

**FAILURE MODES EFFECTS ANALYSIS (FMEA) -- CIL HARDWARE
NUMBER: 05-7BA-2000 -X**

SUBSYSTEM NAME: EW&I/LANDING GEAR & CONTROL
REVISION: 1 08/23/00

PART DATA

PART NAME	PART NUMBER
VENDOR NAME	VENDOR NUMBER
SRU : CONNECTOR, PLUG- MEDS MODIFICATION	NLS6GT14-35XX

EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:
CONNECTOR, PLUG, 37 #22 CONTACTS - NLG EXTENSION PYRO POWERED ASSIST
CIRCUITS LOCATION: SEE TABLE 05-7BA-2000-1

REFERENCE DESIGNATORS: 34V73A8W1P2

QUANTITY OF LIKE ITEMS: 1
NLS6GT12-35XX (1)

FUNCTION:
PROVIDES MATE/DEMATE CAPABILITY FOR WIRING WHICH CONTAINS "ARM", "FIRE 1",
OR "FIRE 2" COMMANDS FOR NOSE LANDING GEAR (NLG) EXTEND PYRO POWERED
ASSIST PIC NO. 1 AND NO. 2. FOR PLUG REFERENCE DESIGNATOR, SEE TABLE 05-7BA-
2000-1

FAILURE MODES EFFECTS ANALYSIS FMEA – CIL FAILURE MODE

NUMBER: 05-7BA-2000- 01

REVISION#: 1 08/09/00

SUBSYSTEM NAME: EW&I/LANDING GEAR & CONTROL

LRU:

CRITICALITY OF THIS

ITEM NAME: CONNECTOR, PLUG - MEDS MODIFICATION

FAILURE MODE: 1/1

FAILURE MODE:

INADVERTENT DEMATING

MISSION PHASE:

LS LANDING/SAFING

VEHICLE/PAYLOAD/KIT EFFECTIVITY:

102 COLUMBIA
104 ATLANTIS

CAUSE:

PIECE PART FAILURE, CONTAMINATION, VIBRATION, MECHANICAL SHOCK, PROCESSING ANOMALY

CRITICALITY 1/1 DURING INTACT ABORT ONLY? NO

REDUNDANCY SCREEN

- A) N/A
- B) N/A
- C) N/A

PASS/FAIL RATIONALE:

A)

B)

C)

- FAILURE EFFECTS -

(A) SUBSYSTEM:

LOSS OF ABILITY TO CONDUCT CRITICAL COMMANDS FROM PANELS F8 AND F8A3 TO NLG EXTENSION PYRO POWERED ASSIST PIC NO. 1 AND NO. 2.

(B) INTERFACING SUBSYSTEM(S):

INADVERTENT DEMATING OF THIS CONNECTOR WILL LOSE BOTH PIC'S FOR THE NLG EXTEND PYRO POWERED ASSIST FUNCTION.

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(C) MISSION:

POSSIBLE LOSS OF CREW/VEHICLE DUE TO LOSS OF CAPABILITY TO PROVIDE POWERED ASSIST FOR DROPPING THE NLG INTO THE AIRSTREAM. LOSS OF THIS FUNCTION MAY NOT ALLOW THE FULL EXTENSION OF THE NLG IN TIME FOR A SAFE TOUCHDOWN.

REFERENCE CIL 05-6BA-2117-1

(D) CREW, VEHICLE, AND ELEMENT(S):
SAME AS (C).

(E) FUNCTIONAL CRITICALITY EFFECTS:

-DISPOSITION RATIONALE-

(A) DESIGN:

REFER TO APPENDIX K, ITEM NO. 3 - TYPE NLS CONNECTOR, CIRCULAR, MINIATURE

(B) TEST:

REFER TO APPENDIX K, ITEM NO. 3 - TYPE NLS CONNECTOR, CIRCULAR, MINIATURE

GROUND TURNAROUND TEST

ANY TURNAROUND CHECKOUT TESTING IS ACCOMPLISHED IN ACCORDANCE WITH OMRSD.

(C) INSPECTION:

REFER TO APPENDIX K, ITEM NO. 3 - TYPE NLS CONNECTOR, CIRCULAR, MINIATURE

(D) FAILURE HISTORY:

REFER TO APPENDIX K, ITEM NO. 3 - TYPE NLS CONNECTOR, CIRCULAR, MINIATURE

CURRENT DATA ON TEST FAILURES, FLIGHT FAILURES, UNEXPLAINED ANOMALIES, AND OTHER FAILURES EXPERIENCED DURING GROUND PROCESSING ACTIVITY CAN BE FOUND IN THE PRACA DATA BASE.

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NUMBER: 05-7BA-2000A-01

OK
MA-RWG
9-1-00

(E) OPERATIONAL USE:

NONE.

TABLE 05-7BA-2000A-1

OK
RWG-mq
9-1-00

PART NUMBER	PLUG REFERENCE DESIGNATOR	CONNECTOR LOCATION
NLS6GT14-35XX	34V73A8W1P2	PANEL F8A3

- APPROVALS -

S & R ENGINEERING : M. D. DUMETZ
 S & R ENGINEERING ITM : P. A. STENGER
 DESIGN ENGINEERING : J. L. PECK
 EPD&C SUBSYSTEM MANAGER : R. L. PHAN
 SR&QA EPD&C :
 NASA DCE :
 MOD :
 USA SAM :
 USA ORBITER ELEMENT :
 SR&QA Subsystem Engineer

Marc Dumetz
P. A. Stenger
J. L. Peck
R. L. Phan 8/24/00
Michael T. Mullen 8/25/00
John Norris 8/28/00
Suzanne Little 8/28/00
Benjamin P. Baugois 8/28/00

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PRINT DATE: 08/24/00

FAILURE MODES EFFECTS ANALYSIS (FMEA) - CIL FAILURE MODE
NUMBER: 05-7BA-2000A-01

OK
 MQ/RWG
 9-1-00

(E) OPERATIONAL USE:

NONE

TABLE 05-7BA-2000A-1

OK
 MQ/RWG
 9-1-00

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NLS6GT14-35XX	34V73A8W1P2	PANEL F8A3

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 EPO&C SUBSYSTEM MANAGER : R. L. PHAN
 SR&QA :
 NASA DCE :
 MOD :
 USA SAM : J. Cipolletti
 USA ORBITER ELEMENT :

M. D. Dumetz
P. A. Stenger
J. L. Peck
R. L. Phan 8/24/00
J. Cipolletti 8/28/00