# AEROSPACE INFORMATION REPORT

| AIR4896™ | REV. A |
|---|---|
| Issued 1995-12<br>Stabilized 2023-07<br><br>Superseding AIR4896 | |

Recommended RMS Terms and Parameters

RATIONALE

This document is redundant to ARP5638A and has been merged into that document. This document can now be stabilized for historical purposes.

STABILIZED NOTICE

This document has been declared “Stabilized” by the SAE G-41 Reliability Committee and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.





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## 1. SCOPE:

The terms used in most engineering technologies tend to be physical characteristics such as speed, rate of turn, and fuel consumption. While they may require very careful definition and control of the way in which they are measured, the terms themselves are not subject to different interpretations. Reliability, maintainability and supportability (RMS) however, use terms that are mathematically defined. As a result, there are more than 2000 terms defined in just the documents reviewed so far, many of which have multiple interpretations.

This proliferation of definitions of the terms leads to problems when one attempts to compare the performance of one system to another. For example, the RMS performance of a transport aircraft from the commercial arena is measured using metrics that are not the same as those for a fighter or attack aircraft from a military service. It is accepted that some of the metrics may be unique because of the nature of the missions, but it is the strong conviction of the Government and Industry practitioners who make up the SAE Committee G-11 that there should be some fundamental definitions used for all hardware systems.

Accordingly, in early 1986 the SAE G-11R (Resources) subcommittee was formed and tasked to review relevant RMS documents, extract any applicable terms, and through a system of logical selection compile a series of terms and definitions that would be recommended for the Aerospace Community. There are undoubtedly many more documents that need to be reviewed for the definitions they contain, for example, we have specifically excluded "software reliability" from this edition. Also, there is a need to reconcile the terms and their definitions with those commonly used in the commercial aircraft business. It is planned that the SAE subcommittee work shall continue to result in future revisions that will broaden the scope of the document. This is the document that has been prepared by the SAE G-11R subcommittee. Future updates of this document will continue to reflect the converging of defense and commercial technology and standards.



## 2. REFERENCES:

### 2.1 Military Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

| | |
|---|---|
| DOD-HDBK-344 | Environmental Stress Screening of Electronic Equipment |
| DOD-I-7730.25 | Materiel Condition Reporting for Mission-Essential Systems |
| DOD-STD-1701 | Hardware Diagnostic Test Systems |
| DOD 5000.40(D) | Reliability and Maintainability (P&L) |
| MIL-E-005007E | Engines, Aircraft, Turbojet and Turbofan, General Specification for |
| MIL-E-008593E | Engines, Aircraft, Turboshaft and Turboprop, General Specification for |
| MIL-E-11991E | Electronic, Electrical and Electro-Mechanical Equipment Guide |
| MIL-E-4158E | Electronic Equipment, Ground General Specification for |
| MIL-E-5400T | Electronic Equipment, Aerospace, General Specification |
| MIL-F-18870E | Fire Control Equipment, Naval Shipboard, General Specification for |
| MIL-HDBK-108 | Quality Control and Reliability Sampling Procedures and Tables |
| MIL-HDBK-109 | Quality Control and Reliability - Statistical Procedures for Determining Validity |

2.1 (Continued):

| | |
|---|---|
| MIL-HDBK-189 | Reliability Growth Management |
| MIL-HDBK-217E | Reliability Prediction of Electronic Equipment |
| MIL-HDBK-251 | Reliability/Design Thermal Applications |
| MIL-HDBK-263 | Electrostatic Discharge Control Handbook for Protection of Electrical and Electronic Parts, Assemblies and Equipment |
| MIL-HDBK-338 | Electronic Reliability Design Handbook |
| MIL-HDBK-472 | Maintainability Prediction |
| MIL-M-24365A | Maintenance Engineering Analysis: Establishment of, and Procedures and Formats for |
| MIL-M-38510H | Microcircuits, General Specification for |
| MIL-P-11268L | Parts, Materials, and Processes Used in Electronic Equipment |
| MIL-Q-9858A | Quality Program Requirements |
| MIL-S-19500G | Semiconductor Devices, General Specification for |
| MIL-STD-109B | Quality Assurance Terms and Definitions |
| MIL-STD-1304A | Reports: Reliability and Maintainability Engineering Data |
| MIL-STD-1309C | Definitions of Terms for Test Measurement and Diagnostic Equipment |
| MIL-STD-1390B | Level of Repair |
| MIL-STD-1472C | Human Engineering Design Criteria for Military Systems |
| MIL-STD-1543A | Reliability Program Requirements for Space and Missile Systems |
| MIL-STD-1562P | Lists of Standard Microcircuits |
| MIL-STD-1626 | Filling Out Management Information System, General Requirements |
| MIL-STD-1629A | Procedures for Performing a Failure Mode, Effects and Criticality Analysis |
| MIL-STD-1635 | Reliability Growth Testing |
| MIL-STD-1686 | Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and Equipment |
| MIL-STD-1843 | Reliability-Centered Maintenance for Aircraft, Engines & Equipment |
| MIL-STD-2068 | Reliability Development Testing |
| MIL-STD-2070 | Procedure for Performing a FMECA for Aeronautical Equipment |
| MIL-STD-2074 | Failure Classification for Reliability Testing |
| MIL-STD-2080A | Maintenance Engineering Planning and Analysis for Aeronautical Systems |
| MIL-STD-2155 | Failure Reporting, Analysis and Corrective Action System |
| MIL-STD-2164 | Environmental Stress Screening Process for Electronic Equipment |
| MIL-STD-2165 | Testability Program for Electronic Systems and Equipment |
| MIL-STD-280A | Definitions of Item Levels, Item Exchangeability, Models and Related Terms |
| MIL-STD-415D | Test Provisions for Electronic Systems and Associated Equipment, Design Criteria |
| MIL-STD-454K | Standard General Requirements for Electronic Equipment (RQMT 35 Reliability) |
| MIL-STD-470A | Maintainability Program for Systems & Equipment |
| MIL-STD-471A | Maintainability Verification/Demonstration/Evaluation |
| MIL-STD-690B | Failure Rate Sampling Plans and Procedures |
| MIL-STD-701M | Lists of Standard Semiconductor Devices |
| MIL-STD-721C | Definitions of Terms for Reliability and Maintainability |
| MIL-STD-750C | Test Methods for Semiconductor Devices |
| MIL-STD-756B | Reliability Modeling and Prediction |

2.1 (Continued):

| | |
|---|---|
| MIL-STD-780F | Work Unit Codes for Aeronautical Equipment, Uniform Numbering System |
| MIL-STD-781D | Reliability Testing for Engineering Development, Qualification & Production |
| MIL-STD-785B | Reliability Programs for System and Equipment Development and Production |
| MIL-STD-790D | Reliability Assurance Program for Electronic Parts Specification |
| MIL-STD-810D | Environmental Test Methods and Engineering Guidelines |
| MIL-STD-882B | System Safety Program Requirements |
| MIL-STD-883C | Test Methods and Procedures for Microelectronics |
| MIL-STD-965A | Parts Control Program |
| MIL-T-28800D | Test Equipment for Use with Electrical and Electronic Equipment, General Specification |
| MIL-E-16400H | Electronic, Interior Communication and Navigation Equipment, Naval Ship and Shore |

2.2 Other Documents:

| | |
|---|---|
| NAVAIR 01-1A-32 | Reliability Engineering Handbook |
| NAVAIR 01-1A-33 | Maintainability Engineering Handbook |
| 00-40 (PT1) (ARMP1) | R&M P1: Management Responsibilities & Requirements for Programmes & Plans |
| AFP 57-9 | Defining Logistics Requirements in Statement of Operational Needs |
| OPNAVINST 4790.2D | The Naval Aviation Maintenance Program |
| WATOG | World Airlines Technical Operations Glossary |

3. APPROACH:

3.1 Discussion of Data Base Generation:

Existing military and commercial documents (see Section 2), both domestic and foreign, which contain RMS terms and definitions were reviewed. These terms and their definitions were extracted from the documents to form the total data base.

Several actions were then taken to refine the data base:

a. Terms/Definitions that were not applicable to RMS were removed.

b. All applicable RMS terms were annotated as parametric or nonparametric.

c. The applicable RMS Terms were then reviewed and those recommended were so annotated.

d. In cases where a recommended term had multiple definitions, a preferred definition was selected.

The step-by-step approach to the selection and recommendation process is given in the next section.

3.2 Selection/Recommendation Process:

3.2.1 Selection of Terms Applicable to RMS: Terms identified in the selected documents were reviewed for their applicability to the RMS fields and retained in the data base.

The criteria applied for retention in the data base of applicable terms are:

a. Those with definitions specific to, or closely associated with the RMS disciplines.

b. Those whose definitions are needed to support or qualify the definitions of specific RMS terms.

c. The following types of terms were excluded from the data base of applicable terms:

(1) Common Engineering terms, e.g. fatigue, angle of incidence
(2) Most statistical terms

3.2.2 Identification of Parametric Terms: The data base was then annotated as to whether the terms were parametric or not.

For a term to be classified as parametric, it had to meet the following criteria:

a. It must quantify a reliability, maintainability, or supportability characteristic.

b. The value must be measurable during some phase of a system's life cycle. This must be accomplished through collection and analysis of data from actual operation and/or maintenance of the system.

c. It must be statistical in nature to reflect variability in an R, M, or S characteristic. A specified value such as mandatory overhaul time is not considered a parametric term.

d. It must be normalized to a measurable base, e.g., "maintenance man hours per flight hour" is parametric but "maintenance man hours" is not.

It should be noted that values of parametric terms may also be qualified as "predicted", or used to develop test or evaluation plans but these have not been included in the data base, e.g., "predicted mean time to repair".

Those terms in the data base which do not meet all of the above criteria are classified as nonparametric.

3.2.3 Selection of Recommended Terms: The list of applicable terms was then reviewed and those to be recommended by the SAE were so annotated. Criteria for selection included how necessary the term is in the quantification of RMS performance. Terms included in this document are generic. For any particular application they may need to be tailored, for example, "mean time between failures" may be applied only to certain types of failure as appropriate, these tailorings are not included."

3.2.4 Selection of Preferred Definitions: For many terms, more than one definition was found in the selected documents. In these instances, one definition was selected as the preferred definition if it met the following criteria:

a. Clarity
b. Completeness
c. General application (generic)

Where equivalent definitions were found in more than one document, one of which being a Military Standard, the preferred definition was that contained in the Military Standard.

When only one definition was found for a term, and that definition met the above criteria then it was not reviewed further and was included in the data base as preferred.

In some cases there were multiple definitions of which none met all of the above criteria. In these cases a preferred definition was created by the G-11R subcommittee; these can be identified by their having no source document annotated.

3.3 Subcommittee Consensus Process:

The SAE G-11R subcommittee consists of approximately 20 individuals from the United States, Canada, and Europe who represent a cross section of the airframe, engine and accessory industries plus the military services.

The intent was to achieve as wide as possible a perspective for the recommendation of terms from the 2000 RMS terms reviewed.

The approach taken to arrive at a final consensus was to divide the 2000 terms equally among several small working groups. The task of these groups was to make the selections and recommendations based upon the previously described process, and then to present their results to the main subcommittee. The main subcommittee then reviewed these results and made the final acceptance/rejection decisions.

The sheer size of this activity with the number of individual opinions on the classification of 2000 terms suggests an evolutionary process, and indeed this was the case.

Numerous working groups and review teams were formed to revisit the tasks as the criteria were refined.

This process continued until a consensus was reached by the main subcommittee.

4. HOW TO READ THIS REPORT:

4.1 Sample Report Page:

An excerpt from the list of recommended terms is provided in Figure 1. This figure identifies the headings and associated definitions of each field in the list of terms.

| Field | Definition |
|---|---|
| Term: | Term being defined, with acronym. |
| Definition: | Verbatim definition as contained in the source document. |
| Formula: | Formula used to quantify the term. |
| Parameter?: | Indicates the G-11R assessment as to whether the term is a parameter. |
| Document number: | Self-explanatory. |
| Document name: | Self-explanatory. |

FIGURE 1 - Headings and Associated Definitions of Each Field

4.2 Contents of Published Report:

Appendix A of this report provides all the terms which are recommended by the SAE G-11R subcommittee per the previously described criteria and selection process. The terms are provided in alphabetical order.

Appendix B of this document provides the total list of RMS terms that were reviewed by the SAE G-11R subcommittee.

## APPENDIX A
## LIST OF RECOMMENDED TERMS

| | |
|---|---|
| **Term:** | **AVAILABILITY (A)** |
| **Definition:** | **Availability is the probability that an item used under stated conditions will be ready to operate satisfactorily at any given time.** |
| **Formula:** | **A = UPTIME / (UPTIME + DOWNTIME)** |
| **Parameter?:** | **Yes** |
| **Term:** | **BREAK RATE** |
| **Definition:** | **The probability that a system will return from an assigned mission with one or more previously working essential systems/subsystems inoperable (including ground and air aborts).** |
| **Formula:** | **BREAK RATE = # MISSIONS WITH 1 OR MORE FAILURES OF ESSENTIAL ITEMS / # MISSIONS ASSIGNED** |
| **Parameter?:** | **Yes** |
| **Term:** | **BUILT IN TEST** |
| **Definition:** | **An integral capability of the equipment which provides an on-board, automated test capability to detect, diagnose, and/or isolate system failures. The fault detection and, possibly, isolation capability is used for periodic or continuous monitoring of the system's operational health, and for observation and, possibly, diagnosis as a prelude to maintenance action.** |
| **Parameter?:** | **No** |

| | |
|---|---|
| Term: | CANNOT DUPLICATE |
| Definition: | A fault indicated by BIT or other monitoring circuitry which cannot be confirmed at the next level of maintenance. |
| Parameter?: | No |
| Document Number: | MIL-STD-1309C |
| Document Name: | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| | |
|---|---|
| Term: | DIRECT MAINTENANCE MAN-HOURS |
| Definition: | The total time in direct man-hours required to restore or maintain an item in serviceable condition. |
| Parameter?: | No |
| Document Number: | MIL-E-005007E |
| Document Name: | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |

| | |
|---|---|
| Term: | DIRECT MAINTENANCE MAN-HOURS PER MAINTENANCE ACTION (DMMH/MA) |
| Definition: | A measure of the maintainability parameter related to item demand for maintenance manpower. The sum of direct maintenance man-hours divided by the total number of maintenance actions (preventative and corrective) during a stated period of time. |
| Formula: | DMMH/MA = TOTAL DMMH / TOTAL MA'S |
| Parameter?: | Yes |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | DOWNING EVENT |
| Definition: | The event which causes an item to become unavailable to initiate its mission. |
| Parameter?: | No |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | DOWNTIME |
| Definition: | The time during which an item is not available for use for technical reasons. |

| | |
|---|---|
| Term: | DOWNTIME, MEAN |
| Definition: | The average elapsed time between loss of mission capable status and restoration of the system to mission capable status. |
| Formula: | MDT = TOTAL DOWNTIME / # OF DOWNING EVENTS |
| Parameter?: | Yes |
| Document Number: | AFP 57-9 |
| Document Name: | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |

| | |
|---|---|
| Term: | EFFECTIVENESS, BUILT IN TEST |
| Definition: | The product of two independent probabilities:<br>a. Pd(BIT) = The probability that a failure will be detected by BIT.<br>b. Pi(BIT) = The probability that the failure will be isolated to a stated ambiguity level by BIT. |
| Formula: | EFFECTIVENESS, BIT = Pd(BIT) * Pi(BIT) |
| Parameter?: | Yes |

| | |
|---|---|
| Term: | FAILURE |
| Definition: | The inability of an item to perform within previously specified limits. |
| Parameter?: | No |
| Document Number: | MIL-HDBK-338 |
| Document Name: | ELECTRONIC RELIABILITY DESIGN HANDBOOK |

| | |
|---|---|
| Term: | FAILURE RATE |
| Definition: | The total number of failures within an item population divided by the total number of life units expended by that population during a particular measurement interval under stated conditions. |
| Formula: | FAILURE RATE = # FAILURES / LIFE UNITS |
| Parameter?: | Yes |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITION OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | FAULT |
| Definition: | A physical condition that causes a device, component, or element to fail to perform in a required manner; for example, a short circuit or a broken wire. |
| Parameter?: | No |
| Document Number: | MIL-STD-1309C |
| Document Name: | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| | |
|---|---|
| Term: | FAULT ISOLATION |
| Definition: | The process of determining the location of a fault to the extent necessary to effect repair. |
| Parameter?: | No |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | FIX RATE |
| Definition: | The percent of items that return Not Mission Capable that are repaired (i.e., returned to Mission Capable status) in a specified number of clock hours, i.e., 70% in 4 h, 85% in 8 h. |
| Formula: | FIX RATE = # A/C REPAIRED WITHIN SPECIFIED HOURS / # ITEMS REPAIRED |
| Parameter?: | Yes |

| | |
|---|---|
| Term: | LIFE CYCLE COST |
| Definition: | The total cost of research, development, test, and evaluation; acquisition; operation and support and disposal of an item throughout its useful life. |
| Parameter?: | Yes |
| Document Number: | NAVAIR 01-1 A-32 |
| Document Name: | RELIABILITY ENGINEERING HANDBOOK |

| | |
|---|---|
| Term: | LIFE UNITS |
| Definition: | A measure of use duration applicable to the item (such as operating hours, cycles, distance, rounds fired, attempts to operate). |
| Parameter?: | No |
| Document Number: | DOD 5000.40(D) |
| Document Name: | RELIABILITY & MAINTAINABILITY (P&L) |

| | |
|---|---|
| Term: | MAINTENANCE |
| Definition: | All actions (corrective and preventive) necessary for retaining an item in or restoring it to a specified condition. |
| Parameter?: | No |
| Document Number: | NAVAIR 01-1A-32 |
| Document Name: | RELIABILITY ENGINEERING HANDBOOK |

| | |
|---|---|
| Term: | MAINTENANCE ACTION |
| Definition: | An element of a maintenance event. One or more tasks (i.e., fault localization, fault isolation, servicing and inspection) necessary to retain an item in or restore it to a specified condition. |
| Parameter?: | No |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | MAINTENANCE EVENT |
| Definition: | One or more maintenance actions required to effect corrective and preventive maintenance due to any type of failure or malfunction, false alarm or scheduled maintenance plan. |
| Parameter?: | No |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | MAINTENANCE MAN-HOURS PER LIFE UNIT |
| Definition: | A measure of the total maintenance manpower burden required to maintain an item. It is expressed as the cumulative number of man-hours of maintenance expended in direct labor during a given period of the life units divided by the cumulative number of end item life units during the same period. |
| Formula: | MMH/LU = TOTAL MAINTENANCE MAN-HOURS / TOTAL LIFE UNITS |
| Parameter?: | Yes |

| | |
|---|---|
| Term: | MAINTENANCE TIME, ELAPSED (EMT) |
| Definition: | For the purposes of maintenance data reporting (MDR), EMT is defined as the actual clock time, in hours and tenths, that maintenance was being performed on a job. EMT does not include the clock hours and tenths for cure time, charging time, or leak test when they are being conducted without maintenance personnel actually monitoring the work. Although the EMT is directly related to job man-hours, it is not to be confused with total man-hours required to complete a job. For example, if five persons complete a job in 2 h of continuous work, the EMT = 2 h and the man-hours = 10. |
| Parameter?: | No |
| Document Number: | OPNAVINST 4790.2 |
| Document Name: | THE NAVAL AVIATION MAINTENANCE PROGRAM |

| | |
|---|---|
| Term: | MAINTENANCE, CORRECTIVE |
| Definition: | All actions performed as a result of failure, to restore an item to a specified condition. Corrective maintenance can include any or all of the following steps: localization, isolation, disassembly, interchange, reassembly, alignment, and checkout. |
| Parameter?: | No |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | MAINTENANCE, PREVENTIVE |
| Definition: | Tests, measurements, replacements, adjustments, repairs, and similar activities carried out with the intention of preventing faults or malfunctions from occurring during subsequent operation. Preventive maintenance is designed to keep hardware and software in proper operating condition and may be performed on a scheduled basis. |
| Parameter?: | No |
| Document Number: | MIL-STD-1309C |
| Document Name: | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| | |
|---|---|
| Term: | MAN-HOURS |
| Definition: | The total number of accumulated direct labor hours (in hours and tenths) expended in performing a maintenance action. Direct maintenance man-hours are man-hours expended by assigned personnel to complete the work described on the source document. This includes the functions of preparation, inspection, disassembly, adjustment, fault correction, replacement or reassembly of parts, and calibration/tests required in restoring the item to a serviceable status. It also includes such associated tasks as checking out and returning tools, looking up part numbers in the Illustrated Parts Breakdown (IPB), transmitting required information to material control, and completing documentation of the Visual Information Display System/Maintenance Action Form (VIDS/MAF) or Support Action Form (SAF). |
| Parameter?: | No |
| Document Number: | OPNAVINST 4790.2 |
| Document Name: | THE NAVAL AVIATION MAINTENANCE PROGRAM |

| | |
|---|---|
| Term: | MAN-HOURS, MAINTENANCE |
| Definition: | The man-hours required to complete the maintenance task. |
| Parameter?: | No |
| Document Number: | WATOG |
| Document Name: | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

| | |
|---|---|
| Term: | MEAN CORRECTIVE MAINTENANCE TIME |
| Definition: | The mean elapsed time required to complete a corrective maintenance action, i.e., total corrective maintenance down time divided by total corrective maintenance actions over a stated period of time. |
| Formula: | MCT = TOTAL CORRECTIVE MAINTENANCE DOWN TIME / TOTAL CORRECTIVE MAINTENANCE ACTIONS |
| Parameter?: | Yes |

| | |
|---|---|
| Term: | MEAN MAINTENANCE TIME (MMT) |
| Definition: | The measure of item maintainability taking into account maintenance policy. The sum of elapsed corrective and preventive maintenance times divided by the sum of preventive and corrective maintenance events during a stated period of time. |
| Formula: | MMT = SUM OF ELAPSED PREV AND CORR MAINT TIME / SUM OF PREV AND CORR MAINT EVENTS |
| Parameter?: | Yes |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | MEAN TIME BETWEEN DEMANDS (MTBD) |
| Definition: | The total number of system life units divided by the total number of demands on the supply system during a stated period of time. |
| Formula: | MTBD = TOTAL SYSTEM LIFE UNITS / TOTAL # OF ITEM DEMANDS |
| Parameter?: | Yes |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |



| | |
|---|---|
| Term: | MEAN TIME BETWEEN FAILURES (MTBF) |
| Definition: | A reliability figure calculated by dividing total life units accrued in a period by the number of failures that occurred during the period. |
| Formula: | MTBF = TOTAL LIFE UNITS IN PERIOD / NUMBER OF FAILURES IN PERIOD |
| Parameter?: | Yes |

| | |
|---|---|
| Term: | MEAN TIME BETWEEN MAINTENANCE (MTBM) |
| Definition: | A measure of reliability taking into account maintenance policy. The total number of life units expended by a given time divided by the total number of maintenance events (scheduled and unscheduled) due to that item. |
| Formula: | MTBM = TOTAL LIFE UNITS / TOTAL MAINTENANCE EVENTS |
| Parameter?: | Yes |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | MEAN TIME BETWEEN REMOVALS (MTBR) |
| Definition: | A measure of the system reliability parameter related to demand for logistic support. The total number of system life units divided by the total number of items removed from that system during a stated period of time. This term is defined to exclude removals performed to facilitate other maintenance and removals for product improvement. |
| Formula: | MTBR = TOTAL LIFE UNITS / TOTAL NUMBER OF REMOVALS |
| Parameter?: | Yes |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | MEAN TIME TO RESTORE SYSTEM (MTTRS) |
| Definition: | A measure of the system maintainability parameter related to availability and readiness. The total corrective maintenance time associated with downing events, divided by the total number of downing events during a stated period of time. (Excludes time for off-system maintenance and repair of detached components.) |
| Formula: | MTTRS = TOTAL CORRECTIVE MAINTENANCE TIME (DOWNING EVENTS) / TOTAL NUMBER OF DOWNING EVENTS |
| Parameter?: | Yes |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | MEAN TIME TO SERVICE (MTTS) |
| Definition: | A measure of an on-system maintainability characteristic related to servicing that is calculated by dividing the total scheduled crew/operator/driver servicing time by the number of times the item was serviced. |
| Formula: | MTTS = TOTAL SERVICING TIME / NUMBER OF TIMES SERVICED |
| Parameter?: | Yes |
| Document Number: | MIL-STD-721C |
| Document Name: | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| | |
|---|---|
| Term: | MISSION CAPABLE RATE |
| Definition: | The percent of possessed time that a system is capable of performing at least one of its assigned missions. |
| Parameter?: | Yes |
| Document Number: | AFP 57-9 |
| Document Name: | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| Term: | PERCENT BIT CANNOT DUPLICATE |
| Formula: | %CND = 100 x NUMBER OF BIT CND'S / TOTAL NUMBER OF BIT INDICATIONS*<br><br>* Excludes false alarms that do not generate maintenance actions.<br><br>A BIT CND is an on-equipment BIT indication of a malfunction that cannot be confirmed by subsequent troubleshooting by maintenance personnel. |
| Parameter?: | Yes |
| Document Number: | AFP 57-9 |
| Document Name: | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEEDS |
| Term: | PERCENT BUILT IN TEST FALSE ALARM |
| Formula: | %FA = 100 x NUMBER OF BIT INDICATIONS NOT RESULTING IN MAINTENANCE ACTIONS / TOTAL NUMBER OF BIT INDICATIONS<br><br>A BIT FA is an indication of a failure that is not accompanied by system degradation or failure. |
| Parameter?: | Yes |

| | |
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| Term: | PERCENT BUILT IN TEST FAULT DETECTION |
| Definition: | The total number of faults detected by BIT divided by the total number of faults x 100. |
| Formula: | FD = TOTAL FAULTS DETECTED BY BIT / TOTAL FAULTS x 100 |
| Parameter?: | Yes |
| Document Number: | AFP 57-9 |
| Document Name: | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEEDS |

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| Term: | PERCENT BUILT IN TEST FAULT ISOLATION |
| Definition: | In defining this term it is essential to recognize that it is just as operationally valuable for BIT to fault isolate on an aircrew reported fault or manually detected fault as it is for BIT to fault isolate BIT detected faults. Hence, the definition is: |
| Formula: | %FI = # OF ISOLATIONS IN WHICH BIT EFFECTIVELY CONTRIBUTED / # OF CONFIRMED FAILURES DETECTED VIA ALL METHODS x 100<br><br>Effective isolation should be defined, for example, to mean that the fault is unambiguously isolated to a single item node (driver, receiver, connector, wire), or to a specified maximum number of items (an ambiguity group of x items). |
| Parameter?: | Yes |
| Document Number: | AFP 57-9 |
| Document Name: | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |

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| Term: | RELIABILITY |
| Definition: | The probability that an item will perform a required function, under specified conditions, without failure, for a specified number of life units. |

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| Term: | RELIABILITY, DISPATCH |
| Definition: | The percentage of flights which depart without incurring a delay (technical) or cancellation (technical). |
| Formula: | DR = TOTAL DEPARTURES WITHOUT DELAY OR CANCELLATION / TOTAL DEPARTURES |
| Parameter?: | Yes |
| Document Number: | WATOG |
| Document Name: | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

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| Term: | RELIABILITY, ENROUTE |
| Definition: | The probability of successfully completing a flight plan without incurring a failure that would cause deviation from flight plan. |
| Formula: | ER = TOTAL # OF SUCCESSFUL FLIGHT PLANS / TOTAL # OF FLIGHT PLANS |
| Parameter?: | Yes |
| Document Number: | WATOG |
| Document Name: | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

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| Term: | RELIABILITY, MISSION |
| Definition: | The probability that, under stated conditions, the system will operate in the mode for which it was designed (i.e., with no malfunctions) for the duration of the mission, given that it was operating in this mode at the beginning of the mission. |

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| Term: | REMOVAL RATE |
| Definition: | The total number of removals within an item population, divided by the total number of life units expended by that population, during a particular measurement interval under stated conditions. |
| Formula: | RR = TOTAL # OF REMOVALS / TOTAL # OF LIFE UNITS |
| Parameter?: | Yes |

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| Term: | UP TIME |
| Definition: | That element of ACTIVE TIME during which an item is in condition to perform its required function. |
| Parameter?: | No |
| Document Number: | MIL-STD-721 |
| Document Name: | DEFINITION OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

