

DATA ITEM DESCRIPTION

Title: RELIABILITY CENTERED MAINTENANCE (RCM) TASK DEFINITION REPORT

Number: DI-SESS-80988A

Approval Date: 20100923

AMSC Number: N9171

Limitation: N/A

DTIC Applicable: N/A

GIDEP Applicable: N/A

Office of Primary Responsibility: SH/SEA 04RM

Applicable Forms: N/A

Use/Relationship:

The Reliability Centered maintenance (RCM) Task Definition Report provides detailed procedures of each task such that a decision can be made as to the appropriate maintenance level.

This Data Item Description (DID) contains the format, content, preparation instructions and intended use for the data deliverable resulting from the work task described in 5.1.10 of MIL-STD-3034.

This DID is related to DI-SESS-80979A, RCM Master System and Subsystem Index (MSSI); DI-SESS-80994A, RCM Functional Block Diagram (FBD); DI-SESS-80981A, RCM Functional Failure Analysis(FFA)Report; DI-SESS-80983A, RCM Additional Functionally Significant Item (AFSI) Selection Report; DI-SESS-80982A, RCM Functionally Significant Items (FSI) Index; DI-SESS-80980A, RCM Failure Modes and Effects Analysis (FMEA) Report; DI-SESS-80984A, RCM Logic Tree Analysis (LTA) with Supporting Rationale and Justification Report; DI-SESS-80985A, RCM Servicing and Lubrication Analysis (SLA) Report; DI-SESS-81829, RCM Corrective Maintenance (CM) Development Report; DI-SESS-80989A, RCM Inactive Equipment Maintenance (IEM) Requirement Analysis Report; DI-SESS-80986A, RCM Maintenance Requirements Index (MRI); DI-SESS-80987A, RCM Procedure Validation Report.

This DID supersedes DI-MNTY-80988.

Requirements:

1. Reference documents. The applicable issue of documents cited herein, including approval dates and dates of any applicable amendments, notices, and revisions, shall be as cited in the contract.

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2. Format. This report shall be in Contractor's format and shall be presented in the electronic database specified in the contract.

3. Content. The report shall contain all the information specified in the sample form of Figure 1 of this DID as follows:

3.1 Block 1. ESWBS Number. Duplicate the Expanded Ship Work Breakdown Structure (ESWBS) entry from block 1 of the Maintenance Requirement Index (MRI) form.

3.2 Block 2. Nomenclature. Enter the nomenclature of the item upon which the task is performed from block 2 of the MRI form.

3.3 Block 3. Ship Class. Duplicate Entries from block 3 of the MRI form.

3.4 Block 4. Prepared by. Enter the analyst name and the date.

3.5 Block 5. Reviewed by. Enter the first level reviewer's name and the date.

3.6 Block 6. Approved by. Reserved for the maintenance coordinating activity approval signature and the date.

3.7 Block 7. Revision. Enter Original, A, B, or C, sequentially and the date.

3.8 Block 8. Equipment nomenclature. Enter the nomenclature of the item upon which the task is performed from block 9 of the MRI.

3.9 Block 9. Quantity installed. Enter the installed quantity of the item on which this task must be performed.

3.10 Block 10. Reference. Enter the reference data listed in block 12 of the MRI, as applicable.

3.11 Block 11. Maintenance requirement description (Task). Enter the task(s) from block 10 of the MRI. If applicable, several tasks from the MRI can be combined into a single maintenance requirement description.

3.12 Block 12. Safety Precautions. All required safety precautions shall be included in this block. The first entry in this area shall identify general safety requirement documentation by publication number and volume; for example,

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"Observe standard safety precautions in accordance with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100.19 (Series)." or "Forces afloat comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100.19 (Series); Shore Safety activities comply with Safety Precautions for shore Activities."

a. Additional Warnings. Additional or more specific warnings shall follow when applicable and shall be listed in the order in which they appear in the procedure area.

b. Additional warnings requiring the use of additional personnel. For those actions which require additional personnel because of safety regulations the phrase "Do not work alone" shall be added to the applicable safety precaution; for example: Voltage dangerous to life are present when interlock switch is bypassed. Do not work alone. Appropriate personnel and man-hours must be added when this statement is used.

c. Capitalization required. The first letter of the first word in each safety precaution shall be capitalized, with all other words in lower case, unless capital letters are required for another reason.

d. Submarine applications. When Submarine Safety (SUBSAFE) boundaries are to be violated, comply with current reentry control requirement and the statement, "Ensure compliance with a SUBSAFE reentry control," shall appear in this area. When Scope of Certification items are impacted the statement "Ensure compliance with Scope of Certification requirements" shall appear in this area.

e. Cleaning solvents. Safety precautions shall be listed when cleaning solvents are involved. The following standard safety precaution is to be used at a minimum whenever cleaning solvents are involved: "Avoid prolonged contact with, or inhalation of, cleaning solvents. Avoid use near open flame and provide adequate ventilation." Approved Navy standard messages are listed in the MRC development software.

