

FAILURE MODE EFFECTS ANALYSIS/CRITICAL ITEMS LIST

ITEM NUMBER: EDFT-05-STBD7-9	ORIGINATOR: JSC	PROJECT: DTO 671
PART NAME: ACME SCREW LOCK DEVICE	LRU PART NUMBER: SED39128554-401	QUANTITY: 2
PART NUMBER: R076707-1	LRU PART NAME: BAY 7 STBD INSTALLATION	SYSTEM: EDFT-05
DRAWING: SEE P/N	SUBSYSTEM: N/A	EFFECTIVITY: STS-80

CRITICALITY:

CRITICAL ITEM? YES NO

CRITICALITY CATEGORY: 1R/3

REDUNDANCY SCREENS:

A - Pass
B - N/A
C - Pass

FUNCTION: Two ACME Screws are used to attach and secure the Battery ORU Simulator Assembly to the CHIA Interface Plate Assembly for launch and landing. The ACME screw locking device consists of two tangs which engage a toothed gear (when the torquing device is removed) in order to prevent each screw from backing out.

FAILURE MODE: Unable to secure ORU to CHIA Assembly with both ACME screws and their locking devices

CAUSE: Contamination, galling, piece part failure

FAILURE DETECTION: Visual

REMAINING PATHS: Four - Jettison ORU if able to detach both ACME screws, jettison ORU/Subcarrier Assembly after releasing CHIA Latch bolts, or EVA contingency bolts on CHIA Subcarrier Assembly or either C-channel of DSIA.

EFFECT/MISSION PHASE: EVA, Landing

CORRECTIVE ACTION: If ORU is free, jettison it. If not, jettison ORU/CHIA Subcarrier Assembly using latch bolts, contingency bolts on latch assembly or C-Channel.

-FAILURE EFFECTS-

END ITEM: Unable to configure for safe landing without jettison of some equipment.

INTERFACE: N/A

MISSION: Possible loss of some DTO objectives

CREW/VEHICLE: If one ACME screw is not secure, remaining screw may not sustain landing loads. Possible vehicle damage because of loose equipment (350 lbs) in PLB if it is not jettisoned.

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MEA NUMBER: EDFT-05-STBD7-9	ORIGINATOR: JSC	PROJECT: DTO 671
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HAZARD INFORMATION:

HAZARD: YES NO

HAZARD ORGANIZATION CODE: N/A

HAZARD NUMBER: N/A

TIME TO EFFECT: Hours

TIME TO DETECT: Minutes

TIME TO CORRECT: Hours

REMARKS:

-RETENTION RATIONALE-

- A) DESIGN:
- B) TEST:
- C) INSPECTION:
- D) FAILURE HISTORY:
- E) OPERATIONAL USE:

PREPARED BY: MURRAY EPSTEIN REVISION:

DATE: 4/16/96