# APPENDIX B
# COMPLETE LIST OF RMS TERMS REVIEWED

| No | Term | Acronym | Definition | Document | Document Name |
|---|---|---|---|---|---|
| 1 | ACCELERATED LIFE TEST | | A test in which certain factors are increased or decreased beyond normal operating values to obtain observable deterioration in a reasonable period of time, and thereby afford some measure of the probable life under normal operating conditions or some measure of the durability of the equipment when exposed to the factors being aggravated. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 2 | ACCELERATED SIMULATED MISSION ENDURANCE TEST | ASMET | An accelerated test derived from a real time representation (usually expressed in terms of power lever angle versus time and engine inlet temperature and pressure conditions) of the mission profiles and mission mix for a specific aircraft application for a period of at least 1000 hours. The accelerated test is intended to produce: (1) hot parts damage equivalent to at least the hot parts life mission hours requirement and (2) critical parts LCF damage equivalent to at least one-half the cold parts mission hours requirement. The actual acceleration factor is a function of the derivation method provided by the strength and life analysis. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 3A | ACCELERATED TEST | | A test in which the applied stress level is chosen to exceed that stated in the reference conditions in order to shorten the time required to observe the stress response of the item, or magnify the response in a given time. To be valid, an accelerated test must not alter the basic modes and/or mechanisms of failure, or their relative prevalence. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 3B | ACCELERATED TEST | | A test in which the applied stress level is chosen to exceed that stated in the reference conditions in order to shorten the time required to observe the stress response of the item, or magnify the response in a given time. To be valid, an accelerated test must not alter the basic modes and/or mechanisms of failure or their relative prevalence. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 4 | ACCEPTABLE FAILURE RATE DURING PERIOD OF TIME | | The "acceptable failure rate during period of time," $G0$, is the maximum failure rate during period of time that can be considered satisfactory. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 5 | ACCEPTABLE MEAN LIFE | $\Theta_0$ | The minimum mean time to failure which is considered satisfactory. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 6 | ACCEPTABLE PROPORTION OF LOT FAILING BEFORE SPECIFIED TIME | $P_0$ | The maximum fraction of the lot that may fail before the specified time T and still result in the lot being considered satisfactory. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 7A | ACCEPTANCE TEST | AT | A series of tests conducted on engines submitted for Using Service acceptance, under contract, to demonstrate correct assembly and performance to the extent specified in the engine specification. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 7B | ACCEPTANCE TEST | | Tests to determine conformance to design or specifications as a basis for acceptance. They may apply to parts, equipments, or systems. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 7C | ACCEPTANCE TEST | | A test conducted under specified conditions by, or on behalf of, the government, using delivered or deliverable items, in order to determine the item's compliance with specified requirements. (Includes acceptance of first production units.) | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 8A | ACCESSIBILITY | | A measure of the relative ease of admission to the various areas | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN |

| No | Term | Acronym | Definition | Document | Document Name |
|---|---|---|---|---|---|
| | | | of an item. | | HANDBOOK |
| 8B | ACCESSIBILITY | | A measure of the relative ease of admission to the various areas of an item for the purpose of operation or maintenance. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILIT AND MAINTAINABILITY |
| 8C | ACCESSIBILITY | | The feature of design layout and installation which permits quick and easy admission (for performance of visual and manipulative maintenance) to the area in which maintenance must be performed. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOO |
| 8D | ACCESSIBILITY | | A design feature which affects the ease of admission to an area for the performance of visual and manipulative maintenance. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 8E | ACCESSIBLE | | Except where stated to the contrary herein or where specific design values are given, an item is considered accessible only where it can be operated, manipulated, removed or replaced by the suitably clothed and equipped user with applicable 5th and 95th percentile body dimensions. Applicable body dimensions are those dimensions which are design-critical to the operation, manipulation, removal or replacement task. (For example, an adjustment control behind an aperture should be located sufficiently close to the aperture to enable a suitably clothed and equipped user with a 5th percentile female depth of reach to grasp and manipulate the adjustment control, while the opening should be sufficiently large to enable passage of similarly clothed and equipped 95th percentile male hand and arm dimensions.) | MIL-STD-1472C | HUMAN ENGINEERING DESIGN CRITERIA F MILITARY SYSTEMS, EQUIPMENT |
| 9A | ACCESSORIES | | Accessories are items of engine-mounted equipment not furnished by the engine manufacturer, which are required for aircraft operation or as auxiliaries for engine operation. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 9B | ACCESSORY | | An item used in conjunction with or to supplement an assembly, unit or set, contributing to the effectiveness thereof without extending or varying the basic function of the assembly, unit, or set. An accessory may be used for testing, adjusting or calibrating purposes. | MIL-STD-280A | DEFINITIONS OF ITEM LEVELS, ITEM EXCHANGEABILITY, MODELS AND RELATED TERMS |
| 9C | ACCESSORY | | A part, subassembly, or assembly designed for use in conjunction with or to supplement another assembly, unit, or set that contributes to the effectiveness without extending or varying the basic function of the assembly or set. An accessory may be used for testing, adjusting, or calibrating. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 9D | ACCESSORY | | A part, subassembly, assembly or component designed for use in conjunction with or to supplement another item. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 10 | ACCUMULATED HOURS | | Hours that are expended against a job by individuals or shops within the same work center. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 11 | ACHIEVED | | Obtained as the result of measurement. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILIT AND MAINTAINABILITY |
| 12 | ACTIVE BUILT IN TEST | | A type of built in test which is temporarily disruptive to the prime system operation through the injection of test stimuli into the system. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMEN |
| 13 | ACTIVE MAINTENANCE TIME | | The time during which corrective or preventive maintenance is being done on an item. Active maintenance time is comprised of the following task times: preparation time, fault location time, | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOO |

| No | Term | Acronym | Definition | Document | Document Name |
|---|---|---|---|---|---|
| | | | item obtainment time, fault correction time, adjustment and calibration time, and checkout time. | | |
| 14 | ACTIVE REPAIR TIME | | That portion of downtime during which one or more technicians are working on the system to effect a repair. This time includes preparation time, fault-location time, fault-correction time, and final checkout time for the system, and perhaps other subdivisions as required in special cases. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 15 | ADDITIONAL EQUIPMENT | | Any item shipped with the engine which is neither an accessory nor a component. | MIL-E-005007F(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 16 | ADJUST/ALIGN/TRIM | | To bring variable elements of an item within specified limits. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 17 | ADJUSTMENT | | Changing (by electronic, electrical or physical means) a variable in an item to cause a change in its output characteristics. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 18 | ADVANCED DEVELOPMENT | | An item used for experimentation or tests to (a) demonstrate the technical feasibility of a design, (b) determine, its ability to meet existing performance requirements, (c) secure engineering data for use in further development and, where appropriate, (d) establish the technical requirements for contract definition. Dependent upon the complexity of the equipment and the technological factors involved, it may be necessary to produce several successive models, to achieve additional objectives. The final advanced development model approaches the required form factor and employs standard parts (or nonstandard parts approved by the agency concerned). Serious consideration is given to military requirements such as reliability, maintainability, human factors and environmental conditions. | MIL-STD-280A | DEFINITIONS OF ITEM LEVELS, ITEM EXCHANGEABILITY, MODELS AND RELATED TERMS |
| 19A | AGE EXPLORATION | | A systematic evaluation of an item based on analysis of collected information from in-service experience, development tests or scientific handbooks. It assesses the item's resistance to a deterioration process with respect to increasing age. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 19B | AGE EXPLORATION | | A systematic evaluation of an item based on analysis of collected information from in-service experience. It assesses the item's resistance to a deterioration process with respect to increasing age. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 20 | AGE, THRESHOLD | | The time before which inspection of the condition of an item is required, or beyond which inspection is considered to provide useful condition information. NOTE: Threshold age may be specified as an upper limit before which inspection must be performed, or may be specified as a lower limit below which an inspection is not considered to provide useful information. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 21 | AIRBORNE SUPPORT EQUIPMENT | ASE | All equipment required on the aircraft to support the operation and maintenance of the aircraft and all its airborne equipment. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 22 | AIRCRAFT IN SERVICE | | The average number of aircraft used in aircraft operations and normal maintenance during a reporting period. NOTE: The number of aircraft in service is calculated from the aircraft days available for the period divided by the total number of days in the period. Aircraft days available include days required for normal maintenance and overhaul. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 23 | AIRCRAFT | AIMD | That department of an aviation ship (aircraft carrier/amphibious | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE |

| No | Term | Acronym | Definition | Document | Document Name |
|---|---|---|---|---|---|
| | INTERMEDIATE MAINTENANCE DEPARTMENT | | assault ship/helicopter assault landing ship (CV/LPH/LHA)) or naval air station responsible for the check, test, repair, or manufacture of aeronautical components and SE for the supported aircraft. | | PROGRAM |
| 24 | AIRCRAFT ON GROUND | AOG | The highest priority designation to process a requirement for a spare part(s) and/or maintenance action. Indicates that an aircraft is unable to continue or be returned to revenue service until the appropriate action is taken. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 25 | AIRCRAFT STRUCTURAL INTEGRITY PROGRAM | ASIP | A time-phased set of required actions performed at the optimum time during the life cycle (design through phase-out) of an aircraft system to ensure the structural integrity (strength, rigidity, damage tolerance, durability and service life capability) of the aircraft. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT,ENGINES & EQUIPMENT |
| 26 | AIRLINE OPERATING PROFILE | | Information supplied by the airline to the equipment manufacturer for calculation of spares items needed to support the airline's fleet. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 27A | ALIGNMENT | | A sequence of adjustments providing optimum performance characteristics. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 27B | ALIGNMENT | | Performing the adjustments that are necessary to return an item to specified operation. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 28 | ALLOCATION | | The apportionment of numerical requirements to all levels within an equipment which will result in meeting the overall contractual reliability requirement. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 29 | ALTERNATE | | An item which fully meets required functional and structural specifications, but differs either in overall external dimensions, connections, installations and/or mounting provisions and required additional parts, rework, or modification to install in a specific application. Alternate procedures fully meet the required maintenance specification, but may require additional documentation, training, manning, special tooling and/or test equipment. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 30A | ANALYSIS, CRITICALITY | FMECA | An extension of failure mode and effect analysis wherein the degree of degradation of aircraft operating safety due to failure effects is predicted. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 30B | ANALYSIS, CRITICALITY | CA | A procedure by which each potential failure mode is ranked according to the combined influence of severity and probability of occurrence. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 31 | ANALYSIS, DAMAGE TOLERANCE | | Application of engineering principles to determine periods of safe unrepaired service usage in the presence of assumed structural defects. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 32 | ANALYSIS, MAINTENANCE | | The process of identifying required maintenance functions through analysis of a fixed or assumed design and determin- ing the most effective means of accomplishing these functions. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 33 | ANALYSIS, PERFORMANCE | | The assessment of the performance level of an item, aircraft or fleet from performance data or measurements or statistical information. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 34 | ANALYSIS, RELIABILITY | | The assessment of probabilities to determine satisfactory performance of an item under specified conditions of use over a given service period by means of statistical studies. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 35 | ANALYTICAL MAINTENANCE PROGRAM | AMP | A program that implements the Reliability Centered Maintenance (RCM) philosophy, for example, additional maintenance cannot improve the reliability inherent in the design of hardware. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

| No | Term | Acronym | Definition | Document | Document Name |
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| 36 | ARTICLE | | Components, assemblies, subassemblies, and parts connected or associated together to perform an operational function. (Equipment or End Item) | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 37 | ATTRIBUTE | | A characteristic or property that a product either does or does not have, e.g., shorts and opens in electronic parts, leaks in hydraulic lines, "stiction" in bearings. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 38 | AUGMENTED SUPPORT | | Support provided by the system contractor during the initial introduction of new development or production equipment, to furnish technical assistance, spares, and repair parts and to perform actual maintenance as required during the introductory period. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 39 | AUTOMATIC SELF TEST | | Self-test to that degree of fault detection and isolation which can be achieved entirely under computer control, without human intervention. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 40 | AUTOMATIC TEST | | That performance assessment, fault detection, diagnosis, isolation, and prognosis which is performed with a minimum of reliance on human intervention. This may include BIT. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 41 | AUTOMATIC TEST EQUIPMENT | ATE | Equipment which automatically carries out a predetermined program of testing for possible malfunction with minimum reliance upon human intervention. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 42A | AUTOMATIC TESTING | | Fault localization, failure prediction, or validation of satisfactory equipment operation by a device that is programmed to perform a series of self-sequencing tests. Once actuated, the device will continue its operations without the necessity of human direction. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 42B | AUTOMATIC TESTING | | That discipline which concerns itself with the development, acquisition, and application of automatic test. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 43A | AVAILABILITY | | A measure of the degree to which an item is in an operable and committable state at the start of a mission when the mission is called for at an unknown (random) time (includes operating time, active repair time, administrative time, and logistic time, but excludes mission time). | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 43B | AVAILABILITY | | A measure of the degree to which an item is in operable and committable state at the start of a mission, when the mission is called for at an unknown (random) point in time. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 43C | AVAILABILITY | | A measure of the degree to which an item is in operable and commitable state at the start of a mission when the mission is called for at an unknown (random) time. (Item state at start of a mission includes the combined effects of the readiness-related system R & M parameters, but excludes mission time.) | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 43D | AVAILABILITY | A | A complex function of equipment mean time between failures (MTBF), mean corrective maintenance time (Mct), duty cycle (d), failure detectability (k) of checkout and test equipment, mission time (tm), and the functional performance threshold (Gmin) at which the system can be classified as operationally ready for a particular mission assignment. Inherent availability is the probability that a system or equipment used under stated conditions in an ideal support environment will operate satisfactorily at any given time. Operational availability is the probability that a system or equipment used under stated conditions and in the actual support environment will operate satisfactorily at any given time. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 43E | AVAILABILITY | | A measure of the degree to which an item is in an operable and | 00-40(PT1)(ARMP1) | R&M P1: MANAGEMENT RESPONSIBILITIES & |

| No | Term | Acronym | Definition | Document | Document Name |
|---|---|---|---|---|---|
| | | | committable state at the start of a mission when the mission is called for at an unknown (random) time. | | REQUIREMENTS FOR PROGRAMMES & PLANS |
| 43F | AVAILABILITY | A | The percent of possessed/authorized equipment that is capable of performing its intended function. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 43G | AVAILABILITY | | A measure of the degree to which an item is in the operable and committable state at the start of the mission, when the mission is called for at an unknown (random) point in time. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 44 | AVERAGE LIFE | | The mean value for a normal distribution of lives. The term is generally applied to mechanical failures resulting from "wearout". | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 45 | AVIONICS | | The application of electronics to aviation and astronautics.NOTE: For purposes of the Naval Aviation Maintenance Program (NAMP), avionics is interpreted to include electronic, electrical, instrument, flight control, fire control, and bombing equipment and their subsystems taken either as independent equipment, groups of equipment, or integrated systems to accomplish assigned military missions. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 46 | AWAITING INDUCTION | | The condition that exist when an engine has been received from supply, and has not been inducted into the shop work-load cycle. Requires the use of shop facilities and preceeds an in work/awaiting maintenance status. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 47 | AWAITING MAINTENANCE TIME | AWM | That time during which an aircraft is Not Mission Capable Maintenance (NMCM) or Partial Mission Capable Maintenance (PMCM) and no maintenance is being performed on the systems causing the NMCM or PMCM status. Other maintenance upkeep not causing an NMCM or PMCM condition may be performed on the aircraft during this period. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 48 | AWAITING PARTS | AWP | The condition that exists when materials required to complete a maintenance action are not available on station/ship. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 49 | BASIC FAILURE RATE | | The basic failure rate of a product derived from the catastrophic failure rate of its parts, before the application of use and tolerance factors. The failure rates contained in MIL-HDBK-217 are "base" failure rates. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 50 | BASIC MISSION | | The basic intended function or capability of the aircraft, such as bomber, fighter, patrol, observation, utility. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 51 | BASIC RELIABILITY | | The duration or probability of failure-free performance under stated conditions. Basic reliability terms, such as Mean Time Between Failures (MTBF) or Mean Cycles Between Failures (MCBF), shall include all item life units (not just mission time) and all failures within the items (not just mission-critical failures at the item level of assembly). Basic reliability requirements shall be capable of describing item demand for maintenance manpower (e.g., Mean Time Between Maintenance Actions (MTBMA). The other system reliability parameters shall employ clearly defined subsets of all item life units and all failures. | MIL-STD-785B | RELIABILITY PROGRAMS FOR SYSTEM AND EQUIPMENT DEVELOPMENT AND PROD |
| 52 | BENCH CHECK | | A physical inspection or functional test of an item removed for an alleged malfunction to determinne if the part or item is serviceable/repairable. It also includes a determination of the extent of maintenance, repair, or possible overhaul required to return it to serviceable status. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

| No | Term | Acronym | Definition | Document | Document Name |
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| 53 | BENCH CHECK | | A functional check of an item in the shop to determine whether or not the item may be returned to service, or whether it requires adjustment, repair or overhaul. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 54 | BENCH TEST | | The subjection of aircraft, engines, accessories, equipment, and equipage to prescribed conditions and specifications with the use of shop test equipment to ensure proper functioning. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 55 | BEYOND CAPABILITY OF MAINTENANCE | BCM | A term/code used by Intermediate (I-) level maintenance activities when repair is not authorized at this level, or when an activity is not capable of accomplishing the repair because of a lack of equipment, facilities, technical skills, technical data, or parts. This code will also be used when shop backlog precludes repair within time limits specified by existing directives. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 56 | BREAK RATE | | The percent of time an aircraft will return from an assigned mission with one or more previously working system/subsystems on the Mission Essential Subsystem List (MESL) inoperable (code 3 including ground and air aborts). | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEEDS |
| 57A | BUILT IN TEST | BIT | An integral capability of the mission equipment which provides an on-board, automated test capability to detect, diagnose, or isolate system failures. The fault detection and, possibly, isolation capability is used for periodic or continuous monitoring of a system's operational health, and for observation and, possibly, diagnosis as a prelude to maintenance action. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 57A | BUILT IN TEST EQUIPMENT | BITE | Any device which is part of an equipment or system and is used for the express purpose of testing the equipment or system. BITE is an identifiable unit of the euqipment or system (13098). BITE normally implies an addition to the hardware for the purpose of the test. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 57B | BUILT IN TEST | BIT | A test approach using self-contained hardware and/or software which is an integral part of the unit under test (UUT) used to test all or part of the UUT. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 57B | BUILT IN TEST EQUIPMENT | BITE | Any device permanently mounted in the prime equipment and used for the express purpose of testing the prime equipment, either independently or in association with external test equipment. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 57C | BUILT IN TEST EQUIPMENT | BITE | Monitoring and test equipment installed in selected systems, subsystems, or components for use in fault isolation. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 58A | BURN IN | | The operation of an item to stabilize its characteristics. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 58B | BURN IN | | The operation of items prior to their end application to stabilize their characteristics and identify early failures. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 58C | BURN IN | | The operation of an item under stress to stabilize its characteristics. not to be confused with DE-BUGGING. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 58D | BURN IN | | The operation of an item to stabilize its characteristics. Basically, a reliability conditioning procedure which is a method of aging an item by operating it under specified environmental and test conditions in accordance with an established procedure in order to eliminate early failures and age or stablize the item prior to final test and shipment. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 59 | CALIBRATE | | To determine and make required corrections in calibration standards or Precision Measuring Equipment (PME). It consists of | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | the comparison of two instruments, one of which is a certified calibration standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the other instrument or PME being compared with the certified calibration standard. | | |
| 60A | CALIBRATION | | The comparison of a measurement system or device of unverified accuracy to a measurement system or device of known and greater accuracy, to detect and correct any variation from required performance specifications of the measurement system or device. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 60B | CALIBRATION | | A comparison of a measuring device with a known standard. Not to be confused with ALIGNMENT. (see MMIL-C-45662). | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 60C | CALIBRATION | | The process by which calibration installations compare a calibration standard or PME with a standard of higher accuracy to ensure that the former is within specified limits throughout its entire range. The calibration process involves the use of approved instrument calibration procedures. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 60D | CALIBRATION | | The application of specifically known and accurately measured input to ensure that an item will produce specifically known output which is accurately measured or indicated. Calibration includes adjustmentor recording of corrections, as appropriate. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 61 | CALIBRATION INTERVAL, PERIOD, OR CYCLE | | The designated period of time between calibration services. During this time the instrument should remain within specific performance levels, with a specified probability, under normal conditions of handling and use. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 62 | CALIBRATION PROCEDURE | | The specific steps and operations to be followed by activity personnel in the performance of an instrument calibration. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 63 | CANCELLATION (TECHNICAL) | | Elimination of a scheduled trip because of a known or suspected malfunction and/or defect. NOTE: Cancellation of any or all of the flight legs of multi-leg trip constitutes only one cancellation. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 64 | CANNIBALIZE | | Removal of serviceable parts from one aircraft for installation on another. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 65 | CANNOT DUPLICATE | CND | A fault indicated by BIT or other monitoring circuitry which cannot be confirmed at the next level of maintenance. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 66A | CAPABILITY | | A measure of the ability of an item to achieve mission objectives given the conditions during the mission. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 66B | CAPABILITY | | A measure of the ability of an item to achieve mission objectives given the conditions during the mission. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 67 | CAUSE, BASIC | | The cause of a defect, failure or damage which results in malfunctioning of an item when: 1. being operated and maintained in a manner for which it was designed, and 2. the cause was not externally induced. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 68 | CAUTION SIGNAL | | A signal which alerts the operator to an impending dangerous condition requiring attention, but not necessarily immediate action. | MIL-STD-1472C | HUMAN ENGINEERING DESIGN CRITERIA FOR MILITARY SYSTEMS, EQUIPMENT |
| 69 | CENTRAL INTEGRATED TEST SYSTEM | | An on-line test system which processes, records, or displays at a centrallocation, information gathered by test point datasensors at more than one remotely located equipment or system under test (also called system integrated test system). | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| No | Term | Acronym | Definition | Document | Document Name |
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| 70 | CHANCE FAILURE | | Any failure whose occurence is unpredictable in an absolute sense but which is predictable only in a probabilistic or statistical sense. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 71A | CHARGEABLE | | Within the responsibility of a given organizational entity (applied to terms such as FAILURES, MAINTENANCE TIME etc.). | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 71B | CHARGEABLE | | Within the responsibility of a given organizational entity, whether government or commercial. | DOD 5000.40(D) | RELIABILITY & MAINTAINABILITY (P&L) |
| 72 | CHARGEABLE FAILURE | | A relevant, independent failure of equipment under test and any dependent failures caused thereby which are classified as one failure and used to determine contractual compliance with acceptance and rejection criteria. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 73 | CHECK | | An examination to determine functional capability or physical integrity of an item. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 74A | CHECK, FUNCTIONAL | | A quantitative check to determine if one or more functions of an item performs within specified limits. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 74B | CHECK, FUNCTIONAL | | A quantitative check to determine if functions of an item perform within specified limits. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 75 | CHECK, SCHEDULED MAINTENANCE | | Any of the maintenance opportunities which are prepackaged and are accomplished on a regular basis. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 76 | CHECK. OPERATIONAL | | A task to determine if an item is fulfilling its intended purpose. The task does not require quantitative tolerances. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 77A | CHECKOUT | | Tests or observations of an item to determine its conditions or status. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 77B | CHECKOUT | | A sequence of tests for determining whether or not a device or system is capable of, or is actually performing, a required operation or function. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 77C | CHECKOUT | | Tests or observations of an item to determine its condition or status. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 77D | CHECKOUT | | Man/machine task to determine that the equipment is operating satisfactorily and ready for return to service. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 77E | CHECKOUT | | A sequence of functional or operational tests, or calibration, to determine the condition and status of a weapon system or its elements. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 78A | CHECKOUT TIME | | The time required to determine whether designated characteristics of a system are within specified values. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 78B | CHECKOUT TIME | | The time required to determine that a system or equipment is in satisfactory operating condition. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 78C | CHECKOUT TIME | | The time required to check out the equipment, to complete the maintenance action or to otherwise verify that a system or equipment is in satisfactorily operating condition. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 79 | CLOSED LOOP FAILURE | | A controlled system assuring that all failures and faults are reported, analyzed (engineering or laboratory analysis), | MIL-STD-2155 | FAILURE REPORTING, ANALYSIS AND CORRECTIVE ACTION SYSTEM |

| No | Term | Acronym | Definition | Document | Document Name |
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| | REPORTING SYSTEM | | positive corrective actions are identified to prevent recurrence, and that the adequacy of implemented corrective actions is verified by test. | | |
| 80 | COMMAND AND CONTROL SYSTEM EQUIPMENT | | The main mission element equipment and related ground equipment used in collecting, transmitting, processing, and displaying information for command and control. | MIL-STD-1472C | HUMAN ENGINEERING DESIGN CRITERIA FOR MILITARY SYSTEMS, EQUIPMENT |
| 81 | COMPENSATING PROVISION | | Actions that are available or can be taken by an operator to negate or mitigate the effect of a failure on a system. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 82 | COMPLAINT | | A known or suspected malfunction or defect found by flight crew or maintenance personnel which is documented and requires maintenance action. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 83 | COMPLAINTS, PILOT | | Suspected or known malfunctions or unsatisfactory conditions entered by the flight crew into the aircraft log and which require maintenance action. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 84 | CONCEPT, FLEET LEADER | | Inspections on specific aircraft selected from those which have the highest operating age/usage in order to identify the first evidence of deterioration in their condition caused by fatigue damage. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 85A | CONCEPTUAL (CONCEPT) PHASE | | The identification and exploration of alternative solutions or solution concepts to satisfy a validated need. | MIL-STD-470A | MAINTAINABILITY PROGRAM FOR SYSTEMS & EQUIPMENT |
| 85B | CONCEPTUAL (CONCEPT) PHASE | | The identification and exploration of alternative solutions or solution concepts to satisfy a validated need. | MIL-STD-785B | RELIABILITY PROGRAMS FOR SYSTEM AND EQUIPMENT DEVELOPMENT AND PRODUCTION |
| 86 | CONCURRENT FAULT SIMULATION | | Fault list type simulations during which fault lists, associated with each primitive block, are propagated by using the same elemental evaluator routines used by the failure free simulation. The concurrency consists in the fact tht for each primitive scheduled to be evaluated, its failure free behavior is computed firsthand then its fault list is computed. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 87 | CONDEMN | | The removal from service of an item which cannot be economically repaired or reworked. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 88 | CONFIDENCE TEST | | (1) A test performed to provide a high degree of certainty that the unit under test (UUT) is operating acceptably. (2) A check of the performance of all test system stimulus and measurement functions, to detect degradation with respect to system specifications, and to inform the system operator. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 89A | CONFIGURATION | | The functional and physical characteristics of material as described in technical documents and achieved in a product. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 89B | CONFIGURATION | | The functional and/or physical characteristics of hardware/software as set forth in technical documentation and achieved in a product. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 90A | CONFIGURATION CONTROL | | The systematic evaluation, coordination, approval or disapproval, and implementation of all approved changes in the configuration of a configuration item, after formal establishment of its configuration identification. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 90B | CONFIGURATION CONTROL | | The systematic evaluation, coordination, approval or disapproval of proposed changes, and the implementation of all approved changes to the configuration of a configuration item, after formal establishment of its configuration identification. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 91 | CONSTANT FAILURE | | That period during which failures of some items occur at an | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| | PERIOD | | approximately uniform rate. | | |
| 92 | CONSUMER'S RELIABILITY RISK ($\beta$) | | The risk, or probability, that a product will be accepted by a reliability test when it should properly be rejected. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 93A | CONSUMER'S RISK | | The consumer's risk, $\beta$, is the probability of accepting lots with mean life $\theta_1$. For the procedures of section 2C, part III, the consumer's risk may also be defined as the probability of accepting lots with unacceptable proportion of lot failing before specified time, $p_1$. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 93B | CONSUMER'S RISK ($\beta$) | | The probability of accepting equipment with a true mean time between failures (MTBF) equal to the lower test MTBF ( $\theta_1$). The probability of accepting equipment with a true MTBF less than the lower test MTBF ($\theta_1$) will be less than ($\beta$). | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 94 | CONTAINMENT | | The restriction of damage within a specified physical envelope following failure of an item. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 95 | CONTAMINANTS | | Particles of foreign material which may or may not be visible to the unaided eye. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 96 | CONTRACT MAINTENANCE | | Maintenance of material by commercial organizations (including prime contractors) on a one-time or continuing basis, without distinction as to the level of maintenance accomplished. | MIL-M-24365ASHIPS | MAINTENANCE ENGINEERING ANALYSIS |
| 97 | CONTROL POINT | | A design attribute to enhance testability by enabling, disabling, blocking, resetting and so forth, functions within a system to effect efficient test control. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 98 | CONTROLLABILITY | | An attribute of equipment design which defines or describes the extent to which signals of interest may be controlled. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 99A | CONTROLLED TEST | | A test designed to control or balance out the effects of environmental differences and to minimize the chance of bias in the selection, treatment, and analysis of test samples. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 99B | CONTROLLED TEST | | A test designed to control or balance out the effects of environmental differences. The test minimizes the chance of bias in the selection, treatment, and analysis of test samples. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 100A | CORRECTIVE ACTION | | A documented design, process, procedure, or materials change implemented and validated to correct the cause of failure or design deficiency. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 100B | CORRECTIVE ACTION | | A documented design, process, procedure, or materials change implemented and validated to correct the cause of failure or design deficiency. | MIL-STD-1629A | PROCEDURE FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANAL |
| 101 | CORRECTIVE ACTION EFFECTIVITY | | The date or item serial number when corrective action will be or has been incorporated into the item. | MIL-STD-2155 | FAILURE REPORTING, ANALYSIS AND CORRECTIVE ACTION SYSTEM |
| 102 | CORRECTIVE DOWNTIME RATE | MDTCT | Corrective maintenance downtime per hour of operation. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 103 | COST OF OWNERSHIP | | The sum of acquisition plus the operation and support costs incurred during the period of ownership of the item. Acquisition includes one-time or nonrecurring costs, such as purchase, initial provisioning, special tools and equipment, and disposal costs, if any. Operation and support costs include both direct and indirect operating costs. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 104 | COST, DIRECT | DMC | Those maintenance labor and material costs directly expended in | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS |

| No | Term | Acronym | Definition | Document | Document Name |
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| | MAINTENANCE | | performing maintenance on an item or aircraft. NOTE: Does not include those indirect maintenance labor and material expenditures which contribute to the overall maintenance operations, line station servicing, administration, record keeping, supervision, tooling, test equipment, facilities, etc. | | GLOSSARY |
| 105 | COST, DIRECT OPERATING | DOC | Those costs incurred as a result of operating aircraft, including such costs as flight crew, fuel and oil, insurance, maintenance, landing fees and navigation charges. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 106 | COST, INDIRECT MAINTENANCE | IMC | Those maintenance labor and material costs not considered to be direct maintenance costs, but which contribute to the overall maintenance program costs through overhead operations, administration, record keeping, supervision, tooling test equipment, facilities, etc. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 107 | COST, INDIRECT OPERATING | IOC | Those costs not considered to be direct operating costs but which contribute to the overall operating costs of the aircraft, including such costs as general administration and finance, passenger service, marketing, and aircraft and passenger handling services. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 108 | CRITICAL DEFECT | | A critical defect is a defect that judgment and experience indicate is likely to result in hazardous or unsafe conditions for individuals using, maintaining, or depending upon the product; or a defect that judgment and experience indicate is likely to prevent performance of the tactical function of a major end item such as an aircraft or missile. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 109 | CRITICAL ITEM | | Any item:(1) The failure of which would critically affect system safety, cause the system to become unavailable or unable to achieve mission objectives, or cause extensive/expensive maintenance and repair. NOTE: High value are reliability critical for design to life cycle cost. (2) The failure of which would prevent the acquisition of data to evaluate system safety, availability, mission success, or need for maintenance/repair. (3) Which has stringent performance requirement(s) in its intended application relative to state-of-the-art techniques for the item. (4) The sole failure of which causes system failure. (5) Which is stressed in excess of specified derating criteria. (6) Which has a known operating life, shelf life, or environmental exposure such as vibration, thermal, propellant; or a limitation which warrants controlled surveillance under specified conditions. (7) Which is known to require special handling, transportation, storage, or test precautions. (8) Which is difficult to procure or manufacture relative to state-of-the-art techniques. (9) Which has exhibited an unsatisfactory operating history. (10)Which does not have sufficient history of its own, or similarity to other | 00-40(PT1)(ARMP1) | R&M P1: MANAGEMENT RESPONSIBILITIES & REQUIREMENTS FOR PROGRAMMES & PLANS |
| 110A | CRITICALITY | | A relative measure of the consequences of a failure mode and its frequency of occurences. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 110B | CRITICALITY | | A relative measure of the consequence of a failure mode and its frequency of occurrences. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 110C | CRITICALITY | | A measure of severity of a failure in relation to mission performance or hazards to material or personnel. Criticality classifications in accordance with MIL-STD-882 are:Class IV, Catastrophic - any single failure which is potentially fatal or | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | probably will result in loss of aircraft, missile, etc.Class III, Critical - any single failure which potentially results in loss of the mission or will potentially results in loss of the mission or will result in serious hazard or injury to personnel.Class II, Noncritical - any failure which degrades performance or results in degraded operation (such as loss of automatic functions) requiring special operating techniques or alternative modes of operation, which could be tolerated throughout a mission but should be corrected upon completion of the mission.Class I, Minor - any "nuisance" failure not serious enough to be classified Class II, III, or IV, but which requires corrective action. | | |
| 110D | CRITICALITY | | A measure of the severity of a failure in relation to mission performance and hazards to material or personnel. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 111 | CYCLE, AIRCRAFT OPERATING | | A completed take-off and landing sequence. NOTE: Touch and go landings are counted as Aircraft Operating Cycles. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 112 | CYCLE, ENGINE OPERATING | | A completed engine thermal cycle including the application of takeoff power. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 113 | CYCLE, SUPERSONIC | | A completed supersonic flight sequence comprising acceleration through Mach 1 and deceleration to subsonic flight. NOTE: One aircraft operating cycle can include more than one supersonic cycle. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 114 | DAMAGE TOLERANCE | | The ability of the airframe and engine structure to resist failure due to the presence of flaws, cracks, or other damage for a specific period of unrepaired usage. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 115 | DAMAGE TOLERANCE CRITICAL PART | | A part whose structural failure could cause loss of aircraft. This implies that the safety-of-flight structure that is sized by damage tolerance requirements and meets the criteria for critical part selection is included in the damage tolerance critical parts list. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 116 | DAMAGE TOLERANT | | A qualification standard for aircraft structure. An item is judged to be damage tolerant if it can sustain damage and the remaining structure can withstand reasonable loads without structural failure or excessive structural deformation until the damage is detected. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 117 | DAMAGE, ACCIDENTAL | | Physical deterioration of an item caused by contact or impact with an object or influence which may/may not be a part of the aircraft, or by improper manufacturing or maintenance practices. | MIL-STD-1843 USAF | RELIABILITY CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 118 | DAMAGE, ACCIDENTAL | | Physical deterioration of an item caused by contact or impact with an object or influence which is not a part of the aircraft, or by improper manufacturing or maintenance practices. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 119 | DAMAGE, ENVIRONMENTAL | | Physical deterioration of an item's strength or resistance to failure as a result of chemical interaction with its climate or environment. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 120 | DAMAGE, INGESTION | | Internal damage to an engine caused by an outside object such OBJECT (FOD) as birds, stones, or other foreign objects. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 121A | DEBUGGING | | A process to detect and remedy inadequacies, preferably prior to operational use. During this period, defective parts and workmanship errors are identified and corrected under test conditions that closely simulate field operational stresses. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | The debugging process in not, however, intended to detect inherent weaknesses in system design. These should have been eliminted in the preproduction stages by appropriate techniques. | | |
| 121B | DEBUGGING | | A process to detect and remedy inadequacies, preferably prior to operational use. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 121C | DEBUGGING | | A process to detect and remedy inadequacies. Not to be confused with terms such as BURN-IN, FAULT ISOLATION or SCREENING. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 121D | DEBUGGING | | A process of "shakedown operation" of a finished equipment to identify and correct design deficiencies, or workmanship errors, defective parts, etc., which may have escaped the quality control inspection procedures. Debugging is usually performed by the contractor prior to submission to Government acceptance test and is not normally part of of the acceptance test. The debugging process is also useful in development for the detection and correction of inherent weakness in system design prior to submission for maintainability demonstration and design approval. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 121E | DEBUGGING | | A process to detect and remedy inadequacies preferably prior to operational use. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 122A | DEFECT | | Any non-comformance of an item with specified requirements. | 00-40(PT1)(ARMP1) | R&M P1: MANAGEMENT RESPONSIBILITIES & REQUIREMENTS FOR PROGRAMMES & PLANS |
| 122B | DEFECT | | The causative element that results in a failure. | MIL-STD-2164 | ENVIRONMENTAL STRESS SCREENING PROCESS FOR ELECTRONIC EQUIPMENT |
| 122C | DEFECT | | Any nonconformance of the unit or product with specified requirements. Defects will normally be grouped into one or more of the following classes but may be grouped into other classes or subclasses with these classes:a. DEFECT, CRITICAL - A defect that consititutes a hazardous or unsafe condition, or as determined by experience and judgement could conceivably become so, relative to its deleterious effect on the prime intended function, or mission capability of the aircraft or its operating personnel.b. DEFECT, MAJOR - A defect, other than critical, that could result in failure or materially reduce the usability of the unit or part for its intended purpose.c. DEFECT, MINOR - A defect that does not materially reduce the usability of the unit or part for its intended purpose, or is a departure from standards but which has no significant bearing on the effective use or operation of the unit or part. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 122D | DEFECT | | Any confirmed abnormal condition of an item whether or not this could eventually result in a failure. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 123 | DEFECT DENSITY | | Average number of latent defects per item. Symbols used: DIN, DOUT, OR and DO for incoming, outgoing, remaining and observed defect density, respectively. | DOD-HDBK-344 | ENVIRONMENTAL STRESS SCREENING OF ELECTRONIC EQUIPMENT |
| 124 | DEFECT FREE | | That portion of the ESS sequence which must be completed without the disclosure of a defect (failure). | MIL-STD-2164 | ENVIRONMENTAL STRESS SCREENING PROCESS FOR ELECTRONIC EQUIPMENT |
| 125 | DEFERABILITY | | The possibility that an item can remain inoperable and/or defective within the terms of the Minimum Equipment List (MEL) | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | or Configuration Deviation List (CDL). | | |
| 126 | DEGRADATION | | A gradual impairment in ability to perform. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 127 | DEGRADATION FACTOR | | A factor which, when multiplied by the predicted Mean Time Between Failures, yields a reasonable estimate of the operational Mean Time Between Failures. | MIL-STD-1390B | LEVEL OF REPAIR |
| 128 | DEGRADATION FAILURE | | A failure which occurs as a result of a gradual or partial change in the characteristics of some part or parameter, e.g., drift in electronic part characteristics, changes in lubricant with age, corrosion of metal. Not a catastrophic failure. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 129 | DELAY (TECHNICAL) | | Technical delays occur when the malfunctioning of an item, the checking of same or necessary corrective action, causes the final departure to be delayed by more than a specified time after the programmed departure time in any of the following instances: 1. An originating flight departs later than the scheduled departure time.2. A through service or turn-around flight remains on the ground longer than the allowable ground time. 3. The aircraft is released late from maintenance. NOTE: A cancellation supersedes a delay (i.e., a flight which is cancelled after having been delayed, is considered to be a cancellation only, not a delay and a cancellation). | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 130 | DELAY TIME | | That part of downtime during which no maintenance is being accomplished on the item because of either supply or administrative delay. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 131A | DEMONSTRATED | | That which has been proven by the use of concrete evidence gathered under specified conditions. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 131B | DEMONSTRATED | | That which has been measured by the use of objective evidence gathered under specified conditions. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 132 | DEMONSTRATED MTBF INTERVAL ($\Theta_d$) | | The probable range of true MTBF under test conditions; that is, an interval estimate of MTBF at a stated confidence level. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 133 | DEMONSTRATION | | The joint contractor and procuring activity effort to determine whether specific maintainability contractual requirements have been achieved. | MIL-STD-471A | MAINTAINABILITY VERIFICATION/DEMONSTRATION/EVALUATION |
| 134A | DEMONSTRATION AND VALIDATION (VALID) PHASE | | The period when selected candidate solutions are refined through extensive study and analysis; hardware development, if appropriate; test; and evaluation. | MIL-STD-470A | MAINTAINABILITY PROGRAM FOR SYSTEMS & EQUIPMENT |
| 134B | DEMONSTRATION AND VALIDATION (VALID) PHASE | | The period when selected candidate solutions are refined through extensive study and analyses; hardware development, if appropriate; test; and evaluation. | MIL-STD-785B | RELIABILITY PROGRAMS FOR SYSTEM AND EQUIPMENT DEVELOPMENT AND PRODUCTION |
| 135 | DEPARTURE | | Movement of an aircraft from the blocks for the purposes of intended flight. NOTE: There can be only one departure per flight (i.e., only the final departure is counted as in cases where the aircraft returns to the block after initially departing). NOTE: For convenience purposes, some operators consider a departure to occur each time an aircraft leaves the ground for a flight. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 136A | DEPENDABILITY | | A measure of the item operating condition at one or more points during the mission, including the effects of Reliability, Maintainability and Survivability, given the item condition(s) at the start of the mission. It may be stated as the | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |

| No | Term | Definition | Document | Document Name |
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| | | probability that an item will (a) enter or occupy any one of its required operational modes during a specified mission, (b) perform the functions associated with those operational modes. | | |
| 136B | DEPENDABILITY | A measure of the degree to which an item is operable and capable of performing its required function at any (random) time during a specified mission profile, given item availability at the start of the mission. (Item state during a mission includes the combined effects of the mission-related system R&M parameters but exclude non-mission time; see AVAILABILITY). | MIL STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 136C | DEPENDABILITY | A measure of the item operating condition at one or more points during the mission, including the effects of Reliability, Maintainability and Survivability, given the item condition(s) at the start of the mission. It may be stated as the probability that an item will (a) enter or occupy any one of its required operational modes during a specified mission, (b) perform the functions associated with those operational modes. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 137A | DERATING | (a) Using an item in such a way that applied stresses are below rated values, or(b) The lowering of the rating of an item in one stress field to allow an increase in rating in another stress field. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 137B | DERATING | The intentional reduction of the stress/strength ratio in the application of an item, usually for the purpose of reducing the occurrence of stress-related failures. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 137C | DERATING | Using an item in such a way that applied stresses are below rated values. It is an intentional reduction of the stress/strength ratio in the application of an item, usually for the purpose of achieving a "reliability margin" in design which should reduce the occurrence of stress related failures. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 137D | DERATING | (a) Using an item in such a way that applied stresses are below rated values or(b) The lowering of the rating of an item in one stress field to allow an increase in another stress field. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 138 | DERATING FACTOR | The ratio of operating to design stress. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 139 | DESIGN ACCEPTANCE TESTS | Also known as qualification or demonstration tests. Tests performed to demonstrate conformance to specified requirements when a quantititative value of reliability is defined in the system development specification. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 140 | DESIGN ADEQUACY | The probability that the system will successfully accomplish its mission, given that the system is operating within design specifications. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 141 | DESIGN EVALUATION TESTS | Tests performed to evaluate the design under environmental condtions and to verify compatibility of interfaces, adequacy of tools and test equipment, etc., for the established maintenance concept. These tests are also used as preinstallation (operability) tests to verify compatibility of installation interfaces and to verify design readiness for the demonstration test phase. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 142 | DESIGN FOR TESTABILITY | A design process or characteristic therof such that deliberate effort is expended to assure that a product may be thoroughly tested with minimum effort, and that high confidence may be ascribed to test results. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 143 | DESIGN SUPPORT TESTS | Tests performed to determine the need for parts, materials, and component evaluation or qualification to satisfy characteristic | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | stability, interchangeability, failure rate, tolerances, design margines and other reliability design criteria. | | |
| 144 | DESIGN VERIFICATION TESTS | | Tests performed to verify the functional adequacy of the design. These tests ensure that high risk areas and reliability problems in the proposed design identified by predictions and failure mode and effects analyses have been corrected or neutralized by appropriate disign action. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 145 | DESTRUCTIVE TESTING | | (1) Prolonged endurance testing of equipment or a specimen until it fails in order to determine servicelife or design weakness. (2) Testing in which the preparation of the test specimen or the test itself may adversely affect the life expectancy of the unit undertest (UUT) or render the sample unfit for its intended use. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 146 | DETECTION MECHANISM | | The means or methods by which a failure can be discovered by an operator under normal system operation or can be discovered by the maintenance crew by some diagnostic action. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 147 | DEVELOPMENT TEST | | A test performed by the developing agency to verify the operation or performance of a system or component design, or to produce data which will permit improving the design of the item under test. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 148 | DEVELOPMENT TEST AND EVALUATION | DT&E | Test and evaluation which focuses on the technological and engineering aspects of the sytem, subsystem, or equipment items. | MIL-STD-471A | MAINTAINABILITY VERIFICATION/DEMONSTRATION/EVALUATIO |
| 149 | DEVIATION | | A specific authorization, to depart from established policy/procedures such as, deviation from the NAMP. Also, a specific written authorization granted prior to manufacture of an item, to depart from a particular performance or design requirement of a specification, drawing, or other document for a specific number of units or a specific period of time. A deviation differs from an engineering change in that an approved engineering change requires corresponding revision of the documentation defining the affected item, whereas a deviation does not contemplate revision of the applicable specification or drawing. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 150 | DIAGNOSIS | | The functions performed and the techniques used in determining and isolating the cause of malfunctions. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 151 | DIAGNOSTIC ACCURACY | | The percentage of failures correctly diagnosed, based on the possible failure population. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 152 | DIAGNOSTIC CAPABILITY | | All capabilities associated with the detection and isolation of faults, including built-in test, automatic test systems, and manual test. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 153 | DIAGNOSTIC FLOW CHART | | A test oriented logical description of branching routines used in a test sequence to describe the steps taken to diagnose a failure successfully. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 154 | DIAGNOSTIC ROUTINE | | A logical sequence of tests designed to locate a malfunction of the unit under test. The software to perform these tests. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 155 | DIAGNOSTIC TEST | | A test performed for the purpose of isolating a malfunction in the unit under test or confirming that there actually is a malfunction. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 156A | DIRECT ADVERSE EFFECT ON OPERATING SAFETY | | (a) To be direct it must achieve its effect by itself, not in combination with other functional failures (no redundancy exists and it is minimal essential equipment).(b) Adverse Effect on | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | Safety: Implies that the consequences of failure are extremely serious or possibly catastrophic and could cause the loss of aircraft or injury to personnel or extensive damage to equipment. (c) Operating: Means the time from engine/equipment start for the purpose of maintenance or a mission to engine/equipment shutdown. | | |
| 156B | DIRECT ADVERSE EFFECT ON OPERATING SAFETY | | Direct: Achieves its effect by itself, not in combination with other functional failures (no redundancy exists and is a primary dispatch item). Adverse Effect on Safety: Implies that the consequences are extremely serious or possibly catastrophic and might cause the loss of aircraft or injury to occupants. Operating: The time from the moment the aircraft first moves under its own power until the moment it comes to rest at the next point of landing ("Block-to-Block"). | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 157 | DIRECT MAINTENANCE MAN HOURS | DMMH | The total time in direct man-hours required to restore or maintain an item in serviceable condition. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 158 | DIRECT MAINTENANCE MAN HOURS PER MAINTENANCE ACTION | DMMH/MA | A measure of the maintainability parameter related to item demand for maintenance manpower: The sum of direct maintenance man hours, divided by the total number of maintenance actions (preventative and corrective) during a stated period of time. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 159 | DIRECT MAINTENANCE MAN HOURS PER MAINTENANCE EVENT | DMMH/ME | A measure of the maintainability parameter related to item demand for maintenance manpower: The sum of direct maintenance man hours, divided by the total number of maintenance events (preventative and corrective) during a stated periods of time. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 160 | DIRECT MAINTENANCE MAN HOURS TO DISCARD | | The number of man hours required to fault isolate to the item level and to replace the item. | MIL-STD-1390B | LEVEL OF REPAIR |
| 161 | DIRECT MAINTENANCE MAN HOURS TO REPAIR | | The number of man hours required to fault isolate the item to the component level and repair the item. | MIL-STD-1390B | LEVEL OF REPAIR |
| 162 | DIRECT MAINTENANCE RESOURCES | | The time (in manhours) and material (in dollars) expended directly on the item being maintained during the period of active maintenance. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 163 | DISASSEMBLE | | Opening an item and removing a number of parts or subassemblies to make the item that is to be replaced accessible for removal. This does not include the actual removal of the item to be replaced. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 164 | DISCARD TASK | | The removal from service of an item at a specified life limit. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 165 | DISCREPANCY | | Any difference or inconsistency between a requirement for a charecteristic or a material or an item, as specified in a contract, drawing specifation, standard, test procedures or other document and the actual charecteristic of the material or item. | 00-40(PT1)(ARMP1) | RAM P1: MANAGEMENT RESPONSIBILITIES & REQUIREMENTS FOR PROGRAMMES & PLANS |
| 166A | DISCRIMINATION RATIO | | The ratio of the specified MTBF ($THETA_0$) to the minimum acceptable MTBF ($THETA_1$). | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 166B | DISCRIMINATION RATIO (d) | | One of the standard test plan parameters, it is the ratio of the upper test MTBF ($\Theta_0$) to the lower MTBF ($\Theta_1$); that is, $d = (\Theta_0) / (\Theta_1)$. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |

| No | Term | Acronym | Definition | Document | Document Name |
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| 167 | DIVERSION (TECHNICAL) | | The landing of an aircraft at an airport other than the airport of origin or destination as a result of the malfunction or suspected malfunction of any item on the aircraft. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 168 | DOWNING EVENT | | The event which causes an item to become unavailable to initiate its mission (the transistion from UP-TIME to DOWN-TIME). | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 169A | DOWNTIME | | The period during which a system or device is not operating due to internal failures, scheduled shut down, or servicing. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 169B | DOWNTIME | | The time during which an aircraft is not available for flight for technical reasons. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 169C | DOWNTIME | | The total time during which the item is not in condtion to perform its intended function. (Downtime can in turn be subdivided in the following categories: corrective maintenance time, preventive maintenance time, logistic time, and administrative time) | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 169D | DOWNTIME | | That element of time during which the item is not in condition to perform its intended function. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 170 | DOWNTIME, ACTIVE MAINTENANCE | | The maintenance downtime during which work is being done on the item or aircraft. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 171 | DOWNTIME, GROUND MEAN | GMDT | The average elapsed time between loss of function and restoration to performance capable status. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 172 | DOWNTIME, LOGISTICS | | That portion of downtime during which repair is delayed solely because of the necessity for waiting for a replacement part or other subdivision of the system. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 173 | DOWNTIME, MAINTENANCE | | The interval between the time an item or aircraft is made available for preventive or corrective maintenance until the item or aircraft is returned to or considered available for service. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 174 | DOWNTIME, MEAN | MDT | The average elapsed time between loss of mission capable status and restoration of the system to mission capable status. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 175 | DOWNTIME, NON ACTIVE MAINTENANCE | | The maintenance downtime during which no work is done on a component or aircraft. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 176 | DRAWING OF SAMPLES | | A sample is one or more units of product drawn at random from a lot. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 177A | DURABILITY | | The ability of an item of material to resist cracking (including stress corrosion and hydrogen induced cracking), corrosion, thermal shock and degradation, delamination, wear and the effects of foreign object damage for a specified period of time. ALTERNATIVE DEFINITION: A measure of the resistance of a material to wear and physico-chemical change specified conditions of use and/or storage. | 00-40(PT1)(ARMP1) | R&M P1: MANAGEMENT RESPONSIBILITIES & REQUIREMENTS FOR PROGRAMMES & PLANS |
| 177B | DURABILITY | | The ability of the structure to resist cracking, corrosion, thermal degradation, delamination, wear and effects of foreign object damage for the entire design service life. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 177C | DURABILITY | | A measure of useful life (a special case of reliability). | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| No | Term | Acronym | Definition | Document | Document Name |
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| 178 | DURABILITY ANALYSIS | | Application of engineering principles to determine the period of service usage which would degrade the structure below functional or economic limits. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 179 | DURABILITY CRITICAL PART | | Structure, which is not safety-of-flight or is not sized by damage tolerance requirements, but is sized by durability requirements and meets the criteria for critical parts selection. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 180 | DURABILITY PROOF TEST | DPT | A missionized engine duty schedule (i.e., ASMET cycle) performed at the engine maximum limiting specification design requirements and also a stair-step/bodie schedule of engine operation at speed increments to maximum rotor speed, including thrust transients. Dwell time at known critical resonant speeds is included in the test. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 181 | DURABILITY STRUCTURE | | Structure which is not practical to design or does not qualify as damage tolerant; its reliability is protected by discard limits which remove items from service before failures are expected. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 182A | EARLY FAILURE PERIOD | | That decreasing failure-rate period of life, after final assembly, in which failures occur at an initially high rate because of the presence of defective parts and workmanship errors. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 182B | EARLY FAILURE PERIOD | | The period of equipment life, after final assembly in production, in which failures occur at an initially high rate because of the presence of defective parts and workmanship. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 183 | EFFECTIVENESS, BUILT IN TEST | | A measure of the system's automated capability to (1) correctly ascertain the operating condition of a subsystem/function and (2) isolate defective item(s) to a designated ambiguity level without the use of equipment which is external to the system. The BIT function may be contained within the item being evaluated, may be a separate piece of system equipment, or a combination of both elements. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 184 | EFFECTIVENESS, UNSCHEDULED MAINTENANCE | | The percentage of the total number of unscheduled maintenance actions which were successful. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 185 | EFFECTIVITY | | Indicates the applicability of items, materials and/or technical data to a type, series, model or individual item. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 186 | ELECTRONIC UNIT | | An item which can be removed and replaced within the end item, such as a weapon replaceable assembly (WRA) and line replaceable unit (LRU). | MIL-STD-2164 | ENVIRONMENTAL STRESS SCREENING PROCESS FOR ELECTRONIC EQUIPMENT |
| 187 | END EFFECT | | The consequence(s) a failure mode has on the operation, function, or status of the highest indenture level. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 188 | ENGINE DUTY CYCLE | | A composite cycle (or cycles) derived from the mission profiles and mission mix. The engine duty cycle is usually expressed in terms of power lever position versus time. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 189 | ENGINE FAILURES, CHARGEABLE | | All engine failures observed less the excluded failures. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 190 | ENGINE FAILURES, OBSERVED | | The inability of the engine to perform within engine specification limits or service manual limits. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 191 | ENGINE MAINTAINABILITY | | The capability (i.e., the inherent design characteristics) of an engine and its parts which permits its maintenance (inspection, | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | adjustment, removal, test, repair and overhaul) within specified periods of time without excessive expenditure of maintenance manpower, personnel skill levels, test equipment and maintenance support facilities. | | |
| 192 | ENGINE OPERATING HOURS | EOH | The total number of operating hours accumulated by all engines in the sample. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 193 | ENGINE REPAIR INTERVAL | | The interval (in mission hours of engine operation with specified mission profiles and mission mix) at which parts must be removed from the engine for repair or replacement. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 194 | ENGINE STRUCTURAL INTEGRITY PROGRAM | ENSIP | A time-phased set of required actions performed at the optimum time during the life cycle (design through phase-out) of an aircraft engine, to ensure the structural integrity (strength, rigidity, damage tolerance, durability, and service life capability) of the engine. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 195 | ENGINE STRUCTURE MAINTENANCE PLAN | | A plan resulting from the Engine Structural Integrity Program (ENSIP) analyses and testing which identified the inspection requirements and life limits for engine structure components. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 196 | ENGINE, BASIC | | Those units and components which are used to induce and convert fuel/air mixture into thrust/power; to transmit power to the propeller shaft, if any, and accessory drives; to supplement the function of other defined systems external to the engine; and to control and direct the flow of internal lubrication. The nacelle and the reverser are excluded. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 197 | ENGINE, MAXIMUM NEUTRAL | | An engine plus those parts making it peculiar to an aircraft type, but not to any particular position on the aircraft. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 198 | ENGINEERING DEVELOPMENT (SERVICE TEST) | | An item used in tests to determine tactical suitability for military use in real or simulated environments for which the item was designed. It closely approximates an initial production design, has the required form, employs standard parts (or nonstandard parts approved by the agency concerned) and meets the standard military requirements such as reliability, maintainability, human factors, environmental conditions, etc. | MIL-STD-280A | DEFINITIONS OF ITEM LEVELS, ITEM EXCHANGEABILITY, MODELS AND RELATED TERMS |
| 199A | ENVIRONMENT | | The aggregate of all the conditions and influences which affect the operation of equipments and components, e.g., physical location and operating characterisitics of surrounding equipment and/or components; temperatures, humidity, and contaminants of surrounding air; operational procedures; acceleration, shock, and vibration; radiation; method of utilization, etc. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 199B | ENVIRONMENT | | The aggregate of all external and internal conditions (such as temperature, humidity, radiation, magnetic and electric fields, shock vibration, etc.) either natural or man made, or self-induced, that influences the form, performance, reliability or survival of an item. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 199C | ENVIRONMENT(S) | | The conditions, circumstances, influences, stresses and combinations thereof, surrounding and affecting systems or equipment during storage, handling, transportation, testing, installation, and use in standby status and mission operation. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 200 | ENVIRONMENTAL CONDITIONS AND OPERATING ENVELOPE OF THE ENGINE | | Environmental conditions and operating envelope of the engine include all extremes and limits, such as externally applied loads, attitudes and environmental extremes, applied independently and concurrently in all combinations within the scope of the engine specification. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |

