

CRITICAL ITEMS LIST

ASSY NOMENCLATURE: LIFERAFT COMPARTMENT
ASSY P/N SK1102460087

SYSTEM: CREW ESCAPE SYSTEM
SUBSYSTEM: PERSONAL PARACHUTE ASSY.

REVISION:
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FMEA		NAME, QTY & DRAWING REF DESIGNATION	CRT'Y	FAILURE MODE AND CAUSE	FAILURE EFFECT OR INDIVEM	RATIONALE FOR ACCEPTANCE
REF	REV					
511		AUTOMATIC LIFERAFT DEPLOYMENT CUTTERS, (2) SK1102460087	2/1R	<p>§ 1.1 Mode: Cutter fails to activate</p> <p>Cause: • defective material • contamination</p>	Liferaft fails to deploy if second cutter fails, crewmember will be unable to utilize liferaft for open water survival	<p>1. DESIGN FEATURES TO MINIMIZE FAILURE MODES</p> <ul style="list-style-type: none"> a. The cutters are activated independently with two separate activation lines b. The arming pins are pulled out during deployment of the main parachute. c. The lines are Kevlar rated at 500 pounds d. The force to pull pin is 17 ± 9 pounds e. The main parachute opening force is 1,500 pounds <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) Random sampling for lot acceptance functional test at -65°F, 160°F, and 70°F (2) Pull force test at 17 ± 9 pounds (3) Delay time test at 3.0 ± 0.6 seconds. 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. J. AGLISON, M. HERN

SUPERSEDING DATE 10/24

CEE/PPA - 58

BY: J. D. SCHLOSSER

DATE: 8/7/89

CRITICAL ITEMS LIST

ASSY NOMENCLATURE: LIFERAFF COMPARTMENT

SYSTEM: CREW ESCAPE SYSTEM

REVISION:

ASSY P/N: SK110246007

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.					
511		AUTOMATIC LIFERAFF DEPLOYMENT CUTTERS, (2) SK110246007	2Y1R	5.1.1 Mode: Cutter fails to activate Cause: • defective material • contamination	Liferaff fails to deploy if second cutter fails, crewmember will be unable to utilize liferaff for open water survival	(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) Ten firings at ISC TFA facility c. <u>Turnaround Test</u> (In accordance with PIA 2302B) The PPA will be unpacked, inspected, and repacked prior to each flight. 3. INSPECTION a. Visual inspection of all parts for defects. b. Verify pull test is within 17 ± 9 pounds c. Verify time delay test is within 3.0 ± 0.6 seconds d. Visual inspection of final assembly e. Verification of the physical and chemical test reports. <u>Turnaround Inspection</u> . (In accordance with PIA 2302B) a. The PPA will be unpacked, inspected, and repacked prior to each flight

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

SUPERSEDING DATE: N

ED BY: J. O. SCHLOSSER

DATE: 02/89

CRITICAL ITEMS LIST

ASSY NOMENCLATURE: LIFERAFT COMPARTMENT
ASSY P/N: 5K1102460007

SYSTEM: CREW ESCAPE SYSTEM

REVISION:

SUBSYSTEM: PERSONAL PARACHUTE ASSY.

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FMEA		NAME, QTY & DRAWING REF DESIGNATION	CRITY	FAILURE MODE AND CAUSE	FAILURE EFFECT OR END ITEM	RATIONALE FOR ACCEPTANCE
REF	REV					
5	1	AUTOMATIC LIFERAFT DEPLOYMENT CUTTERS, (2) 5K1102460007	2/1R	5.1.1 Mode: Cutter fails to activate Cause: • defective material • contamination	Liferaft fails to deploy if second cutter fails, crewmember will be unable to utilize liferaft for open water survival	<p>b. Verify dimensions between cutters during packing of PPA.</p> <p>4. FAILURE HISTORY None. The cutters are in fleet use by the Navy</p> <p>5. OPERATIONAL USE</p> <p>a. Operational Effect of Failure - Possible loss of life if manual deployment fails</p> <p>b. Crew Action - Manually deploy liferaft.</p> <p>c. Crew Training - Crew is trained to manually deploy liferaft.</p> <p>d. Mission Constraints - None. Mission would be terminated prior to use of this hardware</p> <p>e. In-Flight Checkout - None.</p>

PREPARED BY: R. J. ALLISON, AF HERR

SUPERSEDING DATE: 10/24/88

APPROVED BY: J. O. SCHLOSSER

DATE: 01/18/89