

DATA ITEM DESCRIPTION

Title: PLANNED MAINTENANCE SYSTEM (PMS) MAINTENANCE REQUIREMENT CARD (MRC)

Number: DI-PSSS-80991B

AMSC Number: N9673

DTIC Applicable: N/A

Preparing Activity: SH

Applicable Forms: N/A

Approval Date: 20160629

Limitation: N/A

GIDEP Applicable: N/A

Project Number: PSSS-2016-009

Use/Relationship:

The Planned Maintenance System (PMS) Maintenance Requirement Card (MRC) provides detailed procedures for the accomplishment of system, subsystem and equipment maintenance. The MRC also identifies the safety precautions, personnel, tools, parts, materials and test equipment required to accomplish the maintenance task.

This Data Item Description (DID) contains the format, content, preparation instructions and intended use information for the data product resulting from the work task described in paragraph 5.1.12 and Appendix C of MIL-STD-3034A.

This DID is related to DI-PSSS-80985B, Reliability-Centered Maintenance (RCM) Servicing and Lubrication Analysis (SLA) Report; DI-PSSS-80989B, Reliability-Centered Maintenance (RCM) Inactive Equipment Maintenance (IEM) Requirement Analysis Report; DI-PSSS-81829A, Reliability-Centered Maintenance (RCM) Corrective Maintenance (CM) Development Report; DI-PSSS-80986B, Reliability-Centered Maintenance (RCM) Maintenance Requirement Index (MRI); DI-PSSS-80988B, Reliability-Centered Maintenance (RCM) Task Definition Report; DI-PSSS-80987B, Reliability-Centered Maintenance (RCM) Procedure Validation; DI-PSSS-80992B, Planned Maintenance System (PMS) Maintenance Index Page (MIP); DI-PSSS-80993A, Planned Maintenance System (PMS) Quality Assurance Check Sheet.

This DID supersedes DI-SESS-80991A,

Requirements:

1. Reference Documents. The applicable issue of the documents cited herein, including their approval dates and dates of any applicable amendments, notices, and revisions, shall be as specified in the contract.
2. Format. The Planned Maintenance System (PMS) Maintenance Requirement Card (MRC) shall be in a format similar to that of the sample form of Figure 1 of this DID.
3. Content. The PMS MRCs shall contain all the information specified in the sample form of Figure 1 of this DID and as specified in MIL-STD-3034A, paragraph 5.1.12.

DI-PSSS-80991B

3.1 Ship System. Enter the Expanded Ship Work Breakdown Structure (ESWBS) group level 2 nomenclature and number for the functional group containing the item to which the MRC is applicable.

3.2 System. Enter the ESWBS level 3 nomenclature and number for the system containing the item to which the MRC is applicable.

3.3 Subsystem. Enter the ESWBS level 4 nomenclature and number for the subsystem containing the item to which the MRC is applicable.

3.4 Equipment. Enter the ESWBS level 5 nomenclature and the number of the equipment or component to which the MRC is applicable. If the MRC applies to more than 1 sub-grouping of equipment, **e.g.**, the entire subsystem, the entire system, etc., enter the corresponding ESWBS level nomenclature and number as applicable.

3.5 MRC Periodicity Code. Enter the assigned periodicity for the maintenance task. The periodicity delineates how frequently the maintenance requirement must be performed. Reference MIL-STD-3034A Section 5.1.5.8 for periodicity codes.

3.6 Rates. Identify and enter, by rate and rating, the number of persons required to perform the MR. Additional entries in this block shall be included as follows (note IEM exceptions below):

- 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; e.g., GM2, with the NEC 0876 listed beneath the rate. NECs shall not be in parentheses; multiple NECs shall be separated by a slash (/).
- c. Titles for officers shall be the first entry in this block when applicable; e.g., “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; e.g., “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; e.g., “2 Operations Specialists First Class (OS1)”, “2 Sonar Technicians Surface First Class (STG1)”, and “3 Electronics Technicians Second Class (ET2)”. When more than one person 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.

