

CRITICAL ITEMS LIST

ASSY NOMENCLATURE: AUTOMATIC ACTUATION DEVICE
 ASSY P/N: SK1102440187

SYSTEM: CREW ESCAPE SYSTEM

SUBSYSTEM: PERSONAL PARACHUTE ASSY.

REVISION:

PAGE 13 OF 79

FMEA		NAME, QTY & DRAWING REF DESIGNATION	CRIT'Y	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	RATIONALE FOR ACCEPTANCE
REF	REV					
1.6.2		AUTOMATIC ACTUATION DEVICE, (1) SK1102440187	2/IR	1.6.2 Mode: Aneroid fails to function or functions at lower than preset altitude Cause: • defective material	Drogue release mechanism fails to release or releases the drogue and main chute late if the "D" ring emergency backup fails	<ol style="list-style-type: none"> 1. DESIGN FEATURES TO MINIMIZE FAILURE MODES <ol style="list-style-type: none"> a. The aneroid is in Navy fleet use. b. A leaking aneroid functions higher than its preset altitude. c. The arming pin is pulled out by the drogue d. The aneroid is sealed 2. TEST OR ANALYSIS TO DETECT FAILURE MODE <ol style="list-style-type: none"> a. <u>Acceptance Test.</u> <ol style="list-style-type: none"> (1) functional test, altitude firing at 14,000 ± 1,000 feet. b. <u>Certification Test.</u> <ol style="list-style-type: none"> (1) Four air drop dummy tests from 10,000 feet (2) Four air drop dummy tests from 25,000 feet (3) Four air drop live jumps from 10,000 feet. (4) Four air drop live jumps from 25,000 feet. (5) Ten firings at JSC TTA facility c. <u>Turnaround Test</u> (In accordance with PIA 2302B) The PPA will be unpacked, inspected, and repacked prior to each flight

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

SUPERSEDING DATE: 10/

BY: J. O. SCHLOSSER

DATE 8/7/89

CRITICAL ITEMS LIST

ASSY NOMENCLATURE: **AUTOMATIC ACTUATION DEVICE**
 ASSY P/N: **SK1102440187**

SYSTEM: **CREW ESCAPE SYSTEM**
 SUBSYSTEM: **PERSONAL PARACHUTE ASSY.**

REVISION:
 PAGE 14 OF 79

FMEA		NAME, QTY & DRAWING REF DESIGNATION	CRIT'Y	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	RATIONALE FOR ACCEPTANCE
REF	REV					
1.6.2		AUTOMATIC ACTUATION DEVICE, (1) SK1102440187	2/1R	1.6.2 Mode: Aneroid fails to function or functions at lower than preset altitude Cause: • defective material	Drogue release mechanism fails to release or releases the drogue and main chute late if the "D" ring emergency backup fails	<p>3. INSPECTION</p> <ul style="list-style-type: none"> a. The AAD is Government source inspected. b. Visual inspection of AAD for defects c. Visual inspection of cartridge for defects. d. Verify firing pin indents cartridge during functional altitude test at 14,000 ± 1,000 feet e. Verify cartridge is installed prior to packing. f. Verify arming pin is installed prior to packing. g. Verify acceptance data package <p><u>Turnaround Inspection:</u> (In accordance with PIA 23028)</p> <ul style="list-style-type: none"> a. The PPA will be unpacked, inspected, and repacked prior to each flight. b. Visual inspection of AAD for defects c. Visual inspection of cartridge for defects d. Verify cartridge is installed prior to packing. e. Verify arming pin is installed prior to packing <p>4. FAILURE HISTORY</p> <p>None The AAD is in fleet use by the Navy</p>

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

SUPERSEDING DATE: 10/2000

APPROVED BY: **J. O. SCHLOSSER**

DATE **8/7/89**

CRITICAL ITEMS LIST

ASSY NOMENCLATURE: *AUTOMATIC ACTUATION DEVICE*

SYSTEM: *CREW ESCAPE SYSTEM*

REVISION:

ASSY P/N: *SK1102440187*

SUBSYSTEM: *PERSONAL PARACHUTE ASSY.*

PAGE 15 OF 79

FMEA		NAME, QTY & DRAWING REF DESIGNATION	CRIT'Y	FAILURE MODE AND CAUSE	FAILURE EFFECT ON	RATIONALE FOR ACCEPTANCE
REF	REV				END ITEM	
162		AUTOMATIC ACTUATION DEVICE, (1) SK1102440187	2/1R	1.6.2 Mode: Aneroid fails to function or functions at lower than preset altitude Cause: • defective material	Drogue release mechanism fails to release or releases the drogue and main chute late if the "D" ring emergency backup fails	<p>5. OPERATIONAL USE</p> <ul style="list-style-type: none"> a. Operational Effect of Failure - Possible loss of life if manual backup fails. b. Crew Action - Pull manual drogue release (red apple). c. Crew Training - Crew is trained to pull manual backup (red apple) if necessary. 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: *101241RR*

APPROVED BY: *J. O. SCHLOSSER*

DATE *8/7/89*