

Post Insertion

STS-116

**Mission Operations Directorate
Operations Division**

**Final
October 18, 2006**

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas



United Space Alliance

STS-116 POST INSERTION

FINAL (Oct 18, 2006)

PCN-1 (Nov 10, 2006) Sheet 1 of 1


List of Implemented Change Requests (482s):

PI-780
PI-781
PI-782
PI-783A
PI-784

Incorporate the following:

1. Replace iii & iv
2. Replace 1-3 thru 1-6, 1-13 thru 1-16, 1-25 & 1-26
3. Replace CC 3-3 thru CC 3-6

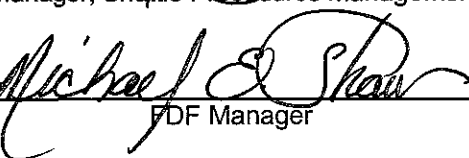
Prepared by:


Book Manager

Approved by:


Manager, Shuttle Procedures Management

Accepted by:


PDF Manager

Encl: 16 pages

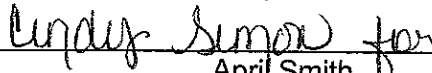
File this PCN immediately behind the front cover as a permanent record

MISSION OPERATIONS DIRECTORATE

**POST INSERTION
STS-116**


FINAL
October 18, 2006

PREPARED BY:

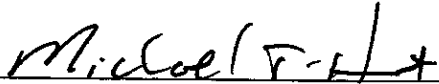


April Smith
Book Manager

APPROVED BY:



Kimberly A. Johnson
Manager, Shuttle Procedures
Management



Michael T. Hurt
FDF Manager

This document is under the configuration control of the Crew Procedures Control Board (CPCB). All proposed changes must be submitted via FDF Workflow Crew Procedure Change Request (CR) to DO3/FDF Manager.

Additional distribution of this book, for official use only, may be requested in writing to DO3/PMO Administrator. The request must include justification and requester's name, organization, position, and phone number. Contractor requests are made through the NASA or DOD organization supported. Deletions, reduction in quantity, or change of address may be submitted to DO3/FDF Management Office, 281-244-1184.

Incorporates the following:		
482#:	PI-719A	MULTI-1753
	PI-749	MULTI-1761D
	PI-751	
	PI-766	
	PI-769	
	PI-770	
	PI-771	
	PI-772	
	PI-774	
	PI-775	
	PI-776	
	PI-777	
	PI-778	

AREAS OF TECHNICAL RESPONSIBILITY

Book Manager	DO3/A. Smith	281-483-1861
Alternate Book Manager	DO3/C. Simon	281-483-0656
APU/HYD	DF5/J. Jason	281-483-7575
COMM	DF2/J. McKinnie	281-483-0792
ECLS	DF8/D. Fasbender	281-483-7857
EPS	DF7/M. Friant	281-483-0682
GNC	DF6/D. Gruber	281-483-0709
OMS/RCS	DF6/C. Kerr	281-483-0633

POST INSERTION
STS-116

LIST OF EFFECTIVE PAGES

	FIN	10/18/06		
	PCN-1	11/10/06		
Sign Off	* 116/FIN	1-17	116/FIN	
ii.....	* 116/FIN	1-18	116/FIN	
iii.....	* 116/FIN,1	1-19	116/FIN	
iv.....	* 116/FIN	1-20	116/FIN	
v	116/FIN	1-21	116/FIN	
vi.....	116/FIN	1-22	116/FIN	
1-1	116/FIN	1-23	116/FIN	
1-2.....	116/FIN	1-24	116/FIN	
1-3.....	116/FIN,1	1-25	116/FIN,1	
1-4.....	116/FIN	1-26	116/FIN	
1-5.....	116/FIN,1	2-1	116/FIN	
1-6.....	116/FIN	2-2	116/FIN	
1-7.....	116/FIN	2-3	116/FIN	
1-8.....	116/FIN	2-4	116/FIN	
1-9.....	116/FIN	3-1	* 116/FIN	
1-10.....	116/FIN	3-2	* 116/FIN	
1-11.....	116/FIN	CC 3-3.....	* 116/FIN,1	
1-12.....	116/FIN	CC 3-4.....	* 116/FIN	
1-13.....	116/FIN,1	CC 3-5.....	* 116/FIN,1	
1-14.....	116/FIN	CC 3-6.....	* 116/FIN,1	
1-15.....	116/FIN,1			
1-16.....	116/FIN,1			

POST INSERTION CUE CARDS

<u>Title</u>	<u>Ref. Page</u>	<u>Card No.</u>	
AFT FLIGHT DECK RECONFIGURATION (Front).....	CC 3-3	PI-1a/116/O/C	
(Back).....	CC 3-4	PI-1b/116/O/B	
MIDDECK RECONFIGURATION (Front).....	CC 3-5	PI-2a/116/O/C	
(Back).....	CC 3-6	PI-2b/116/O/C	

* – Omit from flight book

This Page Intentionally Blank

CONTENTS

PAGE

POST INSERTION PROCEDURES	1-1
ON-ORBIT SWITCH LIST	1-17
ORBIT 5/6 DEORBIT	2-1
CUE CARD CONFIGURATION	3-1

NOTE

The STS-116 Post Insertion contains the nominal procedures from:

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

The remaining STS-116 flight phases are conducted using the Ascent Checklist, Flight Plan, Deorbit Prep Book, Entry Checklist, EVA Checklist, and Rendezvous Book.

POST INSERTION PROCEDURES

CONFIG GPCs FOR OPS 2 1

* For single PASS GPC failure, build PASS set as follows: *

GPC	GPC			
	1	2	3	4
1	X	G2	FD	SM
2	G2	X	FD	SM
3	G2	FD	X	SM
4	G2	SM	FD	X

* In step 1:
* Assign strings 1,3 to one GPC and
* strings 2,4 to other GPC
*

NOTE

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

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

GNC 0 GPC MEMORY

CONFIG – ITEM 1 +1 EXEC

Modify MC 1 per table

BFC CRT DISP – OFF

GNC, OPS 106 PRO

GNC 0 GPC MEMORY

CAUTION

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

CONFIG GPC	1
STR 1	1
2	2
3	2
4	4
PL 1/2	1
CRT 1	1
2	2
3	2
4	0
L 1	1
2	2
MM 1	1
2	2

C3

O6

CRTX

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

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

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

4. **TRANSITION TO GNC OPS 2**

GNC 0 GPC MEMORY
CONFIG – ITEM 1 +2 EXEC
Modify MC 2 per table →
GNC, OPS 201 PRO
GNC UNIV PTG

CONFIG GPC		DUAL G2	SINGLE G2
		2	2
STR	1	1	1
	2	2	1
	3	1	1
	4	2	1
PL	1/2	0	0
CRT	1	1	1
	2	2	1
	3	0	0
	4	2	1
L	1	0	0
	2	0	0
MM	1	1	1
	2	2	1

C3
C2
F2,F4
C3

5. **TURN OFF BFC LT**
BFC CRT DISP – ON
BFS, MSG RESET
√BFC It – off
CRT DISP – OFF

MET
DAY 000

00:30
TRANS
DAP
AUTO
RT 0.5
DB 3.5

00:35

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

MEMORY CONFIGURATION TABLE				
CONFIG	1	2	3	4(5)
OPS	G1, G6	G2	G3	SM
GPC SEL	1,2,3,4	1,2	1,2,3,4	4
STR	1 2 3 4	1 2 1	1 2 3	0 0 0 0
P/L	1/2	1	1	4
CRT	1 2 3 4	1 2 0	1 2 3 0	4 4 0 4
L	1 2	1 2 0	0 0	4 0
MM	1 2	1 2	1 2	4 4

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

00:40

00:45

00:50

- C L4:B,Q,R All cbs closed
L4:D,E All cbs open
:J cb AC3 φA SIG CONDR HUM SEP - cl
φB SIG CONDR IMU FAN - cl
- MS,PS**
MS1,3 **SPECIALIST SEAT EGRESS**
WCS CONFIG/ACT (MID Cue Card) **5**, 1-16
- C,P** **CONFIG GPCs FOR OPS 2** **1**, 1-2
(USE DUAL G2 CONFIG)
If two PASS GPCs failed, √MCC
If BFS engaged: Go to MAL, **DPS**, GPC FRP-4
- MS1** **PRELIM MIDDECK CONFIG** (MID Cue Card) **2**, 1-15
P **PL BUS ACTIVATION** **5a**, 1-5
MS2 **AFT STATION CONFIG** (AFT Cue Card) **3**, 1-13

00:55

A1(B1)
AUTO
PRI
RT 0.2
DB 5.0

01:00

CRTX

6. **TRANSITION TO SM OPS 201(401)**
SM, GPC/CRT SM GPC/X EXEC
X: SM GPC MEMORY
CONFIG - ITEM 1 +4(5) EXEC
Modify MC 4(5) per table

