE A AUTO SW - OFF
  CARGO LINE B AUTO SW - OFF

Not Performed:_____

PYRO (ALL PYRO SWITCHES - SAFE)
  KU ANT
    ARM SW - SAFE  A14A14S19
    JETT SW - SAFE  A14A14S20
  
  STARBOARD RMS
    ARM SW - SAFE  A14A14S21
    SHLDR SW - SAFE
    LATCHES  A14A14S22
      FWD SW - SAFE  A14A14S23
      MID SW - SAFE  A14A14S24
      AFT SW - SAFE  A14A14S25
  
  PORT RMS
    ARM SW - SAFE  A14A14S28
    SHLDR SW - SAFE
    LATCHES
      FWD SW - SAFE  A14A14S30
      MID SW - SAFE  A14A14S31
      AFT SW - SAFE  A14A14S32
  
  RMS LATCHES SW - SAFE

*** End Of Panel A14 (PS1) ***
Panel A13 (MS1)

30-105 OTC ASP

**IF** FOR OV-103 ONLY AND
**IF** SIGI AND/OR GPS/INS WAS **NOT** ACTIVATED,

**THEN PERFORM:**
**PANEL A13**

GPS

- PRE-AMPL
  - UC SW - OFF
  - LC SW - OFF
- POWER SW - OFF
- GPS/SIGI POWER SW - OFF
- ENCRYPT SW - NORM
- GPS/SIGI ENCRYPT SW - NORMAL

Not Performed:______

30-106 OTC ASP

**IF** FOR OV-103 ONLY AND
**IF** GPS/INS AND/OR SIGI WAS ACTIVATED,

**THEN PERFORM:**
**PANEL A13**

GPS

- PREAMPL
  - UC SW - MN C
  - LC SW - MN C
- POWER SW - OFF
- GPS/SIGI PWR SW - OFF
- GPS ENCRYPT - NORMAL
- GPS/SIGI ENCRYPT SW - NORMAL

Not Performed:______
NOTE
Perform next step for OV-104 only.

30-107 OTC ASP

PANEL A13
GPS
  PRE-AMPL
  UC SW - OFF
  LC SW - OFF
  POWER SW - OFF
  UNLABELED SW - DOWN
  ENCRYPT SW - NORMAL
  UNLABELED SW - DOWN

Not Performed:_____

30-108 OTC ASP

PANEL A13
OS AUDIO
  MASTER SPEAKER VOL SW - AS IS
  SPEAKER PWR SW - OFF
Panel A12 (MS1)

30-109  OTC  ASP

PANEL A12
APU HEATER
  GAS GEN/FUEL PUMP
    1 SW - OFF  A12A12S01
    2 SW - OFF  A12A12S02
    3 SW - OFF  A12A12S02
LUBE OIL LINE
    1 SW - OFF  A12A12S04
    2 SW - OFF  A12A12S05
    3 SW - OFF  A12A12S06
TANK/FUEL LINE/H2O SYS
    1A SW - OFF  A12A12S07
    1B SW - OFF  A12A12S08
    2A SW - OFF  A12A12S09
    2B SW - OFF  A12A12S10
    3A SW - OFF  A12A12S11
    3B SW - OFF  A12A12S12
LG ARM/DN RESET SW - (DOWN)  A12A12S13
FC 3 STRUCT RTN SW - (CENTER)  A12A12S30
TB ON

HYDRAULIC HEATER
  RUDDER SPD BK
    A SW - OFF  A12A12S17
    B SW - OFF*  A12A12S28
BODY FLAP
    A SW - OFF*  A12A12S18
    B SW - OFF  A12A12S29
ELEVON
    A SW - OFF*  A12A12S21
    B SW - OFF  A12A12S22
AFT FUSELAGE
    A SW - OFF*  A12A12S19
    B SW - OFF  A12A12S20
PANEL A12 (Continued)

HYD CIRC PUMP POWER
1 SW - MN A       A12A12S25
2 SW - MN B       A12A12S26
3 SW - MN C       A12A12S27

*** End of Panel A12 (MS1) ***
Panel A11 (MS1)

30-110 OTC ASP

IF FOR OV-103,

THEN PERFORM:
PANEL A11

ROW A
CRYO TANK 4 HEATERS

O2
  A SW - OFF A11A1S001
  B SW - OFF A11A1S002
  RESET/TEST SW - (CENTER) A11A1S003

H2
  A SW - OFF A11A1S004
  B SW - OFF A11A1S005

MS COMM CCU PWR SW - OFF
DC UTILITY POWER MN C SW - OFF

Not Performed:______
30-111  OTC  ASP

IF FOR OV-105,

THEN PERFORM:
PANEL A11

ROW A
CRYO TANK 4 HEATERS
O2
  A SW - OFF
  B SW - OFF
  RESET/TEST SW - (CENTER)
H2
  A SW - OFF
  B SW - OFF

ROW B
PALLET CRYO TANK HEATERS
TANK 10
O2
  A SW - OFF
  B SW - OFF
  RESET/TEST SW - (CENTER)
H2
  A SW - OFF
  B SW - OFF

ROW C
PALLET CRYO TANK HEATERS
TANK 11
O2
  A SW - OFF
  B SW - OFF
  RESET/TEST SW - (CENTER)
H2
  A SW - OFF
  B SW - OFF
PANEL A11 (Continued)

ROW D
PALLET CRYO TANK HEATERS
TANK 12
  O2
    A SW - OFF
    B SW - OFF
    RESET/TEST SW - (CENTER)
  H2
    A SW - OFF
    B SW - OFF

ROW E
PALLET CRYO TANK HEATERS
TANK 13
  O2
    A SW - OFF
    B SW - OFF
    RESET/TEST SW - (CENTER)
  H2
    A SW - OFF
    B SW - OFF

ROW F
PALLET CRYO
ESS 1BC
TANK 10
  CNTLR
    O2 CB - OPEN
    H2 CB - OPEN
  QTY
    O2 CB - OPEN
    H2 CB - OPEN
  MN A
    O2 HTR SNSR 1 CB - OPEN
  MN B
    O2 HTR SNSR 2 CB - OPEN
PANEL A11 (Continued)

ROW G
PALLET CRYO
ESS 1BC
  TANK 11
  CNTLR
    O2 CB - OPEN
    H2 CB - OPEN
  QTY
    O2 CB - OPEN
    H2 CB - OPEN
  MN A
    O2 HTR SNSR 1 CB - OPEN
  MN B
    O2 HTR SNSR 2 CB - OPEN

ROW H
PALLET CRYO
ESS 3AB
  TANK 12
  CNTLR
    O2 CB - OPEN
    H2 CB - OPEN
  QTY
    O2 CB - OPEN
    H2 CB - OPEN
  MN A
    O2 HTR SNSR 1 CB - OPEN
  MN B
    O2 HTR SNSR 2 CB - OPEN
PANEL A11 (Continued)

ROW I
PALLET CRYO
   ESS 3AB
      TANK 13
         CNTLR
            O2 CB - OPEN
            H2 CB - OPEN
            QTY
            O2 CB - OPEN
            H2 CB - OPEN

MN A
   O2 HTR SNSR 1 CB - OPEN

MN B
   O2 HTR SNSR 2 CB - OPEN

MS COMM CCU PWR SW - OFF
DC UTILITY PWR MN C SW - OFF

PALLET HEATERS
   C SW - OFF
   D SW - OFF

Not Performed:______
IF FOR OV-104,

THEN PERFORM:

PANEL A11
CRYO TANK 4 HEATERS
   O2
      A SW - OFF
      B SW - OFF
      RESET/TEST SW - (CENTER)
   H2
      A SW - OFF
      B SW - OFF

CRYO TANK SELECT O2 6/10 SW - CENTER
CRYO TANK SELECT H2 6/10 SW - CENTER
CRYO TANK SELECT O2 7/11 SW - CENTER
CRYO TANK SELECT H2 7/11 SW - CENTER
CRYO TANK SELECT O2 8/12 SW - CENTER
CRYO TANK SELECT H2 8/12 SW - CENTER
CRYO TANK SELECT O2 9/13 SW - CENTER
CRYO TANK SELECT H2 9/13 SW - CENTER

PALLET CRYO
ESS BUS 1BC
   TANK 10 QTY
      O2 CB - OPEN
      H2 CB - OPEN
   TANK 11 QTY
      O2 CB - OPEN
      H2 CB - OPEN

ESS BUS 3AB
   TANK 12 QTY
      O2 CB - OPEN
      H2 CB - OPEN
   TANK 13 QTY
      O2 CB - OPEN
      H2 CB - OPEN

MS COMM CCU PWR SW - OFF
DC UTILITY PWR MN C SW - OFF

Not Performed:______

*** End of Panel A11 (MS1) ***
Panel R14 (MS1)

30-113 OTC ASP

PANEL R14
ROW A
MN A
  AUDIO MS CB - CLOSE
  ADC 1A/2A CB - CLOSE
  MDU
    MFD 2 CB - CLOSE
    PLT 1 CB - CLOSE

MN B
  AUDIO MID DECK SPKR CB - CLOSE
  ADC 1B/2B CB - CLOSE
  MDU
    MFD 1 CB - CLOSE
    CDR 2 CB - CLOSE

MN C
  AUDIO
    AUD CTR 2 CB - CLOSE
    PS/AIRLOCK CB - CLOSE
  MDU
    CDR 1 CB - CLOSE
    PLT 2 CB - CLOSE
    AFD 1 CB - CLOSE

ROW B
MN A
  UHF CB - CLOSE
  GCILC CB - CLOSE
  CONTROL BUS BC 1/2/3 - CLOSE

PALLET DSC 1A/2B CB - OPEN (104/105 ONLY)

Not Performed:______
PANEL R14 (Continued)

PALLET DSC 3A CB - OPEN (104/105 ONLY)

Not Performed:______

MN B
CONTROL BUS CA 1/2/3 - CLOSE R15A15C6

PALLET DSC 1B CB - OPEN (104/105 ONLY)

Not Performed:______

PALLET DSC 4B CB - OPEN (104/105 ONLY)

Not Performed:______

MN C
UHF CB - CLOSE R15A15C18
GCILC CB - CLOSE R15A15C49
CONTROL BUS AB 1/2/3 CB - CLOSE R15A15C6

PALLET DSC 2A CB - OPEN (104/105 ONLY)

Not Performed:______

PALLET DSC 3B/4A CB - OPEN (104/105 ONLY)

Not Performed:______
PANEL R14 (Continued)

ROW C
MN A
   UHF EVA CB - OPEN
MN B
   KU
      ELEC CB - OPEN R15A15C23
      ANT HTR CB - OPEN R15A15C24
      CABLE HTR CB - OPEN R15A15C25
MN C
   KU SIG PROC CB - OPEN R15A15C31
   UHF EVA CB - OPEN
   MANF ISOL L5 ENABLE CB - CLOSE R15A15C
   R5 ENABLE CB - CLOSE R15A15C
   F5 ENABLE CB - CLOSE R15A15C

ROW D
MN A
   TV
      C CAMR
         CAMR/PTU CB-OPEN R15A15C34
         CAMR HTR CB - OPEN R15A15C35
         ILLUM/PTU HTR CB - OPEN R15A15C36
         CONTR UNIT CB - OPEN R15A15C37
         MON 1 CB - OPEN R15A15C38
MN B
   TV
      A CAMR
         CAMR/PTU CB - OPEN R15A15C39
         CAMR HTR CB - OPEN R15A15C40
         ILLUM/PTU HTR CB - OPEN R15A15C41
         CONTR UNIT CB - OPEN R15A15C42
         MON 2 CB - OPEN R15A15C43
         VPU CB - OPEN
MN C
   TV
      B CAMR
         CAMR/PTU CB - OPEN R15A15C45
         CAMR HTR CB - OPEN R15A15C46
         ILLUM/PTU HTR CB - OPEN R15A15C47
         CABIN CB - CLOSE R15A15C48
PANEL R14 (CONTINUED)

ROW E

MN A
PS FLOOD CB - CLOSE R15A15C50
D CAMR
CAMR/PTU CB-OPEN R15A15C51
CAMR HTR CB - OPEN R15A15C52
ILLUM/PTU HTR CB - OPEN R15A15C53

MN B
OS FLOOD CB - CLOSE R15A15C54
RMS CAMR
CAMR/PTU CB - OPEN R15A15C55
WRIST ILLUM/CAMR HTR CB - OPEN R15A15C56
ELB ILLUM/PTU HTR CB - OPEN R15A15C57

MN C
MS FLOOD CB - CLOSE R15A15C58

ROW F

ESS 1BC
FLOOD LEFT GLRSHLD CB-CLOSE R15A15C59
AUDIO LEFT CB - CLOSE R15A15C04
LDG GEAR ARM/DN RESET CB - OPEN R15A15C60

ESS 2CA
FLOOD RIGHT GLRSHLD CB-CLOSE R15A15C61
AUDIO
RIGHT CB - CLOSE R15A15C06
AUD CTR 1 CB - CLOSE R15A15C01

*** End of AFT Flight Deck Switch list ***
Middeck Switch list

Panel ML86B (MS1)

30-114 OTC ASP

PANEL ML86B
ROW A
MN A
SUPPLY H2O
TK A INLET CB - CLOSE ML86BC001
TK B OUTLET CB - CLOSE ML86BC002

WASTE H2O DUMP VLV/NOZ ML86BC005
HTR CB - OPEN
H2O LINE HTR A CB - OPEN ML86BC004

MN B
SUPPLY H2O
TK B INLET CB - CLOSE ML86BC005
TK C OUTLET CB - CLOSE ML86BC006
DUMP ISOL CB - OPEN ML86BC008
B SPLY ISOL VLV CB - CLOSE ML86BC009

H2O LINE HTR B CB - OPEN ML86BC010

MN C
SUPPLY H2O
TK A OUTLET CB - CLOSE ML86BC011
TK C INLET CB - CLOSE ML86BC012
DUMP VLV/NOZ HTR CB - OPEN ML86BC064
XOVR VLV CB - CLOSE ML86BC014
GALLEY SUPPLY CB - OPEN ML86BC015

ROW B
MN A
WASTE H2O TK 1 VALVE CB - CLOSE ML86BC016
SUPPLY H2O TK D OUTLET CB - CLOSE
WASTE H2O DUMP ISOL CB - OPEN ML86BC017
VAC VENT ISOL VLV CB - OPEN ML86BC067
WCS CNTLR CB - OPEN ML86BC019
GALLEY OVEN CB - OPEN ML86BC020
PANEL ML86B (Continued)

MN B
WASTE H2O TK 1 DRAIN CB
   - CLOSE  ML86BC023
SUPPLY H2O TK D INLET CB
   - CLOSE  ML86BC007
VACUUM VENT
   NOZ HTR CB - OPEN  ML86BC066
   ISOL VLV CB - OPEN  ML86BC068
   WCS CNTLR CB - OPEN  ML86BC022
   GALLEY H2O HTR CB - OPEN  ML86BC024

ROW C
MN A
EXTERNAL AIRLOCK HTR
   LINE
   ZONE 1 CB - OPEN
   ZONE 2 CB - OPEN
   STRUC Z1/2/3 CB - OPEN
   VEST Z1/2/3 CB - OPEN

MN B
EXTERNAL AIRLOCK HTR
   LINE
   ZONE 1 CB - OPEN
   ZONE 2 CB - OPEN
   H2O S/O VALVE CB - CLOSE
   STRUC Z1/2/3 CB - OPEN
   VEST Z1/2/3 CB - OPEN

MN C
EXTERNAL AIRLOCK HTR
   LINE
   ZONE 1 CB - OPEN
   ZONE 2 CB - OPEN
PANEL ML86B (Continued)

ROW D
MN A
PYRO JETT SYS A
  KU ANT CB - OPEN ML86BC026
  STBD RMS - OPEN ML86BC031
MAN MANEUVR UNIT
  GN2 SPLY ISO VLV A CB - OPEN
  PORT HTR A CB - OPEN
  STBD HTR A CB - OPEN

MN B
PYRO JETT SYS A
  PORT RMS CB - OPEN ML86BC029
MAN MANEUVR UNIT
  GN2 SPLY ISO VLV B CB - OPEN
  PORT HTR B CB - OPEN
  STBD HTR B CB - OPEN

MN C
PYRO JETT SYS B
  KU ANT CB - OPEN ML86BC030
  PORT RMS CB - OPEN ML86BC032
  STBD RMS CB - OPEN

ROW E
MN A
EMU 2 H2O
  SUPPLY CB - OPEN ML86BC057
  WASTE CB - OPEN ML86BC060
  FC PCM CB - CLOSE ML86BC027
  CO2 SYS 1 CNTLR CB - OPEN
    (OV-104/OV-105)
FLOOD TUNNEL ADAPTER 2
  CB - OPEN
PANEL ML86B (CONTINUED)

NOTE
Obtain MAR circuit breaker positions from the VITT office.

MN B
MAR 1 CB - _____
MAR 2 CB - _____
SEAT
  LEFT CB - CLOSE
  RIGHT CB - CLOSE
  CO2 COMMON INSTR CB - OPEN
      (OV-104/OV-105)
FLOOD TUNNEL ADAPTER 3
  CB - OPEN

MN C
EMU 1 H2O
  SUPPLY CB - OPEN  ML86BC058
  WASTE CB - OPEN  ML86BC061
SEAT
  LEFT CB - CLOSE
  RIGHT CB - CLOSE
  CO2 SYS 2 CNTLR CB - OPEN
      (OV-104/OV-105)
FLOOD TUNNEL ADAPTER 4
  CB - OPEN
PANEL ML86B (CONTINUED)

ROW F

MN A
FLOODS
MIDDECK 1/8 CB - CLOSE  ML86BC034
WMC/MO13Q CB - OPEN  ML86BC035
AIRLOCK 1 CB - OPEN  ML86BC036
MIDDECK 9 - OPEN

CRYO O2 HTR TK3 SNSR 1 CB - CLOSE  ML86BC037

NOTE
If Tank Set 5 installed, CB - Close; if not installed, CB - Open.

CRYO O2 HTR
TK 5 SNSR 1 CB - ______

MN B
FLOODS
MIDDECK 2/6 CB - CLOSE  ML86BC039
BUNK 2/4 CB - OPEN  ML86BC040
MIDDECK 10 - OPEN
AIRLOCK 3 CB - OPEN  ML86BC042

CRYO O2 HTR
TK 3 SNSR 2 CB - CLOSE  ML86BC047

NOTE
If Tank Set 4 installed, CB - Close; if not installed, CB - Open.

CRYO O2 HTR
TK 4 SNSR 1 CB - ______

MN C
FLOODS
MIDDECK
5/7 CB - CLOSE  ML86BC044
3/4/MO13Q CB - CLOSE  ML86BC045

BUNK 1/3 CB - OPEN  ML86BC046
AIRLOCK 4 CB - OPEN  ML86BC059
PANEL ML86B (CONTINUED)

NOTE
If Tank Set 5 installed, CB - Close; if not installed, CB - Open.

CRYO O2 HTR
TK 5 SNSR 2 CB - ______

NOTE
If Tank Set 4 installed, CB - Close; if not installed, CB - Open.

CRYO O2 HTR
TK4 SNSR 2 CB - ______

ROW G
ESS 1BC
FLOOD
AIRLOCK 2 CB - OPEN  ML86BC048
TUNNEL ADAPTER 1 CB - OPEN

CRYO CNTRL
O2 TK4 CB - OPEN*
H2 TK4 CB - OPEN*

CRYO QTY
O2 TK4 CB - OPEN*  ML86BC05
H2 TK4 CB - OPEN*  ML86BC05

ESS 2CA
CRYO CNTRL
O2 TK5 CB - OPEN*
H2 TK5 CB - OPEN*

CRYO QTY
O2 TK5 CB - OPEN*  ML86BC053
H2 TK5 CB - OPEN*  ML86BC054

ESS 3AB
CRYO CNTRL
O2 TK3 CB - OPEN*  ML86BC053
H2 TK3 CB - OPEN*  ML86BC054

CRYO QTY
O2 TK3 CB - OPEN*  ML86BC055
H2 TK3 CB - OPEN*  ML86BC056

*** End of Panel ML86B (MS1) ***
ML85E (MS1)

**NOTE**
Perform Panel ML85E configuration if installed.

Panel ML85E (MS1) Not Performed:______

<table>
<thead>
<tr>
<th>30-115</th>
<th>OTC</th>
<th>ASP</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANEL ML85E (MUP)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1 SW - OFF</td>
<td>ML85ES00</td>
<td></td>
</tr>
<tr>
<td>CB1 - OPEN</td>
<td>ML85ECB0</td>
<td></td>
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<tr>
<td>DC 10 AMP MN B</td>
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<td></td>
</tr>
<tr>
<td>S2 SW - OFF</td>
<td>ML85ES00</td>
<td></td>
</tr>
<tr>
<td>CB2 - OPEN</td>
<td>ML85ECB0</td>
<td></td>
</tr>
<tr>
<td>S3 SW - OFF</td>
<td>ML85ES00</td>
<td></td>
</tr>
<tr>
<td>CB3 - OPEN</td>
<td>ML85ECB0</td>
<td></td>
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<tr>
<td>S4 SW - OFF</td>
<td>ML85ES00</td>
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<tr>
<td>CB4 - OPEN</td>
<td>ML85ECB0</td>
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<tr>
<td>S5 SW - OFF</td>
<td>ML85ES00</td>
<td></td>
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<tr>
<td>CB5 - OPEN</td>
<td>ML85ECB0</td>
<td></td>
</tr>
<tr>
<td>PUMPS</td>
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</tr>
<tr>
<td>S6 SW - OFF</td>
<td>ML85ES00</td>
<td></td>
</tr>
<tr>
<td>PUMP 2 CB7 - OPEN</td>
<td>ML85ECB0</td>
<td></td>
</tr>
<tr>
<td>PUMP 1 CB6 - OPEN</td>
<td>ML85ECB0</td>
<td></td>
</tr>
</tbody>
</table>
Galley (MS1)

30-116 OTC ASP

GALLEY
WATER VOL - AS IS
WATER PB LITES (2) OFF
OVEN FAN SW - OFF
REHYD STA LEVER - CLOSED AND LATCHED
TEST PORT 4 QD OUTLET - CAP INSTLKD
A5J105 QD OUTLET - CAP INSTLKD
AUX PORT QD OUTLET - CAP INSTLKD
WATER HTR SW (2) - OFF
OVEN/RHS SW - OFF
MV2 VLV - AS IS
OVEN DOOR - CLOSED
Panel MO13Q (MS1)

30-117 OTC ASP

PANEL MO13Q

MIDDECK FLOODS
3 SW - OFF
6 SW - ON
1 SW - OFF
4 SW - ON
7 SW - OFF
2 SW - OFF
5 SW - OFF
8 SW - ON
9 SW - OFF
10 SW - OFF

AIRLOCK H2O S/O VALVE SW - (CENTER)
AIRLOCK H2O S/O VALVE TB - (OP)
AIRLOCK FAN A SW - OFF
AIRLOCK FAN B SW - OFF

MO13Q LTG SW - OFF
AIRLOCK 2 SW - OFF/ON
TUNNEL ADAPTER 1 SW - OFF/ON

DC UTILITY POWER MN B SW - OFF

AC3 UTILITY POWER SW - OFF
Panel ML31C (MS1)

30-118  OTC      ASP

PANEL ML31C
WASTE H2O
  TK 1 DRAIN VLV SW - (CENTER)  ML31CS001
  TB OP  ML31CDS0
  TK 1 VLV SW - (CENTER)  ML31CS002
  TB OP  ML31CDS0

DUMP ISOL VLV SW - (CENTER)  ML31CS003
  TB BP  ML31CDS0
DUMP VLV SW - (CENTER)  ML31CS004
  TB BP  ML31CDS0
DUMP VLV ENABLE/NOZ HTR
  SW - OFF  ML31CS008

SUPPLY H2O
  TK D INLET SW - (CENTER)  ML31CS006
  TB OP  ML31CDS0
  TK D OUTLET SW - (CENTER)  ML31CS007
  TB OP  ML31CDS0

VACUUM VENT
ISOL VLV
  BUS SELECT SW - MN A  ML31CS010
  CONTROL SW - (CENTER)  ML31CS011
  TB BP  ML31CD00
  NOZ HTR SW - OFF  ML31CS009

*** End of Panel ML31C (MS1) ***
Panel ML26C (MS1)

30-119 OTC ASP

PANEL ML26C

SUPPLY H2O GN2
  TANK A SUPPLY VLV - OPEN
  TANK VENT VLV - PRESS (UP)

*** End of Panel ML26C (MS1) ***

Panel ML18F (MS1)

30-120 OTC ASP

PANEL ML18F

EMERGENCY LIGHTING SW - ON/OFF       ML18FS001
WASTE MANAGEMENT COMPARTMENT
  FLOOD SW - OFF                      ML18FS002

*** End of Panel ML18F (MS1) ***
Panel ML30N (MS1)

30-121 OTC ASP

PANEL ML30N (NOT LABELLED)
CABIN NEG PRESS RELIEF
VLV CAPS (2) - INSTALLED/SEATED

*** End of Panel ML30N (MS1) ***
Panel MA73C (MS1)

30-122 OTC ASP

PANEL MA73C

ROW A
MCA LOGIC
MN A
FWD 1 SW - ON MA73CS001
MID 1 SW - ON MA73CS002

MN B
FWD 2 SW - ON MA73CS005
MID 1 SW - ON MA73CS006
MID 2 SW - ON MA73CS007

MN C
FWD 3 SW - ON MA73CS011
MID 2 SW - ON MA73CS012

ROW B
MCA LOGIC
MN A
AFT 1 SW - ON MA73CS004
MID 3 SW - ON MA73CS003

MN B
AFT 2 SW - ON MA73CS010
MID 3 SW - ON MA73CS008
MID 4 SW - ON MA73CS009

MN C
AFT 3 SW - ON MA73CS014
MID 4 SW - ON MA73CS013
PANEL MA73C (Continued)

ROW C

MCA POWER AC1 3 PH
  FWD 1 CB - CLOSE MA73CC001
  MID 1 CB - CLOSE MA73CC002
MCA POWER AC2 3 PH
  FWD 2 CB - CLOSE MA73CC005
  MID 1 CB - CLOSE MA73CC006
  MID 2 CB - CLOSE MA73CC007
MCA POWER AC3 3 PH
  FWD 3 CB - CLOSE MA73CC011
  MID 2 CB - CLOSE MA73CC012

ROW D

MCA POWER AC1 3 PH
  AFT 1 CB - CLOSE MA73CC004
  MID 3 CB - CLOSE MA73CC003
MCA POWER AC2 3 PH
  AFT 2 CB - CLOSE MA73CC010
  MID 3 CB - CLOSE MA73CC008
  MID 4 CB - CLOSE MA73CC009
MCA POWER AC3 3 PH
  AFT 3 CB - CLOSE MA73CC014
  MID 4 CB - CLOSE MA73CC013

ROW E

AC 1
  WCS FAN SEP 1
    PH A CB - OPEN MA73CC047
    PH B CB - OPEN MA73CC048
    PH C CB - OPEN MA73CC049

AC 2
  WCS FAN SEP 2
    PH A CB - OPEN MA73CC050
    PH B CB - OPEN MA73CC051
    PH C CB - OPEN MA73CC052
  PAYLOAD 3 PH CB - OPEN MA73CC015

AC 3
  PAYLOAD 3 PH CB - OPEN MA73CC016
PANEL MA73C (Continued)

ROW F

AC 1
RMS PRIMARY PH A CB - OPEN
MAR 3 PH CB - OPEN
OPS INST HYD ACTR
PH C CB - CLOSE MA73CC053

AC 2
RMS BACKUP PH A CB - OPEN MA73CC019
LEFT SEAT 3 PH CB - CLOSE
OPS INST HYD ACTR PH C
CB - CLOSE MA73CC054

AC 3
L SEAT 3 PH CB - CLOSE

ROW G

AC1
ARLK TNL FAN A
PH A CB - OPEN
PH B CB - OPEN
PH C CB - OPEN
UNLABELED SW - DOWN

AC2
ARLK TNL FAN B
PH A CB - OPEN
PH B CB - OPEN
PH C CB - OPEN
RIGHT SEAT 3 PH CB - CLOSE

AC 3
GALLEY FAN
PH A CB - OPEN MA73CC026
PH B CB - OPEN MA73CC027
PH C CB - OPEN MA73CC028
RIGHT SEAT 3 PH CB - CLOSE

192
PANEL MA73C (Continued)

ROW H

AC 1
FWD RCS VLV
  PH A CB - OPEN* MA73CC029
  PH B CB - OPEN* MA73CC030
  PH C CB - OPEN* MA73CC031

AC 2
FWD RCS VLV
  PH A CB - OPEN* MA73CC032
  PH B CB - OPEN* MA73CC033
  PH C CB - OPEN* MA73CC034

AC 3
FWD RCS VLV
  PH A CB - OPEN* MA73CC035
  PH B CB - OPEN* MA73CC036
  PH C CB - OPEN* MA73CC037

ROW I

AC 1
AFT POD VLV GP 1
  PH A CB - OPEN* MA73CC038
  PH B CB - OPEN* MA73CC039
  PH C CB - OPEN* MA73CC040
AFT POD VLV LOGIC GP
  1/3 SW - ON MA73CS015

AC 2
AFT POD VLV GP 2
  PH A CB - OPEN* MA73CC041
  PH B CB - OPEN* MA73CC042
  PH C CB - OPEN* MA73CC043
AFT POD VLV LOGIC GP
  1/2 SW - ON MA73CS016

AC 3
AFT POD VLV GP 3
  PH A CB - OPEN* MA73CC044
  PH B CB - OPEN* MA73CC045
  PH C CB - OPEN* MA73CC046
AFT POD VLV LOGIC GP
  2/3 SW - ON MA73CS017

*** End of Panel MA73C (MS1) ***
Panel MO30F (MS1)

30-123 OTC ASP

PANEL MO30F

DC UTILITY POWER SW - OFF MO30FS001

*** End of Panel MO30F (MS1) ***

Panel MO32M (MS1)

30-124 OTC ASP

PANEL MO32M

LEH O2 5 VLV - CLOSED 30V64MV12
LEH O2 6 VLV - CLOSED 30V64MV13

*** End of Panel MO32M (MS1) ***

Panel MO39M (MS1)

30-125 OTC ASP

PANEL MO39M

MID DECK COMM CCU PWR SW - OFF MO62MS001

*** End of Panel MO39M (MS1) ***
Panel MO42F (MS1)

30-126 OTC ASP

PANEL MO42F

MID DECK SPEAKER AUDIO
   POWER SW - AUD/TONE MO42FS001
   A/G
      1 SW - T/R MO42FS002
      2 SW - RCV MO42FS003
   A/A SW - RCV MO42FS004

ICOM
   A SW - T/R MO42FS005
   B SW - RCV MO42FS006
   VOX SENS SW - AS IS MO42FR001
   MASTER SPEAKER VOLUME SW - 8 MO42FR002
   PAGE SW - (DOWN) MO42FS007

VOLUME MO42FS008
   A/G
      1 PB - 7
      2 PB - 7
      A/A PB - 7

ICOM
   A PB - 7
   B PB - 7

   XMIT/ICOM MODE SW - PTT/PTT MO42FS011
   TONES SW - ACCU/BYPASS MO42FS012
   SPKR PWR SW - SPKR MO42FS011
   GPC MEMORY DUMP SW - OFF MO42FS012
   BYPASS TONE VOL ADJUST SCREW - AS IS

*** End of Panel MO42F (MS1) ***
Panel MO51F

30-127  OTC      ASP

**IF FOR OV-104/OV-105 ONLY,**

**THEN PERFORM:**
**PANEL MO51F**

- CNTLR 1 OPER LTS (2) - OFF
- CNTLR 2 OPER LTS (2) - OFF
- MN A SW - OFF
- AC 1 SW - CTR
- MODE SW - CTR

- COMMON INSTR SW - OFF
- MN C SW - OFF
- AC 3 SW - CTR
- MODE SW - CTR

- AC1 PH A CB - OPEN
- AC1 PH B CB - OPEN
- AC1 PH C CB - OPEN
- AC3 PH A CB - OPEN
- AC3 PH B CB - OPEN
- AC3 PH C CB - OPEN

Not Performed: _____

*** End of Panel MO51F ***
Panel MO58F (MS1)

30-128 OTC ASP

PANEL MO58F

SLEEP STA TONES OUTLET - CAP INSTALLED
TV POWER SW - OFF MO58FS010
TV OUTLET - CAP INSTALLED OR CABLE CONNECTED

*** End of Panel MO58F (MS1) ***

Panel MO52J (MS1)

30-129 OTC ASP

PANEL MO52J

DC UTILITY POWER SW - OFF MO52JS001
AC UTILITY POWER SW - OFF MO52JS002
MASTER ALARM LITE OFF MO52JS003

*** End of Panel MO52J (MS1) ***

Panel MO62M (MS1)

30-130 OTC ASP

PANEL MO62M

MIDDECK BIOMED - ALL THREE CAPS INSTALLED.

*** End of Panel MO62M (MS1) ***
Panel MO63P (MS1)

30-131 OTC ASP

PANEL MO63P
MAIN DC UTILITY POWER
CB4/J4 CB - OPEN
CB3/J3 CB - OPEN
CB2/J2 CB - OPEN
J2 SW - OFF
15A/10A SW - 10A
J3 SW - OFF
J4 SW - OFF
J5 SW - OFF
15A/10A SW - 10A
J6 SW - OFF
CB5/J5 CB - OPEN
CB6/J6 CB - OPEN
RLY PWR CB - OPEN

*** End of Panel MO63F (MS1) ***
Panel MO69M (MS1)

30-132 OTC ASP

PANEL MO69M

LEH O2 7 VLV - CLOSE 30V64MV14
LEH O2 8 VLV - CLOSE 30V64MV15

*** End of Panel MO69M (MS1) ***

Panel MD44F (MS1)

30-133 OTC ASP

PANEL MD44F (UNDER FLOOR)

CABIN TEMP CNTL VALVE - FULL COOL
PRIMARY ACTUATOR - PINNED TO TEMP CONTROLLER
SECONDARY ACTUATOR IN FULL HEAT POSITION

*** End of Panel MD44F (MS1) ***
Mid Deck Floor (FWD of Airlock)

<table>
<thead>
<tr>
<th>NOTE</th>
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<tbody>
<tr>
<td>Velcro attached debris/ closeout netting may be repositioned to facilitate next step.</td>
</tr>
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</table>

30-134 OTC ASP

**MID DECK FLOOR (FWD OF AIRLOCK)**

- EMU O₂ ISO VLV - CLOSE
- CABIN PURGE VALVE - CLOSE
- CABIN PURGE ISOL VLV - CLOSE

*** End of Mid Deck Floor (FWD of Airlock) ***

*** End of Mid Deck Switch list ***
Panel WCS

30-135 OTC ASP

PANEL WCS (Commode Area)
Auto Inhibit/Auto SW - Auto

30-136 OTC ASP

IF VAC Vent Inerting is in progress,

THEN perform:
Commode Control Handle - Telescoped up (AFT Position)
MODE SW - Commode/Manual/EMU
Vacuum Valve SW - Open

Not Performed:______

30-137 OTC ASP

If VAC Vent Inerting is not in progress,

Then Perform:
Commode Control Handle - Seated Down/Off (Aft Position)
MODE SW - Auto
Vacuum Valve SW - Close

Not Performed:______

30-138 OTC ASP

SEP 1 Bypass SW - OFF
SEP 2 Bypass SW - OFF
Fan SEP SW - OFF
Hose Block - SEP 1
Compactor Angle = < 33 Degrees (0-10 PCT)

*** End of Mid deck and Waste Management Station Switch list ***
Waste Management Station Switch list

Panel MO10W

30-139 OTC ASP

PANEL MO10W
14.7 PSI CABIN REG INLET
   SYS 1 VLV - CLOSE
   SYS 2 VLV - CLOSE
SYS 1 PPO2 CONTR SW - NORM MO10WS011
SYS 2 PPO2 CONTR SW - NORM MO10WS020

O2 REG INLET
   SYS 1 VLV - CLOSE
   SYS 2 VLV - CLOSE

H2O TK N2 REG INLET
   SYS 1 VLV - OPEN
   SYS 2 VLV - OPEN

PAYLOAD N2 SUPPLY
   SYS 1 VLV - CLOSE
   SYS 2 VLV - CLOSE
   O2 EMER VLV - CLOSE
   N2 XOVER VLV - CLOSE

H2O TK N2 ISOL
   SYS 1 VLV - OPEN
   SYS 2 VLV - OPEN

PAYLOAD O2
   SYS 1 VLV - CLOSE
   SYS 2 VLV - CLOSE

*** End of Panel MO10W (MS1) ***

*** End of Waste Management Station Switch List ***
Switches Repositioned During Ascent Checklist

<table>
<thead>
<tr>
<th>Panel</th>
<th>Switch Nomenclature</th>
<th>SYS</th>
<th>Position Found In</th>
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<tbody>
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</table>
P-6: CAUTION AND WARNING SOFTWARE CHANGES (ASCENT SWITCHES)

DATE:__________    TIME:__________

<table>
<thead>
<tr>
<th>PARAMETER #</th>
<th>LO LIMIT</th>
<th>HI LIMIT</th>
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C/W Log Sheet
(For Reference Only)
### C/W Log Sheet

(For Reference Only)

*** End of Operation 30 ***

205
OPERATION 31  NAVAIDS Securing
Shop: FWD
Cntrl Rm Console: C2
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.5

NOTE
Steps involving Crit 1, 1R and/or 1S items are contained in the following Operation.
NAVAIDS Deactivation

31-1 OTC CNSE

Perform NAVAIDS securing on CH 173.

31-2 CNSE CDR PLT

IF IN SUPPORT OF OV-103 OR OV-104,

THEN

PANEL O7
TACAN 1
   MODE SW - OFF
TACAN 2
   MODE SW - OFF
TACAN 3
   MODE SW - OFF

Not Performed:______

31-3 CNSE

IF IN SUPPORT OF OV-103 OR OV-104,

THEN

CRT (VWN99)
TACAN 1 SW STAT OFF
TACAN 2 SW STAT OFF
TACAN 3 SW STAT OFF

TACAN 1 POWER STAT OFF
TACAN 2 POWER STAT OFF
TACAN 3 POWER STAT OFF

Not Performed:______
31-4 CNSE PLT

PANEL 08
RADAR ALTIMETER
  1 SW - OFF
  2 SW - OFF

31-5 CNSE

CRT (VWN99)
RALT 1 SW STAT OFF
RALT 2 SW STAT OFF

31-6 CNSE CDR

IF IN SUPPORT OF OV-103 OR OV-104,

THEN

PANEL 014
ROW C
  MN A
    TACAN 1 CB - OPEN

Not Performed:______

31-7 CNSE CDR

PANEL 014
ROW E
  MN A
    RADAR ALTM 1 CB - OPEN
    MLS 1 CB - OPEN
31-8  CNSE   PLT

IF IN SUPPORT OF OV-103,

THEN

PANEL O15
ROW C
  MN B
   TACAN 2 CB - OPEN

Not Performed:_____

31-9  CNSE   PLT

IF IN SUPPORT OF OV-104,

THEN

PANEL O15
ROW E
  MN B
   TACAN 2 CB - OPEN
   RADAR ALTM 2 CB - OPEN
   MLS 2 CB - OPEN

Not Performed:_____

31-10 CNSE   PLT

PANEL O15
ROW E
  MN B
   RADAR ALTM 2 CB - OPEN
   MLS 2 CB - OPEN
IF IN SUPPORT OF OV-103 OR OV-104,

THEN

PANEL 016
ROW C
  MN C
    TACAN 3 CB - OPEN

Not Performed:_____

PANEL 016
ROW E
  MN C
    MLS 3 CB - OPEN

*** End of NAVAIDS Deactivation ***
GPS Deactivation

31-13

CNSE

**IF** VSN59 IS NOT ACTIVE,

**THEN PERFORM** THE FOLLOWING:

CONSOLE KYBD (C2)

HOME CMD KEY - PRESS

VSN59

PERF PROG KEY - PRESS

(SELECT APPL PG B)

Not Performed:_____

**NOTE**

IDP RSYS is required for the GPS deactivation.

31-14

CNSE  OTC  132

OTC  CDPS

Change responsible console for an IDP to console C2. Expect I/O errors during GPS power down.

31-15

CDPS

CONSOLE KYBD

HOME CMD KEY - PRESS

C CO _DEUXG LDBA C2 (X = IDP No.)

XMIT CMD KEY - PRESS

ISSU N72IV10YD #B002 (Y = IDP No. Minus 1)

XMIT CMD KEY - PRESS

EXEC CMD KEY -PRESS

31-16

CDPS  OTC  132

OTC  CNSE

Responsible console for IDP No._________ now assigned to Console C2.
Single String GPS Power Down

NOTE
Perform “Single String GPS Power Down” section if in support of OV-103 or OV-104.

Single String GPS Power Down Not Performed: ______

NOTE
For the GPS power down process, follow VSN59 program prompts. The program prompts will guide the user through the power down process with appropriate user interface selections for power down listed in the following steps. A flashing yellow arrow on display will indicate which section of test is in progress and solid green arrow will indicate successful completion of section.

31-17

CNSE
CURSOR CNTL (VSN59 PG-B)
GPS POWER DOWN - 2
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

31-18

CNSE
CRT (VSN59 PG-B)
PFK 1B KEY - PRESS (TERMINATE I/O)
NOTE
Due to the configuration of the receiver status measurement, a message “GPS Power Off was successful” may appear on VSN59 prior to powering off the GPS receiver. This is an expected condition and steps can be performed as written.

31-19

CNSE  CDR

PANEL A13
GPS
  POWER SW - OFF

31-20

CNSE

CONSOLE KYBD (VSN59 PG-B)
PFK 1 KEY - PRESS - PROCEED WITH POWER OFF
OV-103 Pre-Amp Power Down

NOTE
Perform “OV-103 Pre-Amp Power Down” if GPS Power Down is being performed on OV-103. The program will prompt the operator for switch/circuit breaker action.

OV-103 Pre-Amp Power Down Not Performed: ______

31-21 CNSE  CDR

PANEL A13
GPS
PRE-AMPL
UC SW - OFF
LC SW - OFF

31-22 CNSE

CURSOR CNTL (VSN59)

PFK 1B KEY - PRESS (PREAMP POWER SWITCH IS NOW OFF - CONTINUE)

31-23 CNSE

CURSOR CNTL (VSN59)

PFK 1B KEY - PRESS (OPEN CB’S)
31-24  CNSE   CDR  

PANEL 014  
ROW D  
MN A  
GPS  
PRE AMPL  
UC CB - OPEN  
LC CB - OPEN

31-25  CNSE   CDR  

PANL 016  
ROW D  
MN C  
GPS  
PRE AMPL  
UC CB - OPEN  
LC CB - OPEN

*** End of OV-103 Pre-Amp Power Down***
OV-104 Pre-Amp Power Down

NOTE
Perform “OV-104 Pre-Amp Power Down” if GPS Power Down is being performed on OV-104. The program will prompt the operator for switch/circuit breaker action.

OV-104 Pre-Amp Power Down Not Performed:_____

31-26 CNSE CDR

PANEL A13
GPS
  PRE AMPL
    UC SW - OFF
    LC SW - OFF

31-27 CNSE
CURSOR CNTL (VSN59)

PFK 1B KEY - PRESS (PREAMP POWER SWITCH IS NOW OFF - CONTINUE)

31-28 CNSE
CURSOR CNTL (VSN59)

PFK 1B KEY - PRESS (OPEN CB’S)
31-29  CNSE  CDR

PANEL O15
ROW C
   MN B
      GPS 2 PRE AMPL
         UPPER CB - OPEN

ROW D
   MN B
      GPS 2 PRE AMPL
         LOWER CB - OPEN

*** End of OV-104 Pre-Amp Power Down ***

31-30  CNSE

CRT (VSN59 PG-B)

PFK 1B KEY - PRESS (CB OPENED - CONTINUE)

31-31  CNSE

CURSOR CNTL (VSN59)

PFK 1B KEY - PRESS (ISSUE RESUME TO CRT)

*** End of Single String GPS Power Down ***
3-String GPS Power Down

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform “3-String GPS Power Down” section if in support of OV-105.</td>
</tr>
</tbody>
</table>

**3-String GPS Power Down Not Performed:**

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
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<tbody>
<tr>
<td>For the GPS power down process, follow VSN59 program prompts. The program prompts will guide the user through the power down process with appropriate user interface selections for power down listed in the following steps. A flashing yellow arrow on display will indicate which section of test is in progress and solid green arrow will indicate successful completion of section.</td>
</tr>
</tbody>
</table>

### 31-32 CNSE

CURSOR CNTL (VSN59 PG-B)  
GPS POWER DOWN - ALL  
   XMIT CURSOR KEY - PRESS  
START TEST  
   XMIT CURSOR KEY - PRESS

### 31-33 CNSE

CURSOR CNTL (VSN59 PG-B)

PFK 1B KEY - PRESS (TERMINATE I/O)
NOTE
Due to the configuration of the receiver STAT bit on the GPS receiver and GOAL software, it is possible that the “GPS X Verified Powered OFF” message will appear on VSN59 prior to physically powering off the GPS receiver. This will happen if the STAT indication is ON, which means the GPS receiver is tracking four satellites. This is an expected condition and steps can be performed as written.

31-34  CNSE  CDR

PANEL 07
GPS 1
  POWER SW - OFF

31-35  CNSE  CDR

PANEL 07
GPS 2
  POWER SW - OFF

31-36  CNSE  CDR

PANEL 07
GPS 3
  POWER SW - OFF

31-37  CNSE

CURSOR CNTL (VSN59 PG-B)

PFK 1B KEY - PRESS (PROCEED WITH PREAMP POWER OFF)
31-38  

CNSE  

CDR

PANEL 07
GPS 1
PRE AMPL
  UPPER SW - OFF
  LOWER SW - OFF

GPS 2
PRE AMPL
  UPPER SW - OFF
  LOWER SW - OFF

GPS 3
PRE AMPL
  UPPER SW - OFF
  LOWER SW - OFF

31-39  

CNSE

CURSOR CNTL (VSN59 PG-B)

PFK 1B KEY - PRESS (PREAMP POWER SWITCH IS NOW OFF - CONTINUE)

31-40  

CNSE

CURSOR CNTL (VSN59 PG-B)

PFK 1B KEY - PRESS (OPEN CB’S)
31-41  CNSE     CDR
       
       PANEL 014
       ROW D
       MN A
       GPS 1
       PRE AMPL
       UPPER CB - OPEN
       LOWER CB - OPEN

31-42  CNSE     CDR
       
       PANEL 015
       ROW C
       MN B
       GPS 2
       PRE AMPL
       UPPER CB - OPEN
       
       ROW D
       MN B
       GPS 2
       PRE AMPL
       LOWER CB - OPEN

31-43  CNSE     CDR
       
       PANEL 016
       ROW D
       MN C
       GPS 3
       PRE AMPL
       UPPER CB - OPEN
       LOWER CB - OPEN
31-44  
CNSE

CURSOR CNTL (VSN59 PG-B)

PFK 1B KEY - PRESS (CB OPENED - CONTINUE)

31-45  
CNSE

CURSOR CNTL (VSN59 PG-B)

PFK 1B KEY - PRESS (ISSUE RESUME TO CRT)

*** End of 3-String GPS Power Down ***
IDP Return To C12

31-46  
**CNSE**
CURSOR CNTL (VSN59 PG-B)
   CRT RETURN TO DPS
   XMIT CURSOR KEY - PRESS

**PLACE** CURSOR AT THE END OF:
   C CO _DEUXG LDBA C12  (X = CRT NO.)
   XMIT CMD KEY - PRESS

HOME CMD KEY - PRESS
   ISSU N72IV10YD 0 (Y = CRT No. Minus 1)
   XMIT CMD KEY - PRESS
   EXEC CMD KEY - PRESS

31-47  
**CNSE**   **OTC**     **132**
**OTC**   **CDPS**

IDP assigned to console C2 has been returned to C12.

