

Payload Powerdown

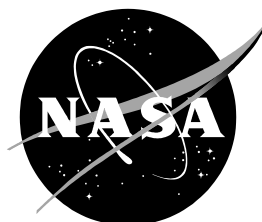
STS-117

**Mission Operations Directorate
Operations Division**

**Final
December 8, 2006**

National Aeronautics and
Space Administration

Lyndon B. Johnson Space Center
Houston, Texas



MISSION OPERATIONS DIRECTORATE

**PAYLOAD POWERDOWN
STS-117**

FINAL
December 8, 2006

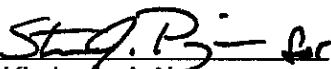
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Publication Manager	DO35/Y. Fuller	281-244-1174
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PL PWRDN	DO5/J. Larson	281-483-4619

NOTES

1. Section 1 of this book is inserted at the back of the Ascent Pocket Checklist.
2. Sections 2 and 3 of this book are inserted at the back of the Orbit Pocket Checklist.
3. Section 4 of this book is inserted at the back of the Entry Pocket Checklist.

PAYLOAD POWERDOWN
STS-117

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* – Omit from flight book

PL iii

PL PWR/117/FIN



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PL PWRDN – ASCENT

PL PWRDN MATRIX.....	PL 1-2
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PWRDN A	PL 1-2

**PL PWRDN
ASC**

PL PWRDN MATRIX

**PL PWRDN
ASC**

PROCEDURE	ACTION
PWRDN FOR LOSS OF:	
2 CAB FANS	N/A
CAB PRESS	
(MINOR PWRDN; from step 4)	N/A
(MAJOR PWRDN; from step 5)	N/A
2 H2O LOOPS	
[PLT PWRDN, SYS AOA,	
<u>2 H2O LOOPS (AOA);</u>	
(CDR/PLT PWRDNS)]	N/A
(POST OMS-2)	N/A
1 FREON LOOP	N/A
HI LOAD EVAP	N/A
2 FREON LOOPS	
[PLT PWRDN, SYS AOA,	
<u>2 FREON LOOPS (AOA);</u>	
(CDR/PLT PWRDNS)]	N/A
(POST OMS-2)	N/A
FES/1 FC	N/A
2nd FC	N/A
MN BUS UNDERVOLTS/FC VOLTS	
(from step 6; permanent loss of PL PRI)	N/A
(from step 14; temporary loss of PL PRI)	N/A

ACTION

A	PWRDN	PWRUP
N/A		N/A

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PL PWR/117/A/FIN

PL PWRDN – ORBIT

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PL PWRDN
ORB

PL PWRDN MATRIX

**PL PWRDN
ORB**

PROCEDURE	ACTION
PWRDN FOR LOSS OF:	
HI LOAD EVAP	N/A
1 FREON LOOP	PP3A*,PP3B** (on MCC call) as reqd
1 FC	PP3A*,PP3B** (on MCC call) as reqd until ORB kW < 17
FES (ON ORBIT)	N/A
(DEORBIT PREP)	N/A
MN BUS UNDERVOLTS/FC VOLTS	
(from step 6; permanent loss of PL PRI)	A
(from step 14; temporary loss of PL PRI)	A
PRIORITY PWRDN GROUP 3	PP3A*,PP3B** (on MCC call) as reqd

*PRIORITY PWRDN 3A (PP3A) contains recoverable PL ops pwrdn steps

**PRIORITY PWRDN 3B (PP3B) is a total PL pwrdn that may cause PL ops to be nonrecoverable

ACTION

PP3A	PRIORITY PWRDN (Recoverable) (On MCC call only)	PWRUP
<p><u>FLT DECK/MIDDECK</u></p> <p>1. Exit programs, pwr dn all non-essential PGSCs</p> <p>L11 2. DC PWR CAB PL1 – OFF</p> <p>If addnl pwrdn reqd: 3. Go to PRIORITY PWRDN 3B (PP3B)</p>		√MCC

PP3B	PRIORITY PWRDN (Non-Recoverable) (On MCC call only)	PWRUP
<p><u>OBSS</u></p> <p>1. LCC DEACT (Cue Card, <u>LCS</u>) LCH DEACT (Cue Card, <u>LCS</u>) LDRI/ITVC DEACT (Cue Card, <u>LDRI/ITVC</u>)</p> <p><u>FLT DECK/MIDDECK</u></p> <p>L12 2. OIU PWR – OFF (ctr) (tb-bp)</p> <p align="center"><u>NOTE</u> MCC will turn off the PSP; expect 'BCE BYP PSP' msg. MCC will config PCMMU, PDI as reqd</p> <p>R1 3. PL CAB – OFF AUX – OFF</p>		√MCC

A	PWRDN (PL PRI temporarily or permanently lost)
<u>OBSS LCS</u>	
<ol style="list-style-type: none"> 1. LCC DEACT (Cue Card, <u>LCS</u>) 2. LCH DEACT (Cue Card, <u>LCS</u>) 	

PWRUP (PL PRI recovered)	
<u>OBSS LCS</u>	
If reqd (on MCC GO):	
<ol style="list-style-type: none"> 1. LCH ACT (Cue Card, <u>LCS</u>) 2. LCC ACT (Cue Card, <u>LCS</u>) 	

PL SAFING – ORBIT

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MIDDECK	PL 3-3
OIU	PL 3-3

PL SAFING
ORB

ACTION

A	PL SAFING
<u>MIDDECK</u>	
<u>OIU</u>	
L12U	1. OIU PWR – OFF (ctr) (tb-bp)
R1	2. √PL PRI MNB,FC3,MNC (three) – OFF (tb-OFF)
	3. AUX – OFF
	4. CAB – OFF
	5. √AFT MNB – OFF
	6. √MNC – OFF
	7. When PL SAFING completed, return to calling procedure, if reqd
	8. After calling procedure complete, stow: AC Vac Cleaner SSV Fluorescent Lt Ergometer Non-essential PGSCs ESC Body Camcorders Cabin Air Cleaner Mag Lt Routers Chargers

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PL PWRDN – ENTRY

PL PWRDN MATRIX..... PL 4-2
ACTION..... PL 4-2
PWRDN A PL 4-2

PL PWRDN MATRIX

PROCEDURE	ACTION
PWRDN FOR LOSS OF:	
2 CAB FANS	N/A
2 H2O LOOPS (ENTRY)	N/A
CAB PRESS	N/A
1 FREON LOOP (ENTRY)	N/A
HI LOAD EVAP (ENTRY)	N/A
FES	N/A
2 FREON LOOPS (ENTRY)	N/A
1 FC	N/A
2nd FC (ENTRY)	N/A
MN BUS UNDERVOLTS/FC VOLTS	
(from step 6; permanent loss of PL PRI)	N/A
(from step 14; temporary loss of PL PRI)	N/A

ACTION

A	PWRDN	PWRUP
N/A		N/A

**PL PWRDN
ENT**

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Space Shuttle Program
FLIGHT DATA FILE

JSC-48097-117
FINAL



**PAYLOAD
POWERDOWN**

**STS
117**

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