CONFIG	4(5)
GPC	00040
STR	1 0 2 0 3 0 4 0
PL	1/2 4
CRT	1 4 2 4 3 0 4 4
L	1 4 2 0
MM	1 4 2 4

NOTE
Expect multiple msgs, Master Alarm, SM Alert

SM, OPS 201(401) PRO

SM ANTENNA

C3

√UPLK - ENA

SM 1 DPS UTILITY

UL CNTL AUTO - ITEM 35 EXEC

C3

7. **SECURE BFS**

C3

BFC CRT DISP - ON

CRT3

BFS, GNC, OPS 000 PRO

3: BFS, BFS MEMORY

C3

BFC CRT DISP - OFF

√All IDPs deassigned from BFS

NOTE

Expect '214 SH PPO2 2', '215 SH H2O HTR HAB', and '215 SH H2O HTR ORB' msgs, Master Alarm, SM Alert

O6

GPC MODE 5 - STBY (tb-RUN)

8. **RECONFIG MEDs**

C2

GPC/CRT 0/3 EXEC

IDP/CRT 3 PWR - OFF

√4 PWR - ON

F6,F7,F8

GPC/CRT SM GPC/4 EXEC

Power off MDUs as desired

C3

9. **LOAD ORBIT TFLs**

√OI PCMMU FORMAT - GPC

SM 62 PCMMU/PL COMM

FORMAT:

CRT

FXD - ITEM 1 EXEC (*)
SEL ID - ITEM 3 +1 8 4 EXEC
LOAD - ITEM 4 EXEC
- √RUN, CPLT
SEL ID - ITEM 3 +1 0 3 EXEC
LOAD - ITEM 4 EXEC
- √RUN, CPLT
PGM - ITEM 2 EXEC

SM ANTENNA

O6 10. RECONFIG GPCs
 GPC MODE 5 – HALT (tb-bp)
 OUTPUT 5 – NORM (tb-bp)
 OUTPUT (SM GPC) – TERM (tb-bp)

If no failed GPC:
 √All IDPs deassigned from FD GPC
 GPC MODE (FD GPC) – STBY (tb-bp)
 – HALT (tb-bp)
 – STBY (tb-RUN)
 – HALT (tb-bp)

If single G2 reqd:
 IDP/CRTX MAJ FUNC – PL
 GPC/CRT 2/X EXEC

C2
 CRTX

X: PL GPC MEMORY

CONFIG – ITEM 45 +2 EXEC
 GPC – ITEM 46 +2 EXEC
 STORE – ITEM 47 EXEC
 Store complete when MC = 2 (~30 sec)

√All IDPs deassigned from FD GPC
 GPC MODE 2 – STBY (tb-bp)
 – HALT (tb-bp)
 – STBY (tb-RUN)
 – HALT (tb-bp)

Perform ERR LOG RESET

GNC 0 GPC MEMORY

ITEM 48 EXEC

SM 0 GPC MEMORY

ITEM 48 EXEC

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

GNC 0 GPC MEMORY

CONFIG – ITEM 1 +2 EXEC

Modify MC 2 per table

GNC, OPS 201 PRO

GNC UNIV PTG

CRT

CONFIG	GPC	2	XY
STR	1	X	
	2	Y	
	3	X	
	4	Y	
PL	1/2	0	
CRT	1	X	
	2	Y	
	3	0	
	4	Y	
L	1	0	
	2	0	
MM	1	X	
	2	Y	

If PASS GPC failed from ASCENT and single
 G2 reqd:
 √All IDPs deassigned from FD GPC
 GPC MODE (FD GPC) – STBY (tb-bp)
 – HALT (tb-bp)
 – STBY (tb-RUN)
 – HALT (tb-bp)

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

PI LOCKER

When all GPC switch configuration complete,
 unstow, install GPC MODE switchguard

RAD ACT 7

L1

FLASH EVAP CNTLR PRI A – OFF
 B – ON

NOTE

Expect 'S88 EVAP OUT T 1(2)' msg

NOTE

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

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

Wait 90 sec

√RAD BYP VLV tb (two) – RAD

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

L2

FREON ISOL MODE – AUTO

MET
DAY 000

1: GNC UNIV PTG 2: SM ANTENNA

01:00
A1(B1)
AUTO
PRI
RT 0.2
DB 5.0

P **PGSC UNSTOW/SETUP/ACTIVATION**
PGSC ACTIVATION (ORB OPS, **PGSC**)

MS2 **CONFIG FOR PLBD OPERATIONS** (AFT Cue Card) **4**, 1-14

01:05

MS1,3 **SWITCH CONFIG/GALLEY ACT** (MID Cue Card) **6**, 1-16
C,P
05,09
AUD A/G 2 – RCV, tw 2
XMIT/ICOM MODE – PTT/VOX (recommended)
P **LOAD DAP A5**

01:10
A5(B1)
AUTO
PRI
RT 0.2
DB 5.0

CRT1 **MNVR TO PLBD OPENING ATT** (-ZLV, +YVV)

√TGT ID	+2
BODY VECT	+3
√P	+90
√Y	+0.0
OM	+270

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

01:15
A5(B1)
AUTO
ALT
RT 0.2
DB 5.0

C **RAD ACT** **7**, 1-4

RAD/PLBD OPS NO-GO FOR FOLLOWING FAILURES			
OMS/RCS	GNC	ECLS/EPS	MECH
2 OMS Engs	2 IMUs	1 H2O or Freon Lp	2 LG DPY METHODS
1 OMS Eng & 1 +X RCS jet	3 RGAs	Both RFCAs	PRES or REDNT
1 OMS Inlet line	3 AAs	Both Cab Fans	WINDOW PANE
OMS Prop Tk Leak	3 ADTAs	3 of 6 Av Bay Fans	FAILURE
Aft RCS He or Prop Leak	3 Elevon or BF Pos Fdbks (same surface)	2 FCs	DPS
COMM	2 FCS Ch (same surface)	Any MN or 3φ AC Bus	3 GPCs
No Voice and No CMD		Any CNTL or MPC Bus	2 PL MDMs
		3 IMU Fans	2 FF or FA MDMs
			APU/HYD
			2 APU/HYD/WSB

01:20

If NO-GO for RAD/PLBD OPS, go to **ORB 3 DEORBIT** **8**, 1-6
MS1,2 **OPEN PLBDs**, AUTO MODE **18**, 1-11

01:25
UPLINK
VAR
PARAM
TMBU
(IF
REQD)

01:30

PL BUS ACTIVATION **5a**

R1 PL CAB – MNA (MNB)
PRI MNC – ON (tb-ON)

NOTE
Expect Master Alarm, SM Alert, multiple SH msgs

PL AUX – ON
AFT MNB – ON

SM 214 SPACEHAB ACT/DEAC

√BUS EMER VOLTS > 24 and < 32
√AUX A AMPS > 0 and < 7
√AFT B AMPS > 0 and < 7
√H2O PUMP 2 ORB, ITEM 73 – (*)
√2 ON/1 OFF, ITEM 75 – (*)

MA73C:E cb AC3 PL 3φ – cl
CRT √H2O PUMP OUT P > 40 and < 105
√IN P > 30 and < 80
√HX H2O FLOW ARS > 75
√HX H2O FLOW CABIN > 250

* If HX H2O FLOW ARS < 75 and HX H2O FLOW CABIN < 250: *

* C3 H2O LN HTRS – ON *

* SSP1 cb SW PWR 2 – cl *

* ORB H2O LN HTR PWR A – ON *

* √B – OFF (A ENA) *

SM 215 SPACEHAB ECS

* √H2O LN HTR HAB STATUS – 1 *

* √ORB AMPS > 1 *

NOTE
MCC must configure PL comm
before Item 65 command can be sent

On MCC GO:
√FANS ARS ON, ITEM 67 – (*)
√INV, ITEM 63 – (*)
ORB – ITEM 65 EXEC (*)
√ΔP 1,2 (two) > 0.2 and < 5.5

SSP2 cb SW PWR 4 – cl
SMOKE SENSOR A – ENA (tb-gray)
B – ENA (tb-gray)
SS DC BUS – ON (tb-gray)

STAR TRKR ACTIVATION/DOOR OPEN 12

C O6 S TRK PWR (two) – ON
GNC I/O RESET

S TRK DR CNTL SYS (two) – OP (start timer)
√POS tb (two) – bp

When both tb – OP (8-24 sec), or either tb – bp for > 24 sec,
CNTL SYS (two) – OFF