| No | Term | Acronym | Definition | Document | Document Name |
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| 201 | ENVIRONMENTAL DAMAGE/DETERIORATION | | Physical deterioration of an item's strength or resistance to failure as a result of interaction with climate or environment. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 202A | ENVIRONMENTAL STRESS SCREENING | ESS | A series of tests conducted under environmental stresses to disclose weak parts and workmanship defects for correction. | MIL-STD-785B | RELIABILITY PROGRAMS FOR SYSTEM AND EQUIPMENT DEVELOPMENT AND PRODUCTION |
| 202B | ENVIRONMENTAL STRESS SCREENING | ESS | A series of tests conducted under environmental stresses to disclose weak parts and workmanship defects for correction. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 203A | EQUIPMENT | | General term designating any item or group of items. | MIL-STD-1472C | HUMAN ENGINEERING DESIGN CRITERIA FOR MILITARY SYSTEMS, EQUIPMENT |
| 203B | EQUIPMENT | | All articles of a capital nature needed to outfit an individual organization. For the purpose of this standard, the term refers to aircraft, engines, peculiar and common Support Equipment (SE), Communication and Electronics (C-E) equipment, vehicles, weapons, and other similar items. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 203C | EQUIPMENT | | One or more units and necessary assemblies, subasssemblies, and parts, connected or associated together. It includes all necessary interconnecting cabling, hydraulic lines, accessories, etc., to perform an operational function, e.g., radio receiving set, missile, radar set. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 203D | EQUIPMENT | | One or more units and necessary assemblies, subassemblies, and parts, connected or associated together and including all necessary interconnecting cabling, hydraulic lines, accessories, etc., to perform an operational function (e.g., radio receiving set, missile, radar set). An equipment is not normally a replaceable item. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 203E | EQUIPMENT | | All articles needed to outfit an individual or organization. The term refers to clothing, tools, utensils, vehicles, weapons, and similar items. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 204 | EQUIPMENT REPLACEABLE UNIT | | The lowest assembly or individual part that can be fault detected, isolated, removed, replaced and verified functional at organization level without disassembly of the equipment to which it is attached in consonance with the maintenance concept. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 205A | EQUIPMENT, AUTOMATIC TEST | | Equipment that carries out a predetermined program of testing for possible malfunction without reliance upon human intervention. Also called automatic checkout equipment. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 205B | EQUIPMENT, AUTOMATIC TEST | ATE | Equipment that is designed to automatically conduct analysis of of functional or static parameters and to evaluate the degree of unit under test (UUT) performance degradation; and may be used to perform fault isolation of UUT malfunctions. The decision making, control, or evaluative functions are conducted with minimum reliance on human intervention and usually done under computer control. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 205C | EQUIPMENT, AUTOMATIC TEST | ATE | Equipment that is designed to conduct analysis of functional or static parameters to evaluate the degree of performance degradation and may be designed to perform fault isolation of unit malfunctions. The decision making, control, or evaluative functions are conducted with minimum reliance on human intervention (MIL-STD-1309B). ATE is an element of Support and Test Equipment. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 206 | EQUIPMENT, DIVISION OF | | See other definitions of equipment divisions: a. Part b. Subassembly c. Component/Assembly d. Unit e. Group f. Set | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | g. Subsystem h. System i. Ancillary definitions - (1) Accessory (2) Attachment | | |
| 207 | ERROR, BUILD | | Those faulty actions which occu and are not rectified during the assembly and or subsequent test of an item during manufacture, overhaul or repair. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 208 | ESCAPES | | A proportion of incoming defect density which is not detected by a screen and test and which is passed on to the next level. Symbol (Dout) | DOD-HDBK-344 | ENVIRONMENTAL STRESS SCREENING OF ELECTRONIC EQUIPMENT |
| 209 | ESTABLISHED RELIABILITY | | A quantitative maximum failure rate demonstrated under controlled test conditions specified in a military specification and usually expressed as percent failures per thousand hours of test. | MIL-STD-790D | RELIABILITY ASSURANCE PROGRAM FOR ELECTRONIC PARTS SPECIFICA |
| 210 | EVALUATION | | The procuring activity effort to determine, at all levels of maintenance, the impact of the operational, maintenance and support environment on the maintainability parameters of the item and to demonstrate depot level maintenance tasks. | MIL-STD-471A | MAINTAINABILITY VERIFICATION/DEMONSTRATION/EVALUATION |
| 211 | EVALUATION, OPERATIONAL | | The test and analysis of a specific end item or system, in so far as practical under service operating conditions, to determine if quantity production is warranted. It is based on (1) increase in military effectiveness to its effectiveness as compared with currently available items or systems, with consideration given to: (a) personnel capabilities to maintain and operate the equipment; (b) size, weight, and location; and (c) enemy capabilities in the field. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 212 | EVALUATION, SERVICE | | An evaluation of an item while performing its intended function during normal operation of the aircraft. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 213 | EVALUATION, STRUCTURAL (AIRFRAME) | | The assessment of any data which relates to the structural integrity of the airframe. NOTE: Some data examples that may be considered: 1. Removal reports; 2. Failure mode reports; 3. Inspection writeups; 4. Flight hours; 5. Pilot reports; 6. Aircraft operating cycles; 7. Time. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 214 | EVALUATION, TECHNICAL | | Studies and investigations, by a developing agency, to determine the technical suitability of material, equipment, or systems for use in the military services. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 215 | EXAMINATION | | An element of inspection consisting of investigation, without the use of special laboratory appliances or procedures, of supplies and services to determine conformance to those specified requirements that can be determined by such investigations. Examination is generally nondestructive and includes, but is not limited to, visual, simple physical manipulation, gauging, and measurement. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 216 | EXCEEDANCE | | Surpassing or exceeding a life limit. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 217 | EXERCISE | | To operate an equipment in such a manner that it performs all its intended functions to allow observation, testing, measurement and diagnosis of its operational condition. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 218 | EXPECTED NUMBER OF FAILURES | | The expected number of failures required for decision is the decision is the average of the number of failures required for decision when life tests are conducted on a large number of samples drawn at random from the same exponential distribution. The expected number of failures can be predetermined for the sampling plans mentioned in paragraphs 1A1.6, 1A1.7, and 1A1.8. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | The number of failures required for decision is the number of failures that have occurred at the time the decision as to lot acceptability is reached. For the life test sampling plans mentioned in paragraph 1A1.6, this number of failures is known in advance of the life test; but, for the sampling plans mentioned in paragraphs 1A1.7 and 1A1.8, this number cannot be predetermined. | | |
| 219 | EXPLORATORY DEVELOPMENT | | An item (preliminary parts or circuits) used for experimentation or tests to investigate or evaluate the feasibility and practicality of a concept, device, circuits, or system in breadboard or rough experimental form, without regard to the eventual overall fit or final form. | MIL-STD-280A | DEFINITIONS OF ITEM LEVELS, ITEM EXCHANGEABILITY, MODELS AND RELATED TERMS |
| 220 | EXPONENTIAL CASE | | The reliability characteristics of those products known to exhibit a constant failure rate. Reliability in the exponential case is give by $R = \exp(-\lambda t)$, where $\lambda$ is the failure rate and t is the period over which reliability is measured. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 221 | FACILITIES | | A physical plant, such as real estate and improvements thereto, including building and equipment, which provides the means for assisting or making easier the performance of a system function. The facilities to which this standard apply are those in which personnel perform system operational or maintenance duties. | MIL-STD-1472C | HUMAN ENGINEERING DESIGN CRITERIA FOR MILITARY SYSTEMS, EQUIPMENT |
| 222 | FACTOR, ACCELERATION | | The ratio between the times necessary to obtain a stated proportion of failures for two different sets of stress conditions involving the same failure modes and/or mechanisms. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 223 | FACTOR, OPERATING (IN SERVICE EQUIPMENT) | | The ratio of the operating hours of the in-service equipment under condsideration to the number of flying hours incurred by the equipment. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 224 | FAIL ALL SIMULATOR | | All faults simulated one at a time in serial fashion (also known as sequential simulator). | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 225 | FAIL SAFE DESIGN | | Design in which a failure will not adversely affect the safe operation of the system, equipment, or facility. | MIL-STD-1472C | HUMAN ENGINEERING DESIGN CRITERIA FOR MILITARY SYSTEMS, EQUIPMENT |
| 226 | FAIL SOFT | | A non-specific condition of a system that has manifested a number of failures, but still provides most of its functional capability. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 227 | FAILED MACHINE RESPONSE | | The output response of a failed UUT when a stimuulus is applied. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 228A | FAILURE | | The event in which any part of an item does not perform as required by its performance specification. | DOD 5000.40(D) | RELIABILITY & MAINTAINABILITY (R&L) |
| 228B | FAILURE | | The event in which any item or part of an item does not perform as previously specified. | 00-40(PT1)(ARMP1) | R&M P1: MANAGEMENT RESPONSIBILITIES & REQUIREMENTS FOR PROGRAMMES & PLANS |
| 228C | FAILURE | | Cessation of ability to perform a specified function within previously established or specified limits. A failure is a malfunction that cannot be adjusted by the operator by means of controls normally accessible to him during the routine operation of the device. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 228D | FAILURE | | The inability of an item to perform within previously specified limits. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

| No | Term | Acronym | Definition | Document | Document Name |
|---|---|---|---|---|---|
| 228E | FAILURE | | The state of inability of an item to perform its required function. Failure is the functional manifestation of a fault. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 228F | FAILURE | | An event in which an item does not perform one or more of its required functions within the specified limits under specified conditions. | MIL-STD-2155 | FAILURE REPORTING, ANALYSIS AND CORRECTIVE ACTION SYSTEM |
| 228G | FAILURE | | A shortcoming, imperfection or operational nonconformance, including a one-time non-repeatable anomaly, either sudden or gradual in nature, which causes the equipment performance to deviate from specified limits without adjustment of controls other than normal operating controls. | MIL-STD-2164 | ENVIRONMENTAL STRESS SCREENING PROCESS FOR ELECTRONIC EQUIPMENT |
| 228H | FAILURE | | The event, or inoperable state, in which any item or part of an item does not, or would not, perform as previously specified. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 228I | FAILURE | | The inability of an item to perform within previously specified limits. See "Criticality" for categorization of failures as to the severity of their effects. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 228J | FAILURE | | The inability of an item to perform within previously specified limits. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 228K | FAILURE | | The event, or inoperable state, in which any item or part of an item does not, or would not, perform as previously specified. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 229A | FAILURE ANALYSIS | | The logical, systematic examination of an item or its diagram(s) to identify and analyze the probability, causes, and consequences of potential and real failures. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 229B | FAILURE ANALYSIS | | The logical, systematic examination of an item or its diagram(s) to identify and analyze the probability, causes, and consequences of potential and real failures. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 229C | FAILURE ANALYSIS | | A determination of failure cause made by use of logical reasoning from examination of data, symptoms, available physical evidence, and laboratory analysis results. | MIL-STD-2155 | FAILURE REPORTING, ANALYSIS AND CORRECTIVE ACTION SYSTEM |
| 229D | FAILURE ANALYSIS | | Subsequent to a failure, the logical systematic examination of an item, its construction, application, and documentation to identify the failure mode and determine the failure mechanisms and its basic course. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 229E | FAILURE ANALYSIS | | The process of examining electronic parts to determine the cause of variations of performance characteristics outside of previously established limits with the end result that failure modes, failure mechanisms and failure activating causes will be identified. | MIL-STD-790D | RELIABILITY ASSURANCE PROGRAM FOR ELECTRONIC PARTS SPECIFICA |
| 229F | FAILURE ANALYSIS | | The logical, systematic examination of an item or its diagram(s) to identify and analyze the probability, causes, and consequences of potential and real failures. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 229G | FAILURE ANALYSIS | | The logical, systematic examination of an item to identify and diagnose the cause of observed failures. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 230A | FAILURE CAUSE | | The specific reason(s) why an item failed. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 230B | FAILURE CAUSE | | The physical or chemical processes, design defects, quality defects, part misapplication, or other processes which are the basic reason for failure or which initiate the physical process by which deterioration proceeds to failure. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |

| No | Term | Acronym | Definition | Document | Document Name |
|---|---|---|---|---|---|
| 230C | FAILURE CAUSE | | The circumstance that induces or activates a failure mechanism; e.g., defective soldering, design weakness, assembly techniques, software error, etc. | MIL-STD-2155 | FAILURE REPORTING, ANALYSIS AND CORRECTIVE ACTION SYSTEM |
| 230D | FAILURE CAUSE | | The circumstance that induces or activates a failure mechanism. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 231 | FAILURE COVERAGE | | The ratio of failures detected (by a test program or test procedure) to failure population, expressed as a percentage. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 232 | FAILURE CRITERIA | | Rules for failure relevancy such as specified limits for the acceptability of an item. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 233 | FAILURE CRITICALITY | | A relative measure of a consequence of a failure mode and its frequency of occurrence. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 234A | FAILURE DEGRADATION | | A failure which occurs as a result of a gradual or partial change in the characteristics of parts or materials, e.g., drift in electronic part characteristics, changes in lubricant with age, corrosion of metal. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 234B | FAILURE DEGRADATION | | A failure which occurs as a result of a gradual or partial change in the characterisitcs of some part or parameter, e.g., drift in electronic part characterisitcs, changes in lubricant with age, corrosion of metal. Not a catastrophic failure. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 235A | FAILURE EFFECT | | The consequence(s) a failure mode has on the operation, function, or status of an item. Failure effects are classified as local effects, next higher level, and end effects. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 235B | FAILURE EFFECT | | The consequence(s) a failure mode has on the operation, function, or status of an item. Failure effects are classified as local effect, next higher level, and end effect. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 235C | FAILURE EFFECT | | The consequence(s) a failure mode has on the operation, function, or status of an item. Failure efforts are classified as local effect, next higher level, and end effect. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 235D | FAILURE EFFECT | | The failure consequence(s) of an item's failure mode on the item, next higher assembly or mission operation, function or status. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 236 | FAILURE EFFECTS, NON OPERATIONAL | | Failure effects which do not prevent aircraft operation, but are economically undesirable due to added labor and material cost for aircraft or shop repair. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 237 | FAILURE EFFECTS, OPERATIONAL | | Failure effects which interfere with the completion of the aircraft mission. These failures cause delays, cancellations, ground or flight interruptions, high drag coefficients, altitude restrictions, etc. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 238 | FAILURE FREE PERIOD | | A contiguous period of time during which an item is to operate without the occurrence of a failure while under environmental stress. | DOD-HDBK-344 | ENVIRONMENTAL STRESS SCREENING OF ELECTRONIC EQUIPMENT |
| 239 | FAILURE ISOLATION | | A man/machine task to isolate the cause of a malfunction or failure. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 240A | FAILURE MECHANISM | | The physical, chemical, or other process which results in a failure. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 240B | FAILURE MECHANISM | | The physical, chemical, electrical, thermal or other process which results in failure. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| No | Term | Acronym | Definition | Document | Document Name |
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| 240C | FAILURE MECHANISM | | The process of degradation or chain of events which results in a particular failure mode. | MIL-STD-790D | RELIABILITY ASSURANCE PROGRAM FOR ELECTRONIC PARTS SPECIFICA |
| 240D | FAILURE MECHANISM | | A basic physical process or change which is responsible for the observed failure mode; the process of degradation on the chain of events which results in a particular failure mode. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 240E | FAILURE MECHANISM | | A basic physical process or change which is responsible for the observed failure mode, the process of degradation or the chain of events which results in a particular failure mode. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 240F | FAILURE MECHANISM | | The physical, chemical or other process which results in a failure. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 241A | FAILURE MODE | | The functional result of a fault. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 241B | FAILURE MODE | | The manner by which a failure is observed. Generally describes the way the failure occurs and its impact on equipment operation. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 241C | FAILURE MODE | | The manner by which a failure is observed. Generally describes the way the failure occurs and its impact on equipment operation. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 241D | FAILURE MODE | | The consequence of the mechanism through which the failure occurs, i.e., short, open, fracture, excessive wear. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 241E | FAILURE MODE | | The abnormality of an electronic part performance which causes the part to be classified as failed. | MIL-STD-790D | RELIABILITY ASSURANCE PROGRAM FOR ELECTRONIC PARTS SPECIFICA |
| 241F | FAILURE MODE | | A particualr way in which failures occur, independent of the reason for failure; the condition or state which is the end result of a particular failure mechanism, e.g., fails shorted. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 241G | FAILURE MODE | | A particular way in which failures occur, independent of the reason for failure; the condition or state which is the end result of a particular failure mechanism. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 241H | FAILURE MODE | | The way in which the failure of an item occurs. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 242A | FAILURE MODE AND EFFECT ANALYSIS | | A systematic evaluation of a system or subsystem design, analyzed down to the component and/or function level, to identify the possible modes of failure and determine their effect on the system or aircraft. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 242B | FAILURE MODE AND EFFECTS ANALYSIS | FMEA | A procedure by which each potential failure mode in a system is analyzed to determine the results or effects thereof on the system and to classify each potential failuremode according to its severity. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 242C | FAILURE MODE AND EFFECTS ANALYSIS | FMEA | A procedure by which each potential failure mode in a system is anlyzed to determine the results or effects thereof on the system and to classify each potential failure mode according to its severity. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 242D | FAILURE MODE AND EFFECTS ANALYSIS | FMEA | A procedure by which each potential failure mode in a system is analyzed to determine the results or effects thereof on the system and to classify each potential failure mode according to its severity. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 242E | FAILURE MODE AND EFFECTS ANALYSIS | FMEA | The systematic analysis of design to determine all possible ways in which failure can occur, to identify cause of failure, and to | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | describe the consequences of failure on system performance. | | |
| 242F | FAILURE MODE AND EFFECTS ANALYSIS | FMEA | The analysis of design to determine all possible ways in which failure can occur, to identify causes of failure, and to describe the consequences of failure on system performance. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 243 | FAILURE MODE AND EFFECTS CRITICALITY ANALYSIS - MAINTAINABILITY | FMECA | A procedure by which each potential failure is analyzed to determine how the failure is detected and the actions to be taken to repair the failure. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 244 | FAILURE POPULATION | | Those failures which are used as a basis for the design and evaluation of tests. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 245 | FAILURE PROBABILITY | | The probability of failure in a specified period of time. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 246A | FAILURE RATE | | The performance figure calculated by dividing the number of failures by the total unit flying hours (airborne) or cycles accumulated during the same period. It is usually expressed as failures per 1000 unit hours or cycles. NOTE: Failure rate is the reciprocal of mean time between failure. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 246B | FAILURE RATE | | The total number of failures within an item population, divided by the total number of life units expended by that population during a particular measurement interval under stated conditions. Symbol used (lambda). A reliability measure related to MTBF. | DOD-HDBK-344 | ENVIRONMENTAL STRESS SCREENING OF ELECTRONIC EQUIPMENT |
| 246C | FAILURE RATE | | The total number of failures within a population, divided by the total number of life units expended by that population, during a particular measurement interval under stated conditions. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 246D | FAILURE RATE | | The total number of failures within an item population, divided by the total number of life units expended by that population, during a particular measurement interval under stated conditions. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 246E | FAILURE RATE | | The number of failures of an item per unit measure of life (cycles, time, miles, events, etc., as applicable for the item). For an exponential distribution of times to failure, the failure rate is approximately equal to the mean life. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 246F | FAILURE RATE | | The number of failures of an item per unit measure of life (cycles, time, miles, events, etc., as applicable). | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 246G | FAILURE RATE | | The number of failures of an item per unit measure of life (cycles, time, miles, events, etc., as applicable for the item). | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 247 | FAILURE RATE DURING PERIOD OF TIME | | The "failure rate during period of time T," C, is given by -- $G = (1/T)(1 - \exp(T/\theta) = p/T$. Where $\theta$ is the mean time to failures per MIL-HDBK-108, and p is the proportion of lot failing before specified time per MIL-HDBK-108. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 248 | FAILURE RATE, INSTANTANEOUS | | The conditional probability of failure in a small time interval given the item has survived to the beginning of that interval. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 249 | FAILURE RATE, INSTANTANEOUS | | The "instantaneous failure rate" or "hazard rate" is given by: $Z=1/\theta$ Where $\theta$ is the mean time to failure per MIL-HDBK-108, definition 12.2, and P is the propportion of lot failing before specified time per MIL-HDBK-108. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 250 | FAILURE | | The ability of a system or an item to withstand stresses imposed | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS |

| No | Term | Acronym | Definition | Document | Document Name |
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| | RESISTANCE | | upon it by its operating environment. These stresses may be mechanical, thermal, chemical, electrical or a combination of these and other stresses. Failure resist- ance may be directly related to and deteriorate with age (aircraft total time) or to the frequency of the application of the stress (e.g. engine cycles, aircraft landings, etc). | | GLOSSARY |
| 251 | FAILURE REVIEW BOARD | | A group consisting of representatives from appropriate contractor organizations with the level of responsibility and authority to assure that failure causes are identified and corrective actions are effected. | MIL-STD-2155 | FAILURE REPORTING, ANALYSIS AND CORRECTIVE ACTION SYSTEM |
| 252 | FAILURE SYMPTOM | | Any circumstances, event, or condition associated with the failure which indicates its existence or occurrence. | MIL-STD-2155 | FAILURE REPORTING, ANALYSIS AND CORRECTIVE ACTION SYSTEM |
| 253 | FAILURE UNIVERSE | | The totality of failures being considered. If all these failures are detected, then 100% fault coverage has been achieved. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 254 | FAILURE, BASIC | | A defect, failure or damage as a result of malfunctioning of a system, unit, or part while being used in the manner for which it was designed and which was not externally induced. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 255A | FAILURE, CATASTROPHIC | | A sudden change in the operating characteristics of an item resulting in a complete loss of useful performance of the item. Not a degradation failure. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 255B | FAILURE, CATASTROPHIC | | A sudden change in the operating characterisitics of an item resulting in complete loss of useful performance of the item. Not a degradation failure. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 255C | FAILURE, CATASTROPHIC | | Change in the operating characteristics of an item resulting in considerable degradation of useful performance. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 255D | FAILURE, CATASTROPHIC | | A failure that can cause item loss. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 256 | FAILURE, CATASTROPHIC ENGINE | | A failure which results in engine stoppage and extensive damage to the engine. This is distinguished from those failures which cause only a partial degradation of capability or a gradual degradation over an extended period of time. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 257 | FAILURE, CRITICAL | | A failure, or combination of failures, that prevents an item from performing a specified mission. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 258 | FAILURE, DEPENDENT | | Failure of an item caused either directly or indirectly by the failure of another item. A dependent failure is one which occurs as a byproduct of an independent failure. Dependent failures are not necessarily present when simultaneous failures occur. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 259A | FAILURE, DEPENDANT | | Failure of an item caused either directly or indirectly by the failure of another item. A dependent failure is one which occurs as a byproduct of an independent failure. Dependent failures are not necessarily present when simultaneous failures occur. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 259B | FAILURE, DEPENDENT | | One which is caused by the failure of an associated item(s). Not independent. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 259C | FAILURE, DEPENDENT | | A failure which is caused by the failure of an associated item, distinguished from independent failure. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| No | Term | Acronym | Definition | Document | Document Name |
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| 259D | FAILURE, DEPENDENT | | Failure which is caused by the failure of an associated item(s). Not INDEPENDENT. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 260 | FAILURE, DETECTABLE | | A failure that can be detected with 100% test detection efficiency. | DOD-HDBK-344 | ENVIRONMENTAL STRESS SCREENING OF ELECTRONIC EQUIPMENT |
| 261A | FAILURE, EQUIPMENT | | The cessation of ability to meet the minimum performance requirements of the equipment specifications. Further, equipment failure shall imply that the minimum specified performance is not reobtainable through permissible readjustment of operator controls. | MIL-E-11991E | ELECTRONIC, ELECTRICAL AND ELECTRO-MECHANICAL EQUIPMENT GUID |
| 261B | FAILURE, EQUIPMENT | | The cessation of the ability to meet the minimum performance requirements of the equipment specifications. Further, equipment failure shall imply that the minimum specified performance cannot be restored through permissible readjustment of operator controls. | MIL-STD-1472C | HUMAN ENGINEERING DESIGN CRITERIA FOR MILITARY SYSTEMS, EQUIPMENT |
| 262 | FAILURE, EQUIPMENT DESIGN | | Any failure which can be traced directly to the design of the equipment; that is, the design of the equipment caused the part in question to degrade or fail, resulting in an equipment failure. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 263 | FAILURE, EQUIPMENT MANUFACTURING | | A failure caused by poor workmanship or inadequate manufacturing process control during equipment construction, testing, or repair prior to the start of testing; for example, the failure of an assembly due to cold solder joints. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 264 | FAILURE, FUNCTIONAL | | How an item failed to perform its designed function. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 265A | FAILURE, INDEPENDENT | | One which occurs without being related to the failure of associated items. Not dependent. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 265B | FAILURE, INDEPENDENT | | A failure which occurs without being related to the failure of associated items, distinguished from dependent failure. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 265C | FAILURE, INDEPENDENT | | Failure which occurs without being caused by the failure of any other item. Not DEPENDENT. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 266A | FAILURE, INTERMITTENT | | A failure which occurs randomly in time. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 266B | FAILURE, INTERMITTENT | | Failure for a limited period of time, followed by the item's recovery of its ability to perform within specified limits without any remedial action. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 267 | FAILURE, NON CHARGEABLE | | (a) A non-relevant failure, or (b) A relevant failure caused by a condition previously specified as not within the responsibility of given organizational entity. (All relevant failures are chargeable to one organizational entity or another.) | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 268 | FAILURE, NON CRITICAL | | Any failure which results in degraded operation requiring special operating techniques or alternative modes of operation which could be tolerated throughout a mission, but should be corrected immediately upon completion of mission. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 269A | FAILURE, NON RELEVANT | | Failure to be excluded in interpreting test results or in calculating the value of a reliability characteristic. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| No | Term | Acronym | Definition | Document | Document Name |
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| 269B | FAILURE, NON RELEVANT | | (a) A failure verified as having been caused by a condition not present in the operational environment, or(b) A failure verified as peculiar to an item design that will not enter the operational inventory. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 269C | FAILURE, NON RELEVANT | | A failure of an item determined to be caused by an event not indicative of operational usage. Therefore, it is excluded from quantitative measurements of reliability. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 270 | FAILURE, PARTIAL | | Failure resulting from deviations in characteristics beyond specified limits, but not sufficient to cause a complete lack of function. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 271A | FAILURE, PRIMARY | | A failure which occurs without being related to the failure of associated items, distinguished from dependent failure. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 271B | FAILURE, PRIMARY | | Failure of an item which occurs without being caused by the failure of an associated item(s). | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 272A | FAILURE, RANDOM | | Any failure whose occurrence is unpredictable in an absolute sense but which is predictable only in a probabilistic or statistical sense. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 272B | FAILURE, RANDOM | | Any failure whose occurrence is unpredictable in an absolute sense, but which is predictable only in a probabilistic or statistical sense. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 272C | FAILURE, RANDOM | | Failure whose occurence is predictable only in a probabalistic or statistical sense. This applies to all distributions. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 272D | FAILURE, RANDOM | | Any failure whose occurence is unpredictable in an absolute sense but which is predictable only in a probabilistic or statistical sense. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 272E | FAILURE, RANDOM | | A failure whose failure rate is constant and therefore follows the exponential density function and whose occurrence within any given interval of time is therefore unpredictable. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 272F | FAILURE, RANDOM | | Failure of an item which is unpredictable with respect to time. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 272G | FAILURE, RANDOM (CHANCE) | | Any failure whose occurrence is unpredictable in an absolute sense but which is predictable only in a probabilistic or statistical sense. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 273A | FAILURE, RELEVANT | | Failure to be included in interpreting test results or in calculating the value of a reliability characteristic. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 273B | FAILURE, RELEVANT | | A failure of an item determined to be caused by an event indicative of operational usage. Therefore, it is counted in a quantitative measurement of reliability. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 274A | FAILURE, SECONDARY | | A non-specific condition of a system that has manifested a number of failures, but still providesmost of its functional capability. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 274B | FAILURE, SECONDARY | | Failure of an item which is caused by the failure of an associated item(s). | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 274C | FAILURE, SECONDARY | | Failure of an item caused either directly or indirectly by the failure of another item. A dependent failure is one which occurs as a byproduct of an independent failure. Dependent failures are not necessarily present when simultaneous failures occur. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | | Acronym | Definition | Document | Document Name |
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| 275 | FAILURE, SOFT | | Failure resulting from deviations in characteristics beyond specified limits, but not sufficient to cause a complete lack of function. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 276 | FAILURE, SUBSIDIARY | | A failure found after removal, which is not related to the reason for removal. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 277 | FAILURE, TOLERANCE | | A system or equipment failure resulting from multiple drift and instability problems, even though part failures may not have occured. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 278 | FAILURE, TRANSIENT | | A temporary failure induced by a momentary or temporary external factor such as input power fluctuation, excessive ambient temperature excursion, electromagnetic interference, or by factors internal to a system. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 279 | FAILURE, UNDETECTABLE | | A postulated failure mode in the FMEA for which there is no failure detecction method by which the operator is made aware of the failure. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 280 | FAILURE, WEAROUT | | A failure that occurs as a result of deterioration processes or mechanical wear and whose probability of occurrence increases with time. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 281 | FAILURES, ESS | | All failures occurring in the defect-free test that cannot be classified as non-ESS. ESS failures include those due to: a. Poor workmanship in the equipment. b. Defective manufacturing processes. c. Defective components. NOTE: In the event that several component parts of the same type fail during the test, each one shall be considered a separate ESS failure, unless it can be shown that one failure caused one or more of the others. | MIL-STD-2164 | ENVIRONMENTAL STRESS SCREENING PROCESS FOR ELECTRONIC EQUIPMENT |
| 282 | FAILURES, EXCLUDED | | a. Failures resulting from transportation, storage, inspection, maintenance, repair, installation, overhaul or replacement improperly performed by Using Service personnel contrary to currently applicable instruction or reasonable standards of aircraft quality workmanship. This exclusion does not apply to improper actions by contractor personnel. b. Failures resulting from operation of the engine beyond engine specification defined environment conditions and time cycle limitation, or with fuels or lubricants not conforming to the applicable specification. c. Failures which are the result of fuel system contaminations, where the contamination levels are outside the limits specified in the engine specification, unless evidence exists that the contamination was engine generated. d. Failures for which a corrective engine design change or an operational procedure change has been verified and engineering approved by the appropriate Using Service will not be counted after date of approval, unless the failures are identical and the corrective change was in place, or used, on the failed engine. e. Failures where the primary failure cause was not directly attributable to the design or quality of the engine: such as failures attributed | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 283 | FALLOUT | | Failures observed during, or immediately after, and attributed to stress screens. Symbol used F. | DOD-HDBK-344 | ENVIRONMENTAL STRESS SCREENING OF ELECTRONIC EQUIPMENT |
| 284 | FALSE ALARM | | A fault indicated by BIT or other monitoring circuitry where no fault exists. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 285 | FALSE ALARM RATE | | The number of false alarms per unit time or number of false | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | alarms per BIT alarms expressed as a percentage. | | MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 286 | FALSE REMOVAL | | The removal of an item from its normal location which, after testing, is found to be operating properly. | MIL-STD-1390B | LEVEL OF REPAIR |
| 287A | FAULT | | A physical condition that causes a device, component, or element to fail to perform in a required manner; for example, a short circuit or a broken wire. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 287B | FAULT | | A degradation in performance due to a failure of parts, detuning, misalignment, maladjustment, and so forth. | MIL-STD-2155 | FAILURE REPORTING, ANALYSIS AND CORRECTIVE ACTION SYSTEM |
| 287C | FAULT | | Immediate cause of failure (e.g., maladjustment, misalignment, defect, etc.). | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 288 | FAULT CLASS | | The grouping of equivalent faults. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 289 | FAULT DETECTION | | A process which discovers the existence of faults. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 290 | FAULT DETECTION TIME | | The extent or duration of time during which the existence of a fault is not known; the elapsed time between fault occurrence and fault indication. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 291 | FAULT DICTIONARY | | A list (usually created automatically by an ATPG system) containing each fault signature and the associated failed item (or one of a group of items) causing the fault signature to be developed by the test program and displayed by the ATE. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 292 | FAULT INDICATOR | | A device which presents a visual display, audible alarm, or other indication, when a failure or marginal condition exists. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 293 | FAULT INSERTION | | (1) Fault insertion, in the context of simulation, is a transformation which maps the orignial network (=the good machine) into a new network (=the faulty machine). (2) The process of inserting actual or simulated faults in a unit under test for the purpose of demonstrating BIT or test program set (TPS) performance. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 294 | FAULT ISOLATED REPLACEABLE UNITS | | The replaceable subsystems, assembly, subassembly, or components identified through diagnostic testing of the unit under test. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 295A | FAULT ISOLATION | | Isolating the fault in a unit under test to the fault resolution level of the item. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 295B | FAULT ISOLATION | | Tests performed to isolate faults within the unit under test. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 295C | FAULT ISOLATION | | The process of determining the location of a fault to the extent necessary to effect repair. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 295D | FAULT ISOLATION | | The process used to identify the assembly, component, or part which is the source of malfunction. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 296 | FAULT ISOLATION REPLACEABLE UNIT | | The replaceable subsystem, assembly, subassembly or component identified through diagnostic testing of a unit under test. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| No | Term | Acronym | Definition | Document | Document Name |
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| 297 | FAULT ISOLATION TIME | | A component of mean time to repair (MTTR); the time between detection and isolation of a fault. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 298 | FAULT LATENCY TIME | | The extent or duration of time between fault occurrence and fault indication. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 299 | FAULT LIST ANALYSIS | | An analysis of faults prior to fault simulation. (Fault simulation is deduced by the propagation of fault lists on nodes of the primitive building block during a single pass simulation. The fault lists are calculated in Boolean arithmetic where the Boolean operators are specified by the primitive building blocks). | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 300A | FAULT LOCALIZATION | | The process designed to identify the location of a fault known to exist within a general area of equipment. Fault localization may be less specific than fault isolation. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 300B | FAULT LOCALIZATION | | The process of determining the approximate location of a fault. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 300C | FAULT LOCALIZATION | | A man/machine task to determine which particular major unit of equipment is at fault, by making use of malfunction symptoms, test equipment, and diagnostic features built into the equipment. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 301 | FAULT LOCATION TIME | | The time spent arriving at a decision as to which items caused the system to malfunction. This includes time spent working on replacing, attempting to repair, and adjusting) portions of the system shown by subsequent interim tests not to have been the cause of the malfunction. | MIL-HDBK-472 | MAINTAINABILITY PREDICTION |
| 302 | FAULT MASKING | | Equipment design which prevents complete unique fault isolation. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 303 | FAULT RESOLUTION | | How well the test program (or test procedure) can pin-point the failed item from among other items in the unit under test. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 304 | FAULT SIGNATURE | | Data developed by the test program and used by the ATE to indicate the ambiguity group. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 305 | FAULT SIMULATOR | | A computer program which inserts and studies simulated faults at the nodes of a represented digital circuit being exercised by test stimulus patterns. Also for analog, an analog circuit analysis program which simulates the effect of out-of-tolerance components. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 306 | FAULT SYMPTOM | | A measurable or visible abnormality in an equipment parameter. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 307 | FAULT TOLERANCE | | The capacity of a system, or program to continue operation in the presence of specified faults. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 308 | FAULT TREE ANALYSIS | | A method for block diagramming constituent elements of a critical problem area in a logic network for analysis of failure modes and failure effects on the system. In advanced models, the probabilities of failure events are also determined. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 309 | FAULT, CATASTROPHIC | | A defect or malfunction in a component, assembly, or system causing a sudden change in its operating characteristics which results in a substantial lack of useful performance of the | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | devive or system. | | |
| 310 | FAULT, DELAY | | A fault in a digital device such that switching occurs to a proper level, but does so outside of a specified time interval. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 311 | FAULT, DEPENDENT | | A fault which is caused by the failure of an associated element. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 312 | FAULT, DESIGN | | A fault due to inadequate hardware or software design. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 313 | FAULT, FUNCTIONAL | | A fault which can be described by a change in the operation of some portion of a system. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 314 | FAULT, HARD | | A physical condition that causes a device, component, or element to fail to perform in a requiredmanner; for example, a short circuit or a broken wire. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 315 | FAULT, INPUT | | A fault at the input terminals of a UUT or components within the unit under test. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 316 | FAULT, INTERNAL | | A fault internal to an integrated component or device such as an integrated circuit. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 317 | FAULT, NONDETECTABLE | | A fault that results in a nonrelevant failure. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 318 | FAULT, OPEN | | A fault caused by an electrical separation of normal electronically connected points. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 319 | FAULT, OUT OF TOLERANCE | | A defect or malfunction in a component, assembly or system in wgich a performance parameter approximates, but fails outside the prescribed upper or lower limit for the parameter. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 320 | FAULT, PROBABLE | | A hard or soft fault that is most likely to occur, relative to all possible faults within the unit under test. It is caused by a component having a high failure rate. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 321 | FAULT, SOFT | | A fault causing a degraded performance of the unit under test. A condition manifested only under certain conditions of unit under test operation. When those conditions change the fault disappears. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 322 | FAULT, STRUCK | | A failure in which the digital signal is permanently held in one of its binary states. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 323 | FAULTS, EQUIVALENT | | Two or more faults which create the same response for all possible tests. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 324 | FIELD LEVEL REPAIRABLE | FLR | A low cost repairable, capable of being restored to serviceable condition only at the Intermediate Maintenance Activity (IMA), as indicated by the Source, Maintenance, and Recoverability (SM&R) code. Final disposition of a FLR usually rests with the IMA. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 325 | FIRST DEGREE REPAIR | | The repair of gas turbine engines to a depth which includes and goes beyond that repair authorized for second- and third-degree Intermediate Maintenance Activities (IMAs). It includes compressor rotor replacement and disassembly to a degree that the compressor rotor is removed. Any degree of repair which | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

