CRITICAL ITEMS LIST

ASSY NOMENCLATURE: *MAIN PARACHUTE SUSPENSION LINES* SYSTEM: *CREW ESCAPE SYSTEM* REVISION

ASSY P/N: *SK1102420087* SUBSYSTEM: *PERSONAL PARACHUTE ASSY.* PAGE 46 OF 79

FMEA REF	FMEA REV	NAME, QTY & DRAWING REF DESIGNATION	CRIT'Y	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	RATIONALE FOR ACCEPTANCE
4 2 2		SUSPENSION LINES, (22) SK1102420087	1/1	4.2.2 Mode: Suspension line entanglement Cause: • Snag on drogue release mechanism or crewmember during deployment	Partially deployed canopy or no canopy deployment	1. DESIGN FEATURES TO MINIMIZE FAILURE MODES a The drogue orients the crewmember to preclude entanglement b Reefing of the main parachute c. The suspension lines are stowed in a split group with intremental break ties. 2. TEST OR ANALYSIS TO DETECT FAILURE MODE a. Acceptance Test (1) Certification testing will verify the PPA design b. Certification Test. (1) Four dummy drops at 310 knots, 2 at 10,000 feet, 2 at 25,000 feet (2) Four live water drop jumps. (3) One 300 knot wind blast test (4) Four dummy drops at 225 knots, 2 at 10,000 feet, 2 at 25,000 feet. (5) Eight live jumps at 170 knots, 4 at 10,000 feet, 4 at 6,000 feet (6) Four live jumps at 170 knots, 15,000 feet (7) Four live jumps at 185 knots, 20,000 feet (8) Four live jumps at 200 knots, 25,000 feet

PREPARED BY: *R. L. ABELSON, M. HERR* SUPERSEDING DATE: *NA* BY: *J. O. SCHLOSSER* DATE *8/2/89*

CRITICAL ITEMS LIST

ASSY NOMENCLATURE: *MAIN PARACHUTE SUSPENSION LINES* SYSTEM: *CREW ESCAPE SYSTEM* REVISION

ASSY P/N *SK1102420087* SUBSYSTEM: *PERSONAL PARACHUTE ASSY.* PAGE *47* OF *79*

FMEA REF	FMEA REV	NAME, QTY & DRAWING REF DESIGNATION	CRIT'Y	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	RATIONALE FOR ACCEPTANCE
4 2 2		SUSPENSION LINES, (22) SK1102420087	1/1	4.2.2 Mode: Suspension line entanglement Cause: •snag on drogue release mechanism or crewmember during deployment	Partially deployed canopy or no canopy deployment	c. Turnaround Test (In accordance with PIA 23028) The PPA will be unpacked, inspected, and repacked prior to each flight 3. INSPECTION a. One hundred percent visual inspection of PPA packing procedures b. Verify all chutes are packed under the riser c. Verify continuity of reefing line d Verify continuity of drogue chute e. Verify stowage of suspension lines f. Verify equal tension on all suspension lines of drogue. g Verify suspension lines are packed on top of chute. h Verify almeda clamp release is tied to big ring of 3 ring drogue release mechanism i Verify suspension lines are not twisted Turnaround Inspection. (In accordance with PIA 23028) a The PPA will be unpacked, inspected, and repacked prior to each flight b One hundred percent visual inspection of PPA packing procedures c Verify all chutes are packed under the riser

PREPARED BY. *R. L. ALLISON, M. HERR* SUPERSEDING DATE. *10/*

APPROVED BY. *J. O. SCHLOSSER* DATE *8/7/89*

CEF / PPA

CRITICAL ITEMS LIST

ASSY NOMENCLATURE: *MAIN PARACHUTE SUSPENSION LINES* SYSTEM: *CREW ESCAPE SYSTEM* REVISION:

ASSY P/N: *SK1102420087* SUBSYSTEM: *PERSONAL PARACHUTE ASSY.* PAGE *48* OF *79*

FMEA REF	FMEA REV	NAME, QTY & DRAWING REF DESIGNATION	CRIT'Y	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	RATIONALE FOR ACCEPTANCE
4.2.2		SUSPENSION LINES, (22) SK1102420087	1/1	4.2.2 Mode: Suspension line entanglement Cause: • Snag on drogue release mechanism or crewmember during deployment	Partially deployed canopy or no canopy deployment	d Verify continuity of reefing line e. Verify continuity of drogue chute. f. Verify stowage of suspension lines. g. Verify equal tension on all suspension lines of drogue h. Verify suspension lines are packed on top of chute. i. Verify almeda clamp release is tied to big ring of 3-ring drogue release mechanism. j. Verify suspension lines are not twisted. 4. FAILURE HISTORY None. The main chute is in fleet use by the Navy 5. OPERATIONAL USE a Operational Effect of Failure - Possible loss of life b Crew Action - Try to untangle lines c. Crew Training - Crew receives instruction in untangling suspension lines in non JSC parachute training d Mission Constraints None Mission would be terminated prior to use of this equipment e In-Flight Checkout - None.

PREPARED BY: *R. L. ALLISON, M. HERR* SUPERSEDING DATE: *10/24/88* APPROVED BY: *J. O. SCHLOSSER* DATE *8/2/89*