SHUTTLE CRITICAL ITEMS LIST - ORBITER NUMBER: G0-AA-203000-00-000-X

SUBSYSTEM NAME:

REVISION : 1 89/08/09

	PART NAME VENDOR NAME	PART NUMBER VENDOR NUMBER
■ LRU :	STATUS MONITOR CABLE	G073-770282

■ EXTENDED DESCRIPTION OF PART UNDER ANALYSIS:
STATUS MONITOR CABLE

■ QUANTITY OF LIKE ITEMS: 1
ONE

■ FUNCTION:
CABLE PROVIDES INTERCONNECT BETWEEN THE SIGNAL CONDITIONER ASSEMBLY BOX AND THE STATUS MONITOR ASSEMBLY BOX OF THE GALILEO RPM TANK STATUS MONITORING SYSTEM.

SHUTTLE CRITICAL ITEMS LIST - ORBITER NUMBER: GO-AA-203000-00-000-02

REVISION# 1 89/08/25

SUBSYSTEM: GALLILEO RPM TANK MONITOR
LRU :STATUS MONITOR CABLE
ITEM NAME: STATUS MONITOR CABLE

CRITICALITY OF THIS FAILURE MODE:1S

■ FAILURE MODE:
ONE OR MORE WIRES IN THE CABLE OR PINS IN THE CONNECTORS SHORTS TO ONE OR MORE OTHER WIRES IN THE CABLE OR PINS IN THE CONNECTORS.

MISSION PHASE:
LS LANDING SAFING

■ VEHICLE/PAYLOAD/KIT EFFECTIVITY: 104 ATLANTIS STS-34

■ CAUSE:
STRUCTURAL FAILURE, CONTAMINATION, VIBRATION, MECHANICAL SHOCK, THERMAL STRESS, Processing Anomaly

■ CRITICALITY 1/1 DURING INTACT ABORT ONLY? N

■ REDUNDANCY SCREEN A) N/A
■ B) N/A
■ C) N/A

PASS/FAIL RATIONALE:
■ A)

■ B)

■ C)

- FAILURE EFFECTS -

■ (A) SUBSYSTEM:
LOSS OF ONE OR MORE SYSTEM FUNCTIONS, POSSIBLE UNDETECTED RUNAWAY TANK OVERPRESSURE.

■ (B) INTERFACING SUBSYSTEM(S):
POSSIBLE TANK RUPTURE, FIRE/EXPLOSION.

■ (C) MISSION:
POSSIBLE LOSS OF THE GALILEO/IUS PAYLOAD

- (D) CREW, VEHICLE, AND ELEMENT(S):
  POSSIBLE LOSS OF THE ORBITER, POSSIBLE LOSS OF LIFE.

- (E) FUNCTIONAL CRITICALITY EFFECTS:
  POSSIBLE UNDETECTED RUNAWAY TANK OVERPRESSURE, TANK RUPTURE, POSSIBLE FIRE/EXPLOSION, POSSIBLE LOSS OF THE ORBITER, POSSIBLE LOSS OF LIFE.

- DISPOSITION RATIONALE -

(A) DESIGN
FABRICATED FROM COMMERCIAL CABLE PVC INSULATED, PVC JACKET, 20% TINNED COPPER BRAIDED SHIELD WITH NBSGE18-26PNTS CONNECTORS SUPPLIED BY ROCKWELL. ASSEMBLED PER ML0303-0045. SHIELDING PRIMARILY FOR PHYSICAL PROTECTION.

(B)TEST
THE CABLES ARE CHECKED FOR INSULATION RESISTANCE AND HI-POT PER ML0301-0900.

(C)INSPECTION
THE CABLES ARE INSPECTED FOR WEIGHT, WORKMANSHIP, FINISH, DIMENSIONS, CONSTRUCTION, CLEANINESS, IDENTIFICATION MARKING AND CERTIFIED MATERIALS AND PROCESSES. ACCEPTANCE TEST SPECIFICATION ARE APPROVED BY QUALITY ASSURANCE AND PROVIDES ISOLATION, CONTINUITY AND FUNCTIONAL TESTING OF THE ASSEMBLY.

(D) FAILURE HISTORY
NO GENERIC FAILURES

(E) OPERATIONAL USE
CONTINGENCY ONLY. THE CABLES INTERCONNECTS TWO PIECES OF GSE HARDWARE. A SPARE CABLE ASSEMBLY WILL BE AVAILABLE AT THE ABORT SITE. USAGE IS ONE TIME ONLY IF MISSION IS ABORTED WITH GALILEO ON BOARD.

- APPROVALS -

RELIABILITY ENGINEERING	W. R. MARLOWE	
DESIGN ENGINEERING	L. COLEMAN	
QUALITY ENGINEERING	C. ROLLINS	
NASA RELIABILITY		
NASA SUBSYSTEM MANAGER		
NASA QUALITY ASSURANCE		