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| | | | requires compressor motor removal constitutes first-degree repair. Only those activities specifically designated as first-degree repair activities and included in NAVAIR NOTE 4700 will be outfitted to accomplish repair of that magnitude. | | |
| 326 | FIX PHASE | | The portion of a scheduled inspection that involves the correction of discrepancies found during the look phase. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 327 | FIX RATE | | The percent of aircraft which return "code 3", that must be repaired (i.e., returned to MC status) in a specified number of clock hours, i.e., 70% in four hours and 85% in eight hours. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 328 | FLAME OUT | | The interruption of engine operation resulting from total loss of combustion while the fuel control is in the "on" position. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 329 | FLIGHT | | A flight begins when the aircraft first moves forward on its takeoff run or takes off vertically from rest at any point of support and ends after airborne flight when the aircraft is on the surface and either, (a) the engines are stopped, (b) the aircraft has been on the surface for five minutes, or (c) a change is made in the pilot in command. A series of landings is considered part of one flight and the provisions of (b) above do not apply. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 330 | FLIGHT | FLT | The entire passage consisting of one or more flight legs, from leaving the airport of origin to arrival at the airport of final destination and operated under one flight number. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 331 | FLIGHT ESSENTIAL FUNCTIONS | | Those subsystem functions required to enable an aircraft to sustain controlled flight with qualities no less than 3, as defined by MIL-F-8785 (ASG) or MIL-F-83300 for the given classification of aircraft or by MIL-H-8501. | MIL-STD-2070(AS) | PROCEDURE FOR PERFORMING A FMECA FOR AERONAUTICAL EQUIPMENT |
| 332 | FLIGHT LEG | | Any of the sequential aircraft operating cycles which together constitute a flight. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 333 | FORCE STRUCTURAL MAINTENANCE PLAN | | A plan required by AFR 80-13 which identifies the inspection and modification requirements and the estimated economic life of the airframe structure. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 334A | FOREIGN OBJECT DAMAGE | FOD | Damage to any portion of the aircraft caused by impact or ingestion of birds, stones, hail or other debris. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 334B | FOREIGN OBJECT DAMAGE | FOD | Damage to aeronautical equipment, for example, aircraft, engines, missiles, drones, Support Equipment (SE), caused by an object(s) that is external to that equipment. (Gas turbine engine FOD is defined as damage that exceeds serviceable limits caused by ingestion of objects not organic to the damaged engine.) | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 335 | FORMAL DEMONSTRATION PHASE | | A period of time during which maintainability demonstration tests are performed and data are acquired and analyzed, to determine conformance to specified requirements. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 336 | FULL MISSION CAPABLE | FMC | Systems and equipment shall be considered FMC when they are safe and have all mission-essential subsystems installed and operating as designated by a Military Service. | DOD-I-7730.25 | MATERIEL CONDITION REPORTING FOR MISSION-ESSENTIAL SYSTEMS |
| 337 | FULL SCALE DEVELOPMENT PHASE | FSD | The period when the system and the principle items necessary for its support are designed, fabricated, tested and evaluated. | MIL-STD-470A | MAINTAINABILITY PROGRAM FOR SYSTEMS & EQUIPMENT |
| 338 | FULL SCALE ENGINEERING | FSED | The period when the system and the principal items necessary for its support are designed, fabricated, tested and evaluated. | MIL-STD-785B | RELIABILITY PROGRAMS FOR SYSTEM AND EQUIPMENT DEVELOPMENT AND PRODUCTION |

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| | DEVELOPMENT PHASE | | | | |
| 339 | FUNCTION | | The normal characteristic actions of an item. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 340 | FUNCTION ANALYSIS FOR MAINTAINABILITY | | Analytical basis for allocating tasks to personnel and equipment to achieve optimum system maintainability. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 341 | FUNCTION, HIDDEN | | 1. A function which is normally active and whose cessation will not be evident to the operating crew during performance of normal duties; or 2. A function which is normally inactive and whose readiness to perform, prior to it being needed, will not be evident to the operating crew during performance of normal duties. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 342 | FUNCTION, STRUCTURAL | | The mode of action or purpose of aircraft structure. It includes acceptance and transfer of speicifed loads in items (details, elements, assemblies) and provides consistently adequate aircraft response and flight characteristics. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 343 | FUNCTIONAL MODULARITY | | A characteristic of design which attempts to package individual unit under test functions on a single replaceable unit for the maintenance level under consideration. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 344 | FUNCTIONAL SIGNIFICANT ITEM | FSI | Those items other than structures judged to be relatively important from a safety, reliability, or economic standpoint. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 345 | GENERAL PURPOSE ELECTRONIC TEST EQUIPMENT | GPETE | Test equipment containing the capability without modification, to generate, modify, or measure a range of parameters of electronic functions required to test two, or more prime equipments or systems of basically different design. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 346 | GENERAL PURPOSE TEST EQUIPMENT | | Test equipment which is used for the measurement of a range of parameters common to two ormore equipments or systems of basically different design. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 347 | GO/NO GO TEST | | A test designed to yield a "test pass" or "go" indication in the absence of faults in a unit under test, and a "test fail" or "no-go" indication when fault(s) have been detected. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 348 | GOAL | | A long term requirement implied by specification or contract and used primarily for guidance. Goals are usually not legally binding because no acceptance test requirements are imposed. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 349 | GPETE SUPPORT ITEM | | The complement of equipment, supplement to GPETE, which is necessary to facilitate a complete test measurement capability. This includes GPETE accessories, GPETE plug-ins and GPETE auxiliary items. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 350 | GREEN RUN | | Test stand time interrupted by a malfunction resulting in engine disassembly. Time accumulated during a green run is not recorded as accumulated time. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 351 | GROUND SUPPORT EQUIPMENT | GSE | Equipment required on the ground to support the operation and maintenance of the aircraft and all its airborne equipment. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 352 | GROUND SUPPORT EQUIPMENT | GSE | All required external equipment (test equipment, tools, handling, storage, cooling, auxiliary power units, and so forth) which are required to support the operation and maintenance of a system. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 353 | GROUND SUPPORT EQUIPMENT RECOMMENDATION | GSERD | A document which reflects a contractor's recommendations for major items of ground support equipment for a specific end item. This document includes identification of testing requirements | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| No | Term | Acronym | Definition | Document | Document Name |
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| | DATA | | and is TMDE recommended to satisfy the requirements. | | |
| 354A | GROUP | | A collection of units, assemblies, or subassemblies which is not capable of performing a complete operational function. A group may be a subdivision of a set or may be designed to be added to or used in conjunction with a set to extend the function or the utility of the set. (Example: Antenna group.) | MIL-STD-280A | DEFINITIONS OF ITEM LEVELS, ITEM EXCHANGEABILITY, MODELS AND RELATED TERMS |
| 354B | GROUP | | A collection of units, assemblies, or subassemblies which is not capable of performing a complete operational function. A group may be a subdivision of a set or may be designed to be added to or used in conjunction with a set to extend the function or the utility of the set. (Example: antenna group) | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 354C | GROUP | | A collection of units, assemblies, or subassemblies which is not capable of performing a complete operational function. A group may be a subdivision of a set or may be designed to be added to or used in conjunction with a set to extend the function or utility of the set. (Example: Antenna group.) A group is not normally a replaceable item. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 354D | GROUP | | A collection of units, assemblies, or subassemblies, that is a subdivision of a set or system, but is not capable of performing a complete operational function. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 355 | HARD DETECT | | Failures that can be positively detected. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 356 | HAZARD RATE | | The instantaneous failure rate. The difference between hazard rate and failure rate is best made by an analogy. An automobile trip of 120 miles completed in three hours represents an average rate of 40 mph although speeds varied above and below that average. The 40 mph is analogous to the failure rate, and the speed at any given instant (as could be determined from a speedometer) is analogous to the hazard rate. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 357 | HELICOPTER DYNAMIC COMPONENT | | That part or series of parts that transmit power from the aircraft power plant to the rotary wing and rotary rudder (main, intermediate, and tail gear boxes; main and tail rotors; clutches and related drive shafting). | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 358 | HIDDEN FUNCTION | | (a) An item whose function is normally active and whose failure is not evident to the operating crew during performance of normal duties.(b) An item whose function is normally dormant and whose readiness to perform, prior to it being needed, is not evident to the operating crew during performance of normal duties. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 359 | HOT PARTS | | Engine parts exposed to the hot gas stream, such as the combustion chamber, turbine components, augmentor and exhaust nozzle. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 360 | HOT PARTS LIFE | | The interval (in mission hours of engine operation with specified mission profiles and mission mix) at which hot parts shall operate without repair or replacement. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 361 | HOURS, APU | | The auxiliary power unit operating time from start up to shutdown. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 362 | HOURS, BLOCK | | The number of hours incurred by an airplane from the moment it first moves for a flight until it comes to rest at its intended blocks at the next point of landing, or returns to its departure point prior to takeoff. NOTE: Push-out from the gate is considered as part of block hours. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

| No | Term | Acronym | Definition | Document | Document Name |
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| 363 | HOURS, FLYING (AIRBORNE) | | The accumulated time intervals between wheels-off and wheels-on. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 364 | HOURS, OUT OF SERVICE | | The number of elapsed hours that an aircraft is not available for operation when scheduled to be available. NOTE: The out of service hours start when an aircraft is first declared to be unavailable for a flight, and end when available for service. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 365 | HOURS, UNIT FLYING | | The accumulated flying hours of all like units installed in aircraft during a specified reporting period. NOTE: Unit flying hours are the product of total flying hours (airborne) of the aircraft in which units are installed and the number of units installed in each aircraft. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 366 | HUMAN ENGINEERING | | The area of human factors which applies scientific knowledge to the design of items to achieve effective man-machine integration and utilization. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 367 | HUMAN ENGINEERING DESIGN CRITERIA | | The summation of available knowledge which defines the nature and limits of human capabilities as they relate to the checkout, operation, maintenance or control of systems or equipment, and which may be applied during engineering design to achieve optimum compatibility between equipment and human performance. | MIL-STD-1472C | HUMAN ENGINEERING DESIGN CRITERIA F MILITARY SYSTEMS, EQUIPMENT |
| 368 | HUMAN ERROR RELIABILITY CRITERIA | | Criteria used in the design of a complex system to adapt its physical features to the response characterisitcs of the man who is ultimately to be charged with its operation. This minimizes relaibility degradation due to operator (and maintenance technician) error. Typical criteria include size, shape, and location of critical controls; illumination and configuratin of visual displays; use of automatic error detection and warning devices; modularization and physical arrangement for maintenance ease. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 369 | HUMAN FACTORS | | A body of scientific facts about human characteristics. The term covers all biomedical and psychosocial considerations: it includes, but is not limited to, principles and applications in the areas of human engineering, personnel selection, training, life support, job performance aids, and human performance evaluation. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 370 | INCIDENT, TECHNICAL | | Any event of a technical nature which may be considered to significantly affect the potential airworthiness of an aircraft. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 371 | INDENTURE LEVELS | | The item levels which identify or describe relative complexity of assembly or function. The levels progress from the more complex (system) to the simpler (part) divisions. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 372A | INFANT MORTALITY | | The initial phase of the lifetime of a population of a particular component when failures occur as a result of manufacturing errors, etc. Infant mortalities are screened out by burn-in. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 372B | INFANT MORTALITY | | Premature catastrophic-type failures occurring at a rate substantially greater than that observed during subsequent life prior to wearout. Infant mortality is usually reduced by stringent quality control. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 373 | INHERENT | | Achievable under ideal conditions, generally derived by analysis, and potentially present in the design. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 374A | INHERENT LEVEL OF RELIABILITY | | That level which is built into the unit and therefore inherent in its design. This is the highest level of reliability and | WATOG | WORLD AIRLINES TECHNICAL OPERATION GLOSSARY |

| No | Term | Acronym | Definition | Document | Document Name |
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| | AND SAFETY | | safety that can be expected from a unit, system, or aircraft if it receives effective maintenance. To achieve higher levels of reliability generally requires modification or redesign. | | |
| 374B | INHERENT LEVEL OF RELIABILITY AND SAFETY | | That level which is built into the unit and therefore inherent in its design. This is the highest level of reliability and safety that can be expected from a unit, system, or aircraft if it receives effective maintenance. To achieve higher levels of reliability generally requires modification or redesign, or operation at a derated level of performance. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 375 | INHERENT R AND M VALUE | | Any measure of reliability or maintainability that includes only the effects of item design and installation, and assumes an ideal operating and support environment. | DOD 5000.40(D) | RELIABILITY & MAINTAINABILITY (P&L) |
| 376 | INITIAL DELAY TIME | | Initial delay time is the time between the moment the equipment becomes available for maintenance and the moment work is commenced. | MIL-HDBK-472 | MAINTAINABILITY PREDICTION |
| 377 | INITIAL INDENTURE LEVEL | | The level of the total, overall item which is the subject of the FMECA. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 378 | INITIAL ISOLATION | | Isolation to the equipment/system subunit which must be replaced on line to return the equipment/system to operation. A subunit can be a modular assembly, a printed circuit card which is part of a non-removable drawer, or a component such as a crystal or antenna subsection. In the event that the concept requires a subunit to be removed, repaired and then repalced in the equipment/system, initial isolation includes both isolation to the failed subunit and isolation to the failed and removable portion of the subunit. | MIL-STD-471A | MAINTAINABILITY VERIFICATION/DEMONSTRATION/EVALUATION |
| 379 | INITIAL ISOLATION LEVEL OF AMBIGUITY | | The number of possible equipment/system subunits, as defined above, identified by the Built-In-Test, external tests equipment, or manual test procedure, which might contain the failed component. It is possible that a combination of Built-In-Test, external special purpose test equipment, and manual procedures may be necessary to effect isolation. For example, if an equipment test subsystem (Built-in, external, manual) isolates a fault to one of two subunits, the level of ambiguity is equal to two; if it isolates it to one of three subunits the level of ambiguity is equal to three. | MIL-STD-471A | MAINTAINABILITY VERIFICATION/DEMONSTRATION/EVALUATION |
| 380 | INSPECT | | To compare the characteristics of an item with established standards. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 381A | INSPECTION | | An examination of an item against a specified standard. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 381B | INSPECTION | | An examination of an item against a specific standard. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 382 | INSPECTION, AIRCRAFT ENGINE | | a. Preflight - An inspection conducted prior to each flight to ensure the aircraft is safe for flight an d to verify proper servicing.b. Postflight - An inspection conducted after each flight to detect degradation or damage that may have occurred during the flight and to detemine the need for servicing.c. Turnaround - An inspection conducted between flights to ensure the integrity of the aircraft for flight, verify proper servicing, and to detect degradation that may have occurred | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | during the previous flight.d. Daily - An inspection conducted to inspect for defects to a greater depth than the turnaround or preflight inspections.e. Special - A scheduled inspection with a prescribed interval other than daiy, calendar/phase, major engine, or Standard Depot Level Maintenance (SDLM). The intervals are specified in the applicable planned maintenance system publication and are based on elapsed calendar time, flight hours, operating hours, or number of cycles/events, for example, 7, 14, 28 days/50, 100, 200 hours/10, 100 arrestments, or 5000 rounds fired.f. Phase - A series of related inspections that are performed sequentially at specific intervals. These inspections are the result of dividing the maintenance | | |
| 383A | INSPECTION, DETAILED | | An intensive visual check of a specified detail, assembly, or installation. It searches for evidence of structural irregularity using adequate lighting and, where necessary, inspection aids such as mirrors, hand lens, etc. Surface cleaning and elaborate access procedures may be required. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 383B | INSPECTION, DETAILED (STRUCTURAL) | | An intensive visual check of a specified detail, assembly, or installation. It searches for evidence of structural irregularity using adequate lighting and, where necessary, inspection aids such as mirrors, hand lens, etc. Surface cleaning and elaborate access procedures may be required. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 384A | INSPECTION, DIRECTED | | A collective term which includes the detailed inspection and the special detailed inspection. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 384B | INSPECTION, DIRECTED | | A collective term which includes all inspections established as a result of the RCMA process. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 385 | INSPECTION, EXTERNAL SURVEILLANCE | | A visual check that will detect obvious unsatisfactory conditions/discrepancies in externally visible structure and components. It may also include internal structure which is visible through quick opening access panels/doors. Workstands, ladders, etc., may be required to gain proximity. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 386 | INSPECTION, EXTERNAL SURVEILLANCE (STRUCTURAL) | | A visual check that will detect obvious unsatisfactory conditions/discrepancies in externally visible structure. It may also include internal structure which is visible through quick opening access panels/doors. Workstands, ladders, etc., may be required to gain proximity. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 387A | INSPECTION, GENERAL VISUAL | | A collective term which includes the external surveillance inspection, internal surveillance inspection, and the walk-around check. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 387B | INSPECTION, GENERAL VISUAL | | A collective term which includes the External Surveillance Inspection, the Internal Surveillance Inspection, and the Walk-Around Check. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 388A | INSPECTION, INTERNAL SURVEILLANCE | | A visual check that will detect obvious unsatisfactory conditions/discrepancies in internal structure and components. This type of inspection applies to obscured structure and installations which require removal of fillets, fairings, access panels/doors, etc. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 388B | INSPECTION, INTERNAL SURVEILLANCE (STRUCTURAL) | | A visual check that will detect obvious unsatisfactory conditions/discrepancies in internal structure. This type of inspection applies to obscured structure and installa- tions which require removal of fillets, fairing, access panels/doors, etc. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

| No | Term | Acronym | Definition | Document | Document Name |
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| 389 | INSPECTION, NON DESTRUCTIVE | NDI | An intensive check of a specific location similar to the detailed inspection except for the following differences. The check requires some special technique such as radiographic, eddy current, dye penetrant, high-powered magnification, etc., and may require disassembly procedures. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 390 | INSPECTION, SAMPLE | | The monitoring and/or withdrawal of selected devices from service to permit determination of their condition at predetermined progressive intervals. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 391 | INSPECTION, SPECIAL DETAILED (STRUCTURAL) | | An intensive check of a specific location similar to the detailed inspection except for the following differences. The check requires some special technique such as non- destructive test techniques, dye penetrant, high-powered magnification, etc., and may require disassembly procedures. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 392A | INSPECTION, WALK AROUND CHECK | | A visual check conducted from ground level to detect obvious discrepancies. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 392B | INSPECTION, WALK AROUND CHECK | | A visual check conducted from ground level to detect obvious discrepancies. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 393 | INTEGRATED LOGISTIC SUPPORT | ILS | A composite of the elements necessary to assure the effective and economical support of a system or equipment at all levels of maintenance for its programmed life cycle. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 394 | INTERACTION | | The influence of one subsystem or subassembly on the performance and reliability behavior of another. Although gross effects are qualitatively predictable, specific interaction effects must usually be determined by breadboard and development testing. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 395 | INTERACTION | | The influence of one subsystem or subassembly on the performance, maintainability, and reliability of another. Although gross effects are qualitatively predictable, specific interaction effects must usually be determined by testing. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 396 | INTERCHANGE | | Removing the item that is to be replaced, and installing the replacement item. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 397 | INTERCHANGEABILITY | | The ability to interchange, without restricition, like equipments or portions thereof in manufacture, maintenance, or operation. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 398 | INTERCHANGEABLE | | An interchangeable part, subassembly, assembly or unit meets or exceeds required functional and structural specifications for a given application. It has the same mounting provisions. Overall dimensions and connections may vary, provided that installation does not require rework or modification. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 399A | INTERCHANGEABLE ITEM | | One, which (1) possesses such functional and physical characteristics as to be equivalent in performance, reliability, and maintainability, to another item of similar or identical purposes; and (2) is capable of being exchanged for the other item (a) without selection for fit or performance, and (b) without alteration of the items themselves or of adjoining items, except for adjustment. | MIL-STD-280A | DEFINITIONS OF ITEM LEVELS, ITEM EXCHANGEABILITY, MODELS AND RELATED TERMS |
| 399B | INTERCHANGEABLE ITEM | | An item equivalent in physical characteristics, performance, reliability, and maintainability to another item of similar or identical purpose; capable of being exchanged for the other item without selection or alteration. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 399C | INTERCHANGEABLE ITEMS | | Two or more items that have such functional and physical characterisitcs as to be equivalent in performance and | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | durability, and are capable of being interchanged without alteration of the items themselves or of adjoining items except for adjustment. | | |
| 400 | INTERCHANGEABLE, ONE WAY | | Introduces a new item and places restrictions on the use of the old item. The new item may be used in place of either the old or the new, but the old item can only be used in an application where it has previously been installed. The new item is considered to supersede the old. For example, the interchangeability characteristics of items A and B where B may freely be used in applications where A is specified, but A must not be used in applications where B is specified. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 401 | INTERFACES | | The systems, external to the system being analyzed, which provide a common boundary or service and are necessary for the system to perform its mission in an undegraded mode; for example, systems that supply power, cooling, heating, air services, or input signals. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 402 | INTERFACES | | Bounding conditions and requirements existing between two or more "mating" subsystems or components, e.g., impedance matching, structural fitting, thermal and vibration level. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 403 | INTERMEDIATE LEVEL MAINTENANCE | | That maintenance performed in direct support of using organizations. Tasks normally consist of calibration, repair, or replacement of damaged or unserviceable parts, components, or assemblies; the emergency manufacture of nonavailable parts; and the provision of technical assistance to using organizations. (level 2 maintenance) | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 404A | INTERMEDIATE MAINTENANCE | IM | Maintenance which is the responsibility of and performed by designated maintenance activities for direct support of using organization. Its phases normally consist of calibration, repair or replacement of damaged or unserviceable parts, units, assemblies or subassemblies; the emergency manufacture of nonavailable parts; and providing technical assistance to using organization. (Example: Performing Activity-Tender.) | MIL-M-24365ASHIPS | MAINTENANCE ENGINEERING ANALYSIS |
| 405 | INTERMEDIATE MAINTENANCE ACTIVITY | IMA | Navy - Any aviation activity (ship or station) authorized to provide Intermediate (I-) level maintenance support. It consists of an Aircraft Intermediate Maintenance Department (AIMD), the supply Department, the Weapons Department, and the Public Works Department, and the Engineering Department.Marine - That activity within a Marine Aircraft Group (MAG) or Marine Wing Support Group (MWSG) assigned the mission of providing Intermendiate (I-) level maintenance to the squadrons of the entire group. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 406 | INTERRUPTION, AIR (TECHNICAL) | | A change from original flight plan due to a known or suspected malfunction and/or defect during flight. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 407 | INTERRUPTION, GROUND (TECHNICAL) | | A ground interruption occurs when an aircraft leaves the block and returns for a technical reason before becoming airborne, or when, after landing, a technical problem is experienced prior to reaching the block. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 408 | INTRINSIC AVAILABILITY | | The probability that the system is operating satisfactorily at any point in time when used under stated conditions, where the time considered is operating time and active repair time. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 409 | INVENTORY, ACTIVE | | The group of items assigned to an operational status. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| No | Term | Acronym | Definition | Document | Document Name |
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| 410 | INVENTORY, INACTIVE | | The group of items being held in reserve for possible future assignments to an operational status. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 411 | ISOLATION LEVEL | | The functional level to which a failure can be isolated using accessory test equipment at designated test points. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 412A | ITEM | | Any level of hardware assembly (i.e., system, subsystem, module, accessory, component, unit, part, including tubing, electrical wiring, mounting hardware, etc.) | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 412B | ITEM | | A non-specific term used to denote any product, including systems, materials, parts, subassemblies, sets, accessories, etc. | MIL-STD-280A | DEFINITIONS OF ITEM LEVELS, ITEM EXCHANGEABILITY, MODELS AND RELATED TERMS |
| 412C | ITEM | | A non-specific term used to denote any product, including systems, materials, parts, subassemblies, sets, accessories, etc. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 412D | ITEM | | A non-specific term used to denote any product, including systems, materials, parts, subassemblies, sets, accessories, etc. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 412E | ITEM | | Any level of hardware assembly, for example, segment of a system, subsystem, equipment, or component part. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 412F | ITEM | | Any level of hardware assembly (i.e., system, subsystem, module, accessory, component, unit, part, etc.). | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 413 | ITEM OBTAINMENT TIME | | The time required for the technician to obtain replacement parts, assemblies, or units, depending on the maintenance concept and the location and method of storing spare items. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 414 | ITEM, CONSUMABLE | | An item that is used only once. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 415 | ITEM, EXPENDABLE | | Items for which no authorized repair procedure exists, and for which cost of repair would normally exceed that of replacement. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 416 | ITEM, INSURANCE | | An item held by either the manufacturer or an airline purely as a precaution in order to preclude undue scheduling problems and/or economic hardship which might otherwise occur should the part be out of stock when a requirement occurs. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 417 | ITEM, LIFE LIMITED | | An item which must be removed from service and discarded before a specified time is achieved. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 418 | ITEM, LIFE LIMITED | | An item that has a limited and predictable useful life and could be considered for replacement on a preplanned basis for reliability, safety or economic reasons. | 00-40(PT1)(ARMP1) | R&M P1: MANAGEMENT RESPONSIBILITIES & REQUIREMENTS FOR PROGRAMMES & PLANS |
| 419 | ITEM, LINE MAINTENANCE | | Any item which can be readily changed on an aircraft during line maintenance operations. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 420 | ITEM, MAINTENANCE SIGNIFICANT | MSI | Items identified by the manufacturer whose failure: (a) could affect safety (ground or flight), and/or (b) is undetectable during operations, and/or (c) could have significant operational economic impact, and/or (d) could have significant nonoperational economic impact. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 421 | ITEM, MANDATORY REPLACEMENT | | An item that, if disturbed or removed during the course of maintenance or overhaul, must be replaced to comply with specifications and procedures. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