* If tb – bp > 8 sec, notify MCC *

1: GNC 22 S TRK/COAS CNTL

STAR TRK – ITEM 3,4 EXEC

1: GNC 21 IMU ALIGN

RESUME

ORB 3 DEORBIT 8

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

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

SUPPLY WATER CONFIG 14

NOTE
Do not perform until blocks 5 and 6 are
performed

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

MET		1: GNC UNIV PTG	2: SM PL BAY DOORS
DAY 000		4: SM PL BAY DOORS	
01:30			
A5(B1)			
AUTO			
ALT			
RT 0.2			
DB 5.0			
01:35	MCC & CREW:	GO for orbit ops	
	C O6	UHF MODE sel – OFF	
	MS2,1	KU-BD ANT DEPLOY (ORB OPS, <u>COMM/INST</u>)	
		KU-BD ANT ACTIVATION (ORB OPS, <u>COMM/INST</u>)	
	C,P	SEAT EGRESS	
01:40			
	C,P	CLOTHING CONFIG 9	
	MS	CLOTHING CONFIG (MID,AFT Cue Cards) 10 , 1-14, 1-15	
01:45			
	ALL	QUICKDON MASKS SETUP 19	
		If time permits: OCAC SETUP (ORB OPS, <u>CREW SYS</u>)	
01:50			
	C	POST PLBD OPS RAD CONFIG 11	
	MS	SPECIALIST SEAT REMOVAL/STOWAGE	
01:55			
	C	STAR TRKR ACTIVATION/DOOR OPEN 12 , 1-6	
	MS1,3	ESCAPE POLE STOWAGE (MID Cue Card) 13 , 1-16	
	P	SUPPLY WATER CONFIG 14 , 1-6	
02:00			

CLOTHING CONFIG **9**

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

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

POST PLBD OPS RAD CONFIG **11**

C **1: SM 88 APU/ENVIRON THERM**

NOTE
 FREON LOOP RAD OUT temps will not drop to normal operating range (< 60 deg) until ~15 min after doors are opened

L1 NH3 CNTLR B(A) – OFF
 √RAD BYP VLV tb (two) – RAD
 H2O LOOP 2 BYP MODE – AUTO

CRT1 When FREON LOOP RAD OUT T < 60 deg:
 L1 HI LOAD EVAP – OFF

1: GNC UNIV PTG

QUICKDON MASKS SETUP **19**

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

This Page Intentionally Blank

MET		1: GNC UNIV PTG	2: SM ANTENNA
DAY 000			
02:00		4: SM ANTENNA	
A5(B1)	MS	AIRLOCK SETUP FOR INGRESS [15], 1-16	
AUTO			
ALT			
RT 0.2	P	W/B STEAM VENT HTR ACT	
DB 5.0	R2	√BLR CNTLR/HTR (three) – A PWR (three) – ON	
02:05			
A5(B1)	C	CONFIG VERNIER CONTROL	
AUTO		√MCC GO for vernier control	
VERN	O16:F	RJD MANF L5/F5/R5 DRIVER – ON, wait 5 sec	
RT 0.05		DAP: A/AUTO/VERN	
DB 1.0			
02:10			
	ALL	CONFIG CONTROLS FOR ON-ORBIT	
		Perform actions on 1-17 thru 1-26 Unstow, install HUD covers (two)	
02:15			
	L2	Remove, stow (on pnl L2/FDF FD locker) NWS sw flex extension	
	P	HYD THERMAL CONDITIONING-ENABLE	
	R2	HYD CIRC PUMP (three) – GPC	
02:20			
	MS	RESET C/W (AFT Cue Card) [16], 1-14	
02:25			
	MS	FUEL CELL VI PERFORMANCE PLOT (ORB OPS, EPS)	
02:30		Stow POST INSERTION, go to FLIGHT PLAN, <u>FLT DAY 1</u>	

This Page Intentionally Blank

DETAILED PLBD OPENING PROCEDURES**18**

- * If no motion determined visually or 'OP/CL' not blank within 10 sec after cmd, *
- R13L * PL BAY DR – STOP, perform MAL, MECH, 9.1a *
- * If latch not 'OP' in single mtr time, *
- * PL BAY DR – STOP, perform MAL, MECH, 9.1d *
- * If door motion stops and not 'OP', *
- * PL BAY DR – STOP, perform MAL, MECH, 9.1f *
- * If SM GPC fails during this operation, *
- * PL BAY DR SYS (two) – DSBL *
- * – STOP *
- * Perform PASS SM GPC FAIL (ORB PKT, DPS) *

CAUTION

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

NOTE

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

AUTO PLBD OPENING PROCEDURE

- | | | | |
|------|------|-----|--|
| MS | CRT4 | 1. | SM, OPS 202 PRO or <u>BFS, SM 63 PL BAY DOORS</u>
<u>4: SM PL BAY DOORS</u> |
| R13L | | | √PL BAY DR – STOP |
| CRT4 | | | √PBD SW – STOP |
| | | | √MAN SEL (ten) – (no *) |
| | | | √PBD SW BYPASS – (no *) |
| | | 2. | AC POWER ON – ITEM 1 EXEC (*) |
| | | 3. | AUTO MODE SEL – ITEM 3 EXEC (*) |
| R13L | | 4. | PL BAY DR SYS (two) – ENA |
| CRT4 | | | √OP/CL STATUS (ten) – CL |
| R13L | | 5. | PL BAY DR – OP |
| CRT4 | | | √CENTER LATCHES 5-8,9-12 (two) – blank,OP (~20 sec)
√1-4,13-16 (two) – blank,OP (~20 sec) |
| | | | √STBD FWD,AFT LATCHES (two) – blank,OP (~30 sec)
√DOOR – RDY,blank,OP (~63 sec) |
| | | | √PORT FWD,AFT LATCHES (two) – blank,OP (~30 sec)
√DOOR – RDY,blank,OP (~63 sec) |
| R13L | | 6. | PL BAY DR – STOP |
| | | | <u>POST-PLBD OPENING CLEANUP</u> |
| | | 7. | PL BAY DR SYS (two) – DSBL |
| CRT4 | | | √OP/CL STATUS (ten) – OP |
| | | 8. | AC POWER OFF – ITEM 2 EXEC (*) |
| | | 9. | SM, OPS 201 PRO (if PASS SM)
<u>4: SM ANTENNA</u> |
| A7U | | 10. | After floodlights ON > 10 min:
PL BAY FLOOD (all) – OFF |

MANUAL PLBD OPENING PROCEDURE

- | | | | |
|------|------|-----|--|
| MS | CRT4 | 1. | SM, OPS 202 PRO or <u>BFS, SM 63 PL BAY DOORS</u>
<u>4: SM PL BAY DOORS</u> |
| R13L | | | √PL BAY DR – STOP |
| CRT4 | | | √PBD SW – STOP |
| | | | √MAN SEL (ten) – (no *) |
| | | | √PBD SW BYPASS – (no *) |
| | | 2. | AC POWER ON – ITEM 1 EXEC (*) |
| | | | √AUTO MODE SEL – (no *) |
| R13L | | 3. | PL BAY DR SYS (two) – ENA |
| CRT4 | | | √OP/CL STATUS (ten) – CL |
| | | | <u>OPEN C/L LATCHES</u> |
| | | 4. | Select CENTER LATCHES 5-8,9-12 – ITEM 4,5 EXEC (*) |
| R13L | | 5. | PL BAY DR – OP |
| CRT4 | | | √CENTER LATCHES 5-8,9-12 (two) – blank,OP (~20 sec) |
| R13L | | 6. | PL BAY DR – STOP |
| CRT4 | | 7. | Deselect CENTER LATCHES 5-8,9-12 – ITEM 4,5 EXEC (no *) |
| | | 8. | Select CENTER LATCHES 1-4,13-16 – ITEM 6,7 EXEC (*) |
| R13L | | 9. | PL BAY DR – OP |
| CRT4 | | | √CENTER LATCHES 1-4,13-16 (two) – blank,OP (~20 sec) |
| R13L | | 10. | PL BAY DR – STOP |
| CRT4 | | 11. | Deselect CENTER LATCHES 1-4,13-16 – ITEM 6,7 EXEC (no *) |
| | | | <u>OPEN STBD FWD,AFT LATCHES & DOOR</u> |
| | | 12. | Select STBD FWD,AFT LATCHES – ITEM 8,9 EXEC (*) |
| R13L | | 13. | PL BAY DR – OP |
| CRT4 | | | √STBD FWD,AFT LATCHES (two) – blank,OP (~30 sec) |
| R13L | | 14. | PL BAY DR – STOP |
| CRT4 | | 15. | Deselect STBD FWD,AFT LATCHES – ITEM 8,9 EXEC (no *) |
| | | 16. | Select STBD DOOR – ITEM 10 EXEC (*) |
| R13L | | 17. | PL BAY DR – OP |
| CRT4 | | | √STBD DOOR – RDY,blank,OP (~63 sec) |
| R13L | | 18. | PL BAY DR – STOP |
| CRT4 | | 19. | Deselect STBD DOOR – ITEM 10 EXEC (no *) |
| | | | <u>OPEN PORT FWD,AFT LATCHES & DOOR</u> |
| | | 20. | Select PORT FWD,AFT LATCHES – ITEM 11,12 EXEC (*) |
| R13L | | 21. | PL BAY DR – OP |
| CRT4 | | | √PORT FWD,AFT LATCHES (two) – blank,OP (~30 sec) |
| R13L | | 22. | PL BAY DR – STOP |
| CRT4 | | 23. | Deselect PORT FWD,AFT LATCHES – ITEM 11,12 EXEC (no *) |
| | | 24. | Select PORT DOOR – ITEM 13 EXEC (*) |
| R13L | | 25. | PL BAY DR – OP |
| CRT4 | | | √PORT DOOR – RDY,blank,OP (~63 sec) |
| R13L | | 26. | PL BAY DR – STOP |
| CRT4 | | 27. | Deselect PORT DOOR – ITEM 13 EXEC (no *) |
| | | | <u>POST-PLBD OPENING CLEANUP</u> |
| R13L | | 28. | PL BAY DR SYS (two) – DSBL |
| CRT4 | | | √OP/CL STATUS (ten) – OP |
| | | 29. | AC POWER OFF – ITEM 2 EXEC (*) |
| | | 30. | SM, OPS 201 PRO (if PASS SM)
<u>4: SM ANTENNA</u> |
| A7U | | 31. | After floodlights ON > 10 min:
PL BAY FLOOD (all) – OFF |

