

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

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 safing 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 (LO ₂)
T-1:57 minutes	- Start Prepress (LH ₂)
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

Operation		Shop/ Cntl Rm Console	OPR	Haz (Y/N)	Duration (Hrs)	Page No.
No.	Title					
29	Bio-med Checkout	FWD/ N/A	TCO	N	1.0	1
30	Shuttle Ascent Switch List	TCO/ TCO	TCO	N	2.0	11
31	NAVAIDS Securing	FWD/ C2	TCO	N	0.5	207
32	WWMS Preps For Switch List	FCP/ C5	TCO	N	0.5	227
33	OMS/RCS System Secure	OMS/ C8	TCO	N	0.5	245
34	SSME System Preps for TCDT	CME/ C11	TCO	N	0.8	251
36	GNC Securing	GNC/ C11	TCO	N	0.3	259
37	ECLSS System	ECL/ C6	TCO	N	2.0	273
38	Hydraulics System	HYD/ C8	TCO	N	0.3	323
39	SRB PIC No-Go Resistance Test	EDP/ C10	TCO	N	0.1	327
40	DPS Systems	DPS/ C12	TCO	N	5.0	331
41	MET Initialization and Switch/Circuit Breaker Configuration	FWD/ C10	TCO	N	0.3	415
42	RF FEP Source Verification	TCO/ MSTR	TCO	N	0.1	431
43	Reserved	NA/ NA	NA	N	0	435
44	Orbiter/GSE PIC Resistance Test	EPD/ C10	TCO	N	0.3	437
45	CDC Control - Set and Resume	INTG/ INTG	TCO	N	0.2	443
46	GLS Functional Initialization and LCC Activation	INTG/ INTG	TCO	N	0.8	449

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

2.0 SAFETY INFORMATION

2.1 Hazards

	Operation
Exposure to (RF) radiation.	53

2.2 Safety Requirements

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

2.4 Reference Safety Documentation

Number	Rev	Title
KNPR 8715.3	LI	KSC Safety Practices Procedural Requirements
FSOP 6100	LI	USA Florida Safety Operating Plan

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3.0 STAGING REQUIREMENTS

3.1 Required Engineering Documentation

3.1.2 Documents

OPERATION 53

Document No.	Rev	Title
MAXIMO JOB	(LI)	
PLAN 19300-1		

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

Number	Course Title	Operation
028	ELECTRICAL CONNECTOR MATE/DEMATE	29
028	ELECTRICAL CONNECTOR MATE/DEMATE	53

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	Operation/Step
CWSS	E1-1
CWSS	E1-2

COMM Organization	Operation/Step
TCD	54-35
TCD	54-36
TCD	54-37
TCD	54-38

4.5 Supporting Subtasks

Subtask Number	Haz Ind	Subtask Title / Function to be Performed	Calling Op / Step
V9058.002		SSME CONTROLLER NORMAL POWER UP AND DOWN	34-8
V9058.003		SSME MEMORY LOAD OPERATIONS (LPS)	34-9
V1123.140		GNC SYSTEM POWER DOWN	36-55
V9058.002		SSME CONTROLLER NORMAL POWER UP AND DOWN	59-14
V66-00018		PROTECTIVE COVER SET, CREW MODULE VERTICAL, A70-0658 INSTALLATION	60-2
V66-00019		PLATFORM ACCESS SET A70-0558 AFT FLIGHT DECK INSTALLATION/REMOVAL	60-2
V66-50009		INSTALLATION/REMOVAL AIRLOCK OUT VERTICAL ACCESS SET - CREW MODULE	60-2
S9001.102		SHUTTLE POWER UP/DOWN - VAB/PAD - TCO PRIMARY OPERATIONS	E2-1 E3-1

5.0 CONFIGURATION ACCOUNTING AND VERIFICATION

5.1 Specific OMRS Requirements Satisfied by this TOP

OMRS NO.	NOMENCLATURE/ EFFECTIVITY	SEQ-STEP (CAP)
V72AQ0.060-A	EIU1 FM SYSTEM INTERFACE DATA QUALITY	42-008
L01	V02F;C V03F;C V04F;C V05F;C	
V72AQ0.060-B	EIU2 FM SYSTEM INTERFACE DATA QUALITY	42-008
L01	V02F;C V03F;C V04F;C V05F;C	
V72AQ0.060-C	EIU3 FM SYSTEM INTERFACE DATA QUALITY	42-008
L01	V02F;C V03F;C V04F;C V05F;C	
V74AB0.102 (1R)	BLANKING AT PAD	53-109
L01	V03F22-90;C V04F17-90;C V05F11-90;C	
V74AB0.190 (1R)	TACAN GROUND STATION INTERFACE	53-115
L01	VAF1-90;C	
V74AC0.011 (1R)	RADAR ALT. POWER ON VERIFICATION	53-063 53-188
L01	VAF1-90;C	
V74AC0.020 (1R)	RADAR ALTIMETER SELF TEST	53-089 53-214
L01	VAF1-90;C	
V74P00.055	GPS ALMANAC COLLECTION	53-037
L02	V03FR25;C V04F;C	
V74P00.090	GPS ENCRYPTION KEY LOAD	53-268
L03	V03FR27;C V04F;C	
V74PP0.060-A (1R)	GPS1 ALMANAC COLLECTION	53-166
L01	VAF;C	

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V74PP0.060-B (1R)	GPS2 ALMANAC COLLECTION L01 VAF;C	53-166
V74PP0.060-C (1R)	GPS3 ALMANAC COLLECTION L01 VAF;C	53-166
V74PP0.120-A (1R)	GPS1 ENCRYPTION KEY LOAD L01 VAF;C	53-340
V74PP0.120-B (1R)	GPS2 ENCRYPTION KEY LOAD L01 VAF;C	53-340
V74PP0.120-C (1R)	GPS3 ENCRYPTION KEY LOAD L01 VAF;C	53-340

5.2 General OMRS Requirements Applicable to this TOP

OMRS NO.	NOMENCLATURE/ EFFECTIVITY	SEQ-STEP (CAP)
V62GEN.075	WASTE TANK VALVE CONFIGURATION L01 VAF;G	-
V70GEN.030	IDP POWER L01 VAF;G	-

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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.

Personnel Requirements	
BMT	NASA Biomed Technician
CBSE	NASA Biomed Engineer
OETO	ORB Elect Tech

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:_____

29-5 CBSE OETO

CSR-028

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: _____

29-6 CBSE OETO

CSR-028

Perform 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

CSR-028

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

CSR-028

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.
2. **Disconnect** Physiosimulator Interface Cable (SCA110007) P2 from Biomed Flight Cable (87V77W307) P11. 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 ***

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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

NOTE

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

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

AC1

CTR ENGINE

PH A CB - OPEN*	L4A04C08
PH B CB - OPEN*	L4A04C08
PH C CB - OPEN*	L4A04C08

AC2

CTR ENGINE

PH A CB - OPEN*	L4A04C08
PH B CB - OPEN*	L4A04C08
PH C CB - OPEN*	L4A04C08

AC3

RIGHT ENGINE

PH A CB - OPEN*	L4A04C09
PH B CB - OPEN*	L4A04C09
PH C CB - OPEN*	L4A04C09

ROW E

AC1

RIGHT ENGINE

PH A CB - OPEN*	L4A04C10
PH B CB - OPEN*	L4A04C10
PH C CB - OPEN*	L4A04C11

AC2

LEFT ENGINE

PH A CB - OPEN*	L4A04C11
PH B CB - OPEN*	L4A04C11
PH C CB - OPEN*	L4A0RC11

AC3

LEFT ENGINE

PH A CB - OPEN*	L4A04C11
PH B CB - OPEN*	L4A04C11
PH C CB - OPEN*	L4A04C11

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	L1A02S02
LOOP 1 TB _____	L1A02DS01
FLOW PROP VLV	
LOOP 2 SW - CENTER	L1A02S02
LOOP 2 TB _____	L1A02DS02
FREON PUMP	
LOOP 1 SW - B	L1A02S023
LOOP 2 SW - B	L1A02S024
RAD CONTROLLER	
OUT TEMP SW - NORM	L1A02S025
LOOP 1 SW - OFF	L1A02S026
LOOP 2 SW - OFF	L1A02S027
H2O ALTERNATE PRESS SW - CLOSE	L1A02S028
RAD BYPASS VALVE	
MAN SEL	
1 SW - (CENTER)	L1A02S029
2 SW - (CENTER)	L1A02S030
1 TB _____ (RAD OR BYP)	L1A02DS003
2 TB _____ (RAD OR BYP)	L1A02DS004
MODE	
1 SW - MAN	L1A02S035
2 SW - MAN	L1A02S036
NH3 CONTROLLER	
A SW - OFF	L1A02S04
B SW - OFF*	L1A02S04

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
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NOSE WHEEL STEERING SW - 1	L2A01S006
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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 F2A02S009
AUTO LITE OFF
MAN LITE OFF

SPD BK/THROT PB F2A02S008
AUTO LITE OFF
MAN LITE OFF

PITCH
CSS PB LITE OFF F2A02S00
AUTO PB LITE OFF F2A02S00

ROLL/YAW
CSS PB LITE OFF F2A02S00
AUTO PB LITE OFF F2A02S00

MASTER ALARM PB LITE OFF F2A02S00

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) *****

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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)

30-14 OTC ASP

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	

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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

F6A06S004

***** 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

FLT 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) *****

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Panel F9 (PLT)

30-17 OTC ASP

PANEL F9

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

F9A00S001
F9A00S002

***** 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	

NOTE
Obtain the power distribution payload switch positions and talkback indications from the VITT office.

