

## FAILURE MODE EFFECTS ANALYSIS/CRITICAL ITEMS LIST

FMEA NUMBER: EC-STBD04-02      ORIGINATOR:      ISC      PROJECT: EDFT-03

PART NAME: SURF HOUSING	LRU/ORU PART NUMBER: SED39126455-301	QUANTITY: 1
PART NUMBER: SDD39126457-301	LRU/CRU PART NAME: SURF ASSY	SYSTEM: GFE
LSC CONTROL NO: N/A	DRAWING/REF DESIGNATOR: SEE P/N	SUBSYSTEM: EVA
ZONE/LOCATION: STBD-4	EFFECTIVITY/AFFECT STAGE: STS-72	

### CRITICALITY:

CRITICAL ITEM: No      SUCCESS PATHS: 3  
 CRITICALITY CATEGORY: 1R/3      SUCCESS PATH REMAINING: 2

END ITEM NAME: N/A  
 END ITEM FUNCTIONAL: N/A  
 END ITEM CAPABILITY: N/A  
 END ITEM FAILURE TOLERANCE: N/A

### REDUNDANCY SCREENS:

A/1. C/O PRELAUNCH: Pass  
 2. C/O ON ORBIT: N/A for NSTS  
 B/3. DETECTION FLIGHT CREW: Pass  
 4. DETECTION GROUND CREW: N/A  
 C/5. LOSS OF REDUNDANCY FROM SINGLE CAUSE: Pass

FUNCTION: The housing is the structural attachment to the transition plate. It is fastened to the plate by EVA removable bolts.

FAILURE MODE CODE: N/A for NSTS

FAILURE MODE: Unable to remove bolt.

CAUSE: Contamination, galling.

REMAINING PATHS: 1	EFFECT/ MISSION PHASE: EVA.
Primary path. 2) Fold RU at hinge, remove PRUM and jettison RU/PRUM/SURF.	

CORRECTIVE ACTION: Primary path of PRUM removal.

### -FAILURE EFFECTS-

END ITEM/LRU/ORU/ASSEMBLY: If latch fails and bolts can not be removed, RU may be stuck in deployed position.

SUBSYSTEM/NEXT ASSEMBLY/INTERFACE: N/A

SYSTEM/END ITEM/MISSION: None.

CREW/VEHICLE : RU cannot be safely stored in an extended position. RU and SURF must be jettisoned or deorbit/landing loads will cause a structural failure in the RU resulting in loose hardware in the PLB which may collide with vehicle.

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**FAILURE MODE EFFECTS ANALYSIS/CRITICAL ITEMS LIST**


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FMEA NUMBER: EC-STBD04-02      ORIGINATOR:      JSC      PROJECT:EDFT-03

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PART NAME: SURF HOUSING	LRU/ORU PART NUMBER: SED39126455-301	QUANTITY: 1
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**HAZARD INFORMATION:**


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HAZARD: N/A

HAZARD ORGANIZATION CODE: N/A

HAZARD NUMBER: N/A

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TIME TO EFFECT: Hours

TIME TO DETECT: Seconds

TIME TO CORRECT: N/A

FAILURE DETECTION/FLIGHT: Visual

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**REMARKS:**


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**-RATIONALE FOR ACCEPTABILITY-**


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(A) DESIGN: N/A

(B) TEST: N/A

(C) INSPECTION: N/A

(D) FAILURE HISTORY: N/A

(E) OPERATIONAL USE: N/A

(F) MAINTAINABILITY: N/A

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PREPARED BY: G. Wright

REVISION:

DATE: 5/7/95

WAIVER NUMBER:

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