*** End of IDP Return To C12 ***
31-48

CNSE

CURSOR CNTL (VSN59 PG-B)
TERMINATE
XMIT CURSOR KEY - PRESS
VERIFY VSN59 TERMINATED

31-49

CNSE

CURSOR CNTL (VWN58 PG-B (VAA41))
TERMINATE
XMIT CURSOR KEY - PRESS

31-50

CNSE

CURSOR CNTL (VWN42/VWN43 PG-B (VAA40))
TERMINATE
XMIT CURSOR KEY - PRESS

31-51

CNSE

PFP (VAA40)
SET TERM KEY- PRESS
EXECUTE SET TERM KEY- PRESS
VERIFY VAA40/VAA41 TERMINATED

*** End of Operation 31 ***
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OPERATION 32  WWMS Preps For Switch List
Shop: FCP
Cntrl Rm Console: C5
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.5
32-1  CFCP  MS1

PANEL ML86B
ROW A
MN A

SUPPLY H2O
  TK A INLET CB - CLOSE  ML86BC001
  TK B OUTLET CB - CLOSE  ML86BC002
  H2O LINE HTR A CB - OPEN  ML86BC004
WASTE H2O DUMP VLV/NOZ
  HTR/CB - CLOSE

MN B

SUPPLY H2O
  TK B INLET CB - CLOSE  ML86BC005
  TK C OUTLET CB - CLOSE  ML86BC006
  DUMP ISOL CB - CLOSE  ML86BC008
  B SUPPLY ISOL VLV CB - CLOSE  ML86BC009
  H2O LINE HTR B CB - OPEN  ML86BC010

MN C

SUPPLY H2O
  TK A OUTLET CB - CLOSE  ML86BC011
  TK C INLET CB - CLOSE  ML86BC012
  DUMP VLV/NOZ HTR CB - CLOSE  ML86BC064
  XOVR VLV CB - CLOSE  ML86BC014
  GALLEY SUPPLY CB - CLOSE  ML86BC015

ROW B

MN A

WASTE H2O TK 1 VLV CB - CLOSE  ML86BC016
SPLY H2O TK D OUTLET CB - CLOSE  ML86BC003
WASTE H2O DUMP ISOL CB - CLOSE  ML86BC017

MN B

WASTE H2O TK 1 DRAIN CB - CLOSE  ML86BC023
SPLY H2O TK D INLET CB - CLOSE  ML86BC007
32-2 CFCP MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM
PANEL R11
SUPPLY H2O
  TK A INLET SW - OPEN (15 SEC MAX) R11A2S003
  UNTIL TK A INLET TB OP, THEN RELEASE R11A2DS001

Not Performed:______

32-3 CFCP

CRT (VAG12 PG-B)

LV1      V62X0403E1
POP ON

32-4 CFCP MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM
PANEL R11
SUPPLY H2O
  TK A OUTLET SW - CLOSE (15 SEC MAX) R11AS004
  UNTIL TK A OUTLET R11A2DS002
  TB CL, THEN RELEASE

Not Performed:______
32-5       CFCP

CRT (VAG12 PG-B)

LV2
POP OFF

32-6       CFCP    MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM
PANEL R11
SUPPLY H2O
  DUMP ISOL VLV SW - CLOSE (15 R11A2S006
  SEC MAX) UNTIL DUMP ISOL VLV R11A2DS00
  TB CL, THEN REL

Not Performed: ______

32-7       CFCP

CRT (VAG12 PG-B)

LV11
POP OFF

32-8       CFCP    MS1

PANEL R11
SUPPLY H2O
  DUMP VLV ENABLE/NOZ HTR SW - ON R11A2S0
32-9  CFCP  MS1

**IF** VLV POSITION INDICATOR IS NOT AS SHOWN,

**THEN PERFORM**

**PANEL R11**

**SUPPLY H2O**

- DUMP VLV SW - CLOSE, (15 SEC MAX)  R11A2S007
- UNTIL DUMP VLV TB CL,  R11A2DS005
- THEN RELEASE

**Not Performed:**

32-10  CFCP

**CRT (VAG12 PG-B)**

- LV10
- POP OFF  V62X04G5E1

32-11  CFCP  MS1

**PANEL R11**

**SUPPLY H2O**

- DUMP VLV ENAB/NOZ HTR SW - OFF  R11A2S017
- OFF
- DUMP VLV TB BP  R11A2DS005
32-12 CFCP MS1

If VLV position indicator is not as shown,

Then perform
PANEL R11
SUPPLY H2O
    TK B INLET SW - OPEN, (15 R11A2S009
    SEC MAX) UNTIL TK B INLET R11A2DS006
    TB OP, THEN RELEASE

Not Performed:______

32-13 CFCP

CRT (VAG12 PG-B)

LV3
POP ON V62X0423E1

32-14 CFCP MS1

If VLV position indicator is not as shown,

Then perform
PANEL R11
SUPPLY H2O
    TK B OUTLET SW - OPEN, (15 R11A2S010
    SEC MAX) UNTIL TK B OUTLET R11A2DS007
    TB OP, THEN RELEASE

Not Performed:______
32-15  CFCP

CRT (VAG12 PG-B)

LV4
POP ON  V62X0427E1

32-16  CFCP  MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM

PANEL R11
SUPPLY H2O
CROSSOVER VLV SW - CLOSE,  R11A2S005
(15 SEC MAX) UNTIL CROSSOVER  R11A2DS003
VLV TB CL, THEN REL

Not Performed:______

32-17  CFCP

CRT (VAG12 PG-B)

LV13
POP OFF  V6X1005E1
32-18  CFCP   MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM
PANEL R11
SUPPLY H2O
   GAL SPLY VLV SW - CLOSE, (15 R11A2S011
   SEC MAX) UNTIL GALLEY SPLY R11A20S008
   VLV TB CL, THEN REL

Not Performed:______

32-19  CFCP

CRT (VAG12 PG-B)

LV9
POP OFF V62X1105E1

32-20  CFCP   MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM
PANEL R11
SUPPLY H2O
   TK C INLET SW - OPEN, (15 R11A2S014
   SEC MAX) UNTIL TK C INLET R11A2DS009
   TB OP, THEN RELEASE

Not Performed:______
32-21  CFCP

CRT (VAG12 PG-B)

LV5
POP ON

32-22  CFCP  MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM

PANEL R11
SUPPLY H2O
TK C OUTLET SW - OPEN, (15 R11A2S015 SEC MAX) UNTIL TK C OUTLET R11A2DS010 TB OP THEN RELEASE

Not Performed:______

32-23  CFCP

CRT (VAG12 PG-B)

LV6
POP ON

V62X0568E1
32-24 CFCP MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM
PANEL R11
SUPPLY H2O
  B SPLY ISOL VLV SW - OPEN R11A2S016
  (15 SEC MAX) UNTIL B SPLY R11A2DS011
  ISOL VLV TB OP, THEN RELEASE

Not Performed:______

32-25 CFCP

CRT (VAG12 PG-B)
LV12 POP ON V62X0203E1

32-26 CFCP

CRT (VAG31 PG-B)
TK 1 DRAIN V62X0566E1
POP ON
32-27 CFCP MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM

PANEL ML31C
WASTE H2O

TK 1 VLV SW - OPEN (15 SEC MAX) ML31CS002
UNTIL TK 1 VLV TB OP, THEN RELEASE ML31CDS002

Not Performed:______

32-28 CFCP

CRT (VAG31 PG-B)

TK 1 VLV
POP ON V62X0570E1

32-29 CFCP MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM

PANEL ML31C
WASTE H2O

DUMP ISOL VLV SW - CLOSE ML31CS003
(15 SEC MAX) UNTIL DUMP ISOL ML31CDS003
VLV TB CL, THEN REL

Not Performed:______
32-30  CFCP

CRT (VAG31 PG-B)
DUMP ISOL
POP OFF V62X0533E

32-31  CFCP  MS1

PANEL ML31C
WASTE H2O
   DUMP VLV ENABLE/NOZ HTR SW - ON ML31CS008

32-32  CFCP  MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM
PANEL ML31C
WASTE H2O
   DUMP VLV SW - CLOSE (15 SEC MAX) ML31CS004
   UNTIL DUMP VLV TB CL, THEN RELEASE ML31CDS004

   Not Performed: _____

32-33  CFCP

CRT (VAG31 PG-B)
DUMP VLV
POP OFF V62X0538E1
32-34  CFCP  MS1

PANEL ML31C
WASTE H2O
  DUMP VLV ENAB/NOZ HTR SW - OFF  ML31CS008
  DUMP VLV TB BP

32-35  CFCP  MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM
PANEL ML31C
SUPPLY H2O
  TK D INLET SW - OPEN (15 SEC MAX)  ML31CS006
  UNTIL TK D INLET TB OP, THEN RELEASE

Not Performed:______

32-36  CFCP

CRT (VAG12 PG-B)

LV7
POP ON  V62X0571E1
32-37 CFCP MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM

PANEL ML31C
SUPPLY H2O
TK D OUTLET SW - OPEN (15 ML31CS007
SEC MAX) UNTIL TK D OUTLET ML31CDS006
TB OP, THEN REL

Not Performed:______

32-38 CFCP

CRT (VAG12 PG-B)

LV8
POP ON V62X0567:
32-39  CFCP      MS1

PANEL ML86B
ROW A
MN A
  WASTE H2O DUMP VLV/NOZ    ML86BC065
  HTR CB - OPEN

MN B
  SUPPLY H2O
    DUMP ISOL CB - OPEN    ML86BC008

MN C
  SUPPLY H2O
    DUMP VLV/NOZ HTR CB -    ML86BC064
    OPEN
    GALLEY SUPPLY CB - OPEN    ML86BC015

ROW B
MN A
  WASTE H2O DUMP ISOL CB -    ML86BC017
    OPEN
  WCS CNTLR CB - OPEN    ML86BC022
  GALLEY OVEN CB - OPEN    ML86BC024

MN B
  WCS CNTLR CB - OPEN    ML86BC022
  GALLEY H2O HTR CB - OPEN    ML86BC024
32-40  CFCP  MS1

PANEL ML86B

ROW C
  MN A
  EXTERNAL AIRLOCK HTR LINE
  ZONE 1 CB - OPEN
  ZONE 2 CB - OPEN
  MN B
  EXTERNAL AIRLOCK HTR LINE
  ZONE 1 CB - OPEN
  ZONE 2 CB - OPEN
  H2O S/O VALVE CB - CLOSE
  MN C
  EXTERNAL AIRLOCK HTR LINE
  ZONE 1 CB - OPEN
  ZONE 2 CB - OPEN

32-41  CFCP  MS1

PANEL M013Q

AIRLOCK H2O S/O VLV SW - CENTER
TB - OPEN
32-42 CFCP MS1

PANEL MA73C

ROW E
AC1
WCS FAN SEP 1
PH A CB - OPEN MA73CC047
PH B CB - OPEN MA73CC048
PH C CB - OPEN MA73CC049

AC2
WCS FAN SEP 2
PH A CB - OPEN MA73CC050
PH B CB - OPEN MA73CC051
PH C CB - OPEN MA73CC052

ROW G
AC 3
GALLEY FAN
PH A CB - OPEN MA73CC026
PH B CB - OPEN MA73CC027
PH C CB - OPEN MA73CC028

32-43 CFCP MS1

PNL ML86B
ROW E
MN A
EMU 2 H2O
SUPPLY CB - OPEN
WASTE CB - OPEN

MN C
EMU 1 H2O
SUPPLY CB - OPEN
WASTE CB - OPEN
32-44 OTC ASP

**PANEL WCS** (COMMODE AREA)
AUTO INHIBIT/AUTO SW - AUTO
COMMODE CONTROL HANDLE - DOWN/OFF
   (AFT POSITION)
      - UP (IF VAC VENT INERT I/W)

MODE SW - AUTO
   - COMMODE/MANUAL/EMU (IF VAC VENT INERT I/W)

VACUUM VALVE SW - CLOSE
   - OPEN (IF VAC VENT INERT I/W)

SEP 1 BYPASS SW - OFF
SEP 2 BYPASS SW - OFF
FAN SEP SW - OFF
HOSE BLOCK - SEP 1
COMPACTOR ANGLE = < 33 DEG

*** End of WWMS Preps For Switch list ***

*** End of Operation 32 ***
OPERATION 33  OMS/RCS System Secure

Shop: OMS
Cntrl Rm Console: C8
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.5

NOTE
Do not perform this Operation unless requested by OMS/RCS Engineering.

Operation Not Performed: ______
33-1  COOS    OTC    132

Perform OMS/RCS System Securing.

NOTE
Next step will tie XFDLNS to LOMS prop tanks.

33-2  COOS

(SIM) CURSOR CNTL (VWD41/VWD42)
VWD42 - C4 - OPEN
VWD41 - C4 - OPEN

33-3  COOS    CTPE

Transfer group 79 FD's back to C8.

NOTE
Following step requires one available concurrency.

33-4  CTPE

CURSOR CNTL (SAP10)
RSYS TRANSFER
XMIT CURSOR KEY - PRESS

33-5  CTPE

CURSOR CNTL (SAP30)
GROUP 79 (OMS/RCS OXID ORB FD'S)
XMIT CURSOR KEY - PRESS
CURSOR CNTL (SAP30)
C8
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS
33-6  CTPE

CRT (SAP30)
AFTER APPROX 3 MIN, VERIFY
GROUP 79 AND 80 (RCL) RSYS
XFER TO C8 - CPLT
PFK10 - PRESS

33-7  CTPE

CURSOR CNTL (SAP30)
TERM CONC
XMIT CURSOR KEY - PRESS

33-8  COOS  CDR

PANEL C3
OMS ENG
RIGHT SW - OFF
LEFT SW - OFF
33-9  COOS  PS1

PANEL A14
RCS/OMS HEATERS
  FWD RCS SW - OFF
  LEFT POD
    A AUTO SW - OFF
    B AUTO SW - OFF
  RIGHT POD
    A AUTO SW - OFF
    B AUTO SW - OFF
  OMS
    KIT SW - OFF
  CRSFD LINES
    A AUTO SW - OFF
    B AUTO SW - OFF
  FWD RCS JET
    1 SW - (AS IS)
    2 SW - (AS IS)
    3 SW - (AS IS)
    4 SW - (AS IS)
    5 SW - (AS IS)
  AFT RCS JET
    1 SW - (AS IS)
    2 SW - (AS IS)
    3 SW - (AS IS)
    4 SW - (AS IS)
    5 SW - (AS IS)
33-10 COOS PLT

PANEL O16

ROW E
MN C
RCS/OMS PRPLT QTY GAUGE CB - OPEN

33-11 COOS MS1

PANEL R14

ROW C
MN C
MANF ISOL
L5 ENABLE CB - OPEN
R5 ENABLE CB - OPEN
F5 ENABLE CB - OPEN

NOTE
MDM discrete output to be statused and reset prior to performing next step.

33-12 COOS MS1

IF TANK LOAD (0024) COMPLETE OR IF VALVE CYCLING REQUIRED,

THEN PERFORM
PANEL MA73C

ROW H
AC 1
FWD RCS VLV
PH A CB - CLOSE MA73CC029
PH B CB - CLOSE MA73CC030
PH C CB - CLOSE MA73CC031
AC 2
FWD RCS VLV
PH A CB - CLOSE MA73CC032
PH B CB - CLOSE MA73CC033
PH C CB - CLOSE MA73CC034
PANEL MA73C (Continued)

AC 3
FWD RCS VLV
PH A CB - CLOSE MA73CC035
PH B CB - CLOSE MA73CC036
PH C CB - CLOSE MA73CC037

ROW I
AC 1
AFT POD VLV GP 1
PH A CB - CLOSE MA73CC038
PH B CB - CLOSE MA73CC039
PH C CB - CLOSE MA73CC040

AC 2
AFT POD VLV GP 2
PH A CB - CLOSE MA73CC041
PH B CB - CLOSE MA73CC042
PH C CB - CLOSE MA73CC043

AC 3
AFT POD VLV GP 3
PH A CB - CLOSE MA73CC044
PH B CB - CLOSE MA73CC045
PH C CB - CLOSE MA73CC046

Not Performed:_____

33-13 COOS OTC 132

OMS/RCS System Secure complete.

*** End of Operation 33 ***
OPERATION 34  SSME System Preps for TCDT

Shop: CME
Cntrl Rm Console: C11
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.8
EIU Power Up (T-14H30M)

34-1 OTC CCME CMQC

**Perform** EIU power up per SSME system preps for TCDT (Operation 34) on OIS CH 146.

34-2 CCME CDR

**IF** not powered up,

**THEN Perform** EIU power up following program prompts of VAE73A. 
**Retrieve** SPA print and hold for SSME power up.

**Not Performed:**

34-3 CCME OTC

EIU power up complete. Ready to support COMM activation.

EIU Power Down (T-12H30M)

34-4 OTC CCME

**Perform** EIU power down following program prompts of VAE73A. 
**Retrieve** SPA print and hold for SSME power up.

34-5 CCME OTC

EIU power down complete.
SSME Power Up (T-04H45M)

NOTE
Perform the next six steps if SSME controllers will be powered up to support TCDT.

SSME Power Up (T-04H45M) Not Performed:

34-6 OTC CCME

Perform SSME power up per SSME system preps for TCDT (Operation 34) on OIS CH 146.

34-7 CCME

Call up Goal Program VWE01A.

34-8 CCME

IF not powered up,

THEN perform SSME normal power on per OMI V9058.002

RT OMI Log No.__________

Not Performed:______
34-9  CCME

IF reload required,

THEN perform "SSME Memory Load Operations" per OMI V9058.003.

RT OMI Log No.________

Not Performed:______

34-10  CSME

CONSOLE C3
COMMAND PROCESSOR
VKE26A, ,INHIB
PERF PGM KEY - PRESS

34-11  CCME   OTC

SSME Power Up complete.

*** End of SSME Power Up (T-04H45M) ***
SSME Preps and Purge Activation (T-03H)

34-12  OTC  CSME

Perform SSME Preps and Purge Activation per "SSME System Preps for Dry CDDT" (Operation 34) on CH 146 (15 min).

SSME Controllers are Powered up

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform the following five steps if SSME controllers are powered up to support TCDT.</td>
</tr>
</tbody>
</table>

SSME Controllers are Powered up Not Performed: ______

34-13  CSME

Verify SSME pneumatics is ambient.

34-14  CCME

Verify phase and mode checkout in standby.

34-15  CCME

IF FRT2 not active,

THEN FRT2-A (VAE90A)

Not Performed: ______
34-16

CSME

CURSOR CNTL (VAE32A)

AFRT A - ISSUE (AFRT)
PSN1 A - ISSUE (S/P - PSN1)
PSN2 A - ISSUE (S/P - PSN2)
PSN3 A - ISSUE (S/P - PSN3)
  DELAY 10 SECONDS, THEN
PSN4 A - ISSUE (S/P - PSN4 THEN RDY)

DELAY 10 SECONDS, THEN

STEN A - ISSUE (S/P - RDY)
STRT A - ISSUE (M/S - NORM)

DELAY 1 MINUTE, THEN

SDEN A - ISSUE (M/S - NORM)
SHTD A - ISSUE (PS/D - STBY)

DELAY 20 SECONDS, THEN

DFRT A - ISSUE (PS/D - STBY)

34-17

CCME

CURSOR CNTL (VAE90A)
CTRS A - ISSUE (C/O - STBY)

*** End of SSME Controllers are Powered up ***

34-18

CSME

CURSOR CNTL (VAE38A)
MFV HTR DISPLAY
XMIT CURSOR KEY - PRESS

CRT
VERIFY ALL HTR CMDS/PWR INDS OFF
IF HTR CMD/PWR Ind's not off,

**THEN Perform:**
Cmpt 7A -1D700/1D800 PWR supplies (6811/6812)

1. 1D710 DC module CB1 - Open
2. 1D720 DC module CB1 - Open
3. 1D730 DC module CB1 - Open
4. 1D810 DC module CB1 - Open
5. 1D820 DC module CB1 - Open
6. 1D830 DC module CB1 - Open

Not Performed:_____

T:_____
34-20  

**CSME**

*IF* SSME CONTROLLERS ARE POWERED UP TO SUPPORT TCDT,

**THEN PERFORM:**
CURSOR CNTL (VAE32A)  
AFRT A - ISSUE (FRT)  
PSN1 A - ISSUE (S/P-PSN1)  
PSN2 A - ISSUE (S/P-PSN2)  
PSN3 A - ISSUE (S/P-PSN3)

*Not Performed: _____*

34-21  

**CSME**

*IF* SSME CONTROLLERS ARE POWERED UP TO SUPPORT TCDT,

**THEN PERFORM:**
CURSOR CNTL (VAE32A)  
TERM PGM - TERMINATED

*Not Performed: _____*

34-22  

**CSME**  **OTC**

SSME Preps and Purge Activation complete.

34-23

SSME System Preps for TCDT complete.

*** End of Operation 34 ***
OPERATION 36  GNC Securing
Shop: GNC
Cntrl Rm Console: C11
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.3
IMUS To Term Idle

36-1
CGNC
CURSOR CNTL (VABM1/VSB90 PG-B)
TERM
XMIT CURSOR KEY - PRESS

36-2
CGNC
CURSOR CNTL (VABM1/VWB19 PG-B)
TERM IDLE (ITEM 27)
XMIT CURSOR KEY - PRESS

36-3
CGNC
CURSOR CNTL (VABM1/VWB19 PG-B)
START
XMIT CURSOR KEY - PRESS

36-4
CGNC
CRT (VSB35 PG-B)
DEPRESS PFK2 TO ISSUE
SPEC 104 TO CRT 2

36-5
CGNC
APPL PAGE (VSB35 PG-B)
PFK2 KEY - PRESS (CRT 2)

36-6
CGNC
CRT (VSB35 PG-A OR VWB19 PG-B)
VERIFY IMUS IN TERM IDLE
IF THE IMU HANGAR CAL A IS SCHEDULED TO FOLLOW S0017,

THEN PERFORM:
CURSOR CNTL (VABM1/VWB19 PG-B)
HANGAR CAL A (ITEM 20)
XMIT CURSOR KEY - PRESS
START
XMIT CURSOR KEY - PRESS

IMU Standby Operations

NOTE
If no further IMU test operations are to follow S0017 then perform IMU Standby Operations.

IMU Standby Operations Not Performed:_______

36-8

CGNC

APPL PG A (SAB20/SWB02)
PFK 13 KEY - PRESS (ACT EMON SETUP)

36-9

CGNC

CURSOR CNTL (SAB20/SWBO2 PG A)
I-IMU OPERATE
XMIT CURSOR KEY -PRESS

36-10

CGNC

APPL PG A (SAB20/SWB02)
PFK 13 KEY - PRESS (DEACT EMON SETUP)
IMU'S To Standby

36-11
CGNC

PLACE IMU'S TO STANDBY
REPORT COMPLETION.

36-12
CGNC

CURSOR CNTL (VABM1/VWB19 - PG-B)
STBY
XMIT CURSOR KEY - PRESS

36-13
CGNC

CURSOR CNTL (VABM1/VWB19 - PG-B)
SELECTION - START
XMIT CURSOR KEY - PRESS

36-14
CGNC

CRT (VABM1, VSB34 OR VWB19 PG-B)
VERIFY IMU'S ARE IN STANDBY

36-15
CGNC

CONSOLE KYBD
ISSU N72IV101D 0
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

36-16
CGNC

CONSOLE KYBD
C CO _DEU2G LDBA C12
XMIT CMD KEY - PRESS
DEU 2 has been returned to C12.

*** End of IMU Standby Operations ***

SRB TVC LCC Monitor De-Activation

CURSOR CNTL (SAB20/SWB02)
I-SRB TVC
XMIT CURSOR KEY - PRESS
SRB TVC PWR Down

NOTE
SRB TVC power down need not be complete prior to SRB power down.
(MEC 1 and 2 power up required only).

36-22
TBC    OTC    132
CEPD

Transfer MEC RSYS to C11 to support SRB TVC power down.

36-23
CEPD

CONSOLE KYDB
C CO MEC1 C11
XMIT CMD KEY - PRESS
C CO MEC2 C11
XMIT CMD KEY - PRESS

36-24
CEPD    OTC    132
OTC    TBC
TBC    CAFC    136

MEC RSYS transferred to C11.

36-25
CAFC
CURSOR CNTL (SAB19/SWB01)
ATVC - OPS MAN
XMIT CURSOR KEY - PRESS

36-26
CAFC
CURSOR CNTL (SAB22/VWB35)
SRB TVC PWR DOWN
XMIT CURSOR KEY - PRESS
36-27

CAFC

CURSOR CNTL (SAB22/VWB35)
START TEST
XMIT CURSOR KEY - PRESS

36-28

CAFC

CRT (SAB22/VSB31)
VERIFY
INITIAL GNC SYSTEMS STATUS

36-29

CAFC

APPL PG (SAB22/VSB31)
PFK1 KEY - PRESS (CONTINUE)

36-30

CAFC

CRT (SAB22/VTB01)
VERIFY
FINAL GNC SYSTEM STATUS
DISPLAYED

36-31

CAFC

APPL PG (SAB22/VTB01)
PFK1 KEY - PRESS (PERFORM POST POWER-UP TEST)

36-32

CAFC

CRT (SAB22/VWB35)
VERIFY
SRB TVC POWER DOWN COMPLETE WITHOUT ANOMALY
36-33   CAFC

APPL PG (SAB22/VWB35)
PFK15 KEY - PRESS (TERM SAB22)

36-34   CAFC

CONSOLE KYBD
C CO MEC1 C10
XMIT CMD KEY - PRESS

C CO MEC2 C10
XMIT CMD KEY - PRESS

36-35   CAFC   TBC   136
TBC   OTC   132
OTC   CEPD

MEC RSYS has been reassigned to C10.

36-36   CAFC   TBC   136

SRB TVC power down complete.
GN & C EMON Deactivation

36-37
COFC
APPL PG-A (SAB20/SWB02)
PFK 13 KEY - PRESS (ACT EMON SETUP)

36-38
COFC
CURSOR CNTL (SAB20/SWB02 PG-A)
(ON ITEMS BELOW)
XMIT CURSOR KEY - PRESS

1. I - OMS TVC
2. I - RJD DRIVER
3. I - CIRC PUMPS
4. I - NON PREREQUISITE

36-39
COFC
IF IMU'S ARE TO BE DEACTIVATED (NO CALIBRATION OR
NO TESTING IMMEDIATELY FOLLOWING S0017),

THEN
CURSOR CNTL (SAB20/SWB02 PG-A)
(ON ITEMS BELOW)
XMIT CURSOR KEY - PRESS

1. I - IMU POWER UP
2. I - IMU OPERATE

Not Performed:_____

36-40
COFC
APPL PG-A (SAB20/SWB02)
PFK13 KEY - PRESS (DE-ACT EMON SETUP)
SRB RGA LCC Monitor Deactivation

36-41
CAFC

APPL PG-A (SAB20/SWB02)
PFK13 KEY - PRESS (ACT EMON SETUP)

36-42
CAFC

CURSOR CNTL (SAB20/SWB02)

I - SRB RGA
XMIT CURSOR KEY - PRESS

36-43
CAFC

APPL PG-A (SAB20/SWB02)
PFK13 - PRESS (DEACT EMON SETUP)
SRB RGA Power Down

36-44

CAFC

CURSOR CNTL (SAB19/SWB01)
SRB RGA - OPS MAN
XMIT CURSOR KEY - PRESS

36-45

CAFC

CURSOR CNTL (BAF05/BWF01)
SRGA PWR DOWN - ALL SRGA'S
XMIT CURSOR KEY - PRESS

36-46

CAFC

CURSOR CNTL (BAF05/BWF01)
START TEST
XMIT CURSOR KEY - PRESS

36-47

CAFC

CRT (BAF05/BWF01)
VERIFY
ALL SRB RGA'S POWERED DOWN WITHOUT
ERROR

36-48

CAFC

APPL PAGE (BAF05/BWF01)
PFK15 KEY - PRESS (TERM BAF05)

36-49

CAFC TBC 136

SRB RGA power down is complete.
36-50  

COFC

CURSOR CONTROL (SAB20/SW02 - PAGE-B)  
TERMINATE  
XMIT CURSOR KEY - PRESS  
EXEC CMD KEY PRESS

System Monitor Reactivation

NOTE
Perform the following four steps to support GNC system power down. PGM VSB31 will not recognize LRU power down when VSB79 is not active (GOAL FEP interrupts deactivated).

NOTE
The following steps will manually activate SAB20/VSB79.

36-51  

COFC

CONSOLE KYBD  
SAB20  
PERF PGM KEY - PRESS

36-52  

COFC

APPL PG (SAB20 PG-A)  
RESUME PGM KEY - PRESS  
(RESUME FROM STOP)

36-53  

COFC

APPL PG (SAB20 PG-A)  
1 (LOGICAL CONC NO. 1 INPUT)  
XMIT RESP KEY - PRESS

36-54  

COFC

CRT (SAB20/VSB79 PG-B)  
VERIFY VSB79 ACTIVE  
(APPROX 30 SEC)
GN&C System Power Down

**NOTE**
Following step performs systematic panel by panel switch configure and power down of the following GN&C systems AA, ADTA, ASA, ATVC, brakes, controllers, IMU, NWS, RJD logic, RGA, SRB TVC, star tracker and switches.

Do not power down IMUS if IMUS are required for further operations.

36-55

COFC
CGNC

Perform GN&C system power down per OMI V1123.140 .
Report completion. (CDR - 30 min)

RT OMI Log No. __________

Not Performed:_____

36-56

COFC
OTC
CGNC

132

GNC securing complete.

*** End of Operation 36 ***
OPERATION 37  ECLSS System

Shop: ECL
Cntrl Rm Console: C6
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 2.0
ECLSS Reconfiguration To Support Ingress Switch list

**NOTE**
Steps involving Crit 1, 1R and/or 1S items are contained in the following Operation.

37-1  OTC  CECL
      CDR
      OMTO
      PMTG
      OQCV

**Perform** ECLSS reconfiguration to support ingress switch list.

37-2  CECL  CDR

**PANEL L1**
H2O PUMP
  LOOP 1
    GPC/OFF/ON SW - OFF
    A/B SW - B

37-3  CECL  CDR

**PANEL L1**
TOPPING EVAPORATOR HEATER
  NOZZLE L SW - OFF   L1A02S037
  NOZZLE R SW - OFF   L1A02S038
  DUCT SW - OFF       L1A02S039
  HI LOAD DUCT HTR SW - OFF L1A02S041
37-4

CECL

CRT (VAG28 PG-B)
LH NOZ HTR
A-SON OFF
RH NOZ HTR
A-SON OFF

TOPPING DUCT HTR
A SON OFF

HI LD DUCT HTR
A SON OFF

37-5

CECL   CDR

PANEL L2
FLASH EVAP

FEEDLINE HTR
A SUPPLY SW - 2
B SUPPLY SW - 2

37-6

CECL

CRT (VAG28 PG-B)
FDLN HTR A SPLY
HA-2 SON ON
FDLN HTR B SPLY
HB-2 SON ON

37-7

CECL   CDR

PANEL L1
FLASH EVAP CONTROLLER
SEC
A SPLY/B SPLY SW - A SPLY
HI LOAD EVAP SW - ENABLE

275
37-8

**CECL**

CRT (VAG28 PG-B)
FES CONTROLLER CMDS
HI-LD ENABLE SON ON

V63S1620E1

37-9

**CECL CDR**

**PANEL L1**
SMOKE DETECTION
CIRCUIT TEST SW - OFF (CENTER)

37-10

**CECL CDR**

**PANEL O14**

**ROW D**

MN A
ATM PRESS CONTROL
N2 SUPPLY 1 CB - CLOSE 014A14C018
O2/N2 CNTLR 1 CB - CLOSE 014A14C019
O2 XOVR 1 CB - CLOSE 014A14C020
N2 REG INLET 1 CB - CLOSE 014A14C021

37-11

**CECL PLT**

**PANEL O15**

**ROW D**

MN B
ATM PRESS CONTROL
N2 SUPPLY 2 CB - CLOSE 015A15C017
O2/N2 CNTLR 2 CB - CLOSE 015A15C018
O2 XOVR 2 CB - CLOSE 015A15C019
N2 REG INLET 2 CB - CLOSE 015A15C020
37-12  
**CECL**  
**PLT**

**PANEL O16**

**ROW D**

**MN C**

ATM PRESS CONTR

O2 EMER CB - CLOSE

O16A16C016

37-13  
**CECL**  
**CDR**

**PANEL L2**

ATM PRESS CONTROL

O2 EMER SW - CLOSED, HOLD

L2A01S012

O2 EMER TB CL

L2A01DS008

O2 EMER SW - REL

37-14  
**CECL**

CRT (VAG10 PG-B)

VLV 5

PCL

V61X2163E1

37-15  
**CECL**  
**CDR**

**PANEL L2**

ATM PRESS CONTROL

O2 XOVER

SYS 1 SW - CLOSE

L2A01S015

SYS 2 SW - CLOSE

L2A01S015

37-16  
**CECL**

CRT (VAG10 PG-B)

VLV 7 SOPF

VLV 9 SOPF
N2 System 2 Supply Valve Configure

NOTE
Perform N₂ System 2 Supply Valve Configure for OV-103 only.

N2 System 2 Supply Valve Configure Not Performed:_____

37-17 CECL CDR

PANEL L2
ATM PRESS CNTL
  N₂ SYS 1
    SUPPLY SWITCH - CL UNTIL TB CL
    REG INLET SW - CL UNTIL TB CL
  N₂ SYS 2
    SUPPLY SWITCH - CL UNTIL TB CL
    REG INLET SW - OP UNTIL TB OP

37-18 CECL CDR

PANEL MO10W
H₂O TK N₂ REG INET
  SYS 2 VLV - OPEN
H₂O TK N₂ ISOL
  SYS 2 VLV - OPEN

37-19 CECL CDR

PANEL L1
H₂O ALTERNATE PRESS SW - OPEN
37-20  CECL

CRT (VAG10, PGB)

RECORD:

P8:__________PSIA  LESS THAN 150

37-21  CECL  CDR

PANEL L1

H₂O ALTERNATE PRESS SW - CLOSE

37-22  CECL  CDR

PANEL L2
ATM PRESS CNTL
N₂ SYS 2
SUPPLY SWITCH - OP UNTIL TB OP

37-23  CECL

CRT (VAG10, PG-B)

VERIFY

VLV 6 - POP

***End of N₂ System 2 Supply Valve Configure ***
37-24  CECL     CDR

**PANEL L2**
ATM PRESS CONTROL
N₂ SYS 1
  SUPPLY SW - OPEN, HOLD  L2A01S013
  SUPPLY TB OP  L2A01DS006
  SUPPLY SW - REL

37-25  CECL

CRT (VAG10 PG-B)
VLV 2
POP  V61X2416E1

37-26  CECL     CDR

**PANEL L2**
ATM PRESS CONTROL
N₂ SYS 1
  REG INLET SW - OPEN, HOLD  L2A01S014
  REG INLET TB OP  L2A01DS007
  REG INLET SW - REL

37-27  CECL

CRT (VAG10 PG-B)
VLV 4
POP  V61X2415E1
37-28

CECL      CDR

IF OV-104 or OV-105,

THEN

PANEL L2
ATM PRESS CONTROL
N2 SYS 2
SUPPLY SW - OPEN, HOLD L2A01S021
SUPPLY TB OP L2A01DS010
SUPPLY SW - REL

Not Performed: _______

37-29

CECL

CRT (VAG10 PG-B)
VLV 6
POP V61X2421E1

37-30

CECL      CDR

PANEL L2
ATM PRESS CONTROL
N2 SYS 2
REG INLET SW - OPEN, HOLD L2A01S022
REG INLET TB OP L2A01DS011
REG INLET SW - REL

37-31

CECL

CRT (VAG10 PG-B)
VLV 8
POP V61X2420E1
37-32  CECL       CDR

PANEL L2
ATM PRESS CONTROL
  O2/N2 CNTLR VLV
    SYS 1 SW - OPEN       L2A01S016
    SYS 2 SW - CLOSE      L2A01S019
    PPO2 SNSR/VLV SW - NORM  L2A01S017

37-33  CECL

CRT (VAG10 PG-B)
SYS 1 VLV
  SOP - ON                  V61S2370E1
  SAUTO - OFF               V61S2371E1
  VLV 10 - POP
SYS 2 VLV
  SOP - OFF                  V61X2375E1
  SAUTO - OFF               V61X2376E1
  VLV 12 - PCL
SNSR/VLV
  SNRM - ON                  V61S2350E1

37-34  CECL       MS1

PANEL C7
LEH O2 SUPPLY
  1 VLV - OPEN
  2 VLV - OPEN

37-35  CECL       CDR

PANEL C6
LEH O2 1 VLV - CLOSE
LEH O2 2 VLV - CLOSE
LEH O2 3 VLV - CLOSE
LEH O2 4 VLV - CLOSE
37-36  CECL  PLT

PANEL C5
DIRECT O2 VLV - CLOSE

37-37  CECL  MS1

PANEL MO32M
LEH O2 5 VLV - CLOSE
LEH O2 6 VLV - CLOSE

37-38  CECL  MS2

PANEL MO69M
LEH O2 7 VLV - CLOSE
LEH O2 8 VLV - CLOSE

37-39  CECL  MS2

PANEL MO10W
14.7 PSI CABIN REG INLET
SYS 1 VLV - CLOSE
SYS 2 VLV - CLOSE
SYS 1 PPO2 CONTR SW - NORM
SYS 2 PPO2 CONTR SW - NORM
O2 REG INLET
SYS 1 VLV - CLOSE
SYS 2 VLV - CLOSE
H2O TK N2 REG INLET
SYS 1 VLV - OPEN
SYS 2 VLV - OPEN
O2 EMER VLV - CLOSE
N2 XOVER VLV - CLOSE
H2O TK N2 ISOL
SYS 1 VLV - OPEN
SYS 2 VLV - OPEN
PAYLOAD O2
SYS 1 VLV - CLOSE
SYS 2 VLV - CLOSE
PAYLOAD N2
SYS 1 VLV - CLOSE
SYS 2 VLV - CLOSE
37-40  CECL  CDR

PANEL L4
ROW L
  AC1
  CABIN T CNTLR 2
  PH A CB - CLOSE
  AC2
  CABIN T CNTLR 1
  PH A CB - CLOSE

ROW N
  AC2
  FREON FLOW PROP 1
  PH A CB - CLOSE  L4A04C042
  AC3
  FREON FLOW PROP 2
  PH A CB - CLOSE  L4A04C045

ROW P
  AC1
  RAD CNTLR 1B
  PH A CB - CLOSE  L4A04C128
  RAD CNTLR 2B
  PH B CB - CLOSE  L4A04C044
  AC2
  RAD CNTLR 1A
  PH B CB - CLOSE  L4A04C129
  AC3
  RAD CNTLR 2A
  PH B CB - CLOSE  L4A04C047

37-41  CECL  CDR

PNL L1
CABIN TEMP CNTLR SW - OFF
CAUTION
In next step, to prevent hardware damage do not move motor arm. Valve arm may be moved to allow connection to motor.

37-42  CECL     CDR

IF CABIN TEMP CONTROL LINKAGE IS NOT CONNECTED TO MOTOR 2,

THEN
PNL MD44F

1. REMOVE VALVE LINK SV755665-2 CABTVL FROM TEMP CONTROL MOTOR 1 BY RELEASING QUICK RELEASE PIN.

2. CONNECT VALVE LINK SV755665-2 CABTVL TO TEMP CONTROL MOTOR 2 UTILIZING QUICK RELEASE PIN.

Not Performed:______

37-43  CECL     CDR

PNL L1
CABIN TEMP CNTLR SW - 2

37-44  CECL

CRT (VAG30, PG-B)
CABIN AIR, CT CTR
SS1 OFF
SS2 ON

37-45  CECL     CDR

PNL L1
CABIN TEMP SW - WARM (FULL CW)
37-46
CECL

CRT (VAG30, PG-B)
CT CTR 2
CTS _____ PCT 95 MIN

NOTE
It may take several minutes for valve to move from the Full Cold position as verified in the next step.

It may take 9 minutes for the motor to move to Full Warm position as verified by the CDR.

37-47
CECL

CRT (VAG30, PG-B)
CT CTR 2

VERIFY HXF OFF

37-48
CECL CDR

PNL MD44F

VERIFY MOTOR 2 IN FULL WARM POSITION

37-49
CECL CDR

PNL L1
CABIN TEMP CNTLR SW - OFF

37-50
CECL

CRT (VAG30, PG-B)
CABIN AIR, CT CTR
SS1 OFF
SS2 OFF
CAUTION

In next step, to prevent hardware damage do not move motor arm. Valve arm may be moved to allow connection to motor.

37-51  CECL  CDR

PNL MD44F

1. REMOVE VALVE LINK SV755665-2 CABTVL FROM TEMP CONTROL MOTOR 2 BY RELEASING QUICK RELEASE PIN.

2. CONNECT VALVE LINK SV755665-2 CABTVL TO TEMP CONTROL MOTOR 1 UTILIZING QUICK RELEASE PIN.

37-52  CECL  CDR

PNL L1
CABIN TEMP CNTLR SW - 1

37-53  CECL

CRT (VAG30, PG-B)
CABIN AIR, CT CTR
SS1 ON
SS2 OFF

37-54  CECL  CDR

PNL L1
CABIN TEMP SW - COOL (FULL CCW)

37-55  CECL

CRT (VAG30, PG-B)
CABIN AIR, CT CTR 1
CTS _______ PCT 5 MAX
NOTE
It may take up to 9 minutes for the motor to move to the Full Cool position.

37-56  CECL

CRT (VAG30, PG-B)
CT CTR 1

VERIFY HXF ON

37-57  CECL     CDR

PNL MD44F

VERIFY MOTOR 1 IN FULL COOL POSITION

37-58  CECL     CDR

PANEL L1
CABIN TEMP CNTLR SW - OFF  L1A2S11

37-59  CECL     CDR

PANEL O1
AIR TEMP
  SELECT SW - CAB HX OUT
H2O PUMP OUT PRESS
  LOOP SW - LOOP 2

FREON SW - LOOP 1

O2/N2 FLOW
  SELECT SW - SYS 1 O2
PPO2
  SENSOR SW - SENSOR A
37-60  CECL  CDR

PANEL L2
FREON ISOLATION
   MODE SW - OFF (CENTER)

37-61  CECL  CDR

PANEL L4

ROW N
   AC2
       RAD ISOL A
           PH C CB - CLOSE
   AC3
       RAD ISOL B
           PH C CB - CLOSE

37-62  CECL  CDR

PANEL O14

ROW C
   RAD ISOL CONTR CB - CLOSE
37-63

CECL  CDR

PANEL 014

ROW B
  MN A
  OPERATIONAL INST
     H2O BYP LOOP 1 SNSR CB - CLOSE  014A14C035

ROW C
  MN A
  SMOKE DETN
     L/R FLT DK CB - CLOSE  014A14C007
     BAY 2A/3B CB - CLOSE  014A14C008
     FIRE SUPPR BAY 3 CB - CLOSE  014A14C009

ROW D
  MN A
  FREON
     RAD CNTLR
        1 CB - CLOSE  014A14C014
        2 CB - CLOSE  014A14C015
     ATM PRESS CONTROL
        CABIN VENT CB - CLOSE  014A14C022
        CABIN VENT ISOL CB - CLOSE  014A14C03
37-64  CECL  PLT

PANEL 015
ROW B
   MN B
    OPERATIONAL INST
    H2O BYP LOOP 2 SNSR CB - CLOSE 015A15C035

ROW C
   MN B
    SMOKE DETN BAY 1B/3A CB - CLOSE 015A15C007
    FIRE SUPPR BAY 1 CB - CLOSE 015A15CC08

ROW D
   MN B
    FREON
    RAD CNTLR
    1 CB - CLOSE 015A150014
    2 CB - CLOSE 015A150015

NOTE
During following step, master alarm and klaxon may occur due to cabin DP/DT. Reset master alarm.

37-65  CECL  PLT

PANEL 015

ROW D
   ATM PRESS CONTROL
   CABIN DP/DT CB - CLOSE 015A15C016
   CABIN RELIEF A CB - CLOSE 015A15C022
37-66  CECL  PLT

PANEL O16

ROW C
  MN C
  SMOKE DETN
  CABIN CB - CLOSE 016A16C006
  BAY 1A/2B CB - CLOSE 016A16C007
  FIRE SUPPR BAY 2 CB - CLOSE 016A16C008

ROW D
  MN C
  H2O ALT PRESS CB - CLOSE 016A16C015
  ATM PRESS CONTR
  O2 EMER CB - OPEN 016A16CB16
  CABIN RELIEF B CB - CLOSE 016A16C01

37-67  CECL  PLT

PANEL O17

ROW C
  SIGNAL CONDITIONER
  FREON
  A SW - AC2 017A17S010
  B SW - AC3 017A17S011
FCL 1 and 2 Flow Control Valves To Full Cold Position

37-68   CECL      CDR

PANEL L1
RAD BYPASS VALVE
   MODE
     1 SW - AUTO       L1A2S35
     2 SW - AUTO       L1A2S36

37-69   CECL

CRT (VAG04 PG-B)
FREON LOOP 1
   BYP MODE
     S AUTO - ON      V63S1220E1
     S MAN - OFF      V63S1221E1
FREON LOOP 2
   BYP MODE
     S AUTO - ON      V63S1420E1
     S MAN - OFF      V63S1421E1

37-70   CECL      CDR

IF VALVE POSITION INDICATORS ARE NOT AS SHOWN,

THEN
PANEL L1
FLOW PROP VLV LOOP 1 SW - INTCHGR, HOLD
   (15 SEC MAX) UNTIL FLOW PROP VLV LOOP 1 TB ICH
FLOW PROP VLV LOOP 1 SW - REL
FLOW PROP VLV LOOP 2 SW - INTCHGR, HOLD
   (15 SEC MAX) UNTIL FLOW PROP VLV LOOP 2 TB ICH
FLOW PROP VLV LOOP 2 SW - REL

Not Performed:______

293
37-71 CECL CDR

PANEL L1
RAD CONTROLLER
  LOOP 1 SW - AUTO A L1A2S26
  LOOP 2 SW - AUTO A L1A2S27

37-72 CECL

CRT (VAG04 PG-B)
FREON LOOP 1
RAD CNTLR AUTO
SA - ON V63S1211E1
SB - OFF V63S1212E1
FREON LOOP 2
RAD CNTLR AUTO
SA - ON V63S1411E1
SB - OFF V63S1412E1

37-73 CECL

DELAY 90 SECONDS MINIMUM PRIOR TO PROCEEDING.

37-74 CECL CDR

PANEL L1
RAD BYPASS VALVE
MAN SEL
  1 TB RAD L1A2DS003
  2 TB RAD L1A2DS004
37-75  

**CECL**

CRT (VAG04 PG-B)  
FREON LOOP 1  
BYP VLV  
PRAD - ON  
PBYP - OFF  
FREON LOOP 2  
BYP VLV  
PRAD - ON  
PBYP - OFF

**NOTE**

Allow flow through radiators for 5 minutes minimum.

37-76  

**CECL**

CRT (VAG04 PG-B)  
FREON LOOP 1  
RAD OUT TEMP (T7) _____ DEG F  
40 MINIMUM

FREON LOOP 2  
RAD OUT TEMP (T6) _____ DEG F  
40 MINIMUM

37-77  

**CECL**

CRT (VAG59 PG-B)  
FREON LOOP 1  
INTERCHANGER FLOW_____ 1950 LB/HR MIN

FREON LOOP 2  
INTERCHANGER FLOW_____ 1950 LB/HR MIN
37-78  
CECL   CDR

PANEL L1
RAD BYPASS VALVE
  MODE
    1 SW - MAN  L1A2S35
    2 SW - MAN  L1A2S36

37-79  
CECL

CRT (VAG04 PG-B)
FREON LOOP 1
  BYP MODE
    S AUTO - OFF  V63S1220E1
    S MAN - ON   V63S1221E1
FREON LOOP 2
  BYP MODE
    S AUTO - OFF  V63S1420E1
    S MAN - ON   V63S1421E1

37-80  
CECL   CDR

PANEL L1
RAD BYPASS VALVE
  MAN SEL
    1 SW - BYPASS, HOLD (3 SEC MAX)  L1A2S29
    1 TB BYP                  L1A2DS003
    1 SW - REL
    2 SW - BYPASS UNTIL (3 SEC MAX)  L1A2S30
    2 TB BYP                  L1A2DS004
    2 SW - REL

37-81  
CECL

CRT (VAG04 PG-B)
FREON LOOP 1
  BYP VL
    PRAD - OFF  V63X1222E1
    PBYP - ON   V63X1223E1
FREON LOOP 2
  BYP VL
    PRAD - OFF  V63X1422E1
    PBYP - ON   V63X1423E1
37-82  CECL  CDR

**PANEL L1**
RAD CONTROLLER
- LOOP 1 SW - OFF  L1A2S26
- LOOP 2 SW - OFF  L1A2S27
- OUT TEMP SW - NORM  L1A2S25

37-83  CECL

CRT (VAG04 PG-B)
- FREON LOOP 1
  - RAD CNTLR AUTO
  - SA - OFF  V63S1211E1
  - SB - OFF  V63S1212E1
- FREON LOOP 2
  - RAD CNTLR AUTO
  - SA - OFF  V63S1411E1
  - SB - OFF  V63S1412E1

Payload Cooling Launch Configuration

**NOTE**
Performance of the next two steps is dependant on required Payload Cooling Launch configuration and will be determined by engineering direction.

37-84  CECL  CDR

**PANEL L1**
- FLOW PROP VLV LOOP 1 SW - PAYLOADHX, HOLD (15 SEC MAX)  L1A2S021
  - FLOW PROP VLV LOOP 1 TB PL  L1A2DS001
- FLOW PROP VLV LOOP 1 SW - REL

**Not Performed:**_____
37-85  CECL    CDR

PANEL L1
FLOW PROP VLV LOOP 2 SW - PAYLOAD HX, HOLD
     (15 SEC MAX) L1A2S022
     FLOW PROP VLV LOOP 2 TB PL       L1A2S002
     FLOW PROP VLV LOOP 2 SW - REL

Not Performed:

37-86  CECL    CDR

PANEL L4
ROW J
AC3
     SIG CONDR
     HUM SEP
     PH A CB - OPEN
     IMU FAN
     PH B CB - OPEN

NOTE
Following step may take up to 45 seconds.

37-87  CECL

CRT (VAG59)
VERIFY
     IMU FAN B INVERT RED XXX
     HUM SEP B INVERT RED XXX

37-88  CECL    CDR

PANEL L1
H2O ALTERNATE PRESS SW - CLOSE       L1A2S028

298
37-89  CECL

CRT (VAG10 PG-B)
VLV 14
SOPF V61S2308E1

37-90  CECL  CDR

PANEL L2

CABIN RELIEF
   A SW - ENABLE, HOLD L2A01S001
   A TB ENA L2A01DS001
   A SW - REL

37-91  CECL

CRT (VAG10 PG-B)
CAB + RV
A PEN ON V61X2131E1
A PCL OFF V61X213031

37-92  CECL  CDR

PANEL L2

CABIN RELIEF
   B SW - ENABLE, HOLD L2A01S002
   B TB ENA L2A01DS002
   B SW - REL

37-93  CECL

CRT (VAG10 PG-B)
CAB + RV
B PEN ON V61X2136E1
B PCL OFF V61X2135E1
37-94  
**CECL  CDR**

**PANEL L2**

**CABIN VENT**
VENT ISOL SW - CLOSE, HOLD  L2A01S003  
VENT ISOL TB CL  L2A01DS003  
VENT ISOL SW - REL

37-95  
**CECL**

**CRT (VAG10 PG-B)**
**CAB ISOL**
POD - OFF  V61X2025E1  
PCL - ON  V61X2005E1

37-96  
**CECL  CDR**

**PANEL L2**

**CABIN VENT**
VENT SW - CLOSE, HOLD  L2A01S004  
VENT TB CL  L2A01DS004  
VENT SW - REL

37-97  
**CECL**

**CRT (VAG10 PG-B)**
**CAB VENT**
POD - OFF  V61X2065E1  
PCL - ON  V61X2045E1
37-98  CECL  MS1

PANEL ML86B

ROW B
  MN A
    VAC VENT ISOL VLV CB - CLOSE
  MNB
    VACUUM VENT
      NOZ HTR CB - CLOSE
      ISOL VLV CB - CLOSE

ROW D
  MN A
    MAN MANUV UNIT
      GN2 SPLY ISO VLV A CB - CLOSE
  MN B
    MAN MANUV UNIT
      GN2 SPLY ISO VLV B CB - CLOSE

37-99  CECL  MS1

PANEL ML31C

VACUUM VENT
  ISOL VLV
    BUS SELECT SW - MN A
    CONTROL SW - CLOSE, HOLD
      (15 SEC MAX)
    CONTROL TB CL
    CONTROL SW - REL

37-100  CECL

CRT (VAG32 PG-B)
  VAC VT ISO VLV MODE MN A - ON  V62S0205E1
  VAC VT ISO VLV MODE MN B - OFF  V62S0206E1
  VAC VENT ISOL VLV OPEN - OFF  V62X0207E1
  VAC VENT ISOL VLV CLOSE - ON  V62X0208E1
37-101  CECL  MS1

PANEL ML26C

SUPPLY H2O GN2
  TK A SPLY VLV - OPEN (UP)
  TK VENT VLV - PRESS (UP)

37-102  CECL  MS1

PANEL ML86B

ROW B
  MN A
    VAC VENT ISOL VLV CB - OPEN
  MN B
    VACUUM VENT
      NOZ HTR CB - OPEN
      ISOL VLV CB - OPEN

ROW D
  MN A
    MAN MANUV UNIT
      GN2 SPLY ISO VLV A CB - CLOSE
  MN B
    MAN MANUV UNIT
      GN2 SPLY ISO VLV B CB - CLOSE

ROW E
  MN A
    CO2 SYS 1 CNTLR CB - OPEN (OV-105)
  MN B
    CO2 COMM INSTR CB - OPEN (OV-105)
  MN C
    CO2 SYS 2 CNTLR CB - OPEN (OV-105)
37-103  CECL  MS1

PANEL ML86B

ROW D
MN A
MAN MANEUVR UNIT
PORT HTR A CB - OPEN
STBD HTR A CB - OPEN

MN B
MAN MANEUVR UNIT
PORT HTR B CB - OPEN
STBD HTR B CB - OPEN

37-104  CECL  MS1

PANEL R13L

MANNED MANEUVR UNIT
GN2 SPLY ISOL VLV
A SW - CLOSE, UNTIL
A TB CL
B SW - CLOSE, UNTIL
B TB CL

37-105  CECL  MS1

PANEL ML86B

ROW D
MN A
MAN MANEUVR UNIT
GN2 SPLY ISO VLV A CB - OPEN

MN B
MAN MANEUVR UNIT
GN2 SPLY ISO VLV B CB - OPEN
External Airlock Heater Configuration

37-106  CECL    MS1

PANEL ML86B

ROW C
MN A
EXTERNAL AIRLOCK HTR LINE
STRUC Z 1/2/3 CB - OPEN
VEST Z 1/2/3 CB - OPEN

MN B
EXTERNAL AIRLOCK HTR LINE
STRUC Z 1/2/3 CB - OPEN
VEST Z 1/2/3 CB - OPEN

37-107  CECL    MS1

PANEL MO13Q

AIRLOCK FAN A SW - OFF
AIRLOCK FAN B SW - OFF
37-108 CECL MS1

IF ACCESS IS AVAILABLE,

THEN PERFORM:
MIDDECK FLOOR FWD OF AIRLOCK
EMU O2 ISOL VLV - CLOSE
CABIN PURGE VLV - CLOSE
CABIN PURGE ISOL VLV - CLOSE

Not Performed:______

37-109 CECL MS1

IF FOR OV-104/OV-105,

THEN PERFORM:
PANEL MO51F, CO2 REMOVAL SYSTEM
CONTROLLER 1
  MN A SW - OFF
  AC1 SW - CENTER
  MODE SW - CENTER
  COMMON INSTR SW - OFF

AC1
  PH A CB - OPEN
  PH B CB - OPEN
  PH C CB - OPEN

CONTROLLER 2
  MN C SW - OFF
  AC 3 SW - CENTER
  MODE SW - CENTER

AC3
  PH A CB - OPEN
  PH B CB - OPEN
  PH C CB - OPEN

Not Performed:______
NOTE
Next four steps initialize program VAG29 per LCC requirements.

37-110  CECL
HOME CMD KEY - PRESS
CONSOLE KYBD
VAG29
PERF PGM KEY - PRESS
(SELECT APP PG-B)

NOTE
Next step will enter maximum LCC values for water tank a minus 10 percent and tank B which is required for fuel cell water production management.

37-111  CECL
PFP (VAG29)
F/C H2O PGM ON - PRESS

37-112  CECL
CRT (VAG29 PG-B)
FOLLOW PGM INSTRUCTIONS
(TKA) QMAX = 83.7
(TKB) QMAX = 100

37-113  CECL  OTC  132
ECLSS reconfiguration to support ingress switch list complete.
NOTE
The following steps will not be performed until after S0017 T-0.

ECLSS Securing

37-114  OTC  CECL
        CDR
        PLT

Perform ECLSS securing on CH 143

37-115  CECL  CDR

VERIFY SWITCH POSITIONS LISTED BELOW AND INSTALL
SWITCHGUARDS.