3.13 Block 13. Periodicity. Enter the periodicity of this task from block 14 of the Maintenance Requirements Index form. Enter a two-segment code; for example, "4416 Q-2", "7211 Q-1", or "2331 R-1". The first segment is the ESWBS/MIP series code which will be provided by the applicable MCA. The second segment is the task periodicity. MRCs applicable to more than one MIP series will have each MIP series entered in this block.

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If more than four MIP series are applicable, reference shall be made to a note. The note shall be numbered and appear in the procedure block to provide the additional information.

3.14 Block 14. Rates. Identify and enter, by rating and rate, the number of persons required to perform the maintenance requirement and the man-hours for each person. Entries in this area shall be made as follows:

- a. The Navy Enlisted Classification (NEC) shall be entered if special skills are required.
- b. When both NEC and rates are important to the task, both shall be included; for example, GM2, with the NEC 0876 listed beneath the rate.
- c. Titles for officers shall be the first entry in the block when applicable; for example, "Damage Control Assistant (DCA)", "Electronic Material Officer (EMO)", "Engineering Officer (Eng. Off.)."
- d. In cases where more than one rating is required, ratings shall be listed after the officers descending by rate within each rating category; for example, "Eng. Off.", "Electrician's Mate First Class (EM1)", and "Machinist's Mate Second Class (MM2)."
- e. When more than one person is required for a particular rate, the appropriate number shall precede the rate; for example, "2 Operations Specialists First Class (OS1)", "2 Sonar Technicians Surface First Class (STG1), and 3 Electronics Technicians Second Class (ET2)." When two or more persons of the same rate are required and their time requirements are not equal, each person shall be listed separately. When additional personnel are required because of safety regulations, the rate and number of such personnel shall also be included.
- f. In cases where either of two similar ratings can be assigned the work on an MRC, both ratings shall be listed and separated by a slash; for example, "Fire Control Technician First Class (FC1)/Electronics Technician First Class (ET1)", "Gunner's Mate Second Class (GM2)/Gunner's Mate Missiles Second Class (GM2)."
- g. MRCs with a calendar periodicity or "R" periodicity shall include the necessary rates to perform the maintenance. Inactive Equipment Maintenance (IEM) procedural MRCs shall also

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include rates. MRCs with a U periodicity shall include rates when so directed by the MCA.

h. Manhours (M/H) (converted to hours and tenths of an hour) shall be entered immediately to the right of each rate in the RATES area. When the M/H figure is less than one hour, a zero shall appear before the tenths of an hour portion; for example, "0.1" and "0.4." When a commissioned officer or warrant officer is required, no M/H shall be assigned for that person.

i. The time entered shall indicate the M/H required for each rate as if they were performing their tasks independently. When two or more of the same rating and rate are required and their time requirements are equal, the M/H will be the sum of their time requirements. When two or more persons of the same rating and rate are required and their requirements are not equal, each person must be listed separately.

j. Equipment warm-up time of 30 minutes or less shall be included in the assigned M/H. Warm-up time in excess of 30 minutes or periods not requiring maintenance technician intervention (i.e. charge batteries for 24 hours) shall not be included unless the maintainer is required for constant observance.

k. "Make ready" or "put away" time shall not be included in this area.

l. When another MRC or procedure is referred to in the procedure area and only a portion of that MRC or procedure is to be accomplished, time required to do that portion shall be included in the M/H of the person accomplishing the task of the subject MRC. However, if the referenced procedure is an entire scheduled related MRC, the M/H of that MRC shall not be included.

3.15 Block 15. Total M/H. Enter the sum of the man-hours from the M/H block.

3.16 Block 16. Elapsed time. The entry in this area shall indicate the elapsed time, in clock hours and tenths of an hour, from start to finish of the maintenance procedure. The time involved for preparation to accomplish the task and cleanup time upon completion shall not be included.

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3.17 Block 17. Tools, parts, materials, test equipment. Enter and number the required test equipment, materials, parts, tools, and miscellaneous requirements, in that order. Each applicable category shall have a heading. Items within the category shall be numbered and identified by the applicable standard PMS Item Name (SPIN) number in brackets. Entries in this area shall be selected from the SPIN and shall be cross-referenced to the standard PMS Materials Identification Guide (SPMIG) when applicable.

a. When identifying items in the TPME block, standardization requirements include:

b. Quantities in excess of one and units of measure shall be enclosed in parentheses following the nomenclature and complete description of the item. For example, "wrench, adjustable 8" (2)", "Baking soda (2 lbs)."

c. Symbols of ", ', ° and % shall be entered for inch, foot, degree, and percent. Fractions shall be typed with the numerator and denominator separated by a slash; for example, "1/2", "1/4", "1/6".

d. The term "equivalent" shall not be used with an item listed in this area. Equivalent items, if authorized, shall be specified as a note in the procedure area.

e. A zero shall be placed before the decimal point when another figure does not precede the decimal. This shall occur even if there is a zero after the decimal point; for example, "wire, non-electrical, 0.041."

f. A national stock number (NSN) shall not be included in (TPME) block. National stock numbers, when authorized, shall be specified as a note in the procedure area.

g. MRCs for nuclear submarine applications shall use the phrase, "approved safety cleaning solvent." For other ship applications, specific cleaners shall be identified. For documentation which will be used for both nuclear submarine and other ships, a double statement shall be used; for example, "nuclear submarines: approved safety cleaning solvent; other ships: approved safety cleaning solvent."

h. When Submarine Safety (SUBSAFE) boundaries are to be violated, comply with current reentry control requirements.

