

DATA ITEM DESCRIPTION

Title: Reliability Test Reports

Number: DI-TMSS-81586
AMSC Number: G7401
DTIC Applicable: N/A

Approval Date: 5 October 2000
Limitation: N/A
GIDEP Applicable: No

Office of Primary Responsibility: G/Y243
Applicable Forms: N/A

Use/relationship:

These reports are formal records of the results of the contractor's reliability tests and will be used by the procuring activity to evaluate the degree to which the reliability requirements have been met. The reports shall be periodic test summary reports (see 3.1 below) or Final Test Reports (see 3.2 below) as reflected in the contract. These reports may be used to report the results of reliability tests or tests from which reliability evaluation is a by-product.

Requirements:

1. Reference documents: None
2. Format: Contractor format is authorized.
3. Content: The Reliability Test Reports shall contain the results of each test or other action taken to demonstrate the level of reliability achieved in the contract end item and its constituent elements required by the contract. The reports shall specifically contain the following:
 - a. Test article identification and full description of test specimens utilized, including any deviations from the configuration specified in the applicable test plan.
 - b. Date and location of test or evaluation.
 - c. Statement of test/evaluation objectives, including type, unit of measure, and quantitative goals/requirements to be demonstrated.
 - d. Statistical confidence calculations, if appropriate.
 - e. Discussion of methods and conditions of the demonstration, including test plan used, environmental levels, test profile, methods of evaluating the data obtained and comparison of the conditions with those anticipated in ultimate deployment and use of contract item.
 - f. Results obtained, including specific identification and discussion of objectives demonstrated satisfactorily and those not demonstrated satisfactorily.
 - g. Corrective action anticipated, if applicable.
 - h. Contractor's conclusion and recommendations based on evaluation of the test/demonstration results.
 - i. Requirements for and results of retest in cases where a reject decision were reached.

3.1 Summary reports. Periodic Test Summary Reports shall consist of summaries of the progress or status of various reliability tests underway during the reporting period. All periodic summaries shall include the following:

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- a. Type and number of units on test and the type of test.
- b. Total elapsed unit hours of test time during the period covered in the report.
- c. Total number of equipment failures for each operational mode specified in the duty cycle.
- d. Description of each failure problem area, related failure analysis, and corrective action.
- e. Test conditions and analysis of any variation from specified conditions.
- f. Present accept/reject status.
- g. A chart showing a plot of the observed Mean Time Between Failures (MTBF) from start of test through the report period and the predicted value of MTBF for comparison.
- h. The status and/or disposition of each corrective action

3.1.1 It is intended that the text of these reports be limited to brief, concise statements of significant progress and present status.

3.2 Final report. The Final Reliability Test Report shall include the information required by 3.1, items a. through h., and the results of the completed reliability tests or other action performed or evaluated to demonstrate reliability. The Final Report can be divided into two parts: Part 1, covering Reliability Qualification Testing, and Part 2, covering Production Reliability Acceptance Tests. Test reports shall include a failure summary and analysis and a general reliability analysis.

3.3 It is intended that the text of these reports be limited to brief and concise statements.