30-19 OTC ASP

PANEL R1

POWER DISTRIBUTION

PAYLOAD

CABIN SW - _____ R1A01S025

PRI MN B SW - (CENTER) R1A01S026

PRI MN B TB _____

PRI FC 3 SW - (CENTER)

PRI FC 3 TB _____

PRI MN C SW - (CENTER)

PRI MN C TB _____

AUX SW - _____ R1A01S029

AFT MN B SW - _____ R1A01S030

AFT MN C SW - _____ R1A01S031

30-20 OTC ASP

PANEL R1

POWER DISTRIBUTION

INV POWER

1 SW - (CENTER)	R1A01S016
2 SW - (CENTER)	R1A01S017
3 SW - (CENTER)	R1A01S018

1 TB ON
2 TB ON
3 TB ON

INV/AC BUS

1 SW - (CENTER)	R1A01S019
2 SW - (CENTER)	R1A01S020
3 SW - (CENTER)	R1A01S021

1 TB ON
2 TB ON
3 TB ON

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

HE ISOLATION B

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

PNEUMATICS

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

PANEL R2 (Continued)

HE INTERCONNECT
LEFT SW - GPC R2A02S010
CTR SW - GPC R2A02S009
RIGHT SW - GPC R2A02S011

APU/HYD

READY TO START
1 TB BP
2 TB BP
3 TB BP

APU OPERATE

1 SW - OFF R2A02S016
2 SW - OFF R2A02S017
3 SW - OFF R2A02S018

APU SPEED SELECT

1 SW - NORM R2A02S019
2 SW - NORM R2A02S020
3 SW - NORM R2A02S021

HYD MAIN PUMP PRESS

1 SW - NORM R2A02S026
2 SW - NORM R2A02S027
3 SW - NORM R2A02S028

APU FUEL TK VLV ENABLE

1A CB - OPEN
1B CB - OPEN
2A CB - OPEN
2B CB - OPEN
3A CB - OPEN
3B CB - OPEN

HYD CIRC PUMPS

1 SW - GPC R2A02S029
2 SW - GPC R2A02S030
3 SW - GPC R2A02S031

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

<p>NOTE ET umb TB will indicate BP if AFT MCA logic not on.</p>
--

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 C3A05S013

MASTER MADS POWER SW - ON

CAUTION/WARNING

MEMORY SW - (CENTER) C3A05S006

MODE SW - NORM C3A05S007

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 C3A05S002

3 SW - SAFE C3A05S003

4 SW - SAFE C3A05S004

5 SW - SAFE C3A05S005

Not Performed: _____

NOTE
Perform next five switch settings for OV-104.

RTG PUMP SW - PRI C3A05S001

RTG SHORT

PRI

ENA/DSBL SW - DSBL C3A05S002

SHORT/OFF SW - OFF C3A05S003

SEC

ENA/DSBL SW - DSBL C3A05S004

SHORT/OFF SW - OFF C3A05S005

Not Performed: _____

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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)

30-32 OTC ASP

PANEL O2

CRYO

O2 HTR ASSY TEMP SW - TK1 1 O2A02S001

O2/H2 SW - TK 1 O2A02S002

FUEL CELL STACK TEMP SW - 1 O2A02S003

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

Panel O3 (PLT)

30-33 OTC ASP

PANEL O3

RCS/OMS PRESS SW - RCS HE X 10 O3A03S001

RCS/OMS PRPLT QTY SW - OMS FUEL O3A03S002

MISSION TIME SW - MET O3A03S003

***** 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 00500S012

1/2/3 SW - 1 00500S013

UNLABELED SWITCHES (OV-105)

LEFT SW - AS REQD 00500S012

RIGHT SW - AS REQD 00500S013

VOX SENS SW - AS IS

A/G

1 SW - T/R 00500S002

2 SW - T/R 00500S003

A/A SW - T/R

00500S001

ICOM

A SW - T/R 00500S004

B SW - T/R 00500S005

POWER SW - AUD/TONE

00500S006

CONTROL SW - NORM

00500S009

XMIT/ICOM MODE SW - PTT/VOX

VOLUME

A/G

1 PB - AS IS

2 PB - AS IS

A/A PB - AS IS

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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
ENCRYPT 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 06 (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
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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*

O7A07S010

B SW - GPC*

O7A07S011

A TB ___*

B TB ___*

TANK ISOLATION

1/2 SW - GPC

O7A07S016

1/2 TB ___*

3/4/5

A SW - GPC

O7A07S017

B SW - GPC

O7A07S018

A TB ___*

B TB ___*

PANEL 07 (Continued)

MANIFOLD ISOLATION

1 SW - GPC	O7A07S022
2 SW - GPC	O7A07S023
3 SW - GPC	O7A07S024
4 SW - GPC	O7A07S025
5 SW - GPC	O7A07S026
1 TB ___*	
2 TB ___*	
3 TB ___*	
4 TB ___*	
5 TB ___*	

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

1/2 SW - ___*	O7A07S032
3/4/5 SW - ___*	O7A07S033
1/2 TB ___*	
3/4/5 TB ___*	
MASTER RCS CROSSFEED SW - OFF	O7A07S036

AFT RIGHT RCS

HE PRESS

A SW - GPC*	O7A07S013
B SW - GPC*	O7A07S014
A TB ___*	
B TB ___*	

TANK ISOLATION

1/2 SW - GPC	O7A07S019
1/2 TB ___*	
3/4/5	
A SW - GPC	O7A07S020
B SW - GPC	O7A07S021
A TB ___*	
B TB ___*	

PANEL O7 (Continued)

MANIFOLD ISOLATION

1 SW - GPC	O7A07S027
2 SW - GPC	O7A07S028
3 SW - GPC	O7A07S029
4 SW - GPC	O7A07S030
5 SW - GPC	O7A07S031

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

RIGHT RCS CROSSFEED

1/2 SW - ___ *	O7A07S034
3/4/5 SW - ___ *	O7A07S035

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

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

Panel O8 (PLT)

30-37 OTC ASP

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

NOTE

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

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 O13A13C001

MN A CONTR CB - OPEN O13A13C002

AC 1 SNSR CB - CLOSE O13A13C003

MTU A CB - CLOSE O13A13C004

ROW B

ESS 1BC

CRYO CNTLR

O2 TK2 CB - OPEN* O13A13C007

H2 TK2 CB - OPEN* O13A13C008

CRYO QTY

O2 TK2 CB - OPEN* O13A13C020

H2 TK2 CB - OPEN* O13A13C021

ROW C

ESS 2CA

C/W B CB - CLOSE O13A13C009

MN B CONTR CB - OPEN O13A13C010

AC 2 SENSR CB - CLOSE O13A13C011

MTU B CB - CLOSE O13A13C012

ROW D

ESS 2CA

CRYO CNTLR

O2 TK1 CB - OPEN* O13A13C014

H2 TK1 CB - OPEN* O13A13C015

CRYO QTY

O2 TK1 CB - OPEN* O13A13C022

H2 TK1 CB - OPEN* O13A13C023

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PANEL O13 (Continued)

ROW E

ESS 3AB

MN C CONTR CB - OPEN

O13A13C016

AC 3 SNSR CB - CLOSE

O13A13C017

GPC STATUS CB - CLOSE

O13A13C018

*** 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 O14A14C006

SMOKE DETN

L/R FLT DK CB - CLOSE O14A14C007

BAY 2A/3B CB - CLOSE O14A14C008

FIRE SUPPR BAY 3 CB - CLOSE O14A14C00

UTILITY POWER O19/MO52JCB - CLOSE O14A14C010

FLOOD LEFT CNSL CB - CLOSE O14A14C011

ANNUN FWD ACA 1 CB - CLOSE O14A14C033

RAD ISOL CONTRL CB - CLOSE

ROW D

MN A

FREON

RAD CNTLR

1 CB - CLOSE O14A14C014

2 CB - CLOSE O14A14C015

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 O15A15S01

RGA

2 SW - ON O15A15S02

4 SW - ON O15A15S13

IMU 2 SW - ON O15A15S10

FC 2 CNTLR SW - OFF* O15A15S11

ROW B

MN B

OPERATIONAL INST

SIG CONDR

OM3 A CB - CLOSE

OF 1/4 B CB - CLOSE O15A15C02

OF 2/3 A CB - CLOSE O15A15C03

OM 1/2 B CB - CLOSE O15A15C04

MDM OF 1/2 B CB - CLOSE O15A15C05

H2O BYP LOOP 2 SNSR CB - CLOSE O15A15C035

TIRE PRESS CB - CLOSE

MN A CONTR CB - OPEN O15A15C03

MISSION TIMER AFT CB - CLOSE O15A15C12

EVENT TIMER FWD CB - CLOSE O15A15C13

PANEL 015 (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 O15A15C06

SMOKE DETN BAY 1B/3A CB - CLOSE O15A15C07

FIRE SUPPR BAY 1 CB - CLOSE O15A15C08

UTILITY POWER F1/MO13Q CB - OPEN

O15A15C09

FLOOD

RIGHT CNSL CB - CLOSE O15A15C10

LEFT CTR CB - CLOSE O15A15C11

ANNUNCIATOR

FWD

ACA 1 CB - CLOSE O15A15C32

ACA 2/3 CB - CLOSE O15A15C34

AFT

ACA 4/5 CB - CLOSE O15A15C33

ROW D

MN B

FREON

RAD CNTLR

1 CB - CLOSE O15A15C014

2 CB - CLOSE O15A15C015

NOSE WHEEL STEERING CB - CLOSE

PANEL O15 (Continued)

ATM PRESS CONTROL

PPO2C CABIN DP/DT CB - CLOSE	
N2 SUPPLY 2 CB - CLOSE	O15A15C017
O2/N2 CNTLR 2 CB - CLOSE	O15A15C018
O2 XOVR 2 CB - CLOSE	O15A15C019
N2 REG INLET 2 CB - CLOSE	O15A15C020
CABIN RELIEF A CB - CLOSE	O15A15C022

GPS 2

PREAMPL

LOWER CB - CLOSE (OV-104/105)

ROW E

MN B

RADAR ALTM 2 CB-CLOSE	O15A15C23
MLS 2 CB - CLOSE	O15A15C24
ADTA 2 CB - CLOSE	O15A15C25
STAR TRKR -Y CB - CLOSE	O15A15C26

ACCEL 2 CB - CLOSE	O15A15C27
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DDU

LEFT CB - CLOSE	O15A15C29
RIGHT CB - CLOSE	O15A15C30

TACAN 2 CB - CLOSE (OV-104 ONLY)

DRAG CHUTE SYS 2 CB - CLOSE

ROW F

MMU 2 SW - AS IS*	O15A15S1
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RJDA 1B

L1/L5/R1 MANF	
LOGIC SW - ON	O15A15S03

L1/R1 MANF

DRIVER SW - OFF	O15A15S04
(GUARDED AND LOCKED)	
(SW GUARD TO REMAIN INSTLD)	

