## **DATA ITEM DESCRIPTION**

**Title**: Electromagnetic Interference Survey (EMIS) Test Report

Number: DI-EMCS-81777 Approval Date: 20090915

AMSC Number: N9082 Limitation:

DTIC Applicable: N/A GIDEP Applicable: N/A

Office of Primary Responsibility: SH/05H3

## **Applicable Forms:**

**Use/Relationships**: The EMIS provides the information necessary to evaluate compliance of an equipment/system with the shipboard electromagnetic compatibility requirements, including mitigation techniques and discussion of recommended corrective actions, if required. .

This Data Item Description contains the format and content preparation instructions for the EMIS documenting the test results of the approved and executed EMIS for compliance of MIL-STD-1605 requirements.

This DID is related to DI-EMCS-81782.

## **Requirements:**

- 1. Reference documents: The applicable issue of the documents herein, including their approval dates and dates of any applicable amendments, notices, or revisions, shall be as cited in the solicitation or contract.
- 2. Format: The EMIS test report shall be in contractor format.
- 3. Content. The EMIS shall contain signature certification by a qualified representative of the executing activity and shall also include the following:
  - a. Ships name, hull number, location of the ship, and the date when each test phase was conducted. Ships construction status, i.e. modernization, overhaul, builders trials.
  - b. Executive summary containing a brief description of the test results, amendments to the approved test report, rationale for amendments, and any pertinent issues.

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- c. Authentication and certification of performance of the tests by the test engineer of the executing activity.
- d. Listing of all equipments tested per compartment.
- e. Photographs or diagrams of the actual test set up with identification of all items.
- f. Data sheets/analyzer plots of measured data for all systems tested during Phase I and discussion of any interference and level of potential interference.
- g. Data sheets for each equipment monitored during Phase II testing with mode of operation during testing.
- h. Criteria used to evaluate susceptibility of equipment and calculations, such as conversions of measured levels for comparison against applicable limit.
- i. Analytic discussion of each case of interference recorded and recommendations or mitigation measures used to eliminate the interference.
- 3.1. Details relative to the IMI test including the following:
  - a.. The frequency, power, modulation and model number of transmitters used
  - b. The model number of receiver used
  - c. The description and location of all antennas used for each IMI test
  - d. The frequency and level of the 3<sup>rd</sup> order intermodulation interference
  - e. The highest IMI order detected
  - f. The corrective action taken to reduce IMI to or below the 19<sup>th</sup> order.

# 3.2. Conclusions that identify:

- a. Status of compliance with requirements (met or not met).
- b. Impact of the results on operational performance

## 3.3. Recommendations to:

- a. Any required corrective actions, modifications, or changes to operational procedures, manual, or processes.
- b. Any additional verification actions, investigations, resolutions, or studies.

## 4. End of DI-81777