

Document N<sup>o</sup> 18901-70131R  
 Release Date 10/30/95  
 Revision Date 02/26/96  
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Failure Modes and Effects Analysis/Critical Items List

FMEA No:	OSS-ST576-08	Originator:	G. Hall	Project:	STS-76 DTO 571
Part Name:	Cable Assy	ORU Part #	SED39:28394-301	Quantity:	4
Part #:	SDD33105075-001	ORU Part Name:	Common Safety Tether Assy	System:	EVA
Drawing:	SDD33105075	Subsystem:	N/A	Effectivity:	STS-76

Criticality:

Critical Item:	Yes	<u>X</u>	No
Criticality Category		<u>1R/2</u>	

Redundancy Screens:

A - Pass  
 B - Pass  
 C - Pass

Function: Provides adjustable safety tether interface between the EVA crewmember waist tether and EVA slidewire assy.  
 Failure Mode: Cable fails (separates)  
 Cause: Damage, stress failure

Remaining Paths: Use Safer to return to Orbiter. Effect/Mission Phase: EVA while docked  
 When undocked, orbiter pickup provides additional path  
 Corrective Action: None

-Failure Effects-

End Item: Tether assembly inoperable  
 Interface: N/A  
 Mission: N/A  
 Crew/Vehicle: Possible loss of crewmember due to separation from Orbiter

Hazard Information:

Hazard:	Yes	No	<u>X</u>
Hazard Organization Code:		N/A	
Hazard Number:		N/A	

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Part #:	SDD33105075-001	ORU Part Name:	Common Safety Tether Assy	System:	EVA
Drawing:	SDD33105075	Subsystem:	N/A	Effectivity:	STS-76
Time to Effect:	Immediate				
Time to Detect:	Immediate				
Time to Correct:	Minutes				
Failure Detection/Flight:	Visual				

**Remarks:**

**-Retention Rationale-**

- (A) Design: Existing Safety Tether design (SRCM) except for new large hook.
- (B) Test: Certification per CARD for CSTA. STA JSC 33433
- (C) Inspection: Flight hardware inspections at OSS, PDA, and PIA for proper operation
- (D) Failure History: None
- (E) Operational Use: NOTE: ORU will be used in a critical application.

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Prepared By:	G. Hall/OSS	Revision:	B	Date:	02/26/96
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