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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
MN C

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	O16A16C015
ATM PRESS CONTR	
O2 EMER CB - OPEN	O16A16C016
CABIN RELIEF B CB - CLOSE	O16A16C017

ROW E

MN C

MLS 3 CB - CLOSE	O16A16C18
ADTA	
3 CB - CLOSE	O16A16C19
4 CB - CLOSE	O16A16C20
DDU	
RIGHT CB - CLOSE	O16A16C22
AFT CB - OPEN	O16A16C23

RCS/OMS PRPLT QTY GAUGE CB - CLOSE	O16A16C24
DRAG CHUTE SYS 1 CB - CLOSE	

ROW F

RJDA 2B

L3/R3/R5 MANF	
LOGIC SW - ON	O16A16S03
L3/R3 MANF	
DRIVER SW - OFF	O16A16S04
(GUARDED AND LOCKED)	
(SW GUARD TO REMAIN INSTLD)	

RJDF 2A

F3 MANF	
LOGIC SW - ON	O16A16S05
DRIVER SW - OFF	O16A16S06
(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) *****

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Panel O19 (CDR)

30-44 OTC ASP

PANEL O19

TV PWR SW - OFF	O19A19S01
DC UTILITY POWER MNA SW - OFF	O19A19S02
COAS PWR SW - OFF	O19A19S03

***** 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

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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

XXX

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

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)

PANEL R13U (Continued)

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)

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 - 4.10
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: _____

30-54 OTC ASP

IF for OV-105,

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 - 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)

PANEL R13U (CONTINUED)

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)

PANEL R13U (Continued)

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: _____

30-56 OTC ASP

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

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PANEL R13U (CONTINUED)

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: _____

30-57 OTC ASP

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)

PANEL R13U (Continued)

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) *****

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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

ENCRYPTOR 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 OTC ASP

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.

30-70

OTC ASP

PANEL R13L

PL BAY DOOR

SYS 1 SW - DISABLE

SYS 2 SW - DISABLE

PL BAY MECH PWR

SYS 1 SW - OFF

R13A2S001

SYS 2 SW - OFF

R13A2S002

PL BAY DOOR SW - STOP

R13A2S003

TB AS IS

RADIATOR

LATCH CONTROL

SYS A SW - OFF

R13A2S004

SYS B SW - OFF

R13A2S006

STBD TB LAT

PORT TB LAT

RADIATOR CONTROL

SYS A SW - OFF

R13A2S005

SYS B SW - OFF

R13A2S007

STBD TB STO

PORT TB STO

KU ANTENNA

DIRECT STOW SW - OFF

R13A2S012

DEPLOY/GND/STOW SW - GND

TB - STO

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

PANEL R13L (Continued)

MANNED MANEUVER 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)

30-72 OTC ASP

PANEL A1L

S-BAND PAYLOAD

CONTROL SW - COMMAND	A1A02S001
ANT POLAR SW - L CIRC	A1A02S002
XMTR PWR SW - LOW	A1A02S004

CHANNEL SELECT	A1A02S007
INTRG 1 PB'S - 910	
INTRG 2 PB'S - 910	

FREQ SWEEP SW - OFF	A1A02S008
MOD SW - OFF	A1A02S009

POWER	
SYSTEM SW - OFF	A1A02S013
SELECT SW - PSP	A1A02S014

PSP CMD OUTPUT SW - PL UMB

PL DATA INTLVR POWER SW - ON	A1A02S016
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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
CODING

XMIT SW - OFF	A1A02S021
RCV SW - ON	A1A02S022

POWER SW - 1	A1A02S023
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ENCRYPTION

PWR SW - ON	
MODE SW - SELECT	
SELECT SW - RCV	

Panel A1R (MS1)

<p>NOTE All unlabeled switches on Panel A1R "AS-REQUIRED."</p>

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 *****

30-79 OTC ASP

PANEL A6L

MADS

POWER MN B CB - CLOSE A6A2C01

RECORDER

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)

30-80

OTC ASP

PANEL A7U

MASTER ALARM LITE - OFF	A7A07S05
PAYLOAD BAY FLOOD	
AFT	
STBD SW - OFF	A7A07S001
PORT SW - OFF	A7A07S002
MID	
STBD SW - OFF	A7A07S003
PORT SW - OFF	A7A07S004
FWD	
STBD SW - OFF	A7A07S005
PORT SW - OFF	A7A07S006
DOCKING SW - OFF	A7A07S007
FWD BHD SW - OFF	A7A07S008
PORT RMS	
LIGHT SW - OFF	
CAMERA SW - ELBOW	
WIRELESS VIDEO	
HEATER SW - OFF	
POWER SW - OFF	
AFT RHC - AS IS	

30-81 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:_____

30-93 OTC ASP

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:_____

05-13-2011
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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	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
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:_____

30-103 OTC ASP

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

CNTRLR

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

CNTRLR

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

CNTRLR

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)

30-104 OTC ASP

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

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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

CNTRLR

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

CNTRL

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

CNTRLR

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: _____

30-112 OTC ASP

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 R15A15C02

ADC 1A/2A CB - CLOSE

MDU

MFD 2 CB - CLOSE

PLT 1 CB - CLOSE

MN B

AUDIO MID DECK SPKR CB - CLOSE R15A15C05

ADC 1B/2B CB - CLOSE

MDU

MFD 1 CB - CLOSE

CDR 2 CB - CLOSE

MN C

AUDIO

AUD CTR 2 CB - CLOSE R15A15C09

PS/AIRLOCK CB - CLOSE R15A15C10

MDU

CDR 1 CB - CLOSE

PLT 2 CB - CLOSE

AFD 1 CB - CLOSE

ROW B

MN A

UHF CB - CLOSE R15A15C13

GCILC CB - CLOSE R15A15C44

CONTROL BUS BC 1/2/3 - CLOSE R15A15C6

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
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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

ML86BC605

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

ESS 2CA
CRYO CNTL
O2 TK5 CB - OPEN*
H2 TK5 CB - OPEN*
CRYO QTY
O2 TK5 CB - OPEN*
H2 TK5 CB - OPEN*

ESS 3AB
CRYO CNTLR
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:_____

30-115 OTC ASP

PANEL ML85E (MUP)

AC

S1 SW - OFF	ML85ES00
CB1 - OPEN	ML85ECB0
DC 10 AMP MN B	
S2 SW - OFF	ML85ES00
CB2 - OPEN	ML85ECB0
S3 SW - OFF	ML85ES00
CB3 - OPEN	ML85ECB0
S4 SW - OFF	ML85ES00
CB4 - OPEN	ML85ECB0
S5 SW - OFF	ML85ES00
CB5 - OPEN	ML85ECB0

PUMPS

S6 SW - OFF	ML85ES00
PUMP 2 CB7 - OPEN	ML85ECB0
PUMP 1 CB6 - OPEN	ML85ECB0

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 INSTLD
A5J105 QD OUTLET - CAP INSTLD
AUX PORT QD OUTLET - CAP INSTLD
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) *****

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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
LEFT SEAT 3 PH CB - CLOSE
OPS INST HYD ACTR PH C
CB - CLOSE

MA73CC019

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
PH B CB - OPEN
PH C CB - OPEN
RIGHT SEAT 3 PH CB - CLOSE

MA73CC026

MA73CC027

MA73CC028

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

CNTRLR 1 OPER LTS (2) - OFF

CNTRLR 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)

NOTE

Velcro attached debris/ closeout netting may be repositioned to facilitate next step.

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 *****

01-17-07

P-1: PANEL F7		DATE/TIME	SEQ	STEP
O2 PRESS	H2 PRESS	FUEL CELL REACT	FUEL CELL STACK TEMP	FUEL CELL PUMP
CABIN ATM	O2 HEATER TEMP	MAIN BUS UNDERVOLT	AC VOLTAGE	AC OVERLOAD
FREON LOOP	AV BAY / CABIN AIR	IMU	FWD RCS	RCS JET
H2O LOOP	RGA / ACCEL	AIR DATA	LEFT RCS	RIGHT RCS
SPARE	LEFT RHC	RIGHT / AFT RHC	LEFT OMS	RIGHT OMS
PAYLOAD WARNING	GPC	FCS SATURATION	OMS KIT	OMS TVC
PAYLOAD CAUTION	PRIMARY C/W	FCS CHANNEL	MPS	SPARE
BACKUP C/W ALARM	APU TEMP	APU OVERSPEED	APU UNDERSPEED	HYD PRESS

NO LIGHTS ON F7

P-2		ENABLED					SEQ				STEP				
	0	1	2	3	4	5	6	7	8	9					
00	000	001	002	003	004	005	006	007	008	009					
01	010	011	012	013	014	015	016	017	018	019					
02	020	021	022	023	024	025	026	027	028	029					
03	030	031	032	033	034	035	036	037	038	039					
04	040	041	042	043	044	045	046	047	048	049					
05	050	051	052	053	054	055	056	057	058	059					
06	060	061	062	063	064	065	066	067	068	069					
07	070	071	072	073	074	075	076	077	078	079					
08	080	081	082	083	084	085	086	087	088	089					
09	090	091	092	093	094	095	096	097	098	099					
10	100	101	102	103	104	105	106	107	108	109					
11	110	111	112	113	114	115	116	117	118	119					

P-3		INHIBITED					SEQ				STEP				
	0	1	2	3	4	5	6	7	8	9					
00	000	001	002	003	004	005	006	007	008	009					
01	010	011	012	013	014	015	016	017	018	019					
02	020	021	022	023	024	025	026	027	028	029					
03	030	031	032	033	034	035	036	037	038	039					
04	040	041	042	043	044	045	046	047	048	049					
05	050	051	052	053	054	055	056	057	058	059					
06	060	061	062	063	064	065	066	067	068	069					
07	070	071	072	073	074	075	076	077	078	079					
08	080	081	082	083	084	085	086	087	088	089					
09	090	091	092	093	094	095	096	097	098	099					
10	100	101	102	103	104	105	106	107	108	109					
11	110	111	112	113	114	115	116	117	118	119					