PANEL L1

FLASH EVAP CONTROLLER
PRI A SW - OFF
PRI B SW - OFF
INSTALL G070-700930-001 SWITCHGUARD
(ONE GUARD/TWO SWITCHES)

FLASH EVAP CONTROLLER
SEC
GPC/OFF/ON SW - OFF
INSTALL G070-700919-001 SWITCHGUARD

NH3 CONTROLLER
A SW - OFF
INSTALL G070-700921-001 SWITCHGUARD
B SW - OFF
INSTALL G070-700921-001 SWITCHGUARD
37-116 CECL CDR

PANEL L2

FLASH EVAP
  FEEDLINE HTR
    A SUPPLY SW - OFF
    B SUPPLY SW - OFF

37-117 CECL CDR

PANEL L1

CABIN TEMP SW - COOL L1A2R1
CABIN TEMP CNTRLR SW - OFF L1A2S11
FLASH EVAP CONTROLLER SEC L1A2S45
  A SPLY/B SPLY SW - A SPLY

HI LOAD EVAP SW - OFF L1A2S34
37-118  CECL  CDR

PANEL L2

ATM PRESS CONTROL

O2 EMER SW - (CENTER)  L2A1S12
O2 EMER TB BP  L2A1DS8

N2 SYS 1
  SUPPLY SW - CLOSE, HOLD  L2A1S13
  SUPPLY TB CL
  SUPPLY SW - RELEASE
  REG INLET SW - CLOSE, HOLD  L2A1S14
  REG INLET TB CL  L2A1DS7
  REG INLET SW - RELEASE

O2 XOVR
  SYS 1 SW - CLOSE  L2A1S15

O2/N2 CNTLR VLV
  SYS 1 SW - CLOSE  L2A1S16
  PPO2 SNSR/VLV SW - NORM  L2A1S17

O2 XOVR
  SYS 2 SW - CLOSE  L2A1S18

O2/N2 CNTLR VLV
  SYS 2 SW - CLOSE  L2A1S19

N2 SYS 2
  SUPPLY SW - CLOSE, HOLD  L2A1S21
  SUPPLY TB CL  L2A1DS10
  SUPPLY SW - RELEASE
  REG INLET SW - CLOSE, HOLD  L2A1S22
  REG INLET TB CL  L2A1DS11
  REG INLET SW - RELEASE
37-119  CECL  MS1

PANEL MO32M
LEH O2 5 VLV - CLOSE
LEH O2 6 VLV - CLOSE

37-120  CECL  MS1

PANEL MO69M
LEH O2 7 VLV - CLOSE
LEH O2 8 VLV - CLOSE

37-121  CECL  CDR

PANEL C6
LEH O2 1 VLV - CLOSE
LEH O2 2 VLV - CLOSE
LEH O2 3 VLV - CLOSE
LEH O2 4 VLV - CLOSE

37-122  CECL  CDR

PANEL L4

ROW J
AC3
SIG CONDR
HUM SEP
PH A CB - CLOSE
IMU FAN
PH B CB - CLOSE
37-123  CECL  CDR

PANEL O14

ROW C
MN A
SMOKE DETN
L/R FLT DK CB - OPEN  O14A14CB7
BAY 2A/3B CB - OPEN  O14A14CB8
FIRE SUPPR BAY 3 CB - OPEN  O14A14CB9

37-124  CECL  PLT

PANEL O15

ROW C
MN B
SMOKE DETN BAY 1B/3A CB - OPEN  O15A15CB7
FIRE SUPPR BAY 1 CB - OPEN  O15A15CB8

37-125  CECL  PLT

PANEL O16

ROW C
MN C
SMOKE DETN
CABIN CB - OPEN  O16A16CB6
BAY 1A/2B CB - OPEN  O16A16CB7
FIRE SUPPR BAY 2 CB - OPEN  O16A16CB8

37-126  CECL  MS1

PANEL ML31C

VACUUM VENT
ISOL VLV
BUS SELECT SW - MN A
CONTROL TB BP
NOZ HTR SW - OFF
37-127  CECL  MS1

PANEL ML26C

SUPPLY H2O GN2
  TK A SPLY VLV - OPEN (UP)
  TK VENT VLV - PRESS (UP)

37-128  CECL  MS1

PANEL ML86B

ROW B
  MN A
    VAC VENT ISOL VLV CB - OPEN  ML86BC067
  MN B
    VACUUM VENT
      NOZ HTR CB - OPEN  ML86BCB66
      ISOL VLV CB - OPEN  ML86BC068

37-129  CECL  MS1

PANEL MO10W

H2O TK N2 REG INLET
  SYS 1 VLV - CLOSE
  SYS 2 VLV - CLOSE
H2O TK N2 ISOL
  SYS 1 VLV - OPEN
  SYS 2 VLV - OPEN
  O2 EMER VLV - CLOSE

37-130  CECL

CONSOLE KYBD
VAG60
  PERF PGM KEY - PRESS
  VERIFY VAG60 IN MANUAL MODE

37-131  CECL  OTC

Multiple Master Alarms may occur during ECL Cooling Reconfiguration.
37-132  CECL      CDR

PANEL L1
FREON PUMP
   LOOP 1 PUMP B SW - OFF

CRT (VAG59) PG-B
VERIFY
FC LOOP 1 PUMP B - SOLID/OFF

37-133  CECL

CURSOR CNTL (VAG59)
FC LOOP 1 PUMP A
XMIT CURSOR KEY - PRESS

CRT (VAG59) PG-B
VERIFY
FC LOOP 1 PUMP A - HOLLOW/ON

37-134  CECL      CDR

PANEL L1
FREON PUMP
   LOOP 2 PUMP B SW - OFF

CRT (VAG59) PG-B
VERIFY
FC LOOP 2 PUMP B - SOLID/OFF
37-135  CECL

CURSOR CNTL (VAG59)
FC LOOP 2 PUMP A
XMIT CURSOR KEY - PRESS

CRT (VAG59) PG-B
VERIFY
FC LOOP 2 PUMP A - HOLLOW/ON

37-136  CECL

CURSOR CNTL (VAG59)
H2O LOOP 1 PUMP B
XMIT CURSOR KEY - PRESS

CRT (VAG59) PG-B
VERIFY
H2O LOOP 1 PUMP B - HOLLOW/ONG

37-137  CECL  CDR

PANEL L1
H2O PUMP
   LOOP 2 GPC/OFF/ON SW - GPC

CRT (VAG59) PG-B
VERIFY
H2O LOOP 2 SEC PUMP - SOLID GPC

37-138  CECL

CURSOR CNTL (VAG59)
AVIONICS BAY 1 FAN A
XMIT CURSOR KEY - PRESS

CRT (VAG59) PG-B
VERIFY
AVIONICS BAY 1 FAN A - HOLLOW/ONG
37-139  CECL  CDR

PANEL L1
AV BAY 1 FAN
  B SW - OFF

CRT (VAG59) PG-B
VERIFY
AVIONICS BAY 1 FAN B - SOLID/OFF

37-140  CECL

CURSOR CNTL (VAG59)
AVIONICS BAY 2 FAN A
XMIT CURSOR KEY - PRESS

CRT (VAG59) PG-B
VERIFY
AVIONICS BAY 2 FAN A - SOLID/ONB

37-141  CECL  CDR

PANEL L1
AV BAY 2 FAN
  A SW - OFF

CRT (VAG59) PG-B
VERIFY
AVIONICS BAY 2 FAN A - HOLLOW/ONG

37-142  CECL

CURSOR CNTL (VAG59)
AVIONICS BAY 3 FAN A
XMIT CURSOR KEY - PRESS

CRT (VAG59) PG-B
VERIFY
AVIONICS BAY 3 FAN A - HOLLOW/ONG
37-143  CECL   CDR

PANEL L1
AV BAY 3 FAN
  B SW - OFF

CRT (VAG59) PG-B
VERIFY
AVIONICS BAY 3 FAN B - SOLID/OFF

37-144  CECL

CURSOR CNTL (VAG59)
CABIN FAN B
XMIT CURSOR KEY - PRESS

CRT (VAG59) PG-B
VERIFY
CABIN FAN B - HOLLOW/ONG

37-145  CECL   CDR

PANEL L1
CABIN FAN
  A SW - OFF

CRT (VAG59) PG-B
VERIFY
CABIN FAN A - SOLID/OFF
NOTE
Do not turn the IMU Fan OFF when performing ECL Securing. IMU Fan is required to remain ON during IMU calibrations.

37-146  CECL

CURSOR CNTL (VAG59)
IMU FAN B
XMIT CURSOR KEY - PRESS

CRT (VAG59) PG-B
VERIFY
IMU FAN B - HOLLOW/ONB

37-147  CECL  CDR

PANEL L1
IMU FAN
   B SW - OFF

CRT (VAG59) PG-B
VERIFY
IMU FAN B - HOLLOW/ONG

37-148  CECL

CRT (VAG59) PAGE A

PFK11-PA - PRESS

VERIFY PFK ASSIGNMENTS DISPLAYED

PFK3-PA (H2O LOOP 1 FLOW EMON) - PRESS
PFK4-PA (H2O LOOP 2 FLOW EMON) - PRESS

CRT (VAG59) PG-B
VERIFY
WCL1 DATA CYAN
WCL2 DATA CYAN
37-149  CECL  CDR

PNL R13A1

PARAMETER SEL PB - 115
PARAMETER SW - INHIBIT, RELEASE

PARAMETER STATUS SW - INHIBIT, HOLD
VERIFY PARAMETER STATUS LIGHT 115 IS ON

PARAMETER STATUS SW - RELEASE

37-150  CECL  CDR

PNL R13A1

PARAMETER SEL PB - 105
PARAMETER SW - ENABLE, RELEASE

PARAMETER STATUS SW - INHIBIT, HOLD
VERIFY PARAMETER STATUS LIGHT 105 IS OFF

PARAMETER STATUS SW - RELEASE

37-151  CECL  CDR

PNL R13A1

LIMIT SET
LIMIT SW - LOWER
VALUE TW - 1.50V
FUNC SW - SET AND RELEASE
FUNC SW - READ AND HOLD

STATUS
LIMIT VOLTS - 1.5V

LIMIT SET
FUNC SW - RELEASE

PARAMETER SEL PB - 120
Report to ISL any C&W parameter 115 inhibited and 105 enabled.

CURSOR CNTL VAG60
AUTO
XMIT CURSOR KEY - PRESS

VERIFY VAG60 IN AUTO MODE

PANEL L1
HUMIDITY SEP B SW - OFF

CRT (VAG59, PG-B)
(MAY REQUIRE UP TO 30 SECONDS)
HUM SEP B - OFF

CAUTION
Humidity Separator flooding may occur if waste tank is isolated before the Humidity Separator is secured. Verify humidity separator securing is complete prior to isolation of waste tank.

NOTE
CECL may perform steps for CFCP.

Verify Humidity Separator Power Down/Securing complete. Waste tank drain valve will be closed.
37-157 CFCP MS1

PANEL ML31C

WASTE H2O
TK1 VLV SW - CLOSE (15 SEC MAX) UNTIL
   TK1 TB CL, THEN RELEASE

OMRS (general) V62GEN.075

37-158 CFCP

CRT (VAG31, PG-B)
TK1 VLV
POP OFF

37-159 CFCP MS1

PANEL ML86B

ROW B
   MN B
   WASTE H2O TK1 DRAIN CB - CLOSE

37-160 CFCP MS1

PANEL ML31C

WASTE H2O
TK1 DRAIN VLV SW - CLOSE (15 SEC MAX)
   UNTIL TB CL, RELEASE

37-161 CFCP

CRT (VAG31, PG-B)
VERIFY
TK1 DRAIN
POP - OFF
37-162  CFCP       MS1

PANEL ML86B

ROW A
   MN B
   SUPPLY H2O
   DUMP ISOL CB - CLOSE
   MN C
   GALLEY SUPPLY CB - CLOSE

ROW B
   MN A
   WASTE H2O DUMP ISOL CB - CLOSE

ROW E
   MN A
   EMU 2 H2O
   SUPPLY CB - CLOSED
   WASTE CB - CLOSED
   MN C
   EMU 1 H2O
   SUPPLY CB - CLOSED
   WASTE CB - CLOSED

WWMS Reconfigure Complete

*** End of Operation 37 ***
OPERATION 38  Hydraulics System
Shop: HYD
Cntrl Rm Console: C8
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.3
HYD Pre-APU Start Checks

38-1

CHYD

(SIM) CURSOR CNTL (VWF19)
LAUNCH COMMIT CRITERIA
APU RUN BLOCK - OFF*
VERIFY BLOCK - OPEN GREEN*

38-2

CHYD

CRT (VWF43)
1 DPRSS ENA A - ON
2 DPRSS ENA B - ON
3 DPRSS ENA C - ON

1 DPRSS ENA B - ON
2 DPRSS ENA C - ON
3 DPRSS ENA A - ON

1 PCA PUMP RPC A - ON
2 PCA PUMP RPC B - ON
3 PCA PUMP RPC C - ON

1 PCA PUMP RPC B - ON
2 PCA PUMP RPC C - ON
3 PCA PUMP RPC A - ON

*** End of HYD Pre-APU Start Checks ***
HYD Post-APU Start Checks

38-3

CHYD

CRT (VWF19)
1 SPLY PRESS B - 500-1000 PSIA*
2 SPLY PRESS B - 500-1000 PSIA*
3 SPLY PRESS B - 500-1000 PSIA*

38-4

CHYD

CRT (VWF43)
1 DPRSS ENA A - OFF
2 DPRSS ENA B - OFF
3 DPRSS ENA C - OFF

1 DPRSS ENA B - OFF
2 DPRSS ENA C - OFF
3 DPRSS ENA A - OFF

1 PCA PUMP RPC A - OFF
2 PCA PUMP RPC B - OFF
3 PCA PUMP RPC C - OFF

1 PCA PUMP RPC B - OFF
2 PCA PUMP RPC C - OFF
3 PCA PUMP RPC A - OFF

1 CIRC PUMP A - INHIB B - OFF*
2 CIRC PUMP B - INHIB C - OFF*
3 CIRC PUMP C - INHIB A - OFF*

1 CIRC PUMP B - INHIB A - OFF*
2 CIRC PUMP C - INHIB B - OFF*
3 CIRC PUMP A - INHIB C - OFF*

1 CIRC PMP GPC ENA A - OFF
1 CIRC PMP GPC ENA B - OFF
2 CIRC PMP GPC ENA B - OFF
2 CIRC PMP GPC ENA C - OFF
3 CIRC PMP GPC ENA C - OFF
3 CIRC PMP GPC ENA A - OFF
38-5  CHYD

CRT (VWF19)
VERIFY
1-2-3 SUPPLY PRESS B 2850-3400 PSIA*
1-2-3 SUPPLY PRESS C 2800-3400 PSIA*

38-6  Hydraulic system complete.

*** End of HYD Post-APU Start Checks ***

*** End of Operation 38 ***
OPERATION 39  SRB PIC No-Go Resistance Test

Shop: EDP
Cntrl Rm Console: C10
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.1

NOTE
Steps involving Crit 1, 1R and/or 1S items are contained in the following Operation.
Perform SRB PIC No-Go resistance test on OIS Channel 176.

**39-2 CPWR**

CURSOR CNTL (SDC01)
SRB OPTIONS PIC RESISTANCE
XMIT CURSOR KEY - PRESS

CRT
VERIFY
DISPLAY SKELETON BDE06 DISPLAYED

**39-3 CPWR**

CURSOR CNTL (BDE06)
TEST ALL
XMIT CURSOR KEY - PRESS

CRT (BSE04 PAGE-A)
VERIFY
BSE04 CALLS BKE08 AND NO ERRORS DISPLAYED
VERIFY MESSAGE
SRB-PIC RESISTANCE TEST COMPLETED SUCCESSFULLY.
CPWR

APPL PAGE (BDE06)
PFK15 KEY - PRESS

CRT
VERIFY
BWE06 TERMINATES
SYSTEM MENU IS RE-DISPLAYED

*** End of Operation 39 ***
OPERATION 40  DPS Systems
Shop: DPS
Cntrl Rm Console: C12
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 5.0
DPS System Options

1. GMT/MET Update
2. GPC 5 Load - BFS
3. BFS Dump, Retrieval and Compare
4. BFS DAP140 Retrieval Option
5. BFS Retrieval/Compare - LPS Option
6. Reserved
7. TFL Loads for Flight
8. PDI Loads for Flight
10. MEDS System Activation
11. G9 RS/GPC 1, 2, 3, 4
12. LCC Monitor Activation
13. GMT Adjust
14. Reserved
15. MEDS System Securing
16. DPS Reconfiguration to G9

*** End of DPS System Options ***
1. GMT/MET Update

40-1 OTC CDPS

Perform LPS/GMT delta check and update GMT if necessary.

40-2 CDPS

CURSOR CNTL (SAS01 PG-B)
DPS
XMIT CURSOR KEY - PRESS

CURSOR CNTL (SAS01 PG-B)
TIME UPDATE PROGRAM (VAS58)
XMIT CURSOR KEY - PRESS

PFK-2 KEY - PRESS

NOTE
OIS or OIA FEP will drop momentarily in next step.

40-3 CDPS

CURSOR CNTL (VAS58 PG-B)
DETERMINE LPS/GMT DELTA (NO UPDATE)
XMIT CURSOR KEY - PRESS

RECORD DELTA ___________ MS
40-4

**CDPS**

**IF** GMT DELTA IS BETWEEN 1 AND 14 MS INCLUSIVE,

**THEN**

CURSOR CNTL (VAS58, PG-B)
SELECT ANOTHER OPTION
XMIT CURSOR KEY - PRESS

CURSOR CNTL (VAS58, PG-B)
ADJUST GMT (14 MS MAX)
XMIT CURSOR KEY - PRESS

CRT (VAS58, PG-B)
WAITING FOR OPTION SELECT

Not Performed:______
Initial GMT Update

NOTE
If GMT delta is greater than 14 MS, then perform Initial GMT Update.

Initial GMT Update Not Performed: _____

40-5  CDPS   OTC
      Initial GMT update is required, request permission to transition to OPS 0.

40-6  CDPS   CDR
      PANEL C2
            _____ CRT SEL SW - _____

40-7  CDPS   CDR
      _____ KYBD
      OPS 000
      PRO

40-8  CDPS
      CRT (VAS59 PG-B)
      FMT 20 ACTIVE
40-9  CDPS

CURSOR CNTL (VAS58, PG-B)
SELECT ANOTHER OPTION
XMIT CURSOR KEY - PRESS

CURSOR CNTL (VAS58 PG-B)
INITIAL GMT UPDATE
XMIT CURSOR KEY - PRESS

CRT (VAS58 PG-B)
WAITING FOR OPTION SELECT

40-10  CDPS   CDR

────── KYBD
OPS 901
PRO

40-11  CDPS

CRT (VAS59 PG-B)
FMT 44 ACTIVE

*** End of Initial GMT Update ***
40-12

CDPS

CURSOR CNTL (VAS58 PG-B)
SELECT ANOTHER OPTION
XMIT CURSOR KEY - PRESS

CURSOR CNTL (VAS58 PG-B)
DETERMINE MET/GMT DELTA (NO UPDATE)
XMIT CURSOR KEY - PRESS

RECORD DELTA__________MS

40-13

CDPS

IF MET DELTA IS GREATER THAN 40 MS,

THEN
CURSOR CNTL (VAS58 PG-B)
SELECT ANOTHER OPTION
XMIT CURSOR KEY - PRESS

CURSOR CNTL (VAS58 PG-B)
SET MET = GMT
XMIT CURSOR KEY - PRESS

CRT (VAS58 PG-B)
WAITING FOR OPTION SELECT

Not Performed:_____

40-14

CDPS

CURSOR CNTL (VAS58 PG-B)
TERMINATE VAS58
XMIT CURSOR KEY - PRESS
40-15

CDPS

**IF CYCLIC BSR READS ARE INHIBITED,**

**THEN**
CURSOR CNTL (SAS01 PG-B)
ACT CYCLIC BSR READ
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

CRT (SA PAGE)
CYC BSR - ACT

Not Performed:______

40-16

CDPS OTC

GMT delta check is complete.

*** End of 1. GMT/MET Update ***
NOTE
Steps involving Crit 1, 1R and/or 1S items are contained in the following Operation.

2. BFS Load GPC 5

40-17  

CDPS  CDR

IF DK BUS 4 IS COMMANDED BY G9 GPC,

THEN
     _____KYBD (G9 KYBD)
     GPC CRT 04
     EXEC

Not Performed:______

NOTE
Repeat next step for each forward DK bus currently masked by G9 GPC.

40-18  

CDPS  CDR

IF DK BUS 1 (2,3) NOT CURRENTLY COMMANDED BY G9 GPC,

THEN
     _____KYBD (G9 KYBD)
     GPC CRT _____  _____
     GPC NO. CRT NO.
     EXEC

Not Performed:______
NOTE
If MDU fails to come up at power application, turn bezel knob off for 3 seconds, then back to on. (Ref. HW-0002).

40-19  CDPS    CDR

IF CRT1, 2 OR 3 IS POWERED OFF,

THEN
PANEL F7

CRT 1 MDU
   POWER KNOB - ON
CRT 2 MDU
   POWER KNOB - ON
CRT 3 MDU
   POWER KNOB - ON

Not Performed:_____

CAUTION
When turning on IDP’s, power must remain on for a minimum of 30 seconds or hardware damage may occur.
OMRS (general) V70GEN.030

40-20  CDPS    CDR

PANEL C2
LEFT CRT SEL SW - 3
RIGHT CRT SEL SW - 2
IDP/CRT 1
   POWER SW - ON
   MAJ FUNC SW - GNC
IDP/CRT 2
   POWER SW - ON
   MAJ FUNC SW - GNC
IDP/CRT 3
   POWER SW - ON
   MAJ FUNC SW - GNC
40-21  CDPS   CDR

IF CRT 1, 2 or 3 not configured to DPS Display,

THEN configure CRT 1, 2, 3 to DPS Display via Edge Key Menu.

Not Performed:______

NOTE
In next two steps, turn on MMU(s) containing S0017 support load. Turn off any MMU without a S0017 support load (if any).

40-22  CDPS   CDR

PANEL 014

ROW F
   MMU 1 SW - ______

40-23  CDPS   CDR

PANEL 015

ROW F
   MMU 2 SW - ______

40-24  CDPS   CDR

PANEL 06
IPL SOURCE SW - MMU____
GENERAL PURPOSE COMPUTER
   MODE
      5 SW - HALT
OUTPUT
      5 SW - NORMAL
POWER
      5 SW - ON
GENERAL PURPOSE COMPUTER
INITIAL PROGRAM LOAD
      5 PB - PRESS, REL
MODE
      5 TB IPL THEN BP
40-25 CDPS CDR

PANEL C3

BFC CRT
SELECT SW - 3+1
DISPLAY SW - ON

40-26 CDPS CDR

PANEL 06

INTEGRATED DISPLAY PROCESSOR
3 SW - LOAD, REL
GENERAL PURPOSE COMPUTER
MODE
5 SW - STBY

40-27 CDPS CDR

CRT 3
IPL MENU (1)
VERIFY MESSAGES STILL IN LIST = 2

40-28 CDPS CDR

L KYBD (BFS)
MSG RESET (PRESS TWICE)
40-29  
**CDPS**  
**CDR**  
L KYBD (BFS)  
ITEM 2  
EXEC

40-30  
**CDPS**  
**CDR**  
CRT 3  
BSL LOADED MSG ON MSG LINE  
(WITHIN 2 MINUTES)

40-31  
**CDPS**  
**CDR**  
L KYBD (BFS)  
MSG RESET (PRESS ONCE)

**NOTE**
Due to BSL mechanization, computed checksum errors may occur during BFS load (BFS checksum error, IMU CHKPT Checksum Err, TFL format computed Checksum Error - ref user note B06546A).

40-32  
**CDPS**  
**CDR**  
**IF** BFS CHECKSUM ERROR, IMU CHKPT CHECKUM ERR, OR TFL FORMAT COMPUTED CHECKSUM ERROR MESSAGE APPEARS ON CRT MSG LINE,

**THEN** PERFORM NEXT STEP FOR EACH OCCURRENCE  
L KYBD (BFS)  
MSG RESET (PRESS ONCE)

Not Performed:______
40-33  CDPS    CDR

CRT 3
VERIFY MSG (WITHIN 3 MINUTES):
"KSC RR.VV.P.II.MM LOADED_SET MMU
SEL SW TO OFF"

WHERE:

RR = RELEASE NUMBER
VV = VERSION NUMBER
P = PATCH SET NUMBER
II = I LOAD SET NUMBER
MM = MASS MEMORY AREA NUMBER

40-34  CDPS    CDR

CRT 3
VERIFY MESSAGES STILL IN LIST = 1

40-35  CDPS    CDR

PANEL O6
IPL SOURCE SW - OFF

NOTE
BFS GPC error "Illegal Engage/Term B" will occur in next step.

40-36  CDPS    CDR

L KYBD (BFS)
MSG RESET (PRESS ONCE)

40-37  CDPS    CDR

CRT 3
BFS MEMORY
40-38  CDPS

APPL PAGE (SA)
DL FMT 12 ACTIVE

NOTE
In next step, fill in blank with IPL MMU No.

40-39  CDPS

CONSOLE KYBD
ISSU N72IV067D #_001
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

40-40  CVFS

CURSOR CNTL (SAS10 PG-B)
BFS MONITOR (VASB9)
XMIT CURSOR KEY - PRESS

40-41  CVFS  CDR

L KYBD (BFS)
FAULT SUMM

CRT 3
READ AND REPORT ANY FSP MESSAGES

40-42  CVFS

APPL PAGE (VASB9 PG-B)
VERIFY NO UNEXPLAINED GPC,
I/O, OR FAULT SUMMARY MESSAGES
40-43  CVFS  CDR

L KYBD (BFS)
SPEC 99
PRO
RESUME

CRT 3
VERIFY BFS MEMORY

NOTE
If EMON notification for MSID's is already active error message will occur in next step.

40-44  CDPS

CONSOLE KYBD
A SX V98J2258C1,ANY (BFS I/O ERROR COUNT)
XMIT CMD KEY - PRESS
A SX V98J2299C1,ANY (BFS GPC ERROR COUNT)
XMIT CMD KEY - PRESS

40-45

BFS load complete.

*** End of 2. BFS Load GPC 5 ***
3. BFS Dump, Retrieval and Compare

NOTE
LPS is required to report frame count or tape errors to CVFS during dump. Any error encountered may require restart of dump.

NOTE
Steps involving Crit 1, 1R and/or 1S items are contained in the following Operation.

40-46  CVFS   LPS
PERFORM TAPE SWITCH AT PDR. MONITOR SYSTEM MESSAGE PAGE FOR "GPCA OR GPCS FORMAT 90 FRAME COUNT ERROR" DURING BFS DUMP AND REPORT ANY OCCURRENCE.

40-47  CVFS   CDR
L KYBD
ITEM 24
EXEC(START DUMP)

40-48  CVFS   CMQC
LPS
RECORD DUMP START TIME ___:___/___ (DDD HHMM SS)

40-49  CVFS
CRT (VAS59 PG-B)
DL FMT 90 IN AREA 2
40-50

CVFS

AFTER APPROX 7 MINUTES:
CRT (VAS59 PG-B)
DL FMT 12 ACTIVE IN AREA 2

40-51

CVFS CMQC

LPS

RECORD DUMP STOP TIME ___:___/___ (DDD HHMM SS)

40-52

CVFS LPS

VERIFY NO GPCA OR GPCS FORMAT 90 FRAME COUNT ERRORS WHERE DETECTED.

NOTE

If error detected in GPCA or GPCS frame counts, repeat previous seven steps.

40-53

CVFS

PERFORM BFS DUMP RETRIEVAL AND COMPARE
(USING DAP140 SDC PROGRAM) (SEQ 40, ITEM 4)
ON CHANNEL 152. (15 MIN)

40-54

CVFS

VERIFY DAP140 RUNS TO COMPLETION WITH EXPECTED MISCOMPARSES.
40-55  CDPS    CDR

PANEL C3

BFC CRT
DISPLAY SW - OFF

40-56  CDPS    CDR

CRT 3
GPC MEMORY DISP

40-57  CDPS    CDR

PANEL C2

LEFT CRT SEL SW - 1

NOTE
BFS will remain active through T-0. Periodic Area 2 Format 12 downlist frame count errors and FDA messages are expected.

40-58  CVFS    OTC    132

BFS Dump and Compare complete. Miscompares are as expected.

*** End of 3. BFS Dump, Retrieval and Compare ***
4. BFS DAP-140 Retrieval Option

**NOTE**
If DAP-140 BFS dump and compare option is used, then perform
4. BFS DAP-140 Retrieval Option.

4. BFS DAP-140 Retrieval Option Not Performed:_____

40-59  CVFS

CDS ENABLE KEY - PRESS (FR3)
SDC ENABLE KEY - PRESS (FR4)

CRT
VERIFY
ASSIGNED TO CDS LINE 1 OR 2

40-60  CVFS

CONSOLE KYBD
SDC
SIGN-ON KEY - PRESS

40-61  CVFS

CRT
VERIFY
RSHELL>
40-62

CVFS

CONSOLE KYBD
DAP
CDS XMIT KEY - PRESS (FR3)
SDC XMIT KEY - PRESS (FR4)

NOTE
In next step, sequence is: BFSDC TCID FEP; start time (hhmmss) stop time (hhmmss) date (mmddyy); STS No./filename.

40-63

CVFS

CONSOLE KYBD
BFSDC _______GPCA;

____________  ______________

____________; -FL STS ____/_____. __.

CDS XMIT KEY - PRESS (FR3)
SDC XMIT KEY - PRESS (FR4)

40-64

CVFS

CRT
VERIFY
BFS VERIFICATION COMPLETED MESSAGE
**Miscompare Display**

**NOTE**
If miscompares encountered, perform Miscompare Display.

**Miscompare Display Not Performed:**

**40-65**

**CVFS**

CRT
VERIFY
DO YOU WANT TO DISPLAY MISCOMPARSES?
Y OR N

**40-66**

**CVFS**

CONSOLE KYBD
Y
CDS XMIT KEY - PRESS (FR3)
SDC XMIT KEY - PRESS (FR4)

CRT
VERIFY
VALUE RECEIVED AND VALUE EXPECTED ARE DISPLAYED WITH THE GPC ABSOLUTE ADDRESS.

*** End of Miscompare Display ***
Miscompare Print

**NOTE**
If printout of miscompares is desired, then perform Miscompare Print.

Miscompare Print Not Performed: _____

40-67  CVFS

CRT
VERIFY
DO YOU WANT TO PRINT MISCOMPARES?
Y OR N

40-68  CVFS

CONSOLE KYBD
Y
CDS XMIT KEY - PRESS (FR3)
SDC XMIT KEY - PRESS (FR4)

40-69  CVFS

CRT
VERIFY
ENTER PRINTER NAME
NOTE

In the following step, enter desired LAN printer name for miscompare printout.

40-70

CVFS

CONSOLE KYBD
(PRINTER NAME)
CDS XMIT KEY - PRESS (FR3)
SDC XMIT KEY - PRESS (FR4)

CRT
VERIFY
PRINTING FOR THE BFS DUMP AND
COMPARE IS COMPLETE

*** End of Miscompare Print ***

40-71

CVFS

CRT
VERIFY
TPAP SDC TERMINATED
RSHELL>

40-72

CVFS

CONSOLE KYBD
EXIT
CDS XMIT KEY - PRESS (FR3)
SDC XMIT KEY - PRESS (FR4)
40-73

CVFS

CPU ENABLE KEY - PRESS (FR3)
SDC XMIT KEY - PRESS (FR4)

*** End of 4. BFS DAP-140 Retrieval Option ***
5. BFS Dump Retrieval and Compare Via LPS

**NOTE**
If LPS Retrieval method required, then perform 5. BFS Dump Retrieval and Compare via LPS.

5. BFS Dump Retrieval and Compare via LPS Not Performed: _____

40-74 CVFS LPS

**Perform** BFS Downlist Dump Retrieval and Compare per Maximo WO.

Record WO Number __________

40-75 C4SE

**Verify** BFS compare completes with successful output of number of miscompares. Deliver printout to CVFS engineer at console C12.

40-76 CPDR

**Remove** BFS compare tape from tape unit. Remove BFS processed tape from tape T1. Deliver BFS compare tape and processed tape to LPS tape locker. BFS dump and compare is now complete.

40-77 CVFS

**Verify** dump and compare listing.

*** End of 5. BFS Dump Retrieval and Compare Via LPS ***
6. Reserved
7. TFL Loads for Flight

NOTE
If soft TFL is required for mission, then perform 7. TFL Loads for Flight.
Obtain formats from Orbiter Operation 121 (S0017.100.)

7. TFL Loads for Flight Not Performed:_____

40-78 CDPS PLT

PANEL C3
OI PCMMU
FORMAT SW - FIXED

40-79 CISL PLT

IF PCMMU 2 ACTIVE,

THEN
PANEL C3
OI PCMMU
PWR SW - 1

Not Performed:_____

40-80 CISL

CONSOLE KYBD
A SX V75X3549D1 (MTU CMD CH A)
XMIT CMD KEY - PRESS
A SX V75X3550D1 (MTU CMD CH B)
XMIT CMD KEY - PRESS
A SX V75X3551D1 (MTU CMD CH C)
XMIT CMD KEY - PRESS
40-81  CISL   CDR

**IF** MTU CH A, B, C TOGGLING:

**THEN** REPEAT UNTIL STABILIZED

**PANEL C3**
OI PCMMU
PWR SW - OFF, THEN - 1

Not Performed:_____

40-82  CISL   CRT

(SAQ06/VWQ11)
VERIFY
MTU BITE
CMD CH A - GOOD
CMD CH B - GOOD
CMD CH C - GOOD

40-83  CDPS   CDR

**PANEL C2**
L CRT SEL SW - 1

40-84  CDPS

CURSOR CNTL (SAS01 PG-B)
DPS
XMIT CURSOR KEY - PRESS

CURSOR CNTL (SAS01 PG-B)
DPS RECONFIGURATION (VAS90)
XMIT CURSOR KEY - PRESS

PFK 2 KEY - PRESS
40-85  CDPS

**IF** ONLY ONE MMU IS POWERED UP,

**THEN**
APPL PAGE (VAS90 PG-B)
PFK 7 KEY - PRESS

CURSOR CNTL (VAS90 PG-B)
MM TO MF
   GNC - MMU ____ (POWERED UP MMU)
XMIT CURSOR KEY - PRESS

Not Performed:______

### NOTE
PMU/DL I/O cycle wrap or cyclic overrun GPC errors may occur during PCMMU format loads.

40-86  CDPS

APPL PAGE (VAS90 PG-B)
PFK 8 KEY - PRESS

40-87  CDPS

CURSOR CNTL (VAS90 PG-B)
TFL LOAD
XMIT CURSOR KEY - PRESS

FMT ____ (HDR FMT)
XMIT CURSOR KEY - PRESS
40-88  
CDPS

PFP (VAS90 PG-B)
EXECUTE KEY - PRESS

CRT (VAS90 PG-B)
“SUCCESSFUL COMPLETION OF JOB”

CRT (VAS90 PG-A)
NO ERROR MESSAGES DISPLAYED

40-89  
CDPS

CURSOR CNTL (VAS90 PG-B)
TFL LOAD
XMIT CURSOR KEY - PRESS

FMT ____ (LDR FMT)
XMIT CURSOR KEY - PRESS

40-90  
CDPS

PFP (VAS90 PG-B)
EXECUTE KEY - PRESS

CRT (VAS90 PG-B)
“SUCCESSFUL COMPLETION OF JOB”

CRT (VAS90 PG-A)
NO ERROR MESSAGES DISPLAYED
40-91  CDPS

IF PDI LOAD WILL NOT BE PERFORMED,

THEN
PFP (VAS90 PG-B)
TERMINATE KEY - PRESS

Not Performed: ________

40-92  CDPS  CDR

PANEL C3
OI PCMMU
   FORMAT SW - GPC

*** End of 7. TFL Loads for Flight ***
8. PDI Loads for Flight

NOTE
If PDI formats are required for mission then, perform 8. PDI Loads for Flight. Obtain formats and inputs from Orbiter Operation 121.

8. PDI Loads for Flight Not Performed:____

NOTE
Steps involving Crit 1, 1R and/or 1S items are contained in the following Operation.

40-93 CDPS

IF VAS90 IS NOT CURRENTLY ACTIVE,

THEN
CURSOR CNTL (SAS01 PG-B)
DPS
XMIT CURSOR KEY - PRESS

CURSOR CNTL (SAS01 PG-B)
DPS RECONFIGURATION (VAS90)
XMIT CURSOR KEY - PRESS

PFK 2 KEY - PRESS

Not Performed:____

40-94 CDPS

APPL PAGE (VAS90 PG-B)
PFK 9 KEY - PRESS
NOTE
Repeat following three steps for each Decom (1-4) required to be loaded
(ref S0017.100 Orbiter Operation 121).

40-95
CDPS
CURSOR CNTL (VAS90 PG-B)
SELECT ELEMENT - DECOM X (1-4)
XMIT CURSOR KEY - PRESS

40-96
CDPS
IF FORMAT LOAD REQUIRED,
THEN
CURSOR CNTL (VAS90 PG-B)
SELECT FORMAT - XX (00-31)
XMIT CURSOR KEY - PRESS

Not Performed:______

40-97
CDPS
CURSOR CNTL (VAS90 PG-B)
SELECT INPUT - PL SRC X (0-6)
XMIT CURSOR KEY - PRESS

40-98
CDPS
Record selections below. Record N/A in blanks for not performed options:
Decom 1 fmt _____ input _____
Decom 2 fmt _____ input _____
Decom 3 fmt _____ input _____
Decom 4 fmt _____ input _____
40-99  CDPS

IF FPM LOAD REQUIRED,

THEN
CURSOR CNTL (VAS90 PG-B)
SELECT ELEMENT - FPM
XMIT CURSOR KEY - PRESS

CURSOR CNTL (VAS90 PG-B)
SELECT FORMAT -
XMIT CURSOR KEY - PRESS

Not Performed:_____

40-100  CDPS

PFP (VAS90)
EXECUTE KEY - PRESS

CRT (VAS90 PG-B)
"SUCCESSFUL COMPLETION OF JOB" (GREEN)

CRT (VAS90 PG-A)
NO ERROR MESSAGES DISPLAYED

40-101  CDPS

PFP (VAS90)
TERMINATE KEY - PRESS

*** End of 8. PDI Loads for Flight ***
9. Flight Inst Configuration for Launch

40-102 CDPS CDR

PANEL F6

HUD DATA BUS SW - 1
AIR DATA SW - NAV
ADI
ATTITUDE SW - REF
ERROR SW - MED
RATE SW - MED
HSI SELECT
MODE SW - ENTRY
SOURCE
  TACAN/NAV/MLS SW - NAV (OV-103/104)
  GPS/NAV/MLS SW - NAV (OV-105)
  1/2/3 SW - 1
RADAR ALTM SW - 1

40-103 CDPS PLT

PANEL F8

HUD DATA BUS SW - 4
AIR DATA SW - NAV

ADI
ATTITUDE SW - REF
ERROR SW - MED
RATE SW - MED

HSI SELECT
MODE SW - ENTRY
SOURCE
  TACAN/NAV/MLS SW - NAV (OV-103/104)
  GPS/NAV/MLS SW - NAV (OV-105)
  1/2/3 SW - 2

RDR ALTM SW - 2
40-104 CDPS MS1

PANEL A6U
ADI
  ATTITUDE SW - INRTL
  ERROR SW - MED
  RATE SW - MED
  UNUSED ROTARY SW - FULL CCW

40-105 CODS CDR

PANEL F3
HUD (LEFT)
  POWER SW - OFF

40-106 CODS CDR

PANEL F6
HUD (LEFT)
  DIM/BRT SW - (MID RANGE)
  MODE SW - NORM
  BRT SW - MAN DAY

40-107 CODS PLT

PANEL F3
HUD (RIGHT)
  POWER SW - OFF
40-108 CODS PLT

PANEL F8
HUD (RIGHT)
- DIM/BRT SW - (MID RANGE)
- MODE SW - NORM
- BRT SW - MAN DAY

40-109 CODS OTC 132

Flight Inst Configuration for Launch complete.

10. MEDS System Activation

CAUTION
When turning on IDPs, power must remain on for a minimum of 30 seconds or hardware damage may occur.
OMRS (general) V70GEN.030

NOTE
If MDU fails to come up at power application, turn bezel knob off for 3 seconds, then back to on. (Ref. HW-0002).

40-110  CDPS  CDR

PANEL C2
LEFT CRT SEL SW - 1

RIGHT CRT SEL SW - 2

IDP/CRT 1
   MAJ FUNC SW - GNC
   POWER SW - ON (VERIFY)

IDP/CRT 2
   MAJ FUNC SW - GNC
   POWER SW - ON (VERIFY)

IDP/CRT 3
   MAJ FUNC SW - GNC
   POWER SW - ON (VERIFY)
40-111  CDPS    CDR

**PANEL R11U**
CRT4  MDU
   POWER KNOB - ON

**PANEL R11L**
IDP/CRT 4
   MAJ FUNC SW - GNC
   POWER SW - ON

40-112  CDPS    CDR

**PANEL R14**

**ROW A**
MN A
   ADC
      1A/2A CB - CLOSE
   MDU
      MFD2 CB - CLOSE
      PLT1 CB - CLOSE

MN B
   ADC
      1B/2B CB - CLOSE
   MDU
      MFD1 CB - CLOSE
      CDR2 CB - CLOSE

MN C
   MDU
      CDR1 CB - CLOSE
      PLT2 CB - CLOSE
      AFD1 CB - CLOSE

40-113  CDPS    CDR

**PANEL F6**
CDR1 MDU
   POWER KNOB - ON
CDR2 MDU
   POWER KNOB - ON
40-114 CDPS CDR

**PANEL F7**
- CRT1 MDU  
  POWER KNOB - ON (VERIFY)
- CRT2 MDU  
  POWER KNOB - ON (VERIFY)
- CRT3 MDU  
  POWER KNOB - ON (VERIFY)
- MFD1 MDU  
  POWER KNOB - ON
- MFD2 MDU  
  POWER KNOB - ON

40-115 CDPS CDR

**PANEL F8**
- PLT1 MDU  
  POWER KNOB - ON
- PLT2 MDU  
  POWER KNOB - ON

40-116 CDPS CDR

**Remove** AFD1 MDU cover (Shop aid SK-2K7-021) and **retain** for later reinstallation.

40-117 CDPS CDR

**ORBIT STATION**
- AFD1 MDU  
  POWER KNOB - ON

40-118 CDPS CDR

**IF** CRT 4 is not configured to DPS Display,  

**THEN configure** CRT 4 to DPS Display via Edge Key Menu.

**Not Performed:**______
NOTE
BFS may annunciate CRT BITE 4 fault message in next step.

40-119 CDPS CDR
LEFT KYBD (G9 KYBD)
GPC/CRT 54
EXEC

CRT4
BFS MEMORY

40-120 CDPS CDR
AFT KYBD (BFS KYBD)
ITEM 39
EXEC

CRT4
GMT39*

40-121 CDPS CDR
IF CRT 4 MAJ FUNC SWITCH IS REQUIRED TO BE IN SM FOR ASCENT (REFERENCE S0017.100 ORBITER OPERATION 121 - DPS LAUNCH SUPPORT CONFIGURATION),

THEN PERFORM
PANEL R11L
IDP/CRT 4
MAJ FUNC SW - SM

Not Performed:______
40-122  CDPS  CDR  152

PANEL F7
CRT 1 MDU
   PRESS UP ARROW EDGE KEY TO MAIN MENU
   PRESS MEDS MAINT EDGE KEY

CRT 1
VERIFY MEDS SYSTEM STATUS DISPLAY
VERIFY ADC1A AND ADC2A BOXES HAVE BLUE BACKGROUND.
VERIFY RECONFIGURATION MODE FIELD IN THE FOLLOWING MDU BOXES IS NOT BLANK (SHOULD BE "AUT" OR "MAN"): CRT1, CDR1, CDR2, MFD2, PLT1

40-123  CDPS  CDR  152

PANEL F7
CRT 1 MDU
   PRESS UP ARROW EDGE KEY TO MAIN MENU
   PRESS DPS EDGE KEY

CRT 1
VERIFY GPC MEMORY DISPLAY
40-124  CDPS  CDR  152

PANEL  F7
CRT 2  MDU
  PRESS  UP ARROW EDGE KEY TO MAIN MENU
  PRESS  MEDS MAINT EDGE KEY

CRT 2
VERIFY  MEDS SYSTEM STATUS DISPLAY
VERIFY  ADC1A AND ADC2A BOXES HAVE BLUE BACKGROUND.
VERIFY  RECONFIGURATION MODE FIELD IN THE FOLLOWING
MDU BOXES IS NOT BLANK (SHOULD BE “AUT” OR “MAN”):

  CRT2, CDR2, MFD1, PLT1, PLT2, AFD1

40-125  CDPS  CDR  152

PANEL  F7
CRT 2  MDU
  PRESS  UP ARROW EDGE KEY TO MAIN MENU
  PRESS  DPS EDGE KEY

CRT 2
VERIFY  GPC MEMORY DISPLAY
40-126 CDPS CDR 152

PANEL F7
CRT 3 MDU
  PRESS UP ARROW EDGE KEY TO MAIN MENU
  PRESS MEDS MAINT EDGE KEY

CRT 3 VERIFY MEDS SYSTEM STATUS DISPLAY
VERIFY ADC1B AND ADC2B BOXES HAVE BLUE BACKGROUND.
VERIFY RECONFIGURATION MODE FIELD IN THE FOLLOWING MDU BOXES IS NOT BLANK (SHOULD BE “AUT” OR “MAN”):
  CRT3, CDR1, MFD1, MFD2, PLT2

40-127 CDPS CDR 152

PANEL F7
CRT 3 MDU
  PRESS UP ARROW EDGE KEY TO MAIN MENU
  PRESS DPS EDGE KEY

CRT 3 VERIFY GPC MEMORY DISPLAY
40-128  CDPS  CDR  152

PANEL R11
CRT 4 MDU
   PRESS UP ARROW EDGE KEY TO MAIN MENU
   PRESS MEDS MAINT EDGE KEY

CRT 4
VERIFY MEDS SYSTEM STATUS DISPLAY
VERIFY ADC1B AND ADC2B BOXES HAVE BLUE BACKGROUND.
VERIFY RECONFIGURATION MODE FIELD IN THE FOLLOWING
MDU BOXES IS NOT BLANK (SHOULD BE “AUT” OR “MAN”):
   CRT4, AFD1

40-129  CDPS  CDR  152

PANEL R11
CRT 4 MDU
   PRESS UP ARROW EDGE KEY TO MAIN MENU
   PRESS DPS EDGE KEY

CRT 4
VERIFY BFS THERMAL OR BFS MEMORY DISPLAY
NOTE
Following step will configure each MDU for Flight Crew ingress. Configurations will be established via MDU edge key menus (Reference Figure 40-1 - Generic MDU Screen for MDU display field legend and Figure 40-2 - MDU Edge Key Menu Tree for edge key menu hierarchy).

NOTE
Mission specific FC bus, display, and edge key menu information is contained in Orbiter Operation 121 (S0017.100).

NOTE
In next step, establishing proper MDU Configuration requires table entries to be worked in left to right column order.

40-130 CDPS CDR

ESTABLISH FOLLOWING MDU CONFIGURATION:

<table>
<thead>
<tr>
<th>MDU</th>
<th>View</th>
<th>Mode</th>
<th>Port</th>
<th>FC</th>
<th>Display</th>
<th>Edge Key Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT1</td>
<td>STD</td>
<td>Man</td>
<td>PRI</td>
<td>DPS</td>
<td>DPS</td>
<td></td>
</tr>
<tr>
<td>CRT2</td>
<td>STD</td>
<td>Man</td>
<td>PRI</td>
<td>DPS</td>
<td>DPS</td>
<td></td>
</tr>
<tr>
<td>CRT3</td>
<td>STD</td>
<td>Man</td>
<td>PRI</td>
<td>DPS</td>
<td>DPS</td>
<td></td>
</tr>
<tr>
<td>CRT4</td>
<td>Neg</td>
<td>Man</td>
<td>PRI</td>
<td>DPS</td>
<td>DPS</td>
<td></td>
</tr>
<tr>
<td>CDR1</td>
<td>STD</td>
<td>Auto</td>
<td>PRI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDR2</td>
<td>STD</td>
<td>Auto</td>
<td>PRI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFD1</td>
<td>STD</td>
<td>Auto</td>
<td>PRI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFD2</td>
<td>STD</td>
<td>Auto</td>
<td>PRI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLT1</td>
<td>STD</td>
<td>Auto</td>
<td>PRI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLT2</td>
<td>STD</td>
<td>Auto</td>
<td>PRI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AFD1</td>
<td>Neg</td>
<td>Auto</td>
<td>PRI</td>
<td>1</td>
<td>Orbit PFD</td>
<td>Flt Inst</td>
</tr>
</tbody>
</table>
40-131 CDPS CDR

**IF** AFD1 POWER IS NOT REQUIRED FOR V1341.004 MDU DISPLAY INSPECTION,

**THEN**

ORBIT STATION
AFD1 MDU
  POWER KNOB - OFF

Not Performed:______

40-132 CDPS CDR

Install AFD1 MDU cover (Shop aid SK-2K7-021).

40-133 CDPS CDR

**PANEL F7**
CRT 1 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY

CRT 1
VERIFY NO RED DATA APPEARS ON MEDS SYSTEM STATUS DISPLAY

40-134 CDPS CDR

**PANEL F7**
CRT 1 MDU
PRESS FAULT SUMM EDGE KEY

CRT 1
REPORT MEDS FAULT SUMMARY MESSAGES

40-135 CDPS CDR

**PANEL F7**
CRT 1 MDU
PRESS CLEAR MSYS EDGE KEY
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY
40-136 CDPS CDR

**PANEL F7**
CRT 2 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY

CRT 2
VERIFY NO RED DATA APPEARS ON MEDS
SYSTEM STATUS DISPLAY

40-137 CDPS CDR

**PANEL F7**
CRT 2 MDU
PRESS FAULT SUMM EDGE KEY

CRT 2
REPORT MEDS FAULT SUMMARY MESSAGES

40-138 CDPS CDR

**PANEL F7**
CRT 2 MDU
PRESS CLEAR MSGS EDGE KEY
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY

40-139 CDPS CDR

**PANEL F7**
CRT 3 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY

CRT 3
VERIFY NO RED DATA APPEARS ON MEDS
SYSTEM STATUS DISPLAY
40-140  CDPS    CDR

**PANEL F7**
CRT 3 MDU
PRESS FAULT SUMM EDGE KEY

CRT 3
REPORT MEDS FAULT SUMMARY MESSAGES

40-141  CDPS    CDR

**PANEL F7**
CRT 3 MDU
PRESS CLEAR MSGS EDGE KEY
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY

40-142  CDPS    CDR

**PANEL R11U**
CRT 4 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY

CRT 4
VERIFY NO RED DATA APPEARS ON MEDS SYSTEM STATUS DISPLAY

40-143  CDPS    CDR

**PANEL R11U**
CRT 4 MDU
PRESS FAULT SUMM EDGE KEY

CRT 4
REPORT MEDS FAULT SUMMARY MESSAGES
40-144  CDPS  CDR

**PANEL R11U**
CRT 4 MDU
PRESS CLEAR MSGS EDGE KEY
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY

40-145  CDPS

APPL PAGE (VWS25 PG-B)
REVIEW/CLEAR IDP 1-4 BITE QUEUE VIA CURSOR AND
VERIFY NO UNEXPECTED ERRORS.

CRT (VWS25 PG-B)
IDP 1 SW 1-3 = 0070 0000 0000
IDP 2 SW 1-3 = 0070 0000 0000
IDP 3 SW 1-3 = 8044 0000 0000
IDP 4 SW 1-3 = 8800 0000 0000

**NOTE**
Next step will activate exception monitoring on BFS IDP SW1 for MDU
Command BIT changes. Error message will occur if EMON is already active.

40-146  CDPS

CONSOLE KYBD
A SX V98M4864P1
XMIT CMD KEY - PRESS

40-147  CDPS  OTC

MEDS system activation complete.

*** End of 10. MEDS System Activation ***
11. G9 RS/GPC 1, 2, 3, 4

40-148

CDPS

CRT (VAS59)
VERIFY
TCS AND ECP STATUS INACTIVE
CRT 1-3 DISP ID = 9011

40-149

CDPS   CDR

PANEL C2
LEFT CRT SEL SW - 1

40-150

CDPS   CDR

PANEL O6
IPL SOURCE SW - MMU __

40-151

CDPS   CDR

PANEL O6
GENERAL PURPOSE COMPUTER
MODE
___ SW - STBY (ACTIVE GPC)
___ TB BP
1 SW - HALT
2 SW - HALT
3 SW - HALT
4 SW - HALT
OUTPUT
1 SW - NORMAL
2 SW - NORMAL
3 SW - NORMAL
4 SW - NORMAL
POWER
1 SW - ON
2 SW - ON
3 SW - ON
4 SW - ON
40-152  CDPS      CDR

PANEL C3
BFC CRT
  DISPLAY SW - OFF

40-153  CDPS      CDR

PANEL O6
GENERAL PURPOSE COMPUTER
  INITIAL PROGRAM LOAD
    1 PB - PRESS, REL
  MODE
    1 TB IPL, THEN BP
    1 SW - STBY
    1 TB RUN (WITHIN 2 MIN)
    1 SW - RUN
  OUTPUT
    1 TB GRAY
40-154

CDPS

CRT (VAS59)
DL FMT 20 (CYAN)
GPC 1 TIME SOURCE A1

40-155

CDPS

CRT (VAS97 PG-B)
VERIFY GPC ERROR "PMU TIME INVALID" DID NOT OCCUR WHEN GPC 1 BROUGHT TO RUN.

40-156

CDPS   CDR

LEFT KYBD
SPEC 1
PRO

CRT 1
DPS UTILITY

40-157

CDPS   CDR

LEFT KYBD
ITEM 50
EXEC
RESUME

CRT 1
0001/ /GPC MEMORY

40-158

CDPS

CRT (VAS59 PG-B)
VERIFY LDB POLLING ACTIVE ON BUS 1
40-159  CDPS

CONSOLE KYBD
ISSU N72IV063D #X001 (X = 1 FOR MM1, 2 FOR MM2)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

40-160  CDPS

CURSOR CNTL (SAS01 PG-B)
DPS
XMIT CURSOR KEY - PRESS

CURSOR CNTL (SAS01 PG-B)
DPS RECONFIGURATION (VAS90)
XMIT CURSOR KEY - PRESS

PFK 2 KEY - PRESS

40-161  CDPS

CURSOR CNTL (VAS90 PG-B)
PRIMARY OPS TRANS - GNC 9
XMIT CURSOR KEY - PRESS

40-162  CDPS

**IF** DL FORMAT 60 IS REQUIRED FOR PAYLOAD SUPPORT
(REF S0017.100 ORBITER OPERATION 121),

**THEN**
APPL PAGE (VAS90 PG-B)
PFK-7 KEY - PRESS

CURSOR CNTL (VAS90 PG-B)
FMT 60
XMIT CURSOR KEY - PRESS

Not Performed:______
40-163  CDPS

PFP (VAS90 PG-B)
EXECUTE KEY - PRESS

CRT (VAS90 PG-B)
“SUCCESSFUL COMPLETION OF JOB”

CRT (VAS90 PG-A)
NO ERROR MESSAGES DISPLAYED

40-164  CDPS

CRT (VAS59 PG-B)
VERIFY GPC'S 1,2,3,4 IN REDUNDANT SET, FMT 44 OR 60 ACTIVE, AND POLLING ON BUS 1

40-165  CDPS

PFP (VAS90)
TERMINATE KEY - PRESS

40-166  CDPS  CDR

L KYBD
SPEC 2
PRO

CRT 1
TIME
40-167       CDPS       CDR

L KYBD
ITEM 2
EXEC

CRT 1
MET 2*

40-168       CDPS       CDR

L KYBD
RESUME

40-169       CDPS

CURSOR CNTL (SAS01 PG-B)
ACT CYCLIC BSR READ
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

CRT (SA PAGE)
CYC BSR - ACT

40-170       CDPS

IF SM ALERT LIGHT STILL ON,
THEN
CONSOLE KYBD
SET V72X4539YL OFF
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

SET V72X4540YL OFF
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

Not Performed:_____
SRB Polling Restart

NOTE
If SRB's are powered up, then perform SRB Polling Restart

SRB Polling Restart Not Performed:______

40-171
CDPS
CURSOR CNTL (SAS01 PG-B)
DPS
XMIT CURSOR KEY - PRESS

CURSOR CNTL (SAS01 PG-B)
SRB BSR READ PORT 1 AND 2 (BSM06)
XMIT CURSOR KEY - PRESS

PFK2 KEY - PRESS

40-172
CDPS
CRT (BSM06 PG-A)
NO UNEXPLAINED BSR'S Recorder
"BSM06 TERMINATED"

40-173
CDPS
CURSOR CNTL (SAS01 PG-B)
SRB DPS OVERVIEW (BKM01)
XMIT CURSOR KEY - PRESS

CRT (SAS01 PG-B)
SRB POLLING UP
SRB PROM BYP - OK

PFK 2 KEY - PRESS

*** End of SRB Polling Restart ***
40-174 CDPS OTC

DPS configured to G9 redundant set, downlist format _____ (44 or 60).

