

EXECUTIVE RISK ASSESSMENT SUMMARY

HAZARD REPORT NUMBER: LWS-MS-ERAS-2E	DATE: 12/95
REV. LETTER:	REV. DATE:
PART NUMBER: 940077-3	LRU NUMBER: SED39126815
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 - tilt cable jams in the disengaged position.	REDUNDANCY SCREENS: A - Pass B - Pass C - Pass
FMEA: LWS-MS-ERAS-2E Criticality: 1R/2 Name/Quantity: Seat-back tilt control cable/1 Function: Controls the seat back tilt latching mechanism. Failure Mode: Tilt control cable jams in the disengaged position	Cause: Contamination, excessive wear, piece-part defect Failure detection: Crew notices seat-back fails to latch.
Corrective Action: 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.	
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: 1. Designed for minimum access for contamination. 2. Linkages are decoupled to allow engagement of one latching pin if the other is jammed (LWS-MS has positive margins of safety for one latch out on nominal landing). 3. Latching pins can be manually pushed into place with control cable handle or "T"-bar on rear of chair.	
VERIFICATION: 1. During assembly all parts are checked to be generally clean. 2a. A latch/unlatch test performed (150 iterations), No failures encountered. 2b. FDA 4.2.3, PLA 4.2.3 - With the seat-back in the aft position and occupant in place, pull control cable, slowly move seat back forward and release the control cable lever. The seat back shall lock in place. Repeat for aft position. Without occupant 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.052-A, 053-A, 054-A, 055-A, 056-A - Verify two position seat back, full range and locking capability. 2d. Life Certification Test completed on seat-back (800 full range of motion iterations) (TPS DW95201430) and passed. 3. Crew training (Habitability Equipment and Procedures - HAB EQ PROC) on the use of the control cable and "T"-bar.	