CRITICAL ITEMS LIST

ASSY NOMENCLATURE: *FLAP, DROGUE, AND PILOT CHUTE* SYSTEM: *CREW ESCAPE SYSTEM* REVISION:

ASSY P/N: *SK1102447087* SUBSYSTEM: *PERSONAL PARACHUTE ASSY.* PAGE 7 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
1.5.1		FLAP, DROGUE, AND PILOT CHUTE, (1) SK1102447087	1/1	1.5.1 Mode: Premature opening Cause: • Kevlar line breaks • defective material • excessive loads • contamination of pyro mix	Possible premature deployment of drogue chute	1. **DESIGN FEATURES TO MINIMIZE FAILURE MODES** a. The Kevlar line is proof-loaded to 500 pounds and is doubled in the closure flap, effectively 1,000 pounds securing force. b. The PPA is subjected to 300 knot wind blast c. The static load on the Kevlar line is 50 pounds. d. The spring load is distributed over the stitching of the flap and the flap closure 2. **TEST OR ANALYSIS TO DETECT FAILURE MODE** a. <u>Acceptance Test</u>. (1) Tensile test of the Kevlar line to a minimum breaking strength of 500 pounds for each roll b <u>Certification Test</u>. (1) Four dummy drops at 110 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 110 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

PREPARED BY *R. L. ALLISON, M. HERR* SUPERSEDING DATE: *10/24/88* *J. O. SCHLOSSER* DATE *8/7/89*

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1.5.1		FLAP, DROGUE, AND PILOT CHUTE, (1) SK1102447087	1/1	1.5.1 Mode: Premature opening Cause: • Kevlar line breaks • defective material • excessive loads • contamination of pyro mix	Possible premature deployment of drogue chute	(B) Four live jumps at 200 knots, 25,000 feet. c. <u>Turnaround Test</u> (In accordance with PIA 23028) The PPA will be unpacked, inspected, and repacked prior to each flight 3. INSPECTION a. Visual inspection of Kevlar line for defects. b. One hundred percent visual inspection after packing for defects. c. Verify flap is secure. <u>Turnaround Inspection</u> (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 pack for defects c. Verify flap is secure. d. Visual inspection of Kevlar line for defects. 4. FAILURE HISTORY None This assembly is in fleet use by the Navy.

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1 5 1		FLAP, DROGUE, AND PILOT CHUTE, (1) SK1102447087	1/1	1.5.1 Mode: Premature opening Cause: • Kevlar line breaks • defective material • excessive loads • contamination of pyro mix	Possible premature deployment of drogue chute	5. OPERATIONAL USE a. Operational Effect of Failure - Possible loss of life. b Crew Action - None. c. Crew Training - Not applicable d. Mission Constraints - None. Mission Would be terminated prior to use of this equipment e. In-Flight Checkout - None.

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