

CRITICAL ITEMS LIST (CIL)

SYSTEM:	ASI	FUNCTIONAL CRIT:	1
SUBSYSTEM:	Intertank	PHASE(S):	b
REV & DATE:	J, 12-19-97	HAZARD REF:	S.11
DCN & DATE:			
ANALYSTS:	H. Keefe/E. Howell		

FAILURE MODE: Structural Failure

FAILURE EFFECT: b) Loss of mission and vehicle/crew due to debris source to orbiter.

TIME TO EFFECT: Immediate

FAILURE CAUSE(S):  
 A: Improper Manufacture  
 B: Failure of Attaching Hardware

REDUNDANCY SCREENS: Not Applicable

FUNCTIONAL DESCRIPTION: Provides environmental protection for RSS cross strap cable.

<u>FMEA ITEM</u> <u>CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
4.2.4.1	80913001205-019	Fairing Assembly (RSS) (Fairing Instal - LH)	1	LWT-54 & Up
4.2.5.1	80913001205-020	Fairing Assembly (RSS) (Fairing Instal - RH)	1	LWT-54 & Up

REMARKS: These items are grouped as the failure mode, causes and effects are the same.

CRITICAL ITEMS LIST (CIL)  
CONTINUATION SHEET

SYSTEM: ASI  
SUBSYSTEM: Intertank  
FMEA ITEM CODE(S): 4.2.4.1, 4.2.5.1

REV & DATE: J, 12-19-97  
DCN & DATE:

---

RATIONALE FOR RETENTION

---

DESIGN:

- A, B: The Range Safety System (RSS) fairing assembly is fabricated from .063 and .080 inch thick aluminum sheet. Materials selected for this part number are in accordance with MMC-ET-SE16 which assures repetitive conformance of composition and properties. The fairing and attach bolts are designed to the required ultimate safety factor of 1.4 (ET Stress Report 826-2188).
- B: Attaching hardware is selected from the Approved Standard Parts List (ASPL 826-3500), installed per STP2014 and torqued using values specified on Engineering drawings. Tensile installation loads are sufficient to provide screening for major flaws in individual fasteners.

TEST:

The Fairing Assembly (RSS) is certified. Reference HCS MMC-ET-TM08-L-S007 (LWT-54 thru 88) and HCS MMC-ET-TM08-L-S523 (LWT-89 & Up).

Vendor

- B: Attaching hardware is procured and tested to standard drawings 26L2 and 33L9.

INSPECTION:

Vendor Inspection - Lockheed Martin Surveillance:

- A, B: Verify materials selection and verification controls (MMC-ET-SE16, drawing 80913001204 and standard drawings 26L2 and 33L9).
- A: Inspect dimensional conformance (drawing 80913001204).

Launch Site:

- B: Inspect that attaching hardware is free from damage (STP2014 and drawing 80911019319).
- A, B: Verify installation and witness torque (drawing 80911019319).

FAILURE HISTORY:

Current data on test failures, unexplained anomalies and other failures experienced during ground processing activity can be found in the PRACA data base.