

# FAILURE MODES AND EFFECTS ANALYSIS

ASSY NOMENCLATURE: TRIGGER ASSEMBLY  
 ASSY P/N: 5E037109362

SYSTEM: CREW ESCAPE SYSTEM  
 SUBSYSTEM: POLE CREW ESCAPE SYSTEM

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| NAME AND DRAWING                    | FUNCTION   | FAILURE MODE AND CAUSE   | MISSION PHASE | FAILURE EFFECT ON  |            |   | FAILURE DETECTION<br>(Visual / Audible) | CONNECTIVE ACTION<br>How Available / Not Available                      | CRIT. P/F | HAZARDS/REMARKS  |   |
|-------------------------------------|--|--|---------------|--|------------|---|---|---|-----------|--|---|
|                                     |  |  |               | END ITEM   | MISSION    | CREW/VEHICLE  |   |   |           |  |   |
| 3.1 TRIGGER ASSEMBLY<br>5E037109362 | Engages into the extension and primary pole, releasing the pole when activated | <b>3.1.1</b><br>Mode:<br>Premature deployment of the pole<br><br>Cause:<br>• Stress<br>• Corrosion<br>• Vibration              | Launch/Flight | Deployment of pole extension prematurely if the fasten part, arming part, and trigger wire are loose | Formulated | Loss of crew and/or vehicle   | Visual                                  | None  | NR        |  |   |
|                                     |  | <b>3.1.2</b><br>Mode:<br>Fails to release pole<br><br>Cause:<br>• Contamination<br>• Corrosion<br>• Galling                    | Deployment    | Unable to deploy pole  | N/A*       | Loss of crew members due to inability to deploy pole  | Visual                                  | None  | IR        |  | SA021L -<br>ATTACHMENT -<br>Page 4 of 5 |
|                                     |  | <b>3.1.3</b><br>Mode:<br>Premature release of trigger part arming part<br><br>Cause:<br>• Vibration<br>• Stress<br>• Corrosion | Deployment    | Unable to deploy pole if arming part cannot be removed   | N/A*       | Loss of crew members due to inability to remove arming part allowing deployment of the pole | Visual / Audible                        | Attempt to remove part from pole housing<br><br>2 minutes<br>10 seconds | IR        | Arming part penetrates through housing structure and wires pole setting as a safety device to prevent premature deployment |   |