

CRITICAL ITEMS LIST

ASSY NOMENCLATURE: HELMET HOLDDOWN ASSEMBLY

SYSTEM: CREW ESCAPE SYSTEM

REVISION:

ASSY P/N: 40048P-01

SUBSYSTEM: HELMET RETENTION ASSEMBLY

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FMEA		NAME, QTY & DRAWING REF DESIGNATION	CRITY	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	RATIONALE FOR ACCEPTANCE
REF	REV					
4.1.1		HELMET HOLDDOWN ASSEMBLY (1), SKD13101506-301	2/1R	4.1.1 Mode: Webbing assembly fails Cause: • defective material	Decrease in visibility and mobility	<ol style="list-style-type: none"> 1. DESIGN FEATURES TO MINIMIZE FAILURE MODE <ol style="list-style-type: none"> a. The webbing is made of nylon. b. The tie down cable is rated at 1,000 pounds. c. Cable/ring turn around is aluminum tubing 2. TEST OR ANALYSIS TO DETECT FAILURE MODE <ol style="list-style-type: none"> a. <u>Acceptance Testing.</u> <ol style="list-style-type: none"> (1) Leakage test at operating pressure of 1.0 - 1.5 inches of H₂O. (2) Tie down cable is pull tested to 400 pounds b. <u>Certification Test.</u> <ol style="list-style-type: none"> (1) High altitude chamber test, Brooks Air Force Base. <ol style="list-style-type: none"> (a) Manned testing series <ol style="list-style-type: none"> 1 Gradual ascent/descent to 39,000 feet 2 Denitrogenation verification for function as an extravehicular activity prebreathing device c. <u>Turnaround Testing.</u> (In accordance with PIA 21037) <ol style="list-style-type: none"> (1) Suit structural test, 5.6 ± 0.2 psig for 15 minutes 3. INSPECTION <ol style="list-style-type: none"> a. Inspection webbing material for defects

PREPARED BY: R. L. ALLISON

SUPPLACING DATE:

APPROVED BY: J. D. SCHLOSSER

DATE:

CEE/KRA-1

S40210Q
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FMEA		NAME, QTY & DRAWING REF DESIGNATION	CRTY	FAILURE MODE AND CAUSE	FAILURE EFFECT ON END ITEM	RATIONALE FOR ACCEPTANCE
REF	REV					
4.1.1		HELMET HOLDDOWN ASSEMBLY (1), SKD13101506-3B1	2/R	<p>4.1.1 Mode: Webbing assembly fails</p> <p>Cause: • defective material</p>	Decrease in visibility and mobility	<p><u>Turnaround Inspection</u> (in accordance with PIA 230.17)</p> <p>a. Inspection webbing material for defects.</p> <p>4. FAILURE HISTORY</p> <p>None. This helmet holddown assembly is used by the Air Force in high altitude suits for high performance aircraft and Dryden Flight Research Center.</p> <p>5. OPERATIONAL USE</p> <p>a. Operational Effect of Failure - Possible loss of crew if both pilot and commander's assemblies fail</p> <p>b. Crew Action - None.</p> <p>c. Crew Training - Not applicable</p> <p>d. Mission Constraints - None. Mission would be terminated prior to emergency use of this equipment.</p> <p>e. In-Flight Checkout - None. Crew could not repair or replace this equipment under emergency conditions.</p>

PREPARED BY: R. L. AZZISON

SUPERSEDING DATE:

APPROVED BY: J. O. SCROSSER

DATE:

CEE / HRA-2

S402100
ATTACHMENT - II
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