

EXECUTIVE RISK ASSESSMENT SUMMARY

HAZARD REPORT NUMBER: LW-PS-RAES-2E	DATE: 7/96
REV. LETTER:	REV. DATE:
PART NUMBER: SDD39127359	LRU NUMBER: SED39129185
TITLE: Unable to properly configure seat.	1. SEVERITY: Catastrophic 2. LIKELIHOOD OF OCCURRENCE: Improbable 3. CLASSIFICATION: Controlled
CAUSE: E. Seat-back cannot be locked into landing position - lower track latch assy. actuator mechanism center pin breaks.	REDUNDANCY SCREENS: A - Pass B - Pass C - Pass
FMEA: LWS-PS-RAES-2E Criticality: 1R/3 Name/Quantity: Seat-back tilt actuator mechanism/1 Function: The seat-back tilt actuator mechanism rotates around the center pin and provides the only attachment point for the actuator mechanism to the seat-back. Failure Mode: The center pin breaks.	Cause: Excessive wear, piece-part defect, structurally inadequate for worst case loads Failure detection: Crew notices the seat-back fail to latch.
Corrective Action: None	
EFFECT: Time to Effect: Seconds Time to Correct: Seconds 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. Qty (2) Spring loaded latching pins
CONTROL/RETENTION RATIONALE: DESIGN: 1. 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). 3. The loads to the pin that might be imposed during operational use are considered low, thus the pin retains high margins. (See attached analysis) FAILURE HISTORY: OPERATIONAL USE: MAINTAINABILITY:	

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VERIFICATION:

TEST:

2. Functional test performed before and after each certification test and acceptance testing with QA participation.

2a. A latch/unlatch test performed (150 iterations), No failures encountered.

2d. Life Certification Test (800 full range of motion iterations) completed on seat-back (TPS DW95201430) and passed.

INSPECTION:

2b. 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.

2c. OMRS V66AAO.022-C, D - Verify pilot/cmdr two position seat back and head rest adjustment, full range and locking capability.

3. An analysis has been done verifying the structural integrity on the center pin.

See Attached Analysis