

EXECUTIVE RISK ASSESSMENT SUMMARY

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| HAZARD REPORT NUMBER: LW-PS-RAES-2C | 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: C. Seat-back tilt cannot be locked into landing position - lower track latch assy. actuator mechanism jams in the disengaged position. | REDUNDANCY SCREENS: A - Pass B - Pass C - Pass |
| FMEA: LWS-PS-RAES-2C Criticality: 1R/2 Name/Quantity: Seat-back tilt actuator mechanism/1 Function: Allows the seat-back to be repositioned in the launch or landing position Failure Mode: lower track latch assy. actuator mechanism jams while in the disengaged position. | Cause: Contamination, excessive wear, piece-part defect Failure detection: Crew notices the seat-back fail to latch. |
| Corrective Action: For Launch/RTL5 pin may be manually pushed into place with control cable handle. For On-Orbit and Landing prep pin may be pushed into place with control cable handle, the "T"-bar on rear of seat. | |
| 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: None |
| 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: 4. Landing prep pin may be pushed into place with control cable handle, the "T"-bar on rear of seat. 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, PLA 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 V66AAG.022-C, D - Verify pilot/cmdr two position seat back and head rest adjustment, full range and locking capability.

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

4. Crew trained (Habitability, Equipment and Procedures - HAB EQ PROC) on use of control cable and "T"-bar.