| No | Term | Acronym | Definition | Document | Document Name |
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| 422 | ITEM, REPAIRABLE | | An item comprising or including replaceable parts, commonly economical to repair, and subject to being rehabilitated to a fully serviceable condition over a period less than the life of the flight equipment to which it is related. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 423 | ITEM, ROTABLE | | An item that can be economically restored to a serviceable condition and, in the normal course of operations, can be repeatedly rehabilitated to a fully serviceable condition over a period approximating the life of the flight equipment to which it is related. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 424 | ITEM, STRUCTURAL SIGNIFICANT | SSI | A structural detail, structural element, or structural assembly which is judged significant because of the reduction in aircraft residual strength or loss of structural function which are consequences of its failure. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 425 | LATE ARRIVAL (TECHNICAL) | | An aircraft arrival after scheduled arrival time, caused by a known or suspected equipment malfunction and/or defect. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 426 | LATENT DEFECT | | An inherent or induced weakness, not detectable by ordinary means, which will either be precipitated to early failure under environmental stress screening conditions or eventually fail in the intended use environment. | DOD-HDBK-344 | ENVIRONMENTAL STRESS SCREENING OF ELECTRONIC EQUIPMENT |
| 427 | LENGTH OF LIFE | | The terms "length of life" and "time to failure" may be used interchangeably and shall denote the length of time it takes for a unit of product to fail after being placed on life test. The length of time may be expressed in any convenient time scale such as seconds, hours, days, etc. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 428 | LEVEL OF REPAIR | LOR | One of four decision alternatives denoting the maintenance level at which repair of naval material is performed. The primary levels considered in this document are repair organizational, intermediate, and depot. Discard at the operational site is also considered a decision alternative. | MIL-STD-1390B | LEVEL OF REPAIR |
| 429 | LEVEL OF REPAIR ANALYSIS | LORA | A technique which establishes (1) whether an item should be repaired or discarded; (2) at what maintenance level, that is, organizational, intermediate, or depot. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 430 | LEVEL, CONFIDENCE | | The probability that a given statement is correct. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 431 | LIFE | | A period of time which is related to the usability of an item. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 432A | LIFE CYCLE | | The total life span of an aeronautical system commencing with the conceptual phase and extending through the operational phase up to retirement from the inventory. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 432B | LIFE CYCLE | | The total life span of an aeronautical system beginning with the concept formulation phase and extending through the operational phase up to retirement from the inventory. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 433 | LIFE CYCLE COST | LCC | The total cost of acquisition, operation, maintenance, and support of an item throughout its useful life. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 434 | LIFE CYCLE MAINTENANCE (SUPPORT) COST | | The total cost of item maintenance during its useful life including organizational, intermediate, depot, and contractor maintenance, spares and repair parts provisioning, test equipment, maintenance personnel salaries and subsistence, training, etc. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 435 | LIFE CYCLE | | A thorough time-life description of the events and conditions | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING |

| No | | Definition | Document | Document Name |
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| | PROFILE | asssociated with an item of equipment from the time of final factory acceptance until its ultimate disposition (for example, factory-to-target sequence). Each significant life-cycle event, such as transportation, dormant storage, test and checkout, standby and ready modes, operational deployment, and mission profiles, are addressed, including alternate possibilities. The profile depicts the time span of each event, the environmental conditions, and the operating modes. | | DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 436A | LIFE PROFILE | A time-phased description of the events and environments an item experiences from manufacture to final expenditures or removal from the operational inventory, to include one or more mission profiles. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 436B | LIFE PROFILE | A time-phased description of the events and environments an item experiences from manufacture to final expenditures or removal from the operational inventory, to include one or more mission profiles. | 00-40(PT1)(ARMP1) | R&M P1: MANAGEMENT RESPONSIBILITIES & REQUIREMENTS FOR PROGRAMMES & PLANS |
| 437 | LIFE TEST | Life test is the process of placing the "unit of product" under a specified set of test conditions and measuring the time it takes until failure. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 438 | LIFE TEST SAMPLING PLAN | A life test sampling plan is a procedure which specifies the number of units of product from a lot which are to be tested, and the criterion for determining acceptability of the lot. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 439 | LIFE TEST TERMINATED AT PREASSIGNED TIME | Life test sampling plans whereby testing is terminated when a preassigned termination time, T, is reached are given in section 28 of this handbook. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 440 | LIFE TEST TERMINATED UPON OCCURRENCE OF PREASSIGNED NUMBER OF | Life test sampling plans whereby testing is terminated when a preassigned termination number of failures, r, occur are given in section 28 of this handbook. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 441A | LIFE UNITS | A measure of use duration applicable to the item (such as operating hours, cycles, distance, rounds fired, attempts to operate). | DOD 5000.40(D) | RELIABILITY & MAINTAINABILITY (P&L) |
| 441B | LIFE UNITS | A measure of use duration applicable to the item (e.g., operating hours, cycles, distance, rounds fired, attempts to operate, etc.). | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 441C | LIFE UNITS | A measure of use duration applicable to the item (e.g., operating hours, cycles, distance, rounds fired, attempts to operate). | MIL-STD-785B | RELIABILITY PROGRAMS FOR SYSTEM AND EQUIPMENT DEVELOPMENT AND PRODUCTION |
| 442 | LIFE, ACHIEVED OVERHAUL | The life achieved by an item when an overhaul becomes necessary. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 443 | LIFE, MAXIMUM PERMITTED | The time specified by an appropriate authority after which a particular item must be removed from service. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 444A | LIFE, SERVICE | The period of time during which an item can remain in storage and in tactical readiness under specified conditions of periodic checkout and maintenance. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 444B | LIFE, SERVICE | The life of an item at which it is no longer physically or economically feasible to repair or overhaul the item to acceptable standards. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 445 | LIFE, STORAGE | The length of time an item can be stored under specified conditions and still meet specified requirements. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

| No | Term | Acronym | Definition | Document | Document Name |
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| 446A | LIFE, USEFUL | | The total operating time in which an item remains operationally effective and economically useful before wearout. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 446B | LIFE, USEFUL | | The length of time a population of items is expected to operate with a constant failure rate. This excludes any infant mortality and wearout periods. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 446C | LIFE, USEFUL | | The total operating time in which an item remains operationally effective and economically useful before wearout. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 446D | LIFE, USEFUL | | The number of life units from manufacture to when the item has an unrepairable failure or unacceptable failure rate. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 446E | LIFE, USEFUL | | The second phase of the lifetime of a population of a particular component when only random failures occur. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 447 | LIMIT | | The extreme of the designated range through which the measured value of characteristics may vary and still be considered acceptable. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 448 | LIMITS, CONFIDENCE | | The values, upper and lower, between which a true value can be expected to fall, with a pre-established level of confidence. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 449A | LINE REPLACEABLE UNIT | LRU | A unit which can be readily changed on an aircraft during line maintenance operations. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 449B | LINE REPLACEABLE UNIT | LRU | An item which is replaced at the organizational maintenance level. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 450 | LIST, CONFIGURATION DEVIATION | CDL | Those items, such as access panels, caps, fairings, etc., normally forming part of the exterior profile of the aircraft, the absence of which do not prevent dispatch. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 451 | LOCAL EFFECT | | The consequence(s) a failure mode has on the operation, function, or status of the specific item being analyzed. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 452 | LOCALIZATION LEVEL | | The functional level (in a system or equipment) to which a failure can be traced or located without using accessory test equipment. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 453 | LOGISTIC TIME | | Logistic time is all replacement procurement time, except that time when the maintenance man is engaged in the procurement activity. | MIL-HDBK-472 | MAINTAINABILITY PREDICTION |
| 454A | LOGISTICS | | The science of planning and carrying out the movement and maintenance of forces. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 454B | LOGISTICS | | The science of planning and carrying out the movement and maintenance of forces. For its most comprehensive sense, those aspects of military operations that deal with: (1) design and development, acquisition, storage, movement, distribution, maintenance, evaluation, and hospital inspection of personnel; (3) acquisition or construction, maintenance, operation, and disposition of facilities; and (4) acquisition or furnishing of services. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 455A | LOGISTICS SUPPORT | | The materials and services required to enable the operating forces to operate, maintain, and repair the end item within the maintenance concept defined for that end item. Logistics support encompasses the identification, selection, procurement, | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | scheduling, stocking, and distribution of spares, repair parts, facilities, ground support equipment, trainers, technical publications, contractor engineering and technical services, and personnel training as necessary to provide the operating forces with the capability needed to keep the end item in a functioning status. | | |
| 455B | LOGISTICS SUPPORT | | The materials and services required to enable the operating forces to operate, maintain, and repair the end item within the maintenance concept defined for that end item. Logistics support encompasses the identification, selection, procurement, scheduling, stocking, and distribution of spares, repair parts, facilities, Support Equipment (SE), trainers, technical publications, Contractor Engineering and Technical Services (CETS), and personnel training as necessary to provide the operating forces with the capability needed to keep the end item in a functioning status. See Integrated Logistic Support (ILS). | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 456 | LONGEVITY | | Length of useful life of a product, to its ultimate wearout requiring complete rehabilitation. This is a term generally applied in the definition of a safe, useful life for an equipment or system under the conditions of storage. It also applies to the use to which it will be exposed during its lifetime. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 457 | LOOK PHASE | | The portion of an inspection that includes the basic requirements outlined by the periodic maintenance information cards, excluding repair of discrepancies, that cannot be completed within the time alloted on Maintenance Requirement Cards (MRCs). | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 458 | LOT | | The term "lot" shall mean either an "inspection lot", i.e., a collection of units of product, manufactured under essentially the same conditions, from which sample is drawn and tested to determine compliance with the acceptability criterion; or, a "preproduction lot", i.e., one or more units of product submitted prior to initiation of production for test to determine compliance with the acceptability criterion. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 459 | LOW CYCLE FATIGUE | LCF | A fatigue cracking failure mode that is defined by the frequency and characteristics of the loading that causes the crack. LCF is caused by stresses built up by mechanical/thermal cycles which occur only a few times per flight. The four most significant LCF events are stop/start/stop cycles, rapid major changes in operating temperature, rapid major changes in rotational speed, and significant increases in aerodynamic loading of the blades/disks. There is a cumulative effect of the stresses imposed by these cycles. LCF life limits are based on total accumulated cycles/time since new. These are hard cycle/time limits which cannot be extended or zero timed and must not be exceeded. LCF is different from high cycle fatigue. High cycle fatigue is a failure mode usually caused by vibration cycles which occur thousands of times per flight. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 460 | LOWER TEST MTBF ($\theta_1$) | | That value which is unacceptable. The standard test plans will reject, with high probability, equipment with a true MTBF that approaches ($\theta_1$). | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 461 | LUBRICATION AND SERVICING | | The internal or external application of fluids, oils, or grease to an item for the purpose of maintaining its inherent design operating capabilities. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |

| No | Term | Acronym | Definition | Document | Document Name |
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| 462A | MAINTAINABILITY | | The ability of an item under stated condition of use, to be retained in or restored to a specified condition when maintenance is performed by personnel having specified skill levels under stated conditions and using prescribed procedures and resources. | 00-40(PT1)(ARMP1) | R&M P1: MANAGEMENT RESPONSIBILITIES & REQUIREMENTS FOR PROGRAMMES & PLANS |
| 462B | MAINTAINABILITY | | The ability of an item to be retained in or restored to specified condition when maintenance is performed by personnel having specified skill levels, using prescribed procedures and resources, at each prescribed level of maintenance and repair. | DOD 5000.40(D) | RELIABILITY & MAINTAINABILITY (P&L) |
| 462C | MAINTAINABILITY | | A characteristic of design and installation which is expressed as the probability that an item will be retained in or restored to a specified condition within a given period of time, when the maintenance is performed in accordance with prescribed procedures and resources. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 462D | MAINTAINABILITY | | A characteristic of design and installation which is expressed as the probability that an item will be retained in or restored to a specified condition within a given period of time, when the maintenance is performed in accordance with prescribed procedures and resources. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 462E | MAINTAINABILITY | | The measure of the ability of an item to be retained in or restored to specified condition when maintenance is performed by personnel having specified skill levels, using prescribed procedures and resources, at each prescribed level of maintenance and repair. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 462F | MAINTAINABILITY | | A characteristic of design and installation which is expressed as the probability that an item will be retained in or restored to a specified condition within a given period of time, when the maintenance is performed in accordance with prescribed procedures and resources. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 462G | MAINTAINABILITY | | A measure of the ease and rapidity with which a system or equipment can be restored to operational status following a failure. It is a characteristic of equipment design and installation, personnel availability in the required skill levels, adequacy of maintenance procedures and test equipment, and the physical environment under which maintenance is performed. Maintainability is expressed as the probability that an item will be retained in or restored to a specified condition within a given period of time, when the maintenance is performed in accordance with prescribed procedures and resources. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 462H | MAINTAINABILITY | | The ability to maintain an item in, or restore to, a specific operational condition by expending resources, including man-hours, at an acceptable rate when using prescribed procedures and resources. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 463 | MAINTAINABILITY ANALYSIS | | The formal procedure for evaluating system and equipment design, using prediction techniques, failure modes and effects analysis procedures, and design data, to evolve a comprehensive quantitative description of maintainability design status, problem areas, and corrective action requirements. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 464 | MAINTAINABILITY DATA | | Data (other than administrative data) resulting from the performance of maintainability tasks in direct support of an equipment or system acquisition program. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 464B | INTERMEDIATE MAINTENANCE | IM | Maintenance which is the responsibility of and performed by designated maintenance activities for direct support of the using organizations. Its phases normally consist of | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | calibration, repair or replacement of damaged or unserviceable parts, components, or assemblies; the emergency manufacture of non-available parts and providing technical assistance to using organizations. | | |
| 465 | MAINTAINABILITY DEMONSTRATION TEST | | Government acceptance test (performed by the contractor) usually at the equipment or subsystem level for the major items which will comprise the integrated system to demonstrate conformance to specified quantitative maintainability requirements. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 466 | MAINTAINABILITY ENGINEERING | | The engineering discipline which formulates an acceptable combination of design features, repair policies, and maintenance resources, to achieve a specified level of maintainability, as an operational requirement, at optimum life cycle costs. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 467 | MAINTAINABILITY FEASIBILITY ESTIMATION | | A simplified procedure for the gross prediction of maintainability based on experience data related to the few major contributing factors to system downtime. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 468 | MAINTAINABILITY FUNCTION | | A plot of the probability of repair within time t, versus maintenance time. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 469A | MAINTAINABILITY INDEX | MI | The MI is the ratio of direct maintenance man-hours for engine and engine caused maintenance to engine operating hours. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 469B | MAINTAINABILITY INDEX | MI | A measure of the total maintenance manhours required to maintain a product in operational status per hour of operation. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 470 | MAINTAINABILITY MODEL | | A quantifiable representation of a test or process the purpose of which is to analyze results to determine specific relationships of a set of quantifiable maintainability parameters. | MIL-STD-471A | MAINTAINABILITY VERIFICATION/DEMONSTRATION/EVALUATION |
| 471 | MAINTAINABILITY REQUIREMENT | | A comprehensive statement of required maintenance characteristics (expressed in qualitative and quantitative terms) to be achieved in design and demonstrated in development. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 472 | MAINTAINABILITY REQUIREMENT | | A comprehensive statement of required maintenance characteristics, expressed in either qualitative or quantitative terms or both, to be satisfied by the design of an item. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 473 | MAINTAINABILITY REQUIREMENTS ANALYSIS | | An evaluation of the operational requirements in order to identify the specific system effectiveness parameters, logistic planning factors, cost limitations, physical constraints, etc., which will dictate the maintainability requirements and influence the formation of a compatible maintenance concept. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 474 | MAINTAINABILITY TASK | | Actions required to preclude the occurence of a malfunction or restore an equipment to satisfactory operating condition. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 475 | MAINTAINABILITY, DESIGN FOR | | Design considerations directed toward achieving those combined characteristics of equipment and facilities which will enable the accomplishment of necessary maintenance quickly, safely, accurately, and effectively with minimum requirements for personnel, skills, special tools, and cost. | MIL-STD-1472C | HUMAN ENGINEERING DESIGN CRITERIA FOR MILITARY SYSTEMS, EQUIPMENT |
| 476 | MAINTAINABILITY, MISSION | | The measure of the ability of an item to be retained in or restored to specified condition when maintenance is performed during the course of a specified mission profile. (The mission-related system maintainability parameter.) | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 477A | MAINTENANCE | | All actions necessary for retaining an item in or restoring it to a specified condition. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| 477B | MAINTENANCE | | All actions necessary for retaining an item or restoring it to a specified condition. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 477C | MAINTENANCE | | All actions (corrective and preventive) necessary for retaining an item in or restoring it to a specified condition. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 477D | MAINTENANCE | | The act of diagnosing and physically repairing, or preventing, equipment failures. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 477E | MAINTENANCE | | The function of retaining material in, or restoring it to, a serviceable condition. Its phases include servicing, repair, modification, modernization, overhaul, rebuild, test, reclamation, inspection, and condition determination, and the initial provisioning of support items. The term has a very general meaning, ranging from a matter of minutes of squadron servicing, to a matter of months of industrial activity rework; the provision of maintenance material itself is withinthe meaning. Maintenance should be qualified to convey a specific meaning. See Maintenance Types-Rework for distinctions in the scope of maintenance. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 478A | MAINTENANCE ACTION | | Any one of a number of types of specific maintenance operations necessary to retain an item in or restore it to a specified condition. | MIL-STD-1390B | LEVEL OF REPAIR |
| 478B | MAINTENANCE ACTION | | An element of a maintenance event. One or more tasks (i.e., fault localization, fault isolation, servicing and inspection) necessary to retain an item in or restore it to a specified condition. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 478C | MAINTENANCE ACTION | | Any one of a number of types of specific maintenance operations necessary to retain an item in or restore it to a specified condition. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 479 | MAINTENANCE ACTION, CORRECTIVE | | Action required to repair a single failure, comprised of all those individual maintenance tasks involved in the maintenance procedure (e.g. fault localization, isolation, repair, checkout, etc.). | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 480 | MAINTENANCE ALLOCATION TABLE | | Discribes the function to be performed in the repair of gas turbine engines, identifying the dgree of repair. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 481 | MAINTENANCE ANALYSIS | | The process of identifying required maintenance functions by analysis of the design, to determine the most effective means to accomplish these functions. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 482 | MAINTENANCE COMPLAINTS | | Reports of discrepancies which are found by maintenance personnel and which require maintenance action. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 483A | MAINTENANCE CONCEPT | | A collection of ideas and philosophies in maintenance which are used as the basis for the development of a specific maintenance program, procedure or policy. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 483B | MAINTENANCE CONCEPT | | A description of the planned general scheme for maintenance and support of an item in the operational environment. | MIL-STD-471A | MAINTAINABILITY VERIFICATION/DEMONSTRATION/EVALUATION |
| 483C | MAINTENANCE CONCEPT | | The planned or envisioned methods that will be employed to sustain the aeronautical system equipment at a defined level of readiness or in a specified condition in support of the operational requirement. This includes significant aeronautical system/equipment characteristics, e.g., built-in test, | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | compatibility with existing or planned test and support equipments, etc., and a generalization of logistics support element requirements (manpower, equipment, facilities, workload distribution throughout the defined maintenance level, etc.) | | |
| 483D | MAINTENANCE CONCEPT | | A description of the planned general scheme for maintenance and support of an item in the operational environment. The maintenance concept provides the practical basis for design, layout, and packaging of the system and its test equipment and establishes the scope of maintenance responsibility for each level (echelon) of maintenance and the personnel resources (maintenance manning and skill levels) required to maintain the system. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 483E | MAINTENANCE CONCEPT | | The planned or envisioned methods that will be employed to sustain the aeronautical system/equipment at a defined level of readiness or in a specified condition in support of the operational requirement. This includes significant aeronautical system/equipment characterisitics, for example, built-in-test, compatability with exisiting or planned test and SE, and a generalization of logistics support element requirements (manpower, equipment, facilities, workload distribution throughout the defined maintenance level). The maintenance concept is initially stated by the government for design and support planning purposes and provides the basis or point of departure for development of the plan to maintain. The maintenance concept may be influenced or modified by economic, technical, or logistics considerations as the design development of the aeronautical system/equipment proceeds. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 484 | MAINTENANCE COST RATIO | | The ratio of the cost of maintenance for a given unit of time to the initial item cost. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 485 | MAINTENANCE DATA COLLECTION SYSTEM | | An established Navy procedure for recording, at the source, designated information concerning equipment malfunctions, malfunction cause and criticality, maintenance actions, manhours expended, equipment involved, delays incurred. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 486 | MAINTENANCE DEPTH | | The complexity or extensiveness of aircraft maintenance functions, for example, the extent of disassembly, the complexity of a test. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 487 | MAINTENANCE DOWNTIME RATE | MDT | Equipment downtime per operating hour, comprised of downtime required for preventive maintenance. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 488A | MAINTENANCE ENGINEERING | | The application of analytical techniques and engineering skills to ensure that the design and development of equipment and systems are amenable to effective and economical maintenance. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 488B | MAINTENANCE ENGINEERING | | That discipline of maintenance which develops concepts, criteria, and technical requirements during the conceptual and acquisition phase to be applied and maintained in a current status during the operational phase to ensure timely, adequate, and economic maintenance support of weapons systems and equipment. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 489 | MAINTENANCE ENGINEERING ANALYSIS | MEA | The composite analytical studies, decisions and related documentation conducted in connection with the design of an item to determine or influence the maintainability and reliability characteristics of the item and to determine the total support requirements resulting from the design. For new items, the | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

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| | | | analysis is conducted concurrently with the design process. For existing or off-the-shelf items, the analysis is conducted as required to determine the characteristics and resulting support requirements. | | |
| 490A | MAINTENANCE ENVIRONMENT | | The climatic, geographical, physical and operational conditions (e.g., combat mobil, continental) under which an item will be maintained. | MIL-STD-471A | MAINTAINABILITY VERIFICATION/DEMONSTRATION/EVALUATION |
| 490B | MAINTENANCE ENVIRONMENT | | The climatic and operational conditions under which an item will be maintained. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 491 | MAINTENANCE ERROR | | An error on the part of maintenance personnel in performing maintenance on an item which results in subsequent failure or malfunction, or an error in published maintenance procedures which results in subsequent failure or malfunction. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 492 | MAINTENANCE EVALUATION | | A process for determining that the design of an item is compatible with the maintenance plan and maintenance concept. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 493A | MAINTENANCE EVENT | | One or more maintenance actions required to effect corrective and preventative maintenance due to any type of failure or malfunction, false alarm or scheduled maintenance plan. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 493B | MAINTENANCE EVENT | | One or more maintenance actions required to repair all failures associated with an equipment malfunction. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 494 | MAINTENANCE INSTRUCTION MANUAL | | A manual containing instructions for Intermediate (I-) and Organizational (O-) level maintenance and servicing of a specific model aircraft. It identifies each maintenance task to the responsible maintenance level. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 495A | MAINTENANCE LEVEL | | Division of maintenance, based on difficult and requisite technical skill, in which jobs are allocated to organizations in accordance with the availability of personnel, tools, supplies, and the time within the organization. Maintenance levels include organizational, intermediate, and depot. Organizational maintenance embraces the maintenance performed by a using organization on its own equipment. This includes inspection, cleaning, servicing, preservation, lubrication, adjustmeny, minor repair not requiring detailed disassembly, and replacement not requiring high technical skill. Intermediate maintenance is performed by designated maintenance activities in direct support of using organizations. This category will normally be limited to maintenance consisting of replacement of unserviceable parts, subassemblies, or assemblies. Depot maintenance refers to the maintenance required for major overhaul or complete rebuilding of parts, subassemblies, assemblies, and other end items. Such maintenance is intended to augment stocks of serviceable equipment or to support lower levels of maintenance by use of more extensive shop equipment and personnel of higher technical skill than available in | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 495B | MAINTENANCE LEVELS | | The three basic levels of maintenance, Organizational, Intermediate, and Depot, into which all maintenance activity is divided. The scope of maintenance performed within each level must be commensurate with the personnel, equipment, technical data, and facilities provided. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 495C | MAINTENANCE LEVELS | | Maintenance tasks divided into the number of levels required so common standards can be applied to the many and varied aircraft | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

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| | | | maintenance activities of the military establishment. They are increments of which all maintenance activities are composed. JCS PUB-1 defines the three levels as Depot (D-), Intermediate (I-), and Organizational (O-).a. D-Level Maintenance - Maintenance done on material requiring major rework or a complete rebuild of parts, assemblies, subassemblies, and end items, including the manufacture, modification, testing, and reclamation of parts as required. D-level maintenance serves to support lower levels of maintenance by providing technical assistance and performing that maintenance beyond the responsibility of O- and I-level maintenance. D-level maintenance provides stocks of serviceable equipment by using more extensive facilities for repair than are available in lower level maintenance activities.b. I-Level Maintenance - That maintenance which is the responsibility of and is performed by designated maintenance activities for direct support of using organizations. Its phases normally consist of calibration, repair or replacement of damaged or unserviceable parts, components, or assemblies; the emergency | | |
| 496 | MAINTENANCE MANHOURS PER LIFE UNIT | MMH/LU | The average manhours per life unit (e.g., flight hours, possessed hours, operating hours, sorties) required to maintain a system. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 497 | MAINTENANCE MANNING LEVEL | | Total authorized or assigned personnel, per system at specified levels of maintenance organization. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 498 | MAINTENANCE PERSONNEL PER OPERATIONAL UNIT | MP/U | Total direct maintenance personnel required per stated operational unit to accomplish direct on/off-equipment maintenance under specified operating and maintenance concepts. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 499A | MAINTENANCE PLAN | | A document containing technical data, tailored to a specific weapon system maintenance concept, which identifies maintenance and support resource requirements to maintain aeronautical systems, equipment, and Support Equipment (SE) in an operationally ready state. The maintenance plan provides the interface between maintenance engineering and supply for provisioning purposes and communicates necessary (but incomplete) inputs to enable other logistic element managers to develop their hardware support requirements. The maintenance plan is designed as a tool for the shore community for Integrated Logistic Support (ILS) planning and is prepared in accordance with NAVAIRINST 4790.4A (NOTAL). | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 499B | MAINTENANCE PLAN | | A document or set of documents which specify the maintenance required to assure the continuation of desired performance of an item or the safety of an aircraft. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 500A | MAINTENANCE PLANNING | | One of the nine principal elements of ILS. Includes development of the maintenance concept, reliability and maintainability parameters, repair level determinations, maintenance requirements and supply support essential to adequate and economical support of the system/equipment. Planning becomes more detailed as the system/equipment progresses through the acquisition cycle. Overall maintenance planning becomes a part of the Government's Integrated Logistic Support Plan. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 500B | MAINTENANCE PLANNING | | The design, method, or scheme for accomplishing an aircraft mission or reaching an aircraft maintenance objective or objectives. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 501A | MAINTENANCE | | Established methods for periodically checking and servicing | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |

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| | PROCEDURES | | Items to prevent failure or to effect a repair. | | |
| 501B | MAINTENANCE PROCEDURES | | Established methods for periodic checking and servicing of items to prevent failure or to effect a repair. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 502 | MAINTENANCE PROCESS, PRIMARY | PMP | The process relied upon to ensure that inherent design reliability is maintained. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 503 | MAINTENANCE RATIO | | A measure of the total maintenance manpower burden required to maintain an item. It is expressed as the cumulative number of manhours of maintenance expended in direct labor during a given period of the life units divided by the cumulative number of end item life units during the same period. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 504 | MAINTENANCE REQUIREMENT | | A concise and direct statement of the maintenance function which must be performed to verify, maintain, or restore the item to its intended function. A maintenance requirement usually involves one of the following categories of maintenance actions oriented to the peculiar maintenance characteristics of the item under consideration:Inspection, Functional test, Servicing, Preserve or depreserve, Lubrication, Repair, Removal, Fault isolation, Installation, Handling, Adjust/calibrate/align, Cleaning rig, and so forth. | MIL-M-24365ASHIPS | MAINTENANCE ENGINEERING ANALYSIS |
| 505A | MAINTENANCE RESOURCES | | Facilities, ground support equipment, manpower, spares, consumables, and funds available to maintain and support an item in its operational environment. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 505B | MAINTENANCE RESOURCES | | Facilities, ground support equipment, manpower, spares, consumables, and funds available to maintain and support an item in its operational environment. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 506 | MAINTENANCE RESOURCES, INDIRECT | | The time (in manhours) and material (in dollars) which, while not directly expended in active maintenance tasks, contributes to the overall maintenance mission through the support of overhead operations, administration, accumulation of facility records and statistics, supervision, and facilities upkeep. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 507 | MAINTENANCE SUPPORT INDEX | | The total number of direct and maintenance manhours for preventive and corrective maintenance required to support each hour of operation. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 508A | MAINTENANCE TASK | | The maintenance effort necessary for retaining an item in, or changing/restoring it to a specified condition. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 508B | MAINTENANCE TASK | | Those incremental maintenance elements performed by maintenance personnel in completiong a maintenance action. | MIL-STD-1390B | LEVEL OF REPAIR |
| 508C | MAINTENANCE TASKS | | An action or set of actions, including inspection and determination of condition required to achieve a desired outcome which restores an item to or maintains an item in serviceable condition. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 509 | MAINTENANCE TIME, ELAPSED | EMT | For the purposes of Maintenance Data Reporting (MDR), EMT is defined as the actual clock time, in hours and tenths, that maintenance was being performed on a job. EMT does not include the clock hours and tenths for cure time, charging time, or leak test when they are being conducted without maintenance personnel actually monitoring the work. Although the EMT is directly related to job man-hours, it is not to be confused with total manhours required to complete a job. For example, if five | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