FUNCTION	PLBD CONTROL								PLBD DISPLAY MDM								
	Ref. MA73C:C&D for MCA cbs																
	MTR 1				MTR 2				C	C	O	O	C	R	R	R	O
	AC/ MCA	CNTL	MDM	SYS	AC/ MCA	CNTL	MDM	SYS	A	B	A	B	A	B	C		
LATCH																	
5-8	1/MID3	AB3/AB2	PL1	2	3/MID2	CA3/CA1	PL2	1	1	2	1	2					
9-12	1/MID1	AB3/AB1	PL1	1	3/MID4	CA3/CA2	PL2	2	1	2	1	2					
1-4	1/MID3	AB3/AB2	PL1	2	3/MID2	CA3/CA1	PL2	1	1	2	1	2					
13-16	3/MID4	CA3/CA2	PL2	2	2/MID2	BC3/BC1	PL1	1	2	1	2	1					
S FWD	1/MID1	AB3/AB1	PL1	1	2/MID4	BC3/BC2	PL2	2	1	2	1	2					
S AFT	3/MID4	CA3/CA2	PL2	2	2/MID2	BC3/BC1	PL1	1	2	1	2	1					
S DOOR	1/MID1	AB3/AB1	PL1	1	2/MID4	BC3/BC2	PL2	2									
													1	1	2	2	1
													2	1	2	2	2
P FWD	1/MID1	AB3/AB1	PL1	1	2/MID4	BC3/BC2	PL2	2	1	2	1	2					
P AFT	1/MID3	AB3/AB2	PL1	2	3/MID2	CA3/CA1	PL2	1	1	2	1	2					
													2	1	1	2	2
P DOOR	3/MID4	CA3/CA2	PL2	2	2/MID2	BC3/BC1	PL1	1					1	1	1	2	1

AFT FLIGHT DECK RECONFIGURATION

AFT STATION CONFIG 3

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

 - A14 RCS/OMS HTR FWD RCS – A AUTO
 - L POD (two) – A AUTO, B OFF
 - R POD (two) – A AUTO, B OFF
 - OMS CRSFD LINES (two) – A AUTO, B OFF

 - PDIP 1 KU BAND RATE – AUTO
 - √FWD,AFT RCS JET (ten) – AUTO
 - LOW

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

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

ON-ORBIT CONFIG
Don headset (if reqd)
If WCCS, perform STD WCCS CONFIG (ORB OPS,
COMM/INST)
If flight deck handheld mic/speaker operation:

 - R10 MS AUD PWR – AUD/TONE
 - A/G1 – T/R, tw – 2
 - A/G2 – RCV, tw – 2
 - A/A – RCV, tw – 2
 - ICOM A – T/R, tw – 2
 - B – RCV, tw – 2
 - XMIT/ICOM MODE sel – PTT/PTT

 - A11 MS COMM CCU PWR – OFF
 - Disconnect MHA from CCU (if not reqd)
 - Connect HHMIC to CCU
 - MS COMM CCU PWR – ON

 - R6,L5 CCU PWR – OFF
 - A13 OS AUD SPKR PWR sel – SPKR
 - MSTR SPKR VOL sel – as reqd

 - R6,L5 HIU VOL (two) – minimum, full ccw
 - A1L S-BD PM MODE – TDRS DATA
 - NSP DATA RATE RCV – HI
 - XMIT – HI
 - CODING (two) – ON

 - A1R S-BD FM DATA SOURCE sel – MMU 1 (rot)
 - AUD CTR VOICE RCD SEL CH 1 sel – OFF
 - 2 sel – OFF

- R14:C cb MNB KU ANT HTR – cl
 - UHF EVA (two) – cl

- :D Close left to right all cbs
- :E Close left to right all cbs

- L10 Remove, stow VIP, VTR covers

- R11L IDP/CRT 4 PWR – ON
- R12 VPU PWR – ON (LED on)
- MDU AFD1 – ON (if desired)

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

- Unstow, deploy reqd FDF

NOTE

Verify PL Bus Activation complete

- L12U cb PDIP 1 PWR 2/KuBAND RLY – cl
 - (SSP1) X1/X2 SW PDIP 1 PWR 1 – cl
 - SW PWR 1 – cl

- L12L cb PDIP 2 PWR 2 – cl
 - (SSP2) PDIP 2 PWR 1 – cl

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

MET	MS AFT ACTIONS
00:53	<u>SPECIALIST SEAT EGRESS</u>
00:59	<u>AFT STATION CONFIG</u> 3
01:02	<u>PGSC UNSTOW/SETUP/ACTIVATION</u> (ORB OPS, <u>PGSC</u>)
01:05	<u>CONFIG FOR PLBD OPERATIONS</u> 4
01:40	<u>CLOTHING CONFIG</u> 10
01:54	<u>SPECIALIST SEAT REMOVAL/STOWAGE</u>
02:00	<u>AIRLOCK SETUP FOR INGRESS</u> 15
02:24	<u>RESET C/W</u> 16

AFT FLIGHT DECK RECONFIGURATION

CONFIG FOR PLBD OPERATIONS 4

A6U SET UP LIGHTS
ANNUN BUS SEL – MNC

NOTE

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

A7U PL BAY FLOOD AFT (two) – ON
 MID (two) – ON
 FWD (two) – ON

Record MET: ____ / ____ : ____ : ____

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

SET UP P/TV

Perform ACTIVATION OPERATION (Cue Card, TV)
Perform PLBD VTR RECORDING (Cue Card)

CLOTHING CONFIG 10

Doff, stow:

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

Doff, stow in Wet Trash:

UCD (clamp if used)
Emesis Bag, if used (unstow new bag)

RESET C/W 16

R13U		
PARAMETER NAME	C/W CH	UPPER LIMIT
FREON LOOP EVAP OUT T1	107	1.90V/64.8 deg
T2	117	1.90V/64.8 deg
CABIN O2 FLOW 2	24	4.65V/4.65 LBM/HR

R13U		
PARAMETER NAME	C/W CH	ENA/INH
MPS He TK P C	9	INH
L	19	INH
R	29	INH
MPS He REG P C	39	INH
L	49	INH
R	59	INH
HYD P 1	99	INH
2	109	INH
3	119	INH

MIDDECK RECONFIGURATION

PRELIM MIDDECK CONFIG 2

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

INSTALL FILTERS

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

PRESS H2O TKA

ML26C SPLY H2O GN2 TK VENT vlv – PRESS
A SPLY vlv – OP

NOTE

Disregard possible 'S66 WASTE H2O PRES' fault msg

COMM CONFIG

Unstow: Headsets, Handheld Microphone, and/or wireless comm. (see WCCS Cue Card), if flown
If WCCS, perform STD WCCS CONFIG (ORB OPS, COMM/INST)

If middeck handheld mic/speaker ops:

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

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

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

ML86B:E cb MNA FC PCM – op

FDF CONFIG

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

Unstow VW Bags

MET	MS AFT ACTIONS
00:53	SPECIALIST SEAT EGRESS
00:54	WCS CONFIG/ACT 5
00:57	PRELIM MIDDECK CONFIG 2
01:08	SWITCH CONFIG/GALLEY ACT 6
01:40	CLOTHING CONFIG 10
01:54	SPECIALIST SEAT REMOVAL/STOWAGE
01:59	ESCAPE POLE STOWAGE 13
02:00	AIRLOCK SETUP FOR INGRESS 15