P-4		TRIPPED					SEQ				STEP				
	0	1	2	3	4	5	6	7	8	9					
00	000	001	002	003	004	005	006	007	008	009					
01	010	011	012	013	014	015	016	017	018	019					
02	020	021	022	023	024	025	026	027	028	029					
03	030	031	032	033	034	035	036	037	038	039					
04	040	041	042	043	044	045	046	047	048	049					
05	050	051	052	053	054	055	056	057	058	059					
06	060	061	062	063	064	065	066	067	068	069					
07	070	071	072	073	074	075	076	077	078	079					
08	080	081	082	083	084	085	086	087	088	089					
09	090	091	092	093	094	095	096	097	098	099					
10	100	101	102	103	104	105	106	107	108	109					
11	110	111	112	113	114	115	116	117	118	119					

P-5		MEMORY TRIPPED					SEQ				STEP				
	0	1	2	3	4	5	6	7	8	9					
00	000	001	002	003	004	005	006	007	008	009					
01	010	011	012	013	014	015	016	017	018	019					
02	020	021	022	023	024	025	026	027	028	029					
03	030	031	032	033	034	035	036	037	038	039					
04	040	041	042	043	044	045	046	047	048	049					
05	050	051	052	053	054	055	056	057	058	059					
06	060	061	062	063	064	065	066	067	068	069					
07	070	071	072	073	074	075	076	077	078	079					
08	080	081	082	083	084	085	086	087	088	089					
09	090	091	092	093	094	095	096	097	098	099					
10	100	101	102	103	104	105	106	107	108	109					
11	110	111	112	113	114	115	116	117	118	119					

S0017_300-D-004

C/W Log Sheet
(For Reference Only)

*** End of Operation 30 ***

**05-13-2011
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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 O8
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 O14
ROW C
MN A
TACAN 1 CB - OPEN

Not Performed: _____

31-7 CNSE CDR

PANEL O14
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

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31-11 CNSE PLT

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

THEN

PANEL O16

ROW C

MN C

TACAN 3 CB - OPEN

Not Performed: _____

31-12 CNSE PLT

PANEL O16

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: _____

<p style="text-align: center;">NOTE</p>
--

<p style="text-align: center;">IDP RSYS is required for the GPS deactivation.</p>

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

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31-24 CNSE CDR

PANEL O14
ROW D
 MN A
 GPS
 PRE AMPL
 UC CB - OPEN
 LC CB - OPEN

31-25 CNSE CDR

PANL O16
ROW D
 MN C
 GPS
 PRE AMPL
 UC CB - OPEN
 LC CB - OPEN

***** End of OV-103 Pre-Amp Power Down*****

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

NOTE

Perform "3-String GPS Power Down" section if in support of OV-105.

3-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.

31-32

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 O14
 ROW D
 MN A
 GPS 1
 PRE AMPL
 UPPER CB - OPEN
 LOWER CB - OPEN

31-42 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

31-43 CNSE CDR

PANEL O16
 ROW D
 MN C
 GPS 3
 PRE AMPL
 UPPER CB - OPEN
 LOWER CB - OPEN

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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 R11AS004

SEC MAX) UNTIL TK A OUTLET R11A2DS002

TB CL, THEN RELEASE

Not Performed: _____

32-5 CFCP

CRT (VAG12 PG-B)

LV2
POP OFF

V62X0407E1

32-6 CFCP MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM

PANEL R11

SUPPLY H2O

DUMP ISOL VLV SW - CLOSE(15
SEC MAX) UNTIL DUMP ISOL VLV
TB CL, THEN REL

R11A2S006

R11A2DS00

Not Performed:_____

32-7 CFCP

CRT (VAG12 PG-B)

LV11
POP OFF

V62X0455E1

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 V62X0465E1

32-11 CFCP MS1

PANEL R11

SUPPLY H2O

DUMP VLV ENAB/NOZ HTR SW - R11A2S017

OFF

DUMP VLV TB BP R11A2DS005

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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: _____

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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,
(15 SEC MAX) UNTIL CROSSOVER
VLV TB CL, THEN REL

R11A2S005

R11A2DS003

Not Performed: _____

32-17

CFCP

CRT (VAG12 PG-B)

LV13

POP OFF

V6X1005E1

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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: _____

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32-21

CFCP

CRT (VAG12 PG-B)

LV5
POP ON

V62X0572E1

32-22

CFCP MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,

THEN PERFORM

PANEL R11
SUPPLY H2O

TK C OUTLET SW - OPEN, (15
SEC MAX) UNTIL TK C OUTLET
TB OP THEN RELEASE

R11A2S015
R11A2DS010

Not Performed: _____

32-23

CFCP

CRT (VAG12 PG-B)

LV6
POP ON

V62X0568E1

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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

POP ON	V62X0566E1
--------	------------

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

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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

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32-37 CFCP MS1

IF VLV POSITION INDICATOR IS NOT AS SHOWN,
THEN PERFORM

PANEL ML31C

SUPPLY H2O

TK D OUTLET SW - OPEN (15
SEC MAX) UNTIL TK D OUTLET
TB OP, THEN REL

ML31CS007
ML31CDS006

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 ML86BC01

GALLEY OVEN CB - OPEN ML86BC024

MN B

WCS CNTLR CB - OPEN ML86BC022

GALLEY H2O HTR CB - OPEN ML86BC024

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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

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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

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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 *****

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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**

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: _____

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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

NOTE

Perform the following five steps if SSME controllers are powered up to support TCDT.

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

34-19 CSME QPDS

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 ***

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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

36-7

CGNC

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

Not Performed: _____

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/SWB02 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

36-17 CGNC OTC
 OTC CDPS

DEU 2 has been returned to C12.

36-18 CGNC

APPL PG (VABM1/VWB19 PG-B)
PFK 15 KEY - PRESS (TERM VABM1)

***** End of IMU Standby Operations *****

SRB TVC LCC Monitor De-Activation

36-19 COFC

APPL PAGE A (SAB20/SWB02)
PFK-13 KEY - PRESS (ACT EMON SETUP)

36-20 COFC

CURSOR CNTL (SAB20/SWB02)
I-SRB TVC
XMIT CURSOR KEY - PRESS

36-21 COFC

APPL PG-A (SAB20/SWB02)
PFK-13 KEY - PRESS (DE-ACT EMON SETUP)

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/SWB02 - 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 132
CGNC

GNC securing complete.

*** End of Operation 36 ***

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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 V63S1880E1
RH NOZ HTR
A-SON OFF V63S1885E1

TOPPING DUCT HTR
A SON OFF V63S2601E1

HI LD DUCT HTR
A SON OFF V63S2501E1

37-5

CECL CDR

PANEL L2
FLASH EVAP
FEEDLINE HTR
A SUPPLY SW - 2 L2A01S023
B SUPPLY SW - 2 L2A01S024

37-6

CECL

CRT (VAG28 PG-B)
FDLN HTR A SPLY
HA-2 SON ON V63S1861E1
FDLN HTR B SPLY
HB-2 SON ON V63S1866E1

37-7

CECL CDR

PANEL L1
FLASH EVAP CONTROLLER
SEC
A SPLY/B SPLY SW - A SPLY L1A02S045
HI LOAD EVAP SW - ENABLE L1A02S034

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	O14A14C018
O2/N2 CNTLR 1 CB - CLOSE	O14A14C019
O2 XOVR 1 CB - CLOSE	O14A14C020
N2 REG INLET 1 CB - CLOSE	O14A14C021

37-11

CECL PLT

PANEL O15

ROW D

MN B

ATM PRESS CONTROL

N2 SUPPLY 2 CB - CLOSE	O15A15C017
O2/N2 CNTLR 2 CB - CLOSE	O15A15C018
O2 XOVR 2 CB - CLOSE	O15A15C019
N2 REG INLET 2 CB - CLOSE	O15A15C020

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		
	N ₂ 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

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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

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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

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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 O14

ROW B

MN A

OPERATIONAL INST

H2O BYP LOOP 1 SNSR CB - CLOSE O14A14C035

ROW C

MN A

SMOKE DETN

L/R FLT DK CB - CLOSE O14A14C007

BAY 2A/3B CB - CLOSE O14A14C008

FIRE SUPPR BAY 3 CB - CLOSE O14A14C009

ROW D

MN A

FREON

RAD CNTLR

1 CB - CLOSE O14A14C014

2 CB - CLOSE O14A14C015

ATM PRESS CONTROL

CABIN VENT CB - CLOSE O14A14C022

CABIN VENT ISOL CB - CLOSE O14A14C03

37-64 CECL PLT

PANEL O15

ROW B

MN B

OPERATIONAL INST

H2O BYP LOOP 2 SNSR CB - CLOSE O15A15C035

ROW C

MN B

SMOKE DETN BAY 1B/3A CB - O15A15C007
CLOSE

FIRE SUPPR BAY 1 CB - CLOSE O15A15CC08

ROW D

MN B

FREON

RAD CNTLR

1 CB - CLOSE O15A150014

2 CB - CLOSE O15A150015

NOTE

During following step, master alarm and klaxon may occur due to cabin DP/DT.
Reset master alarm.

