

CRITICAL ITEMS LIST (CIL)

SYSTEM: ASI FUNCTIONAL CRIT: 1  
SUBSYSTEM: Electrical Cable Trays PHASE(S): b  
REV & DATE: K, 6-29-01 HAZARD REF: S.11  
DCN & DATE: 001, 2-7-02  
ANALYSTS: R. Axelsen/ H. Claybrook

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FAILURE MODE: Structural Failure  
FAILURE EFFECT: b) Loss of mission and vehicle/crew due to debris source to Orbiter  
from fairing.  
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 the ET cmaera.

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<u>FMEA ITEM</u> <u>CODE(S)</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY</u>	<u>EFFECTIVITY</u>
4.3.126.1	810016-1	Camera Fairing	1	ET-115

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REMARKS:

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CRITICAL ITEMS LIST (CIL)  
CONTINUATION SHEET

SYSTEM: ASI  
SUBSYSTEM: Electrical Cable Trays  
FMEA ITEM CODE(S): 4.3.126.1

REV & DATE: K, 6-29-01  
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RATIONALE FOR RETENTION

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DESIGN:

- A, B: The ET Camera Fairing materials selected for this part number are in accordance with MMC-ET-SE16 which assures repetitive conformance of composition and properties.
- A: The fairing is designed to the required yield (1.1) and ultimate (1.4) safety factors (ET Stress Report 826-2188).
- B: The attaching hardware is selected from the Approved Standard Parts List (ASPL 826-3500). The hardware is 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 Camera Fairing is certified. Reference COQ MMC-ET-TM06-127.

Vendor:

- B: Attaching fasteners are procured and tested to standard drawings 26L3 and 33L1.

INSPECTION:

Vendor Inspection-Lockheed Martin Surveillance:

- A, B: Verify materials selection and verification controls (MMC-ET-SE16, drawing 810016-1 and standard drawings 26L17 and 33L9).
- A: Inspect dimensional conformance (drawing 810016-1).

MAF Quality Inspection:

- B: Inspect that attaching hardware is free from damage (drawing 80911017063 and STP2014).
- A, B: Verify installation and witness torque (drawing 80911017063 and STP2014).

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.