

FAILURE MODES EFFECTS ANALYSIS (FMEA) - NON-CIL HARDWARE

NUMBER:05-60-200601 -X

SUBSYSTEM NAME: EPD&C-GUIDANCE, NAVIGATION, & CONTROL (05-1)

REVISION: 1 01/22/98

PART DATA

	PART NAME VENDOR NAME	PART NUMBER VENDOR NUMBER
LRU	:AFT PCA 3	V070-765240
LRU	:AFT PCA 4, 5, 6	V070-765280
LRU	:AFT PCA 3	V070-765930
SRU	:DIODE	JANTX1N1204RA

EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:
DIODE 12 AMPS

REFERENCE DESIGNATORS: 54V76A134A2CR9
54V76A134A2CR10
55V76A135A2CR9
55V76A135A2CR10
56V76A136A2CR9
56V76A136A2CR10
56V76A133A2CR10
56V76A133A2CR30

QUANTITY OF LIKE ITEMS: 8
EIGHT, 2 PER AFT PCA

FUNCTION:

PERMITS CONDUCTION OF ELECTRICAL CURRENT AND PROVIDES MAIN BUS ISOLATION FROM MN DC BUSES A, B, & C THROUGH RPC'S TO ATVC'S NO. 1,2,3 & 4 PWR SUPPLIES.

FAILURE MODES EFFECTS ANALYSIS (FMEA) – NON-CIL FAILURE MODE
NUMBER: 05-60-200801-02

LOSS OF MAIN BUS ISOLATION TO ONE OF FOUR ATVC'S.

(B) INTERFACING SUBSYSTEM(S):
NO EFFECT. ATVC STILL HAS POWER.

(C) MISSION:
NO EFFECT

(D) CREW, VEHICLE, AND ELEMENT(S):
NO EFFECT FIRST FAILURE. SECOND FAILURE (LOSS OF MAIN BUS, CAUSES RPC OF REDUNDANT PATH TO TRIP OFF CAUSING LOSS OF ONE OF FOUR ATVC'S) RESULTS IN LOSS OF ONE OF FOUR HYDRAULIC CHANNELS (FAILED CHANNEL IS ISOLATED). THIRD FAILURE (ALL THREE POLES OF SWITCH OPEN CAUSING LOSS OF AN ADDITIONAL ATVC AND ASSOCIATED MPS ISOLATION VALVE DRIVER) COULD RESULT IN LOSS OF CREW/VEHICLE.

(E) FUNCTIONAL CRITICALITY EFFECTS:
CRITICALITY 1R BECAUSE LOSS OF MPS AND SRB THRUST VECTOR CONTROL MAY CAUSE LOSS OF CREW/VEHICLE.

- APPROVALS -

EDITORIALLY APPROVED	: RJ	:
EDITORIALLY APPROVED	: JSC	: <u>Sam Deary 2/12/96</u>
TECHNICAL APPROVAL	: APPROVAL FORM	: 95-CIL-004-R1