F-15SA Hazard Worksheet

Note: This hazard is deleted. The analysis now indicates that no hazard exists.

Replaced with SA49-14f

Hazard # SA42-07 ***Last Update:*** 5/23/2022

Effectivity: Production BCU3 ***Software:*** No

Component/Function/Task ***MIL-STD:*** 882D

New and unique electronic equipment for F-15SA
- MIDS JTRS
- DEWS (Blanker Wiring)

Hazard Description

EMI-induced effects from new equipment for F-15SA could induce spurious Electronic Flight Control System (EFCS) and/or Terrain Following commands.

Hazard Cause

Undesired EM emissions and susceptibility.

Hazard Effect

Potential ground impact and loss of aircraft if at low altitude.

Phase: FLIGHT

Initial Risk: ***HAZ CLASS:*** I - Catastrophic ***HAZ PROB:*** E - Improbable ***RISK:*** 12

Hazard Action:

1. Ensure all new and unique electronic equipment is qualified to F-15 EMI requirements.
2. Apply F-15 standard wire bundle shielding practices to new F-15SA wire bundles.
3. Conduct EMI Safety Of Flight testing on flight test aircraft to ensure EMI compatibility at the aircraft.

Current Risk: ***HAZ CLASS:*** I - Catastrophic ***HAZ PROB:*** E - Improbable ***RISK:*** 12

Final Risk: ***HAZ CLASS:*** I - Catastrophic ***HAZ PROB:*** E - Improbable ***RISK:*** 12

Hazard Status: Eliminated

Remarks:

Action 2: Completed, Boeing uses its F-15 standard wire bundle shielding practices for the F-15SA.

Severity: Based on extreme EMI effects on the EFCS and/or Terrain Following system while at low altitude with no time for aircrew reaction.

Probability: Based on EMI qualification and testing ensuring that EMI emissions and susceptibility are controlled. There are no mishaps of this nature in USAF F-15 mishap history.

References:

1) N/A

Linked Hazards: QA49-01

Revision History:

- 05/23/2022: Hazard Initiation