CLOTHING CONFIG 10

Doff, stow:

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

Doff, stow in Wet Trash:

UCD (clamp if used)
Emesis Bag, if used (unstow new bag)

MIDDECK RECONFIGURATION

WCS CONFIG/ACT 5

WCS SWITCH CONFIGURATION

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

MA73C:E cb AC1 WCS FAN SEP 1 ΦA, ΦB, ΦC (three) - cl
 AC2 WCS FAN SEP 2 ΦA, ΦB, ΦC (three) - cl
 AC2 PL 3Φ - cl

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

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

WCS ACTIVATION

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

SWITCH CONFIG/GALLEY ACT 6

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

ML86B:A All cbs closed except MNB H2O LINE HTR B - op
 :B All cbs closed
 :E All cbs closed except: FC PCM - op
 FLOOD TUNNEL ADAPTER (three) - op
 :F All cbs closed
 :G All cbs closed except: FLOOD TUNNEL ADAPTER - op

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

GALLEY H2O HTRS (two) - ON
 OVEN/RHS - ON

Unstow,install Personal Hygiene Hose

ESCAPE POLE STOWAGE 13

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

AIRLOCK SETUP FOR INGRESS 15

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

ON-ORBIT SWITCH LIST

LEFT SEAT

L1..... 1-19
 L2..... 1-19

 O7..... 1-20
 O8..... 1-20

 O14..... 1-21
 O15..... 1-22

RIGHT SEAT

O16..... 1-22
 O8..... 1-20

 R1..... 1-18

AFT

C5..... 1-22
 C6..... 1-22
 C7..... 1-22

 A11..... 1-23

MIDDECK-FWD

ML86B..... 1-25

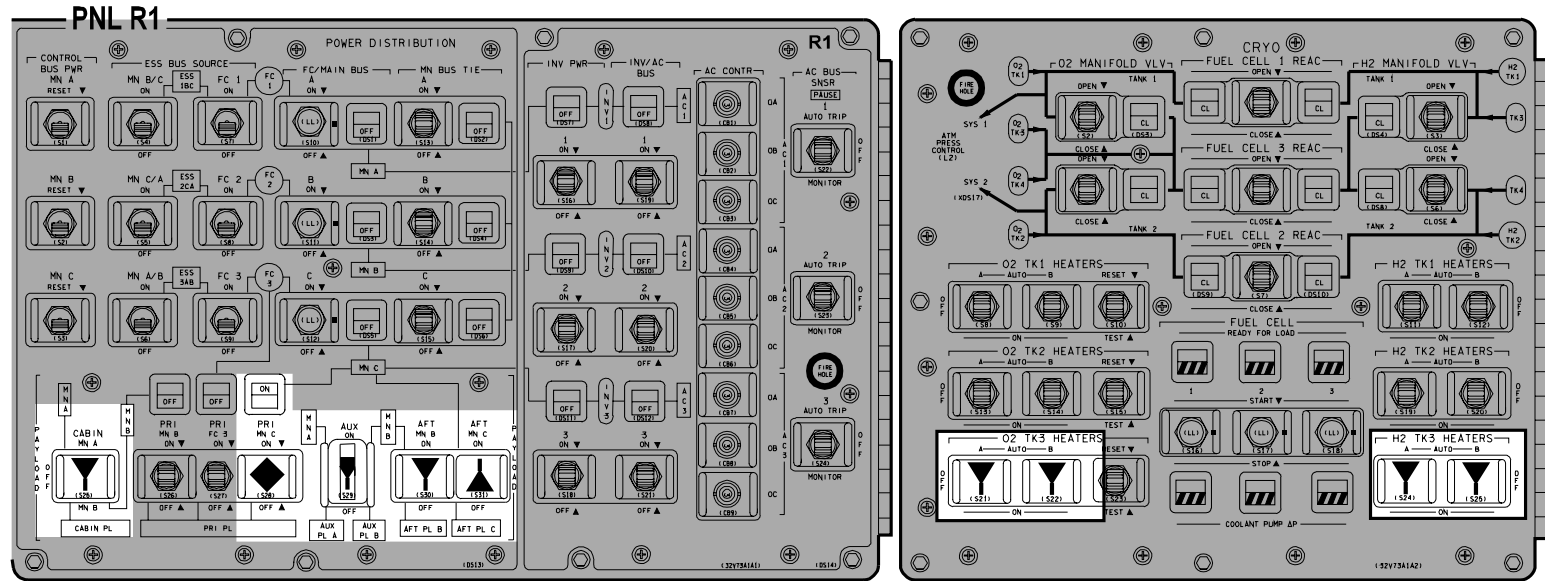
MIDDECK-AFT

MA73C..... 1-25
 MO32M..... 1-24
 MO69M..... 1-24

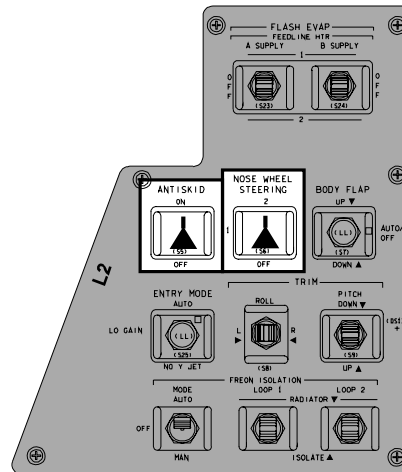
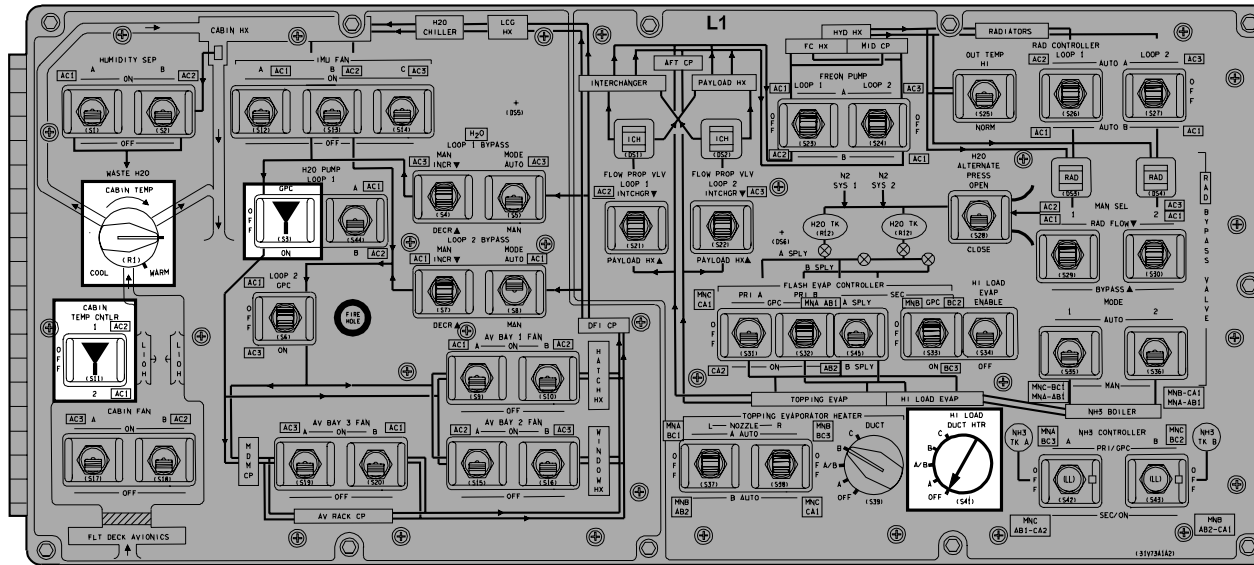
<p> – Up</p> <p> – Center</p> <p> – Down</p> <p> – Boxed items indicate switch configured during ON-ORBIT CONFIGURATION</p>	<p>R – As reqd</p> <p> – cb close</p> <p> – cb open</p>	<p> – Indicates switch/display not checked during ON-ORBIT SWITCH/VERIF</p> <p>Switch/display pictorials are generic representations and are not intended to depict actual switch position. Check MCC if clarification reqd.</p> <p> – White area indicates switch verified during ON-ORBIT SWITCH CONFIGURATION</p>
---	--	--

<u>CIRCUIT BREAKER SNAP RING COLOR CODES</u>	
<u>COLOR</u>	<u>CONFIGURATION</u>
Red	Open at all times
Green	Open on-orbit only
Yellow	Open ascent, close per procedure
Orange	Open orbit through entry
Blank (no ring)	Always closed or as required