*** End of 11. G9 RS/GPC 1, 2, 3, 4 ***
12. LCC Monitor Activation

40-175

CDPS

CURSOR CNTL (SAS01 PG-B)
INH CYCLIC BSR READ
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

CRT (SA PAGE)
CYC BSR - INH

40-176

CDPS

CURSOR CNTL (SAS01 PG-B)
DPS
XMIT CURSOR KEY - PRESS
CURSOR CNTL (SAS01 PG-B)
ACTIVATE DPS EMONS
XMIT CURSOR KEY - PRESS

CRT (SA PAGE)
DPS EMONS ACTIVATED (WITHIN 5 MINS)

40-177

CDPS

CURSOR CNTL (SAS01 PG-B)
MDM BSR READ PROGRAM (VAS93)
XMIT CURSOR KEY - PRESS

PFK 2 KEY - PRESS
40-178

**CDPS**

APPL PAGE (VAS93 PG-B)
PFK 4 KEY - PRESS

CRT (VAS93 PG-B)
NO UNEXPLAINED BSR'S

40-179

**CDPS**

CURSOR CNTL (VAS93 PG-B)
PORT ________ (ACTIVE LDB NO.)
XMIT CURSOR KEY - PRESS
APPL PAGE (VAS93 PG-B)
PFK 5 KEY - PRESS

CRT (VAS93 PG-B)
NO UNEXPLAINED BSR'S

40-180

**CDPS**

CONSOLE KYBD
GPCC LDBC
XMIT CMD KEY - PRESS

**NOTE**

The next step will switch to inactive LDB.

40-181

**CDPS**

CURSOR CNTL ($GM)
POLL GSE ON LDB NO.__________
XMIT CURSOR KEY - PRESS
PFK 1 KEY - PRESS
40-182  

CDPS

CURSOR CNTL (VAS93 PG-B)
PORT __________ (ACTIVE LDB NO.)
XMIT CURSOR KEY - PRESS
APPL PAGE (VAS93 PG-B)
PFK 5 KEY - PRESS

CRT (VAS93 PG-B)
NO UNEXPLAINED BSR'S

40-183  

CDPS

APPL PAGE (VAS93 PG-B)
PFK 15 KEY - PRESS

40-184  

CDPS

IF CURRENTLY POLLING ON LDB2,
 THEN
CONSOLE KYBD
GPCC LDBC
XMIT CMD KEY - PRESS

CURSOR CNTL ($GM)
POLL GSE ON LDB NO. 1
XMIT CURSOR KEY - PRESS
PFK 1 KEY - PRESS

Not Performed:_____

392
40-185

CDPS

CURSOR CNTL (SAS01 PG-B)
DPS INIT DISPLAY (SAS01)
XMIT CURSOR KEY - PRESS

CURSOR CNTL (SAS01 PG-B)
TERMINATE OPS MGR 1 (SAS07)
XMIT CURSOR KEY - PRESS

PFK-2 KEY - PRESS

40-186

CDPS

CONSOLE KYBD
VASP9
PERF PGM KEY - PRESS

CRT (VASP9 PG-B)
LCC MONITOR HOST PROGRAM

**NOTE**
In next step, fill in blank with concurrency number (1-6) in which CCME software running.

40-187

CDPS

CURSOR CNTL (VASP9 PG-B)
ERROR NOTIF TO: PAGE___A,___B
XMIT CURSOR KEY - PRESS

CRT (VASP9 PG-B)
PAGE___A,___B INHIBITED
NOTE

If IMU's not in operate, LCC messages for IMU bypasses will be annunciated in next step. BFS I/O term B will be annunciated if BFS active and output switch is in normal. SRB PROM bypasses will be annunciated for LL1, LR1, LR2 during SRB power up. EIU 1,2,3 bypasses may be annunciated if ME controllers are not powered up.

40-188

CDPS

CURSOR CNTL (VASP9 PG-B)
ACTIVATE LCC MONITORING
XMIT CURSOR KEY - PRESS

PFK-1 KEY - PRESS
MEDS Display Verification

40-189 CDPS CDR

**PANEL F7**
CRT 1 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY
PRESS FAULT SUMM EDGE KEY

CRT 1
REPORT MEDS FAULT SUMMARY MESSAGES

40-190 CDPS CDR

**PANEL F7**
CRT 1 MDU
PRESS CLEAR MSGS EDGE KEY (AS REQUIRED)
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY

40-191 CDPS CDR

**PANEL F7**
CRT 2 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY
PRESS FAULT SUMM EDGE KEY

CRT 2
REPORT MEDS FAULT SUMMARY MESSAGES
40-192  CDPS  CDR

**PANEL F7**
CRT 2 MDU
PRESS CLEAR MSGS EDGE KEY (AS REQUIRED)
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY

40-193  CDPS  CDR

**PANEL F7**
CRT 3 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY
PRESS FAULT SUMM EDGE KEY

CRT 3
REPORT MEDS FAULT SUMMARY MESSAGES

40-194  CDPS  CDR

**PANEL F7**
CRT 3 MDU
PRESS CLEAR MSGS EDGE KEY (AS REQUIRED)
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY

40-195  CDPS  CDR

**PANEL R11U**
CRT 4 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY
PRESS FAULT SUMM EDGE KEY

CRT 4
REPORT MEDS FAULT SUMMARY MESSAGES
NOTE
Following step will confirm MDU displays and edge key menus configured for Flight Crew ingress. If necessary, establish specified displays and menus via MDU edge keys (Reference Figure 40-2 - MDU Edge Key Menu Tree for edge key menu hierarchy). Mission specific display and edge key menu info is contained in S0017.100 Orbiter Operation 121.

ESTABLISH FOLLOWING MDU CONFIGURATION:

<table>
<thead>
<tr>
<th>MDU</th>
<th>Display</th>
<th>Edge Key Menu</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT1</td>
<td>DPS</td>
<td>DPS</td>
</tr>
<tr>
<td>CRT2</td>
<td>DPS</td>
<td>DPS</td>
</tr>
<tr>
<td>CRT3</td>
<td>DPS</td>
<td>DPS</td>
</tr>
<tr>
<td>CRT4</td>
<td>DPS</td>
<td>DPS</td>
</tr>
<tr>
<td>CDR1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDR2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFD1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MFD2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLT1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLT2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CDPS  CDR

MEDS displays and edge key menus are configured for Flight Crew ingress. Request no further autonomous edge key operations.

CDPS

INVOKE MEDS MONITOR DISPLAY (VWS25)

CRT (VWS25 PG-B)
IDP 1 SW 1-3 = 0070 0000 0000
IDP 2 SW 1-3 = 0070 0000 0000
IDP 3 SW 1-3 = 8044 0000 0000

NOTE
MEDS Monitor no longer required. Console displays may be reconfigured as required.

NOTE
Error message will occur in next step if exception monitoring already active.

CDPS

CONSOLE KYBD
A SX V72M5670PX
XMIT CMD KEY - PRESS

REPEAT FOR THE FOLLOWING:

V72M5740PX
V72M5830PX
V98M4862P1

*** End of MEDS Display Verification ***

CDPS  OTC  132

MDM BSR reads and LCC monitor activation complete.

*** End of 12. LCC Monitor Activation ***
13. GMT Delta Adjust

40-202

CDPS

HOME CMD KEY - PRESS
CONSOLE KYBD
SYS
PERF PGM KEY - PRESS

CRT ($SYS)
VERIFY TCG 1 OR 2 ACTIVE

40-203

CDPS

CURSOR CNTL ($SYS)
TCGX (X = ACTIVE TCG)
XMIT CURSOR KEY - PRESS

CRT ($SYS)
VERIFY TCG COMMUNICATING AND IN "GO" MODE

TCG STATUS:
ON INTERNAL CLOCK?

YES ☐

NO ☐

NOTE
If LPS TCG time source changes from external TCG clock to internal clock, then GMT Delta Adjust must be re-performed.

40-204

CDPS

CURSOR CNTL ($SYS)
TERMINATE
XMIT CURSOR KEY - PRESS
40-205  CDPS

CRT (VAS59 PG-B)
RS TIME SOURCE = A1
OIS FEP ACTIVE

40-206  CDPS

CURSOR CNTL (SAS01 PG-B)
DPS
XMIT CURSOR KEY - PRESS

CURSOR CNTL (SAS01 PG-B)
TIME UPDATE PROGRAM
XMIT CURSOR KEY - PRESS

PFK2 KEY - PRESS

40-207  CDPS

CURSOR CNTL (VAS58 PG-B)
DETERMINE LPS/GMT DELTA (NO UPDATES)
XMIT CURSOR KEY - PRESS

CRT (VAS58 PG-B)
LPS/GMT DELTA = ___________ MSEC
LPS/GMT Delta Adjust

NOTE
If LPS/GMT delta is greater than 0 MS (4 tics), then perform LPS/GMT Delta Adjust.

LPS/GMT Delta Adjust Not Performed:

40-208 CDPS
CURSOR CNTL (VAS58 PG-B)
SELECT ANOTHER OPTION
XMIT CURSOR KEY - PRESS

CURSOR CNTL (VAS58 PG-B)
ADJUST GMT
XMIT CURSOR KEY - PRESS

40-209 CDPS
CRT (VAS58 PG-B)
VERIFY GMT ADJUST COMPLETE
DELTA = 0 MS +/- 1 MS
TIME SOURCE = A1

*** End of LPS/GMT Delta Adjust ***
CDPS
CURSOR CNTL (VAS58 PG-B)
SELECT ANOTHER OPTION
XMIT CURSOR KEY - PRESS

CDPS
CURSOR CNTL (VAS58 PG-B)
DETERMINE MET/GMT DELTA
XMIT CURSOR KEY - PRESS

CURSOR CNTL (VAS58 PG-B)
MET/GMT DELTA IS _____ MS.

Set MET to GMT

NOTE
If MET/GMT delta is greater than 500 MS, then perform Set MET to GMT.

Set MET to GMT Not Performed:______

CDPS
CURSOR CNTL (VAS58 PG-B)
SELECT ANOTHER OPTION
XMIT CURSOR KEY - PRESS

CURSOR CNTL (VAS58 PG-B)
SET MET = GMT
XMIT CURSOR KEY - PRESS
40-213  CDPS

CRT (VAS58 PG-B)
MET UPDATE COMPLETE
ABSOLUTE VALUE OF DELTA LESS THAN 500 MS

*** End of Set MET to GMT ***

40-214  CDPS

CURSOR CNTL (VAS58 PG-B)
TERMINATE VAS58
XMIT CURSOR KEY - PRESS

40-215  CDPS  OTC

MTU/GMT adjustment complete.

*** End of 13. GMT Delta Adjust ***
15. MEDS System Securing

NOTE
Do not perform MEDS System Securing if MEDS power is required for V1341.004 MDU Display Inspection.

15. MEDS System Securing Not Performed:_____

40-216  CDPS    CDR

PANEL F6
CDR1 MDU
   POWER KNOB - OFF
CDR2 MDU
   POWER KNOB - OFF

40-217  CDPS    CDR

PANEL F7
MFD1 MDU
   POWER KNOB - OFF
MFD2 MDU
   POWER KNOB - OFF

40-218  CDPS    CDR

PANEL F8
PLT1 MDU
   POWER KNOB - OFF
PLT2 MDU
   POWER KNOB - OFF
40-219  CDPS       CDR

PANEL R11

CRT 4 MDU
PRESS UP ARROW EDGE KEY TO MIN MENU
PRESS MEDS MAINT EDGE KEY
PRESS FAULT SUMM EDGE KEY

CRT 4
REPORT MEDS FAULT SUMMARY MESSAGES

40-220  CDPS       CDR

PANEL R11

CRT 4 MDU
PRESS CLEAR MSGS EDGE KEY
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY

40-221  CDPS       CDR

PANEL R11L
IDP/CRT 4
   POWER SW - OFF
   MAJ FUNC SW - GNC
PANEL R11U
CRT4 MDU
   POWER KNOB - OFF

40-222  CDPS       CDR

ORBIT STATION
AFD1 MDU
   POWER KNOB - OFF
40-223  CDPS  CDR

PANEL R14

ROW A
MN A
ADC
  1A/2A CB - OPEN
MDU
  MFD2 CB - OPEN
  PLT1 CB - OPEN
MN B
ADC
  1B/2B CB - OPEN
MDU
  MFD1 CB - OPEN
  CDR2 CB - OPEN
MN C
MDU
  CDR1 CB - OPEN
  PLT2 CB - OPEN
  AFD1 CB - OPEN
40-224  CDPS    CDR

PANEL F7
CRT 1 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY
PRESS FAULT SUMM EDGE KEY

CRT 1
REPORT MEDS FAULT SUMMARY MESSAGES

40-225  CDPS    CDR

PANEL F7
CRT 1 MDU
PRESS CLEAR MSGS EDGE KEY
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY

40-226  CDPS    CDR

PANEL F7
CRT 2 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY
PRESS FAULT SUMM EDGE KEY

CRT 2
REPORT MEDS FAULT SUMMARY MESSAGES

40-227  CDPS    CDR

PANEL F7
CRT 2 MDU
PRESS CLEAR MSGS EDGE KEY
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY
40-228  CDPS    CDR

**PANEL F7**
CRT 3 MDU
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS MEDS MAINT EDGE KEY
PRESS FAULT SUMM EDGE KEY

CRT 3
REPORT MEDS FAULT SUMMARY MESSAGES

40-229  CDPS    CDR

**PANEL F7**
CRT 3 MDU
PRESS CLEAR MSGS EDGE KEY
PRESS UP ARROW EDGE KEY TO MAIN MENU
PRESS DPS EDGE KEY

40-230  CDPS    OTC

MEDS system securing complete.

*** End of 15. MEDS System Securing ***
16. DPS Reconfiguration to G9

NOTE
If Orbiter will remain powered up, then perform DPS Reconfiguration to G9.

16. DPS Reconfiguration to G9 Not Performed:______

40-231

CDPS

CURSOR CNTL (SAS01 PG-B)
DPS
XMIT CURSOR KEY - PRESS

CURSOR CNTL (SAS01 PG-B)
DPS RECONFIGURATION (VAS90)
XMIT CURSOR KEY - PRESS
PFK 2 KEY - PRESS

40-232

CDPS

CURSOR CNTL (VAS90 PG-B)
QUICK NBAT MOD - GPC____SMPLX
XMIT CURSOR KEY - PRESS

CURSOR CNTL (VAS90 PG-B)
MOD NBAT - G9
XMIT CURSOR KEY - PRESS

CRT (VAS90 PG-B)
VERIFY
G9 NBAT ASSIGNED FOR SIMPLEX GPC (GREEN)

40-233

CDPS

CURSOR CNTL (VAS90 PG-B)
PRIMARY OPS TRANS - GNC9
XMIT CURSOR KEY - PRESS
NOTE
In next step, format to select will be provided by OTC.

40-234

CDPS

IF DOWNLIST FORMAT CHANGE REQUIRED TO SUPPORT VEHICLE OPERATIONS,

THEN
APPL PAGE (VAS90 PG-B)
PKF 7 KEY - PRESS
CURSOR CNTL (VAS90 PG-B)
DOWNLIST FORMAT LOAD - FMT_____ 
XMIT CURSOR KEY - PRESS

Not Performed:_____

40-235

CDPS

IF OI FORMAT 129 REQUIRED AND NOT CURRENTLY ACTIVE,

THEN
APPL PAGE (VAS90 PG-B)
PKF 8 KEY - PRESS
CURSOR CNTL (VAS90 PG-B)
ACTIVATE FIXED 129
XMIT CURSOR KEY - PRESS

Not Performed:_____

40-236

CDPS

PFP (VAS90)
EXECUTE KEY - PRESS
40-237  CDPS

CRT (VAS90 PG-B)
FOLLOW PROGRAM PROMPTS UNTIL
"SUCCESSFUL COMPLETION OF JOB"
MESSAGE RECEIVED.

40-238  CDPS

PFP (VAS90)
TERMINATE KEY - PRESS

40-239  CDPS

IF CYCLIC BSR READS ARE TO BE ACTIVATED,

THEN
CURSOR CNTL (SAS01 PG-B)
ACT CYCLIC BSR READ (VSSD4)
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

CRT (SA PAGE)
CYC BSR - ACT

Not Performed:______

40-240  CDPS  OTC  132

DPS CONFIGURED TO G9 SIMPLEX FORMAT ___/____.

*** End of 16. DPS Reconfiguration to G9***
ITEMS TO BE DISPLAYED AT ALL TIMES:

Pn * - INDICATES PRIMARY PORT,

  n IS THE IDP NUMBER COMMUNICATING WITH THIS PORT

  * INDICATES IF THAT IS THE CURRENTLY COMMANDED PORT

Sn * - SAME FOR SECONDARY PORT (NOT PRESENT ON CRT MDU’S)

FCi - INDICATES CURRENTLY SELECTED FC BUS

XXX - INDICATES CURRENT PORT MODE, "AUT" FOR AUTOMATIC, "MAN" FOR MANUAL

XXXXXXXXX - INDICATES NEGATIVE VIEWING MODE "NEG VIEW"

---

MEDS MESSAGE LINE
MEDS MENU TITLE

Pn * Sn * XXXXXXX

FCi XXX

---

**Figure 40-1 - Generic MDU Screen**
(For Reference Only)
Some edgekey legends may not be displayed and the related function not be available under certain conditions.

NOTE:

Figure 40-2 - MDU Edge Key Menu Tree (IDP 07.00)
(For Reference Only)
*** End of Operation 40 ***
OPERATION 41  MET Initialization and Switch/Circuit Breaker Configuration

Shop: FWD
Cntrl Rm Console: C10
OPR: TCO
Zone: 121, 122
Hazard (Y/N): N
Duration (Hrs): 0.3
Perform Orbiter MET initialization and switch/circuit breaker configuration. Report completion.

MET Initialization

41-2  CEPD  CDR  151

PANEL O14
ROW B
   MN A
   MISSION TIMER FWD CB - CLOSE
   EVENT TIMER AFT CB - CLOSE

41-3  CEPD  PLT

PANEL O15
ROW B
   MN B
   MISSION TIMER AFT CB - CLOSE
   EVENT TIMER FWD CB - CLOSE

41-4  CEPD  CDR

PANEL L4
ROW Q
   AC2
      LIGHTING
      NUMERIC QS
      PH C CB - CLOSE

   ROW R
      AC1
      NUMERIC FWD
      PH B CB - CLOSE
41-5  CEPD  PLT

PANEL 08
LIGHTING PANEL
  NUMERIC SW - (MIDWAY BETWEEN OFF AND BRT)

41-6  CEPD  MS1

PANEL A6U
ORBIT STATION LIGHTING
  NUMERIC SW - (MIDWAY BETWEEN OFF AND BRT)

AFT Mission Timer

41-7  CEPD  MS1

PANEL A4
MISSION TIMER SW - GMT
MISSION TIME
  NUMERICS ILLUMINATED AND TIME ADVANCING.
  FAULT LITE OFF

41-8  CEPD  MS1

PANEL A4
MISSION TIMER SW - TEST, HOLD
MISSION TIME
  DISPLAYS ALL 8'S.
  FAULT LITE ON

41-9  CEPD  MS1

PANEL A4
MISSION TIMER SW - RELEASE
MISSION TIME
  NUMERICS ILLUMINATED AND TIME ADVANCING
  FAULT LITE OFF
AFT Event Timer

41-10  CEPD    MS1

PANEL A4
EVENT TIMER
  NUMERICS ILLUMINATED.
  FAULT LITE OFF

41-11  CEPD    MS1

PANEL A6U
EVENT TIMER
  MODE SW - TEST, HOLD

41-12  CEPD    MS1

PANEL A4
EVENT TIMER
  EVENT TIMER DISPLAYS ALL 8'S.
  FAULT LITE ON

41-13  CEPD    MS1

PANEL A6U
EVENT TIMER
  MODE SW - UP

41-14  CEPD    MS1

PANEL A4
EVENT TIMER
  NUMERICS ILLUMINATED.
  FAULT LITE OFF
Forward Mission Timer

41-15  CEPD  PLT

PANEL 03
MISSION TIME SW - GMT
MISSION TIME
  NUMERICS ILLUMINATED AND TIME ADVANCING
  FAULT LITE OFF

41-16  CEPD  PLT

PANEL 03
MISSION TIME SW - TEST, HOLD
MISSION TIME
  DISPLAYS ALL 8'S
  FAULT LITE ON

41-17  CEPD  PLT

PANEL 03
MISSION TIME SW - REL
MISSION TIME
  NUMERICS ILLUMINATED AND TIME ADVANCING
  FAULT LITE OFF

Forward Event Timer

41-18  CEPD  CDR

PANEL F7
EVENT TIME
  NUMERICS ILLUMINATED
  FAULT LITE OFF
41-19  CEPD  CDR
       PLT
       CDR

  PANEL C2
  TIMER SET TW'S - 0900
  TIMER SW - SET (MOMENTARY)
  EVENT TIMER
     MODE SW - TEST - HOLD

41-20  CEPD  CDR

  PANEL F7
  EVENT TIME
     EVENT TIMER DISPLAYS ALL 8'S
     FAULT LITE ON

41-21  CEPD  CDR

  PANEL C2
  EVENT TIMER
     MODE SW - REL

41-22  CEPD  CDR

  PANEL F7
  EVENT TIME
     EVENT TIMER INDICATES 0900
     FAULT LITE OFF
Switch/Circuit Breaker Configuration

41-23  CEPD  CDR

PANEL  L4

ROW  P
AC2
  LG  SNSR  2  PH  A  CB  -  CLOSE
AC3
  LG  SNSR  1  PH  A  CB  -  CLOSE

ROW  Q
AC1
  LIGHTING
  PANEL
    L/CTR
    PH  A  CB  -  CLOSE
    L  OVHD
    PH  B  CB  -  CLOSE
    INST  OS
    PH  C  CB  -  OPEN
AC2
  LIGHTING
  PANEL
    R  OVHD
    PH  A  CB  -  CLOSE
    R
    PH  B  CB  -  CLOSE
    NUMERIC  OS
    PH  C  CB  -  OPEN
AC3
  LIGHTING
  COAS
    PH  A  CB  -  OPEN
PANEL
  MS
    PH  B  CB  -  OPEN
    OS
    PH  C  CB  -  OPEN
PANEL L4 (CONT’D)

ROW R
   AC1
   INST R
   PH A CB - CLOSE
   AC2
   INST OVHD
   PH B CB - CLOSE
   AC3
   INST L/CTR
   PH B CB - CLOSE

41-24 CEPD CDR

PANEL O14

ROW C
   MN A
   FLOOD LEFT CNSL CB - CLOSE

41-25 CEPD PLT

PANEL O15

ROW C
   MN B
   FLOOD
   RIGHT CNSL CB - CLOSE
   LEFT CTR CB - CLOSE

ROW E
   MN B
   DRAG CHUTE SYS 2 CB - CLOSE
41-26  CEPD  PLT

PANEL 016

ROW C
MN C
FLOOD RIGHT CTR CB - CLOSE

ROW E
MN C
DRAG CHUTE SYS 1 CB - CLOSE

41-27  CEPD  PLT

PANEL 08
LIGHTING
  PANEL
    NUMERIC SW - BRT

41-28  CEPD  PLT

PANEL C3

SRB SEPARATION
  MAN/AUTO SW - AUTO
ET SEPARATION
  MAN/AUTO SW - AUTO

41-29  CEPD  PLT

PANEL F9
DC VOLT/AMP SW - MAIN VOLTS B
41-30  CEPD   MS1

PANEL A6U
ORBITER STATION LIGHTING
   NUMERIC SW - OFF
ANNUNCIATOR
   BUS SELECT SW - OFF

41-31  CEPD   MS1

PANEL R14

ROW B
   MN A
      CONTROL BUS BC1/2/3 CB - CLOSE
   MN B
      CONTROL BUS CA1/2/3 CB - CLOSE
   MN C
      CONTROL BUS AB1/2/3 CB - CLOSE

ROW E
   MN A
      PS FLOOD CB - CLOSE
   MN C
      MS FLOOD CB - CLOSE

ROW F
   ESS 1BC
      FLOOD LEFT GLRSHLD CB - CLOSE
      LDG GEAR ARM/DN RESET
         CB - OPEN
   ESS 2CA
      FLOOD RIGHT GLRSHLD CB - CLOSE
41-32  CEPD  MS1

PANEL ML86B

ROW E
MN A
  FLOOD TUNNEL ADAPTER 2 CB - OPEN
MN B
  FLOOD TUNNEL ADAPTER 3 CB - OPEN
MN C
  FLOOD TUNNEL ADAPTER 4 CB - OPEN

ROW F
MN A
  FLOODS
    MIDDECK 1/8 CB - CLOSE
    WMC/MO13Q CB - OPEN
    AIRLOCK 1 CB - OPEN
    MIDDECK 9 CB - OPEN
MN B
  FLOODS
    MIDDECK 2/6 CB - CLOSE
    BUNK 2/4 CB - OPEN
    MIDDECK 10 CB - OPEN
    AIRLOCK 3 CB - OPEN
MN C
  FLOODS
    MIDDECK
      5/7 CB - CLOSE
      3/4/MO13Q CB - CLOSE
    BUNK 1/3 CB - OPEN
    AIRLOCK 4 CB - OPEN

ROW G
ESS 1BC
  FLOOD
    AIRLOCK 2 CB - OPEN
    TUNNEL ADAPTER 1 CB - OPEN
Utility Outlet Configuration

NOTE
Obtain the switch and circuit breaker positions for the following steps from the VITT office.

41-33  CEPD    CDR

PANEL MO30F
  DC UTILITY POWER
  MN C SW - ______

PANEL MO52J
  DC UTILITY POWER
  MN A SW - ______

  AC UTILITY POWER
  AC 1 SW - ______

PANEL MO13Q
  DC UTILITY POWER
  MN B SW - ______

  AC UTILITY POWER
  AC 3 SW - ______
41-34  CE PD  CDR

PANEL MO63P
MAIN DC UTILITY POWER
CB4/J4 CB - ______
CB3/J3 CB - ______
CB2/J2CB - ______
J2 SW - ______
15A/10A SW - ______
J3 SW - ______
J4 SW - ______
J5 SW - ______
15A/10A SW - ______
J6 SW - ______
CB5/J5 CB - ______
CB6/J6 CB - ______
RLY PWR CB - ______

41-35  CE PD  CDR

PANEL F1
DC UTILITY POWER
MN B SW - ______
AC UTILITY POWER
AC 1 SW - ______

PANEL O19
DC UTILITY POWER
MN A SW - OFF

PANEL A11
DC UTILITY POWER
MN C SW - OFF

PANEL A15
DC UTILITY POWER
MN C SW - OFF
AC UTILITY POWER
AC 3 SW - ______
41-36 CEPD CDR

PANEL L4

ROW B
UTILITY POWER
F1/MO52J AC 1 CB - _____
A15/MO13Q AC 3 CB - _____

PANEL 014
ROW C
MN A
UTILITY POWER O19/MO52J CB - CLOSE

PANEL 015
ROW C
MN B
UTILITY POWER F1/MO13Q CB - _____

PANEL 016
ROW C
MN C
UTILITY POWER
A11/A15/MO30F CB - CLOSE
41-37  CEPD  CDR

PANEL ML86B
ROW E
MN B
MAR 1 CB - _____
MAR 2 CB - _____

PANEL ML85E (MUP)
AC
S1 SW - OFF
CB1 - OPEN
DC 10 AMP MN B
S2 SW - _____
CB2 - _____
S3 SW - _____
CB3 - _____
S4 SW - _____
CB4 - _____
S5 SW - _____
CB5 - _____

PUMPS
S6 SW - OFF
PUMP 2 CB7 - OPEN
PUMP 1 CB6 - OPEN
Seat Power Configuration

41-38  CEPD  PLT

PLT SEAT (LOWER LEFT SIDE)
SEAT BUS SELECT SW - AC3 (DOWN)

41-39  CEPD  CDR

CDR SEAT (LOWER LEFT SIDE)
SEAT BUS SELECT SW - AC2 (UP)

*** End of Operation 41 ***
OPERATION 42  RF FEP Source Verification

Shop: TCO
Cntrl Rm Console: MSTR
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.1
42-1  LPS  JRPS  128
       CCME  
       *MIL

VERIFY READY TO SUPPORT RF SOURCE VERIFICATION.

42-2  LPS  C4SE

VERIFY ME1/2/3 BIT SYNC’S ARE IN REMOTE.

42-3  LPS  C4MC

VERIFY AWP01 ACTIVE AND T-55M WINDOW NOT INVERTED.

NOTE
Following program requires two OC and one application TCB for execution.

42-4  LPS  C4MC  128

CURSOR CNTL (AWP01 PG-B)
SOURCE 2 TARGET
XMIT CURSOR KEY - PRESS

42-5  LPS  C4SE

VERIFY ME 1/2/3 BIT SYNC’S INDICATE SOURCE 2 DATA PROCESSING.

42-6  LPS  C4MC

VERIFY SOURCE 2, GO MODE, NO ERROR CONDITIONS EXIST FOR ME 1/2/3.
42-7  LPS  CCME

VERIFY DATA VALID ON ME 1/2/3 RF DATA.

42-8  CCME

IF EIU TO FMSP RETEST REQUIRED,

THEN DELAY 1 MINUTE WITH RF DATA.

OMRSD V72AQ0.060-A
OMRSD V72AQ0.060-B
OMRSD V72AQ0.060-C

Not Performed:_____

42-9  LPS  C4MC  128

CURSOR CNTL (AWP01 PG-B)
SOURCE 1 TARGET
XMIT CURSOR KEY - PRESS

42-10 LPS  C4SE

VERIFY ME 1/2/3 BIT SYNC'S INDICATE SOURCE 1 DATA PROCESSING.

42-11 LPS  C4MC

VERIFY SOURCE 1, GO MODE, NO ERROR CONDITIONS EXIST FOR ME 1/2/3

42-12 LPS  CCME

VERIFY DATA VALID ON ME 1/2/3 HARDLINE DATA.
42-13  LPS  C4MC

CURSOR CNTL (AWP01 PG-B)
LOCKOUT TARGET
XMIT CURSOR KEY - PRESS

42-14  LPS  CCME
       JRPS
       *MIL

Released to command channel.

42-15  LPS  C4SE

PLACE VSB ON RF SOURCE 2 192 KB. VERIFY FR LED IS ON.

*** End of Operation 42 ***
OPERATION 43 Reserved

Shop: NA
Cntrl Rm Console: NA
OPR: NA
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0

*** End of Operation 43 ***
THIS PAGE INTENTIONALLY BLANK.
OPERATION 44  Orbiter/GSE PIC Resistance Test

Shop: EPD
Cntrl Rm Console: C10
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.3
Orbiter MEC and LCA Resistance Tests

WARNING
Pyrotechnic devices may explode during handling or testing. Personnel may suffer bodily injury or death.

Wear wrist stats during mating, demating, handling or testing of pyrotechnic devices and/or connectors.

NOTE
If ordnance is connected, then do not perform Orbiter MEC and LCA Resistance Tests

Orbiter MEC and LCA Resistance Tests Not Performed:_____

NOTE
No RMS PIC resistance testing shall be performed.

44-1 OTC  CEPD

Ordnance is not connected. Power up GSE PIC racks and perform PIC resistance test. Report completion.

44-2 CEPD

CURSOR CNTL (VWC10)
MEC CYCL ENBL - ON
XMIT CURSOR KEY - PRESS

44-3 CEPD

CURSOR CNTL (VWC10)
MEC R/T - ON
XMIT CURSOR KEY - PRESS
44-4

CEPD

CURSOR CNTL (VWC10)
LCA R/T - ON
XMIT CURSOR KEY - PRESS

44-5

CEPD

CRT (VWC10)
VERIFY RESISTANCE TEST INDICATIONS
(G = ON, N = OFF)

<table>
<thead>
<tr>
<th>MEC</th>
<th>Left Hand</th>
<th>Hand</th>
<th>Right Hand</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sys A</td>
<td>Sys B</td>
<td>Sys A</td>
</tr>
<tr>
<td>Umb D-1</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Umb D-2</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Umb D-3</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>AFT sep</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LCA</th>
<th>LCA-1</th>
<th>LCA-2</th>
<th>LCA-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>NLG Ext B/A</td>
<td>-</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>LMG Ext B/A</td>
<td>-</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>RMG Ext B/A</td>
<td>-</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>NLG THR 2/1</td>
<td>-</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>FEX 3/1/2</td>
<td>G</td>
<td>G</td>
<td>G</td>
</tr>
<tr>
<td>FWD sep A/B</td>
<td>N</td>
<td>N</td>
<td>-</td>
</tr>
<tr>
<td>Ku NUT A/B</td>
<td>N</td>
<td>-</td>
<td>N</td>
</tr>
<tr>
<td>Ku GLT A/B</td>
<td>N</td>
<td>-</td>
<td>N</td>
</tr>
</tbody>
</table>

44-6

CEPD

CURSOR CNTL (VWC10)
LCA R/T - OFF
XMIT CURSOR KEY - PRESS
44-7

CEPD

CURSOR CNTL (VWC10)
MEC R/T - OFF
XMIT CURSOR KEY - PRESS

44-8

CEPD

CURSOR CNTL (VWC10)
MEC CYCL ENBL - OFF
XMIT CURSOR KEY - PRESS

GSE Resistance Test

44-9

CEPD

CURSOR CNTL (VWC10)
GRD SYS - ON
XMIT CURSOR KEY - PRESS

44-10

CEPD

CRT (VWC10)
VERIFY THE FOLLOWING VOLTAGES FOR
SYS A & B:

- H2 BURN AND LR GND PWR GREATER THAN 26 VDC
- H2 BURN AND LR CPA PRI & RED GREATER THAN 26 VDC
- ALL PIC CAP PRI & RED LESS THAN 1.5 VDC
44-11  

**CEPD**

CRT (VWC10)  
GRD T-0 RESET IND RESET  
GRD SW STATUS IND OFF

44-12  

**CEPD**

CURSOR CNTL (VWC10)  
GND R/T - ON  
XMIT CURSOR KEY - PRESS

44-13  

**CEPD**

CRT (VWC10)  
VERIFY RESISTANCE TEST INDICATIONS  
(G=ON, N=OFF)

<table>
<thead>
<tr>
<th></th>
<th>Left Hand</th>
<th></th>
<th>Right Hand</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sys A</td>
<td>Sys B</td>
<td>Sys A</td>
<td>Sys B</td>
</tr>
<tr>
<td>H₂ burn</td>
<td>R</td>
<td>R</td>
<td>R</td>
<td>R</td>
</tr>
<tr>
<td>ENG 1</td>
<td>N</td>
<td>-</td>
<td>-</td>
<td>N</td>
</tr>
<tr>
<td>ENG 2/3</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td><strong>Launch Rel</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HDP 5/1</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>HDP 6/2</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>HDP 7/3</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>HDP 8/4</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>ETVAS</td>
<td>-</td>
<td>-</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>H/O TSM</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Lanyard</td>
<td>-</td>
<td>-</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

44-14  

**CEPD**

CURSOR CNTL (VWC10)  
GND R/T - OFF  
XMIT CURSOR KEY - PRESS
Drag Chute Resistance Test

44-15

CEPD

CONSOLE KYBD (VWC10)
DRAG CHUTE
   R/T CMD - ON
XMIT CMD KEY - PRESS

CRT (VWC10)
DRAG CHUTE
   R/T IND ON

<table>
<thead>
<tr>
<th>Drag chute</th>
<th>SYS-1</th>
<th>SYS-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dply</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Jett</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

44-16

CEPD

CONSOLE KYBD (VWC10)
DRAG CHUTE
   R/T CMD - OFF
XMIT CMD KEY - PRESS

CRT (VWC10)
DRAG CHUTE
   R/T IND OFF

*** End of Orbiter MEC and LCA Resistance Tests ***

*** End of Operation 44 ***
OPERATION 45  CDC Control - Set and Resume

Shop: INTG
Cntrl Rm Console: INTG
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.2

NOTE
Perform CDC Control - Set and Resume at NTD/OTC direction.

Operation Not Performed: ______
45-1

NTD CGLS 212

SET CDC TO __________

45-2

CGLS

SELECT APPL PG 3B (SLP01)

CRT
VERIFY INTG MENU

45-3

CGLS

PFP
SLP01 - PRESS
VERIFY INTG PFP DISPLAY

45-4

CGLS

PFP
GLS CONTROL - PRESS

CRT
VERIFY GLS TIME/HOLD MET DISPLAY

45-5

CGLS

CURSOR CNTL
CDC CONTROL
XMIT CURSOR KEY - PRESS

CRT
VERIFY CDC CONTROL DISPLAY
45-6

CGLS

CURSOR CNTL
SET CDT
XMIT CURSOR KEY - PRESS

45-7

CGLS

CONSOLE KYBD

_____/_____.
HHMM SS

XMIT RESP KEY - PRESS

45-8

CGLS

VERIFY CDC SET TO _____:____/____ AND HOLDING

45-9

NTD CGLS

SET CDC TO START COUNTING AT ____:____/____.000 GMT

45-10

CGLS

CURSOR CNTL
RESUME AT GMT
XMIT CURSOR KEY - PRESS
45-11  CGLS

CONSOLE KYBD
____:___/____.000 GMT
UNDER RESUME AT GMT
XMIT RESP KEY - PRESS

45-12  CGLS

CRT
VERIFY RESUME AT GMT SET TO ___:___/___ GMT

45-13  CGLS

OC KEY - PRESS (UNTIL $SYS DISPLAY)
CURSOR CNTL
(TCG1 OR TCG2 - WHICHEVER IS ACTIVE)
XMIT CURSOR KEY - PRESS

CRT
VERIFY TCG DISPLAY

45-14  CGLS

CRT
VERIFY CDC SET TO START COUNTING
AT ___:___/___ GMT
45-15  CGLS       OTC       212

CDC time is set.

45-16  CGLS

SELECT APPL PG 3B

PFP
KEY 7 - PRESS

CRT
VERIFY GLS TIME/HOLD DISPLAY

45-17  CGLS

CDC WILL START ON MY MARK.
3-2-1- MARK.

45-18  CGLS

CDC IS AT _________ AND COUNTING

45-19  CGLS       NTD

CDC HAS STARTED AT _________ GMT
NOTE
Perform next step after CDC has started.

45-20

CGLS

CURSOR CNTL
HOLD TIME AVAILABLE
XMIT CURSOR KEY - PRESS

CONSOLE KYBD
____/____
XMIT RESP KEY - PRESS

CRT
VERIFY HOLD TIME AVAILABLE SET

45-21

CGLS

CURSOR CNTL
TERMINATE
XMIT CURSOR KEY - PRESS

*** End of Operation 45 ***
OPERATION 46   GLS Functional Initialization and LCC Activation

Shop:  INTG  
Cntrl Rm Console:  INTG  
OPR:  TCO  
Zone:  N/A  
Hazard (Y/N):  N  
Duration (Hrs):  0.8
NOTE
A list of GLS masks and bypasses to support test objectives, together with a signature page, will be provided by the GLS system engineer. This list will contain each kickoff step in this sequence referencing this list along with the corresponding inputs for that step.

46-1  OTC  CGLS  212

Perform GLS functional initialization on CHANNEL 162 and report completion.

46-2  CGLS  CTPE  162

Provide two concurrencies at Backup and five concurrences at Intg.

46-3  CGLS

PFP
VERIFY APPL TASKS 1-5 INACTIVE
KEY 7 - PRESS
VERIFY ALL OC TASKS INACTIVE

46-4  CGLS

SELECT APPL PG 1B
CONSOLE KYBD
HOME CMD KEY - PRESS
SLP03
PERF PGM KEY - PRESS
46-5

CGLS

CRT (SLP03)
SELECT SITE

CONSOLE KYBD
______ (KSCA OR KSCB)
XMIT RESP KEY - PRESS

46-6

CGLS

PFP
VERIFY TASK
SLP03 - 1
SLP02 - 2
SLP01 - 3

Pseudo Initialization

46-7

CGLS

SELECT APPL PG 1B

CRT
VERIFY INTG MENU

46-8

CGLS

CURSOR CNTL
PSEUDO INIT
XMIT CURSOR KEY - PRESS
46-9  

**CGLS**

**IF** PSEUDO'S HAVE ALREADY BEEN INITIALIZED FOR THIS TEST,

**THEN**

ALL DISK FILES
XMIT CURSOR KEY - PRESS

*Not Performed:______*

46-10  

**CGLS**

**IF** PSEUDO'S HAVE NOT YET BEEN INITIALIZED,

**THEN**

CURSOR CNTL
ALL PSEUDOS AND DISK FILES
XMIT CURSOR KEY - PRESS

*Not Performed:______*
Cryo Safing Pseudo Init

NOTE
If page B message indicates: "See page A for operator input," then perform Cryo Safing Pseudo Init.

Cryo Safing Pseudo Init Not Performed:______

46-11       CGLS
VERIFY PAGE A MSG:
(N03IS511E) CRYO SAFING ENABLED IS ON. THIS INDICATES SCRUB/CRYO DRAIN IN PROGRESS.

46-12       CGLS
CRT (SLP02 PAGE A)
ENTER "1" IF CRYO SAFING SUPPORT COMPLETED AND SLP50 NOT ACTIVE TO INITIALIZE (N03IS511E) TO OFF.

ENTER "2" TO LEAVE (N03IS511E) UNCHANGED

_____ (1 OR 2)
XMIT RESPONSE KEY - PRESS

VERIFY MSG INDICATING PSEUDO STATE

*** End of Cryo Safing Pseudo Init ***
46-13  CGLS

CRT (PG-B)
VERIFY PSEUDO HOUSEKEEPING COMPLETE

CRT (PG-A)
VERIFY NO EXCEPTIONS

46-14  CGLS

CURSOR CNTL
TERMINATE PGM
XMIT CURSOR KEY - PRESS

46-15  CGLS

SELECT APPL PAGE 1B

CRT
VERIFY INTEG MENU
GLS Pseudo Mods

46-16

CGLS

SET EACH OF FOLLOWING PSEUDOS TO INDICATED STATE:

CONSOLE KYBD
HOME CMD KEY - PRESS
SET __________ (PSEUDO AND STATE)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

<table>
<thead>
<tr>
<th>PSEUDO</th>
<th>STATE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>N03IS500E</td>
<td>ON</td>
<td>LO₂ DRAINBACK COMPLETE</td>
</tr>
<tr>
<td>N03IS006E</td>
<td>ON</td>
<td>LH₂ REPL TERM IN PROG</td>
</tr>
<tr>
<td>N03IS009E</td>
<td>ON</td>
<td>ET LO₂ PRESS</td>
</tr>
<tr>
<td>N03IS010E</td>
<td>ON</td>
<td>LO₂ REPL TERM IN PROG</td>
</tr>
<tr>
<td>N03IS007E</td>
<td>ON</td>
<td>LH₂ FLIGHT MASS</td>
</tr>
<tr>
<td>N03IS008E</td>
<td>ON</td>
<td>LO₂ FLIGHT MASS</td>
</tr>
<tr>
<td>N03IS082E</td>
<td>OFF</td>
<td>LH₂ PREPRESS CYCLE FAIL</td>
</tr>
<tr>
<td>NLHK0109X</td>
<td>ON</td>
<td>LH₂ DRAINBACK COMPLETE</td>
</tr>
</tbody>
</table>

46-17

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
PVO N03IS080E (ORBITER AT PAD)
XMIT CMD KEY - PRESS

CRT
VERIFY ON
46-18

**CGLS**

**IF** VEHICLE AT PAD A,

**THEN**
HOME CMD KEY - PRESS
CONSOLE KYBD
PVO NTBISKPADA (TCID BUILD IN SUPPORT FOR PAD A)
XMIT CMD KEY - PRESS

CRT
VERIFY ON

HOME CMD KEY - PRESS
CONSOLE KYBD
PVO NTBISKPADB (TCID BUILD IN SUPPORT FOR PAD B)
XMIT CMD KEY - PRESS

CRT
VERIFY OFF

Not Performed: ______

46-19

**CGLS**

**IF** VEHICLE AT PAD B,

**THEN**
HOME CMD KEY - PRESS
CONSOLE KYBD
PVO NTBISKPADA (TCID BUILD IN SUPPORT FOR PAD A)
XMIT CMD KEY - PRESS

CRT
VERIFY OFF

HOME CMD KEY - PRESS
CONSOLE KYBD
PVO NTBISKPADB (TCID BUILD IN SUPPORT FOR PAD B)
XMIT CMD KEY - PRESS

CRT
VERIFY ON

Not Performed: ______
46-20 CGLS

IF VEHICLE IS OV-105,

THEN

PVO NGPS3STRING
XMIT CMD KEY - PRESS

CRT
VERIFY ON

Not Performed:______

46-21 CGLS

IF VEHICLE IS NOT OV-105,

THEN

PVO NGPS3STRING
XMIT CMD KEY - PRESS

CRT
VERIFY OFF

Not Performed:______

46-22 CGLS

IF STATE IS INCORRECT IN ONE OF THE PREVIOUS TWO STEPS,

THEN

SET NGPS3STRING ______ (CORRECT STATE)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

Not Performed:______
46-23  CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS

PVO NORBTAILNO
XMIT CMD KEY - PRESS

**VERIFY** PSEUDO FD IS SET TO CORRECT VEHICLE FOR CURRENT TEST

46-24  CGLS

**IF** THE PSEUDO IN THE PREVIOUS STEP WAS SET TO AN INCORRECT VALUE,

**THEN PERFORM:**
CONSOLE KYBD
HOME CMD KEY - PRESS

ISSU __________ (PSEUDO AND VALUE)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

**VERIFY** SUCCESSFUL

Not Performed:______
LCC Hold

46-25   CGLS

IF ALL LCC FAILURES ARE TO BE BYPASSED,

THEN
HOME CMD KEY - PRESS
CONSOLE KYBD
SET N03IS003E - ON
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

Not Performed:_____

System Bypass

46-26   CGLS

CURSOR CNTL
SYSTEM BYPASS
XMIT CURSOR KEY - PRESS

CRT
VERIFY SYSTEM BYPASS DISPLAY
NOTE
Reference GLS system bypasses attachment page for required inputs.

46-27
CGLS

CURSOR CNTL

(SYS)

XMIT CURSOR KEY - PRESS

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>BYPASS</th>
<th>SYSTEM</th>
<th>BYPASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>APU</td>
<td>HYD</td>
<td>ARMS</td>
<td>HYFUEL</td>
</tr>
<tr>
<td>BELE</td>
<td>HYOXID</td>
<td>BHYD</td>
<td>INST</td>
</tr>
<tr>
<td>BINST</td>
<td>INTG</td>
<td>BINST</td>
<td>INTG</td>
</tr>
<tr>
<td>BRs</td>
<td>LH₂</td>
<td>BPYRO</td>
<td>LO₂</td>
</tr>
<tr>
<td>PL Intg</td>
<td>MECH</td>
<td>COMM</td>
<td>MPS</td>
</tr>
<tr>
<td>DPS</td>
<td>Navaid</td>
<td>ECLSS</td>
<td>FCL</td>
</tr>
<tr>
<td>ECS</td>
<td>PVD</td>
<td>EPDC</td>
<td>SSME</td>
</tr>
<tr>
<td>FCP</td>
<td>TINST</td>
<td>GNS</td>
<td>Water</td>
</tr>
<tr>
<td>GOX</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
GLS Functional Changes

NOTE
Console reboot or disk re-initialization will probably destroy this data. In event this happens verify data lost, and if so re-enter it.
46-32  CGLS
CURSOR CNTL
ML FUNC CHGS
XMIT CURSOR KEY - PRESS

46-33  CGLS
PFP
ML BYPASS FILE - PRESS

NOTE
To bypass GLS functional line item use GLSDD to determine sequence number. Reference attached list, GLS mainline bypasses, for required inputs.

46-34  CGLS
PFP
ADD - PRESS

Not Performed:______
NOTE
Repeat next step for each sequence to be mainline bypassed.

46-35

CGLS

HOME CMD KEY - PRESS
CONSOLE KYBD
__________ (SEQ NUMBER)
XMIT RESP KEY - PRESS

Not Performed:_____

NOTE
Perform next step only after all required entries have been completed.

46-36

CGLS

HOME CMD KEY - PRESS
CONSOLE KYBD
-9999
XMIT RESP KEY - PRESS

46-37

CGLS

HARDCOPY KEY - PRESS
NOTE
Functional line item entered into bypass file may not be entered into any other file.

46-38
CGLS

PFP
ML ANALOG - PRESS

CRT
VERIFY ANALOG FILE DISPLAY

NOTE
To verify or command analog using limits different than limits in GLSDD, perform following five steps. Reference attached list, GLS ml analog disk file, for required inputs.

46-39
CGLS

PFP
ADD - PRESS

Not Performed:_____

NOTE
Repeat next three steps for each mainline analog limit change record.

46-40
CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
__________ (SEQ NUMBER)
XMIT RESP KEY - PRESS

Not Performed:_____

464
46-41  
CGLS

CONSOLE KYBD  
HOME CMD KEY - PRESS  
__________ (NEW HIGH LIMIT)  
XMIT RESP KEY - PRESS  

Not Performed:______

46-42  
CGLS

CONSOLE KYBD  
HOME CMD KEY - PRESS  
__________ (NEW LOW LIMIT)  
XMIT RESP KEY - PRESS  

Not Performed:______

NOTE
Perform next step only after all required entries have been completed.

46-43  
CGLS

CONSOLE KYBD  
HOME CMD KEY - PRESS  
-9999  
XMIT RESP KEY - PRESS  

Not Performed:______

46-44  
CGLS

HARDCOPY KEY - PRESS  

46-45  
CGLS

PFP
PRSEQ ANALOG FILE - PRESS  
CRT  
VERIFY PRESEQUENCER ANALOG FILE DISPLAY
Pre-sequence Analog Measurements

NOTE
If pre-sequence analog measurement with different limits than those in GLSDD, KLO-82-0071 Appendix A are to be commanded, then perform Pre-sequence Analog Measurements

Pre-sequence Analog Measurements Not Performed:______

NOTE
Reference attached list, GLS pre-sequence analog file, for required inputs.

46-46
CGLS

PFP
ADD - PRESS

NOTE
Repeat next three steps for each pre-sequence analog limit change record.

46-47
CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
__________ (SEQ NUMBER)
XMIT RESP KEY - PRESS
CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS

(NEW HIGH LIMIT)

XMIT RESP KEY - PRESS

NOTE
Perform next step only after all required entries have been completed.

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS

(NEW LOW LIMIT)

XMIT RESP KEY - PRESS

*** End of Pre-sequence Analog Measurements ***

CGLS

HARDCOPY KEY - PRESS
Item Delete

NOTE
If an item that has been updated into any disk file will be deleted, then perform Item Delete.

Item Delete Not Performed:_____

46-52 CGLS

PFP
DELETE - PRESS

46-53 CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
__________ (SEQ NUMBER)
XMIT RESP KEY - PRESS

*** End of Item Delete ***

46-54 CGLS

CURSOR CNTL
TERMINATE
XMIT CURSOR KEY - PRESS

CRT
INTG MENU
Limit Change

46-55  CGLS

PFP
SLP02 - PRESS

46-56  CGLS

PFP
LCC CONTROL - PRESS

CRT
LCC C AND D (SDP08)

46-57  CGLS

CURSOR CNTL
GLS LIMIT CHANGE
XMIT CURSOR KEY - PRESS

CRT
GLS DUAL INTERRUPT NOTIFICATION

46-58  CGLS

CURSOR CNTL
CONSOLE BACKUP
XMIT CURSOR KEY - PRESS

CRT
BACKUP BLOCK SOLID
46-59

CGLS

CURSOR CNTL
ACTIVATE DUAL NOTIFICATION
XMIT CURSOR KEY - PRESS

CRT
ACTIVE BLOCK SOLID

46-60

CGLS

VERIFY TWO CONCURRENCIES AVAILABLE IN BACKUP
CONSOLE TO PERFORM FOLLOWING SIX STEPS

46-61

CGLS

PFP
TERM LIMIT CHANGE - PRESS

VERIFY LCC C AND D

46-62

CGLS

CURSOR CNTL
ACTIVATE LIP1
XMIT CURSOR KEY - PRESS

46-63

CGLS

CURSOR CNTL
ACTIVATE LIP2
XMIT CURSOR KEY - PRESS
46-64 CGLS

CRT
VERIFY SLPBO AND SLPCO ACTIVE IN BACKUP CONSOLE

46-65 CGLS

PFP
LIMIT CHANGE - PRESS

CRT
VERIFY GLS LIMIT CHANGE

46-66 CGLS

CRT
SELECT XFER TO GLS FOR ALL SYSTEMS

46-67 CGLS

CRT
VERIFY DISPLAY SHOWS ALL SELECTED SYSTEMS LIMITS XFERED TO GLS EXCEPT BRS

46-68 CGLS

PFP
INTEG MENU - PRESS

CRT
VERIFY INTEGRATED MENU
IF SHAB LCC'S WILL NOT BE MONITORED THIS TEST:

THEN
HOME CMD KEY - PRESS
CONSOLE KYBD
PVO NPAYLOADID
XMIT CMD KEY - PRESS

CRT
VERIFY
PAYLOAD ID IS 0 (NO PLD MONITORED)

Not Performed:______
RDM/Spacehab LCC

**NOTE**
If RDM/Spacehab LCC are to be monitored, then perform RDM/Spacehab LCC

RDM/Spacehab LCC Not Performed:______

46-70

**CGLS**

SELECT - APP PG-1B
VERIFY INTG MENU (SLP03)
SELECT - TERMINATE
XMIT CURSOR KEY - PRESS

46-71

**CGLS**

**IF** SPACEHAB PAYLOAD IS POWERED UP,

**THEN**
HOME CMD KEY - PRESS
PVO NPAYLOADID
XMIT CMD KEY - PRESS
**VERIFY** PAYLOAD ID IS 5 (SPACEHAB)

Not Performed:______

46-72

**CGLS**

**IF** FOR RDM/SPACEHAB ONLY,

**THEN**
HOME CMD KEY - PRESS
S FD V98X2621X1 - XMIT CMD
**VERIFY** PROC HALT STAT 1 - BCE ENABLED IS OFF

Not Performed:______
46-73  CGLS

HOME CMD KEY - PRESS
SLP81
PERF PGM KEY - PRESS

46-74  CGLS

PFP (SLP81)
PFPK1 - PRESS
VERIFY TOP LEVEL PFP DISPLAY

46-75  CGLS

IF SPACEHAB INSTALLED,

THEN PERFORM
PFP (SHAB INHIBITED)
PFPK 2 - PRESS
VERIFY PFPK 2 LED,
SPACEHAB ACTIVE

Not Performed: ______

46-76  CGLS

IF RDM IS INSTALLED,

THEN PERFORM
PFP (RDM INHIBITED)
PFPK 4 - PRESS
VERIFY PFPK 4 LED,
RDM ACTIVE

Not Performed: ______
46-77

CGLS

PFP (SELECTION CMPLT)
PFPK5 - PRESS
PFP (CONFIGURATION)
PFPK1 - PRESS
PFP (PSEUDO INIT)
PFPK1 - PRESS
VFY PSEUDO INIT LED DISPLAY

46-78

CGLS

PFP (ALL PSEUDO'S)
PFPK2 - PRESS

NOTE
Printer plotter must be online and functional to obtain copy.

