

FAILURE MODES AND EFFECTS ANALYSIS

REFERENCE DESIGNATOR: N/A
 NAME/QUANTITY: Restraint System/3
 DRAWING REFERENCE: 8E039124418-001, 8E039123716-001, 8E039123721-001

PROJECT: RSS
 LRU NAME/QUANTITY: Restraint System/3
 LRU PART NUMBER: SLD30129406, 1101760-46, 1141354-01

SUBSYSTEM: RSS
 EFFECTIVITY: STS-T1 and subs

FAILURE MODE NUMBER RSS-01	CRITICALITY 3/1R	FAILURE EFFECT	FAILURE DETECTION METHOD				
<p>FUNCTION The RSS Restraint System restrains and holds the crewmember securely in position during Orbiter landing.</p>		<p>END ITEM</p> <ul style="list-style-type: none"> • No effect • No effect after second failure • Loss of harness after third failure <p>MISSION None</p> <p>CREW/VEHICLE</p> <ul style="list-style-type: none"> • No effect after first or second failure • Possible bodily injury after third failure and possible loss of crew during a crash 	<p>FLIGHT Crewmember observation</p>				
<p>FAILURE MODE AND CAUSE</p> <p>MODE Restraint harness system fails to restrain and releases prematurely. Broken center buckle spring allows depress of engaging catch, thus releasing strap tang. C-clip retains pressure bar of adjuster; if lost, strap releases.</p> <p>CAUSE(S) Broken center buckle latch springs, or adjuster pressure bar C-clip breaks.</p>			<p>GROUND</p> <ul style="list-style-type: none"> • Turnaround inspection • Functional checkout 				
<p>REDUNDANCY SCREENS</p> <p>A - Pass B - Pass C - Pass</p>	<p>REMAINING PATHS N/A</p>	<p>CORRECTIVE ACTION</p> <p>C-clip For C-clip failure and subsequent adjuster pin separation, the harness belts can be tied back together by crewmember during flight. This is a planned workaround.</p> <p>Center buckle The harness belts can be tied back together by crewmember during flight. If time allows, center buckle can be taped in place.</p>					
<p>MISSION PHASE</p> <p>Reentry/landing</p>	<p>CORRECTIVE ACTION TIMES</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 50%;">TIME TO EFFECT</th> <th style="width: 50%;">TIME TO CORRECT</th> </tr> <tr> <td style="text-align: center;">Immediate</td> <td style="text-align: center;">N/A</td> </tr> </table>		TIME TO EFFECT	TIME TO CORRECT	Immediate	N/A	<p>INTERFACE None</p>
TIME TO EFFECT	TIME TO CORRECT						
Immediate	N/A						
		<p>REMARKS</p> <ul style="list-style-type: none"> • Reference RI EOCN 067396 • C-clip failures corrective action identified and accomplished at JSC on noninterference basis. 					

PREPARED BY: D. L. Figgie

REVISION:

UPDATING DATE:

DATE: 5/10/84