ALL VEH

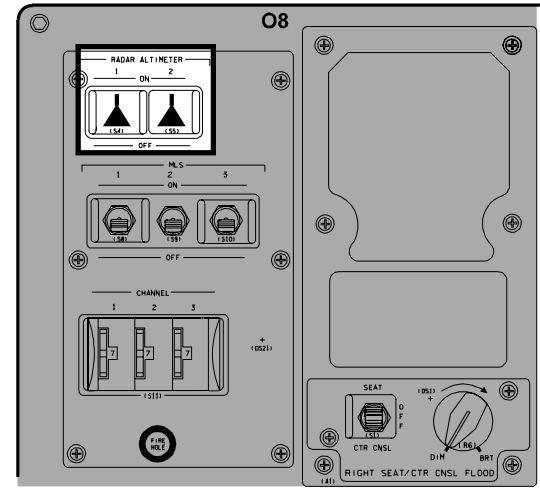
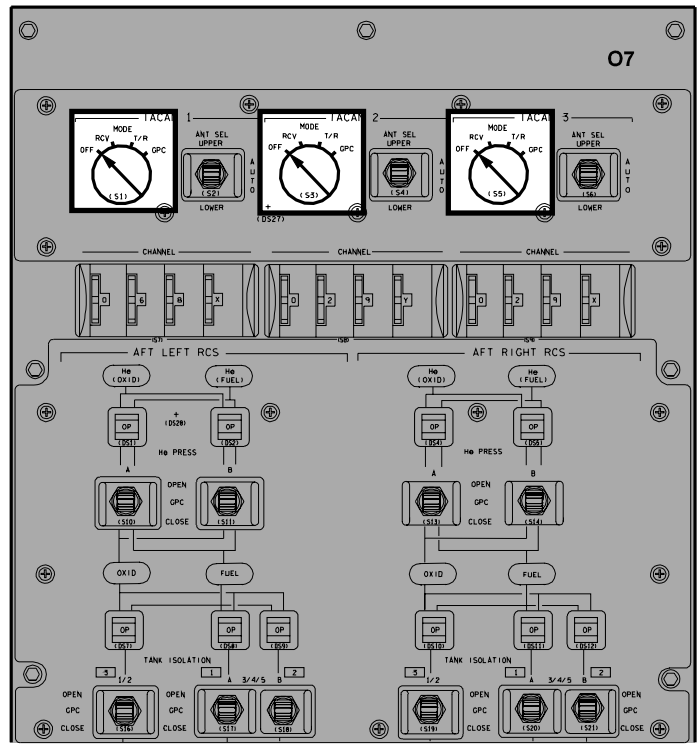


ALL VEH



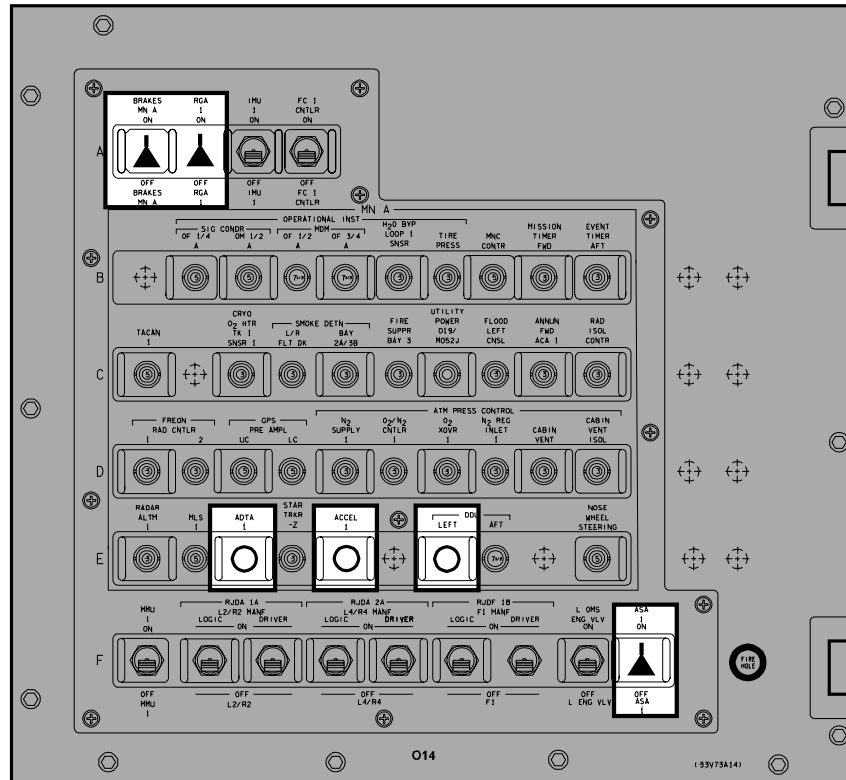
OV103, OV104

I



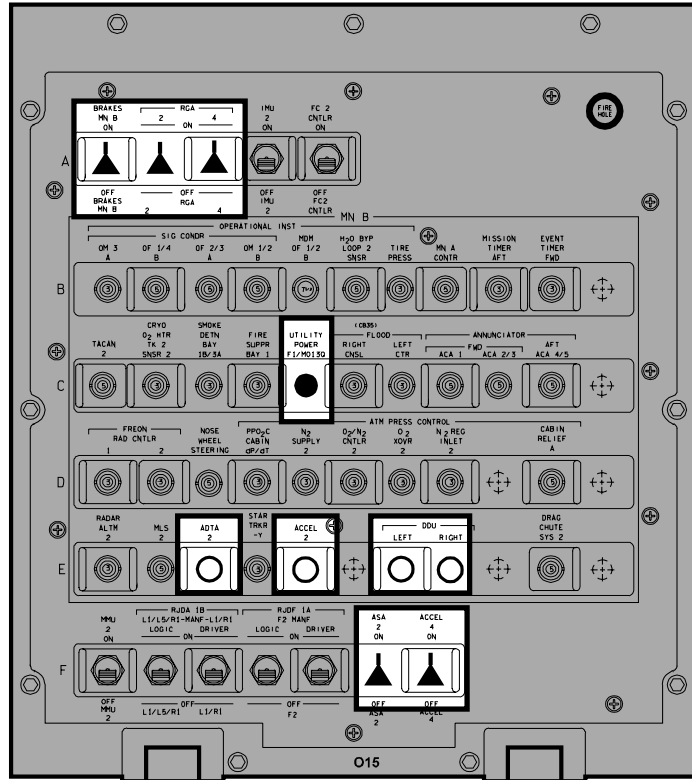
OV103

PNL O14

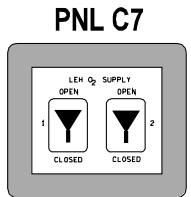
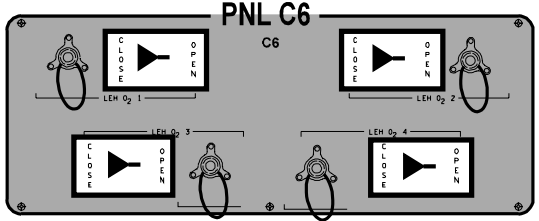
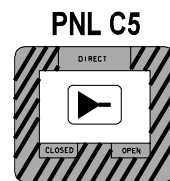
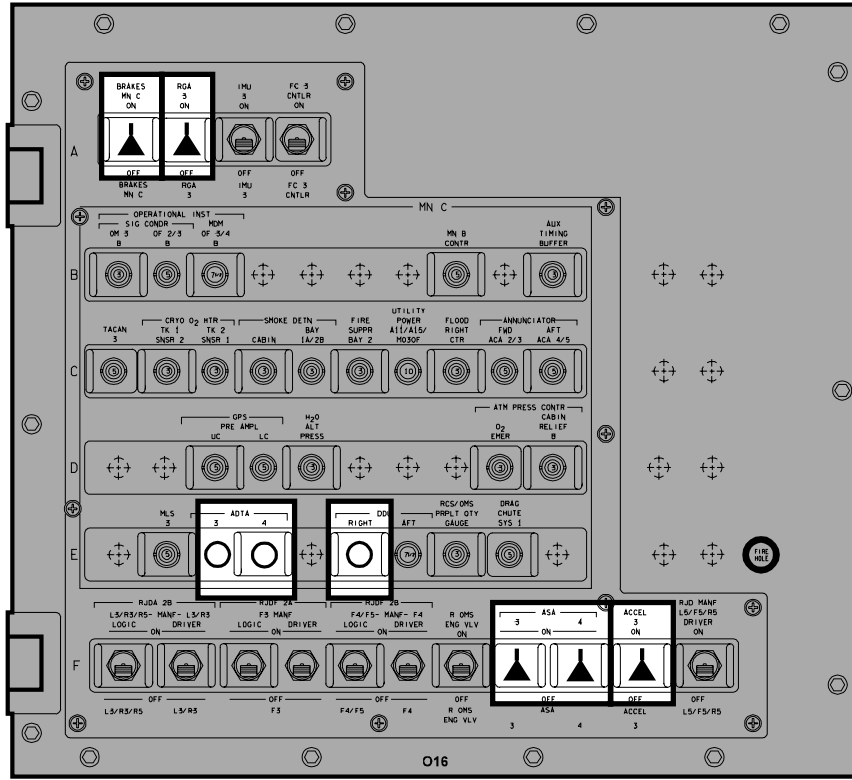