46-79

CGLS

IF COPY OF STANDALONE PSEUDO PD VALUES ARE DESIRED,

THEN
PFP (PSEUDOS TO PP)
PFPK4 - PRESS
VERIFY PSEUDOS WRITING TO CONSOLE P/P

Not Performed:_____

46-80

CGLS

PFP (CONFIG LEDS)
PFPK6 - PRESS
VERIFY CONFIG LEDS DISPLAY
46-81
CGLS
PFP (RSYS TRANSFER)
PFPK2 - PRESS

46-82
CGLS
CRT (SLP81) PG-1A
SELECT RSYS CONSOLE
______ (1=INTG, 2=BKUP,
3=MSTR, 4=IGNORE)
XMIT RESPONSE KEY - PRESS
VERIFY RSYS XFER CMPLT TO CONSOLE SPECIFIED PG-1A

46-83
CGLS
PFP (LIMIT CHG SELECT)
PFPK3 - PRESS

46-84
CGLS
VERIFY LIMIT CHANGE COMPLETE, PG-1A

46-85
CGLS
PFP (ACTIVATE CVFY)
PFPK4 - PRESS
VERIFY OPERATOR SELECTION MSG, PG-1A

46-86
CGLS
PFP (OPS LEDS)
PFPK5 - PRESS
VERIFY OPS LEDS DISPLAY
CGLS

IF VL FAILURES WERE NOT REPORTED,

THEN
PFP (LOOKUP SELECT)
PFPK1 - PRESS
VERIFY 25 LOOKUP DISPLAY (SDP81)

Not Performed:______
Mask/Reset Standalone CVFY FD's

NOTE
If Standalone CVFY FD's are required to be masked/reset, then perform Mask/Reset Standalone CVFY FD's. Reference list provided by GLS at run time for the fill-ins

Mask/Reset Standalone CVFY FD's Not Performed:_____

NOTE
Repeat the next step for each FD required to be masked.

46-88
CGLS
CURSOR CONTROL
M - PAGE/ROW: _____
XMIT CURSOR KEY - PRESS
VFY "M" ADJACENT TO FD SELECTED

NOTE
Repeat the next step for each FD required to be reset.

46-89
CGLS
CURSOR CONTROL
R - PAGE/ROW: _____
XMIT CURSOR KEY - PRESS
VERIFY BLANK ADJACENT TO FD SELECTED

*** End of Mask/Reset Standalone CVFY FD's ***
46-90  

CGLS

HARDCOPY KEY - PRESS

46-91  

CGLS

PFP (OPS LEDS)
PFPK6 - PRESS
VERIFY 25 LOOKUP DISPLAY CLEARS

NOTE
Reference attached list provided by CGLS at runtime for required inputs.

46-92  

CGLS

IF FOR SHAB/RDM MISSIONS TO MODIFY VOTING LOGIC FOR SHAB/RDM LCCS,

THEN PERFORM
CONSOLE KYBD
HOME CMD KEY - PRESS
SET ____________ ON
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

Not Performed:_____

NOTE
Perform next two steps per GLS mask and bypass list.

46-93  

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
C GL ____________ ____________
FD LO HI

XMIT CMD KEY - PRESS
NOTE
Do not perform following for BFS measurements.

46-94

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
A GX __________
FD

XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

Not Performed:_____  

*** End of RDM/Spacehab LCC ***
Single Shot Verification

46-95   CGLS
CURSOR CNTL
SINGLE SHOT VFY
XMIT CURSOR KEY - PRESS
CRT
SINGLE SHOT VFY

46-96   CGLS
CURSOR CNTL
VERIFY ML INT
XMIT CURSOR KEY - PRESS
CRT
INVERTED CURSOR BLOCK

46-97   CGLS
CURSOR CNTL
SELECTION END
XMIT CURSOR KEY - PRESS
CRT
PRE-SEQ VFY SELECTION
NOTE
Nomenclature displayed inverted denotes system bypassed or verify option not selected. Reference attached list, GLS single shot masks, for required inputs.

46-98

CGLS

IF AN FD WILL BE MASKED:

THEN
CURSOR CNTL
MASK FD
XMIT CURSOR KEY - PRESS
CRT
CURSOR BLOCK INVERT
YELLOW (M)

Not Performed:______

NOTE
Reference attached list, GLS single shot resets, for required inputs. FD's which have been bypassed by system may not be individually reset.

46-99

CGLS

IF AN FD WILL BE RESET:

THEN
CURSOR CNTL
RESET FD
XMIT CURSOR KEY - PRESS
CRT
CURSOR BLOCK OPEN
CYAN

Not Performed:______
46-100  CGLS

WHEN MASK/RESET SELECTIONS COMPLETE, BEGIN VERIFIES.

PFP
BEGIN VFYS - PRESS

CRT
VERIFY TITLE:
SINGLE SHOT VERIFY FAILURES

46-101  CGLS

IF PAGE IS FULL,

THEN

PFK15 KEY - PRESS

CRT
VERIFY NEXT PAGE OF FAILURES

Not Performed:______

46-102  CGLS

WHEN VERIFIES COMPLETE

CRT
VERIFY MESSAGE:
VERIFY CYCLE COMPLETE
NOTE
Perform one of the next two steps if a verify failure occurs.

46-103 CGLS

PFPK1 (TERM VFY'S) - PRESS

Not Performed:______

46-104 CGLS

PFPK2 (RESTART VFY'S) - PRESS

Not Performed:______

46-105 CGLS

PFP
SYSTEM MENU - PRESS

VERIFY INTEGRATED PFP PANEL

NOTE
For mainline interrupt FD's to be masked or reset, reference attached list, GLS mainline masks or GLS ml mask-resets, for required inputs.

46-106 CGLS

PFP
VIEW INTERRUPT - PRESS

CRT (SDPC2)
VERIFY VIEW INTERRUPT SKELETON
Mask/Reset Mainline Interrupt FD's

NOTE
If mainline interrupt FD's will be masked/reset, then perform Mask/Reset Mainline Interrupt FD's

Mask/Reset Mainline Interrupt FD's Not Performed:____

NOTE
Repeat next step for each mainline table containing an FD to be masked.

46-107

CGLS

CURSOR CNTL
TABLE __________ (TABLE NUMBER)
XMIT CURSOR KEY - PRESS

CRT
VERIFY PG 2B

NOTE
Repeat next step for each mainline CVFY FD to be masked.

46-108

CGLS

CURSOR CNTL
MASK _________ (FD)
XMIT CURSOR KEY - PRESS

CRT
FD'S SHOW "M" ADJACENT TO FD'S SELECTED

Not Performed:____
NOTE
Repeat next step for each FD to be reset.

46-109
CGLS

CURSOR CNTL
RESET __________ (FD)
XMIT CURSOR KEY - PRESS

Not Performed:_____

NOTE
Repeat next step for each new mainline table as required.

46-110
CGLS

PFP
ADVANCE - PRESS

CRT
VERIFY NEXT TABLE PG 2B
REPEAT UNTIL NEXT DESIRED TABLE DISPLAYED.

*** End of Mask/Reset Mainline Interrupt FD’s ***
MIP Discrete Limit Change

NOTE
If GOAL limits for discrete MIP measurements will be changed, then perform MIP Discrete Limit Change.

MIP Discrete Limit Change Not Performed:_____

NOTE
Repeat next two steps for each discrete FD requiring a limit change. A list of discrete FD's requiring limit change and corresponding states will be provided with the GLS mask and bypass list.

46-111  CGLS
CONSOLE KYBD
HOME CMD KEY - PRESS
I GX ______ (FD)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

46-112  CGLS
CONSOLE KYBD
HOME CMD KEY - PRESS
C GL _____ (FD) _____ (STATE)
XMIT CMD KEY - PRESS

*** End of MIP Discrete Limit Change ***
MIP Analog Limit Change

NOTE
Repeat next step for each analog FD requiring a limit change. A list of discrete FD's requiring limit change and corresponding states will be provided with the GLS mask and bypass list.

46-113

CGLS

IF GOAL LIMITS FOR ANALOG MIP MEASUREMENTS WILL BE CHANGED,

THEN

CONSOLE KYBD
HOME CMD KEY - PRESS
C GL (FD) (LO) (HI)
XMIT CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

Not Performed:______
MIP Digital Pattern Limit Change

NOTE
Repeat next step for each dig pattern FD requiring a limit change. A list of dig pattern FD's requiring limit change and corresponding values will be provided with the GLS mask and bypass list.

46-114 CGLS

IF GOAL LIMITS FOR DIGITAL PATTERN MIP MEASUREMENTS WILL BE CHANGED,

THEN
CONSOLE KYBD
HOME CMD KEY - PRESS
C GL _____ (FD) _____ (EQ/NE/ANY) _____ (VALUE)
XMIT CMD KEY - PRESS

Not Performed: _____
Mask/Reset LCC Interrupt FD's

NOTE
If LCC interrupt FD’s will be masked/reset, then perform Mask/Reset LCC Interrupt FD's.

Mask/Reset LCC Interrupt FD's Not Performed:_____

NOTE
For LCC interrupt FD's to be masked or reset, reference attached list, GLS LCC masks or GLS LCC mask-resets, for required inputs.

46-115

CGLS

PFP
LCC SELECTIONS - PRESS

CRT
VERIFY LCC SELECTIONS (SDPB2)
PG 2B

NOTE
Repeat next step for each LCC table containing an FD to be masked.

46-116

CGLS

CURSOR CNTL
TABLE _____ (TABLE NO. UPPER/LOWER)
XMIT CURSOR KEY - PRESS

CRT
VERIFY SELECTED TABLE PG 2B

Not Performed:_____

490
NOTE
Repeat next step for all required LCC FD's to be masked.

46-117
CGLS
CURSOR CNTL
MASK _________ (FD)
XMIT CURSOR KEY - PRESS

CRT
VERIFY "M" ADJACENT TO FD'S SELECTED

Not Performed:_____

NOTE
Repeat next step for all required LCC FD's to be reset.

46-118
CGLS
CURSOR CNTL
RESET _________ (FD)
XMIT CURSOR KEY - PRESS

CRT
VERIFY BLANK ADJACENT TO FD'S SELECTED.

Not Performed:____
NOTE
Repeat next step for each new LCC table as required.

46-119  CGLS

PFP
ADVANCE - PRESS

CRT
VERIFY NEXT TABLE DISPLAYED TO PG-B
REPEAT UNTIL NEXT DESIRED TABLE DISPLAYED.

46-120  CGLS

PFP
INTEG MENU - PRESS

CRT
INTEGRATED MENU

*** End of Mask/Reset LCC Interrupt FD's ***
LIP Discrete Limit Change

NOTE
If GOAL limits for discrete LIP measurements will be changed, then perform LIP Discrete Limit Change

LIP Discrete Limit Change Not Performed:______

NOTE
Repeat next two steps for each discrete FD requiring a limit change. A list of discrete FD's requiring limit change and corresponding states will be provided with the GLS mask and bypass list.

46-121

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
I GX _____ (FD)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

46-122

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
A GX _____ (FD) _____ (STATE)
XMIT CMD KEY - PRESS

*** End of LIP Discrete Limit Change ***
LIP Analog Limit Change

NOTE
If GOAL limits for analog LIP measurements will be changed, then perform LIP Analog Limit Change

LIP Analog Limit Change Not Performed:_____

NOTE
Repeat next two steps for each analog FD requiring a limit change. A list of analog FD's requiring limit change and corresponding values will be provided with the GLS mask and bypass list.

46-123

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
C GL _____ (FD) _____ (LO) _____ (HI)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS
VERIFY SUCCESSFUL

46-124

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
A GX _____ (FD)
XMIT CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

*** End of LIP Analog Limit Change ***
LIP Digital Pattern Limit Change

NOTE
Repeat next step for each digital pattern FD requiring a limit change. A list of
digital pattern FD's requiring limit change and corresponding values will be
provided with the GLS mask and bypass list.

46-125 CGLS

IF GOAL LIMITS FOR DIGITAL PATTERN LIP
MEASUREMENTS WILL BE CHANGED,

THEN
CONSOLE KYBD
HOME CMD KEY - PRESS
A GX _____ (FD) _____ (EQ/NE/ANY)_____ (VALUE)
XMIT CMD KEY - PRESS

Not Performed:______

46-126 CGLS

TO TERMINATE,
PFP
INTEG MENU - PRESS

CRT
VERIFY INTG MENU
NOTE
When LIP CPRO limit changes complete, make check of LCC failures for CPRO measurements.

46-127
CGLS

SELECT APPL PG-3B
PFP
KEY 7 - PRESS
SLP01 - PRESS
GLS CONTROL - PRESS

46-128
CGLS

CURSOR CNTL
CDC CONTROL
XMIT CURSOR KEY - PRESS

46-129
CGLS

CURSOR CNTL
SET HOLD AVAILABLE
XMIT CURSOR KEY - PRESS

46-130
CGLS

CONSOLE KYBD
+__:___/___
XMIT RESP KEY - PRESS

46-131
CGLS

Verify hold available set
46-132  CGLS

CURSOR CNTL
RETURN TO MS/ML DISPLAY
XMIT CURSOR KEY - PRESS

46-133  CGLS

HOME CMD KEY - PRESS
ISSU N03IS162D 540
XMIT CMD KEY - PRESS
EXEC CMD KEY _ PRESS

VERIFY SUCCESSFUL

*** End of Operation 46 ***
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OPERATION 47  Manual Clock Control (CPRO)

Shop: INTG
Cntrl Rm Console: INTG
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.2

NOTE
Perform Operation - Manual Clock Control (CPRO) at NTD/OTC direction.

Operation Not Performed: _____
47-1

CGLS

IF CDC HOLD REQUIRED,

THEN
CONSOLE KYBD
HOME CMD KEY - PRESS
CDTH -____/____ (CDT)
    HHMM SS
XMIT CMD KEY - PRESS

Not Performed:______

47-2

CGLS

IF CDC SET REQUIRED,

THEN
CONSOLE KYBD
HOME CMD KEY - PRESS
CDTS -____/____ (CDT)
    HHMM SS
XMIT CMD KEY - PRESS

Not Performed:______

47-3

CGLS

IF CDC RESUME REQUIRED,

THEN
CONSOLE KYBD
HOME CMD KEY - PRESS
CDTC ____/____.000 (GMT)
    HHMM SS
XMIT CMD KEY - PRESS

Not Performed:______

*** End of Operation 47 ***
OPERATION 48  CDC Hold Control

Shop: INTG
Cntrl Rm Console: INTG
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.2

NOTE
Perform Operation - CDC Hold Control at NTD/OTC direction.

Operation Not Performed: _____
48-1  NTD  CGLS  212

SET CDC TO HOLD AT __________ CDT

48-2  CGLS

PFP
SLP01 - PRESS

CRT
VERIFY INTG MENU

48-3  CGLS

PFP
GLS CONTROL - PRESS

CRT
VERIFY MS/ML DISPLAY
Clock Hold

NOTE
If display does not indicate clock expected to hold at HH MM/SS GMT, then perform Clock Hold.

Clock Hold Not Performed:_____

48-4
CGLS
CURSOR CNTL
CDC CONTROL
XMIT CURSOR KEY - PRESS

CRT
VERIFY CDC CONTROL DISPLAY

48-5
CGLS
CURSOR CNTL
HOLD AT CDT
XMIT CURSOR KEY - PRESS

48-6
CGLS
CONSOLE KYBD
___/___
HHMM SS
XMIT RESP KEY - PRESS

CRT
VERIFY CDC TO HOLD AT _____
48-7 CGLS NTD 212

CDC SET TO HOLD AT _____________ GMT

48-8 CGLS NTD 212

CDC WILL HOLD ON MY MARK 3-2-1 MARK

CDC AT _____________ AND HOLDING

*** End of CDC Hold ***
CDC Resume

NOTE
If GMT start command is required, then perform CDC Resume.

CDC Resume Not Performed:______

48-9 NTD CGLS 212

SET CDC TO START COUNTING AT ___________ GMT.

48-10 CGLS

CURSOR CNTL
RESUME AT GMT
XMIT CURSOR KEY - PRESS

48-11 CGLS

CONSOLE KYBD
_____/__.000
HHMM SS
XMIT RESP KEY PRESS

CRT
VERIFY CDC IS SET TO START
COUNTING AT ___________ GMT

48-12 CGLS NTD 212

CDC IS SET TO START COUNTING AT CDC OF __________
AT GMT OF ___________.
48-13 CGLS NTD 212

CDC WILL BEGIN ON MY MARK.

3-2-1 MARK

THE CDC IS T-________ AND COUNTING

*** End of CDC Resume Control ***

48-14 CGLS

CURSOR CNTL
RETURN TO MS/ML DISPLAY
XMIT CURSOR KEY - PRESS

*** End of Operation 48 ***
OPERATION 49  EPDC System Securing

Shop: FWD
Cntrl Rm Console: C10
OPR: TCO
Zone: 121
Hazard (Y/N): N
Duration (Hrs): 0.3
49-1 OTC CEPD

Perform EPDC system securing

PIC Rack Power Down

NOTE
If PIC rack power is on, then perform PIC Rack Power Down.

PIC Rack Power Down Not Performed:_____

49-2 OTC CEPD 132

POWER DOWN GSE PIC RACK

49-3 CEPD

CRT (VWC10)
VERIFY
GRD T-0 RESET IND RESET
GRD SW STATUS IND OFF

49-4 CEPD

CURSOR CNTL (VWC10)
GND SYS - OFF
XMIT CURSOR KEY - PRESS
49-5

CEPD

CRT (VWC10)
GND H2 AND LR - GND
AND CPA VOLTAGES NOT MORE
THAN 1.5 VOC FOR SYS A & SYS B

*** End of PIC Rack Power Down ***

49-6

CEPD

CURSOR CNTL (SWC02)
LAUNCH COMMIT EMON - INH
XMIT CURSOR KEY - PRESS
AC Bus Sensor Reconfigure

49-7  CEPD    PLT

IF AC BUS SENSORS ARE IN MONITOR,

THEN
PANEL R1
POWER DISTRIBUTION
AC BUS SNSR
1 SW - OFF, 1 SEC THEN AUTO TRIP
2 SW - OFF, 1 SEC THEN AUTO TRIP
3 SW - OFF, 1 SEC THEN AUTO TRIP

Not Performed:_____

CB Securing

49-8  CEPD    CDR

PANEL 013

ROW A
ESS 1BC
MN A CONTR CB - OPEN

ROW C
ESS 2CA
MN B CONTR CB - OPEN

ROW E
ESS 3AB
MN C CONTR CB - OPEN
49-9       CEPD     CDR

            PANEL  014
            ROW  B
                MN  A
                    MNC  CONTR  CB  -  OPEN

49-10      CEPD     PLT

            PANEL  015
            ROW  B
                MN  B
                    MNA  CONTR  CB  -  OPEN

            ROW  E
                MN  B
                    DRAG  CHUTE  SYS  2  CB  -  OPEN

49-11      CEPD     PLT

            PANEL  016
            ROW  B
                MN  C
                    MNB  CONTR  CB  -  OPEN

            ROW  E
                MN  C
                    DRAG  CHUTE  SYS  1  CB  -  OPEN
Timer Securing

49-12  CEPD  CDR
PANEL 014
ROW B
  MN A
    MISSION TIMER FWD CB - OPEN

49-13  CEPD  PLT
PANEL 015
ROW B
  MN B
    MISSION TIMER AFT CB - OPEN

49-14  CEPD  PLT
PANEL 015
ROW B
  MN B
    EVENT TIMER FWD CB - OPEN

49-15  CEPD  CDR
PANEL 014
ROW B
  MN A
    EVENT TIMER AFT CB - OPEN

*** End of Operation 49 ***
OPERATION 51  C&W EMON Activation

Shop: TCO  
Cntrl Rm Console: TCO  
OPR: TCO  
Zone: N/A  
Hazard (Y/N): N  
Duration (Hrs): 0.5
PERFORM EMON ACTIVATION OF YOUR SYSTEM'S CAUTION AND WARNING PARAMETERS. REPORT COMPLETION.

ECLSS EMON for C&W

51-2
CECL
APPD PAGE (VAG29 PG-A)
PFK 4 KEY - PRESS

51-3
CECL
CRT (VAG29 PG-A)
VERIFY PFK MENU UPDATE
"INHIBIT C&W EMONS"

51-4
CECL
APPD PAGE (VAG29 PG-A)
PFK 5 KEY - PRESS

51-5
CECL
CRT (VAG29 PG-A)
VERIFY PFK MENU UPDATE
"INHIBIT EMON DISCRETES"

51-6
CECL OTC
ECLSS CAUTION AND WARNING ACTIVATION COMPLETE.
MPS EMON Activation for C&W

51-7

CMPS

(SIM) CONSOLE KYBD

1. `A_SX_V41P1150C1_1150_4500`  
   XMIT CMD KEY - PRESS

2. `A_SX_V41P1250C1_1150_4500`  
   XMIT CMD KEY - PRESS
   EXEC CMD KEY - PRESS

3. `A_SX_V41P1350C1_1150_4500`  
   XMIT CMD KEY - PRESS
   EXEC CMD KEY - PRESS

4. `A_SX_V41P1154A1_730_785`  
   XMIT CMD KEY - PRESS
   EXEC CMD KEY - PRESS

5. `A_SX_V41P1254A1_730_785`  
   XMIT CMD KEY - PRESS
   EXEC CMD KEY - PRESS

6. `A_SX_V41P1354A1_730_785`  
   XMIT CMD KEY - PRESS
   EXEC CMD KEY - PRESS

7. `A_SX_V41P1433C1_LOW_60`  
   XMIT CMD KEY - PRESS

51-8

CMPL

(SIM) CONSOLE KYBD

A_SX_V41P1533C1_LOW_249
XMIT CMD KEY - PRESS
MPS CAUTION AND WARNING EMON ACTIVATION COMPLETE.

OMS/RCS EMON Activation for C&W

1. A SX V42P2116C1 200 312
   (LRCS FU TK ULL PRESS)
   XMIT CMD KEY - PRESS

2. A SX V42P3116C1 200 312
   (RRCS FU TK ULL PRESS)
   XMIT CMD KEY - PRESS

3. A SX V43P4321C1 232 284
   (LOMS FU TK ULL PRESS)
   XMIT CMD KEY - PRESS

4. A SX V43P5321C1 232 284
   (ROMS FU TK ULL PRESS)
   XMIT CMD KEY - PRESS

5. A SX V42P1116C1 200 312
   (FRCS FU TK ULL PRESS)
   XMIT CMD KEY - PRESS
6. **IF** FD'S V72X4547X1 IS IN CURRENT VEHICLE FORMAT, 
   **THEN**
   A SX V72X4547X1 ON
   (OMS L ENG ABNORMAL)
   XMIT CMD KEY - PRESS

   **Sub Step 6 Not Performed:**______

7. **IF** FD'S V72X4548X1 IS IN CURRENT VEHICLE FORMAT, 
   **THEN**
   A SX V72X4548X1 ON
   (OMS R ENG ABNORMAL)
   XMIT CMD KEY - PRESS

   **Substep 7 Not Performed:**______

8. A SX V42P2115C1 200 312
   (LRCS OX TK ULL PRESS)
   XMIT CMD KEY - PRESS

9. A SX V42P3115C1 200 312
   (RRCS OX TK ULL PRESS)
   XMIT CMD KEY - PRESS

10. A SX V43P4221C1 232 284
    (LOMS OX TK ULL PRESS)
    XMIT CMD KEY - PRESS

11. A SX V43P5221C1 232 284
    (ROMS OX TK ULL PRESS)
    XMIT CMD KEY - PRESS

12. A SX V42P1115C1 200 312
    (FRCS OX TK ULL PRESS)
    XMIT CMD KEY - PRESS

   *** End of Operation 51 ***
THIS PAGE INTENTIONALLY BLANK.
OPERATION 52 Instrumentation Systems

Shop: CISL
Cntrl Rm Console: C9
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 1.0

NOTE
Steps in this operation that are identified as (SIM) will be reported as “SIM complete”, but the requested actions in the steps will not be performed.
Configure OI PCM to GSE Control and MTU to Auto

**NOTE**
Steps involving Crit 1, 1R and/or 1S items are contained in the following Operation.

**NOTE**
Nominal Launch configuration for OI PCMMU 1 and MTU Oscillator 2. The following steps will configure the OI PCMMU to GSE control and MTU to Oscillator 2 in Auto, assuming this nominal configuration.

**PCM to GSE Control**

52-1

**CISL**

CRT (SAQ04/VWQ11)

**VERIFY**

OI DATA VALID (UP ARROW)

PCMMU

- PCM1 - ON (RPC’S ACTIVE)
- SW SCAN - 1
- COMMAND - OFF
52-2

CISL

CURSOR CNTL (SAQ04/VWQ11)
PCM CONTROL
PCMMU 1 - ON
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

52-3

CISL

CRT (SAQ04/VWQ11)
VERIFY

PCMMU
COMMAND - ON

52-4

CISL CDR 145

PANEL C3
OI PCMMU
POWER SW - OFF
FORMAT SW - GPC
52-5

CISL

CRT (SAQ04/VWQ11)
VERIFY

OI DATA VALID (UP ARROW)

PCMMU
   PCM1 ON (RPC'S ACTIVE)
       SW SCAN - OFF
       COMMAND - ON
   FORMAT
       SW SCAN - GPC
BITEN
   1 POWER - GOOD
   2 MTU - GOOD

*** End of PCM to GSE Control ***
MTU Oscillator to Auto

52-6  CISL   CDR   145

IF MTU is not currently in Oscillator 2 (nominal configuration is Oscillator No. 2),

THEN Perform the following:

PANEL 06
   MASTER TIMING UNIT SW - OSC 2

Not Performed:______

52-7  CISL   JRPS  145

IF MTU Oscillator No. 2 was selected in previous step,

THEN
   Change the MTU Test Set to monitor OSC 2 for orbiter under test (OV-______).

   Record change in the “MTU Test Set Change Log”.

Not Performed:______

52-8  CISL   CDR   145

PANEL 06
   MASTER TIMING UNIT SW - AUTO
52-9        Cisl

CRT (SAQ04/VWQ11)
VERIFY

MASTER TIMING UNIT
   SEL SW SCAN - AUTO
BITE
   OSC - 2

***End of MTU to Auto***

52-10       Cisl

Configure PCM to GSE Control and MTU to Auto is complete (Callback step in S0017.200).

***End of Configure OI PCM to GSE Control and MTU to Auto***
SSR 1 and SSR 2 Configure for TCDT

52-11

CISL

IF VWQ30 IS NOT ALREADY ACTIVE,

THEN PERFORM THE FOLLOWING:

CONSOLE KYBD
ON CMD LINE ENTER - VWQ30
PERF PGM KEY - PRESS

VERIFY VWQ30 (SOLID STATE RECORDER COMMAND SELECT) DISPLAY IS ACTIVE

Not Performed:______

52-12

CISL

CURSOR CNTL (VWQ30 SSR COMMAND SELECT)
SELECT SSR
  SSR 1
XMIT CURSOR KEY - PRESS

VERIFY SSR 1 INVERT GREEN

SELECT PATH
  LDB
XMIT CURSOR KEY - PRESS

VERIFY LDB INVERT GREEN
SSR 1 Erase and CST

52-13
CISL

CRT (VWQ30 SSR COMMAND SELECT)
VERIFY

SSR 1
POWER - ON
MODE - STBY
CBF - GOOD
NCBF - GOOD
SLOT CNT - 0
CMD REJ - GOOD
AUTOSTOP - INHIBIT
PAR PROT - UNPROT
POSITION - 162

NOTE
SSR Erase mode takes less than 15 seconds to complete.

52-14
CISL

(SIM) CURSOR CNTL (VWQ30 SSR COMMAND SELECT)
RECORDER (LWR RH CORNER)
ERASE
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS
52-15

**CISL**

(SIM) CRT (VWQ30 SSR COMMAND SELECT)

**VERIFY**

SSR 1
- MODE - ERASE
- CBF - GOOD
- NCBF - GOOD
- CMD REJ - GOOD

52-16

**CISL**

(SIM) CRT (VWQ30 SSR COMMAND SELECT)

**VERIFY**

SSR 1
- POWER - ON
- MODE - STBY
- CBF - GOOD
- NCBF - GOOD
- SLOT CNT - 0
- CMD REJ - GOOD
- AUTOSTOP - INHIBIT
- PAR PROT - UNPROT
- POSITION - 162

52-17

**CISL**

CURSOR CNTL (VWQ30 SSR COMMAND SELECT)

RECORDER (LWR RH CORNER)

CST

XMIT CURSOR KEY - PRESS

EXEC CMD KEY - PRESS

**NOTE**

CST mode will take approximately 2 minutes 33 seconds (153 seconds) to complete.
NOTE
To clearly identify the messages on Page-A during the next two steps, it is best to clear Page-A prior to the next step, and then hardcopy the “Self Test” messages.

### 52-18

CISL

**CRT (VWQ30 SSR COMMAND SELECT)**

**VERIFY**

SSR 1

MODE - SLF TEST

### 52-19

CISL

Verify the following SSR 1 messages on VWQ30 Page-A:

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEM - IMAGE EPROM CHECK-SUM</td>
<td>GOOD</td>
</tr>
<tr>
<td>MEM - EDAC LOGIC</td>
<td>GOOD</td>
</tr>
<tr>
<td>MEM - BLOCK TRANSFER D64BLT</td>
<td>GOOD</td>
</tr>
<tr>
<td>MEM - REMAP CIRCUIT</td>
<td>GOOD</td>
</tr>
<tr>
<td>MEM - REGISTERS</td>
<td>GOOD</td>
</tr>
<tr>
<td>SPARE</td>
<td>GOOD</td>
</tr>
<tr>
<td>SBC - EPROM CHECK-SUM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SBC - ECC LOGIC-LONG (1 KBYTES)</td>
<td>GOOD</td>
</tr>
<tr>
<td>SBC - SYSTEM DRAM MEMORY DATA/ADDRESS</td>
<td>GOOD</td>
</tr>
<tr>
<td>SBC - USER TIMERS AND COMBINED TIMERS</td>
<td>GOOD</td>
</tr>
<tr>
<td>SBC - TUNDRA VME INTERFACES</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - INTERRUPT</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - SRAM_D64BLT AND I/O_D64BLT</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - VME_INTERFACE REGISTERS</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - ADDRESS REGISTERS</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - MDM COMMAND, CMD FIFO &amp; OUTPUT</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - B CHANNEL LOOP AND AB_SRAM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - A2 CHANNEL LOOP AND AB_SRAM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - A1 CHANNEL LOOP AND AB_SRAM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - E3 CHANNEL LOOP AND E3_SRAM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - E2 CHANNEL LOOP AND E2_SRAM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - E1 CHANNEL LOOP AND E1_SRAM</td>
<td>GOOD</td>
</tr>
</tbody>
</table>
52-20    CISL

CRT (VWQ30 SSR COMMAND SELECT)
VERIFY

SSR 1
  POWER - ON
  MODE - STBY
  CBF - GOOD
  NCBF - GOOD
  SLOT CNT - 0
  CMD REJ - GOOD
  AUTOSTOP - INHIBIT
  PAR PROT - UNPROT
  POSITION - 162

*** End of SSR 1 Erase and CST ***

SSR 2 Erase and CST

52-21    CISL

CURSOR CNTL (VWQ30 SSR COMMAND SELECT)
SELECT SSR
  SSR 2
XMIT CURSOR KEY - PRESS

VERIFY SSR 2 INVERT GREEN

SELECT PATH
  LDB
XMIT CURSOR KEY - PRESS

VERIFY LDB INVERT GREEN
52-22

**CISL**

`CRT (VWQ30 SSR COMMAND SELECT)`

**VERIFY**

SSR 2
- POWER - ON
- MODE - STBY
- CBF - GOOD
- NCBF - GOOD
- SLOT CNT - 0
- CMD REJ - GOOD
- AUTOSTOP - INHIBIT
- PAR PROT - UNPROT
- POSITION - 162

52-23

**CISL**

*(SIM)* CURSOR CNTL (VWQ30 SSR COMMAND SELECT)

**RECORDER (LWR RH CORNER)**

**ERASE**

XMIT CURSOR KEY - PRESS

EXEC CMD KEY - PRESS

**NOTE**
SSR Erase mode takes less than 15 seconds to complete.

52-24

**CISL**

*(SIM)* CRT (VWQ30 SSR COMMAND SELECT)

**VERIFY**

SSR 2
- MODE - ERASE
- CBF - GOOD
- NCBF - GOOD
- CMD REJ - GOOD
52-25  

CISL  

(SIM) CRT (VWQ30 SSR COMMAND SELECT)  
VERIFY  

SSR 2  
POWER - ON  
MODE - STBY  
CBF - GOOD  
NCFB - GOOD  
SLOT CNT - 0  
CMD REJ - GOOD  
AUTOSTOP - INHIBIT  
PAR PROT - UNPROT  
POSITION - 162  

52-26  

CISL  

CURSOR CNTL (VWQ30 SSR COMMAND SELECT)  
RECORER (LWR RH CORNER)  
CST  
XMIT CURSOR KEY - PRESS  
EXEC CMD KEY - PRESS  

NOTE  
CST mode will take approximately 2 minutes 33 seconds (153 seconds) to complete.  

NOTE  
To clearly identify the messages on Page-A during the next two steps, it is best to clear Page-A prior to the next step, and then hardcopy the “Self Test” messages.  

52-27  

CISL  

CRT (VWQ30 SSR COMMAND SELECT)  
VERIFY  

SSR 2  
MODE - SLF TEST
Verify the following SSR 2 messages on VWQ30 Page-A:

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Indication</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEM - IMAGE EPROM CHECK-SUM</td>
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</tr>
<tr>
<td>MEM - EDAC LOGIC</td>
<td>GOOD</td>
</tr>
<tr>
<td>MEM - BLOCK TRANSFER D64BLT</td>
<td>GOOD</td>
</tr>
<tr>
<td>MEM - REMAP CIRCUIT</td>
<td>GOOD</td>
</tr>
<tr>
<td>MEM - REGISTERS</td>
<td>GOOD</td>
</tr>
<tr>
<td>SPARE</td>
<td>GOOD</td>
</tr>
<tr>
<td>SBC - EPROM CHECK-SUM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SBC - ECC LOGIC-LONG (1 KBYTES)</td>
<td>GOOD</td>
</tr>
<tr>
<td>SBC - SYSTEM DRAM MEMORY DATA/ADDRESS</td>
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</tr>
<tr>
<td>SBC - USER TIMERS AND COMBINED TIMERS</td>
<td>GOOD</td>
</tr>
<tr>
<td>SBC - TUNDRA VME INTERFACES</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - INTERRUPT</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - SRAM_D64BLT AND I/O_D64BLT</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - VME_INTERFACE REGISTERS</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - ADDRESS REGISTERS</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - MDM COMMAND, CMD FIFO &amp; OUTPUT</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - B CHANNEL LOOP AND AB_SRAM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - A2 CHANNEL LOOP AND AB_SRAM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - A1 CHANNEL LOOP AND AB_SRAM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - E3 CHANNEL LOOP AND E3_SRAM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - E2 CHANNEL LOOP AND E2_SRAM</td>
<td>GOOD</td>
</tr>
<tr>
<td>SSR I/O - E1 CHANNEL LOOP AND E1_SRAM</td>
<td>GOOD</td>
</tr>
</tbody>
</table>
52-29      CISL

CRT (VWQ30 SSR COMMAND SELECT)
VERIFY

SSR 2
POWER - ON
MODE - STBY
CBF - GOOD
NCBF - GOOD
SLOT CNT - 0
CMD REJ - GOOD
AUTOSTOP - INHIBIT
PAR PROT - UNPROT
POSITION - 162

*** End of SSR 2 Erase and CST ***

52-30      CISL

SSR 1 and SSR 2 Configure for TCDT is complete (callback step in OMI S0017.200).

*** End of SSR 1 and SSR 2 Configure for TCDT ***
MADS Configure for TCDT

<table>
<thead>
<tr>
<th>52-31</th>
<th>CISL</th>
<th>CDR</th>
<th>145</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PANEL A6L</strong></td>
<td>MADS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>POWER MN B CB - CLOSE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RECORDER POWER SW - OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RECORDER PB FWD SW - CMD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STRAIN GAGE SW - PCM ENA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WIDEBAND/ACIP PCM SW - CMD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>PCM</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CMD/ON SW - CMD</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RCD MODE SW - SAMPLE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>FDM</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTROL SW - DATA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAN CALBR SW - 0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACIP HTR SW - OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>52-32</th>
<th>CISL</th>
<th>CDR</th>
<th>145</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PANEL C3</strong></td>
<td>MADS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MASTER POWER SW - ON</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 52-33 | CISL |   |   |

MADS Configure for TCDT is complete (Callback step in S0017.200).

*** End of MADS Configure for TCDT ***
SRM Case Temp EMON Activation

52-34 CISL

CRT (SAQ04/SWQ03 INST BYPASS MANAGEMENT) RECORD

SRB EMON - __________ (ACTIVE OR BYPASS)

52-35 CISL

IF SRB EMON (SWQ03) WAS NOT RECORDED AS ACTIVE IN THE PREVIOUS STEP,

THEN PERFORM:
CONSOLE KYBD (SWQ03 INST BYPASS MGMT)
EMON SRB
XMIT CURSOR KEY - PRESS

CRT (SAQ04/SWQ03 INST BYPASS MANAGEMENT VERIFY

SRB EMON - ACTIVE

Not Performed:______

52-36 CISL

SRM Case Temp EMON Activation is complete (callback step in OMI S0017.200).

*** End of SRM Case Temp EMON Activation ***
Sep Camera Heater Activation

52-37  

CISL

(SIM) CONSOLE KYBD
   CBTU BT4 V56K0010XL 1
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

RECORD HEX RETURN PATTERN

V56K0010XL = _____

RECORD HEX PATTERN CONVERTED TO BINARY
   = XXXX XXX_ XXXX XXXX (X = DON'T CARE)
   (0 = OFF / 1 = ON)

52-38  

CISL

(SIM) IF BINARY PATTERN IN THE PREVIOUS STEP
INDICATES SEP CAMERA HEATER IS OFF,

THEN PERFORM THE FOLLOWING COMMAND TO ACTIVATE
HEATER:

CONSOLE KYBD
   SET V56K0010XL ON
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

Not Performed:______
(SIM) IF SEP CAMERA HEATER COMMAND WAS PERFORMED IN THE PREVIOUS STEP,

THEN PERFORM THE FOLLOWING:

CONSOLE KYBD
CBTU BT4 V56K0010XL 1
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

CRT
RECORD HEX RETURN PATTERN

V56K0010XL = _____

VERIFY HEX PATTERN CONVERTED TO BINARY
= XXXX XXX1 XXXX XXXX (X = DON'T CARE)

Not Performed:_____

(SIM) Sep Camera Heater Activation is complete (callback step in OMI S0017.200).

*** End of Sep Camera Heater Activation ***
SRM Chamber Pressure Verification

NOTE
Perform this option if all six SRM Chamber Pressure measurements are functional and in a standard configuration for Flight.

SRM Chamber Pressure Verification Not Performed:______

NOTE
Steps involving Crit 1, 1R and/or 1S items are contained in the following Operation.

NOTE
SRB Buses A, B and C must be powered up at least 30 minutes prior to performing SRM Chamber Pressure Verification.

NOTE
The next two steps must be performed in a concurrency other than 1.

52-41
CISL
CURSOR CNTL (SWQ02/SDQ02 INST MENU)
SRB DATA DISPLAY (BWQ01)
XMIT CURSOR KEY - PRESS

52-42
CISL
CURSOR CNTL (BWQ01) SRB DATA DISPLAY
SRB CHAMBER CHECKOUT OPTIONS
VSQ11 (INTEGRATED CHECKOUT)
XMIT CURSOR KEY - PRESS
IF VSQ11 (INTEGRATED CHECKOUT) DISPLAYS THE FOLLOWING MESSAGE:

“TEST REQUIREMENTS FOR THIS TEST HAVE BEEN MET”

THEN PERFORM:
CURSOR CNTL (VSQ11 INTEGRATED CHECKOUT)
   CONTINUE
   XMIT CURSOR KEY - PRESS

ELSE

1. RECORD THE NOTED EXCEPTION(S) AND REASON FOR “OK TO CONTINUE”:

   ______________________________________________________
   ______________________________________________________
   ______________________________________________________

2. PERFORM:
CURSOR CNTL (VSQ11 INTEGRATED CHECKOUT)
   CONTINUE
   XMIT CURSOR KEY - PRESS
Verify VSQ11 Integrated Checkout program performs the following:

1. VDQ11 SRB INTEGRATED CHECKOUT is displayed

2. 75% CAL CHECK is activated with GMT, AMB PRESS, and AMB TEMP displayed.

3. 75% CAL CHECK sequence displays the following for each measurement (B47P1300C through B47P2302C):
   - 75% Cal Pressure of 729 to 799 psi for ON indication.
   - Ambient Pressure of -7.0 psi to 33.0 psi for OFF indication.

4. SRB PRESS MDM READ completes and displays the following:
   - GMT, AMB PRESS, and AMB TEMP.
   - R1 through R10 values for each measurement (B47P1300C through B47P2302C).
   - AVG values for each measurement (B47P1300C through B47P2302C).
   - CAL BIAS ASSUMED values for each measurement (B47P1300C through B47P2302C).

5. GPC READ completes and displays the following:
   - BIAS values for each measurement (B47P1300C through B47P2302C).
   - SLOPE values for each measurement (B47P1300C through B47P2302C).
NOTE
During the following substep, the message “VALUES NOT STANDARD” may appear at the bottom left corner of the VDQ11 display if VSQ11 did not require an update on this run and one of the GPC READ BIAS values are other than -10.000. This commonly occurs when a GPC UPDATE was performed during a previous run and when the bias values presently loaded in the GPC are the same that would be loaded by VSQ11. If the bias values are different and both “VALUES NOT STANDARD” and “GPC UPDATE REQUIRED” messages are displayed, another load will be necessary, see Substep 8.

6. IF VSQ11 Integrated Checkout completes with no GPC BIAS UPDATE required,

THEN verify CHECKOUT COMPLETE - NO ERRORS.

Sub Step 6 Not Performed: _____

7. IF VSQ11 determines that a GPS BIAS UPDATE is required,

THEN verify GPC BIAS UPDATE automatically proceeds and the second GPC READ displays the following:

- New GPC BIAS UPDATE values.
- CHECKOUT COMPLETE - TEST COMPLETED.

Record GPC BIAS UPDATE values:

B47P1300C ____________  B47P2300C ____________

B47P1301C ____________  B47P2301C ____________

B47P1302C ____________  B47P2302C ____________

Sub Step 7 Not Performed: _____
NOTE
Perform following substep if the message “VALUES NOT STANDARD” appeared at the bottom left corner of the VDQ11 display and VDQ11 has determined that another “GPC UPDATE REQUIRED”.

8. **IF** VSQ11 determines that a GPS BIAS UPDATE is required because “VALUES NOT STANDARD”,

**THEN**
CURSOR CNTL (VSQ11 SRB INTEGRATED CHECKOUT) 
CONTINUE 
XMIT CURSOR KEY - PRESS

**Verify**
- New GPC BIAS UPDATE values displayed.
- CHECKOUT COMPLETE - TEST COMPLETED.

**Record** GPC BIAS UPDATE values:

B47P1300C ____________  B47P2300C ____________

B47P1301C ____________  B47P2301C ____________

B47P1302C ____________  B47P2302C ____________

**Sub Step 8 Not Performed:** ______
52-45

CISL

CURSOR CNTL (VSQ11 INTEGRATED CHECKOUT)
BWQ01
XMIT CURSOR KEY - PRESS

CURSOR CNTL (BWQ01 SRB DISPLAY)
MENU
XMIT CURSOR KEY - PRESS

52-46

CISL     TBC     136

SRM Chamber Pressure Verification is complete (Call back step in S0017.200).

*** End of SRM Chamber Pressure Verification ***
L-15 Minutes Recorder Activation

NOTE
Do not perform this option if Scrub is declared prior to SSR and MADS Recorder Activation.

L-15 Minutes Recorder Activation Not Performed:_____

MADS Recorder Activation (L-15 Minutes)

NOTE
Do not perform “MADS Recorder Activation (L-15 Min)” if scrub is declared prior to MADS Recorder Activation.

MADS Recorder Activation (L-15 Minutes) Not Performed:_____

52-47  CISL  JRPS  145

(SIM) Start ground recorder(s) for MADS realtime data.

(SIM) Start MADS PCM and FDM display recorders.

52-48  CISL  *FLT  145

(SIM) Proceed with MADS Activation.
(SIM) Perform the following:

1. Verify MADS shelf temperature is less than 90 degrees prior to activation.

2. DSM 4618 (MADS RCDR PWR ON)

3. DSM 4601 (MADS WB/ACIP PCM ON)

4. DSM 4603 (MADS PCM ON (wait 10 seconds))

5. DSM 4607 (MADS CALB ON (wait 10 seconds))

6. DSM 4608 (MADS CALB OFF)
CISL

(SIM) CRT (SAQ04/VWQ14)

VERIFY

STATUS
- PCM BITE - GOOD
- FDM 1 MUX 1 BITE - GOOD
- FDM 1 MUX 2 BITE - GOOD
- FDM 1 MUX 3 BITE - GOOD
- FDM 1 MUX 4 BITE - GOOD
- FDM 2 MUX 1 BITE - GOOD
- FDM 2 MUX 2 BITE - GOOD
- FDM 2 MUX 3 BITE - GOOD
- FDM 2 MUX 4 BITE - GOOD
- FDM 1 MODE - DATA
- FDM 2 MODE - DATA

SHELF TEMP NMT 90 DEG F

RECORER
- BITE - GOOD
- MODE - RECD
- PASS - 1
- PCT TAPE - INCREASING
- MOTION - ON

*** End of MADS Recorder Activation (L-15 Minutes) ***

NOTE
- Notify NTD of any MADS recorder anomalies prior to T-5M only.
Solid State Recorder Activation (L-15 Minutes)

NOTE
During recorder activation, *FLT will call out all DSMs as they are performed.

52-51  CISL  *FLT  145

(SIM) Proceed with Solid State Recorder (SSR) Activation.

52-52  *FLT

(SIM) DSM 9202 SSR 1 RCDP

52-53  CISL

(SIM) CRT (SAQ01A/SDQ01A INST OVERVIEW DISPLAY)
VERIFY

SSR 1
MODE - RCDP
CBF - GOOD
NCFB - GOOD
SLOT CNT - 0
CMD REJ - GOOD
AUTO STOP - INHIBIT
PAR PROT - PROT
POSITION - 162 (INCREASING)
52-54  

*FLT

(SIM) DSM 9302 SSR 2 RCDP

52-55  

CISL

(SIM) CRT (SAQ01A/SDQ01A INST OVERVIEW DISPLAY)

VERIFY

SSR 2
  MODE - RCDP
  CBF - GOOD
  NCBF - GOOD
  SLOT CNT - 0
  CMD REJ - GOOD
  AUTO STOP - INHIBIT
  PAR PROT - PROT
  POSITION - 162 (INCREASING)

52-56  

CISL

(SIM) OI Recorder Activated (callback step in OMI S0017.200).

*** End of Solid State Recorder Activation (L-15 Minutes)***

52-57  

*FLT  CISL  145

(SIM) Recorders are activated with no problems observed.

*** End of L-15 Minutes Recorder Activation ***
SSR and MADS Activation for Hold Option No. 1

NOTE
Do not perform “SSR and MADS Deactivation for Hold Option No. 1” if scrub occurs prior to L-15M Recorder Activation or countdown proceeds past T-5 Min. Hold point.

SSR and MADS Activation for Hold Option No. 1 Not Performed:_____

SSR Deactivation

NOTE
Perform SSR Deactivation if Solid State Recorders were activated prior to hold option.

SSR Deactivation Not Performed:_____

52-58

*FLT

(SIM) Perform the following:

XMIT DSM 9252 (SSR 1 HALT)

XMIT DSM 9352 (SSR 2 HALT)
52-59

CISL

(SIM) CRT (SAQ01A/SDQ01A INST OVERVIEW DISPLAY)
VERIFY

SSR 1
MODE - STBY

SSR 2
MODE - STBY

*** End of SSR Deactivation ***

MADS Deactivation

NOTE
Perform MADS Deactivation if MADS system was activated prior to hold option.

MADS Deactivation Not Performed:______

52-60

*FLT

(SIM) Perform the following:

DSM 4618 (MADS RCDR PWR ON)
DSM 4600 (MADS SYSTEM OFF)
DSM 4619 (MADS RCDR PWR OFF)
(SIM) CRT (SAQ04/VWQ14)
VERIFY

RECORIDER
  MOTION - OFF

*** End of MADS Deactivation ***

(SIM) SSR and MADS Deactivation is complete (call back step in S0017.200).

*** End of SSR and MADS Deactivation for Hold Option No. 1 ***
SSR and MADS Activation for Hold Option No. 1

NOTE
Perform “SSR and MADS Activation for Hold Option No. 1” if “SSR and MADS Deactivation for Hold Option No. 1” was performed and the Countdown will proceed past T-5 Min. Hold point.

SSR and MADS Activation for Hold Option No. 1 Not Performed:______

52-63

*FLT

(SIM) DSM 9200 SSR 1 RCDA

52-64

CISL

(SIM) CRT (SAQ01A/SDQ01A INST OVERVIEW DISPLAY)

VERIFY

SSR 1
MODE - RCDA
CBF - GOOD
NCBF - GOOD
SLOT CNT - 0
CMD REJ - GOOD
AUTO STOP - INHIBIT
PAR PROT - UNPROT
POSITION - _____ AND INCREASING

52-65

*FLT

(SIM) DSM 9302 SSR 2 RCDP
52-66

**CISL**

*(SIM)* CRT (SAQ01A/SDQ01A INST OVERVIEW DISPLAY)

**VERIFY**

SSR 2

- MODE - RCDP
- CBF - GOOD
- NCBF - GOOD
- SLOT CNT - 0
- CMD REJ - GOOD
- AUTO STOP - INHIBIT
- PAR PROT - PROT
- POSITION - _____ AND INCREASING

52-67

***FLT 145**

*(SIM)* Perform the following:

1. **Verify** MADS shelf temperature is less than 90 degrees prior to activation.

2. DSM 4618 (MADS RCDR PWR ON)

3. DSM 4601 (MADS WB/ACIP PCM ON)

4. DSM 4603 (MADS PCM ON (wait 10 seconds))

5. DSM 4607 (MADS CALB ON (wait 10 seconds))

6. DSM 4608 (MADS CALB OFF)
52-68

CISL

(SIM) CRT (SAQ04/VWQ14)

VERIFY

STATUS

PCM BITE - GOOD
FDM 1 MUX 1 BITE - GOOD
FDM 1 MUX 2 BITE - GOOD
FDM 1 MUX 3 BITE - GOOD
FDM 1 MUX 4 BITE - GOOD
FDM 2 MUX 1 BITE - GOOD
FDM 2 MUX 2 BITE - GOOD
FDM 2 MUX 3 BITE - GOOD
FDM 2 MUX 4 BITE - GOOD
FDM 1 MODE - DATA
FDM 2 MODE - DATA

SHELF TEMP NMT 90 DEG F

RECORD

BITE - GOOD
MODE - RECD
PASS - 1
PCT TAPE - INCREASING
MOTION - ON

52-69

CISL

(SIM) SSR and MADS Recorder Activation is complete (callback step in OMI S0017.200).

*** End of SSR and MADS Activation for Hold Option No. 1 ***
INS System Securing

NOTE
The following steps will configure the Instrumentation Systems utilized during TCDT for normal orbiter operations.

MADS System Power Down

52-70  CISL  CDR  145

PANEL A6L
MADS
RECORDER
POWER SW - OFF
PB FWD SW - OFF
STRAIN GAGE SW - PCM ENA
WIDEBAND/ACIP PCM SW - CMD

PCM
CMD/OFF/ON SW - CMD
RCD MODE SW - CONTINUOUS
POWER MN B CB - CLOSE

52-71  CISL  CDR  145

PANEL C3
MASTER MADS POWER SW - ON

*** End of MADS System Power Down ***
ET SEP Camera Safing

52-72

CISL

(SIM) CONSOLE KYBD
SET V56K0010XL OFF
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

CONSOLE KYBD
CBTU BT4 V56K0010XL 1
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

RECORD HEX RETURN PATTERN

V56K0010XL = _____

VERIFY HEX PATTERN COVERTED TO BINARY
= XXXX XXX0 XXXX XXXX (X = DON'T CARE)

*** End of ET SEP Camera Safing ***

52-73

CISL

INS System Securing complete (callback step in OMI S0017.200).