37-65 CECL PLT

PANEL O15

ROW D

ATM PRESS CONTROL

CABIN DP/DT CB - CLOSE O15A15C016

CABIN RELIEF A CB - CLOSE O15A15C022

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37-66 CECL PLT

PANEL 016

ROW C

MN C

SMOKE DETN

CABIN CB - CLOSE O16A16C006

BAY 1A/2B CB - CLOSE O16A16C007

FIRE SUPPR BAY 2 CB - CLOSE O16A16C008

ROW D

MN C

H2O ALT PRESS CB - CLOSE O16A16C015

ATM PRESS CONTR

O2 EMER CB - OPEN O16A16CB16

CABIN RELIEF B CB - CLOSE O16A16C01

37-67 CECL PLT

PANEL 017

ROW C

SIGNAL CONDITIONER

FREON

A SW - AC2 O17A17S010

B SW - AC3 O17A17S011

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: _____

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 V63X1222E1
PBYP - OFF V53X1223E1
FREON LOOP 2
BYP VLV
PRAD - ON V63X1422E1
PBYP - OFF V63X1423E1

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 V63T1208A1
40 MINIMUM
FREON LOOP 2
RAD OUT TEMP (T6) _____ DEG F V63T1408A1
40 MINIMUM

37-77

CECL

CRT (VAG59 PG-B)
FREON LOOP 1
INTERCHANGER FLOW _____ 1950 LB/HR MIN V63R1100A1
FREON LOOP 2
INTERCHANGER FLOW _____ 1950 LB/HR MIN V63R1300A1

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

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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 - PAYLOAD HX, 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

37-89

CECL

CRT (VAG10 PG-B)
VLV 14
SOPF

V61S2308E1

37-90

CECL CDR

PANEL L2

CABIN RELIEF
A SW - ENABLE, HOLD
A TB ENA
A SW - REL

L2A01S001
L2A01DS001

37-91

CECL

CRT (VAG10 PG-B)
CAB + RV
A PEN ON
A PCL OFF

V61X2131E1
V61X213031

37-92

CECL CDR

PANEL L2

CABIN RELIEF
B SW - ENABLE, HOLD
B TB ENA
B SW - REL

L2A01S002
L2A01DS002

37-93

CECL

CRT (VAG10 PG-B)
CAB + RV
B PEN ON
B PCL OFF

V61X2136E1
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

POP - 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

POP - 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 MANEUV UNIT

PORT HTR A CB - OPEN

STBD HTR A CB - OPEN

MN B

MAN MANEUV UNIT

PORT HTR B CB - OPEN

STBD HTR B CB - OPEN

37-104 CECL MS1

PANEL R13L

MANNED MANEUV 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 MANEUV UNIT

GN2 SPLY ISO VLV A CB - OPEN

MN B

MAN MANEUV 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

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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

37-152 CECL CISL 145

Report to ISL any C&W parameter 115 inhibited and 105 enabled.

37-153 CECL

CURSOR CNTL VAG60
AUTO
XMIT CURSOR KEY - PRESS

VERIFY VAG60 IN AUTO MODE

37-154 CECL CDR

PANEL L1
HUMIDITY SEP B SW - OFF

37-155 CECL

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.

37-156 CFCP CECL

Verify Humidity Separator Power Down/Securing complete. Waste tank drain valve will be closed.

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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 ***

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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

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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 *****

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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.

39-1 TBC CPWR 136

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.

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39-4

CPWR

APPL PAGE (BDE06)
PFK15 KEY - PRESS

CRT
VERIFY
BWE06 TERMINATES
SYSTEM MENU IS RE-DISPLAYED

*** End of Operation 39 ***

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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
9. Flight Inst. Configuration for Launch
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

<p style="text-align: center;">NOTE</p>
--

<p style="text-align: center;">OIS or OIA FEP will drop out momentarily in next step.</p>

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

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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

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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 O14

ROW F

MMU 1 SW - _____

40-23 CDPS CDR

PANEL O15

ROW F

MMU 2 SW - _____

40-24 CDPS CDR

PANEL O6

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 O6

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
MISCOMPARES.

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

<p>NOTE BFS will remain active through T-0. Periodic Area 2 Format 12 downlist frame count errors and FDA messages are expected.</p>

