

EXECUTIVE RISK ASSESSMENT SUMMARY

HAZARD REPORT NUMBER: LW-PS-RAES-2B	DATE: 7/96
REV. LETTER:	REV. DATE:
PART NUMBER: SED39127336	LRU NUMBER: SED39129185
TITLE: Unable to properly configure seat.	1. SEVERITY: Catastrophic 2. LIKELIHOOD OF OCCURRENCE: Improbable 3. CLASSIFICATION: Controlled
CAUSE: B. Seat-back cannot be locked into landing position - lower track latch assy. jams while in the disengaged position.	REDUNDANCY SCREENS: A - Pass B - Pass C - Pass
FMEA: LWS-PS-RAES-2B Criticality: 1R/3 Name/Quantity: Lower track latch assy./2 Function: Allows the seat-back to be repositioned in the launch/landing and storage positions Failure Mode: Lower track latch assy. becomes jammed in the disengaged position.	Cause: Contamination, excessive wear, piece-part defect, actuator mechanism jams Failure detection: Crew notices the seat-back fails to latch
Corrective Action: 1. For Launch/RTLS, De-Orbit, Landing latching pins can be manually pushed into place with control cable handle or "T"-bar on rear of chair. 2. Spring loaded latching pins which are decoupled from actuator assy., with enough slack to allow engagement of pins to the seat back, will engage the pins automatically.	
EFFECT: Time to Effect: Seconds Time to Correct: Minutes Failure Effect: Seating inadequate to provide support/restraint for nominal flight loads or crash loads. Possible crew injury/loss of crew due to crewmember being tossed during turbulence, landing or following a failure which results in a crash landing.	REMAINING PATHS: 1. Control cable 2. "T"-bar release on rear of chair 3. Spring loaded latching pins
CONTROL/RETENTION RATIONALE: DESIGN: 1. Designed for minimum access for contamination. 2. Linkages are decoupled to allow engagement of one latching pin if the other is jammed (LWS-PS has positive margins of safety for one latch out on nominal landing).	
FAILURE HISTORY: OPERATIONAL USE: MAINTAINABILITY:	

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VERIFICATION:

TEST: 3. Functional test performed before and after each certification test and acceptance testing with QA participation.

3a. A latch/unlatch test performed (150 iterations). No failures encountered.

INSPECTION:

1. During assembly all parts are checked to be clean.

3b. PDA 4.2.6, PIA 4.2.3 - With the seat-back in the aft position unlock the seat-back adjustment lever located on the right side of the seat pan, slowly move seat back forward and release the control cable lever. The seat back shall lock in place in the forward launch position. Repeat for aft position. Repeat previous steps using "T"-bar. With seat back in forward position, pull "T"-bar move seat back forward into folded position. Release stowage pins and return to forward position. During all phases "T"-bar should be easily released and the seat back shall be free of jams, bindings, or inadvertent stops and move smoothly.

3c. OMRS V66AAO.022-C, D - Verify pilot/cmdr two position seat back and head rest position, full range and locking capability.

3d. Life Certification Test (800 full range of motion iterations) completed on seat-back (TPS DW95201430) and passed.