*** End of INS System Securing ***

*** End of Operation 52 ***
OPERATION 53   NAVAIDS Activation

Shop: N/A
Cntrl Rm Console: C2
OPR: COM
Zone: 120
Hazard (Y/N): Y
Duration (Hrs): 2.0

NOTE
Steps involving Crit 1, 1R and/or 1S items are contained in the following operation.
Option List and Description

NOTE
Multiple options are contained within this operation. Different options account for the different NAVAIDS vehicle configurations, therefore not every option will be performed during a launch countdown.

Option 1 - OV-103/104 NAVAIDS Activation
Activation and Self Test for the following:
- TACANs
- MSBLS
- Radar Altimeters
- GPS Activation and Almanac Collection

Option 2 - OV-105 NAVAIDS Activation
Activation and Self Test for the following:
- MSBLS
- Radar Altimeter
- GPS Activation and Almanac Collection

Option 3 - OV-103/104 GPS Encryption Key Load
Power Up GPS and load GPS Encryption Key.

Option 4 - OV-105 GPS Encryption Key Load
Power Up GPS and load GPS Encryption Key.

*** End of Option List and Description ***
Option 1 - OV-103/104 NAVAIDS Activation

NOTE
Perform Option 1 for OV-103 or OV-104.

Option 1 Not Performed:_____

NOTE
NAVAIDS Activation and Self Test and GPS Activation and Almanac Collection may be performed in parallel or out of written order per engineering.

53-1

CNSE

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
VAA40
PERF PGM KEY - PRESS

53-2

CNSE

PFP (C2)
VAA40 - PRESS
WARM START - PRESS

PFP (VAA40)
VWN42 - PRESS
(SELECT APPL PG B)
GPS Activation and Almanac Collection

53-3

**CNSE**

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
VSN59
PERF PGM KEY - PRESS
(SELECT APPL PG B)

**NOTE**
IDP RSYS is required for the GPS Activation.

53-4

**CNSE** OTC 132

**OTC** CDPS

Change responsible console for IDP to Console C2. Expect IO errors during GPS power up.

53-5

**CDPS**

CONSOLE KYBD
HOME CMD KEY - PRESS
C CO _DEUXG LDBA C2 (X = IDP NO.)
XMIT CMD KEY - PRESS

ISSU N72IV10YD #B002 (Y = IDP NO. MINUS 1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-6

**CDPS** OTC 132

**OTC** CNSE

Responsible console for CRT No._____ now assigned to C2.
53-7

CNSE

PFP (VAA41)
VWN42 - PRESS
VWN58 - PRESS
(SELECT APPL PG-B)

53-8

CNSE

CURSOR CNTL (VSN59 PG-B)
GPS POWER UP - 2
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS
NOTE

In the next step, the VSN59 program will prompt the operator to perform the following:

A Site Select on SPEC 104. The Site Select need be performed only on the initial GPS Powerup. If the IMUs are powered on, bypass the Site Select.

The IMU 1 Operate command will be issued by SPEC 104, ITEM 13. After 5 minutes, the flight software will allow Site Select using SPEC 104. Once the Site Select is completed, the IMU 1 Standby command should be issued. Contact CGNC or CTPE for IMU status. If the IMUs are powered on, the Operate command should not be issued without CGNC concurrence. If the IMUs are already in Operate, the Site Select is not required prior to activating SPEC 055.

Power up the preamplifiers. Select both upper and lower and perform only the switch called out below. Once the switch settings are complete, the operator will acknowledge by selecting PFK1.
IF IMUs are powered off and CGNC has not completed the Site Select,

THEN:
CRT (VSN59 PG-B)
FOLLOW PROGRAM PROMPTS:

TO PERFORM SITE SELECT

TO SET IMU OPERATE COMMAND, THEN RETURN BACK TO STANDBY WHEN SITE SELECT IS COMPLETE

ELSE CGNC has completed Site Select:
CRT (VSN59)
FOLLOW PROGRAM PROMPTS:

TO BYPASS SITE SELECT
OV-103 Switch/CB Configuration

NOTE
If testing is on OV-103, perform OV-103 Switch/CB Configuration.

OV-103 Switch/CB Configuration Not Performed:______

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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>53-10</td>
<td>CNSE</td>
<td>CDR</td>
</tr>
<tr>
<td>PANEL O14</td>
<td>ROW D</td>
<td>MN A</td>
</tr>
<tr>
<td>GPS</td>
<td>PRE AMPL</td>
<td></td>
</tr>
<tr>
<td>UC CB - OPEN</td>
<td>LC CB - OPEN</td>
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<tr>
<td>53-11</td>
<td>CNSE</td>
<td>CDR</td>
</tr>
<tr>
<td>PANEL O16</td>
<td>ROW D</td>
<td>MN C</td>
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<tr>
<td>GPS</td>
<td>PREAMPL</td>
<td></td>
</tr>
<tr>
<td>UC CB - CLOSE</td>
<td>LC CB - CLOSE</td>
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<tr>
<td>53-12</td>
<td>CNSE</td>
<td></td>
</tr>
<tr>
<td>CONSOLE KYBD (VSN59 PG-B)</td>
<td>PFK1 - PRESS (CB NOW CLOSED - CONTINUE)</td>
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<tr>
<td>53-13</td>
<td>CNSE</td>
<td>CDR</td>
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<tr>
<td>PANEL A13</td>
<td>GPS</td>
<td></td>
</tr>
<tr>
<td>PRE-AMPL</td>
<td>UC SW - MN C</td>
<td>LC SW - MN C</td>
</tr>
</tbody>
</table>

***End of OV-103 Switch/CB Configuration***
OV-104 Switch/CB Configuration

NOTE
If testing is on OV-104, perform OV-104 Switch/CB Configuration.

OV-104 Switch/CB Configuration Not Performed:_______

53-14 CNSE CDR 173

PANEL O15
ROW C
MN B
GPS 2 PREAMPL UPPER CB - CLOSE

ROW D
MN B
GPS 2 PREAMPL LOWER CB - CLOSE

53-15 CNSE

CONSOLE KYBD (VSN59 PG-B)
PFK1 - PRESS (CB NOW CLOSED - CONTINUE)

53-16 CNSE CDR 173

PANEL A13
GPS
PRE-AMPL
UC SW - ON
LC SW - ON

***End of OV-104 Switch/CB Configuration***

53-17 CNSE

CONSOLE KYBD
PFK1 - PRESS (SW SETTINGS COMPLETE - CONTINUE)
FOLLOW PROGRAM PROMPTS:

TO PERFORM I/O START.

TO CALL UP SPEC 55.

NOTE
GPS software allows 2 minutes for GPS receiver power-up to occur. A failure will be annunciated should the time be exceeded. Retest may be selected should this event occur.

NOTE
GPS receiver mode will transition from INIT to NAV upon power-up.

53-19

CNSE CDR 173

PANEL A13
GPS
POWER SW - ON

53-20

CNSE

CRT (VWN58 PG-B)

VERIFY
RCVR MODE - NAV
HDR WD - FFFF
RPU FAIL - OFF
BAT LOW - OFF

53-21

CNSE

CURSOR CNTL (VSN59)
PFK7 KEY - PRESS (TERMINATE NAV MONITOR)
NOTE
GPS will automatically mode to INIT when the ITEM 10+2 is executed.

NOTE
During transition to “INIT” mode, the VSN59 program may issue a message “Difference between GPS weeks and almanac weeks is greater than 1.” User can follow the program prompts to issue an “Acknowledge/Continue” using the appropriate PFK key when this occurs. A new almanac begins to download upon power up and satellite acquisition, but can take up to 20 minutes or greater to complete.

53-22

CNSE
CURSOR CNTL (VSN59 PG-B)
I/O ITEM 10+2
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-23

CNSE
CRT (VSN59 PG-B)
VERIFY
   RCVR MODE - INIT
   HDR WD    EEEE

53-24

CNSE
CURSOR CNTL (VSN59 PG-B)
NAV GPS 2 - ITEM 18
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS
53-25

CNSE

CRT (VWN58 PG-B)

VERIFY

GPS is in NAV MODE

RECEIVER STATUS

HEADER WD   FFFF

GPS 2 PWR

STAT - ON (NAV BIT - 4 SV TRACKING IN
STATE 5 (CAR_TK))

Spec 55 Resume and Call Up

NOTE

IF only one DEU is available for C2 and NAVAIDS Self Test (Spec 101) will be performed while the GPS Almanac is downloading, perform Spec 55 Resume and Call Up.

Spec 55 Resume and Call Up Not Performed:______

53-26

CNSE

CURSOR CNTL (VSN59 PG-B)

PPK7 - PRESS (TERMINATE NAV MONITOR

53-27

CNSE

CURSOR CNTL (VSN59 PG-B)

SPEC RESUME

XMIT CURSOR KEY - PRESS

START TEST

XMIT CURSOR KEY - PRESS

CRT

VERIFY GPC MEMORY (9011) ON CRT IN USE.
NOTE
Perform the call up after NAVAIDS Self Test is complete and GPS testing will resume.

53-28

CNSE

CURSOR CNTL (VSN59 PG-B)
SPEC 55 CALLUP
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS
IF PROMPTED PFKX KEY - PRESS (WHERE X IS CRT ASSIGNED TO C2)

CRT
VERIFY SPEC 55 (550) on CRT in use.

***End of Spec 55 Resume and Call Up***

NOTE
The Almanac is considered current when the GPS WEEK and ALMANAC WEEK agree to within 1 week. Downloading a full almanac will take at least 12.5 minutes. During certain satellite/receiver conditions, the Almanac Bit may not toggle from Off to On. This indication may occur if the receiver’s stored almanac contains information from a satellite that has been decommissioned. In this case, mode the receiver to INIT, back to NAV, and then back to INIT to update the Almanac Week status.

NAVAIDS Activation may be performed while the GPS Almanac is being downloaded if the Safety Clears are in Place.

53-29

CNSE

Allow the receiver to remain in NAV Mode until the Almanac Bit toggles from Off to On for at least 30 minutes.

CRT (VWN58)
RECORD
RECEIVER STATUS
ALMANAC _____________ (OFF/ON)
53-30    CNSE

IF NAV Monitor active,

THEN
CURSOR CNTL (VSN59 PG-B)
PFK7 - PRESS (TERMINATE NAV MONITOR)

Not Performed:______

53-31    CNSE

CURSOR CNTL (VSN59)
INIT GPS 2 - ITEM 15
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-32    CNSE

CRT (VSN59 PG-B)
VERIFY RECEIVER IN INIT
  HEADER WD  EEEE
Continue Almanac Download

NOTE
Perform Continue Almanac Download if after the Receiver was commanded to INIT, the Almanac Week is not equal to GPS Week or GPS Week +1 (This indicates a full Almanac was not downloaded). The steps within this option may be repeated as necessary to obtain a current Almanac Week.

Continue Almanac Download Not Performed:_____

53-33  CNSE

CURSOR CNTL (VSN59)
NAV GPS 2 - ITEM 18
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

CRT (VWN58)
VERIFY
RECEIVER STATUS
   RCVR MODE NAV

GPS 2 PWR
   STAT ON

53-34  CNSE

CURSOR CNTL (VSN59)
INIT GPS 2 - ITEM 15
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

CRT (VWN58)
VERIFY
RECEIVER STATUS
   RCVR MODE INIT
53-35

**CNSE**

**IF** Receiver was commanded to INIT and the Almanac Week is still not equal to GPS Week or GPS Week +1,

**THEN** Re-perform the GPS Almanac Collection sequence beginning with Step 53-29.

Not Performed:______

*** End of Continue Almanac Download ***

53-36

**CNSE**

CURSOR CNTL (VSN59 PG-B)
NAV GPS 2 - ITEM 18
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-37

**CNSE**

CRT (VWN58 PG-B)
RECEIVER STATUS
    HEADER WD       FFFF
GPS 2 PWR
    STAT           ON
NAV DATA
    ALM WK = WEEKS OR WEEKS + 1

OMRSD V74P00.055

53-38

**CNSE**

CONSOLE KYBD (VSN59 PG-B)
PFK7 KEY - PRESS (TERMINATE NAV MONITOR)
53-39  

CNSE

CURSOR CNTL (VSN59 PG-B)
GPS POWER DN - 2
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-40  

CNSE

CRT (VSN59 PG-B)
FOLLOW PROGRAM PROMPTS:

TO TERMINATE IO

---

NOTE

Due to the configuration of the Receiver Status measurement, a message indicating GPS Power Off was successful may appear on VSN59 prior to powering off the GPS receiver. This is expected and the following step can be performed as written.

53-41  

CNSE  CDR  173

PANEL A13
GPS
POWER SW - OFF

53-42  

CNSE

CONSOLE KYBD (VSN59 PG-B)
PFK1 KEY - PRESS TO TURN OFF PREAMP SWITCHES
NOTE
OV-104 preamp switches are 3 position switches. Center and Down are Off. Place switches in the Off (Down) position.

53-43  CNSE  MS1  173

PANEL A13
GPS
PRE-AMP
UC SW - OFF
LC SW - OFF

53-44  CNSE

CRT (VSN59 PG-B)
FOLLOW PROGRAM PROMPTS:
PFK1 - PRESS TO VERIFY PREAMP PWR SW IS OFF
PFK2 - PRESS TO BYPASS CBs

53-45  CNSE

CRT (VSN59 PG-B)
FOLLOW PROGRAM PROMPTS

TO ISSUE RESUME TO ACTIVE CRT

VERIFY RESUME COMPLETE.

***End of GPS Activation and Almanac Collection***
CRT Return to C12

NOTE
Perform “CRT Return to C12” if there is no further need for CRT. If C2 has only one CRT and NAVAIDS Activation will commence, then do not perform this option.

CRT Return to C12 Not Performed:_____

53-46 CNSE

CURSOR CNTL (VSN59)
CRT RETURN TO DPS
XMIT CURSOR KEY - PRESS

PLACE CURSOR AT THE END OF:
C CO _DEUXG LDBA C12  (X = CRT NO.)
XMIT CMD KEY - PRESS

HOME CMD KEY - PRESS
ISSU N72IV10YD 0 (Y = CRT No. Minus 1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-47 CNSE OTC 132
OTC CDPS

C2 CRT returned to C12. GPS activities are complete.

*** End of CRT Return to C12 ***

53-48 CNSE

CURSOR CNTL (VSN59)
TERMINATE
XMIT CURSOR KEY - PRESS

575
NAVAIDS Activation

NOTE
Do not perform NAVAIDS Activation if NAVAIDS Self Test was already performed during the present flow unless Engineering evaluation determines that repeating the test will add significant confidence in flight readiness.

NAVAIDS Activation Not Performed:_____

NOTE
Steps involving Crit 1, 1R and/or 1S items are contained in the following operation.

53-49

CNSE

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
VAA40
PERF PGM KEY - PRESS

PFP (VAA40)
VAA40 - PRESS
WARM START - PRESS
VWN99 (NAV OV) - PRESS
(SELECT APPL PAGE-B)
NAVAIDS Circuit Breaker Closing

53-50   CNSE   CDR   173

PANEL 014
ROW C
  MN A
  TACAN 1 CB - CLOSE (GUARDED)

ROW E
  MN A
  RDR ALTM 1 CB - CLOSE (GUARDED)
  MLS 1 CB - CLOSE (GUARDED)

53-51   CNSE   CDR

IF IN SUPPORT OF OV-103,

THEN
PANEL 015
ROW C
  MN B
  TACAN 2 CB - CLOSE (GUARDED)

Not Performed:______
53-52

**CNSE CDR**

**IF** IN SUPPORT OF OV-104,

**THEN**

PANEL O15
ROW E
MN B
  TACAN 2 CB - CLOSE (GUARDED)

Not Performed:_____

---

53-53

**CNSE CDR**

PANEL O15
ROW E
MN B
  RDR ALTM 2 CB - CLOSE (GUARDED)
  MLS 2 CB - CLOSE (GUARDED)

---

53-54

**CNSE CDR**

PANEL O16
ROW C
MN C
  TACAN 3 CB - CLOSE (GUARDED)

ROW E
MN C
  MLS 3 CB - CLOSE (GUARDED)

***End of NAVAIDS Circuit Breaker Closing***
TACAN Activation

53-55  CNSE   PLT   173

PANEL 07
    TACAN 1
    ANT SEL SW - AUTO
    CHANNEL TW’S - 59Y
    MODE SW - T/R

53-56  CNSE   PLT   173

PANEL 07
    TACAN 2
    ANT SEL SW - AUTO
    CHANNEL TW’S - 59Y
    MODE SW - T/R

53-57  CNSE   PLT   173

PANEL 07
    TACAN 3
    ANT SEL SW - AUTO
    CHANNEL TW’S - 59Y
    MODE SW - T/R

53-58  CNSE   PLT   173

PANEL 07
    TACAN 1
    MODE SW - GPC
    TACAN 2
    MODE SW - GPC
    TACAN 3
    MODE SW - GPC

GMT________________
53-59

CNSE

CRT (VWN99)
VERIFY
TACAN
1 SW/PWR STAT ON/ON
2 SW/PWR STAT ON/ON
3 SW/PWR STAT ON/ON

53-60

CNSE

IF any of the TACANS remain in receive when switched from T/R to
GPC,

THEN

CURSOR CNTL (VWN99)
CTRL WORD ISU
   XMIT CURSOR - PRESS

CONSOLE KYBD/CRT (VWN99)
FOLLOW COMMAND PROMPTS
TO COMMAND TACAN _________ (1, 2, 3)
TO T/R, 59Y, S/T - OFF

Not Performed:_____

*** End of TACAN Activation ***
Radar Altimeter Activation

53-61  CNSE  PLT  173

PANEL 08
RADAR ALTIMETER
  1 SW - ON
  2 SW - ON

GMT______________

53-62  CNSE

CRT (VWN99)
VERIFY
RADAR ALTIMETER
  1
    SW STAT  ON
    PWR STAT ON

  2
    SW STAT  ON
    PWR STAT ON

53-63

IF the Radar Alt Power On Requirement was not satisfied during the OPF flow,

THEN:
CRT (VWN60)
VERIFY
RADAR ALTIMETER

1
  RALT SW STATUS  ON
  RALT READY  ON
  RALT ALT DATA FT __________

2
  RALT SW STATUS  ON
  RALT READY  ON
  RALT ALT DATA FT __________

OMRSD V74AC0.011-1R

Not Performed:_____

*** End of Radar Altimeter Activation ***
# MSBLS Activation

## 53-64 CNSE CDR 173

<table>
<thead>
<tr>
<th>Panel</th>
<th>MLS</th>
<th>Channel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>TRI</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>TRI</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>TRI</td>
</tr>
</tbody>
</table>

## 53-65 CNSE PLT 173

<table>
<thead>
<tr>
<th>Panel</th>
<th>MLS</th>
<th>Switch</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>ON</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>ON</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>ON</td>
</tr>
</tbody>
</table>

GMT]

## 53-66 CNSE

**CRT (VWN99)**

**VERIFY**

**MSBLS**

<table>
<thead>
<tr>
<th>Switch</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>ON</td>
</tr>
<tr>
<td>2</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>ON</td>
</tr>
<tr>
<td>3</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>ON</td>
</tr>
</tbody>
</table>
53-67
CDPS  CDR  173

___ KYBD
I/O RESET
EXEC

FAULT SUMM

53-68
CDPS  CDR

CRT
VERIFY NO UNEXPECTED MLS, TACAN OR ALT FAULT SUMMARY MESSAGES.

53-69
CDPS  CDR  173

___ KYBD
SPEC 99
PRO
RESUME

*** End of MSBLS Activation ***

NAVAIDS Self Test

53-70
CNSE

HOME CMD KEY - PRESS
CONSOLE KYBD (VAN12)
VAN12
PERF PGM KEY - PRESS
Transfer 2nd CRT to C2

NOTE
Do not perform Transfer 2nd CRT to C2 if the same CRT that was used for GPS Activation will be used for NAVAIDS Self Test.

Transfer 2nd CRT to C2 Not Performed:______

53-71

<table>
<thead>
<tr>
<th>CNSE</th>
<th>OTC</th>
<th>132</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CDPS</td>
</tr>
</tbody>
</table>

Change the responsible console for a CRT to Console C2.

53-72

CDPS

CONSOLE KYBD
HOME CMD KEY - PRESS

C CO DEUXG LDBA C2 (X = CRT#)
XMIT CMD KEY - PRESS

HOME CMD KEY - PRESS
ISSU N72IV10YD #B002 (Y = CRT# -1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-73

<table>
<thead>
<tr>
<th>CDPS</th>
<th>OTC</th>
<th>132</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTC</td>
<td>CNSE</td>
<td></td>
</tr>
</tbody>
</table>

Responsible console for CRT ____ is now assigned to C2.

***End of Transfer 2nd CRT to C2***
53-74

**CNSE**

CURSOR CNTL (VAN12 PG-B)
EQUIVALENT DEU
XMIT CURSOR KEY - PRESS

CRT (VAN12)
**VERIFY**
   SELECT MAJOR MODE

53-75

**CNSE**

CURSOR CNTL (VAN12 PG-B)
GNC
XMIT CURSOR KEY - PRESS

53-76

**CNSE**

CURSOR CNTL (VAN12 PG-B)

DEU ______ (ASSIGNED CRT)
XMIT CURSOR KEY - PRESS

53-77

**CNSE**

CRT (VAN12 PG-B)
**VERIFY**
   SPEC 101 - CRT X (X = CRT No. ASSIGNED)
   SELECT LRU'S (BLINKING)
NOTE

Azimuth - data valid on for first 1.6 sec max, data 3 deg sign bit alternating +/- every 3.2 sec

Elevation - data valid on for first 1.6 sec max, data 6 deg

Range - data valid on for first 0.2 sec max, data 15.2 nm

Due to a known/documented flight software problem, the MLS Self Test may fail in Azimuth. If the MLS Self Test fails on board in Azimuth, then the MLS Self Test may be repeated.

53-78

CNSE

CURSOR CNTL (VAN12 PG-B)
MLS 1 - ITEM 1
XMIT CURSOR KEY - PRESS
MLS 2 - ITEM 2
XMIT CURSOR KEY - PRESS
MLS 3 - ITEM 3
XMIT CURSOR KEY - PRESS

53-79

CNSE

CURSOR CNTL (VAN12 PG-B)
13 TO START
XMIT CURSOR KEY - PRESS

53-80

CNSE

CRT (VAN12 PG-B)
VERIFY (WHEN SELF TEST IS COMPLETE)

MLS 1 2 3 PASSED (IN GREEN)
53-81  

**CNSE**

**REVIEW** the data on the CRT, Console Printer output or SPA Printer job VAN12, upon termination of VAN12. **Verify** MLS Self Test passed.

Limits are:
- Azimuth: (+/-) 3.0 +/- 0.1 deg
- Elevation: 6.0 +/- 0.1 deg
- Range: 15.2 +/- 0.2 NM

53-82  

**CNSE  CDR**

**CRT __________ (SPEC 101)**

**Verify:**  
(No Down Arrows)  
MLS 1 STAT column - blank  
MLS 2 STAT column - blank  
MLS 3 STAT column - blank

53-83  

**CNSE**

**CURSOR CNTL (VAN12)**

**ITEM 15 (TERMINATE)**  
XMIT CURSOR KEY - PRESS

**ITEM 16 (INHIBIT)**  
XMIT CURSOR KEY - PRESS
53-84

**CNSE**

CRT (VWN99 PG-B)

MSBLS

1

AZ S/T STAT OFF
EL S/T STAT OFF
RG S/T STAT OFF

2

AZ S/T STAT OFF
EL S/T STAT OFF
RG S/T STAT OFF

3

AZ S/T STAT OFF
EL S/T STAT OFF
RG S/T STAT OFF

53-85

**CNSE**

CURSOR CNTL (VAN12 PG-B)

EQUIVALENT DEU

XMIT CURSOR KEY - PRESS

53-86

**CNSE**

CURSOR CNTL (VAN12 PG-B)

RA 1 - ITEM 7

XMIT CURSOR KEY - PRESS

RA 2 - ITEM 8

XMIT CURSOR KEY - PRESS

53-87

**CNSE**

CURSOR CNTL (VAN12 PG-B)

13 TO START

XMIT CURSOR KEY - PRESS
53-88

CNSE

CRT (VAN12 PG-B)

VERIFY

RA

1

S/T CMD ON
DATA VALIDITY GO
ALTITUDE
DATA (1000 +/- 100)

2

S/T CMD ON
DATA VALIDITY GO
ALTITUDE
DATA (1000 +/- 100)

Ra 1 2 PASSED
IF the Radar Altimeter Self Test was not performed in the OPF,

THEN:
CRT (VWN99 PG-B)
VERIFY
RADAR ALTIMETER
1
  LOCK ON   GO
  S/T CMD  ON
  DATA VALID GO
  ALT DATA FT 1000 +/- 100

2
  LOCK ON   GO
  S/T CMD  ON
  DATA VALID GO
  ALT DATA FD 1000 +/- 100

OMRSD V74AC0.020-1R

Not Performed:______

CURSOR CNTL (VAN12 PG-B)
ITEM 15 (TERMINATE)
XMIT CURSOR KEY - PRESS

ITEM 16 (INHIBIT)
XMIT CURSOR KEY - PRESS

CRT (VWN99)
RADAR ALTIMETER
  1 S/T CMD  OFF
  2 S/T CMD  OFF
NOTE
When the Self Test is initiated, V74X0070X, V74X0080X, and V74X0090X (TEST STAT MON) will go off and come back on 10 seconds later (max). Monitor VAN12 TEST STAT MON column for TEST AND Then go.
53-94  CNSE

CRT (VAN12 PG-B)

TACAN

1 S/T STAT      ON
2 S/T STAT      ON
3 S/T STAT      ON

RANGE
1 DATA STATUS   BLANK
2 DATA STATUS   BLANK
3 DATA STATUS   BLANK

BEARING
1 DATA STATUS   BLANK
2 DATA STATUS   BLANK
3 DATA STATUS   BLANK

1 TEST STAT MON TEST/GO
2 TEST STAT MON TEST/GO
3 TEST STAT MON TEST/GO

TAC 1 2 3 PASSED

Review the data on the CRT, Console Printer output or SPA Printer job VAN12, upon termination of VAN12. Verify TACAN Self Test passed.

Limits are:
Range 0.0 NM
Bearing 180.0 +/- 0.1 Deg

53-95  CNSE

CURSOR CNTL (VAN12 PG-B)
ITEM 15 (TERMINATE)
XMIT CURSOR KEY - PRESS

ITEM 16 (INHIBIT)
XMIT CURSOR KEY - PRESS
53-96

CNSE

CRT (VWN99)
TACAN
  1
    S/T STAT - OFF
  2
    S/T STAT - OFF
  3
    S/T STAT - OFF

53-97

CNSE

PFP
VAN12 - PRESS
TERM VAN12 - PRESS

**CRT Return to DPS**

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform this option if CRT is not required for GPS de-activation.</td>
</tr>
</tbody>
</table>

**CRT Return to DPS Not Performed:**

53-98

CNSE

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
C CO _DEUXG LDBA C12 (X = CRT#)
XMIT CMD KEY - PRESS

HOME CMD KEY - PRESS
ISSU N72IV10YD 0 (Y = CRT# -1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS
<table>
<thead>
<tr>
<th>53-99</th>
<th>CNSE</th>
<th>OTC</th>
<th>132</th>
</tr>
</thead>
<tbody>
<tr>
<td>OTC</td>
<td>CDPS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Responsible console for CRT _____ returned to DPS.

*** End of CRT Return to DPS ***

*** End of NAVAIDS Self Test ***

<table>
<thead>
<tr>
<th>53-100</th>
<th>CNSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRT (VWN99)</td>
<td></td>
</tr>
<tr>
<td>RADAR ALTIMETER</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>ALT DATA FT ______ (BD)</td>
</tr>
<tr>
<td>2</td>
<td>ALT DATA FT ______ (BD)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>53-101</th>
<th>CNSE</th>
<th>PLT</th>
<th>173</th>
</tr>
</thead>
<tbody>
<tr>
<td>PANEL 08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RADAR ALTIMETER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 SW - OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 SW - OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 SW - OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 SW - OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 SW - OFF</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
53-102  
CNSE

CRT (VWN99 PG-B)  
RADAR ALTIMETER  
1  
SW STATUS OFF  
PWR STATUS OFF  

2  
SW STATUS OFF  
PWR STATUS OFF  

MSBLS  
1  
SW STATUS OFF  
PWR STATUS OFF  

2  
SW STATUS OFF  
PWR STATUS OFF  

3  
SW STATUS OFF  
PWR STATUS OFF  

53-103  
CDPS  
CDR  
173  

___ KYBD  
MSG RESET
TACAN Blanking Test

NOTE
The steps contained within the floating header, TACAN Blanking Test, satisfy the noted requirements.

OMRS V74AB0.102-1R

53-104

CNSE

CURSOR CNTL (VWN99)
TACAN 1 ANT SEL UPPER
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

TACAN 2 ANT SEL UPPER
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

TACAN 3 ANT SEL UPPER
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

NOTE
The Blanking Test is performed with the TACANs commanded to an unused channel. 111X is normally used but any unused channel will work.
53-105

CNSE

CURSOR CNTL (VWN99)
COMMAND
TACAN 2 - _______ X, RCV, S/T OFF
TACAN 3 - _______ X, RCV, S/T OFF

CRT (VWN99)
VERIFY

TACAN 1
MODE RCV/TR T/R V74K1513B1
TACAN 2
MODE RCV/TR RCV V74K1613B1
TACAN 3
MODE RCV/TR RCV V74K1713B1

ALL TACANS HAVE SUPPRESSION BIT ON

53-106

CNSE

CURSOR CNTL (VWN99)
COMMAND
TACAN 1 - _______ X, RCV, S/T OFF
TACAN 2 - _______ X, T/R, S/T OFF

CRT (VWN99)
VERIFY

TACAN 1
MODE RCV/TR RCV V74K1513B1
TACAN 2
MODE RCV/TR T/R V74K1613B1
TACAN 3
MODE RCV/TR RCV V74K1713B1

ALL TACANS HAVE SUPPRESSION BIT ON
53-107

CNSE

CURSOR CNTL (VWN99)
COMMAND
TACAN 2 - _______ X, RCV, S/T OFF
TACAN 3 - _______ X, T/R, S/T OFF

CRT (VWN99)
VERIFY

TACAN 1
MODE RCV/TR RCV V74K1513B1
TACAN 2
MODE RCV/TR RCV V74K1613B1
TACAN 3
MODE RCV/TR T/R V74K1713B1

ALL TACANS HAVE SUPPRESSION BIT ON

53-108

CNSE

CURSOR CNTL (VWN99)
COMMAND
TACAN 3 - _______ X, RCV, S/T OFF

CRT
VERIFY

TACAN 1
MODE RCV/TR RCV V74K1513B1
TACAN 2
MODE RCV/TR RCV V74K1613B1
TACAN 3
MODE RCV/TR RCV V74K1713B1

ALL TACANS HAVE SUPPRESSION BIT OFF
Completion of the steps contained within the floating header, TACAN Blanking Test, complete the noted requirement.

OMRSD V74AB0.102-1R

***End of TACAN Blanking Test***

53-110  CNSE

CURSOR CNTL (VWN42)
TACAN 1 ANT SEL LOWER
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

TACAN 2 ANT SEL LOWER
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

TACAN 3 ANT SEL LOWER
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS
TACAN Ground Interface Test

NOTE
The steps contained within the floating header, TACAN Ground Interface Test, satisfy the noted requirement.

OMRS V74AB0.190-1R

53-111  CNSE  PLT  173

PANEL 07
  TACAN 1
    MODE SW - T/R
  TACAN 2
    MODE SW - T/R
  TACAN 3
    MODE SW - T/R

GMT__________
IF TACAN 1, 2 or 3 does not maintain a good lock on the Lower Antenna, THEN:

Command TACAN(s) that are not maintaining lock to antenna that maintains the best lock.

CURSOR CNTL (VWN42)
TACAN 1 ANT SEL __________(UPPER/LOWER)
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

TACAN 2 ANT SEL __________(UPPER/LOWER)
XMIT CURSOR KEY - PRESS
EXEC CMD KEY PRESS

TACAN 3 ANT SEL __________(UPPER/LOWER)
XMIT CURSOR KEY - PRESS
EXEC CMD KEY - PRESS

Not Performed:_______
NOTE

Use the following data for the next step:

<table>
<thead>
<tr>
<th>Pad A</th>
<th>Pad B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range (nm)</td>
<td>4.96</td>
</tr>
<tr>
<td>Bearing (deg)</td>
<td>282.39</td>
</tr>
</tbody>
</table>

53-113

CNSE

CRT (VWN99)

VERIFY

FROM CRT TACAN 1, 2 & 3 RANGE AND BEARING ARE WITHIN SPEC FOR THE PAD UNDER TEST.

PAD A
RANGE - 4.96 NM +/-0.2
BEARING - 282.39 DEG +/-2.0

PAD B
RANGE - 3.96 NM +/-0.2
BEARING - 269.08 DEG +/-2.0

HARDCOPY KEY - PRESS
53-114

CNSE

CRT (VWN99 PG-B)

TACAN

1

RNG VALID GO
RNG DATA __________ NM +/-0.2
BRG VALID GO
BRG DATA __________ DEG +/-2.0

AGC __________ V(BD)

2

RNG VALID GO
RNG DATA __________ NM +/-0.2
BRG VALID GO
BRG DATA __________ DEG +/-2.0

AGC __________ V(BD)

3

RNG VALID GO
RNG DATA __________ NM +/-0.2
BRG VALID GO
BRG DATA __________ DEG +/-2.0

AGC __________ V(BD)

53-115

IF the requirement has not already been satisfied during the OPF flow,

THEN completion of the steps contained within the floating header,
TACAN Ground Interface Test, complete the noted requirement.

OMRSD V74AB0.190-1R

Not Performed:______

***End of TACAN Ground Interface Test***
TACAN Ground Station Switchover

NOTE
Perform TACAN Ground Station Switchover if FTAC is supporting.

TACAN Ground Station Switchover Not Performed:_____

NOTE
For the following step and after TACAN transponder switchover, the data listed below applies:

<table>
<thead>
<tr>
<th>Pad A</th>
<th>Pad B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Range (NM)</td>
<td>4.96</td>
</tr>
<tr>
<td>Bearing (DEG)</td>
<td>282.39</td>
</tr>
</tbody>
</table>

53-116  

CNSE

CRT (VWN99)

VERIFY
FROM CRT TACAN 1, 2 & 3 RANGE AND BEARING ARE WITHIN SPEC FOR THE PAD UNDER TEST.

PAD A
RANGE - 4.96 NM +/-0.2
BEARING - 282.39 DEG +/-2.0

PAD B
RANGE - 3.96 NM +/-0.2
BEARING - 269.08 DEG +/-2.0

HARDCOPY KEY - PRESS
53-117 CNSE FTAC 173

Request TACAN transponder switchover per Doc: MAXIMO JOB PLAN 19300-1 (LI), Op 90.

53-118 FTAC CNSE 173

TACAN transponder switchover complete.

53-119 CNSE

CRT (VWN99)
VERIFY
FROM CRT TACAN 1, 2 & 3 RANGE AND BEARING ARE WITHIN SPEC FOR THE PAD UNDER TEST.

PAD A
RANGE - 4.96 NM +/-0.2
BEARING - 282.39 DEG +/-2.0

PAD B
RANGE - 3.96 NM +/-0.2
BEARING - 269.08 DEG +/-2.0

HARDCOPY KEY - PRESS

53-120 CNSE OTC 132
OTC NTD 232
NTD STM 232
STM FTAC 111

Release TACAN support per S0017.300.

*** End of TACAN Ground Station Switchover ***
53-121  CNSE  PLT  173

PANEL 07
  TACAN 1
    MODE SW - OFF
  TACAN 2
    MODE SW - OFF
  TACAN 3
    MODE SW - OFF

53-122  CNSE

CRT (VWN 99 PG-B)
VERIFY
  TACAN 1 SW/PWR OFF/OFF
  2 SW/PWR OFF/OFF
  3 SW/PWR OFF/OFF

53-123  CNSE  FTAC  173

NAVAIDS Activation is complete and TACANs powered down at this time.
Ku-Band Position Verification

53-124 CNSE MS1 173

IF the following Mid Logic Switches are not on,

THEN:

PANEL MA73C
ROW A
MCA LOGIC
  MN C
  MID 2 SW - ON

ROW B
MCA LOGIC
  MN B
  MID 4 SW - ON

Not Performed:______

53-125 CNSE

CRT (VWN80)
VERIFY
KU-BAND
  SWITCH SCAN
    STW/DPLY   STOW 1&2
    BOOM STOW 2 ON
IF the logic switches were originally off, THEN:

PANEL MA73C
   ROW A
      MCA LOGIC
      MN C
      MID 2 SW - OFF
   ROW B
      MCA LOGIC
      MN B
      MID 4 SW - OFF

Not Performed:_____

*** End of Ku-Band Position Verification***

PFK15 - PRESS

PFM
VAA40 - PRESS
SET TERM - PRESS
EXEC TERM - PRESS
KEY 7 - PRESS

CRT (VSN59 PG-B)
TERMINATE - PRESS

NAVAIDS Activation and Self Test is complete.

*** End of NAVAIDS Activation ***

*** End of Option 1 - OV-103/104 NAVAIDS Activation ***
Option 2 - OV-105 NAVAIDS Activation

NOTE
Perform Option 2 if in support of OV-105.

Option 2 Not Performed:

NOTE
Steps involving Crit 1, 1R and/or 1S items are contained in the following operation.

NOTE
NAVAIDS Activation and Self Test and GPS Activation and Almanac Collection may be performed in parallel or out of written order per engineering.

53-129

CNSE

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
VAA40
PERF PGM KEY - PRESS

53-130

CNSE

PFP (C2)
VAA40 - PRESS
WARM START - PRESS

PFP (VAA40)
VWN43 - PRESS
(SELECT APPL PG B)
GPS Activation and Almanac Collection

53-131

CNSE

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
VSN59
PERF PGM KEY - PRESS
(SELECT APPL PG B)

NOTE

IDP RSYS is required for the GPS Activation.

53-132

CNSE OTC 132
OTC CDPS

Change responsible console for IDP to Console C2. Expect IO errors during GPS power up.

53-133

CDPS

CONSOLE KYBD
HOME CMD KEY - PRESS
C CO _DEUXG LDBA C2 (X = IDP NO.)
XMIT CMD KEY - PRESS

ISSU N72IV10YD #B002 (Y = IDP NO. MINUS 1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-134

CDPS OTC 132
OTC CNSE

Responsible console for CRT No._____ now assigned to C2.
CURSOR CNTL (VSN59 PG-B)
GPS POWER UP - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

NOTE
In the next step, the VSN59 program will prompt the operator to perform the following:

A Site Select on SPEC 104. The Site Select need be performed only on the initial GPS Powerup. If the IMUs are powered on, bypass the Site Select.

The IMU 1 Operate command will be issued by SPEC 104, ITEM 13. After 5 minutes, the flight software will allow Site Select using SPEC 104. Once the Site Select is completed, the IMU 1 Standby command should be issued. Contact CGNC or CTPE for IMU status. If the IMUs are powered on, the Operate command should not be issued without CGNC concurrence. If the IMUs are already in Operate, the Site Select is not required prior to activating SPEC 055.

Power up the preamplifiers. Select both upper and lower and perform only the switch called out below. Once the switch settings are complete, the operator will acknowledge by selecting PFK1.
IF IMUs are powered off and CGNC has not completed the site select, Verify

THEN
CRT (VSN59 PG-B)
FOLLOW PROGRAM PROMPTS

TO PERFORM SITE SELECT

TO SET IMU OPERATE COMMAND, THEN RETURN BACK TO STANDBY WHEN SITE SELECT IS COMPLETE

ELSE
CRT (VSN59 PG-B)
FOLLOW PROGRAM PROMPTS

TO BYPASS SITE SELECT
NOTE
All GPS Pre-amplifiers will be powered on. GPS pre-amplifier circuit breakers are not downlisted and power switch indications are switch scan only.

53-137  CNSE    CDR
PANEL 014
  ROW D
  MN A
  GPS 1
    PRE AMPL
    UPPER CB - CLOSED
    LOWER CB - CLOSED

53-138  CNSE    CDR
PANEL 015
  ROW C
  MN B
  GPS 2
    PRE AMPL
    UPPER CB - CLOSED
  ROW D
  MN B
  GPS 2
    PRE AMPL
    LOWER CB - CLOSED

53-139  CNSE    CDR
PANEL 016
  ROW D
  MN C
  GPS 3
    PRE AMPL
    UPPER CB - CLOSED
    LOWER CB - CLOSED
53-140

**CNSE**

CRT/CONSOLE KYBD (VSN59 PG-B)
PFK 1B KEY - PRESS (CBS NOW CLOSED - CONTINUE)

53-141

**CNSE**

**CDR**

PANEL 07
GPS 1
  PRE AMPL
  UPPER SW - ON
  LOWER SW - ON
GPS 2
  PRE AMPL
  UPPER SW - ON
  LOWER SW - ON
GPS 3
  PRE AMPL
  UPPER SW - ON
  LOWER SW - ON

53-142

**CNSE**

CRT/CONSOLE KYBD (VSN59 PG-B)
PFK 1B KEY - PRESS (SWITCH SETTINGS COMPLETE - CONTINUE)

53-143

**CNSE**

CONSOLE KYBD (VSN59 PG-B)
PFK 1B KEY - PRESS (PERFORM I/O START - CONTINUE)
PFK XB KEY - PRESS (X = CRT ASSIGNED TO C2)
NOTE
GPS software allows 2 minutes for GPS receiver power-up to occur. A failure will be annunciated should the time be exceeded. Retest may be selected should this event occur.

NOTE
GPS receiver will transition from SELF-TEST/INIT mode to NAV mode upon power-up.

NOTE
For receiver status, the transition time from a STAT indication “OFF” indicating receiver is powered on to a STAT indication “ON” indicating receiver is tracking satellites in State 5 is not exact. During power-up, it may be necessary to perform a data retrieval on the STAT indication, if STAT indication is “ON” before it can be verified on display.

NOTE
A receiver STAT indication “ON” and the receiver is not tracking GPS satellites after the power-up procedure has been performed may indicate the receiver is not powered on or a failure of the GPS receiver may have occurred.

NOTE
For the GPS Receiver Status indication (STAT), approximately one second after power is applied, the STAT indication will transition from “ON” to “OFF.” The STAT indication will then transition to “ON” indicating receiver has entered a power-up self-test mode (~ 30 seconds) and transition back to “OFF” once self-test is complete.

Once the GPS receiver is on and self-test complete, STAT indication will identify the following:

1) STAT Indication “OFF” - Receiver is powered on, but is not tracking four satellites in state 5.

2) STAT Indication “ON” - Receiver is powered on and is tracking four satellites in state 5. This indication could also mean that GPS power was lost.
NOTE
Verification of GPS receiver status can be performed after GPS switch configuration is performed.

53-144  CNSE    CDR

PANEL 07
GPS 1
POWER SW - ON

53-145  CNSE

CRT (VWN43 PG-B)
VERIFY
GPS 1
STAT - OFF
RPC A - ON
MDE - NAV
RPU - OFF
BAT - OFF

53-146  CNSE    CDR

PANEL 07
GPS 2
POWER SW - ON

53-147  CNSE

CRT (VWN43 PG-B)
VERIFY
GPS 2
STAT - OFF
RPC B - ON
MDE - NAV
RPU - OFF
BAT - OFF
53-148  CNSE  CDR

PANEL 07
GPS 3
POWER SW - ON

53-149  CNSE

CRT (VWN43 PG-B)
VERIFY
GPS 3
STAT - OFF
RPC C - ON
MDE - NAV
RPU - OFF
BAT - OFF

53-150  CNSE

CRT (VSN59 PG-B)
PFK 7 KEY - PRESS (TERM NAV MONITOR)
NOTE
During transition to “INIT” mode, the VSN59 program may issue a message “Difference between GPS weeks and almanac weeks is greater than 1.” User can follow the program prompts to issue an “Acknowledge/Continue” using the appropriate PFK key when this occurs. A new almanac begins to download upon power up and satellite acquisition, but can take up to 20 minutes or greater to complete.

53-151 CNSE
CURSOR CNTL (VSN59 PG-B)
I/O ITEM 10+2
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-152 CNSE
CRT (VSN59 PG-B)
VERIFY
GPS X (X = 1, 2 & 3)
RCVR MODE - INIT
HDR WD - EEEE

53-153 CNSE
CURSOR CNTL (VSN59 PG-B)
NAV - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS
53-154 CNSE

CRT (VWN43 PG-B)
VERIFY
GPS X (X = 1, 2 & 3)
STAT - ON (NAV BIT - 4 SV TRACKING IN STATE 5 (CAR_TK))
HDR - FFFF
MDE - NAV

Spec 55 Resume and Call Up

NOTE
IF only one DEU is available for C2 and NAVAIDS Self Test (Spec 101) will be performed while the GPS Almanac is downloading, perform Spec 55 Resume and Call Up.

Spec 55 Resume and Call Up Not Performed:_____

53-155 CNSE

CRT (VSN59 PG-B)
PFK 7 KEY - PRESS (TERM NAV MONITORING)

53-156 CNSE

CURSOR CNTL (VSN59 PG-B)
SPEC RESUME
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

CRT
VERIFY GPC MEMORY (9011) ON CRT IN USE.
NOTE
Perform the call up after NAVAIDS Self Test is complete and GPS testing will resume.

53-157   CNSE
CURSOR CNTL (VSN59 PG-B)
SPEC 55 CALLUP
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

CRT
VERIFY SPEC 55 (550) on CRT in use.

***End of Spec 55 Resume and Call Up***
NOTE
The Almanac is considered current when the GPS WEEK and ALMANAC WEEK agree to within 1 week. Downloading a full almanac will take at least 12.5 minutes. During certain satellite/receiver conditions, the Almanac Bit may not toggle from Off to On. This indication may occur if the receiver’s stored almanac contains information from a satellite that has been decommissioned. In this case, mode the receiver to INIT, back to NAV, and then back to INIT to update the Almanac Week status.

NAVAIDS Activation may be performed while the GPS Almanac is being downloaded if the SafetyClears are in Place.

53-158

CNSE

Allow the receivers to remain in NAV Mode until the Almanac Bit toggles from Off to On or for at least 30 Minutes.

CRT (VWN43 PG-B)
RECORD
RECEIVER STATUS
GPS 1
ALMC _________ (OFF / ON)

GPS 2
ALMC _________ (OFF / ON)

GPS 3
ALMC _________ (OFF / ON)

53-159

CNSE

CRT (VSN59 PG-B)
PFK 7 KEY - PRESS (TERM NAV MONITORING)
53-160

**CNSE**

CURSOR CNTL (VSN59 PG-B)
INIT - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-161

**CNSE**

CRT (VSN59 PG-B)

**VERIFY**

GPS X (X = 1, 2, & 3)
RCVR MODE - INIT
HDR WD - EEEE
Continue Almanac Download

NOTE
Perform Continue Almanac Download if after the Receiver was commanded to INIT, the Almanac Week is not equal to GPS Week or GPS Week +1 (This indicates a full Almanac was not downloaded). The steps within this option may be repeated as necessary to obtain a current Almanac Week.

Continue Almanac Download Not Performed:_____

53-162

CNSE
CURSOR CNTL (VSN59)
NAV - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

CRT (VWN58)
VERIFY
RECEIVER STATUS
GPS 1, 2, 3
MODE NAV
STAT ON

53-163

CNSE
CURSOR CNTL (VSN59)
INIT - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

CRT (VWN58)
VERIFY
RECEIVER STATUS
GPS 1, 2, 3
MODE INIT
IF Receiver was commanded to INIT and the Almanac Week is still not equal to GPS Week or GPS Week +1,

THEN Re-perform the GPS Almanac Collection sequence beginning with Step 53-158.

Not Performed:______

*** End of Continue Almanac Download ***

CURSOR CNTL (VSN59 PG-B)
NAV - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

CRT (VWN43 PG-B)
VERIFY
GPS X (X = 1, 2, & 3)
STAT - ON (NAV BIT - 4 SV TRACKING IN STATE 5 (CAR_TK))
HDR WD - FFFF
MDE - NAV
ALM WK = WEEKS OR WEEKS + 1

OMRSD V74PP0.060-A-1R
OMRSD V74PP0.060-B-1R
OMRSD V74PP0.060-C-1R
53-167

CNSE

CRT (VSN59 PG-B)
PFK 7 KEY - PRESS (TERM NAV MONITORING)

53-168

CNSE

CURSOR CNTL (VSN59 PG-B)
GPS POWER DOWN - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-169

CNSE

CURSOR CNTL (VSN59 PG-B)
PFK 1B KEY - PRESS (TERMINATE I/O)

NOTE

Due to the configuration of the receiver STAT bit on the GPS receiver and GOAL software, it is possible that the “GPS X Verified Powered OFF” message will appear prior to physically powering off the GPS receiver. This will happen if the STAT indication is ON, which means the GPS receiver is tracking four satellites. This is an expected condition and steps can be performed as written.

53-170

CNSE  CDR

PANEL 07
GPS 1
POWER SW - OFF
53-171  CNSE     CDR
PANEL 07
  GPS 2
    POWER SW - OFF

53-172  CNSE     CDR
PANEL 07
  GPS 3
    POWER SW - OFF

53-173  CNSE
CURSOR CNTL (VSN59 PG-B)
PFK 1B KEY - PRESS (PROCEED WITH PREAMP POWER OFF)

53-174  CNSE     CDR
PANEL 07
  GPS 1
    PRE AMPL
      UPPER SW - OFF
      LOWER SW - OFF
  GPS 2
    PRE AMPL
      UPPER SW - OFF
      LOWER SW - OFF
  GPS 3
    PRE AMPL
      UPPER SW - OFF
      LOWER SW - OFF
53-175

CNSE

CURSOR CNTL (VSN59)
PFK 1B KEY - PRESS (PREAMP POWER SWITCH IS NOW OFF - CONTINUE)

53-176

CNSE

CURSOR CNTL (VSN59)
PFK 2B KEY - PRESS (BYPASS- S0007/S0017)

53-177

CNSE

CURSOR CNTL (VSN59)
PFK 1B KEY - PRESS (ISSUE RESUME TO CRT)

*** End of 3-String GPS Verification ***
CRT Return to C12

NOTE
Perform “CRT Return to C12” if there is no further need for CRT. If C2 has only one CRT and NAVAIDS Activation will commence, then do not perform this option.

CRT Return to C12 Not Performed:______

53-178 CNSE

CURSOR CNTL (VSN59)
CRT RETURN TO DPS
XMIT CURSOR KEY - PRESS

PLACE CURSOR AT THE END OF:
C CO _DEUXG LDBA C12 (X = CRT NO.)
XMIT CMD KEY - PRESS

HOME CMD KEY - PRESS
ISSU N72IV10YD 0 (Y = CRT No. Minus 1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-179 CNSE OTC 132
OTC CDPS

C2 CRT returned to C12. GPS activities are complete.

*** End of CRT Return to C12 ***

53-180 CNSE

CURSOR CNTL (VSN59)
TERMINATE
XMIT CURSOR KEY - PRESS
53-181  

CURSOR CNTL (VWN43 PG-B)  
TERMINATE  
XMIT CURSOR KEY - PRESS

*** End of GPS Activation and Almanac Collection ***
NAVAIDS Activation

NOTE
Do not perform NAVAIDS Activation if NAVAIDS Self Test was already performed during the present flow unless Engineering evaluation determines that repeating the test will add significant confidence in flight readiness.

NAVAIDS Activation Not Performed:______

NOTE
Steps involving Crit 1, 1R and/or 1S items are contained in the following operation.

53-182 CNSE
CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
VAA40
PERF PGM KEY - PRESS

PFP (VAA40)
VAA40 - PRESS
WARM START - PRESS
VWN99 (NAV OV) - PRESS
(SELECT APPL PAGE-B)
NAVAIDS Circuit Breaker Closing

53-183

CNSE

PANEL O14
ROW E
MN A
RDR ALTM 1 CB - CLOSE (GUARDED)
MLS 1 CB - CLOSE (GUARDED)

53-184

CNSE

PANEL O15
ROW E
MN B
RDR ALTM 2 CB - CLOSE (GUARDED)
MLS 2 CB - CLOSE (GUARDED)

53-185

CNSE

PANEL O16
ROW E
MN C
MLS 3 CB - CLOSE (GUARDED)

***End of NAVAIDS Circuit Breaker Closing***
Radar Altimeter Activation

53-186  CNSE  PLT  173

PANEL 08
RADAR ALTIMETER
  1 SW - ON
  2 SW - ON

GMT__________

53-187  CNSE

CRT (VWN99)
VERIFY
RADAR ALTIMETER
  1
  SW STAT ON
  PWR STAT ON

  2
  SW STAT ON
  PWR STAT ON

53-188  IF the Radar Alt Power On Requirement was not satisfied during the OPF flow,

THEN:
CRT (VWN60)
VERIFY
RADAR ALTIMETER

  1
  RALT SW STATUS ON
  RALT READY ON
  RALT ALT DATA FT __________

  2
  RALT SW STATUS ON
  RALT READY ON
  RALT ALT DATA FT __________

OMRSD V74AC0.011-1R

Not Performed:_____

*** End of Radar Altimeter Activation ***
MSBLS Activation

53-189  CNSE  CDR  173

PANEL O8
MLS
1  CHANNEL TW - 6
2  CHANNEL TW - 6
3  CHANNEL TW - 6

53-190  CNSE  PLT  173

PANEL O8
MLS
1  SW - ON
2  SW - ON
3  SW - ON

53-191  CNSE

CRT (VWN99)
VERIFY

MSBLS
1
SW STAT  ON
PWR STAT  ON

2
SW STAT  ON
PWR STAT  ON

3
SW STAT  ON
PWR STAT  ON
53-192  CDPS    CDR    173
___ KYBD
  I/O RESET
  EXEC

53-193  CDPS    CDR
CRT ___
  VERIFY NO UNEXPECTED MLS OR ALT FAULT SUMMARY MESSAGES.