OV103

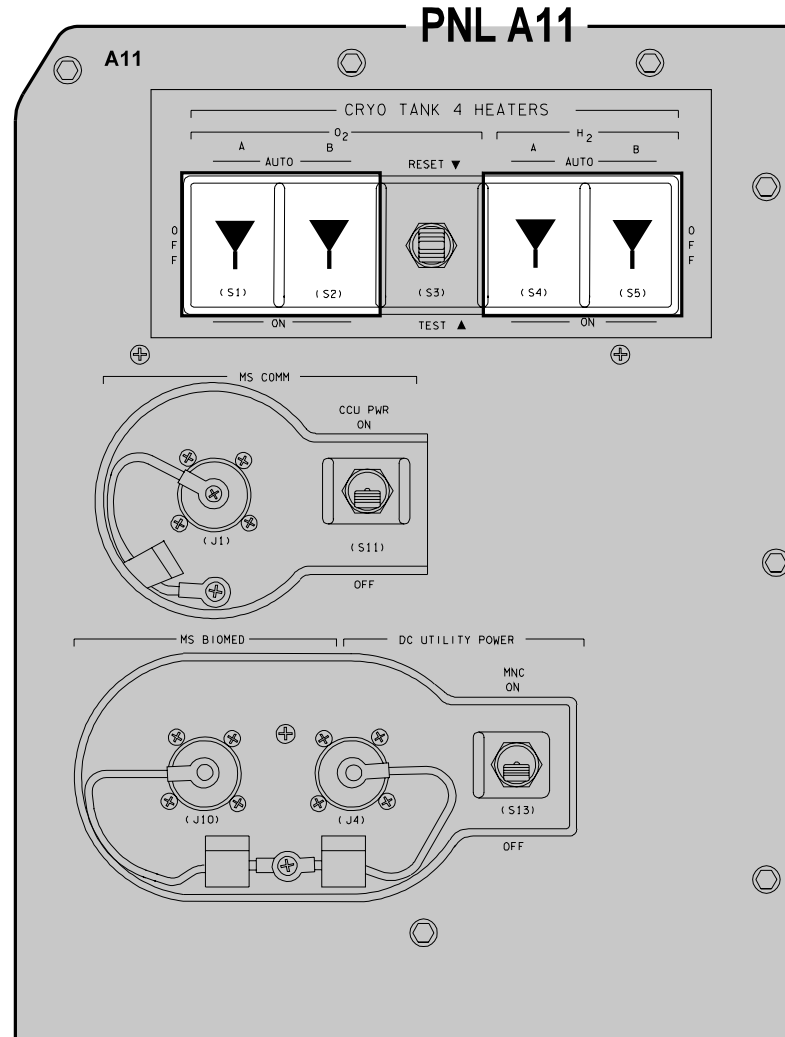
PNL O15



PNL O16

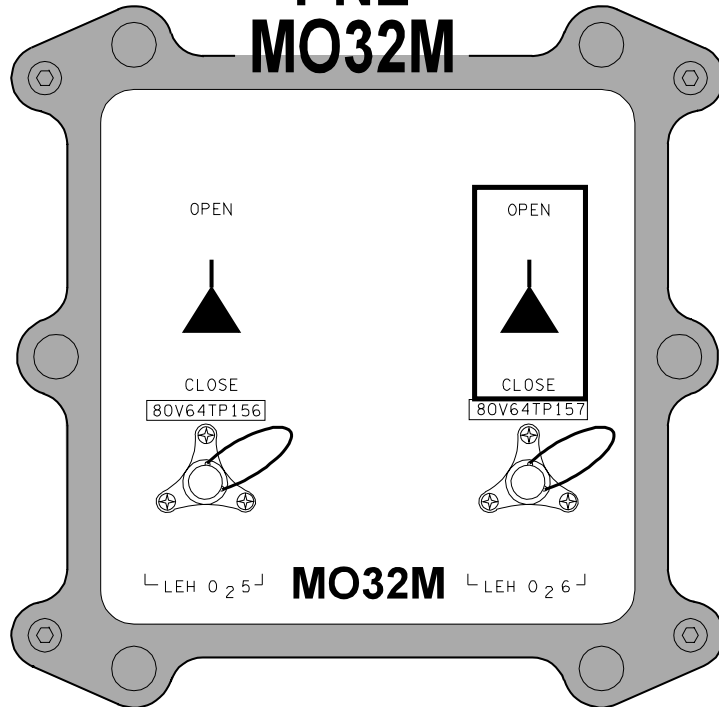


OV103

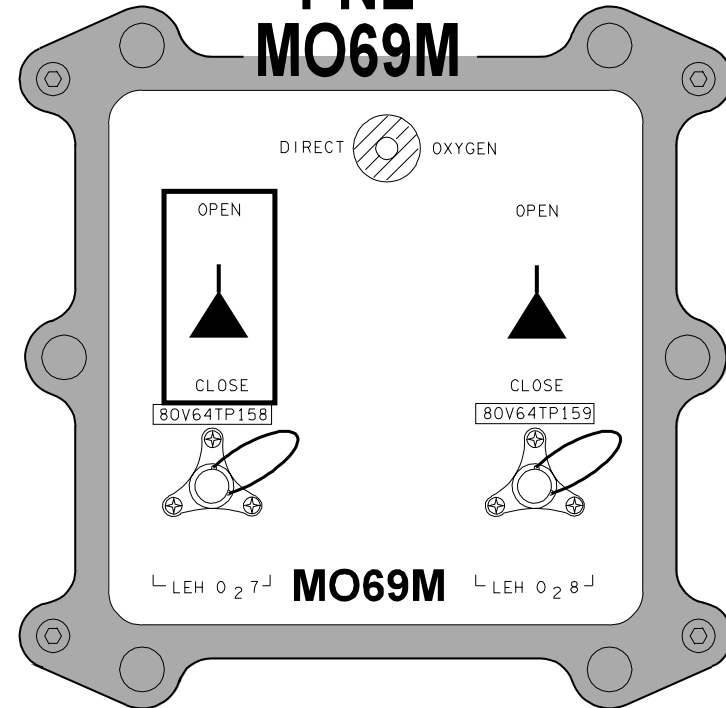


OV103,OV105

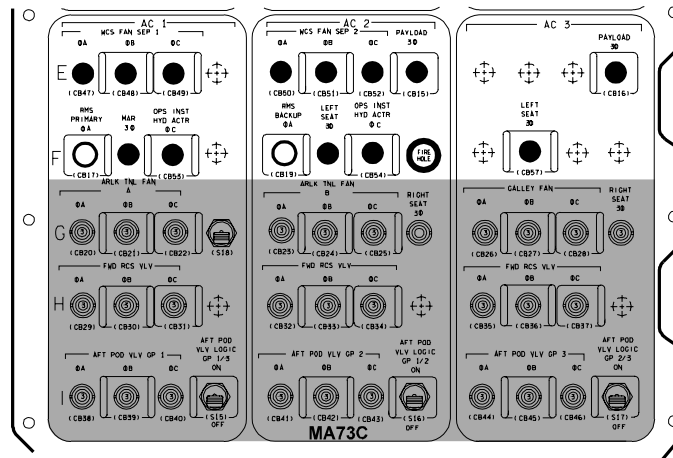
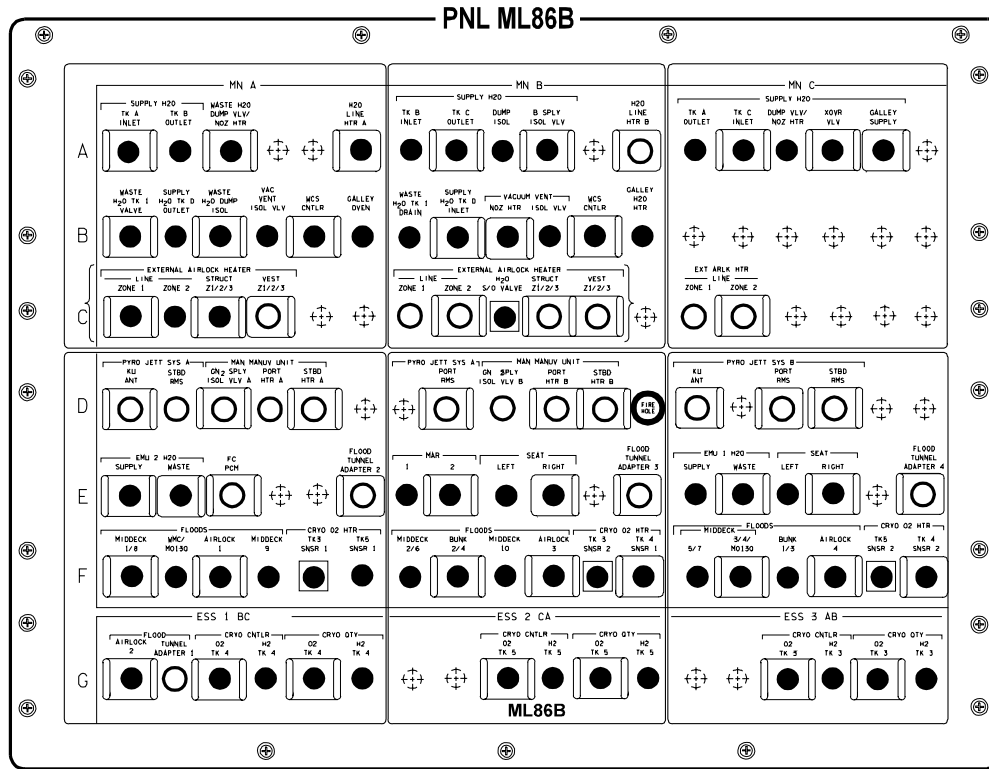
PNL MO32M