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 MISCOMPARES?
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)
```

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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 mismatches. 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 *****

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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

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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 fnt _____ input _____

Decom 2 fnt _____ input _____

Decom 3 fnt _____ input _____

Decom 4 fnt _____ 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

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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.

***** End of 9. Flight Inst Configuration for Launch *****

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:

MDU	View	Mode	Port	FC	Display	Edge Key Menu
CRT1	STD	Man	PRI		DPS	DPS
CRT2	STD	Man	PRI		DPS	DPS
CRT3	STD	Man	PRI		DPS	DPS
CRT4	Neg	Man	PRI		DPS	DPS
CDR1	STD	Auto	PRI			
CDR2	STD	Auto	PRI			
MFD1	STD	Auto	PRI			
MFD2	STD	Auto	PRI			
PLT1	STD	Auto	PRI			
PLT2	STD	Auto	PRI			
AFD1	Neg	Auto	PRI	1	Orbit PFD	Flt Inst

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 MSGS 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 RECORDED
"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 *****

**05-13-2011
APPROVED**

**OMI S0017.300 A28
APPROVED**

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:_____

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

40-196 CDPS CDR

PANEL R11U

CRT 4 MDU

PRESS CLEAR MSGS EDGE KEY (AS REQUIRED)

PRESS UP ARROW EDGE KEY TO MAIN MENU

PRESS DPS EDGE KEY

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.

40-197 CDPS CDR

ESTABLISH FOLLOWING MDU CONFIGURATION:

MDU	Display	Edge Key Menu
CRT1	DPS	DPS
CRT2	DPS	DPS
CRT3	DPS	DPS
CRT4	DPS	DPS
CDR1		
CDR2		
MFD1		
MFD2		
PLT1		
PLT2		

40-198 CDPS CDR

MEDS displays and edge key menus are configured for Flight Crew ingress. Request no further autonomous edge key operations.

40-199 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.

40-200 CDPS

CONSOLE KYBD

A SX V72M5670PX

XMIT CMD KEY - PRESS

REPEAT FOR THE FOLLOWING:

V72M5740PX

V72M5830PX

V98M4862P1

***** End of MEDS Display Verification *****

40-201 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 *****

40-210

CDPS

CURSOR CNTL (VAS58 PG-B)
SELECT ANOTHER OPTION
XMIT CURSOR KEY - PRESS

40-211

CDPS

CURSOR CNTL (VAS58 PG-B)
DETERMINE MET/GMT DELTA
XMIT CURSOR KEY - PRESS

CRT (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: _____

40-212

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)
PFK 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)
PFK 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

PPF (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*****

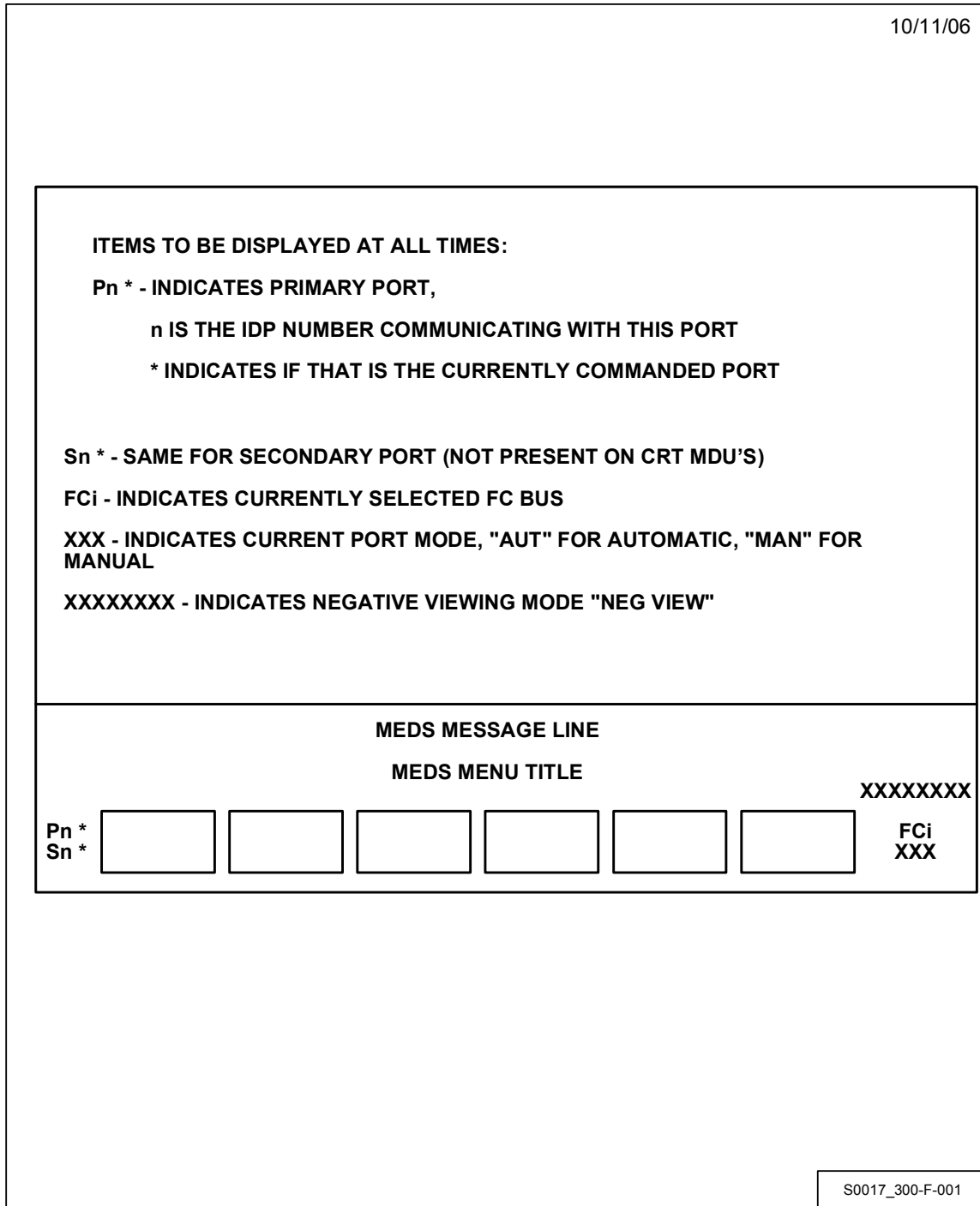


Figure 40-1 - Generic MDU Screen
(For Reference Only)

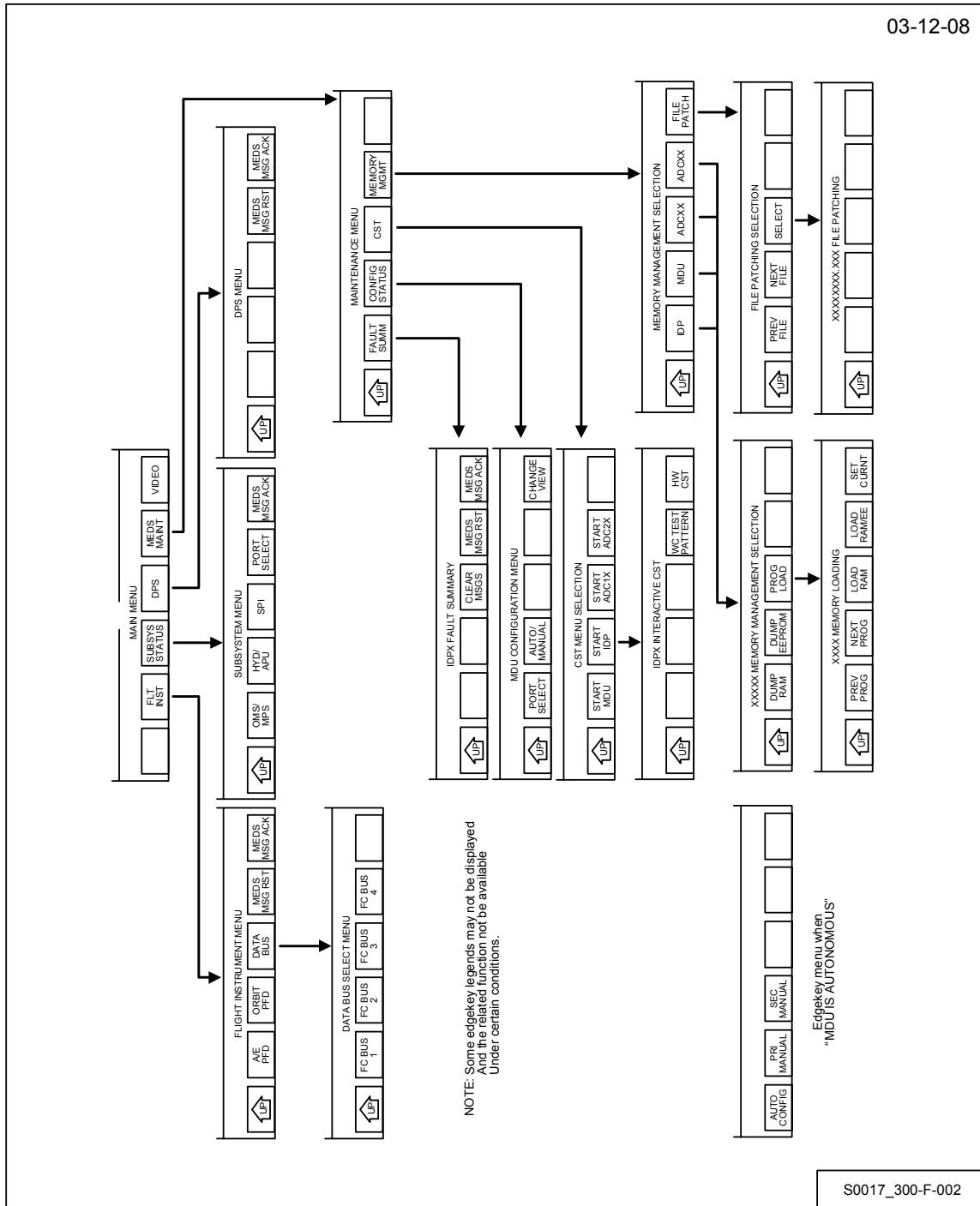


Figure 40-2 - MDU Edge Key Menu Tree (IDP 07.00)
(For Reference Only)

**05-13-2011
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***** End of Operation 40 *****

05-13-2011
APPROVED

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APPROVED

**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**

41-1 OTC CEPD 132
 CDR

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 OS
PH C CB - CLOSE

ROW R
AC1
NUMERIC FWD
PH B CB - CLOSE

41-5 CEPD PLT

PANEL O8
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 O3

MISSION TIME SW - GMT

MISSION TIME

NUMERICS ILLUMINATED AND TIME ADVANCING

FAULT LITE OFF

41-16 **CEPD PLT**

PANEL O3

MISSION TIME SW - TEST, HOLD

MISSION TIME

DISPLAYS ALL 8'S

FAULT LITE ON

41-17 **CEPD PLT**

PANEL O3

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 O16

ROW C

MN C

FLOOD RIGHT CTR CB - CLOSE

ROW E

MN C

DRAG CHUTE SYS 1 CB - CLOSE

41-27 CEPD PLT

PANEL O8

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 **CEPD 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 **CEPD 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 O14

ROW C

MN A

UTILITY POWER O19/MO52J CB - CLOSE

PANEL O15

ROW C

MN B

UTILITY POWER F1/MO13Q CB - _____

PANEL O16

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** ***

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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.

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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 ***

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OPERATION 43 Reserved

Shop: NA

Cntrl Rm Console: NA

OPR: NA

Zone: NA

Hazard (Y/N): N

Duration (Hrs): **0**

***** End of Operation 43 *****

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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.

WPYR003 10-11-2005

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

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

Drag chute	SYS-1	SYS-2
Dply	N	N
Jett	N	N

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 *****

**05-13-2011
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**OMI S0017.300 A28
APPROVED**

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 ***

05-13-2011
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OMI S0017.300 A28
APPROVED

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 concurrencies 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

PSEUDO	STATE	DESCRIPTION
N03IS500E	ON	LO ₂ DRAINBACK COMPLETE
N03IS006E	ON	LH ₂ REPL TERM IN PROG
N03IS009E	ON	ET LO ₂ PRESS
N03IS010E	ON	LO ₂ REPL TERM IN PROG
N03IS007E	ON	LH ₂ FLIGHT MASS
N03IS008E	ON	LO ₂ FLIGHT MASS
N03IS082E	OFF	LH ₂ PREPRESS CYCLE FAIL
NLHK0109X	ON	LH ₂ DRAINBACK COMPLETE

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 NGPS3STRNG
XMIT CMD KEY - PRESS

CRT
VERIFY ON

Not Performed: _____

46-21

CGLS

IF VEHICLE IS NOT OV-105,

THEN

PVO NGPS3STRNG
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 NGPS3STRNG _____ (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

SYSTEM	BYPASS	SYSTEM	BYPASS
APU		HYD	
ARMS		HYFUEL	
BELE		HYOXID	
BHYD		INST	
BINST		INTG	
BRS		LH ₂	
BPYRO		LO ₂	
PL Intg		MECH	
COMM		MPS	
DPS		Navaid	
ECLSS		FCL	
ECS		PVD	
EPDC		SSME	
FCP		TINST	
GNS		Water	
GOX			

46-28 CGLS

HARD COPY KEY - PRESS

46-29 CGLS

CURSOR CNTL
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. In event this happens verify data lost, and if so re-enter it.

46-30 CGLS

SELECT APPL PG 2B

46-31 CGLS

PFP
SLP02 - PRESS

CRT
VERIFY INTG MENU

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: _____

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: _____

<p>NOTE Perform next step only after all required entries have been completed.</p>

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

46-48 CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
_____ (NEW HIGH LIMIT)
XMIT RESP KEY - PRESS

46-49 CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
_____ (NEW LOW LIMIT)
XMIT RESP KEY - PRESS

NOTE

Perform next step only after all required entries have been completed.

46-50 CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
-9999
XMIT RESP KEY - PRESS

***** End of Pre-sequence Analog Measurements *****

46-51 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

PF1
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

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46-69

CGLS

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 FD 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 RESONSE 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

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46-87

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

<p>NOTE Do not perform following for BFS measurements.</p>

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

PFFPK1 (TERM VFY'S) - PRESS

Not Performed:_____

46-104

CGLS

PFFPK2 (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:_____

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

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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 ***

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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 _____

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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 _____.

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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 *****

05-13-2011
APPROVED

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APPROVED

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

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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 O13

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 O14
ROW B
 MN A
 MNC CONTR CB - OPEN

49-10 **CEPD** **PLT**

PANEL O15

ROW B
 MN B
 MNA CONTR CB - OPEN

ROW E
 MN B
 DRAG CHUTE SYS 2 CB - OPEN

49-11 **CEPD** **PLT**

PANEL O16

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 O14

ROW B
 MN A
 MISSION TIMER FWD CB - OPEN

49-13 **CEPD PLT**

PANEL O15

ROW B
 MN B
 MISSION TIMER AFT CB - OPEN

49-14 **CEPD PLT**

PANEL O15

ROW B
 MN B
 EVENT TIMER FWD CB - OPEN

49-15 **CEPD CDR**

PANEL O14

ROW B
 MN A
 EVENT TIMER AFT CB - OPEN

*** End of Operation 49 ***

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APPROVED**

**OMI S0017.300 A28
APPROVED**

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**

51-1 OTC CECL
 CMPS
 CMPL
 COOS

PERFORM EMON ACTIVATION OF YOUR SYSTEM'S CAUTION
AND WARNING PARAMETERS. REPORT COMPLETION.

ECLSS EMON for C&W

51-2 CECL

APPL 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

APPL 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

51-9 CMPS OTC

MPS CAUTION AND WARNING EMON ACTIVATION COMPLETE.

OMS/RCS EMON Activation for C&W

51-10 COOS

(SIM) CONSOLE KYBD

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 ***

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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

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APPROVED

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

BITE

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 O6

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 O6

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:

Test Description	Indication
MEM - IMAGE EPROM CHECK-SUM	GOOD
MEM - EDAC LOGIC	GOOD
MEM - BLOCK TRANSFER D64BLT	GOOD
MEM - REMAP CIRCUIT	GOOD
MEM - REGISTERS	GOOD
SPARE	GOOD
SBC - EPROM CHECK-SUM	GOOD
SBC - ECC LOGIC-LONG (1 KBYTES)	GOOD
SBC - SYSTEM DRAM MEMORY DATA/ADDRESS	GOOD
SBC - USER TIMERS AND COMBINED TIMERS	GOOD
SBC - TUNDRA VME INTERFACES	GOOD
SSR I/O - INTERRUPT	GOOD
SSR I/O - SRAM_D64BLT AND I/O_D64BLT	GOOD
SSR I/O - VME_INTERFACE REGISTERS	GOOD
SSR I/O - ADDRESS REGISTERS	GOOD
SSR I/O - MDM COMMAND, CMD FIFO & OUTPUT	GOOD
SSR I/O - B CHANNEL LOOP AND AB_SRAM	GOOD
SSR I/O - A2 CHANNEL LOOP AND AB_SRAM	GOOD
SSR I/O - A1 CHANNEL LOOP AND AB_SRAM	GOOD
SSR I/O - E3 CHANNEL LOOP AND E3_SRAM	GOOD
SSR I/O - E2 CHANNEL LOOP AND E2_SRAM	GOOD
SSR I/O - E1 CHANNEL LOOP AND E1_SRAM	GOOD

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
NCBF - GOOD
SLOT CNT - 0
CMD REJ - GOOD
AUTOSTOP - INHIBIT
PAR PROT - UNPROT
POSITION - 162

52-26

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.

52-27

CISL

CRT (VWQ30 SSR COMMAND SELECT)

VERIFY

SSR 2

MODE - SLF TEST

52-28

CISL

Verify the following SSR 2 messages on VWQ30 Page-A:

Test Description	Indication
MEM - IMAGE EPROM CHECK-SUM	GOOD
MEM - EDAC LOGIC	GOOD
MEM - BLOCK TRANSFER D64BLT	GOOD
