

DATA ITEM DESCRIPTION

Title: TECHNICAL REPORT FOR MIL-STD-3023 HARDNESS ALLOCATION

Number: DI-EMCS-81850

Approval Date: 20111128

AMSC Number: 9230

Limitation: N/A

DTIC Applicable: Yes

GIDEP Applicable: N/A

Defense Technical Information Center

Attn: DTIC-OMI

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Office of Primary Responsibility: DS

Applicable Forms: None

Use/relationship: The MIL-STD-3023 Hardness Allocation Procedure Technical Report shall be used to document the Hardness Allocation procedure for protecting military aircraft from High Altitude Electromagnetic Pulse (HEMP). The Hardness Allocation Report shall include empirical and analytical data generated by the allocation procedure described in detail in Appendix A of MIL-STD-3023.

1. Information to be acquired through these data should include engineering change records, hardware modification records, engineering judgment records (EJRs), service experience records, and other related data.

2. This DID contains the format, content, and intended use information for the data product resulting from the work task described by Appendix A of MIL-STD-3023, and is applicable to the acquisition of military aircraft.

Requirements:

1. Reference documents. The applicable issue of the documents cited herein, including their approval dates and dates of any applicable amendments, notices, and revisions, shall be as cited in the ASSIST Online (<https://assist.daps.dla.mil/online/start/>) at the time of the solicitation or, for non-ASSIST listed documents, as stated herein. Classification of the Technical Report for MIL-STD-3023 Hardness Allocation shall be determined using DNA-EMP-1, Electromagnetic Pulse (EMP) Security Classification Guide (U) available by mail request to ATTN: RD-NTSA/Rooney M., Defense Threat Reduction Agency, 8725 John J. Kingman Road, MSC 6201 Fort Belvoir, Virginia 22060-6201, and any relevant system specific classification guides.

2. Format. The Technical Report for MIL-STD -3023 Hardness Allocation shall be in contractor's format.

3. Content. The Technical Report for MIL-STD-3023 Hardness Allocation Procedure shall be presented in the style of the technical report which is recommended in Appendix A of MIL-STD-3023. It shall include the aircraft Hardness Concept, EM shielding barriers, Points of Entry (POE) definitions, and performance requirements. This report shall be updated as experimental data from Appendices BD of MIL-STD-3023 become available to ensure that the Design Margin specifications for the aircraft are met with reasonable confidence. In addition to the written

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technical report, the data obtained from the testing shall be presented in electronic contractor's format and contain all data described in Appendix A of MIL-STD-3023. The electronic data format will be described in the written report. Appropriate use of appendices for large amounts of information with a short summary of key facts in the main text is encouraged.

3.1 Introduction Section. This section shall contain a brief overview of the Hardness Allocation Procedure as well as the Aircraft Hardness Design Concept.

3.2 Technical Content. The Hardness Allocation Report (HAR) shall provide results and technical data developed for each of the seven steps of the Hardness Allocation Procedure as defined in paragraph A.4 and A.5 of Appendix A of MIL-STD-3023. The report outline, as detailed in A.5.7 of Appendix A of MIL-STD-3023 includes:

- A complete schedule of electromagnetic (EM) Barriers and their performance requirements
- A complete schedule of Penetrations for each Barrier with their performance requirements
- POE Tests and Test Results
- HEMP Protection Subsystem (HPS) EM Barrier Test Results
- HPS Immunity Test Results
- System Verification Test Results

3.3 Schedule of Hardness Allocation Report Submittal

The HAR is a living instrument that documents and verifies the Hardness Allocation as the aircraft engineering design program and production proceeds. There are at least four major submittals as fully defined in paragraph A.5.7.2 of Appendix A of MIL-STD-3023.

The four major submittals include:

1. Initial submittal submitted by PDR for government approval
2. Second submittal submitted after the Production Hardness testing is complete
3. Third submittal submitted after the HEMP Protection Subsystem Testing is complete
4. Fourth submittal submitted after the first System Verification test is complete

The HAR shall be revised during fleet production upon any Verification test failures and/or any modification of the HEMP protection features of the aircraft.

4. End of DI-EMCS-81850.