DI-PSSS-80991B

f. In cases where either of two similar rates can be assigned the work on an MRC, both rates shall be listed, separated by a slash; e.g., “Fire Control Technician (FC)/Electronics Technician First Class (ET1)”, “Gunner’s Mate (GM)/Gunner’s Mate Missiles Second Class (GM2)”.

g. IEM reference "pointer MRCs" that do not contain any procedural steps, but only reference other MRC(s), shall include just the highest rate being used to perform all of the referenced MRCs. IEM MRCs that contain any procedural steps, even if they also include reference to other MRCs, shall include only the ratings required to perform the procedural steps.

h. In cases where more than five rate entries are required to perform the MRC, the rates block shall direct the reader to a note.

3.7 Man-hours (M/H). Man-hours (converted to hours and tenths of an hour) shall be entered immediately to the right of each rate in the RATES block. When the M/H figure is less than one hour, a zero shall appear before the tenths of an hour portion; e.g., 0.1 and 0.4. When an officer is required, no M/H shall be entered for that person.

3.7.1 The time entered shall indicate the M/H required for each rate as if they were performing their tasks independently. When more than one 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 more than one person of the same rating and rate are required and their time requirements are not equal, each person shall be listed separately.

3.7.2 Equipment warm-up time of up to 30 minutes shall be included in the assigned M/H block. Warm-up time in excess of 30 minutes, as well as 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.

3.7.3 “Make ready” or “put away” time shall not be included in this block.

3.7.4 When a technical procedure from another document, including another MRC, is the only items referenced in the Procedure block, enter 0.1 man-hours only. If the MRC includes referencing an MRC along with procedural steps, the man-hours of performing the written procedural steps only shall be entered.

3.8 Total M/H. Enter the sum of each entry in man-hours from Section 3.7 of this DID.

3.9 Elapsed Time. The entry in this block 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. The elapsed time entry does not always duplicate the longest entry in the M/H block.

3.10 Maintenance Requirement Description. Each MRC shall have only one MR description. The MR description shall be numbered when entered. The first letter of the first word in the MR description shall be capitalized with all other words in lower case. When authorized

DI-PSSS-80991B

abbreviations or proper nouns are included in the description, they shall be completely capitalized or initially capitalized as appropriate. The MR description shall be a complete sentence (second person imperative) and shall begin with an active verb; e.g., “inspect”, “test”, “calibrate”, “adjust”, “lubricate”, “clean”, “replace”, etc. The description shall be as brief as possible and shall reflect precisely the task required. The description shall identify what is to be performed, leaving descriptions of performance in the Procedure block.

3.11 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 as specified in MIL-STD-3034A, paragraph 5.1.10.2. Also, the first letter of the first word in each safety precaution shall contain a capitalized letter, with all other words in lower case, unless capital letters are required for another reason. IEM MRC Pointer cards without any written procedure do not require any additional safety precautions.

3.11.1 Additional Warnings. Additional, more specific warnings shall follow when applicable and shall be listed in the order in which they appear in the procedure. These warnings shall also immediately precede the applicable step.

3.11.2 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; e.g., “Voltage dangerous to life are present when interlock switch is bypassed. Do not work alone.” Appropriate personnel and man-hours shall be added to the maintenance requirement when this statement is used.

3.11.3 Submarine Applications. When Submarine Safety (SUBSAFE) boundaries are to be violated, the statement “Ensure compliance with SUBSAFE Re-entry Control Procedures of NAVSEA 0924-062-0010 or COMFLTFORCOMINST 4790.3, Volume V, as applicable.” shall appear in this block. When Scope of Certification items are impacted, the statement, “Ensure compliance with DSS-SOC Re-entry Control Procedures of NAVSEA SS800-AG-MAN-010/P-9290 (with the appropriate DSS-SOC Notebook)” shall appear in this area.

3.11.4 Cleaning Solvents. When cleaning solvents are involved, as specified in MIL-STD-3034A Section 5.1.10.2.m.(5), the following standard safety precaution shall appear in this block, “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.