MEM - REMAP CIRCUIT	GOOD
MEM - REGISTERS	GOOD
SPARE	GOOD
SBC - EPROM CHECK-SUM	GOOD
SBC - ECC LOGIC-LONG (1 KBYTES)	GOOD
SBC - SYSTEM DRAM MEMORY DATA/ADDRESS	GOOD
SBC - USER TIMERS AND COMBINED TIMERS	GOOD
SBC - TUNDRA VME INTERFACES	GOOD
SSR I/O - INTERRUPT	GOOD
SSR I/O - SRAM_D64BLT AND I/O_D64BLT	GOOD
SSR I/O - VME_INTERFACE REGISTERS	GOOD
SSR I/O - ADDRESS REGISTERS	GOOD
SSR I/O - MDM COMMAND, CMD FIFO & OUTPUT	GOOD
SSR I/O - B CHANNEL LOOP AND AB_SRAM	GOOD
SSR I/O - A2 CHANNEL LOOP AND AB_SRAM	GOOD
SSR I/O - A1 CHANNEL LOOP AND AB_SRAM	GOOD
SSR I/O - E3 CHANNEL LOOP AND E3_SRAM	GOOD
SSR I/O - E2 CHANNEL LOOP AND E2_SRAM	GOOD
SSR I/O - E1 CHANNEL LOOP AND E1_SRAM	GOOD

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

52-31 CISL CDR 145

PANEL A6L

MADS

POWER MN B CB - CLOSE
RECORDER POWER SW - OFF
RECORDER PB FWD SW - CMD
STRAIN GAGE SW - PCM ENA
WIDEBAND/ACIP PCM SW - CMD

PCM

CMD/ON SW - CMD
RCD MODE SW - SAMPLE

FDM

CONTROL SW - DATA
MAN CALBR SW - 0

ACIP HTR SW - OFF

52-32 CISL CDR 145

PANEL C3

MADS MASTER POWER SW - ON

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: _____

52-39

CISL

(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 COVERTED TO BINARY
= XXXX XXX1 XXXX XXXX (X = DON'T CARE)

Not Performed: _____

52-40

CISL

(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

52-43

CISL

IF VSQ11 (INTEGRATED CHECKOUT) DISPLAYS
THE FOLLOWING MESSAGE:

Verify

"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

52-44

CISL

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.

52-49

*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)

52-50

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

RECORDER

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

NCBF - 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)

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52-61

CISL

(SIM) CRT (SAQ04/VWQ14)

VERIFY

RECORDER

MOTION - OFF

***** End of MADS Deactivation *****

52-62

CISL

(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 - RCDF

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

RECORDER

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 *****

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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.

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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.

53-9

CNSE

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:

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: _____

53-10 CNSE CDR

PANEL O14
 ROW D
 MN A
 GPS
 PRE AMPL
 UC CB - OPEN
 LC CB - OPEN

53-11 CNSE CDR 173

PANEL O16
 ROW D
 MN C
 GPS
 PREAMPL
 UC CB - CLOSE
 LC CB - CLOSE

53-12 CNSE

CONSOLE KYBD (VSN59 PG-B)
PFK1 - PRESS (CB NOW CLOSED - CONTINUE)

53-13 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: _____

53-14 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)

53-18

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.

53-19

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 NAV AIDS 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)

PFK7 - 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)

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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

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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

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 O14
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 O15
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 O7
TACAN 1
ANT SEL SW - AUTO
CHANNEL TW'S - 59Y
MODE SW - T/R

53-56 CNSE PLT 173

PANEL O7
TACAN 2
ANT SEL SW - AUTO
CHANNEL TW'S - 59Y
MODE SW - T/R

53-57 CNSE PLT 173

PANEL O7
TACAN 3
ANT SEL SW - AUTO
CHANNEL TW'S - 59Y
MODE SW - T/R

53-58 CNSE PLT 173

PANEL O7
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 O8
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

PANEL O8
MLS
1 CHANNEL TW - 6
2 CHANNEL TW - 6
3 CHANNEL TW - 6

53-65 CNSE PLT 173

PANEL O8
MLS
1 SW - ON
2 SW - ON
3 SW - ON

GMT _____

53-66 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

05-13-2011
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OMI S0017.300 A28
APPROVED

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

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

53-89

CNSE

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: _____

53-90

CNSE

CURSOR CNTL (VAN12 PG-B)

ITEM 15 (TERMINATE)

XMIT CURSOR KEY - PRESS

ITEM 16 (INHIBIT)

XMIT CURSOR KEY - PRESS

53-91

CNSE

CRT (VWN99)

RADAR ALTIMETER

1 S/T CMD OFF
2 S/T CMD OFF

53-92

CNSE

CURSOR CNTL (VAN12 PG-B)
EQUIVALENT DEU
XMIT CURSOR KEY - PRESS

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.

53-93

CNSE

CURSOR CNTL (VAN12 PG-B)
ITEM 4 (ENABLES TACAN 1)
XMIT CURSOR KEY - PRESS

ITEM 5 (ENABLES TACAN 2)
XMIT CURSOR KEY - PRESS

ITEM 6 (ENABLES TACAN 3)
XMIT CURSOR KEY - PRESS

ITEM 13 (INITIATES SELF TEST)
XMIT CURSOR KEY - PRESS

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

NOTE

Perform this option if CRT is not required for GPS de-activation.

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

53-99 CNSE OTC 132
 OTC CDPS

Responsible console for CRT _____ returned to DPS.

***** End of CRT Return to DPS *****

***** End of NAVAIDS Self Test *****

53-100 CNSE

CRT (VWN99)
RADAR ALTIMETER
 1
 ALT DATA FT _____ (BD)

 2
 ALT DATA FT _____ (BD)

53-101 CNSE PLT 173

PANEL O8
RADAR ALTIMETER
 1 SW - OFF
 2 SW - OFF

MLS
 1 SW - OFF
 2 SW - OFF
 3 SW - OFF

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

53-109 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 O7
TACAN 1
 MODE SW - T/R
TACAN 2
 MODE SW - T/R
TACAN 3
 MODE SW - T/R

GMT _____

53-112

CNSE

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:

	<u>Pad A</u>	<u>Pad B</u>
Range (nm)	4.96	3.96
Bearing (deg)	282.39	269.08

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:

	Pad A	Pad B
Range (NM)	4.96	3.96
Bearing (DEG)	282.39	269.08

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 O7
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

53-126 CNSE MS1 173

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*****

53-127 CNSE

PFK15 - PRESS

PFP
VAA40 - PRESS
SET TERM - PRESS
EXEC TERM - PRESS
KEY 7 - PRESS

CRT (VSN59 PG-B)
TERMINATE - PRESS

53-128 CNSE OTC 132

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.

53-135

CNSE

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.

53-136

CNSE

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 O14
ROW D
MN A
GPS 1
PRE AMPL
UPPER CB - CLOSED
LOWER CB - CLOSED

53-138 CNSE CDR

PANEL O15
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 O16
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 O7
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 O7
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

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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.

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

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 Safety Clears 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)

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

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

53-164

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 53-158.

Not Performed: _____

*** End of Continue Almanac Download ***

53-165

CNSE

CURSOR CNTL (VSN59 PG-B)
NAV - ALL
XMIT CURSOR KEY - PRESS
START TEST
XMIT CURSOR KEY - PRESS

53-166

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 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 O7
GPS 1
POWER SW - OFF

53-171 CNSE CDR

PANEL O7
GPS 2
POWER SW - OFF

53-172 CNSE CDR

PANEL O7
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 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

05-13-2011
APPROVED

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APPROVED

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

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

53-181

CNSE

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 O8
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

GMT _____

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

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

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: (+/-) 3.0 +/- 0.1 deg

Elevation: 6.0 +/- 0.1 deg

Range: 15.2 +/- 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

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

53-210

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

53-214

CNSE

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

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Not Performed: _____

53-215

CNSE

CURSOR CNTL (VAN12 PG-B)

ITEM 15 (TERMINATE)

XMIT CURSOR KEY - PRESS

ITEM 16 (INHIBIT)

XMIT CURSOR KEY - PRESS

53-216

CNSE

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 O8
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

53-225 CNSE MS1 173

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: _____

53-226 CNSE

PFK15 - PRESS

PFP
VAA40 - PRESS
SET TERM - PRESS
EXEC TERM - PRESS
KEY 7 - PRESS

*****End of Ku-Band Position Verification*****

53-227 CNSE OTC 132

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.

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APPROVED

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.

53-236

CNSE

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:

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: _____

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 "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.

53-249

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

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))

***** End of GPS Activation *****

53-253

CNSE

CURSOR CNTL (VSN59 PG-B)

PFK7 - PRESS (TERMINATE NAV MONITOR)

53-254

CNSE CDR

PANEL A13

GPS

ENCRYPT 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

CRT (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

CSR-028

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

CSR-028

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: _____

53-261 JYVJ CNSE

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)

53-262 CNSE CDR
JYVJ

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:_____

53-263 CNSE

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

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

53-275

CNSE

CRT (VSN59 PG-B)
PFK 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 N72IV10YD 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.

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

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

CNSE

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.

53-291

CNSE

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.

53-292 CNSE CDR

PANEL O14
 ROW D
 MN A
 GPS 1
 PRE AMPL
 UPPER CB - CLOSED
 LOWER CB - CLOSED

53-293 CNSE CDR

PANEL O15
 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 O16
 ROW D
 MN C
 GPS 3
 PRE AMPL
 UPPER CB - CLOSED
 LOWER CB - CLOSED

53-295

CNSE

CRT/CONSOLE KYBD (VSN59 PG-B)
PFK 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)
PFK 1B KEY - PRESS (SWITCH SETTINGS COMPLETE -
CONTINUE)

53-298

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.

53-299 CNSE CDR

PANEL O7
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 O7
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

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APPROVED

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

NOTE

