

## DATA ITEM DESCRIPTION

**Title:** HEMP PROTECTION SUBSYSTEM PERFORMANCE TEST REPORT

**Number:** DI-EMCS-81852

**Approval Date:** 20111128

**AMSC Number:** 9232

**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 HEMP Protection Subsystem Performance Testing Report describes the tests, analyses, and inspections used by the contractor and documents the results, verifying compliance with the HEMP interface and performance requirements of an aircraft during the engineering development phase. The Report provides the means for the government to evaluate HEMP protection performance results.

1. This DID contains the format, content, and intended use information for the data product resulting from the work task described in sections C.4.8 and C.4.9 of MIL-STD-3023.
2. This DID is related to DI-EMCS-81850, DI-EMCS-81851 and DI-EMCS-81854.

### Requirements:

1. Reference documents. The applicable issue of the documents cited herein, including their approval dates and any applicable amendments, notices, or 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 documents, as stated herein. The HEMP Protection Subsystem Performance Test Report classification 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 Report shall be in contractor format.
3. Content. The Report shall describe the overall test results for the Continuous Wave Immersion (CWI) and Pulse Current Injection (PCI) tests for each requirement specified in the contract for the aircraft being developed.
  - 3.1 Summary information. This report shall summarize the following:
    - 3.1.1 Introduction.
      - a. System description including any pertinent test issues.

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b. Statement of any assumptions and limitations associated with CWI or PCI tests.

3.1.2 A general description of the results shall be provided for testing of each interface and performance requirement area listed in section 3.2 below.

- a. Synopsis of CWI and PCI test procedures and references to detailed procedures.
- b. Successes and failures.
- c. Impacts of failures.
- d. Recommendations to resolve failures.
- e. Lessons learned.

3.2 Detailed information. For CWI and PCI testing, a single test report shall be prepared. The test report shall contain the following information:

- a. Aircraft or equipment identification (including tail number for production aircraft) and a reference to applicable test plans and procedures.
- b. When and where tests were conducted.
- c. Who conducted the tests.
- d. A discussion of any deviations from the test plans or requirements of MIL-STD-3023, Appendix C.
- e. Copies of measured test results including all raw and processed test oscillographic waveform test data in engineering units. The electronic data format will be described in the written test report and delivered to the government.
- f. Summary tables of measured quantities shall be provided including design margin calculations with comparisons to pass/fail criteria based on NORM attributes of each oscillographic waveform. (See MIL-STD-3023, Appendix C for definition of NORM attributes.)
- g. Test chronology including sequence of events; findings from investigations into causes of failures; if any; and corrective actions and retest results.

3.2.1 Analysis section. The analysis section shall include post-test analysis of CWI and PCI test data, including calculations of threat responses from CWI and PCI data; analysis of test adequacy; and development of hardness conclusions.

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3.2.2 Post-test analysis will include development of a corrective plan and, if applicable, the Hardness Allocation Report (DI-EMCS-81850) will be updated.

4. End of DI-EMCS-81852.