PNL MO69M



OV103



This Page Intentionally Blank

ORBIT 5/6 DEORBIT

This Page Intentionally Blank

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

WARNING

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

MET	ACTIVITY
ASAP	<p>Perform PRIORITY PWRDN GROUPS A & B (ORB PKT, <u>PRIOR PWRDN</u>) with following deltas:</p> <p style="padding-left: 40px;">DELETE: HI LOAD DUCT HTR OFF in Group A Pwrdn PRI RJDs DRIVER & LOGIC OFF in Group B Pwrdn</p> <p>When PRIORITY PWRDN is complete, return to Nominal Post Insertion, 1-5, thru 1-9 completing all activities except the following:</p> <p style="padding-left: 40px;">MET 1:28 OPEN PLBDs MET 1:36 KU-BD ANT DEPLOY KU-BD ANT ACTIVATION MET 1:52 POST PLBD OPS RAD CONFIG MET 1:54 SPECIALIST SEAT REMOVAL/STOWAGE MET 1:57 ESCAPE POLE STOWAGE MET 2:00 AIRLOCK SETUP FOR INGRESS MET 2:06 CONFIG VERNIER DRIVERS</p>
1:00	<p>If Voice or Command Unavailable: Perform GPS INCORPORATION (ORB OPS, <u>GNC</u>)</p>
2:12	<p><u>CONFIG CONTROLS FOR ON-ORBIT</u>, 1-17 thru 1-25 (SWITCH PICTORIALS) <u>NOTE</u>: Some of these switch throws will have been done during PRIORITY POWERDOWNS</p> <p>DELETE: HI LOAD DUCT HTR – OFF, on 1-19</p>
2:30	<p>Add following MNVR: <u>MNVR (TRK) –ZLV, +YVV</u> TG = 2 BV = 3 OM = 270</p>

**PEN AND INKS TO D/O PREP FOR
ORBIT 5/6 DEORBIT**

TIG-	ACTION	PROCEDURES
3:57	Delete	<u>COLDSOAK INITIATE</u> 2
3:35	Delete	<u>SPECIALIST SEAT INSTALLATION</u>
3:30	Move to TIG-2:30	<u>DPS CONFIG FOR D/O PREP</u> 4a
3:15	Move to TIG-2:20	<u>DED DISP ENT CONFIG</u> 6
3:00	Add	<u>GNC FRP-3</u> (MAL, <u>GNC FRPs</u>) to recover IMU 2
2:56	Delete	<u>RAD BYPASS/FES C/O</u> (ORB OPS, <u>ECLS</u>)
2:46	Delete	<u>CONFIG FOR PLBD CLOSING</u> 7
2:40	Delete	<u>PLBD CLOSING</u> 9
2:40	Add	<u>PWRDN BACKOUT</u> (Group A & B) (ORB PKT, <u>PRIOR PWRDN</u>) (Delete IMU 2 recovery step)
2:26	Delete	<u>POST CLOSING CONFIG</u> 10

CUE CARD CONFIGURATION

**CUE CARD
CONFIG**

This Page Intentionally Blank

TOP

AFT FLIGHT DECK RECONFIGURATION

CONFIG FOR PLBD OPERATIONS 4

A6U SET UP LIGHTS
ANNUN BUS SEL – MNC

NOTE

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

A7U PL BAY FLOOD AFT (two) – ON
MID (two) – ON
FWD (two) – ON

Record MET: ____/____:____:____

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

SET UP P/TV

Perform ACTIVATION OPERATION (Cue Card, TV)
Perform PLBD VTR RECORDING (Cue Card)

RESET C/W 16

R13U		
PARAMETER NAME	C/W CH	UPPER LIMIT
FREON LOOP EVAP OUT T1	107	1.90V/64.8 deg
T2	117	1.90V/64.8 deg
CABIN O2 FLOW 2	24	4.65/4.65 LBM/HR

R13U		
PARAMETER NAME	C/W CH	ENA/INH
MPS He TK P C	9	INH
L	19	INH
R	29	INH
MPS He REG P C	39	INH
L	49	INH
R	59	INH
HYD P 1	99	INH
2	109	INH
3	119	INH

CLOTHING CONFIG 10

Doff, stow:

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

Doff, stow in Wet Trash:

UCD (clamp if used)
Emesis Bag, if used (unstow new bag)

PI-1b/116/O/B

(reduced copy)

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

TOP

MIDDECK RECONFIGURATION

PRELIM MIDDECK CONFIG 2

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

INSTALL FILTERS

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

PRESS H2O TKA

ML26C SPLY H2O GN2 TK VENT vlv - PRESS
A SPLY vlv - OP

NOTE

Disregard possible 'S66 WASTE H2O PRES' fault msg

COMM CONFIG

Unstow: Headsets, Handheld Microphone, and/or wireless comm. (see WCCS Cue Card), if flown
If WCCS, perform STD WCCS CONFIG (ORB OPS, COMM/INST)

If middeck handheld mic/speaker ops:

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

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

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

ML86B:E cb MNA FC PCM - op

PDF CONFIG

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

Unstow VW Bags

MET	MS AFT ACTIONS
00:53	SPECIALIST SEAT EGRESS
00:54	WCS CONFIG/ACT 5
00:57	PRELIM MIDDECK CONFIG 2
01:08	SWITCH CONFIG/GALLEY ACT 6
01:40	CLOTHING CONFIG 10
01:54	SPECIALIST SEAT REMOVAL/STOWAGE
01:59	ESCAPE POLE STOWAGE 13
02:00	AIRLOCK SETUP FOR INGRESS 15

CLOTHING CONFIG 10

Doff, stow:

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

Doff, stow in Wet Trash:

UCD (clamp if used)
Emesis Bag, if used (unstow new bag)

PI-2a/116/O/C

(reduced copy)

TOP

MIDDECK RECONFIGURATION

WCS CONFIG/ACT 5

WCS SWITCH CONFIGURATION

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

MA73C:E cb AC1 WCS FAN SEP 1 ΦA, ΦB, ΦC (three) - cl
 AC2 WCS FAN SEP 2 ΦA, ΦB, ΦC (three) - cl
 AC2 PL 3Φ - cl

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

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

WCS ACTIVATION

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

SWITCH CONFIG/GALLEY ACT 6

MA73C:G cb AC3 GALLEY FAN (three) - cl
 :F cb AC1 MAR 3Φ - cl
 ML86B:A All cbs closed except MNB H2O LINE HTR B - op
 :B All cbs closed
 :E All cbs closed except: FC PCM - op
 FLOOD TUNNEL ADAPTER (three) - op
 :F All cbs closed
 :G All cbs closed except: FLOOD TUNNEL ADAPTER - op
 R11L:G SPLY H2O GALLEY SPLY VLV - OP (tb-OP)
 GALLEY H2O HTRS (two) - ON
 OVEN/RHS - ON
 Unstow,install Personal Hygiene Hose

ESCAPE POLE STOWAGE 13

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

AIRLOCK SETUP FOR INGRESS 15

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

PI-2b/116/O/C

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

HOOK
VELCRO

(reduced copy)



POST INSERTION

**STS
116**