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When Scope of Certification items are impacted, comply with current scope of certification requirements.

i. Only portable and non installed equipment required to perform the maintenance procedure shall be listed in the tools, parts, materials, and test equipment area. Installed equipment required to support the maintenance procedure shall not be listed. This equipment shall be specified in the appropriate procedural step.

j. Each entry shall consist of one item only; for example, if an oiler with MIL-PRF-6086 oil is required, the oiler will be listed under the tool heading, and the oil will be listed under the material heading. If more than one oil is required, the procedural step shall specify which oil is required for that step.

k. In the event that entries in this area must be continued to the second page, the heading information, tools, parts, materials, Test equipment, shall be printed on the second page.

l. In the event that entries are to be preceded by another activity, the entry shall be followed by the phrase, in parentheses and an explanation provided in the note in the procedure area.

m. Non-SPMIG tools, parts, materials, test equipment. Entries in the tools parts, materials, test equipment block not covered by the SPIN or SPMIG, shall be determined and listed as follows:

(1) Electronic and electrical test equipments shall be selected from NAVSEA TMDEI. Test equipment shall be identified by noun name, nomenclature, and SCAT code according to NAVSEA TMDEI. When SCAT codes are not established, identify by noun name, manufacturer, model number, and AEL number, as applicable.

(2) Materials include lubricants, greases, solvents, cleaning agents and other consumables, such as tape, safety tags, or pencils. Lubricants, greases, solvents, and cleaning agents will be identified by Military, Federal, or Navy specification military symbol and the item name.

(3) Repair parts shall be identified by generic name, manufacturer's part number, and the CAGE.

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(4) Special tools and such as gage pieces or thrust bars shall be identified by name, manufacturer's part number, and CAGE.

(5) Common tools shall be identified using the nomenclature format as listed in the alphabetic index of NAVSUP Publication 4400.

(6) Miscellaneous requirements such as MRCs, technical manuals, or forms shall be identified by standard nomenclature or generic name.

(7) When the MRC procedure refers to another MRC or technical manual for a step-by-step procedure, that MRC or technical manual shall be listed.

n. When fabrication of a unique tool is required, specifications for fabrications shall be included in the MRC.

3.18 Block 18. Procedure. This area shall contain step-by-step procedures to accomplish the MR. Illustrations and figures may be added here to enhance understanding of the text.

3.19 Block 19. Ships crew? Enter a "Y" or "N" when signifying a yes or no answer to the question, "can this task be done by the ship's crew without external skills, materials, tools or equipment?"

3.20 Block 20. Level.

a. Enter the lowest maintenance echelon at which this task can be done.

b. Enter the level at which it should be done. Give consideration to organizational workload and class maintenance plan established by MCA.

3.21 Block 21. Location. For ships, enter the compartment number of the space(s) where the item(s) are located. For all other applications, enter nomenclature to uniquely identify item(s) location.

3.22 Block 22. Serial number. Enter a four-segment serial number as follows:

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a. Segment 1 - Enter the developing organization abbreviation followed by a slant (/);

b. Segment 2 - For developers, enter the development authorization number followed by a slant (/); for other development activities assign a development number followed by a slant (/).

c. Segment 3 - Enter the number 124 indicating the task definition followed by a slant (/).

d. Segment 4 - Enter the ESWBS number from paragraph 10.3.2 composed of the item number previously assigned in the analysis followed by a dash (-) and a sequential task number for the item.

4. End of DI-SESS-80988A.

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1.ESWBS NUMBER	2.NOMENCLATURE	3.SHIP CLASS	SH OF
4.PREPARED BY DATE:	5.REVIEWED BY DATE:	6.APPROVED BY DATE:	7.REVISION DATE:
8.EQUIPMENT NOMENCLATURE		9.QTY. INSTALLED	10.REFERENCE MRC
11.MAINTENANCE REQUIREMENT DESCRIPTION (TASK)			13.PERIODICITY
12.SAFETY PRECAUTIONS			14.RATES M/H
			15.TOTAL M/H
			16.ELAPSED TIME
17.TOOLS ,PARTS ,MATERIALS ,TEST EQUIPMENT			
18.PROCEDURE			
19.SHIP'S CREW? (Y/N)		20.LEVEL a. b.	
21.LOCATION		22.SERIAL NUMBER	

FIGURE 1. TASK DEFINITION