53-194  CDPS    CDR    173
___ KYBD
  SPEC 99
  PRO
  RESUME

*** End of MSBLS Activation ***

NAVAIDS Self Test

53-195  CNSE
HOME CMD KEY - PRESS
CONSOLE KYBD (VAN12)
VAN12
PERF PGM KEY - PRESS
Transfer 2nd CRT to C2

NOTE
Do not perform Transfer 2nd CRT to C2 if a second CRT is not available and the same CRT that was used for GPS Activation will be used for NAVAIDS Self Test.

Transfer 2nd CRT to C2 Not Performed:______

53-196  CNSE  OTC  132  CDPS

Change the responsible console for a CRT to Console C2.

53-197  CDPS

CONSOLE KYBD
HOME CMD KEY - PRESS
C CO __ DEUXG LDBA C2 (X = CRT#)
XMIT CMD KEY - PRESS

HOME CMD KEY - PRESS
ISSU N72IV10YD #B002 (Y = CRT# -1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-198  CDPS  OTC  132  OTC  CNSE

Responsible console for CRT ____ is now assigned to C2.

***End of Transfer 2nd CRT to C2***
53-199  

CNSE

CURSOR CNTL (VAN12 PG-B)
EQUIVALENT DEU
XMIT CURSOR KEY - PRESS

CRT (VAN12)
VERIFY
SELECT MAJOR MODE

53-200  

CNSE

CURSOR CNTL (VAN12 PG-B)
GNC
XMIT CURSOR KEY - PRESS

53-201  

CNSE

CURSOR CNTL (VAN12 PG-B)

DEU ______ (ASSIGNED CRT)
XMIT CURSOR KEY - PRESS

53-202  

CNSE

CRT (VAN12 PG-B)
VERIFY

SPEC 101 - CRT X  (X = CRT No. ASSIGNED)
SELECT LRU'S (BLINKING)
NOTE
Azimuth - data valid on for first 1.6 sec max, data 3 deg sign bit alternating +/- every 3.2 sec

Elevation - data valid on for first 1.6 sec max, data 6 deg

Range - data valid on for first 0.2 sec max, data 15.2 nm

Due to a known/documented flight software problem, the MLS Self Test may fail in Azimuth. If the MLS Self Test fails on board in Azimuth, then the MLS Self Test may be repeated.

53-203

CNSE

CURSOR CNTL (VAN12 PG-B)
MLS 1 - ITEM 1
XMIT CURSOR KEY - PRESS
MLS 2 - ITEM 2
XMIT CURSOR KEY - PRESS
MLS 3 - ITEM 3
XMIT CURSOR KEY - PRESS

53-204

CNSE

CURSOR CNTL (VAN12 PG-B)
13 TO START
XMIT CURSOR KEY - PRESS

53-205

CNSE

CRT (VAN12 PG-B)
VERIFY (WHEN SELF TEST IS COMPLETE)

MLS 1 2 3 PASSED (IN GREEN)
53-206  

**CNSE**

**REVIEW** the data on the CRT, Console Printer output or SPA Printer job VAN12, upon termination of VAN12. **Verify** MLS Self Test passed.

Limits are:
- **Azimuth**: $\pm 3.0 \pm 0.1$ deg
- **Elevation**: $6.0 \pm 0.1$ deg
- **Range**: $15.2 \pm 0.2$ NM

53-207  

**CNSE**  **CDR**

**CRT __________ (SPEC 101)**

**Verify:**
- (No Down Arrows)
- MLS 1 STAT column - blank
- MLS 2 STAT column - blank
- MLS 3 STAT column - blank

53-208  

**CNSE**

**CURSOR CNTL (VAN12)**
- **ITEM 15 (TERMINATE)**
  - XMIT CURSOR KEY - PRESS
- **ITEM 16 (INHIBIT)**
  - XMIT CURSOR KEY - PRESS
53-209  

**CNSE**

CRT (VWN99 PG-B)

MSBLS

1

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<tr>
<td>EL S/T STAT</td>
<td>OFF</td>
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<tr>
<td>RG S/T STAT</td>
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<td>OFF</td>
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53-210  

**CNSE**

CURSOR CNTL (VAN12 PG-B)

EQUIVALENT DEU

XMIT CURSOR KEY - PRESS

53-211  

**CNSE**

CURSOR CNTL (VAN12 PG-B)

RA 1 - ITEM 7

XMIT CURSOR KEY - PRESS

RA 2 - ITEM 8

XMIT CURSOR KEY - PRESS

53-212  

**CNSE**

CURSOR CNTL (VAN12 PG-B)

13 TO START

XMIT CURSOR KEY - PRESS
53-213  CNSE

CRT (VAN12 PG-B)
VERIFY
RA

1
S/T CMD ON
DATA VALIDITY GO
ALTITUDE
DATA __________(1000 +/- 100)

2
S/T CMD ON
DATA VALIDITY GO
ALTITUDE
DATA __________(1000 +/- 100)

Ra 1 2 PASSED
IF the Radar Altimeter Self Test was not performed in the OPF,

THEN:

CRT (VWN99 PG-B)
VERIFY
RADAR ALTIMETER
1
  LOCK ON      GO
  S/T CMD      ON
  DATA VALID   GO
  ALT DATA FT 1000 +/- 100

2
  LOCK ON      GO
  S/T CMD      ON
  DATA VALID   GO
  ALT DATA FD 1000 +/- 100

OMRSD V74AC0.020-1R

Not Performed: _____

CURSOR CNTL (VAN12 PG-B)
ITEM 15 (TERMINATE)
XMIT CURSOR KEY - PRESS

ITEM 16 (INHIBIT)
XMIT CURSOR KEY - PRESS

CRT (VWN99)
RADAR ALTIMETER
1 S/T CMD      OFF
2 S/T CMD      OFF
53-217  

CNSE

PFP
VAN12 - PRESS
TERM VAN12 - PRESS

CRT Return to DPS

NOTE
Perform this option if CRT is not required for GPS de-activation.

CRT Return to DPS Not Performed:_____

53-218  

CNSE

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
C CO _DEUXG LDBA C12 (X = CRT#)
XMIT CMD KEY - PRESS

ISSU N72IV10YD 0 (Y = CRT# -1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-219  

CNSE       OTC       132
OTC       CDPS

Responsible console for CRT_____ returned to DPS.

*** End of CRT Return to DPS ***

*** End of NAVAIDS Self Test ***
53-220  CNSE

CRT (VWN99)
RADAR ALTIMETER
  1  
     ALT DATA FT _____ (BD)

  2  
     ALT DATA FT _____ (BD)

53-221  CNSE  PLT  173

PANEL 08
RADAR ALTIMETER
  1  SW - OFF
  2  SW - OFF

MLS
  1  SW - OFF
  2  SW - OFF
  3  SW - OFF
53-222  CNSE

CRT (VWN99 PG-B)
RADAR ALTIMETER
1
  SW STAT  OFF
  PWR STAT OFF

2
  SW STAT  OFF
  PWR STAT OFF

MSBLS
1
  SW STAT  OFF
  PWR STAT OFF

2
  SW STAT  OFF
  PWR STAT OFF

3
  SW STAT  OFF
  PWR STAT OFF
Ku-Band Position Verification

53-223  CNSE  MS1  173

**IF** the following Mid Logic Switches are not on,

**THEN:**

- **PANEL MA73C**
  - **ROW A**
    - **MCA LOGIC**
      - **MN C**
        - **MID 2 SW - ON**
  - **ROW B**
    - **MCA LOGIC**
      - **MN B**
        - **MID 4 SW - ON**

  **Not Performed:**

53-224  CNSE

**CRT (VWN80)**

**VERIFY**

**KU-BAND**

**SWITCH SCAN**

- **STW/DPLY  STOW 1&2**
- **BOOM STOW 2 ON**
IF the logic switches were originally off,

THEN:

PANEL MA73C
ROW A
MCA LOGIC
MN C
MID 2 SW - OFF

ROW B
MCA LOGIC
MN B
MID 4 SW - OFF

Not Performed:_____

PFN15 - PRESS
PFP
VAA40 - PRESS
SET TERM - PRESS
EXEC TERM - PRESS
KEY 7 - PRESS

***End of Ku-Band Position Verification***

NAVAIDS Activation and Self Test is complete.

*** End of NAVAIDS Activation ***

*** End of Option 2 - OV-105 NAVAIDS Activation ***
Option 3 - OV-103/104 GPS Encryption Key Load

NOTE
Perform Option 3 if encryption key load is required (not current) and vehicle is OV-103 or OV-104.

Option 3 Not Performed:_____

NOTE
Noted requirements are satisfied by the following steps.

OMRS V74P00.090

53-228  CNSE

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
VAA40
PERF PGM KEY - PRESS

53-229  CNSE

PFP (C2)
VAA40 - PRESS
WARM START - PRESS

PFP (VAA40)
VWN42 - PRESS
(SELECT APPL PG B)
GPS Activation

53-230  CNSE

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
VSN59
PERF PGM KEY - PRESS
(SELECT APPL PG B)

NOTE
IDP RSYS is required for the GPS Activation.

53-231  CNSE  OTC  132

OTC  CDPS

Change responsible console for IDP to Console C2. Expect IO errors during GPS power up.

53-232  CDPS

CONSOLE KYBD
HOME CMD KEY - PRESS
C CO _DEUXG LDBA C2 (X = IDP NO.)
XMIT CMD KEY - PRESS

ISSU N72IV10YD #B002 (Y = IDP NO. MINUS 1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-233  CDPS  OTC  132

OTC  CNSE

Responsible console for CRT No._____ now assigned to C2.
53-234  

CNSE

PFP (VAA41)
VWN42 - PRESS
VWN58 - PRESS
(SELECT APPL PG-B)

53-235  

CNSE

CURSOR CNTL (VSN59 PG-B)
GPS POWER UP - 2
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS
NOTE

In the next step, the VSN59 program will prompt the operator to perform the following:

A Site Select on SPEC 104. The Site Select need be performed only on the initial GPS Powerup. If the IMUs are powered on, bypass the Site Select.

The IMU 1 Operate command will be issued by SPEC 104, ITEM 13. After 5 minutes, the flight software will allow Site Select using SPEC 104. Once the Site Select is completed, the IMU 1 Standby command should be issued. Contact CGNC or CTPE for IMU status. If the IMUs are powered on, the Operate command should not be issued without CGNC concurrence. If the IMUs are already in Operate, the Site Select is not required prior to activating SPEC 055.

Power up the preamplifiers. Select both upper and lower and perform only the switch called out below. Once the switch settings are complete, the operator will acknowledge by selecting PFK1.
IF IMUs are powered off and CGNC has not completed the Site Select, Verify

THEN:
CRT (VSN59 PG-B)
FOLLOW PROGRAM PROMPTS:

TO PERFORM SITE SELECT

TO SET IMU OPERATE COMMAND, THEN RETURN BACK TO STANDBY WHEN SITE SELECT IS COMPLETE

ELSE CGNC has completed Site Select:
FOLLOW PROGRAM PROMPTS:

TO BYPASS SITE SELECT
OV-103 Switch/CB Configuration

NOTE
If testing is on OV-103, perform OV-103 Switch/CB Configuration.

OV-103 Switch/CB Configuration Not Performed:_____

53-237  CNSE  CDR

PANEL O14
ROW D
MN A
GPS
PRE AMPL
UC CB - OPEN
LC CB - OPEN

53-238  CNSE  CDR  173

PANEL O16
ROW D
MN C
GPS
PREAMPL
UC CB - CLOSE
LC CB - CLOSE

53-239  CNSE

CONSOLE KYBD (VSN59 PG-B)
PFK1 - PRESS (CB NOW CLOSED - CONTINUE)

53-240  CNSE  CDR  173

PANEL A13
GPS
PRE-AMPL
UC SW - MN C
LC SW - MN C

***End of OV-103 Switch/CB Configuration***
OV-104 Switch/CB Configuration

NOTE
If testing is on OV-104 perform OV-104 Switch/CB Configuration.

OV-104 Switch/CB Configuration Not Performed:______

53-241 CNSE CDR 173

PANEL O15
  ROW C
  MN B
  GPS 2 PREAMPL UPPER CB - CLOSE

  ROW D
  MN B
  GPS 2 PREAMPL LOWER CB - CLOSE

53-242 CNSE

CONSOLE KYBD (VSN59 PG-B)
PFK1 - PRESS (CB NOW CLOSED - CONTINUE)

53-243 CNSE CDR 173

PANEL A13
GPS
  PRE-AMPL
  UC SW - ON
  LC SW - ON

***End of OV-104 Switch/CB Configuration***

53-244 CNSE

CONSOLE KYBD
PFK1 - PRESS (SW SETTINGS COMPLETE - CONTINUE)
53-245  

CNSE  

CRT (VSN59 PG-B)  
**FOLLOW** PROGRAM PROMPTS:  

TO **PERFORM** I/O START.  

TO **CALL** UP SPEC 55.  

---  

**NOTE**  
GPS software allows 2 minutes for GPS receiver power-up to occur. A failure will be annunciated should the time be exceeded. Retest may be selected should this event occur.  

---  

**NOTE**  
GPS receiver mode will transition from INIT to NAV upon power-up.  

53-246  

CNSE  

CDR  
173  

PANEL A13  

GPS  

POWER SW - ON  

53-247  

CNSE  

CRT (VWN58 PG-B)  

**VERIFY**  

RCVR MODE - NAV  

HDR WD - FFFF  

RPU FAIL - OFF  

BAT LOW - OFF  

53-248  

CNSE  

CURSOR CNTL (VSN59)  

PFK7 KEY - PRESS (TERMINATE NAV MONITOR)
NOTE
GPS will automatically mode to INIT when the ITEM 10+2 is executed.

NOTE
During transition to “INIT” mode, the VSN59 program may issue a message “Difference between GPS weeks and almanac weeks is greater than 1.” User can follow the program prompts to issue an “Acknowledgment/Continue” using the appropriate PFK key when this occurs. A new almanac begins to download upon power up and satellite acquisition, but can take up to 20 minutes or greater to complete.

53-249

CNSE
CURSOR CNTL (VSN59 PG-B)
I/O ITEM 10+2
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-250

CNSE
CRT (VSN59 PG-B)
VERIFY
RCVR MODE - INIT
HDR WD EEEE

53-251

CNSE
CURSOR CNTL (VSN59 PG-B)
NAV GPS 2 - ITEM 18
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS
53-252

**CNSE**

CR (VWN58 PG-B)

**VERIFY**

GPS is in NAV MODE

RECEIVER STATUS

HEADER WD  FFFF

GPS 2 PWR

STAT - ON (NAV BIT - 4 SV TRACKING IN STATE 5 (CAR_TK))

*** End of GPS Activation ***

53-253

**CNSE**

CURSOR CNTL (VSN59 PG-B)

PFK7 - PRESS (TERMINATE NAV MONITOR)

53-254

**CNSE  CDR**

PANEL A13

GPS

ENCRIPT SW - NORMAL

53-255

**CNSE**

CURSOR CNTL (VSN59)

INIT - GPS 2 - ITEM 15

XMIT CURSOR KEY - PRESS

START TEST

XMIT CURSOR KEY - PRESS

53-256

**CSKU**

CR (VSN59 PG-B)

**VERIFY**

HDR WD - EEEE

RCVR MODE - INIT
53-257  CNSE  CDR
PANEL A13
GPS
   ENCRYPT SW - ZEROIZE (FOR 3 SECONDS)
   ENCRYPT SW - NORMAL

53-258  CNSE
CRT (VWN58 PG-B)
VERIFY
   PPS KEYS
   GUV USER - OFF

53-259  CNSE  JYVJ
Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)
IF loading “Encryption Key” on OV-103,
THEN Connect KYK-13 device to “ENCRP1 MAGR” port and load “GPS Encryption Key.”
Not Performed:_____

53-260  CNSE  JYVJ
Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)
IF loading “Encryption Key” on OV-104,
THEN Connect KYK-13 device to “ENCRP 2” port and load “GPS Encryption Key.”
Not Performed:_____
Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)

“GPS Encryption Key” load is complete.

NOTE
The following step may be repeated to achieve a verified Key Load. (GUV USER ON, RCVR KEY ON, PARITY FAIL OFF)

IF Key Load can not be verified,

THEN:

PANEL A13
GPS
  ENCRYPT SW - ZEROIZE (FOR 3 SECONDS)
  ENCRYPT SW - NORMAL

Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)

Reload “GPS Encryption Key” and report complete.

Not Performed:______

CRT (VWN58 PG-B)
VERIFY
  PPS KEYS
    GUV USER - ON
    RCVR KEY - ON
53-264  

CNSE

CURSOR CNTL (VSN59 PG-B)
NAV - GPS 2 ITEM 18
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

NOTE
GPS transition to Precise Positioning Service (PPS) can take up to ten minutes to verify. No set time is established for GPS transition from SPS to PPS.

53-265  

CNSE

CRT (VWN58 PG-B)
VERIFY
RECEIVER STATUS
   HEADER WD - FFFF
   RCVR MDE - NAV

GPS 2 PWR
   STAT - ON (NAV BIT - 4 SV TRACKING IN
                STATE 5 (CAR_TK))

NAV DATA
   SRVC - PPS

53-266  

CNSE

CONSOLE KYBD (VSN59 PG-B)
PFK 7 KEY - PRESS (TERMINATE NAV MONITOR)

53-267  

CNSE   JYVJ

Encryption Key load complete and successful. Support no longer required.
53-268  CNSE

Noted requirements are complete.

OMRSD V74P00.090

***End of GPS Encryption Key Load***

GPS Power Down

53-269  CNSE

CURSOR CNTL (VSN59 PG-B)
GPS POWER DN - 2
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-270  CNSE

CRT (VSN59 PG-B)
FOLLOW PROGRAM PROMPTS:

TO TERMINATE IO
NOTE
Due to the configuration of the Receiver Status measurement, a message indicating GPS Power Off was successful may appear on VSN59 prior to powering off the GPS receiver. This is expected and the following step can be performed as written.

53-271 CNSE  CDR  173

PANEL A13
GPS
POWER SW - OFF

53-272 CNSE

CONSOLE KYBD (VSN59 PG-B)
PFK1 - PRESS TO TURN OFF PREAMP SWITCHES

NOTE
OV-104 preamp switches are 3 position switches. Center and Down are Off. Place switches in the Off (Down) position.

53-273 CNSE  MS1  173

PANEL A13
GPS
PRE-AMP
UC SW - OFF
LC SW - OFF

53-274 CNSE

CRT (VSN59 PG-B)
FOLLOW PROGRAM PROMPTS:
PFK1 - PRESS TO VERIFY PREAMP PWR SW IS OFF
53-275  CNSE

CRT (VSN59 PG-B)
PPK 1 - PRESS TO OPEN CBs

53-276  CNSE  CDR

IF vehicle is OV-103

THEN
PANEL O16
ROW D
  MN C
  GPS
  PRE AMPL
  UC CB - OPEN
  LC CB - OPEN

Not Performed:______

53-277  CNSE  CDR

IF vehicle is OV-104

THEN
PANEL O15
ROW C
  MN B
  GPS 2 PREAMPL UPPER CB - OPEN

ROW D
  MN B
  GPS 2 PREAMPL LOWER CB - OPEN

Not Performed:______
53-278

CNSE

CRT (VSN59 PG-B)
PFK1 - PRESS CBs OPENED

53-279

CNSE

CRT (VSN59 PG-B)
FOLLOW PROGRAM PROMPTS
TO ISSUE RESUME TO ACTIVE CRT
VERIFY RESUME COMPLETE.

53-280

CNSE

CURSOR CNTL (VSN59)
CRT RETURN TO DPS
XMIT CURSOR KEY - PRESS

PLACE CURSOR AT THE END OF:
C CO _DEUXG LDBA C12 (X = CRT NO.)
XMIT CMD KEY - PRESS

HOME CMD KEY - PRESS
ISSU N721V10YD 0 (Y = CRT No. Minus 1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-281

CNSE     OTC       132
OTC       CDPS

C2 CRT returned to C12. GPS activities are complete.
53-282  CNSE

CURSOR CNTL (VSN59)
TERMINATE
XMIT CURSOR KEY - PRESS

53-283  CNSE

CRT (VWN43 PG-B)

PFK 15 KEY - PRESS

PFP
VAA40 - PRESS
SET TERM - PRESS
EXEC SET TERM - PRESS

*** End of GPS Powerdown ***

*** End of Option 3 - OV-103/104 GPS Encryption Key Load ***
Option 4 - OV-105 GPS Encryption Key Load

NOTE
Perform Option 4 section if there is no “current” encryption key loaded in one or more GPS Receivers and vehicle is OV-105. Steps contained within this section may be performed out of sequence to optimize performance.

Option 4 Not Performed:_____

53-284 CNSE

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
VAA40
PERF PGM KEY - PRESS

53-285 CNSE

PFP (C2)
VAA40 - PRESS
WARM START - PRESS

PFP (VAA40)
VWN43 - PRESS
(SELECT APPL PG B)
GPS Activation

53-286

CNSE

CONSOLE KYBD (C2)
HOME CMD KEY - PRESS
VSN59
PERF PGM KEY - PRESS
(SELECT APPL PG B)

NOTE
IDP RSYS is required for the GPS Activation.

53-287

CNSE OTC 132
OTC CDPS

Change responsible console for IDP to Console C2. Expect IO errors during GPS power up.

53-288

CDPS

CONSOLE KYBD
HOME CMD KEY - PRESS
C CO DEUXG LDBA C2 (X = IDP NO.)
XMIT CMD KEY - PRESS

ISSU N72IV10YD #B002 (Y = IDP NO. MINUS 1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-289

CDPS OTC 132
OTC CNSE

Responsible console for CRT No.____ now assigned to C2.
53-290

CURSOR CNTL (VSN59 PG-B)
GPS POWER UP - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

NOTE
In the next step, the VSN59 program will prompt the operator to perform the following:

A Site Select on SPEC 104. The Site Select need be performed only on the initial GPS Powerup. If the IMUs are powered on, bypass the Site Select.

The IMU 1 Operate command will be issued by SPEC 104, ITEM 13. After 5 minutes, the flight software will allow Site Select using SPEC 104. Once the Site Select is completed, the IMU 1 Standby command should be issued. Contact CGNC or CTPE for IMU status. If the IMUs are powered on, the Operate command should not be issued without CGNC concurrence. If the IMUs are already in Operate, the Site Select is not required prior to activating SPEC 055.

Power up the preamplifiers. Select both upper and lower and perform only the switch called out below. Once the switch settings are complete, the operator will acknowledge by selecting PFK1.
IF IMUs are powered off and CGNC has not completed the site select,

THEN

CRT (VSN59 PG-B)

FOLLOW PROGRAM PROMPTS

TO PERFORM SITE SELECT

TO SET IMU OPERATE COMMAND, THEN RETURN BACK TO STANDBY WHEN SITE SELECT IS COMPLETE

ELSE

CRT (VSN59 PG-B)

FOLLOW PROGRAM PROMPTS

TO BYPASS SITE SELECT
NOTE
All GPS Pre-amplifiers will be powered on. GPS pre-amplifier circuit breakers are not downlisted and power switch indications are switch scan only.

53-292 CNSE CDR

PANEL 014
ROW D
MN A
GPS 1
PRE AMPL
UPPER CB - CLOSED
LOWER CB - CLOSED

53-293 CNSE CDR

PANEL 015
ROW C
MN B
GPS 2
PRE AMPL
UPPER CB - CLOSED

ROW D
MN B
GPS 2
PRE AMPL
LOWER CB - CLOSED

53-294 CNSE CDR

PANEL 016
ROW D
MN C
GPS 3
PRE AMPL
UPPER CB - CLOSED
LOWER CB - CLOSED
53-295  
**CNSE**

CRT/CONSOLE KYBD (VSN59 PG-B)
PKF 1B KEY - PRESS (CBS NOW CLOSED - CONTINUE)

53-296  
**CNSE**  
**CDR**

PANEL 07
GPS 1
  PRE AMPL
  UPPER SW - ON
  LOWER SW - ON
GPS 2
  PRE AMPL
  UPPER SW - ON
  LOWER SW - ON
GPS 3
  PRE AMPL
  UPPER SW - ON
  LOWER SW - ON

53-297  
**CNSE**

CRT/CONSOLE KYBD (VSN59 PG-B)
PKF 1B KEY - PRESS (SWITCH SETTINGS COMPLETE - CONTINUE)

53-298  
**CNSE**

CONSOLE KYBD (VSN59 PG-B)
PKF 1B KEY - PRESS (PERFORM I/O START - CONTINUE)
PKF XB KEY - PRESS (X = CRT ASSIGNED TO C2)
### NOTE
GPS software allows 2 minutes for GPS receiver power-up to occur. A failure will be annunciated should the time be exceeded. Retest may be selected should this event occur.

### NOTE
GPS receiver will transition from SELF-TEST/INIT mode to NAV mode upon power-up.

### NOTE
For receiver status, the transition time from a STAT indication “OFF” indicating receiver is powered on to a STAT indication “ON” indicating receiver is tracking satellites in State 5 is not exact. During power-up, it may be necessary to perform a data retrieval on the STAT indication, if STAT indication is “ON” before it can be verified on display.

### NOTE
A receiver STAT indication “ON” and the receiver is not tracking GPS satellites after the power-up procedure has been performed may indicate the receiver is not powered on or a failure of the GPS receiver may have occurred.

### NOTE
For the GPS Receiver Status indication (STAT), approximately one second after power is applied, the STAT indication will transition from “ON” to “OFF.” The STAT indication will then transition to “ON” indicating receiver has entered a power-up self-test mode (~ 30 seconds) and transition back to “OFF” once self-test is complete.

Once the GPS receiver is on and self-test complete, STAT indication will identify the following:

1) STAT Indication “OFF” - Receiver is powered on, but is not tracking four satellites in state 5.

2) STAT Indication “ON” - Receiver is powered on and is tracking four satellites in state 5. This indication could also mean that GPS power was lost.
NOTE
Verification of GPS receiver status can be performed after GPS switch configuration is performed.

53-299        CNSE      CDR

PANEL 07
GPS 1
  POWER SW - ON

53-300        CNSE

CRT (VWN43 PG-B)
VERIFY
  GPS 1
  STAT - OFF
  RPC A - ON
  MDE - NAV
  RPU - OFF
  BAT - OFF

53-301        CNSE      CDR

PANEL 07
GPS 2
  POWER SW - ON

53-302        CNSE

CRT (VWN43 PG-B)
VERIFY
  GPS 2
  STAT - OFF
  RPC B - ON
  MDE - NAV
  RPU - OFF
  BAT - OFF
53-303  CNSE  CDR

PANEL 07
GPS 3
  POWER SW - ON

53-304  CNSE

CRT (VWN43 PG-B)
VERIFY
GPS 3
  STAT - OFF
  RPC C - ON
  MDE - NAV
  RPU - OFF
  BAT - OFF

53-305  CNSE

CRT (VSN59 PG-B)
PFK 7 KEY - PRESS (TERM NAV MONITOR)
NOTE
During transition to “INIT” mode, the VSN59 program may issue a message
“Difference between GPS weeks and almanac weeks is greater than 1.” User

can follow the program prompts to issue an “Acknowledge/Continue” using the

appropriate PFK key when this occurs. A new almanac begins to download

upon power up and satellite acquisition, but can take up to 20 minutes or greater
to complete.

53-306          CNSE
CURSOR CNTL (VSN59 PG-B)
I/O ITEM 10+2
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-307          CNSE
CRT (VSN59 PG-B)
VERIFY
GPS X      (X = 1, 2 & 3)
  RCVR MODE - INIT
  HDR WD - EEEE

53-308          CNSE    CDR
CURSOR CNTL (VSN59 PG-B)
NAV - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS
53-309  CNSE

CRT (VWN43 PG-B)

VERIFY

GPS X  
(X = 1, 2 & 3)
STAT - ON  
(NAV BIT - 4 SV TRACKING IN STATE 5 (CAR_TK))

HDR - FFFF
MDE - NAV

*** End of GPS Activation ***

3-String GPS Encryption Key Load

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>The steps contained within the floating header, 3-String GPS Encryption Key Load, satisfy the noted requirements.</td>
</tr>
<tr>
<td>OMRS V74PP0.120-A-1R</td>
</tr>
<tr>
<td>OMRS V74PP0.120-B-1R</td>
</tr>
<tr>
<td>OMRS V74PP0.120-C-1R</td>
</tr>
</tbody>
</table>

53-310  CNSE  CDR

PANEL 07

GPS 1
ENCRYPT SW - NORMAL

GPS 2
ENCRYPT SW - NORMAL

GPS 3
ENCRYPT SW - NORMAL

53-311  CNSE

CRT (VSN59)

PFK 7 KEY - PRESS (TERM NAV MONITORING)

53-312  CNSE

CURSOR CNTL (VSN59)
INIT - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS
GPS 1 Encryption Key Load

NOTE
Perform GPS 1 Encryption Key Load if a key load is required for GPS 1.

GPS 1 Encryption Key Load Not Performed:______

53-313

CNSE
CURSOR CNTL (VWN43 PG-B)
GPS 1 DETAIL
XMIT CURSOR KEY - PRESS

53-314

CNSE CDR
PANEL 07
GPS 1
   ENCRYPT SW - ZEROIZE (3 SECONDS)
   ENCRYPT SW - NORMAL

53-315

CNSE
CRT (VWN56 PG-B)
VERIFY
   RECEIVER STATUS
   RCVR MODE - INIT
   HEADER WD - EEEE
   PPS KEYS
   GUV USER - OFF

53-316

CNSE JYVJ
CSR-028
LOAD GPS 1 ENCRYPTION KEY USING THE FOLLOWING INTERFACES.
PANEL MA75J (AV BAY 3B)
GPS ENCRYPT PANEL
   “ENCRP 1” PORT
Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)

“GPS 1 Encryption Key” load is complete.

**NOTE**
The following step may be repeated to achieve a verified Key Load. (GUV USER ON, RCVR KEY ON, PARITY FAIL OFF)

IF Key Load can not be verified,

THEN:

PANEL A13
GPS
  ENCRYPT SW - ZEROIZE (FOR 3 SECONDS)
  ENCRYPT SW - NORMAL

Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)

Reload “GPS1 Encryption Key” and report complete.

Not Performed:______
53-319  

CNSE

CURSOR CNTL (VWN56 PG-B)

VERIFY

PPS KEYS

GUV USER - ON
RCVR KEY - ON

53-320  

CNSE

CURSOR CNTL (VWN56)

OVERVIEW

XMIT CURSOR KEY - PRESS

*** End of GPS 1 Encryption Key Load ***
GPS 2 Encryption Key Load

**NOTE**
Perform GPS 2 Encryption Key Load if a key load is required for GPS 2.

GPS 2 Encryption Key Load Not Performed:_____

53-321  
**CNSE**
CURSOR CNTL (VWN43)
GPS 2 DETAIL
XMIT CURSOR KEY - PRESS

53-322  
**CNSE CDR**
PANEL 07
GPS 2
  ENCRYPT SW - ZEROIZE (3 SECONDS)
  ENCRYPT SW - NORMAL

53-323  
**CNSE**
CRT (VWN58 PG-B)
**VERIFY**
  RECEIVER STATUS
  RCVR MODE - INIT
  HEADER WD - EEEE
  PPS KEYS
  GUV USER - OFF
LOAD GPS 2 ENCRYPTION KEY USING THE FOLLOWING INTERFACES.

PANEL MA75J (AV BAY 3B)  
GPS ENCRYPT PANEL  
“ENCRP 2” PORT

Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)  
“GPS 2 Encryption Key” load is complete.

NOTE
The following step may be repeated to achieve a verified Key Load. (GUV USER ON, RCVR KEY ON, PARITY FAIL OFF)

IF Key Load can not be verified,

THEN:

PANEL A13  
GPS  
ENCRYPT SW - ZEROIZE (FOR 3 SECONDS)  
ENCRYPT SW - NORMAL

Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)  
Reload “GPS2 Encryption Key” and report complete.

Not Performed:______
53-327  CNSE

CURSOR CNTL (VWN58 PG-B)
 VERIFY
   PPS KEYS
     GUV USER - ON
     RCVR KEY - ON

53-328  CNSE

CURSOR CNTL (VWN58)
 OVERVIEW
 XMIT CURSOR KEY - PRESS

*** End of GPS 2 Encryption Key Load ***
GPS 3 Encryption Key Load

**NOTE**
Perform GPS 3 Encryption Key Load if a key load is required for GPS 3.

GPS 3 Encryption Key Load Not Performed: _____

**53-329**

CNSE

CURSOR CNTL (VWN43)
GPS 3 DETAIL
XMIT CURSOR KEY - PRESS

**53-330**

CNSE CDR

PANEL O7
GPS 3
- ENCRYPT SW - ZEROIZE (3 SECONDS)
- ENCRYPT SW - NORMAL

**53-331**

CNSE

CRT (VWN61 PG-B)

**VERIFY**
- RECEIVER STATUS
  - RCVR MODE - INIT
  - HEADER WD - EEEE
- PPS KEYS
  - GUV USER - OFF
LOAD GPS 3 ENCRYPTION KEY USING THE FOLLOWING INTERFACES.

PANEL MA75J (AV BAY 3B)
  GPS ENCRYPT PANEL
  “ENCRP 3” PORT

NOTE
The following step may be repeated to achieve a verified Key Load. (GUV USER ON, RCVR KEY ON, PARITY FAIL OFF)

IF Key Load can not be verified,

THEN:

PANEL A13
  GPS
  ENCRYPT SW - ZEROIZE (FOR 3 SECONDS)
  ENCRYPT SW - NORMAL

Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)

Reload “GPS3 Encryption Key” and report complete.

Not Performed:______
CURSOR CNTL (VWN61 PG-B)

**VERIFY**

- PPS KEYS
  - GUV USER - ON
  - RCVR KEY - ON

CURSOR CNTL (VWN61)

OVERVIEW

XMIT CURSOR KEY - PRESS

*** End of GPS 3 Encryption Key Load ***
53-337

CNSE

CURSOR CNTL (VSN59 PG-B)
NAV - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-338

CNSE

CRT (VWN43 PG-B)
VERIFY
GPS X (X = 1, 2 & 3)
STAT - ON (NAV BIT - 4 SV TRACKING IN
          STATE 5 (CAR_TK))
HDR - FFFF
MDE - NAV
MODE - PPS
KEY V - ON

53-339

CNSE JYVJ

Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)

Encryption Key load complete and successful. Support no longer required.

53-340

CNSE

Completion of steps contained within the floating header section “3-String GPS Encryption Key Load” satisfies the following requirements.

OMRSD V74PP0.120-A-1R
OMRSD V74PP0.120-B-1R
OMRSD V74PP0.120-C-1R

*** End of 3-String GPS Encryption Key Load ***
GPS Powerdown

53-341  
CNSE  
CURSOR_CNTL (VSN59 PG-B)  
PFK7 - PRESS (TERMINATE NAV MONITOR)

53-342  
CNSE  
CURSOR_CNTL (VSN59 PG-B)  
GPS_POWER_DOWN - ALL  
XMIT_CURSOR_KEY - PRESS  
START_TEST  
XMIT_CURSOR_KEY - PRESS

53-343  
CNSE  
CURSOR_CNTL (VSN59 PG-B)  
PFK_1B_KEY - PRESS (TERMINATE I/O)

NOTE  
Due to the configuration of the receiver STAT bit on the GPS receiver and 
GOAL software, it is possible that the “GPS X Verified Powered OFF” message 
will appear prior to physically powering off the GPS receiver. This will happen 
if the STAT indication is ON, which means the GPS receiver is tracking four 
satellites. This is an expected condition and steps can be performed as written.

53-344  
CNSE    CDR  
PANEL_07  
GPS_1  
POWER_SW - OFF
53-345  CNSE       CDR

PANEL O7
  GPS 2
    POWER SW - OFF

53-346  CNSE       CDR

PANEL O7
  GPS 3
    POWER SW - OFF

53-347  CNSE

CURSOR CNTL (VSN59 PG-B)
PFK 1B KEY - PRESS (PROCEED WITH PREAMP POWER OFF)

53-348  CNSE       CDR

PANEL O7
  GPS 1
    PRE AMPL
      UPPER SW - OFF
      LOWER SW - OFF
  GPS 2
    PRE AMPL
      UPPER SW - OFF
      LOWER SW - OFF
  GPS 3
    PRE AMPL
      UPPER SW - OFF
      LOWER SW - OFF

53-349  CNSE

CURSOR CNTL (VSN59)
PFK 1B KEY - PRESS (PREAMP POWER SWITCH IS NOW OFF - CONTINUE)
53-350  

**CNSE**

CURSOR CNTL (VSN59)  
PKF 1B KEY - PRESS (OPEN CBs)

53-351  

**CNSE**  

**CDR**

PANEL 014  
ROW D  
  MN A  
  GPS 1  
  PRE AMPL  
  UPPER CB - OPEN  
  LOWER CB - OPEN

53-352  

**CNSE**  

**CDR**

PANEL 015  
ROW C  
  MN B  
  GPS 2  
  PRE AMPL  
  UPPER CB - OPEN

    ROW D  
    MN B  
    GPS 2  
    PRE AMPL  
    LOWER CB - OPEN

53-353  

**CNSE**  

**CDR**

PANEL 016  
ROW D  
  MN C  
  GPS 3  
  PRE AMPL  
  UPPER CB - OPEN  
  LOWER CB - OPEN
53-354

**CNSE**

CRT (VSN59 PG-B)
PPK 1 KEY - PRESS (CBs OPENED)

53-355

**CNSE**

CURSOR CNTL (VSN59)
PPK 1B KEY - PRESS (ISSUE RESUME TO CRT)

53-356

**CNSE**

CURSOR CNTL (VSN59)
CRT RETURN TO DPS
XMIT CURSOR KEY - PRESS

**PLACE** CURSOR AT THE END OF:
C CO _DEUXG LDBA C12 (X = CRT NO.)
XMIT CMD KEY - PRESS

HOME CMD KEY - PRESS
ISSU N72IV10YD 0 (Y = CRT No. Minus 1)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

53-357

**CNSE** **OTC** **132**

**OTC** **CDPS**

C2 CRT returned to C12. GPS activities are complete.

*** End of CRT Return to C12 ***

53-358

**CNSE**

CURSOR CNTL (VSN59)
TERMINATE
XMIT CURSOR KEY - PRESS
53-359
CNSE

CURSOR CNTL (VWN43 PG-B)
TERMINATE
XMIT CURSOR KEY - PRESS

53-360
CNSE

PFP
VAA40 - PRESS
SET TERM - PRESS
EXEC SET TERM - PRESS

*** End of GPS Powerdown ***

*** End of Option 4 - OV-105 GPS Encryption Key Load ***

*** End of Operation 53 ***
OPERATION 54  GLS Recycle to T-20M

Shop: INTG
Cntrl Rm Console: INTG
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.5

NOTE
Perform this operation at OTC/NTD direction, to support GLS recycle.

Operation Not Performed:______
Cutoff and Safing

NOTE
A list of GLS masks and bypasses to support test objectives, together with a signature page, will be provided by the GLS system engineer. The list will contain each kickoff step in this sequence referencing this list, along with the corresponding inputs for that step.

If cutoff and safing already issued, then do not perform following five steps.

Not Performed:

54-1 CGLS

PFP
KEY 7 - PRESS
SLP01 - PRESS
CUTOFF - PRESS
CUTOFF EXECUTE - PRESS

54-2 CGLS

CRT (PG 3B)
GLS SAFING SEQUENCES

54-3 CGLS

HARD COPY KEY - PRESS

54-4 CGLS

CRT (PG 3A)
SYSTEMS STATUS CHECKS
54-5 CGLS

HARD COPY KEY - PRESS

*** End of Cutoff and Safing ***

Mainline Termination

54-6 CGLS

IF CUTOFF ISSUED,

THEN PERFORM THE FOLLOWING TO TERMINATE SAFING.

PFP
KEY 7 - PRESS
SLPO1 - PRESS
TERMINATE SAFING - PRESS
EXEC TERM SAFING - PRESS

Not Performed: _______

54-7 CGLS

VERIFY SGPO2, SGPR2 INACTIVE.
MIP and LIP Deactivation

54-8
CGLS

PFP (PG 2B)
KEY 7 - PRESS
SLP02 - PRESS
LCC CONTROL - PRESS

MIP Termed Due To Breakout

NOTE
If MIPS have termed due to breakout, then do not perform next two steps.

MIP Termed Due to Breakout Not Performed: ______

54-9
CGLS

CURSOR CNTL
TERM MIP1
XMIT CURSOR KEY - PRESS

54-10
CGLS

CURSOR CNTL
TERM MIP2
XMIT CURSOR KEY - PRESS

*** End of MIP Termed Due to Breakout ***
54-11 CGLS

VERIFY SLPAO AND SLPA1 INACTIVE IN BACK-UP CONSOLE.

LIP Termed Due To Breakout

NOTE
If LIPS have termed due to breakout, Then do not perform next two steps.

LIP Termed Due to Breakout Not Performed:_____

54-12 CGLS

CURSOR CNTRL
TERM LIP 1
XMIT CURSOR KEY - PRESS

54-13 CGLS

CURSOR CNTL
TERM LIP 2
XMIT CURSOR KEY - PRESS

*** End of LIP Termed Due To Breakout ***

54-14 CGLS

VERIFY SLPBO AND SLPCO INACTIVE IN BACK-UP CONSOLE.
54-15  CGLS

CURSOR CNTL
GLS LIMIT CHANGE
XMIT CURSOR KEY - PRESS

54-16  CGLS

CRT (APP PG-2B)
GLS DUAL INT NOTIFICATION DISPLAY

54-17  CGLS

CURSOR CNTL
INHIBIT DUAL NOTIFICATION
XMIT CURSOR KEY - PRESS

54-18  CGLS

CURSOR CNTL
(SYSTEM BLOCK) - ALL
XMIT CURSOR KEY - PRESS

54-19  CGLS

(SELECT APPL PG 3-B)
INTG MENU
54-20  CGLS

IF EXEC TERM SAFING PERFORMED (INTEG MENU WILL
ALREADY BE DISPLAYED ON THIS PAGE),

THEN

CURSOR CNTL
TERMINATE
XMIT CURSOR KEY - PRESS

Not Performed: ______

54-21  CGLS

CRT
VERIFY INTG MENU

Pseudo Reinit

54-22  CGLS

SELECT APPL PAGE 2B

54-23  CGLS

CURSOR CNTL
PSEUDO INIT
XMIT CURSOR KEY - PRESS
NOTE
Do not alter disk files unless new requirements are identified by TPE and GOVT-SPE.

If not altering disk files, then perform next four steps.

54-24
CGLS
CURSOR CNTL
ALL PSEUDOS
XMIT CURSOR KEY - PRESS

Not Performed:______

NOTE
If Page B Msg indicates: “see Page A for operator input”, then perform the next two steps.

54-25
CGLS
VERIFY PAGE A MSG:

(N03IS511E) CRYO SAFING ENABLED IS ON. THIS INDICATES SCRUB/CRYO DRAIN IN PROGRESS.

Not Performed:______
54-26  CGLS

CRT (SLP02 PAGE A)
VERIFY FOLLOWING MESSAGE:
ENTER “1” IF CRYO SAFING SUPPORT COMPLETED AND
SLP50 NOT ACTIVE TO INITIALIZE (N03IS511E) TO
OFF.

ENTER “2” TO LEAVE (N03IS511E) UNCHANGED

_____ (1 OR 2)
XMIT RESPONSE KEY - PRESS

VERIFY MSG INDICATING PSEUDO STATE

Not Performed:______

54-27  CGLS

CRT
VERIFY ALL PSEUDOS BOX’S INVERT

Not Performed:______

NOTE
If altering disk files, then perform next four steps.

54-28  CGLS

CURSOR CNTL
ALL PSEUDOS AND DISK FILES
XMIT CURSOR KEY - PRESS

Not Performed:______
NOTE
If Page B Msg indicates: “See Page A for operator input”, then perform the next two steps.

54-29  
CGLS
VERIFY PAGE A MSG:

(N03IS511E) CRYO SAFING ENABLED IS ON. THIS INDICATES SCRUB/CRYO DRAIN IN PROGRESS.

   Not Performed:______

54-30  
CGLS
CRT (SLP02 PAGE A)
VERIFY FOLLOWING MESSAGE:
ENTER “1” IF CRYO SAFING SUPPORT COMPLETED AND SLP50 NOT ACTIVE TO INITIALIZE (N03IS511E) TO OFF.

ENTER “2” TO LEAVE (N03IS511E) UNCHANGED

   (1 OR 2)
XMIT RESPONSE KEY - PRESS

VERIFY MSG INDICATING PSEUDO STATE

   Not Performed:______

54-31  
CGLS
CRT
VERIFY ALL BOXES INVERT

   Not Performed:______
54-32

CGLS

PFP
TERM PGM - PRESS

54-33

CGLS

HOME CMD KEY - PRESS
CONSOLE KYBD
CDTS -20/00
XMIT CMD KEY - PRESS

CRT
VERIFY CDC IS SET TO T-20 MIN.

NOTE
In next step, set following FD’s Off:

<table>
<thead>
<tr>
<th>FD</th>
</tr>
</thead>
<tbody>
<tr>
<td>GLOK2031E (A75080 ET HE PREPRESS SHUTOFF VLV)</td>
</tr>
<tr>
<td>GLOK3071E (A75080 ET HE PREPRESS SOV CL SEC)</td>
</tr>
<tr>
<td>GLHK4541E (A75610 ET PRESS SOV CL CMD PRI)</td>
</tr>
<tr>
<td>GLHK4591E (A75610 ET PRESS SOV CL CMD SEC)</td>
</tr>
</tbody>
</table>

54-34

CGLS

CONSOLE KYBD
SET <FD> OFF
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

CRT
VERIFY CMDS SUCCESSFUL
NOTE
If GLS scrub steps were performed, then do not perform the remaining steps in this operation (stamp all remaining floating headers “not performed”).

Timer Configuration

Timer No. 1 Window Remaining

54-35 CGLS JTCR 178

SETUP WINDOW REMAINING TIMER NO. 1 TO FOLLOWING TIME:

TIMER NO. 1 ____ : ____ : ____ (WINDOW REMAINING)

Support: TCD

54-36 JTCR

FOR TIMER NO. 1, AT THE T-9 MIN. HOLDING POINT:

ACTIVE OVRD SWITCH - ON
COUNTHOLD SWITCH - OFF

WHEN TIMER NO. 5 DECREMENTS TO ZERO:

ACTIVATE COUNTHOLD SWITCH - AUTO (TIMER NO. 1 SHOULD DECREMENT WHEN HOLDS OCCUR FROM THIS POINT TO COMPLETION OF WINDOW)

Support: TCD
Timer No. 2 LOX Drain Back Elapsed Hold Time

54-37  CGLS  JTCR  178

SET LOX DRAIN BACK HOLD TIMER NO. 2 TO +0:00.

Support: TCD

NOTE
Timer No. 2 counts at any hold after T-5 mins. and counting.

54-38  CGLS  JTCR  178

VERIFY TIMER NO. 2 IN REMOTE AND IN COUNTING UP MODE.

Support: TCD

54-39  CGLS  LPS  127

PFP2 (SLP50)
PFPK 2 KEY - PRESS (RECYCLE COMPLETE)

PAGE-A
VERIFY MESSAGE
RECYCLE FUNCTION COMPLETE

54-40  LPS

PFP (SA001)
PFPK6 (TERMINATE SA001) - PRESS
PFPK5 (TERMINATE EXECUTE) - PRESS

VERIFY SA001 INACTIVE
System Bypass Reset

54-41  CGLS

CURSOR CNTL (PG-2B)
SYSTEM BYPASS
XMIT CURSOR KEY - PRESS
### NOTE
Reference GLS system bypasses attachment page for required inputs.

#### 54-42

**CGLS**

**CURSOR CNTL**

- **XMIT CURSOR KEY - PRESS**

<table>
<thead>
<tr>
<th>System</th>
<th>Bypass</th>
<th>System</th>
<th>Bypass</th>
<th>System</th>
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<td>FCP</td>
<td>PVD</td>
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</tbody>
</table>
54-43  CGLS

HARD COPY KEY - PRESS

54-44  CGLS

CURSOR CNTL (PG 2B)
TERMINATE
XMIT CURSOR KEY - PRESS

CRT
VERIFY BYPASS SELECTION PROCESS TERMINATING
GLS Functional Changes

NOTE
Console reboot or disk re-initialization will probably destroy this data. If in event this happens verify data lost, and if so, then re-enter it per GLS functional changes.

GLS Functional Changes Not Performed:______

54-45  CGLS
SELECT APP PG 2B

54-46  CGLS
PFP
KEY 7 - PRESS
SLP02 - PRESS

CRT
VERIFY INTG MENU

54-47  CGLS
CURSOR CNTL
ML FUNC CHNGS
XMIT CURSOR KEY - PRESS

54-48  CGLS
PFP
ML BYPASS FILE - PRESS

CRT
VERIFY MAINLINE BYPASS DISPLAY
NOTE
To bypass GLS mainline functional line item use GLSDD to determine sequence number. Perform following three steps per attached list, GLS mainline bypasses, for required inputs.

54-49

CGLS

PFP
ADD - PRESS

Not Performed:______

NOTE
Repeat next step for each sequence to be mainline bypassed.

54-50

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
__________ (SEQ NUMBER)
XMIT RESP KEY - PRESS

Not Performed:______

NOTE
Perform next step only after all required entries have been completed.

54-51

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
-9999
XMIT RESP KEY - PRESS

Not Performed:______
To verify or command an analog using limits different than limits in GLSDD, perform following five steps. Reference attached list, GLS ML analog disk file, for required inputs.

Repeat next three steps for each mainline analog limit change record.
54-56

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
__________ (NEW HIGH LIMIT)
XMIT RESP KEY - PRESS

Not Performed:_____

54-57

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
__________ (NEW LOW LIMIT)
XMIT RESP KEY - PRESS

Not Performed:_____

<table>
<thead>
<tr>
<th>NOTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perform next step only after all required entries have been completed.</td>
</tr>
</tbody>
</table>

54-58

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
-9999
XMIT RESP KEY - PRESS

Not Performed:_____

54-59

CGLS

HARDCOPY KEY - PRESS
54-60  CGLS

PFP
PRSEQ ANALOG FILE - PRESS

CRT
VERIFY PRESEQUENCER ANALOG FILE DISPLAY

NOTE
To command presequence analog measurement with different limits than those in GLSDD, perform next five steps. Reference attached list, GLS preseq analog file, for required inputs.

54-61  CGLS

PFP
ADD - PRESS

Not Performed:______

NOTE
Repeat next three steps for each presequence analog limit change record.

54-62  CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
___________ (SEQ NUMBER)
XMIT RESP KEY - PRESS

Not Performed:______
54-63
CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
__________ (NEW HIGH LIMIT)
XMIT RESP KEY - PRESS

Not Performed:_____

54-64
CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
__________ (NEW LOW LIMIT)
XMIT RESP KEY - PRESS

Not Performed:_____

NOTE
Perform next step only after all required entries have been completed.

54-65
CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
-9999
XMIT RESP KEY - PRESS

Not Performed:_____

54-66
CGLS

HARDCOPY KEY - PRESS
NOTE

Perform next two steps to delete an item that has been updated into any disk file. Reference attached list, deletes, for required disk file and corresponding inputs.

54-67 CGLS

PFP
DELETE - PRESS

Not Performed:_____

54-68 CGLS

HOME CMD KEY - PRESS
CONSOLE KYBD
__________ (SEQ NUMBER)
XMIT RESP KEY - PRESS

Not Performed:_____

54-69 CGLS

CURSOR CNTL
TERM INATE
XMIT CURSOR KEY - PRESS

CRT
INTG MENU

54-70 CGLS

GLS Function Changes complete.
**CGLS**

CRT
VERIFY FOLLOWING PSEUDOS ARE IN DESIRED RECYCLE CONFIGURATION.

N03IS080E = ON (LOC TEST-PAD)
N03IS003E = OFF (LCC HOLD)
NTCIDLDKSC = ON (TCID AT KSC)

**IF VEH AT PAD A**

THEN
NTBISKPADA = ON (TCID BUILD-PAD A)
NTBISKPADB = OFF (TCID BUILD-PAD B)

Not Performed:______

**IF VEH AT PAD B**

THEN
NTBISKPADA = OFF (TCID BUILD-PAD A)
NTBISKPADB = ON (TCID BUILD-PAD B)

Not Performed:______

**CGLS**

CONSOLE KYBD
**IF** PSEUDO’S NOT IN CONFIGURATION AS INDICATED IN PREVIOUS STEP,

**THEN** SET OR ISSUE ABOVE PSEUDOS AS REQUIRED

XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

Not Performed:______

*** End of GLS Functional Changes ***
Dual Interrupt Notification

Not Performed:______

54-73  CGLS

PFP
LCC CONTROL - PRESS

CRT
LCC C AND D

54-74  CGLS

PFP
GLS LIMIT CHANGE - PRESS

CRT
DUAL INTERRUPT NOTIFICATION GLS

54-75  CGLS

CURSOR CNTL
BACKUP
XMIT CURSOR KEY - PRESS

CRT
VERIFY BACKUP BLOCK SOLID

54-76  CGLS  OTC  212

FEP DUAL INTERRUPT NOTIFICATION WILL BE ACTIVATED MOMENTARILY AND MAY CAUSE RE-ANNUNCIATION OF ERROR MESSAGES AT THE SYSTEM’S CONSOLES FOR INTERRUPT MONITORED PARAMETERS CURRENTLY OUT OF GLS LIMITS.

***Dual Interrupt Notification Complete***
CCM Activation

Not Performed:_____

54-77

CGLS

CURSOR CNTL (PG 2B)
ACTIVATE
XMIT CURSOR KEY - PRESS

crt
VERIFY ACTIVE SOLID BLOCK

54-78

CGLS

VERIFY TWO CONCURRENCIES AVAILABLE IN BACKUP CONSOLE.