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| | | | persons complete a job in 2.0 hours of continuous work, the EMT=2.0 hours and the man-hours=10.0. | | |
| 510 | MAINTENANCE TYPES | | There are two basic types of aircraft maintenance performed within the naval establishment without distinction as to level of maintenance/rework, and upkeep. Rework is performed only in the shore establishment. It may be performed on any program aircraft (operating or nonoperating), aircraft equipment, or aircraft Support Equipment (SE). It is performed only by industrial type activities assigned the mission, task, or functional responsibility of providing maintenance program support. Rework is performed with both military and civilian personnel and is managed by the Naval Air Systems Command (NAVAIR). Upkeep is performed only on operating aircraft, aircraft equipment, or aircraft SE. It is performed by military type activities that are assigned aircraft or equipment or assigned the mission, task, or functional responsibility of providing direct support to such activities. Upkeep is normally performed with military personnel and is managed by major operating commands. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 511 | MAINTENANCE TYPES, REWORK | | The restorative or additive work performed on aircraft, aircraft equipment, and aircraft SE at Naval Air Rework Facilities (NAVAIREWORKFACs), contractors' plants, and such other industrial establishments designated by TYPE COMMANDERS (TYCOMs). A rework process extends from the time some of the work is started until all of the work has been completed, including temporary interruptions in direct labor; it also includes rework evaluation and test and correction of discrepancies determined thereby. Rework is divided into two categories, standard and special. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 512 | MAINTENANCE TYPES, SPECIAL REWORK | | The work done to aircraft, aircraft equipment, and aircraft SE to improve or change their capability to perform specific missions or functions by replacement, removal, addition, alteration, or repair of parts on equipment of the aircraft. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 513 | MAINTENANCE TYPES, SPECIAL UPKEEP | | The work done to aircraft, aircraft equipment, and aircraft SE to improve, change, or restore their capability to perform specific missions or functions by replacement, removal, addition, alteration or repair of parts/equipment/aircraft, without particular regard to flying hours, operating hours, calendar days, or operating periods. Special upkeep includes, but is not limited to, modification, repair, and unscheduled inspection, replacement, or test. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 514 | MAINTENANCE TYPES, STANDARD DEPOT LEVEL MAINTENANCE | SDLM | A comprehensive Depot (D-) level inspection of selected aircraft structures and materials, correction of critical defects, incorporation of technical directives, and limited removal/rework of Scheduled Removal Component (SRC), Equipment History Record (EHR), Assembly Service Record (ASR), and Module Service Record (MSR) items. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 515 | MAINTENANCE TYPES, STANDARD UPKEEP | | The periodic or scheduled work performed on aircraft, aircraft equipment, and aircraft SE after (and as a result of) completion of a prescribed number of flying hours, operating hours, or calendar days in accordance with prescribed inspection or replacement requirements and such that the end product requirement of the work includes the capability of aircraft or equipment to serve a full prescribed period of flying hours, | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |

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| | | | operating hours, or calendar days before undergoing upkeep again. | | |
| 516 | MAINTENANCE TYPES, UPKEEP | | The preventive, restorative, or additive work performed on aircraft, equipment, and aircraft SE by operating units and aircraft SE activities. The term applies to any method of processing aircraft required to ensure the completion of standard operating periods or service tours, including, but not limited to servicing, periodic inspections, functional and bench tests, replacement, preservation, modification, and repair. An upkeep process extends from the time some of the work is started until all the work is completed, including temporary interruptions in direct labor; it also includes upkeep, evaluation, test, and correction of discrepencies determined thereby. Upkeep is divided into two catagories, standard and special. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 517A | MAINTENANCE, CORRECTIVE | | The actions performed to restore an item to a specified condition. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 517B | MAINTENANCE, CORRECTIVE | | The actions performed, as a result of failure, to restore an item to a specified condition. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 517C | MAINTENANCE, CORRECTIVE | | The actions performed, as a result of failure, to restore an item to a specified condition. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 517D | MAINTENANCE, CORRECTIVE | | The actions performed, as a result of failure, to restore an item to a specified condition. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 517E | MAINTENANCE, CORRECTIVE | | All actions performed as a result of failure, to restore an item to a specified condition. Corrective maintenance can include any or all of the following steps: Localization, Isolation, Disassembly, Interchange, Reassembly, Alignment and Checkout. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 517F | MAINTENANCE, CORRECTIVE | | The actions performed, as a result of failure, to restore an item to a specified condtion. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 517G | MAINTENANCE, CORRECTIVE | | Actions performed, as a result of failure, to restore an item to a specified level of performance. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 517H | MAINTENANCE, CORRECTIVE | | The actions performed, as a result of failure, to restore an item to a specified condition. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 518 | MAINTENANCE, DEFERRED | | Maintenance not having any bearing on flight safety, which is deferred to a convenient time and/or location for accomplishment. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 519A | MAINTENANCE, DEPOT | | Maintenance which is the responsibility of and performed by designated maintenance activities, to augment stocks of serviceable material, and to support organizational maintenance and intermediate maintenance activities by the use of more extensive shop facilities, equipment, and personnel of higher technical skill than are available at the lower levels of maintenance. Its phases normally consist of repair, modification, alteration, modernization, overhaul, reclamation, or rebuilding of assemblies, subassemblies, units, and equipment; the emergency manufacture of nonavailable parts; and providing technical assistance to using activities and | MIL-M-24365ASHIPS | MAINTENANCE ENGINEERING ANALYSIS |

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| | | | intermediate maintenance organizations. Depot maintenance is normally accomplished in fixed shops, shipyards and shore based facilities. | | |
| 5198 | MAINTENANCE, DEPOT | | Maintenance performed on material requiring major overhaul or a complete rebuild of parts, subassemblies, and end items, including the manufacture of parts, modification, testing, and reclamation as required. Depot maintenance serves to support lower categories of maintenance by providing technical assistance and performing that maintenance beyond their responsibility. Depot maintenace provides stocks or serviceable equipment by using more extensive facilities for repair than are available in lower level maintenance activities. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 520 | MAINTENANCE, DIRECT | | That effort expended by maintenance personnel in the actual performance of maintenance on aircraft, aeronautical equipment, or Support Equipment (SE) in accordance with the applicable technical manual. It applies equally to both contractor and Government Furnished Equipment (GFE). | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 521 | MAINTENANCE, HARD TIME | | A primary maintenance process under which an item must be removed from service at or before a previously specified time. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 522 | MAINTENANCE, IN SHOP | | Work that requires the use of shop facilities and cannot be normally performed outside the shop. (Bench test and component disassembly and repair are examples on in-shop maintenance work.) | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 523 | MAINTENANCE, INDIVIDUAL CORRECTIVE | | Time required to complete an individual maintenance task or an individual maintenance action. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 524 | MAINTENANCE, LINE | | Routine check, inspection and malfunction rectification performed enroute and at base stations during transit, turnaround or night stop. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 525A | MAINTENANCE, ON CONDITION | | A primary maintenance process having repetitive inspections or tests to determine the condition of units, systems, or portions of structure with regard to continued serviceability (corrective action is taken when required by item condition.) | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 525B | MAINTENANCE, ON CONDITION | OCM | A maintenance concept whereby an engine has no fixed time limitation on repair or replacement of the engine or any of its components. Repair or replacement of the engine or any of its components shall be determined by the condition of the unit. The unit shall be subjected to periodic diagnostic checks and inspections to insure its continued ability to perform its function within specified limits. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 526A | MAINTENANCE, PREVENTIVE | | The actions performed in an attempt to retain an item in a specified condition by providing systematic inspection, detection and prevention of incipient failure. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 526B | MAINTENANCE, PREVENTIVE | | All actions performed in an attempt to retain an item in specified condition by providing systematic inspection, detection, and prevention of incipient failures. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 526C | MAINTENANCE, PREVENTIVE | | The actions performed in an attempt to retain an item in a specified condition by providing systematic inspection, detection and prevention of incipient failure. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 526D | MAINTENANCE, PREVENTIVE | | Tests, measurements, replacements, adjustments, repairs and similar activities carried out with the intention of preventing faults or malfunctions from occurring during subsequent operation. Preventive maintenance is designed to keep hardware | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

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| | | | and software in proper operating condition and may be performed on a scheduled basis. | | |
| 527A | MAINTENANCE, SCHEDULED | | That maintenance performed at defined intervals to retain an item in a serviceable condition by systematic inspection, detection, replacement of wearout items, adjustment, calibration, cleaning, etc. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 527B | MAINTENANCE, SCHEDULED | | Preventive maintenance performed at prescribed points in the item's life. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 528A | MAINTENANCE, UNSCHEDULED | | Corrective maintenanced required by item conditions. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 528B | MAINTENANCE, UNSCHEDULED | | That maintenance performed to restore an item to a satisfactory condition by providing correction of a known or suspected malfunction and/or defect. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 529 | MAJOR DEFECT | | A major defect is a defect, other than critical, that is likely to result in failure, or to reduce materially the usability of the unit of product for its intended purpose. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 530A | MALFUNCTION | | A general term used to denote the occurrence of failure of a product to give satisfactory performance. It need not constitute a failure if readjustment or operator's controls can restore an acceptable operating condition. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 530B | MALFUNCTION | | The occurrence of a condition whereby the operation of an item is outside of specified limits. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 530C | MALFUNCTION | | A physical condition that causes a device, component, or element to fail to perform in a required manner; for example, a short circuit or a broken wire. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 531 | MALFUNCTION ADMINISTRATIVE TIME | | All time between the beginning and end of work on a malfunction, except for logistic or active maintenance time for that malfunction. | MIL-HDBK-472 | MAINTAINABILITY PREDICTION |
| 532 | MALFUNCTION FINAL TEST TIME | | The time spent confirming tht the malfunction in question has been corrected, after which time no further maintenance is performed on that malfunction. | MIL-HDBK-472 | MAINTAINABILITY PREDICTION |
| 533 | MALFUNCTION VERIFICATION TIME | | The time spent testing the system to observe previously reported sysptoms of malfunction. | MIL-HDBK-472 | MAINTAINABILITY PREDICTION |
| 534 | MANHOURS | MH | The total number of accumulated direct labor hours (in hours and tenths) expended in performing a maintenance action. Direct maintenance man-hours are man-hours expended by assigned personnel to complete the work described on the source document. This includes the functions of preparation, inspection, disassembly, adjustment, fault correction, replacement or reassembly of parts, and calibration/tests required in restoring the item to a serviceable status. It also includes such associated tasks as checking out and returning tools, looking up part numbers in the Illustrated Parts Breakdown (IPB), transmitting required information to material control, and completing documentation of the Visual Information Display System/Maintenance Action Form (VIDS/MAF) or Support Action Form (SAF). | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 535 | MANHOURS PER FLYING HOURS | MH/FH | A performance figure calculated by dividing the DIRECT MANHOURS expended to maintain a particular aircraft fleet during a given period, by the flying hours (airborne) during that period. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

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| 536 | MANHOURS, DIRECT | DMH | Manhours of work spent directly on the aircraft or removed items. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 537 | MANHOURS, MAINTENANCE | MMH | The manhours required to complete the maintenance task. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 538 | MANUAL PROCEDURES | | Any procedure which requires (1) measurements using general purpose test equipment, or (2) a series (more than one) of sequential remove and replace actions on subunits (subunit component/parts), (lowest level replacements internal to subunit component/parts), some of which are non-failed, in order to diagnose and isolate a failed subunit (subunit component/part), (lowest level replacement internal to a subunit component/part). | MIL-STD-471A | MAINTAINABILITY VERIFICATION/DEMONSTRATION/EVALUATION |
| 539 | MANUAL TEST EQUIPMENT | MTE | Test equipment that requires operator actions for each task (for example, connection to signal to be measured, selection for suitable range, and insertion of stimuli). | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 540 | MARGINAL TESTING | | A procedure for system checking which indicates when some portion of the system has deteriorated to the point where there is a high probability of a system failure during the next operating period. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 541 | MAXIMUM TIME TO REPAIR | MMAXCT | The maximum time required to complete a specified percentage of all maintenance actions. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 542 | MCUR | MCUR | A special term for data transmittal to cover a forecast of mean cycles between unscheduled removals that is provided by a supplier for provisioning purposes only. Presented as a forecast of the average interval in operating cycles between unscheduled removals (justified and unjustified), this factor is expressed in terms of one unit per aircraft, and it therefore represents the operating cycles for the part number being provisioned. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 543 | MEAN CORRECTIVE MAINTENANCE TIME | MCT | The mean time required to complete a maintenance action, i.e., total maintenance down time divided by total maintenance actions, over a given period of time. Mean time to repair (often denoted as MTTR) is the sum of all maintenance downtime during a given period divided by the number of maintenance actions during the same period of time. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 544 | MEAN CYCLES BETWEEN FAILURE | MCBF | The average number of operating cycles between failures (applicable to repairable items). | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 545 | MEAN CYCLES TO FAILURE | MCTF | The average number of cycles to failure of nonrepairable items, i.e., the total number of cycles under specified conditions divided by the number of failures (the mean cycles to failure is the reciprocal of the failure rate per cycle). | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 546 | MEAN LIFE | | The arithmetic mean of the times to failure of a group of nominally identical items. | NAVAIR 01-1A-32 DEFINITION | RELIABILITY ENGINEERING HANDBOOK |
| 547A | MEAN MAINTENANCE TIME | MMT | The measure of item maintainability taking into account maintenance policy. The sum of preventive and corrective maintenance times, divided by the sum of scheduled and unscheduled maintenance events, during a stated period of time. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 547B | MEAN MAINTENANCE TIME | | The statistical mean of the distribution of scheduled or unscheduled (or both) maintenance times. The summation of the duration of scheduled or unscheduled (or both) maintenance time during a given period divided by the total number of scheduled | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

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| | | | or unscheduled maintenance actions (or both) during the same time period is an estimate of Mean Scheduled Maintenance Time (Ms), Mean Unscheduled Maintenance Time (Mu), (or Mean Maintenance Time (M)). | | |
| 548 | MEAN REPAIR TIME | MRT | The average on or off-equipment corrective maintenance time in an operational environment. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 549A | MEAN TASK TIME | MTT | The average time to complete a specified task associated with the ground processing of a launch vehicle. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 549B | MEAN TASK TIME | | A representative task time, equal to the summation of the task times required to perform a specific task a number of different times divided by the number of times performed. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 550 | MEAN TIME BETWEEN CRITICAL FAILURE | MTBCF | MTBCF is the average time between failure of mission essential system functions.NOTE: THIS IS NOT A PREFERRED SAE DEFINITION | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 551 | MEAN TIME BETWEEN DEMANDS | MTBD | A measure of the system reliability parameter related to demand for logistic support: The total number of system life units divided by the total number of item demands on the supply system during a stated period of time. e.g. Shop Replaceable Unit (SRU), Weapon Replaceable Unit (WRU), Line Replacement Unit (LRU), and Shop Replaceable Assembly (SRA). | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 552 | MEAN TIME BETWEEN DOWNING EVENTS | MTBDE | A measure of the system reliability parameter related to availability and readiness. The total number of system life units, divided by the total number of events in which the system becomes unavailable to initiate its mission(s), during a stated period of time. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 553A | MEAN TIME BETWEEN FAILURES | MTBF | A basic measure of reliability for repairable items. The mean number of life units (e.g., hours x 10E+6) during which the component performs to specification, during a particular measurement interval under stated conditions. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 553B | MEAN TIME BETWEEN FAILURES | MTBF | A measure of reliability giving the average time between failures. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 553C | MEAN TIME BETWEEN FAILURES | MTBF | A basic measure of reliability for repairable items: The mean number of life units during which all parts of the item perform within their specified limits, during a particular measurement interval under stated conditions. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 553D | MEAN TIME BETWEEN FAILURES | MTBF | For a particular interval, the total functioning life of a population of an item divided by the total number of failures within the population of repairable items during the measurement interval. The definition hold for time, cycles, miles, events, rounds, or other measure of life units. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 553E | MEAN TIME BETWEEN FAILURES | MTBF | The total functioning life of a population of an item divided by the total number of failures within the population during the measurement interval. The definition holds for time, cycles, miles, events, or other measure of life units. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 553F | MEAN TIME BETWEEN FAILURES | MTBF | The total functioning life of a population of an item divided by the total number of failures within the population during the measurement interval. The definition holds for time, cycles, miles, events, or other measure of life units. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 553G | MEAN TIME BETWEEN FAILURES | MTBF | A performance figure calculated by dividing the total unit flying hours (airborne) accrued in a period by the number of unit failures that occurred during the same period. NOTE: Where | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |

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| | | | total unit operating hours are available, this may be used in lieu of total unit flying hours. | | |
| 554 | MEAN TIME BETWEEN FAILURES, CHARGEABLE | MTBFC | The MTBF-chargeable shall be generated by using engine failures-chargeable per definition and presented as an instantaneous value to be used for the reliability assessments specified in the applicable contract. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 555A | MEAN TIME BETWEEN MAINTENANCE | MTBM | The average life units (e.g., flight hours, operation hours, possessed hours, sorties, rounds) between maintenance events (as defined by the using command). | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 555B | MEAN TIME BETWEEN MAINTENANCE | MTBM | The mean of the distribution of the time intervals between maintenance actions (either preventive, corrective, or both). | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 555C | MEAN TIME BETWEEN MAINTENANCE | MTBM | A measure of the reliability taking into account maintenance policy. The total number of life units expended by a given time, divided by the total number of maintenance events (scheduled and unscheduled) due to that item. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 556A | MEAN TIME BETWEEN MAINTENANCE ACTIONS | MTBMA | A measure of the system reliability parameter related to demand for maintenance manpower: The total number of system life units, divided by the total number of maintenance actions (preventive and corrective) during a stated a period of time. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 556B | MEAN TIME BETWEEN MAINTENANCE ACTIONS | MTBMA | The mean of the distribution of the time intervals between actions (either preventive, corrective, or both) or groups of actions required to restore an item to or maintain it in a specified condition. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 556C | MEAN TIME BETWEEN MAINTENANCE ACTIONS | MTBMA | The mean of the distribution of the time intervals between actions or groups of actions required to restore an item to or maintain it in a specified condition. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 557A | MEAN TIME BETWEEN REMOVALS | MTBR | A measure of the system reliability parameter related to demand for logistic support: The total number of system life units divided by the total number of items removed from that system during a stated period of time. This term is defined to exclude removals performed to facilitate other maintenance an dremovals for product improvement. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 557B | MEAN TIME BETWEEN REMOVALS | MTBR | A performance figure calculated by dividing the total unit flying hours accrued in a period by the number of unit removals (scheduled plus unscheduled) that occurred during the same period. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 558 | MEAN TIME BETWEEN REPLACEMENTS | | The average operational time between replacements, either preventive, corrective, or both. | MIL-STD-13908 | LEVEL OF REPAIR |
| 559 | MEAN TIME BETWEEN UNSCHEDULED REMOVALS | MTBUR | A performance figure calculated by dividing the total unit flying hours (airborne) accrued in a period by the number of unscheduled unit removals that occurred during the same period. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 560A | MEAN TIME TO FAILURE | MTTF | The terms "mean time to failure" and "mean life" may be used interchangeably and shall denote the mean (or equivalently, the average) length of life of items in the lot. Mean life is denoted by $\theta$ | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 560B | MEAN TIME TO FAILURE | MTTF | A basic measure of reliability for nonrepairable items and hence more application to component reliability. The total number of life units divided by the total number of failures, for a population of components operating during a particular measurement interval under stated conditions. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| 560C | MEAN TIME TO FAILURE | MTTF | A basic measure of reliability for non-repairable items: The total number of life units of an item divided by the total number of failures within that population, during a particular measurement interval under stated conditions. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 560D | MEAN TIME TO FAILURE | MTTF | The average length of time to failure of nonrepairable items, i.e., the total operating time under specified conditions divided by the number of failures during this time (in the exponential case, the mean-time-to-failure is the reciprocal of the failure rate per unit time). | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 560E | MEAN TIME TO FAILURE | MTTF | A performance figure calculated by dividing the summation of times to failure for a sample of failed items by the number of failed items in the sample. The same item failing "n" times constitutes "n" failed items in the sample. NOTE: This is different from MEAN TIME BETWEEN FAILURE since no allowance is given to items that have not failed. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 561 | MEAN TIME TO MAINTENANCE | MTTM | The arithmetic mean of the time intervals between maintenance actions. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 562A | MEAN TIME TO REPAIR | MTTR | The MTTR is defined as elapsed maintenance time per maintenance action (as in the Navy 3-M system, OPNAVINST 4790.2D). | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 562B | MEAN TIME TO REPAIR | MTTR | The total corrective maintenance time divided by the total number of corrective maintenance actions during a given period of time. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 562C | MEAN TIME TO REPAIR | MTTR | The arithmetic average of the time required to complete a satisfactory repair activity. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 562D | MEAN TIME TO REPAIR | MTTR | A basic measure of maintainability: The sum of corrective maintenance times at any specific level of repair, divided by the total number of failures within an item repaired at that level, during a particular interval under stated conditions. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 562E | MEAN TIME TO REPAIR | MTTR | A measure of repairability, expressed as the total corrective maintenance time divided by the total number of corrective maintenance actions during a given period of time. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 562F | MEAN TIME TO REPAIR | MTTR | The mean time required to complete a maintenance action, i.e., total maintenance downtime divided by total maintenance actions, over a given period of time. Mean time to repair (often denoted as MTTR) is the sum of all maintenance downtime during a given period divided by the number of maintenance actions during the same period of time. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 562G | MEAN TIME TO REPAIR | MTTR | The total corrective maintenance time divided by the total of corrective maintenance actions during a given period of time. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 562H | MEAN TIME TO REPAIR | MTTR | A performance figure calculated by dividing the sum of the active repair elapsed times accrued in a period on a number of designated items by the number of these items repaired in the same period. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 563 | MEAN TIME TO RESTORE SYSTEM | MTTRS | A measure of the system maintainability parameter related to availability and readiness: The total corrective maintenance time, associated with downing events, divided by the total number of downing events, during a stated period of time. (Excludes time for off-system maintenance and repair of detached components.) | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 564 | MEAN TIME TO | MTTS | A measure of an on-system maintainability characteristic related | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY |

| No | Term | Acronym | Definition | Document | Document Name |
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| | SERVICE | | to servicing that is calculated by dividing the total scheduled crew/operator/driver servicing time by the number of times the item was serviced. | | AND MAINTAINABILITY |
| 565 | MEAN TIME TO UNSCHEDULED REMOVAL | MTTUR | A performance figure calculated by dividing the summation of times to unscheduled removal for a sample of removed items by the number of removed items in the sample. NOTE: This is different from Mean Time Between Unscheduled Removal (MTBUR) since no allowance is given to items that have not been removed. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 566A | MEDIAN CORRECTIVE MAINTENANCE TIME | | The downtime within which 50% of all corrective maintenance actions can be completed under the specified maintenance conditions. The median value, Mct, is often referred to as the geometric mean (MTTRG) or equipment repair time (ERT) in some maintainability documents. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 566B | MEDIAN PREVENTIVE MAINTENANCE TIME | | The equipment downtime required to perform 50% of all scheduled preventive maintenance actions on the euqipment under the specified conditions. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 567 | MINIMUM EQUIPMENT LIST | MEL | An approved list of items which may be inoperative for flight under specified conditions. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 568 | MINOR DEFECT | | A minor defect is a defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 569A | MISSION | | That period beginning with the start of the engine prior to flight and ending at engine shutdown at the completion of the flight. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 569B | MISSION | | The objective or task, together with the purpose, which clearly indicates the action to be taken. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 569C | MISSION | | a. The objective; the task together with the purpose, which clearly indicates the action to be taken and the reason for it.b. In common usage, especially when applied to lower military units, a duty/task assigned to an individual.c. The dispatching of one or more aircraft to accomplish one particular task. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 570 | MISSION CAPABLE | MC | MC status data shall consist of the sum of full mission capable (FMC) and part mission capable (PMC) for purposes of reporting to Office of the Secretary of Defense (OSD). | DOD-1-7730.25 | MATERIEL CONDITION REPORTING FOR MISSION-ESSENTIAL SYSTEMS |
| 571 | MISSION CAPABLE RATE | | The percent of possessed time that a system is capable of performing at least one of its assigned missions. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 572 | MISSION EFFECTS | | Failure effects which preclude the completion of the aircraft mission. These failures cause delays, cancellations, ground or flight interruptions, high drag coefficients, flight envelope restrictions, etc. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 573 | MISSION ESSENTIAL | | Anything authorized and assigned to approved combat and combat support forces which would be immediately employed to wage war and provide support for combat actions. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 574 | MISSION ESSENTIAL EQUIPMENT | | Mission essential equipment is that interdependent equipment in a missile weapon system which is assigned a mission on the battlefield in supprt of forces in contact with the enemy and without which the assigned mission cannot be successfully completed. | MIL-E-11991E | ELECTRONIC, ELECTRICAL AND ELECTRO-MECHANICAL EQUIPMENT GUID |
| 575 | MISSION | | Those subsystem functions required to enable an aircraft to | MIL-STD-2070(AS) | PROCEDURE FOR PERFORMING A FMECA FOR |

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| | ESSENTIAL FUNCTIONS | | perform its designated mission(s). | | AERONAUTICAL EQUIPMENT |
| 576 | MISSION ESSENTIAL SUBSYSTEM | | Anything authorized and assigned to approved combat and combat support forces which would be immediately employed to wage war and provide support for combat actions. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 577 | MISSION MIX | | The relative frequency that each mission profile is encountered during a specified time period. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 578A | MISSION PROFILE | | A time-phased description of the events and environments an item experiences from initiation to completion of a specified mission, to include the criteria of mission success or critical failures. | 00-40(PT1)(ARMP1) | R&M P1: MANAGEMENT RESPONSIBILITIES & REQUIREMENTS FOR PROGRAMMES & PLAN |
| 578B | MISSION PROFILE | | A mission profile is a representation of a specific mission in terms of flight conditions, including airspeed, altitude, power lever setting and duration. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 578C | MISSION PROFILE | | A mission profile is a representation of a specific mission in terms of flight conditions, including airspeed, altitude, power lever setting and duration. | MIL-E-008593E(AS) | ENGINES, AIRCRAFT, TURBOSHAFT AND TURBOPROP, GENL SPEC FOR |
| 578D | MISSION PROFILE | | A time-phased description of the events and environments an item experiences from initiation to completion of a specified mission, to include the criteria of mission success or critical failures. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 578E | MISSION PROFILE | | A generic definition is specified in MIL-STD-721. This amplification of that definition applies to reliability test programs: A through description of all of the major planned events and conditions associated with one specific mission. A mission profile is one segment of a life-cycle profile (for example, a missile captive-carry phase or a missile free-flight phase). The profile depicts the time span of the event, the expected environmental conditions, energized and nonenergized periods, and so forth. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 578F | MISSION PROFILE | | A description of system environmental and use duty cycles throughout the mission period for which reliability is to be specified. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 579A | MISSION RELIABILITY | | The ability of an item to perform its required functions for the duration of a specified mission profile. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 579B | MISSION RELIABILITY | | The ability of an item to perform its required function for the duration of a specified mission. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 579C | MISSION RELIABILITY | | The ability of an item to perform its required functions for the duration of a specified mission profile. | MIL-STD-785B | RELIABILITY PROGRAMS FOR SYSTEM AND EQUIPMENT DEVELOPMENT AND PRODUCTION |
| 579D | MISSION RELIABILITY | | The probability that, under stated conditions, the system will operate in the mode for which it was designed (i.e., with no malfunctions) for the duration of a mission , given that it was operating in this mode at the beginning of the mission. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 580A | MISSION TIME | | That element of uptime during which an item is required to perform a stated mission profile. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 580B | MISSION TIME | | The time during which a system or equipment is actually operating (in an "up" status). Operating time is usually divisible among several operating periods or conditions. These include "standby time", filament "on-time", pre-flight | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | "checkout" time, flight. | | |
| 581 | MISSION TIME BETWEEN CRITICAL FAILURES | MTBCF | A measure of MISSION RELIABILITY: The total amount of mission time, divided by the total number of critical failures during a stated series of missions. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 582 | MISSION TIME TO RESTORE FUNCTIONS | MTTRF | A measure of MISSION MAINTAINABILITY: The total corrective critical failure maintenance time, divided by the total number of critical failures, during the course of a specified mission profile. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 583 | MODIFICATION | | Major engineering changes to an existing equipment or system to effect improvements in designed capabilities or characteristics. | MIL-STD-470A | MAINTAINABILITY PROGRAM FOR SYSTEMS & EQUIPMENT |
| 584 | MODIFICATION TIME | | That part of downtime necessary to introduce any specific change(s) to an item to improve its characteristics, or to add new ones. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 585 | MODIFICATION, MANDATORY | | A modification classified as compulsory by the local civil aviation authorities. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 586 | MODIFICATION, OPTIONAL | | A modification which may be incorporated at the discretion of the operator. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 587 | MODIFY | | To change or alter through rework and/or through the installation or removal of an item. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 588 | MODULAR AUTOMATIC TEST EQUIPMENT SYSTEM | MATE | The complete complement of MATE management used in the acquisition of ATE. This includes MATE Standards, procedures, manuals and specifications; MATE Test Program Set; MATE Support Center and its disciplines; MATE hardware, software, human resources, training, technical data facilities. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 589 | MODULAR ENGINE | | Those engines consisting of several independent assemblies called modules, which by design can be removed/replaced without major disassembly of the engine or other modules, for example, compressor, combustion, turbine, afterburner, gearbox, torquemeter, or combination thereof. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 590A | MODULE | | A combination of assemblies, subassemblies and parts, contained in one package, or so arranged as to be installed in one maintenance action. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 590B | MODULE | | A component, or a complete subassembly combined in a single package, that is designed to be removed and replaced easily for maintenance or repair. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 591 | MONITORING, NORMAL OPERATING CREW | | Any monitoring of system operation accomplished by the operating crew members during their normal duties. This includes monitoring of instrumentation of systems normally used daily and of systems required to be checked by the crew on a daily basis. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 592 | MTUR | MTUR | A special term for data transmittal to cover a forecast of meantime between unscheduled removals that is provided by a supplier for provisioning purposes only. Presented as a forecast by the average interval in unit flying hours between unscheduled removals (justified and unjustified), this factor is expressed in terms of one unit per aircraft, and it therefore represents the part hours for the part number being provisioned. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 593 | MULTIPLE FAILURES | | The simultaneous occurrence of two or more independent failures. When two or more failed parts are found during troubleshooting and failures cannot be shown to be dependent, multiple failures are presumed to have occurred. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |

| No | Term | Acronym | Definition | Document | Document Name |
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| 594 | NEXT HIGHER LEVEL EFFECT | | The consequence(s) a failure mode has on the operation, functions, or status of the items in the next higher indenture level above the indenture level under consideration. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 595 | NON ESS FAILURES | | The following failures are non-ESS failures: a. Failures directly attributable to improper installation in the test facility. b. Failures of test instrumentation or monitoring equipment (other than the BIT function), except where it is part of the delivered item. c. Failures resulting from test operator error in setting up, or in testing the equipment. d. Failures attributable to an error in or interpretation of the test procedures. e. Dependent failures. f. Failures occurring during repair. g. Failures clearly attributable to the environmental generation test equipment overstress condition. | MIL-STD-2164 | ENVIRONMENTAL STRESS SCREENING PROCESS FOR ELECTRONIC EQUIPMENT |
| 596 | NONACTIVE MAINTENANCE TIME | | The time during which no maintenance can be accomplished on the item because of administrative or logistic reasons. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 597 | NONMISSION EFFECTS | | Failure effects which do not prevent mission success or equipment operation, but whose correction may or may not be economically desirable due to added labor and material cost for repair (including loss-of-use cost due to maintenance downtime). | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 598 | NONSTANDARD PARTS, MATERIALS AND PROCESSES | | Those nonstandard parts, materials, and processes that are not covered by Federal or military specifications and standards or DOD adopted industry standards referenced herein or in the detail specification. DOD adopted industry standards are those coordinated with and accepted by DOD and listed in the DOD Index of Specifications and Standards. | MIL-E-11991E | ELECTRONIC, ELECTRICAL AND ELECTRO-MECHANICAL EQUIPMENT GUID |
| 599 | NORMAL OPERATING CREW DUTIES | | Those duties which are inherent in the normal operation of the aircraft to include the following: a. Preflight check list by operating crew. b. Monitoring of cockpit and/or system instrumentation, by operating crew. c. Recognition of abnormalities or failures by the operating crew through the use of normal physical senses (i.e., odor, noise, vibration, temperature, visual observation of damage or failure, changes in physical input force requirements, etc.) | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 600 | NORMAL OPERATING CREW MONITORING | | Any monitoring of system operation accomplished by the operating crew during their normal duties. This includes monitoring of instrumentation of systems normally used daily and of systems required to be checked by the crew on a regular basis. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 601 | NOT MISSION CAPABLE | NMC | NMC is a materiel condition indicating that systems and equipment are not capable of performing any of their assigned missions because of unit level maintenance requirements. Recording of NMCM time shall start for: (a) unscheduled maintenance, when a malfunction is discovered, or at mission completion, whichever is later, and (b) scheduled maintenance, when the determination is made that a system cannot be returned to mission-capable status within 2 hours. Time stops when maintenance has been completed or is interrupted by work stoppage due to supply shortage. The period of work stoppage due to supply shall be measured as NMCS. NMCM shall resume when required supply items are delivered to the maintenance activity. | DOD-I-7730.25 | MATERIEL CONDITION REPORTING FOR MISSION-ESSENTIAL SYSTEMS |
| 602 | NOT MISSION CAPABLE SUPPLY | NMCS | NMCS is a materiel condition indicating that systems and equipment are not capable of performing any of their assigned missions because of maintenance work stoppage due to a supply | DOD-I-7730.25 | MATERIEL CONDITION REPORTING FOR MISSION-ESSENTIAL SYSTEMS |

