

CRITICAL ITEMS LIST

ASSY NOMENCLATURE: WEB ASSEMBLY CONTAINER

SYSTEM: CREW ESCAPE SYSTEM

REVISION:

ASSY P/N: SK1102441487

SUBSYSTEM: PERSONAL PARACHUTE ASSY.

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FMEA		NAME, QTY & DRAWING REF DESIGNATION	CRIT'Y	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	RATIONALE FOR ACCEPTANCE
REF	REV					
1.4.1		WEB ASSEMBLY CONTAINER, (1) SK1102441487	1/1	<p>1.4.1 Mode: Drogue release mechanism fails to deploy main chute</p> <p>Cause: <ul style="list-style-type: none"> • bent rings • excessive loads • defective material </p>	Main chute deployment aborted	<p>1. DESIGN FEATURES TO MINIMIZE FAILURE MODES</p> <ul style="list-style-type: none"> a The rings are rated to 1,500 and 2,500 pounds. b The maximum load on the rings is 1,200 pounds c The drogue release mechanism is used extensively in sky diving. d The rings are heat treated steel e The rings provide a 10:1 lever providing 200:1 mechanical advantage for release f The base loop is nylon and certified in accordance with MIL-W-4088, type B <p>2. TEST OR ANALYSIS TO DETECT FAILURE MODE</p> <ul style="list-style-type: none"> a <u>Acceptance Test</u> <ul style="list-style-type: none"> (1) The smaller rings are proof loaded to 1,500 pounds (2) The large rings are proof loaded to 2,500 pounds (3) Tensile test on webbing to a minimum breaking strength of 4,000 pounds on each roll of webbing b <u>Certification Test</u> <ul style="list-style-type: none"> (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

PREPARED BY: R. L. ALLISON, M HERR

SUPERSEDING DATE: 1012416

J. O. SCHLOSSER

DATE 8/7/89

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1.4.1		WEB ASSEMBLY CONTAINER, (1) SK1102441487	I/I	1.4.1 Mode: Drogue release mechanism fails to deploy main chute Cause: • bent rings • excessive loads • defective material	Main chute deployment aborted	(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. (8) Four live jumps at 200 knots, 25,000 feet. (9) The drogue attachment, 3-ring release is subjected to a 2,000 pound load, 2 drop tower tests. 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. Verify cross-sectional diameter of rings b. Verify dimensions for interference of rings c. Visually inspect for sharp edges, burrs, and defects. d. Visually inspect webbing for defects. e. Verify installation of drogue release mechanism is in conformance with drawings <u>Turnaround Inspection</u> (In accordance with PIA 23028) a. The PPA will be unpacked, inspected, and repacked prior to each flight

PREPARED BY: R. L. ALLISON, M. HERR

SUPERSEDING DATE 10/24/88

APPROVED BY: J. O. SCHLOSSER

DATE: 8/7/89

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REF	REV				END ITEM	
141		WEB ASSEMBLY CONTAINER, (1) SK1102441487	1/1	1.4.1 Mode: Drogue release mechanism fails to deploy main chute Cause: • bent rings • excessive loads • defective material	Main chute deployment aborted	b. Verify dimensions for interference of rings c. Visually inspect for sharp edges, burrs, and defects. d. Visually inspect webbing for defects e. Verify installation of drogue release mechanism is in conformance with drawings 4. FAILURE HISTORY None. This assembly is in fleet use by the Navy 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.

PREPARED BY: R. L. ALLISON, M HERR

SUPERSEDING DATE 1012418P

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DATE 8/7/89