The steps contained within the floating header, 3-String GPS Encryption Key Load, satisfy the noted requirements.

OMRS V74PP0.120-A-1R

OMRS V74PP0.120-B-1R

OMRS V74PP0.120-C-1R

53-310

CNSE

CDR

PANEL O7

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

53-317 JYVJ CNSE

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)

53-318 CNSE CDR
JYVJ

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: _____

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

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 O7
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

53-324 CNSE JYVJ

CSR-028

LOAD GPS 2 ENCRYPTION KEY USING THE FOLLOWING INTERFACES.

PANEL MA75J (AV BAY 3B)
GPS ENCRYPT PANEL
"ENCRP 2" PORT

53-325 JYVJ CNSE

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)

53-326 CNSE CDR
JYVJ

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: _____

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

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

53-332 CNSE JYVJ

CSR-028

LOAD GPS 3 ENCRYPTION KEY USING THE FOLLOWING
INTERFACES.

PANEL MA75J (AV BAY 3B)
GPS ENCRYPT PANEL
"ENCRP 3" PORT

53-333 JYVJ CNSE

Avionics Bay 3B - Panel MA75J (GPS Encryption Panel)

"GPS 3 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)

53-334 CNSE CDR
JYVJ

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:_____

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

53-335

CNSE

CURSOR CNTL (VWN61 PG-B)

VERIFY

PPS KEYS

GUV USER - ON

RCVR KEY - ON

53-336

CNSE

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 O7
GPS 1
POWER SW - OFF

53-345 CNSE CDR

PANEL 07
GPS 2
POWER SW - OFF

53-346 CNSE CDR

PANEL 07
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 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

53-349 CNSE

CURSOR CNTL (VSN59)
PFK 1B KEY - PRESS (PREAMP POWER SWITCH IS NOW OFF
- CONTINUE)

53-350

CNSE

CURSOR CNTL (VSN59)
PFK 1B KEY - PRESS (OPEN CBs)

53-351

CNSE CDR

PANEL O14
ROW D
MN A
GPS 1
PRE AMPL
UPPER CB - OPEN
LOWER CB - OPEN

53-352

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

53-353

CNSE CDR

PANEL O16
ROW D
MN C
GPS 3
PRE AMPL
UPPER CB - OPEN
LOWER CB - OPEN

53-354

CNSE

CRT (VSN59 PG-B)
PFK 1 KEY - PRESS (CBs OPENED)

53-355

CNSE

CURSOR CNTL (VSN59)
PFK 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

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APPROVED

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 *****

05-13-2011
APPROVED

OMI S0017.300 A28
APPROVED

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

SLP01 - 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

PF
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:
--

FD
GLOK2031E (A75080 ET HE PREPRESS SHUTOFF VLV)
GLOK3071E (A75080 ET HE PREPRESS SOV CL SEC)
GLHK4541E (A75610 ET PRESS SOV CL CMD PRI)
GLHK4591E (A75610 ET PRESS SOV CL CMD SEC)

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](#)

<p style="text-align: center;">NOTE</p>
--

<p style="text-align: center;">Timer No. 2 counts at any hold after T-5 mins. and counting.</p>

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

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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

_____ (SYS)
 XMIT CURSOR KEY - PRESS

System	Bypass	System	Bypass	System	Bypass
APU		GNS		SSME	
ARMS		GOX		TINST	
BELE		HYD		WATER	
BHYD		HYFUEL			
BINST		HYOXID			
BRS		INST			
BPYRO		INTG			
PLINTG		LH ₂			
COMM		LOX			
DPS		MECH			
ECLSS		MPS			
ECS		NAVAID			
EPDC		FCL			
FCP		PVD			

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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 probable 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:_____

54-52 CGLS

HARDCOPY KEY - PRESS

54-53 CGLS

PFP
ML ANALOG FILE - PRESS

CRT
VERIFY ANALOG FILE DISPLAY

NOTE

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.

54-54 CGLS

PFP
ADD - PRESS

Not Performed: _____

NOTE

Repeat next three steps for each mainline analog limit change record.

54-55 CGLS

CONSOLE KYBD
HOME CMD KEY - PRESS
_____ (SEQ NUMBER)
XMIT RESP KEY - PRESS

Not Performed: _____

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:_____

<p>NOTE Perform next step only after all required entries have been completed.</p>

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:_____

<p style="text-align: center;">NOTE Perform next step only after all required entries have been completed.</p>

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
TERMINATE
XMIT CURSOR KEY - PRESS

CRT
INTG MENU

54-70 CGLS

GLS Function Changes complete.

54-71

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:_____

54-72

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

PFK15 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: _____

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.

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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

Function	Bypass
BRS Limit Change	
One Shot Data Transfer	
T-20 Min Auto Hold	
OPS Transition	
Send GMTLO	
GPC Dump and Compare	
SLPAO-SLPA1 Performs	
RF Switch Select	X
Single Shot Verify	
T-9 Min Auto Hold	
Bypass All	

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 N031S331D X0001
XMIT CMD KEY - PRESS
EXEC CMD KEY - PRESS

Not Performed: _____

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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 **PTC** **OTC** **132**
T-11H00M
(HOLDING)

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

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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

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: _____

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: _____

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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 ***

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OPERATION 56 Reserved

Shop: NA
Cntrl Rm Console: NA
OPR: NA
Zone: NA
Hazard (Y/N): N
Duration (Hrs): 0

***** End of Operation 56 *****

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OPERATION 57 Reserved

Shop: NA

Cntrl Rm Console: NA

OPR: NA

Zone: NA

Hazard (Y/N): N

Duration (Hrs): **0**

***** End of Operation 57 *****

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OPERATION 58 Reserved

Shop: NA

Cntrl Rm Console: NA

OPR: NA

Zone: NA

Hazard (Y/N): N

Duration (Hrs): 0

***** End of Operation 58 *****

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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

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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

PFP (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 *****

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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 ***

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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.

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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.

61-5

CDR
PLT

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

PLT

PANEL O8

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.

61-7

CDR

PANEL O14
ROW C

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:_____

IF CREW PREFERENCE SNAP-RING IS INSTALLED,
THEN DO NOT PERFORM NEXT SUBSTEP.

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.

61-8

PLT

PANEL O15
ROW C

NOTE

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: _____

ROW E

3. INSTALL G070-700406-001 CB GUARD ON RADAR
ALTM 2 CB.

4. INSTALL G070-700406-001 CB GUARD ON MLS 2.

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: _____

61-9

PLT

PANEL O16
ROW C

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.

61-10

PANEL R1

NOTE

Use G070-700919-001 switchguard for following switches.

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.

61-16

MS1

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 SW GUARD ON O2 CRYO TANK 5 HEATERS A, B SWITCHES
2. INSTALL G070-700926-001 OR G070-700904-001 SW GUARD ON H2 CRYO TANK 5 HEATERS A, B SWITCHES.

61-19

MS1

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:_____

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**61-21 CDR *PAD
 *PAD OTC**

Operation 61 - Switchguard installation complete.

T:_____

***** End of Operation 61 *****

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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 *****

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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).

Item	P/N	Qty
GTOE Headsets	SED36122033-303	*
Type III HIU	MC409-0005-0045	1
COMM Cables	SED36126942-301/309	2
Very Lightweight Headset	SED16101291-305	1

* Qty - No. of FLT Crew members plus one spare

T: _____

*** End of Operation 63 ***

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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 *****

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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.
4. Valid constraints: Flight Crew Loading/Flight Crew Egress Training.
5. Cleared by - name (signature or stamp); date; time; and identified as permanent or temporary.

Walkdown Discrepancy List			
Item No.	Discrepancy & Resolution	(1) Location	
_____	_____	_____	
	_____	_____	
	_____	_____	
	(2) Originator	(3) Resp Org	<input type="checkbox"/> Permanent
	_____	_____	
	(4) Constraint	(5) Cleared by	<input type="checkbox"/> Temporary
	_____	_____	
Item No.	Discrepancy & Resolution	(1) Location	
_____	_____	_____	
	_____	_____	
	_____	_____	
	(2) Originator	(3) Resp Org	<input type="checkbox"/> Permanent
	_____	_____	
	(4) Constraint	(5) Cleared by	<input type="checkbox"/> Temporary
	_____	_____	
Item No.	Discrepancy & Resolution	(1) Location	
_____	_____	_____	
	_____	_____	
	_____	_____	
	(2) Originator	(3) Resp Org	<input type="checkbox"/> Permanent
	_____	_____	
	(4) Constraint	(5) Cleared by	<input type="checkbox"/> Temporary
	_____	_____	
Item No.	Discrepancy & Resolution	(1) Location	
_____	_____	_____	
	_____	_____	
	_____	_____	
	(2) Originator	(3) Resp Org	<input type="checkbox"/> Permanent
	_____	_____	
	(4) Constraint	(5) Cleared by	<input type="checkbox"/> Temporary
	_____	_____	

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***** 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** ***

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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 ***

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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 ***

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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 SHTDN MENU - PRESS
EMERGENCY SRB PWR DN - PRESS
EXECUTE - SRB SHTDN - 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.

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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 ***

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APPROVED**Approval Record****TERMINAL COUNT DEMONSTRATION (LPS)**

Role:	Signed by:	Date (GMT): Reason for signing:
OMD	Klos Elizabeth C United Space Alliance LLC 93250 Mail:USK-187 Phone:321/861-3352 Documentum User Name : klosec	05/13/2011 18:26: Concur with approval
NTD-NASA	Spaulding Jeffrey G Nasa Ksc Mail: Phone: Documentum User Name : Spaulding Jeffrey G	05/13/2011 18:27:45 Concur with approval
SFP-SF	Ross Jerome United Space Alliance LLC 92331 Mail:USK-291 Phone:321/861-6285 Documentum User Name : rossj	05/13/2011 18:45:19 Concur with approval
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