

FAILURE MODES AND EFFECTS ANALYSIS

ASSY NOMENCLATURE: LAUNCH ENTRY SUIT (LES)
ASSY P/N: 189546-02

SYSTEM: Crew Escape System
SUBSYSTEM: Launch Entry Suit

REV: PALE 801 02
DATE:

NAME AND DRAWING	FUNCTION	FAILURE MODE AND CAUSE	MISSION PHASE	FAILURE EFFECT ON			FAILURE DETECTION	EMERGENCY ACTION TIME AVAILABLE/ TIME REQUIRED	CRITICALITY	HAZARDS/REMARKS
				END ITEM	MISSION	CREW/VEHICLE				
16 Restraint Assembly P/N	Keeps gas container from over distending and allows mobility when suit is pressurized	16.1 Break in link not cord slide fastener Cause • defective material • overstress	Abort	Snapping of link not cord	N/A*	None	Visual Over distending of gas container	None	3/3	
17 Helmet Hold-down Assy.	Maintains proper relation between helmet and torso when LES is pressurized	17.1 Wobbling strap, fails Cause • defective material	Abort	Decrease in visibility and mobility	N/A*	Loss of vehicle if both commander and pilot loose visibility or mobility	Visual	Only one is needed to land Orbits • minutes/impulse	2/1B	
18 Gas Container Assy (Circuit Pressure Element)	Retains gas supply in torso, arm, and leg area permitting pressurization of LES	18.1 Leakage or separation of gas bladder Cause • overstress • defective material	Abort	Excessive leakage unable to maintain pressure suit	N/A*	Loss of crew-member	Visual	None	0/1	
19 Dual Suit Controller Assy.	Controls pressure by metering exhaust gases	19.1 Fails closed Cause • failed second control valve • defective diaphragm	Abort	Fails to control increase in suit pressure, suit will rupture if second controller and relief valve, fails	N/A*	Loss of crew-member if relief valve and second controller fails	High suit pressure	Pressure relief valves will relieve pressure	3/1B	The dual controller is two complete separate systems. Two separate controls and diaphragms.

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 ATTACHMENT 1
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