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| | | | shortage. Recording of NMCS time shall start when work stoppage results from lack of parts, and the NMCS requisition is not satisfied 1 hour after the demand is initiated and remains unsatisfied. For Army and Marine Corps ground equipment, when both NMCM time and NMCS time are encountered in the same day and the sum is more than 12 hours, the whole day is carried against the condition status with the most hours. | | |
| 603 | NOT OPERATING | | The state wherein an item is able to function but is not required to function. Not to be confused with DOWN-TIME. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 604 | NOT OPERATING TIME | | That element of uptime during which an item is not required to operate. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 605 | OBSERVED CUMULATIVE FAILURE RATE (P(T)) | | The number of relevant system failures N(t) accumulated by t, divided by t. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 606 | OBSERVED MEAN TIME BETWEEN FAILURE ($\hat{\theta}$) | | The total operating time of the equipment divided by the number of relevant failures. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 607 | OBSERVED RELIABILITY (R(T)) | | A point estimate of reliabilty equal to the probability of survival for a specified operating time, t, given that the equipment was operational at the beginning of the period. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 608 | OFF EQUIPMENT WORK | | For the purpose of maintenance data reporting, it includes all maintenance actions performed on removed, repairable components, usually at the IMA. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 609 | ON EQUIPMENT WORK | | For the purpose of maintenance data reporting, it includes those maintenance actions accomplished on complete end items, for example, aircraft, drones, SE, removed engines. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 610 | ON LINE MAINTENANCE | | Maintenance performed on a system or equipment without interrupting its operation. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 611 | ON ORBIT MEAN DOWNTIME | OMDT | The average elapsed time between loss of mission capable status and restoration to mission capable status. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 612 | OPERABLE | | The state of being able to perform the intended function. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 613 | OPERABLE | | The state of being able to perform the intended function. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 614 | OPERABLE EQUIPMENT | | Equipment which, from its most recent performance history and a cursory electrical and physical examination, displays an indication of satisfactory performance for all of its functions. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 615 | OPERATING CHARACTERISTIC CURVES | OC | The curve which shows the probability that a submitted lot with given mean life would meet the acceptability criterion on the basis of that sampling plan. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 616 | OPERATING TIME | | The time during which a system or equipment is actually operating (in an "up" status). Operating time is usually divisible among several operating periods or conditions. These include "standby time", filament "on-time", pre-flight "checkout" time, flight time. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 617A | OPERATIONAL | | Of, or pertaining to, the state of actual usage. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| 617B | OPERATIONAL | | Of, or pertaining to, the state of actual usage. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 618 | OPERATIONAL ASSURANCE, FAULT ISOLATION | | A Self-test program used on ATE. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 619 | OPERATIONAL AVAILABILITY | $A_o$ | The percent of time that a subsystem, line replaceable unit (LRU) or line replaceable module (LRM) is capable of satisfactorily performing in the operational environment. ($A_o$ does not depict ability of an item to continue to operate for a specific period of time. This characteristic is covered via the weapon system reliability term.) | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 620 | OPERATIONAL CHECK | | A task to determine that an item is fulfilling its intended purpose. This check does not require quantitative tolerances. This is a failure finding task. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 621 | OPERATIONAL R&M VALUE | | Any measure of reliability or maintainability that includes the combined effects of item design, quality, installation, environment, operation, maintenance, and repair. | DOD 5000.40(D) | RELIABILITY & MAINTAINABILITY (P&L) |
| 622A | OPERATIONAL READINESS | | The ability of an item (military unit) to respond to its operational plan(s) upon receipt of an operating order (total calendar time is the basis for computation of operational readiness). | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 622B | OPERATIONAL READINESS | | The ability of a military unit to respond to its operation plan(s) upon receipt of an operations order. (A function of assigned strength, item availbility, status, or supply, training, etc.). | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 622C | OPERATIONAL READINESS | OR | A measure of the degree to which an item is in the operable and committable state at the start of the mission, when the mission is called for at unknown (random) point in time. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 622D | OPERATIONAL READINESS | OR | Percent of assigned items capable of performing the mission or function for which they were designed, at a random point in time. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 623 | OPERATIONAL REQUIREMENT | OR | The basic requirement document for all Navy acquisition programs requiring research and dvelopment. The OR solicits Development Proposals (DP's) from the Naval Material Command or Systems Command, as appropriate. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 624 | OPERATIONAL SUITABILITY | | The degree to which a system can be satisfactorily operated in the field, with consideration being given to availability, safety, human factors, electromagnetic compatibility, logistic supportability, and traing requirements. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 625A | OPERATIONAL TEST AND EVALUATION | OT&E | Tests of the operational capability of an item, conducted in as realistic an operational environment as possible, then an evaluation of the test results including an estimate of the item's military utility, operational effectiveness and operational suitability. The evaluation is used in deciding whether or not to go into full production of the item. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 625B | OPERATIONAL TEST AND EVALUATION | OT&E | Test and evaluation which focuses on the development of optimum tactics, techniques, procedures, and concepts for systems and equipment, evaluation of reliability, maintainability and operational effectiveness, and suitability of systems and euqipment under realistic operational conditions. | MIL-STD-471A | MAINTAINABILITY VERIFICATION/DEMONSTRATION/EVALUATION |
| 626 | OPERATIONAL TEST PROGRAM | OTP | The test program for a specific unit under test (UUT) or functionally related group of UUTs, in a medium designed for field use with the applicable ATE or TMDE, or both. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |

| No | Term | Acronym | Definition | Do | |
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| 627 | OPTIONAL | | Indicates a choice of interchangeable items. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 628A | ORGANIZATIONAL MAINTENANCE | | Maintenance which is the responsibility of and performed by a using organization on its assigned equipment. | MIL-M-24365ASHIPS | MAINTENANCE ENGINEERING ANALYSIS |
| 628B | ORGANIZATIONAL MAINTENANCE | | Maintenance which is the responsibility of and performed by using organizations on its assigned equipment. Its phases normally consist of inspecting, servicing, lubricating, adjusting and the replacing of parts, minor assemblies and subassemblies. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 629 | OTHER INDENTURE LEVELS | | The succeeding indenture levels (second, third, fourth, etc.) which represent an orderly progression to the simpler division of the item. | MIL-STD-1629A | PROCEDURES FOR PERFORMING A FAILURE MODE, EFFECTS AND CRITICALITY ANALYSIS |
| 630 | OTHER STRUCTURE | | Structure which is judged not to be a structural significant item. "Other Structure" is defined both externally and internally. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 631 | OVERHAUL | | The process of disassembly sufficient to inspect all the operating components and the basic end article. It includes repair, replacement, or servicing as necessary, followed by reassembly and bench check/flight test. Upon completion of the overhaul process, the component/end article will be capable of performing its intended service life/service tour. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 632 | OVERHAUL (ENGINES, ACCESSORIES, EQUIPMENT) | | The disassembly of an engine, accessory or equipage as required to permit inspection of every component part. Component parts that upon inspection will not meet requirements as set forth in applicable specifications are restored or replaced by new parts so that after reassembly and test the engine, accessory or equipage will meet the requirements, as stated above, set forth in the applicable specifications. | MIL-STD-1390B | LEVEL OF REPAIR |
| 633 | OVERHAUL, PARTIAL | | The reconditioning of a subassembly. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 634 | OVERHAUL, TIME CONTROLLED | | The reconditioning in accordance with a plan under which the time histories of individual items are monitored. The monitoring system is used to schedule the removal of items before they exceed a specified time limit. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 635 | PART DESIGN FAILURE | | The failure of parts which can be traced directly to inadequate design. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 636 | PART FAILURE | | A breakdown or a partial change in some parameter or characteristic necessitating replacement of the part to restore satisfactory operation. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 637 | PART FRACTION DEFECTIVE | | The number of defective parts contained in a part population divided by the total number of parts in the population expressed in PPM. | DOD-HDBK-344 | ENVIRONMENTAL STRESS SCREENING OF ELECTRONIC EQUIPMENT |
| 638 | PART MANUFACTURING FAILURE | | Part manufacturing failures are the result of poor workmanship or inadequate manufacturing process control during part assembly, inadequate inspection, or improper testing. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 639 | PART PROCUREMENT TIME | | The time spent by the maintenance man in procuring, or trying to procure, necessary replacement items. | MIL-HDBK-472 | MAINTAINABILITY PREDICTION |
| 640 | PARTIAL MISSION CAPABLE | PMC | Systems and equipment shall be considered PMC when they are safely usable and can perform one or more but not all assigned | DOD-I-7730.25 | MATERIEL CONDITION REPORTING FOR MISSION-ESSENTIAL SYSTEMS |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | missions because one or more of their mission essential subsystems are inoperative for maintenance or supply reasons. This status code is not used for equipment with a single mission, such as ground launch missile systems and Army and Marine Corps ground equipment. The Military Services may further subdivide PMC into maintenance and supply categories. | | |
| 641 | PARTS POOL | | An arrangement whereby participants are entitled to withdraw items from the agreed stock held by any participant. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 642 | PATENT DEFECT | | An inherent or induced weakness which can be detected by inspection, functional test, or other defined means without the need for stress screens. | DOD-HDBK-344 | ENVIRONMENTAL STRESS SCREENING OF ELECTRONIC EQUIPMENT |
| 643 | PATTERN FAILURES | | The occurrence of two or more failures of the same part in identical or equivalent applications when the failures are caused by the same basic failure mechanism and the failures occur at a rate which is inconsistent with the parts predicted failure rate. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 644 | PECULIAR GROUND SUPPORT EQUIPMENT | PGSE | Any system, subsystem, component, or equipment designed and used solely for maintenance task(s) performance on a specified end article of hardware. | MIL-STD-1390B | LEVEL OF REPAIR |
| 645 | PECULIAR SUPPORT EQUIPMENT | PSE | Support equipment which is comptible with only one item. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 646 | PERCENT BIT CANNOT DUPLICATE | CND | % CND = 100 x (Number of BIT CNDs) / (Total number of BIT indications)* *Excludes false alarms that do not generate maintenance actions.A BIT CND is an on-equipment, BIT indication of a malfunction that cannot be confirmed by subsequent troubleshooting by maintenance personnel. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 647 | PERCENT BUILT IN TEST FALSE ALARM | FA | % FA = 100 x (Number of BIT indications not resulting in maintenance actions) / (Total number of BIT indications) A BIT FA is an indication of a failure that is not accompanied by system degradation or failure and, in the opinion of the operator, does not require any maintenance action.NOTE: BIT effectiveness is only one part of overall system diagnostics capability requirements and should be considered in relationship to other factors such as the operations/support concepts, support equipment, technical data, and expected skill levels and availability of personnel. Requirements for BIT effectiveness will be the same for both peacetime and wartime. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 648 | PERCENT BUILT IN TEST FAULT DETECTION | FD | % BIT FD = 100 x (# of confirmed failures detected by BIT) / (# of confirmed failures detected via all methods) Where a confirmed failure is a condition when (1) equipment performance (including BIT performance) is less than that required to perform a satisfactory mission and (2) corrective action is required to restore equipment performance. This formula assumes that a requirement exists for 100 percent diagnostics capability. | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 649 | PERCENT FAULT ISOLATION | FI | In defining this term, it is essential to recognize that it is just as operationally valuable for BIT to fault isolate an aircrew reported fault or manually detected fault as it is for BIT to fault isolate BIT detected faults. Hence the definition is: % FI = 100 x (# of fault isolation in which BIT effectively contributed) / (# of confirmed failures detected via all | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |

| No | Term | Acronym | Definition | Document | Document Name |
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| | | | methods) Effective isolation should be defined, for example, to mean that the fault is unambiguously isolated to a single item node (driver, receiver, connector, wire), or to a specified maximum number of items (an ambiguity group of x items). | | |
| 650 | PERCENT OF ALLOWABLE TIME REALIZED BY AN ITEM | | The ratio of the actual time accumulated by the item since it was last "zero-timed" to the specified time limit - expressed as a percentage. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 651 | PERCENT RETEST OK | RTOK | % RTOK = 100 x (# of units (LRU/SRU) that RTOK at a higher maintenance level) / (# of units removed as a result of BIT) | AFP 57-9 | DEFINING LOGISTICS REQUIREMENTS IN STATEMENT OF OPERATIONAL NEED |
| 652 | PERFORMANCE MONITORING | | Testing technique which results in verifying that a UUT (Unit-Under-Test) is operational and performing its intended function. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 653 | PERIOD, INFANT MORTALITY | | That early period, beginning at zero unit time and during which the failure rate of a family of items can be expected to decrease. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 654 | PERIOD, WEAR OUT FAILURE RATE | | That period during which the failure rate of a family of the items can be expected to increase due to deterioration processes. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 655 | PORTABILITY | | The ability of test procedures to be used by more than one test equipment configuration. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 656 | POTENTIAL FAULT DETECTION | | Same as fault detection except the outputs are such that the good output is "0" or "1" while the fault output is "X" (unknown). | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 657 | POWER PLANT BUILDUP MANUAL | PBM | A manual containing all information necessary to assemble the power plant to the desired configuration from the "Basic Engine." NOTE: ATA Specification No. 100 describes the recommended content of the manual. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 658 | PRECIPITATION (OF DEFECTS) | | The process of transforming a latent defect into a patent defect through the application of stress screens. | DOD-HDBK-344 | ENVIRONMENTAL STRESS SCREENING OF ELECTRONIC EQUIPMENT |
| 659A | PRECISION MEASUREMENT EQUIPMENT | PME | Test and measurement equipment used to measure, calibrate, gauge, test, inspect, diagnose, or otherwise examine material, supplies, and equipment to determine whether they comply with the established specifications. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 659B | PRECISION MEASURING EQUIPMENT | PME | Devices used to measure, gauge, test, inspect, diagnose, or examine material, supplies, and equipment to determine compliance with requirements established in technical documents, for example, Research, Development, Test, and Evaluation (RDT&E) documents, specification, engineering drawings, technical orders, technical manuals, maintenance instructions, and serviceability standards. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 660 | PREDEMONSTRATION PHASE | | A period of time immediately prior to commencement of formal maintainability demonstration during which the test team, facilities, and support material are assembled. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 661A | PREDICTED | | That which is expected at some future date, postulated on analysis of past experience. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 661B | PREDICTED | | That which is expected at some future time, postulated on analysis of past experience and tests. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 661C | PREDICTED | | That which is expected at some future date, postulated on | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| | SURVIVAL | | a given period of time or number of duty cycles, measured by the ratio of the number of survivors at time, t, to the population at the beginning of the period. | | |
| 672 | PROBLEM IDENTIFICATION AND CORRECTION | PIAC | Each Military Service shall have a program for the continuous identification and correction of materiel problems that adversely affect the materiel condition of its systems and equipment. For systems and equipment other than ships, at least the high five problems shall be identified for each TMS/MDS at the subsystem level or below. | DOD-I-7730.25 | MATERIEL CONDITION REPORTING FOR MISSION-ESSENTIAL SYSTEMS |
| 673A | PRODUCER'S RISK | | The producer's risk, $\alpha$, is the probability of rejecting lots with mean life $\Theta_0$. For the procedures of section 2C, part III, the producer's risk may also be defined as the probability of rejecting lots with acceptable proportion of lot failing before specified time, $p_0$. | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY SAMPLING PROCEDURES AND TABLES |
| 673B | PRODUCER'S RISK ($\alpha$) | | Producer's risk ($\alpha$) is the probability of rejecting equipment with a true MTBF equal to the upper test MTBF ($\Theta_{01}$. The probability of rejecting equipment with a true MTBF greater than the upper test MTBF will be less than ($\alpha$). | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 673C | PRODUCERS RELIABILITY RISK (ALPHA) | | The risk of the producers that reliability acceptance test will reject a product when it is acutally equal to or better than a specified value of reliability. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 674 | PRODUCTION RELIABILITY ACCEPTANCE TEST | PRAT | A test conducted under specified conditions, by, or on behalf of the government, using delivered or deliverable production items, to determine the producer's compliance with specified reliability requirements. | MIL-STD-785B | RELIABILITY PROGRAMS FOR SYSTEM AND EQUIPMENT DEVELOPMENT AND PRODUCTION |
| 675 | PROGRAM, ACTUARIAL | | A statistical technique which uses historical data to depict the life expectancy of an item with respect to age. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 676 | PROGRAM, BLOCK MAINTENANCE | | A program which divides major structural inspections and/or maintenance tasks into groups, or blocks, which permit convenient, economical and effective accomplishment. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 677 | PROGRAM, CONTINUOUS MAINTENANCE | | A type of complete maintenance program which is expected to assure continuous availability of the airplane. Under this system the total maintenance effort is apportioned to each of the various and more frequent types of maintenance. NOTE: A complete overhau at one point in time is not a part of a continuous maintenance plan. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 678 | PROGRAM, EQUALIZED MAINTENANCE | | A maintenance program whereby work packages are scheduled for accomplishment in such a manner that the required maintenance manpower will remain relatively constant. Portions of the heavier maintenance tasks are integrated into the lighter, or lesser, maintenance periods so that the workload fluctuations will be minimized. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 679 | PROGRAM, MAINTAINABILITY | | The planning, development and implementation of those organized set of tasks directly related to the specification, assessment/prediction and verification of an item's design characteristics which make it possible to meet operational objectives with a minimum expenditure of maintenance and support effort. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 680 | PROGRAM, MAINTENANCE | | A program which defines a logical sequence of maintenance actions to be performed as events or pieces of a whole which, when performed collectively, result in achievement of the desired maintenance standards. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 681 | PROPORTION OF | | The fraction of the lot that fails before some specified time T, | MIL-HDBK-108 | QUALITY CONTROL AND RELIABILITY |

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| | | | analysis of past experience. | | |
| 662 | PREDICTED MTBF ($\Theta_p$) | | That value of MTBF determined by reliability prediction methods; it is a function of the equipment design and the use environment. ($\Theta_p$) should be equal to or greater than ($\Theta_0$) in value, to ensure with high probability, that the equipment will be accepted during the reliability qualification test. | MIL-STD-781D | RELIABILITY TESTING FOR ENGINEERING DEVELOPMENT, QUALIFICATION & PRODUCTION |
| 663 | PREFERRED ITEM | | One selected under a Department of Defense (DOD) program by which the item is designated for procurement, stock, and issue, but which is not a standard item. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 664 | PRELIMINARY FLIGHT RATING | PFR | The Preliminary Flight Rating (PFR) provides an engine configuration which has demonstrated sufficient flight safety for limited use in experimental flight tests. The PFR is achieved when the tests, demonstrations and analyses of Appendix A have been successfully completed and approved by the Using Service. | MIL-E-005007E(AS) | ENGINES, AIRCRAFT, TURBOJET AND TURBOFAN, GENERAL SPECIFICATION FOR |
| 665A | PREPARATION TIME | | The time spent obtaining, setting up, and calibrating maintenance aids; warming up equipment; etc. | MIL-HDBK-472 | MAINTAINABILITY PREDICTION |
| 665B | PREPARATION TIME | | The portion of active repair time required to obtain necessary test equipment and maintenance manuals, and set up the necessary equipment in prepartion for fault location. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 666A | PREVENTIVE MAINTENANCE | | The care and servicing by personnel for the purpose of maintaining equipment and facilities in satisfactory operating condition by providing for systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects. This definition includes Scheduled Maintenance. | MIL-STD-1388-1A | LOGISTIC SUPPORT ANALYSIS |
| 666B | PREVENTIVE MAINTENANCE | | The actions performed in an attempt to retain an item in a specified condition by providing systematic inspection, detection and prevention of incipient failure. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 666C | PREVENTIVE MAINTENANCE | | The actions performed to retain an item at a specified level of performance by providing systematic inspection, detection, and prevention of impending failures. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 666D | PREVENTIVE MAINTENANCE | PM | The care and servicing needed to maintain aircraft equipment, Support Equipment (SE), and facilities in satisfactory operating condition by providing for systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 667 | PREVENTIVE MAINTENANCE TIME | | That part of the maintenance time during which preventive maintenance is performed on an item. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 668 | PRIMARY MISSION | | For the purpose of maintenance data reporting, the primary purpose for which the aircraft is assigned to the unit (reporting custodian). | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 669 | PROBABILITY OF ACCEPTANCE | | Probability that an item under test will be accepted by that test. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 670 | PROBABILITY OF MISSION SUCCESS | | The likelihood that the weapon system will complete the scheduled mission without experiencing on-equipment failure or performance degradation which would result in an abort or mission deviation. | MIL-STD-1843 USAF | RELIABILITY-CENTERED MAINTENANCE FOR AIRCRAFT, ENGINES & EQUIPMENT |
| 671 | PROBABILITY OF | | The likelihood of an item's performing its intended function for | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |

| No | Term | Acronym | Definition | Document | Document Name |
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| | LOT FAILING BEFORE SPECIFIED TIME | | i.e., $p = 1 - \exp(-T/\theta)$. Where $\theta$ is the mean time to failure per MIL-HDBK-108, definition 1A2.2. | | SAMPLING PROCEDURES AND TABLES |
| 682 | PROVISIONING, INITIAL | | The process by which an airline defines the range and depth of spare parts that are considered as necessary for the support of a forecast maintenance commitment covering the operation of new aircraft and/or aircraft items. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 683 | QUALIFICATION (DEMONSTRATION) TESTS | | Tests performed on items at or above design levels of at least all critical environments. These tests demonstrate that the design specification has been met and that the item as produced by one manufacturer will probably perform the required function for its required life-use cycle, including storage and transportation. Successful completion of this test and other necessary examinations permits this one item from this one source to be included on a qualified Products List. Requalification tests are necessary when any significant change is made in material, design or vendor (manufacturer). | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 684 | QUALITY | | The quality of a device is a measure of the degree to which it conforms to specification and workmanship standards. Its numerical rating is obtained by measuring the percentage defective of a lot or population at a given time. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 685A | QUALITY ASSURANCE | QA | A planned and systematic pattern of all actions necessry to provide adequate confidence that the item or product conforms to established technical requirements. A broad term used to include both quality control and quality engineering. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 685B | QUALITY ASSURANCE | QA | A planned and systematic pattern of all actions necessary to provide adequate confidence that the item or product conforms to established technical requirements. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 686 | QUICK ENGINE CHANGE UNIT | QEC | A maximum neutral engine plus those parts making it peculiar to a particular position on an aircraft. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 687 | R&M ACCOUNTING | | That set of mathematical tasks which establish and allocate quantitative R&M requirements, and predict and measure quantitative R&M achievements. | DOD 5000.40(D) | RELIABILITY & MAINTAINABILITY (P&L) |
| 688 | R&M ENGINEERING | | That set of design, development, and manufacturing tasks by which R&M are achieved. | DOD 5000.40(D) | RELIABILITY & MAINTAINABILITY (P&L) |
| 689 | RATING | | The value of an item parameter which shall be attained under specified conditions. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 690A | REACTION TIME | | That element of uptime needed to initiate a mission, measured from the time command is received. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 690B | REACTION TIME | | The time required to reach full operational capability from secure (equipment off) status following an alert command. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 691 | READOUT | | A device built into the system which monitors, either primarily or incidentally, the operation of some portion of the system. | MIL-HDBK-472 | MAINTAINABILITY PREDICTION |
| 692 | READY TIME | | The period of time during a mission when the item is available for operation, but is not required. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 693A | REASSEMBLY | | Assembling the items that were removed during disassembly and closing the reassembled items. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |

| No | Term | Acronym | Definition | Document | Document Name |
|---|---|---|---|---|---|
| 693B | REASSEMBLY | | A technician task for replacement of items removed to gain access to facilitate repair, and for closing the equipment for return to service. | NAVAIR 01-1A-33 | MAINTAINABILITY ENGINEERING HANDBOOK |
| 694 | RECONDITION | | The work necessary to return an item to the highest standard specified in the relevant manual. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 695 | RECOVERABLE | | Items which may be rehabilitated to a serviceable condition one or more times before scrapping. Rehabilitation is by rework or servicing, such as welding, refinishing, recharging, etc. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 696A | REDUNDANCY | | The existence of more than one means for accomplishing a given function. Each means of accomplishing the function need not necessarily be identical. | MIL-HDBK-338 | ELECTRONIC RELIABILITY DESIGN HANDBOOK |
| 696B | REDUNDANCY | | The existence of more than one means for accomplishing a given function. Each means of accomplishing the function need not necessarily be identical. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 696C | REDUNDANCY | | The existence of more that one means for accomplishing a given function. Each means of accomplishing the function need not necessarily be identical. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 696D | REDUNDANCY | | The existence of more that one means for accomplishing a given function. Each means of accomplishing the function need not necessarily be identical. | OPNAVINST 4790.2D | THE NAVAL AVIATION MAINTENANCE PROGRAM |
| 696E | REDUNDANCY | | The existence of more than one means for accomplishing a given function. Each means of accomplishing the function need not necessarily be identical. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 697A | REDUNDANCY, ACTIVE | | That condition where parallel back-up items are operating simultaneously, rather than being switched on when needed. | MIL-STD-1309C | DEFINITIONS OF TERMS FOR TEST MEASUREMENT AND DIAGNOSTIC EQUIPMENT |
| 697B | REDUNDANCY, ACTIVE | | That redundancy wherein all redundant items are operating simultaneously. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 697C | REDUNDANCY, ACTIVE | | That redundancy wherin all redundant items are operating simultaneously, rather than being switched on when needed. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 697D | REDUNDANCY, ACTIVE | | That redundancy wherein all redundant items are operating simultaneously rather than being activated when needed. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 698A | REDUNDANCY, STANDBY | | That redundancy wherein the alternative means of performing the function is not operating until it is activated upon failure of the primary means of performing the function. | MIL-STD-721C | DEFINITIONS OF TERMS FOR RELIABILITY AND MAINTAINABILITY |
| 698B | REDUNDANCY, STANDBY | | That redundancy wherein the alternative means of performing the function is inoperative until needed. It is switched on upon failure of the primary means of performing the function. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 698C | REDUNDANCY, STANDBY | | That redundancy wherein the alternative means of performing the function is inoperative until needed and is activated upon failure of the primary means of performing the function. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 699 | REFURBISH (ENGINE, MODULE) | | To restore an engine or engine module to ensure that cost effective operation is achieved. | WATOG | WORLD AIRLINES TECHNICAL OPERATIONS GLOSSARY |
| 700 | REJECTION | | Nonacceptance of an item because of its nonconformance to specified requirement. | NAVAIR 01-1A-32 | RELIABILITY ENGINEERING HANDBOOK |
| 701A | RELEVANT | | That which can occur or recur during the operational life of an item inventory. | DOD 5000.40(D) | RELIABILITY & MAINTAINABILITY (P&L) |