54-79

CGLS

PFP
TERM LIMIT CHANGE - PRESS

crt
VERIFY LCC C AND D

54-80

CGLS

CURSOR CNTL
ACT LIP 1
XMIT CURSOR KEY - PRESS
54-81 CGLS

CURSOR CNTL
ACT LIP 2
XMIT CURSOR KEY - PRESS

54-82 CGLS

CRT
VERIFY SLPBO AND SLPCO ACTIVE IN BACKUP CONSOLE

54-83 CGLS

PFP
LIMIT CHANGE - PRESS

CRT
VERIFY GLS LIMIT CHNG

54-84 CGLS

CURSOR CNTL
XFER ALL TO GLS
XMIT CURSOR KEY - PRESS

54-85 CGLS

CRT
VERIFY LIM CHANGE COMPLETE FOR ALL SYSTEMS EXCEPT BRS.

54-86 CGLS

CURSOR CNTL
BRS
XMIT CURSOR KEY - PRESS

CRT
VERIFY LIMIT CHANGE TO GLS FOR BRS COMPLETE
54-87  CGLS

CRT
VERIFY DISPLAY SHOWS ALL SELECTED SYSTEMS LIMITS XFERED TO GLS.

54-88  CGLS

PFP
INTEG MENU - PRESS

CRT
VERIFY INTEGRATED MENU

Single Shot Verification

54-89  CGLS

CRT
INTG MENU

CURSOR CNTL
SINGLE SHOT VFY
XMIT CURSOR KEY - PRESS

CRT
SINGLE SHOT VFY
SELECTION
54-90  

CGLS

CURSOR CNTL
VERIFY ML INT
XMIT CURSOR KEY - PRESS

CRT
VERIFY INVERTED CURSOR BLOCK

54-91  

CGLS

CURSOR CNTL
SELECTION END
XMIT CURSOR KEY - PRESS

CRT
PRE-SEQ VFY SELECTION

NOTE
Nomenclature displayed invert yellow denotes systems bypassed or verify option not selected.

54-92  

CGLS

IF TO MASK AN FD,

THEN
REFERENCE ATTACHED LIST, GLS SINGLE SHOT MASKS, FOR REQUIRED INPUTS.

CURSOR CNTL
MASK FD __________
XMIT CURSOR KEY - PRESS

CRT
CURSOR BLOCK INVERT YELLOW (M)

Not Performed:______
54-93  

CGLS

IF TO RESET AN FD,

THEN
REFERENCE ATTACHED LIST, GLS SINGLE SHOT RESETS, FOR REQUIRED INPUTS. FD’S WHICH HAVE BEEN BYPASSED BY SYSTEM MAY NOT BE INDIVIDUALLY RESET.

CURSOR CNTL
RESET FD __________
XMIT CURSOR KEY - PRESS

CRT
CURSOR BLOCK OPEN
CYAN

Not Performed:______

54-94  

CGLS

WHEN ALL SELECTIONS MADE FOR EACH PAGE
PFK15 KEY - PRESS

CRT
VERIFY NEXT PAGE DISPLAYED

54-95  

CGLS

WHEN MASK/RESET SELECTIONS COMPLETE,

PFP
BEGIN VFYS - PRESS

CRT
VERIFY TITLE:
SINGLE SHOT VERIFY FAILURES
54-96
CGLS

IF PAGE FULL,

THEN
PKF15 KEY - PRESS

CRT
VERIFY NEXT PAGE FAILURES

Not Performed:______

54-97
CGLS

WHEN VERIFIES COMPLETE,

CRT
VERIFY MESSAGE:
VERIFY CYCLE COMPLETE

54-98
CGLS

IF VERIFIES NOT REQUIRED TO BE RE-STARTED,

THEN
PFP
TERM VFY’S - PRESS

Not Performed:______

54-99
CGLS

IF PREVIOUS STEP NOT PERFORMED,

THEN
PFP
RESTART VFY’S - PRESS

Not Performed:______

721
54-100

CGLS

TO TERMINATE
PFP
SYS MENU - PRESS

CRT
VERIFY INTG MENU

Mainline Interrupt FD’s To Be Masked or Reset

NOTE
If required for mainline interrupt FD’s to be masked or reset per KLO-82-0071 Appx A for MIP mask and MIP reset, then perform next five steps.

Mainline Interrupt FD’s To Be Masked or Reset Not Performed:____

54-101

CGLS

PFP
VIEW INTERRUPT - PRESS

CRT (SDPC3)
VERIFY VIEW INTERRUPT SKELETON
NOTE
Repeat next step for each mainline table containing an FD to be masked.

54-102
CGLS
CURSOR CNTL
TABLE _________ (TABLE NUMBER)
XMIT CURSOR KEY - PRESS

CRT
VERIFY DISPLAY PG 2B

NOTE
For mainline interrupt FD’s to be masked or reset, reference attached list, GLS mainline masks or GLS ML mask-resets, for required inputs.

54-103
CGLS
CURSOR CNTL
MASK _________ (FD)
XMIT CURSOR KEY - PRESS

CRT
VERIFY FD SHOW “M” ADJACENT TO FD SELECTED

NOTE
Repeat next step for each FD to be reset.

54-104
CGLS
CURSOR CNTL
RESET _________ (FD)
XMIT CURSOR KEY - PRESS
NOTE
Perform next step for each new mainline table as required.

54-105

CGLS

PFP
ADVANCE - PRESS

CRT
VERIFY NEXT TABLE PG 2B
REPEAT UNTIL NEXT DESIRED TABLE DISPLAYED.

*** End of Mainline Interrupt FD’s To Be Masked or Reset ***
MIP Discrete Limit Change

NOTE
To change GOAL limits for discrete MIP measurements perform following two steps.

Repeat next two steps for each discrete FD requiring a limit change. A list of discrete FD’s requiring limit change and corresponding states will be provided with the GLS mask and bypass list.

MIP Discrete Limit Change Not Performed:______

54-106

CGLS

HOME CMD KEY - PRESS
CONSOLE KYBD
I GX _____ (FD)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

54-107

CGLS

HOME CMD KEY - PRESS
CONSOLE KYBD
C GL _____ (FD) ______ (VALUE)
XMIT CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

*** End of MIP Discrete Limit Change ***
MIP Analog Limit Change

NOTE
If required to change GOAL limits for analog MIP measurements, then perform next step.

Repeat next step for each analog FD requiring a limit change. A list of analog FD’s requiring limit change and corresponding values will be provided with the GLS mask and bypass list.

54-108 CGLS

HOME CMD KEY - PRESS
CONSOLE KYBD
C GL _____ (FD) _____ (LO) _____ (HI)
XMIT CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

Not Performed:_____

*** End of MIP Analog Limit Change ***
MIP Digital Pattern Limit Change

**NOTE**
If required to change GOAL limits for digital pattern MIP measurements, then perform next step.

Repeat next step for each dig pattern FD requiring a limit change. A list of DIG pattern FD’s requiring limit change and corresponding values will be provided with the GLS mask and bypass list.

---

54-109 CGLS

HOME CMD KEY - PRESS
CONSOLE KYBD
C GL ______ (FD) ______ (EQ/NE/ANY)
______ (VALUE)
XMIT CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

Not Performed:_____

*** End of MIP Digital Pattern Limit Change ***
Masking or Resetting LCC FD’s

NOTE
If required for masking or resetting LCC FD’s, then perform next seven steps.
Ref KLO-82-0071 for LCC mask and LCC reset.

Masking or Resetting LCC FD’s Not Performed:_____

54-110

CGLS

PFP
VIEW INTERRUPT - PRESS

CRT (SDPC3)
VERIFY VIEW INTERRUPT SKELETON

54-111

CGLS

PFP
LCC SELECTIONS - PRESS

CRT (SDPB2 PG-2B)
VERIFY LCC SELECTIONS

NOTE
Repeat next step for each LCC table containing an FD to be masked.

54-112

CGLS

CURSOR CNTL
TABLE ______ (TABLE NO. UPPER/LOWER)
XMIT CURSOR KEY - PRESS

CRT
VERIFY SELECTED TABLE PG 2B
NOTE
Repeat next step for all required LCC FD’s to be masked in this table.

54-113

CGLS

CURSOR CNTL
MASK __________ (FD)
XMIT CURSOR KEY - PRESS

CRT
VERIFY FD SHOW “M” ADJACENT TO FD

NOTE
For LCC interrupt FD’s to be masked or reset, reference attached list, GLS LCC masks or GLS LCC mask-resets, for required inputs.

54-114

CGLS

CURSOR CNTL
RESET __________ (FD)
XMIT CURSOR KEY - PRESS

NOTE
Repeat next step for each new LCC table as required.

54-115

CGLS

PFP
ADVANCE - PRESS

CRT
VERIFY NEXT TABLE PG 2B
REPEAT UNTIL NEXT DESIRED TABLE DISPLAYED.
54-116 CGLS

PFP
INTG MENU - PRESS

CRT
INTEG MENU

*** End of Masking or Resetting LCC FD’s ***
LIP Discrete Limit Change

NOTE
To change GOAL limits for discrete LCC measurements perform following two steps.

Repeat next two steps for each discrete FD requiring a limit change. A list of discrete FD’s requiring limit change and corresponding states will be provided with the GLS mask and bypass list.

LIP Discrete Limit Change Not Performed:______

54-117

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
I GX ____ (FD)
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

54-118

CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
A GX ____ (FD) ______ (STATE)
XMIT CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

*** End of LIP Discrete Limit Change ***
LIP Analog Limit Change

NOTE
If required to change GOAL limits for analog LCC measurements, then perform next two steps.

Repeat next two steps for each analog FD requiring a limit change. A list of analog FD’s requiring limit change and corresponding values will be provided with the GLS mask and bypass list.

LIP Analog Limit Change Not Performed:______

54-119 CGLS
CONSOLE KYBD
HOME CMD KEY - PRESS
C GL _____ (FD) _____ (LO) _____ (HI)
XMIT CMD KEY - PRESS
VERIFY SUCCESSFUL

54-120 CGLS
CONSOLE KYBD
HOME CMD KEY - PRESS
A GX _____ FD
XMIT CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

*** End of LIP Analog Limit Change ***
LIP Digital Pattern Limit Change

NOTE
If required to change GOAL limits for digital pattern LCC measurements, then perform next step.

Repeat next step for each DIG pattern FD requiring a limit change. A list of DIG pattern FD’s requiring limit change and corresponding values will be provided with the GLS mask and bypass list.

54-121 CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
A GX _____ (FD) _____ (EQ/NE/ANY)_____ (VALUE)
XMIT CMD KEY - PRESS

CRT
VERIFY SUCCESSFUL

Not Performed:______

*** End of LIP Digital Pattern Limit Change ***
NOTE
When LCC CPRO limit changes are complete make a check of LCC failures for CPRO limit changed measurements.

54-122

CGLS

SELECT APP PG-3B

PFP
KEY 7 - PRESS
SLP01 - PRESS
GLS CONTROL - PRESS

Set CDC to T-20M

CDC Manual Control Initialization

NOTE
If secured during recycle, then perform CDC manual control initialization.

CDC Manual Control Initialization Not Performed:____

54-123

CGLS

SELECT APP PG 3B (SLP01)

CURSOR CNTL
CDC CONTROL
XMIT CURSOR KEY - PRESS

CRT
VERIFY CDC CONTROL DISPLAY
54-124  CGLS
CURSOR CNTL
HOLD AVAILABLE
XMIT CURSOR KEY - PRESS

54-125  CGLS
CONSOLE KYBD
_____ : _____ / _____
XMIT RESP KEY - PRESS

54-126  CGLS
CRT
VERIFY HOLD AVAILABLE

54-127  CGLS
CURSOR CNTL
RETURN TO MS/ML DISPLAY
XMIT CURSOR KEY - PRESS

***CDC Manual Control Initialization Complete***
GLS Mainline Activation

NOTE
If secured during recycle, then perform GLS mainline activation.

GLS Mainline Activation Not Performed: ______

54-128
CGLS

PERFORM GLS MAINLINE ACTIVATION

54-129
CGLS

SELECT AP PG 3B

CRT
MS/ML DISPLAY

54-130
CGLS

CURSOR CNTL
INTIATE MAINLINE
XMIT CURSOR KEY - PRESS

NOTE
Select GLS presequencer bypasses as applicable from following list and perform next step.

54-131
CGLS

SELECT APP PG 4B (SGPO2)

CURSOR CNTL
(SELECT GLS FUNCTIONS TO BYPASS)
XMIT CURSOR KEY - PRESS
<table>
<thead>
<tr>
<th>Function</th>
<th>Bypass</th>
</tr>
</thead>
<tbody>
<tr>
<td>BRS Limit Change</td>
<td></td>
</tr>
<tr>
<td>One Shot Data Transfer</td>
<td></td>
</tr>
<tr>
<td>T-20 Min Auto Hold</td>
<td></td>
</tr>
<tr>
<td>OPS Transition</td>
<td></td>
</tr>
<tr>
<td>Send GMTLO</td>
<td></td>
</tr>
<tr>
<td>GPC Dump and Compare</td>
<td></td>
</tr>
<tr>
<td>SLPACO-SLPAC1 Performs</td>
<td></td>
</tr>
<tr>
<td>RF Switch Select</td>
<td>X</td>
</tr>
<tr>
<td>Single Shot Verify</td>
<td></td>
</tr>
<tr>
<td>T-9 Min Auto Hold</td>
<td></td>
</tr>
<tr>
<td>Bypass All</td>
<td></td>
</tr>
</tbody>
</table>
54-132

CGLS

PFP (SGPO2)
KEY 7 - PRESS
SGPO2 - PRESS
PROCEED - PRESS

CRT (SGPO2)
GLS MAINLINE ACTIVE MESSAGE

54-133

CGLS

PFP
KEY 7 - PRESS

CRT
SGPO2 ACTIVE IN TASK 4

54-134

CGLS

CRT
VERIFY
N03IS331D = X0001 (RSS HOLD)

54-135

CGLS

IF PREVIOUS STEP NOT VERIFIED,

THEN
CONSOLE KYBD
ISSU N03IS331D X0001
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

Not Performed:______
54-136  CGLS

HOME CMD KEY - PRESS
ISSU N03IS162D 540
XMIT CMD KEY - PRESS

VERIFY SUCCESSFUL

***GLS Mainline Activation Complete***

54-137  CGLS  OTC  212

GLS Recycle To T-20 Min complete. Ready to support count.

*** End of Operation 54 ***
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OPERATION 55  Payload Pre-Ascent Switch List Switch Verification

Shop: TCO
Cntrl Rm Console: PTC
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.3
NOTE

In following steps if access is restricted, ASP, SCO, or CDR may be used to perform the pre-ascent switch list.

55-1

Request _____ support on OIS CH 134 to perform pre-ascent switch list.

NOTE

Perform the following three steps for STS-135 mission only.

55-2

PTC MS2

PANEL L12U (SSP-1)
VERIFY ALL TB’s BP

S1 SW - (CENTER) L12ULS01
S2 SW - (CENTER) L12ULS02
APCU 1 CONV SW - OFF L12ULS03
APCU 1 OUTPUT RLY SW - OPEN L12ULS04
S5 SW - (CENTER) L12ULS05
APCU 2 CONV SW - OFF L12ULS06
APCU 2 OUTPUT RLY SW - OPEN L12ULS07
SW PWR 1 CB2 - OPEN L12ULCB2
PDIP 1 PWR 2/KUBAND RLY CB1 - OPEN L12ULCB1
MPLM CHAN 1 HTR PWR SW - OFF L12ULS08
S9 SW - (CENTER) L12ULS09
S10 SW - (DOWN) L12ULS10
MPLM CHAN 2 HTR PWR SW - OFF L12ULS11
S12 SW - (CENTER) L12ULS12
S13 SW - (CENTER) L12URS13
S14 SW - (CENTER) L12URS14
TCS PWR SW - OFF L12URS15
S16 SW - (DOWN) L12URS16
PSSC DEPLOY SW - (CENTER) L12URS17
PSSC PRE-ARM SW - SAFE L12URS18
S19 SW - (DOWN) L12URS19

742
PANEL L12U (SSP-1) (Continued)

SW PWR 2 CB4 - OPEN L12URCB4
X1/X2 SW PDIP 1 PWR 1 CB3 - OPEN L12URCB3
ODS CONN MATE X1 TLM PWR SW - OFF L12URS20
S21 SW - (CENTER) L12URS21
ODS CONN MATE X2 TLM PWR SW - OFF L12URS22
PSSC ARM SW - SAFE L12URS23
OIU PWR SW - OFF L12URS24

Not Performed:_______
55-3  PTC   MS2

**PANEL L12L (SSP-2)**

*VERIFY ALL TB’S BP*

<table>
<thead>
<tr>
<th>Switch</th>
<th>Status</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>S1 SW</td>
<td>(CENTER)</td>
<td>L12LSS01</td>
</tr>
<tr>
<td>S2 SW</td>
<td>(CENTER)</td>
<td>L12LSS02</td>
</tr>
<tr>
<td>MPLM KEEL CAM PWR SW</td>
<td>OFF</td>
<td>L12LSS03</td>
</tr>
<tr>
<td>MPLM KEEL CAM HTR/ILLUM PWR SW</td>
<td>OFF</td>
<td>L12LSS04</td>
</tr>
<tr>
<td>S5 SW</td>
<td>(CENTER)</td>
<td>L12LSS05</td>
</tr>
<tr>
<td>S6 SW</td>
<td>(DOWN)</td>
<td>L12LSS06</td>
</tr>
<tr>
<td>S7 SW</td>
<td>(DOWN)</td>
<td>L12LSS07</td>
</tr>
<tr>
<td>SW PWR 3 CB</td>
<td>OPEN</td>
<td>L12LCS01</td>
</tr>
<tr>
<td>PDIP 2 PWR 2/MPLM RLY CB1</td>
<td>OPEN</td>
<td>L12LCSB1</td>
</tr>
<tr>
<td>S8 SW</td>
<td>(DOWN)</td>
<td>L12LSS08</td>
</tr>
<tr>
<td>S9 SW</td>
<td>(CENTER)</td>
<td>L12LSS09</td>
</tr>
<tr>
<td>TRIDAR PWR SW</td>
<td>OFF</td>
<td>L12LSS10</td>
</tr>
<tr>
<td>S11 SW</td>
<td>(DOWN)</td>
<td>L12LSS11</td>
</tr>
<tr>
<td>C/L CAM PWR SW</td>
<td>OFF</td>
<td>L12LSS12</td>
</tr>
<tr>
<td>S13 SW</td>
<td>(CENTER)</td>
<td>L12LRS13</td>
</tr>
<tr>
<td>S14 SW</td>
<td>(CENTER)</td>
<td>L12LRS14</td>
</tr>
<tr>
<td>S15 SW</td>
<td>(DOWN)</td>
<td>L12LRS15</td>
</tr>
<tr>
<td>S16 SW</td>
<td>(DOWN)</td>
<td>L12LRS16</td>
</tr>
<tr>
<td>S17 SW</td>
<td>(CENTER)</td>
<td>L12LRS17</td>
</tr>
<tr>
<td>S18 SW</td>
<td>(DOWN)</td>
<td>L12LRS18</td>
</tr>
<tr>
<td>S19 SW</td>
<td>(DOWN)</td>
<td>L12LRS19</td>
</tr>
<tr>
<td>CB4</td>
<td>OPEN</td>
<td>L12LCB4</td>
</tr>
<tr>
<td>PDIP 2 PWR 1 CB3</td>
<td>OPEN</td>
<td>L12LCB3</td>
</tr>
<tr>
<td>S20 SW</td>
<td>(DOWN)</td>
<td>L12LRS20</td>
</tr>
<tr>
<td>S21 SW</td>
<td>(CENTER)</td>
<td>L12LRS21</td>
</tr>
<tr>
<td>S22 SW</td>
<td>(DOWN)</td>
<td>L12LRS22</td>
</tr>
<tr>
<td>S23 SW</td>
<td>(DOWN)</td>
<td>L12LRS23</td>
</tr>
<tr>
<td>S24 SW</td>
<td>(CENTER)</td>
<td>L12LRS24</td>
</tr>
</tbody>
</table>

**Not Performed:** ______
**55-4 PTC CDR**

**PANEL L12L - (PDIP 1)**

**IF** PAYLOAD DATA INTERFACE PANEL IS INSTALLED ON L12L,

**THEN PERFORM:**

PAYLOAD DATA INTERFACE PANEL
   KUBAND RATE SW - OFF
   DC POWER 1 SW - OFF
   DC POWER 2 SW - OFF

Not Performed:______

**55-5 PTC MS2**

**PANEL L11U - (PDIP 2)**

**IF** PAYLOAD DATA INTERFACE PANEL IS INSTALLED ON L11U AND MPLM DATA OVERLAY INSTALLED,

**THEN PERFORM:**

PAYLOAD DATA INTERFACE PANEL
   MPLM DATA SW - OIU (CENTER)
   DC POWER 1 SW - OFF
   DC POWER 2 SW - OFF

Not Performed:______
55-6 PTC CDR

PANEL L11U - (PDIP 2)

IF PAYLOAD DATA INTERFACE PANEL IS INSTALLED ON PANEL L11U
AND T-0/OIU/OIU OVERLAY INSTALLED,

THEN PERFORM:

PAYLOAD DATA INTERFACE PANEL
  T-0/OIU/OIU SW - OIU (CENTER)
  DC POWER 1 SW - OFF
  DC POWER 2 SW - OFF

Not Performed:______

55-7 PTC NTD

Payload Pre-ascent Switch List complete.

*** End of Operation 55 ***
OPERATION 56  Reserved
Shop: NA
Cntrl Rm Console: NA
OPR: NA
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0

*** End of Operation 56 ***
THIS PAGE INTENTIONALLY BLANK.
OPERATION 57  Reserved

Shop: NA
Cntrl Rm Console: NA
OPR: NA
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0

*** End of Operation 57 ***
THIS PAGE INTENTIONALLY BLANK.
OPERATION 58  Reserved
Shop: NA
Cntrl Rm Console: NA
OPR: NA
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0

*** End of Operation 58 ***
THIS PAGE INTENTIONALLY BLANK.
OPERATION 59  Orbiter - Post Operation MPS/SSME Securing
Shop: MPS
Cntrl Rm Console: C4
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 2.0
59-1 OTC CMPS CSME

Perform Orbiter Post Operation 59 - MPS/SSME Securing.

59-2 CMPS

CONSOLE KEYBOARD (C4)

SET NLHK0013X OFF - TYPE
XMIT CMD - PRESS
EXEC CMD - PRESS

S FD NLHK0013X - TYPE
XMIT CMD - PRESS
VERIFY THAT PSEUDO IS OFF
MPS Securing/ET OI Powerdown

**NOTE**
If ET OI power required, then do not perform next four steps.

MPS Securing/ET OI Powerdown Not Performed:_____

59-3

CMPS

**IF** NOT ACTIVE:

**THEN**

CONSOLE KYBD
SAE12
PERF PGM KEY - PRESS

Not Performed:_____

59-4

CMPS TBC
TBC CISL

Verify ready for ET OI power down.

59-5

CMPS

PFP (SAE12)
TURN OFF ET POWER - PRESS

CRT
VERIFY
ET OI POWER IS DOWN
59-6  CMPS

**IF SAE12 NO LONGER REQUIRED,**

**THEN PERFORM**
APPL PAGE (SAE12)
PFK15 KEY - PRESS (TWICE)

CRT
SAE12 TERMINATES

Not Performed:_____

*** End of MPS Securing/ET OI Powerdown ***

59-7  CMPS

CRT (VAE18)
VERIFY ALL EIGHT SWITCHES (SW SCANS) REMAINED CLOSED.
SSME Securing At C3

59-8

CSME

CURSOR CNTL (VAE38A) - GN2 DISPLAY

IF COMMANDS ARE ON,

THEN

PRI REG OUT VLV OVR CMD - OFF
SEC REG OUT VLV OVR CMD - OFF

PRI CONT VLV OVR CMD - OFF
SEC CONT VLV OVR CMD - OFF

PRI VENT VLV OVR CMD - OFF
SEC VENT VLV OVR CMD - OFF

Not Performed:______

59-9

CSME

CONSOLE KYBD - C3

SET_N41IV006E_OFF
XMIT CMD - PRESS
EXEC CMD - PRESS

59-10

CSME

PPF (VAE38A)
TERM - PRESS
SSME Controllers Are Powered Up To Support TCDT

NOTE
After deactivating FRT simulated in FRT-2, FID 014 dlm 017, dlm 020 and 021 may be reported with or without SSME pneumatics activated.

Perform the following two steps if SSME controllers are powered up to support TCDT.

SSME Controllers Are Powered Up To Support TCDT Not Performed:_____

59-11
CSME

CURSOR CNTL (VAE32A)
DFRT A - ISSUE (PS/D-STBY)

59-12
CCME

CURSOR CNTL (VAE90A)
CTRS A - ISSUE (C/O-STBY)

*** End of SSME Controllers Are Powered Up To Support TCDT ***

59-13
CSME
OTC
CMPS
CMQC

MPS/SSME securing at C3/C4 complete.
SSME Securing At C12

59-14 CCME

IF power not required,

THEN perform SSMEC power off per OMI V9058.002

RT OMI log No.______________

Not Performed:_____

59-15 CCME OTC
CMQC

SSME securing at C12 complete.

*** End of Operation 59 ***
OPERATION 60  Orbiter - Post Operation Crew Module Platform and Protective Cover Installation

Shop: FWD
Cntrl Rm Console: N/A
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 2.0
60-1 OTC *PAD

Perform Orbiter Post Operation 60 - Crew Module Platform and Protective Cover Installation.

60-2 *PAD OMTO

IF Crew module platforms and protective covers are not already installed,

THEN Install Crew module platforms and protective covers per:

1. JC V66-00018 Protective Cover Set, Crew Module Vertical, A70-0658 Installation

   Not Performed:______
   (SS1)
   T:______

2. JC V66-00019 Platform Access Set A70-0558 Aft Flight Deck Installation/Removal

   Not Performed:______
   (SS2)
   T:______

3. JC V66-50009 Installation/Removal Airlock Out Vertical Access Set - Crew Module

   Not Performed:______
   (SS3)
   T:______

*** End of Operation 60 ***
OPERATION 61  Orbiter - Post Operation Switchguard Installation

Shop: FWD
Cntrl Rm Console: N/A
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0.5
CAUTION

To prevent damage to hardware, do not remove SED33102379 Flight switch guards. Flight switch guards are installed for Flight and are substituted for GSE switchguards.

61-1 OTC *PAD

Perform Orbiter Post Operation 61 - Switchguard Installation.

61-2 CDR

PANEL L1

1. INSTALL G070-700930-001 SWITCHGUARD ON FLASH EVAP CONTROLLER PRI A, PRI B SWITCH.

2. INSTALL G070-700919-001 SWITCHGUARD ON FLASH EVAP CONTROLLER SEC SWITCH.

3. INSTALL G070-700921-001 SWITCHGUARD ON NH3 CONTROLLER A SWITCH.

4. INSTALL G070-700921-001 SWITCHGUARD ON NH3 CONTROLLER B SWITCH.
61-3  CDR

IF the Panel C2 IDP power switch 30 second advisory tag is not installed,

THEN

PANEL C2
IDP/CRT 1, 2 AND 3 POWER SWITCHES

Install tag annotated with “IDP/CRT PWR SW MUST REMAIN ON FOR 30 SECONDS” over the three switches.

Not Performed:______

T:______

61-4  CDR

PANEL C3
INSTALL G070-700418-001 SWITCHGUARD ON OMS ENG ARM/PRESS LEFT, RIGHT SWITCHES.
PANEL O7

1. INSTALL G070-700919-001 SWITCHGUARD ON AFT LEFT RCS - HE PRESS A SWITCH.  (CDR)

2. INSTALL G070-700919-001 SWITCHGUARD ON AFT LEFT RCS - HE PRESS B SWITCH.

3. INSTALL G070-700919-001 SWITCHGUARD ON AFT RIGHT RCS - HE PRESS A SWITCH.  (PLT)

4. INSTALL G070-700919-001 SWITCHGUARD ON AFT RIGHT RCS - HE PRESS B SWITCH.

5. INSTALL G070-700919-001 SWITCHGUARD ON AFT LEFT RCS - TANK ISOL 1/2 SWITCH.  (CDR)
6. INSTALL G070-700930-001 SWITCHGUARD ON AFT LEFT RCS - TANK ISOL 3/4/5 A AND B SWITCHES.

7. INSTALL G070-700919-001 SWITCHGUARD ON AFT RIGHT RCS - TANK ISOL 1/2 SWITCH. (PLT)

8. INSTALL G070-700930-001 SWITCHGUARD ON AFT RIGHT RCS - TANK ISOL 3/4/5 A AND B SWITCHES.

9. INSTALL MULTIPLE G070-700935-001 SWITCHGUARD ON AFT LEFT RCS - MANIFOLD ISOL 1,2,3,4,5 SWITCHES. (CDR)

10. INSTALL MULTIPLE G070-700935-001 SWITCHGUARD ON AFT RIGHT RCS - MANIFOLD ISOL 1,2,3,4,5 SWITCHES. (PLT)

11. INSTALL G070-700919-001 SWITCHGUARD ON AFT LEFT RCS - CROSSFEED 1/2 SWITCH. (CDR)

12. INSTALL G070-700919-001 SWITCHGUARD ON AFT LEFT RCS - CROSSFEED 3/4/5 SWITCH.

13. INSTALL G070-700919-001 SWITCHGUARD ON AFT RIGHT RCS - CROSSFEED 1/2 SWITCH. (PLT)

14. INSTALL G070-700919-001 SWITCHGUARD ON AFT RIGHT RCS - CROSSFEED 3/4/5 SWITCH.
61-6

PANEL 08

1. INSTALL G070-700930-001 SWITCHGUARD ON OMS KIT - HE PRESS/VAPOR ISOL A AND B SWITCHES.

2. INSTALL G070-700930-001 SWITCHGUARD ON LEFT OMS-HE PRESS/VAPOR ISOL A AND B SWITCHES.

3. INSTALL G070-700930-001 SWITCHGUARD ON RIGHT OMS-HE PRESS/VAPOR ISOL A AND B SWITCHES.

4. INSTALL G070-700930-001 SWITCHGUARD ON OMS KIT - TANK ISOL A AND B SWITCHES.

5. INSTALL G070-700930-001 SWITCHGUARD ON LEFT OMS - TANK ISOL A AND B SWITCHES.

6. INSTALL G070-700930-001 SWITCHGUARD ON RIGHT OMS - TANK ISOL A AND B SWITCHES.

7. INSTALL G070-700930-001 SWITCHGUARD ON LEFT OMS - CROSSFEED A AND B SWITCHES.

8. INSTALL G070-700930-001 SWITCHGUARD ON RIGHT OMS - CROSSFEED A AND B SWITCHES.

9. INSTALL G070-700919-001 SWITCHGUARD ON FWD RCS - HE PRESS A SWITCH.

10. INSTALL G070-700919-001 SWITCHGUARD ON FWD RCS - HE PRESS B SWITCH.

11. INSTALL G070-700919-001 SWITCHGUARD ON FWD RCS - TANK ISOL 1/2 SWITCH.

12. INSTALL G070-700919-001 SWITCHGUARD ON FWD RCS - TANK ISOL 3/4/5 SWITCH.

13. INSTALL MULTIPLE G070-700935-001 SWITCHGUARD ON FWD RCS - MANIFOLD ISOL 1,2,3,4,5 SWITCHES.
NOTE
Perform next substep for OV-103/OV-104 only.
TACAN has been replaced with 3-string GPS on OV-105 only.

**IF** CREW PREFERENCE SNAP-RING IS INSTALLED,

**THEN** DO NOT PERFORM NEXT SUBSTEP.

1. INSTALL G070-700406-001 CB GUARD ON TACAN 1 CB.

   **Sub Step 1 Not Performed:**

2. INSTALL G070-700406-001 CB GUARD ON CRYO O2 HTR TK1 SENSOR 1.

   **Sub Step 2 Not Performed:**

**ROW E**

3. INSTALL G070-700406-001 CB GUARD ON RADAR ALTM 1 CB.

4. INSTALL G070-700406-001 CB GUARD ON MLS 1 CB.
Perform next substep for OV-103 only.
TACAN has been replaced with 3-string GPS on OV-105 only.

IF CREW PREFERENCE SNAP-RING IS INSTALLED,
THEN DO NOT PERFORM NEXT SUBSTEP.

1. INSTALL G070-700406-001 CB GUARD ON TACAN 2 CB.

Sub Step 1 Not Performed:_____

IF CREW PREFERENCE SNAP-RING IS INSTALLED,
THEN DO NOT PERFORM NEXT SUBSTEP.

2. INSTALL G070-700406-001 CB GUARD ON CRYO O2 HTR TK2 SENSOR 2 CB.

Sub Step 2 Not Performed:_____

NOTE
Perform the next substep for OV-104 only.

IF CREW PREFERENCE SNAP-RING IS INSTALLED,
THEN DO NOT PERFORM NEXT SUBSTEP.

5. INSTALL G070-700406-001 CB GUARD ON TACAN 2 CB.

Sub Step 5 Not Performed:_____

NOTE
Perform next substep for OV-105 only.
NOTE
Perform next substep for OV-103/OV-104 only.
TACAN has been replaced with 3-string GPS on OV-105 only.

IF CREW PREFERENCE SNAP-RING IS INSTALLED,

THEN DO NOT PERFORM NEXT SUBSTEP.

1. INSTALL G070-700406-001 CB GUARD ON TACAN 3 CB.

Sub Step 1 Not Performed:______

IF CREW PREFERENCE SNAP-RING IS INSTALLED,

THEN DO NOT PERFORM NEXT SUBSTEP.

2. INSTALL G070-700406-001 CB GUARD ON CRYO O2 HTR TK 1 SENSOR 2 CB.

Sub Step 2 Not Performed:______

IF CREW PREFERENCE SNAP-RING IS INSTALLED,

THEN DO NOT PERFORM NEXT SUBSTEP.

3. INSTALL G070-700406-001 CB GUARD ON CRYO O2 HTR TK2 SENSOR 1 CB.

Sub Step 3 Not Performed:______

ROW E
4. INSTALL G070-700406-001 CB GUARD ON MLS 3 CB.

ROW F
5. INSTALL G070-700979-001 SWITCHGUARD ON R OMS ENG VLV SWITCH.
PANEL R1

<table>
<thead>
<tr>
<th>NOTE</th>
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<tbody>
<tr>
<td>Use G070-700919-001 switchguard for following switches.</td>
</tr>
</tbody>
</table>

1. INSTALL SWITCHGUARD ON ESS BUS SOURCE FC1 SW.
2. INSTALL SWITCHGUARD ON ESS BUS SOURCE FC2 SW.
3. INSTALL SWITCHGUARD ON ESS BUS SOURCE FC3 SW.
4. INSTALL SWITCHGUARD ON O2 TK 1 HEATERS A SW.
5. INSTALL SWITCHGUARD ON O2 TK 1 HEATERS B SW.
6. INSTALL SWITCHGUARD ON O2 TK 2 HEATERS A SW.
7. INSTALL SWITCHGUARD ON O2 TK 2 HEATERS B SW.
8. INSTALL SWITCHGUARD ON O2 TK 3 HEATERS A SW.
9. INSTALL SWITCHGUARD ON O2 TK 3 HEATERS B SW.
10. INSTALL SWITCHGUARD ON H2 TK 1 HEATERS A SW.
11. INSTALL SWITCHGUARD ON H2 TK 1 HEATERS B SW.
12. INSTALL SWITCHGUARD ON H2 TK 2 HEATERS A SW.
13. INSTALL SWITCHGUARD ON H2 TK 2 HEATERS B SW.
14. INSTALL SWITCHGUARD ON H2 TK 3 HEATERS A SW.
15. INSTALL SWITCHGUARD ON H2 TK 3 HEATERS B SW.
61-11

PLT

PANEL R2

1. INSTALL G070-700903-001 SWITCHGUARD ON APU OPERATE SWITCHES.

2. INSTALL G070-700919-001 SWITCHGUARD ON HYD CIRC PUMP 1 SWITCH.

3. INSTALL G070-700904-001 SWITCHGUARD ON HYD CIR PUMP 2,3 SWITCHES.

4. INSTALL G070-700920-001 SWITCHGUARD ON APU 1 FUEL TK VLV SWITCH.

5. INSTALL G070-700905-001 SWITCHGUARD ON APU 2,3 FUEL TK VLV SWITCHES.

6. INSTALL G070-700920-001 SWITCHGUARD ON ET UMBILICAL DOOR MODE SWITCH.

61-12

CDR

IF Panel R11 IDP power switch 30 second advisory tag is not installed,

THEN
PANEL R11L
IDP/CRT4 POWER SWITCH

Install tag annotated with “IDP/CRT PWR SW MUST REMAIN ON FOR 30 SECONDS” over the switch.

Not Performed:_____

61-13

PLT

PANEL R4

INSTALL G070-700919-001 SWITCHGUARD ON LG EXT ISO VLV SWITCH.
61-14  MS1

PANEL A1R

INSTALL G070-700919-001 SWITCHGUARD ON S-BAND FM POWER SWITCH.

61-15  MS1

PANEL A1L

1. INSTALL G070-700919-001 SWITCHGUARD ON S-BAND PM XPNDR SWITCH.

2. INSTALL G070-700919-001 SWITCHGUARD ON S-BAND PAYLOAD POWER SYSTEM SWITCH.
PANEL A7

1. INSTALL G070-700919-001 SWITCHGUARD ON PAYLOAD BAY FLOOD AFT STBD SWITCH.

2. INSTALL G070-700919-001 SWITCHGUARD ON PAYLOAD BAY FLOOD AFT PORT SWITCH.

3. INSTALL G070-700919-001 SWITCHGUARD ON PAYLOAD BAY FLOOD MID STBD SWITCH.

4. INSTALL G070-700919-001 SWITCHGUARD ON PAYLOAD BAY FLOOD MID PORT SWITCH.

5. INSTALL G070-700919-001 SWITCHGUARD ON PAYLOAD BAY FLOOD FWD STBD SWITCH.

6. INSTALL G070-700919-001 SWITCHGUARD ON PAYLOAD BAY FLOOD FWD PORT SWITCH.

7. INSTALL G070-700919-001 SWITCHGUARD ON PAYLOAD BAY FLOOD DOCKING SWITCH.

8. INSTALL G070-700919-001 SWITCHGUARD ON PAYLOAD BAY FLOOD FWD BHD SWITCH.
61-17  MS1

PANEL A11

1. INSTALL G070-700926-001 OR G070-700904-001 SWITCHGUARD ON O2 CRYO TANK 4 HEATERS A, B SWITCHES.

2. INSTALL G070-700926-001 OR G070-700904-001 SWITCHGUARD ON H2 CRYO TANK 4 HEATERS A, B SWITCHES.

61-18  MS1

PANEL A15

1. INSTALL G070-700926-001 OR G070-700904-001 SWITCHGUARD ON O2 CRYO TANK 5 HEATERS A, B SWITCHES.

2. INSTALL G070-700926-001 OR G070-700904-001 SWITCHGUARD ON H2 CRYO TANK 5 HEATERS A, B SWITCHES.
PANEL ML86B

ROW F
1. INSTALL G070-700406-001 CB GUARD ON CRYO O2 HTR TK 3 SNSR 1 CB.
2. INSTALL G070-700406-001 CB GUARD ON CRYO O2 HTR TK 3 SNSR 2 CB.

IF CREW PREFERENCE SNAP-RING IS INSTALLED,

THEN DO NOT PERFORM NEXT SUBSTEP.
3. INSTALL G070-700406-001 CB GUARD ON CRYO O2 HTR TK 4 SNSR 1 CB

Substep 3 Not Performed:______

IF CREW PREFERENCE SNAP-RING IS INSTALLED,

THEN DO NOT PERFORM NEXT SUBSTEP.
4. INSTALL G070-700406-001 CB GUARD ON CRYO O2 HTR TK 4 SNSR 2 CB

Substep 4 Not Performed:______

IF CREW PREFERENCE SNAP-RING IS INSTALLED,

THEN DO NOT PERFORM NEXT SUBSTEP.
5. INSTALL G070-700406-001 CB GUARD ON CRYO O2 HTR TK 5 SNSR 1 CB

Substep 5 Not Performed:______
IF CREW PREFERENCE SNAP-RING IS INSTALLED,

THEN DO NOT PERFORM NEXT SUBSTEP.

6. INSTALL G070-700406-001 CB GUARD ON CRYO O2 HTR TK 5 SNSR 2 CB

Sub Step 6 Not Performed:______

61-20 MS1

IF SWITCH/CB GUARDS REMOVED FOR THIS TEST,

THEN PERFORM THE FOLLOWING.

PANEL ML86B

ROW D

MN A
PYRO JETT SYS A
KU ANT CB - OPEN
INSTALL G070-700930-001 CB GUARD
STBD RMS CB - OPEN
INSTALL G070-700930-001 CB GUARD

MN B
PYRO JETT SYS A
PORT RMS CB - OPEN
INSTALL G070-700919-001 CB GUARD

MN C
PYRO JETT SYS B
PORT RMS CB - OPEN
INSTALL G070-700930-001 CB GUARD
KU ANT CB - OPEN
INSTALL G070-700919-001 CB GUARD
STBD RMS CB - OPEN
INSTALL G070-700930-001 CB GUARD

Not Performed:______
61-21  CDR    *PAD
       *PAD   OTC

Operation 61 - Switchguard installation complete.

T:_____

*** End of Operation 61 ***
OPERATION 62  Reserved

Shop: N/A
Cntrl Rm Console: N/A
OPR: N/A
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0

*** End of Operation 62 ***
OPERATION 63  Orbiter - Post Operation GTOE Headset Removal

Shop: **FWD**
Cntrl Rm Console: N/A
OPR: **TCO**
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): **0.5**
63-1  OTC  *PAD

**Perform** Orbiter Post Operation 63 - GTOE Headset Removal.

**NOTE**
GTOE Headsets are disconnected and removed on V1117, Operation 70.

63-2  *PAD

**Obtain** following equipment from Pad and transport to FCS Logistics (SSPF Room 1092).

<table>
<thead>
<tr>
<th>Item</th>
<th>P/N</th>
<th>Qty</th>
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<tbody>
<tr>
<td>GTOE Headsets</td>
<td>SED36122033-303</td>
<td>*</td>
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<tr>
<td>Type III HIU</td>
<td>MC409-0005-0045</td>
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<tr>
<td>COMM Cables</td>
<td>SED36126942-301/309</td>
<td>2</td>
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<tr>
<td>Very Lightweight Headset</td>
<td>SED16101291-305</td>
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* Qty - No. of FLT Crew members plus one spare

T:_____

*** End of Operation 63 ***
OPERATION 64  Reserved
Shop: N/A
Cntrl Rm Console: N/A
OPR: N/A
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): 0

*** End of Operation 64 ***
OPERATION 899 Walkdown Discrepancy List

Shop: TCO
Cntrl Rm Console: N/A
OPR: TCO
Zone: N/A
Hazard (Y/N): N
Duration (Hrs): N/A
NOTE
This list is created by Integrated Operation 301 and verified by Integrated Operation 302.

Additional pages may be added to Walkdown Discrepancy List by making copies of next page and adding them to this book.

Record all items checked temporary in the applicable Potential Reoccurrence Tracking Log (PRTL) for evaluation on future integrated walkdowns. These type of discrepancies are either a temporary resolution or are acceptable for one Launch.

1. Location:

2. Originator:

3. Responsible organization will clear discrepancy.


5. Cleared by - name (signature or stamp); date; time; and identified as permanent or temporary.
## Walkdown Discrepancy List

<table>
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<tr>
<th>Item No.</th>
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789
*** End of Operation 899 ***
Emergency Instruction
E1: Emergency FIREX Water Flow

Not Performed:______

NOTE
Perform this Operation if emergency FIREX water flow required.

NOTE
In next step, “KCCS” = Kennedy Complex Control System; FHCP = FIREX hardwire control panel.

E1-1 NTD JBFX 232

Flow FIREX water in area(s) requested:

Support: CWSS

1. Pad perimeter area sprays:

   Pad A and B
   A. LH₂ Storage Tank (V10)-KCCS/FHCP
   B. LH₂ Fillport (V10A) - KCCS
   C. GH₂ Storage Tank (V12) - KCCS/FHCP
   D. LOX Storage Tank (V11) - KCCS/FHCP
   E. LOX Fillport (V11A) - KCCS
   F. Hypergolic Fuel Area (V57) - KCCS/FHCP
   G. Hypergolic Oxidizer Area (V61) - KCCS/FHCP
   H. Pad Surface LH₂ Fill Vlv (V280) - KCCS/FHCP
   I. GO₂ Area (V480) - KCCS
2. FSS sprays (not available when system drained):

   **Pad A and B**

   A. All valves - KCCS only

   B. 48/53 Ft Hyper Fill Port (V79) - KCCS/FHCP

   C. 75/80 Ft Hyper Scrubbers (V32) - KCCS/FHCP

   D. 155/160 Ft Cryo Dewars (V33) - KCCS/FHCP

   E. 175/180 Ft Level Spray (V34) - KCCS/FHCP

   F. 195/200 Ft ET Vent 260 ET GOX Vent Arm (V35/V65) - KCCS/FHCP

   G. OAA Egress (195/200 ft) (V37/V38) - KCCS/FHCP

3. RSS sprays (not available when system isolated):

   **Pad A**

   A. 167 Ft Side 4 OMBUU (V462/V463/V464/V465) - KCCS/FHCP

   B. No KCCS remote control available for other Pad A RSS FIREX systems: hardwire backup panel and local activation only.

   C. 107 Ft Side 2 Hyper Oxid Skid (V44) FHCP

   D. 107 Ft Side 2 APU Cart Storage (V46) FHCP

   E. 107 Ft Side 4 Hyper Fuel Skid (V45) FHCP

   F. 107 Ft Side 4 APU Cart Storage (V47) FHCP

   G. 135 Ft Sides 2&4 PCR Main Floor (V204/V205/V228/V229) - FHCP

   H. 135 Ft Side 2 PCR Storage (V253/V254) FHCP
I. 135 Ft Sides 3&4 PCR Airlock/Anteroom (V252) - FHCP

J. 135 Ft Side 2 APU Cart (V300) - FHCP

K. 135 Ft Side 4 APU Cart (V301) - FHCP

L. 145 Ft Sides 2&4 PCR Platform No. 1 (V206/V207/V230/V231) - FHCP

M. 154 Ft Sides 2&4 PCR Platform No. 2 (V208/V209/V232/V233) - FHCP

N. 163 Ft Sides 2&4 PCR Platform No. 3 (V210/V211/V234/V235) - FHCP

O. 175 Ft Sides 2&4 PCR Platform No. 4 (V212/V213/V236/V237) - FHCP

P. 187 Ft PCR Ceiling (V214/V215/V238/V239) - FHCP

Q. 207 Ft Side 2 Oxid Valve Skid (V49) - FHCP

R. 207 Ft Side 4 Fuel Valve Skid (V48) - FHCP

S. 207 Ft RCS Room Ceiling (V50/V51/V240/V241) - FHCP

Pad B

A. 107 Ft Side 2 Hyper Oxid Skid (V44) - KCCS/FHCP

B. 107 Ft Side 2 APU Cart Storage (V46) - KCCS/FHCP

C. 107 Ft Side 4 Hyper Fuel Skid (V45) - KCCS/FHCP

D. 107 Ft Side 4 APU Cart Storage (V47) - KCCS/FHCP
E. 135 Ft Sides 2&4 PCR Main Floor
   (V204/V205/V228/V229) - KCCS/FHCP

F. 135 Ft Side 2 PCR Storage
   (V253/V254) - KCCS/FHCP

G. 135 Ft Sides 3&4 PCR Airlock/Anteroom
   (V252) - KCCS/FHCP

H. 135 Ft Side 2 APU Cart (V300) - KCCS/FHCP

I. 135 Ft Side 4 APU Cart (V301) - KCCS/FHCP

J. 145 Ft Sides 2&4 PCR Platform No. 1
   (V206/V207/V230/V231) - KCCS/FHCP

K. 154 Ft Sides 2&4 PCR Platform No. 2
   (V208/V209/V232/V233) - KCCS/FHCP

L. 163 Ft Sides 2&4 PCR Platform No. 3
   (V210/V211/V234/V235) - KCCS/FHCP

M. 172 Ft Side 4 OMBUU
   (V462/V463/V464/V465) - KCCS/FHCP

N. 175 Ft Sides 2&4 PCR Platform No. 4
   (V212/V213/V236/V237) - KCCS/FHCP

O. 187 Ft PCR Ceiling
   (V214/V215/V238/V239) - KCCS/FHCP

P. 207 Ft Side 2 Oxid Valve Skid (V49) -
   KCCS/FHCP

Q. 207 Ft Side 4 Fuel Valve Skid (V48) -
   KCCS/FHCP

R. 207 Ft RCS Room Ceiling
   (V50/V51/V240/V241) - KCCS/FHCP
NOTE
The MLP Side-1 Cryo Sled Spray is never activated when CMPL has control of the Orbiter Firex system during S0017.

NOTE
Should the Firing Room Safing Panel Orbiter Firex functions fail, JBFX shall control these functions from the CCC Firex hardwire backup panel.

NOTE
JBFX can operate Orbiter FIREX only when FIREX control has not been transferred to Firing Room.

E1-2 NTD CMPL

Flow Orbiter Firex water in the areas requested.

1. Orbiter Umbilical Spray - LPS/Safing Panel
2. Orbiter Heat Shield Spray - LPS/Safing Panel
3. Orbiter Skin Spray - LPS/Safing Panel
CAUTION
If MLP Side 1 Cryo Sled spray is activated, activation of SSME Heat Shield spray and Orbiter skin spray will deactivate Cryo sled spray.

NOTE
CMPL can operate Orbiter Firex only when Firex control has been transferred to firing room.

4. MLP:

   Pad A and B

   A. Orbiter Umbilical Spray (V333/V334) - KCCS/FHCP

   B. Orbiter SSME Heat Shield Spray (V336/V337) - KCCS/FHCP

   C. Orbiter Skin Spray (V339/V340) - KCCS/FHCP

   D. MLP Side 1 - Cryo Sled (V18) - KCCS/FHCP
      (not available when system drained)

Support: CWSS
NOTE
CMPL can operate Orbiter Firex only when Firex control has been transferred to firing room.

E1-3 NTD CMPL

Flow Orbiter Firex water in the areas requested.

NOTE
The MLP side-1 Cryo sled spray is not available when CMPL has control of the Orbiter Firex system during S0017.

NOTE
Should the firing room Orbiter Firex safing panel functions fail, JBFX shall control these functions from the CCC Firex hardwire backup panel.

1. Orbiter Umbilical Spray - LPS/Safing Panel
2. Orbiter Heat Shield Spray - LPS/Safing Panel
3. Orbiter Skin Spray - LPS/Safing Panel

E1-4

Perform an as-run critique of the emergency procedure, considering the actual software/hardware configuration, to verify that the intent of the emergency procedure was accomplished, and all work actually performed was properly documented.

TTL:_____

*** End of Emergency Instruction E1 ***
Emergency Instruction
E2: Emergency Shutdowns - Orbiter

Not Performed: ______

E2-1 OTC CEPD

**Perform** emergency shutdown per OMI S9001.102 Shuttle Power Up/Down (LPS)

E2-2

**Perform** an as-run critique of the emergency procedure, considering the actual software/hardware configuration, to verify that the intent of the emergency procedure was accomplished, and all work actually performed was properly documented.

TTL: ______

*** End of Emergency Instruction E2 ***
Emergency Instruction
E3: Emergency Shutdowns - ET

Not Performed:______

E3-1  TBC

Perform emergency shutdown per OMI S9001.102 Shuttle Power
Up/Down (LPS)

E3-2

Perform an as-run critique of the emergency procedure, considering the
actual software/ hardware configuration, to verify that the intent of the
emergency procedure was accomplished, and all work actually performed
was properly documented.

TTL:______

*** End of Emergency Instruction E3 ***
Emergency Instruction

E4: Emergency Shutdowns - SRB

Not Performed:_____

Power Off

E4-1  TBC  CBRS
      CBIS
      CAFC
      CPWR

Terminate any active program and initiate emergency powerdown.

E4-2  CBRS

PFP
SWRB2 - PRESS
E4-3  CBRS

CURSOR CNTL
LH A PWR OFF - XMIT CURSOR
LH B PWR OFF - XMIT CURSOR
RH A PWR OFF - XMIT CURSOR
RH B PWR OFF - XMIT CURSOR
LH TRANSPONDER INST OFF
AND TRAN OFF - XMIT CURSOR
RH TRANSPONDER INST OFF
AND TRAN OFF - XMIT CURSOR

E4-4  CBRS  TBC

SRSS PWR OFF

E4-5  CPWR

PFP (SAC01)
EMERGENCY SHUTDOWN MENU - PRESS
EMERGENCY SRB PWR DN - PRESS
EXECUTE - SRB SHUTDOWN - PRESS

E4-6  CPWR

CRT (BWE08)
VERIFY
ALL SRB BUS MONITOR VOLTS DISPLAYED RED
(LESS THAN 21 VOLTS)
E4-7 CPWR TBC

SRB OI Bus A and B emergency powerdown complete.

NOTE
The following two steps are non-critical and may be performed after SRB power is down.

NOTE
The next step will issue CMDS to turn off the SRGAS and must be completed prior to the next SRB power up.

E4-8 CAFC

CONSOLE KYBD
SET FD OFF
XMIT CMD KEY - PRESS

WHERE: FD
B79K3004XL (SRGA 1)
B79K4004XL (SRGA 2)
V76K6941XL (SRGA 3 RPC A)
V76K6945XL (SRGA 3 RPC C)
V76K6942XL (SRGA 4 RPC A)
V76K6946XL (SRGA 4 RPC C)

E4-9 CAFC TBC

SRGA power has been removed.
E4-10

Perform an as-run critique of the emergency procedure, considering the actual software/hardware configuration, to verify that the intent of the emergency procedure was accomplished, and all work actually performed was properly documented.

TTL:_____

*** End of Emergency Instruction E4 ***
# Approval Record

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