DI-PSSS-80991B

3.12 Tools, Parts, Materials, Test Equipment (TPME). Enter, identify, and numerically list TPME for the following categories as specified in MIL-STD-3034A, paragraph 5.1.10.2.r:

- (a) Test equipment
- (b) Materials
- (c) Parts
- (d) Tools
- (e) Miscellaneous requirements

3.13 Maintenance Procedure. Identify and enter the step-by-step instructions needed to accomplish the MR. When used as a reference "pointer MRC" in the IEM section, identify what MRC's are referenced. Illustrations and figures shall be included, when applicable, to clarify content. Technical writing format considerations for developing Navy PMS procedures shall be as follows (reference MIL-STD-3034A, Appendices C and E):

- a. The language used shall be free of vague and ambiguous terms and shall use the simplest words and phrases that will convey the intended meaning.
- b. Sentence structure shall be short and concise to facilitate understanding and retention of thought. Steps shall be straightforward and simple. Steps with compound clauses shall be converted into sub-steps.
- c. Consistency in choice of words and terminology and organization of material is mandatory.
- d. Steps written shall be in accordance with the technical level qualifications of the rating required to do the task.
- e. Steps written shall be clear enough so that no interpretation of how to perform a procedural step is needed.
- f. Inspection and measurement steps shall clearly specify limits so that a condition can be easily determined to be acceptable or unacceptable.
- g. When extensive punctuation is necessary for clarity, the step(s) shall be rewritten to eliminate that need.
- h. Procedural steps directing removal of e.g, voltage, pressure, etc., shall be explicit concerning the opening and closing of applicable switches and valves. Tag-out action shall be included in the same step in accordance with MIL-STD-3034A Section 5.1.10.2.(s)(8).
- i. All abbreviations and acronyms shall be spelled out when used for the first time.
- j. Names of equipment parts, shall be identified exactly as imprinted on the equipment (switches, handles, and so forth), and the name shall be capitalized in the procedural step.

DI-PSSS-80991B

k. Reference to technical manual procedures shall be avoided, however when approved by MCA, technical manual references shall be identified.

3.14 Notes. Notes shall be used to supply needed information that is not an action step. Excessive verbiage shall be avoided and the note shall be limited to necessary specifics. Notes shall be sequentially numbered if there are more than one. Tolerances and clearances shall not be given as notes but shall be included in the procedural step in which they are observed.

3.15 Maintenance Requirement Cards Having R Periodicity Code. MRCs having an R within the periodicity code shall include notes. The note shall be the first item in the Procedure block and also appear following the requirement on the Maintenance Index Page (MIP). The note shall describe the condition event for which the R code is associated.

3.16 Maintenance Requirement Card Procedural Exceptions. When a block of an MRC is too small to enclose all required entries, insert in parentheses the phrase, “(see Note X)”. In that note, list the entries normally made in the block, and the total M/H and elapsed time entered in their assigned space.

3.17 Date. Leave date blank unless provided by the PMS Coordinating Activity.

3.18 MIP Series. Enter the MIP Series number associated with the MRC.

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

3.20 Page Number. All pages of the MRC shall be identified by completing the entry “Page _ of _” on the bottom of each sheet.

End of DI-PSSS-80991B

DI-PSSS-80991B

DISTRIBUTION STATEMENT D:

Distribution authorized to DOD components and DOD contractors only; Critical Technology; October 2009. Other requests for this document shall be referred to Naval Sea Systems Command (SEA 04RM). Destroy by any method that will prevent disclosure of contents or reconstruction of the document.

Date: October 2009 MIP 0000 MRC: A9 AAAA N Periodicity: M-1
 Series:

Location:**Ship System:****System:****SubSystem:****Equipment:**

Rates	Man- Hours	Rates	Man- Hours	Rates	Man- Hours
-------	---------------	-------	---------------	-------	---------------

Total Man- Hours:	Elapsed Time:				
----------------------	---------------	--	--	--	--

MAINTENANCE REQUIREMENT DESCRIPTION

1. Requirement One

SAFETY PRECAUTIONS

1. Forces afloat comply with NAVOSH Program Manual for Forces Afloat, OPNAVINST 5100.19 series.

TOOLS, PARTS, MATERIALS, TEST EQUIPMENT

None

PROCEDURE

1. Requirement One
 - a. Step 1.a.

SAMPLE FORM - FIGURE 1 - MAINTENANCE REQUIREMENT CARD