

INCH-POUND

MIL-DTL-28999D(MC)

10 February 2020

SUPERSEDING

MIL-DTL-28999C(MC)

6 February 2001

DETAIL SPECIFICATION

PUBLICATIONS, TECHNICAL, INSTRUCTION-TYPE, PREPARATION OF

This specification is approved for use by the United States Marine Corps and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification contains the requirements including, but not limited to, style and format for the preparation of Instruction-Type technical publications (I-Type publications) for Marine Corps in-service equipment/weapons systems.

1.2 Classification. I-Type publications are of the following types, as specified (see 6.1).

1.2.1 Types.

- a. Type I – Modification Instruction (MI)
- b. Type II – Technical Instruction (TI)
- c. Type III – Supply Instruction (SI)
- d. Type IV – Lubrication Instruction (LI)

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE SPECIFICATIONS

MIL-PRF-85337 - Manuals, Technical: Quality Assurance Program; Requirements for

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-38784 - General Style and Format Requirements for Technical Manuals

(Copies of these documents are available online at <https://quicksearch.dla.mil/>.)

Comments, suggestions, or questions on this document should be addressed to Marine Corps Systems Command, 2200 Lester Street, Quantico, VA 22134 ATTN: SEAL-SE-STDs or emailed to USMC_STDZ@usmc.mil. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.dla.mil>.

AMSC N/A

TMSS

DISTRIBUTION STATEMENT A. Approved for public release. Distribution is unlimited.

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2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE ISSUANCES

- | | |
|------------------------|--|
| DOD 5220.22-M | - National Industrial Security Program |
| DoDD 5230.25 | - Withholding of Unclassified Technical Data From Public Disclosure |
| DoDI 2030.08 | - Implementation of Trade Security Controls (TSCs) for Transfers of DoD Personal Property to Parties Outside DoD Control |
| DoDI 5230.24 | - Distribution Statements on Technical Documents |
| DoDM 5200.01, Volume 1 | - DoD Information Security Program: Overview, Classification, and Declassification |
| DoDM 5200.01, Volume 2 | - DoD Information Security Program: Marking of Information |
| DoDM 5200.01, Volume 3 | - DoD Information Security Program: Protection of Classified Information |
| DoDM 5200.01, Volume 4 | - DoD Information Security Program: Controlled Unclassified Information (CUI) |

(Copies of these documents are available online at <http://www.esd.whs.mil/DD/>.)

SECNAV INSTRUCTIONS

- | | |
|--------------------|---|
| SECNAVINST 5510.36 | - Department of the Navy Information Security Program |
|--------------------|---|

(Copies of this document are available online at <https://www.secnav.navy.mil/doni/default.aspx>.)

UNITED STATES MARINE CORPS ISSUANCES

- | | |
|--------------|--|
| MCO 4400.201 | - Management of Property in the Possession of the Marine Corps |
| MCO 4790.2 | - Field-Level Maintenance Management Policy (FLMMP) |
| MCO 5215.17 | - Marine Corps Technical Publications Management |
| MCO 5510.20 | - Disclosure of Military Information to Foreign Governments and Interests |
| MCRP 1-10.2 | - Marine Corps Supplement to the DoD Dictionary of Military and Associated Terms |

(Copies of these documents are available online at <https://www.marines.mil/news/publications>.)

UNITED STATES MARINE CORPS SYSTEMS COMMAND ORDERS

- | | |
|--------------|---|
| MCSCO 4130.2 | - Updating and Reporting Software Configuration for Fleet Maintained System and Equipment |
|--------------|---|

(Copies of this document are available online at <https://mcscviper.usmc.mil/sites/kc/EKC/SitePages/Policy%20by%20Technical%20Area.aspx>.)

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2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

ASME Y14.38 - Abbreviations and Acronyms for Use on Drawings and Related Documents

(Copies of this document are available online at www.asme.org.)

2.4 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 General.

3.1.1 Style and format. Unless otherwise specified herein, the general style and format of I-Type publications shall be in accordance with MIL-STD-38784. Font for all I-Type publications shall be Times New Roman 12.

3.1.1.1 Paragraphs. Paragraphs are referred to as primary side heads, untitled paragraphs, and procedural steps. Paragraphs shall be numbered in accordance with [figure 1](#).

a. Paragraph headings. Paragraph headings (titles) are identified as primary side heads, first subordinate side heads, second subordinate side heads, which will include other subordinate side heads. Acronyms shall not be used in headings. There shall be two spaces between the paragraph number and the title. Periods shall follow paragraph titles, except when the paragraph text does not immediately follow the heading.

b. Primary side heads. Primary side heads shall run in with the text, appear in upper and lower case letters, and shall be underlined.

c. Untitled paragraphs. Untitled paragraphs shall be used when the text material cannot be divided into, or does not warrant the assignment of, subject headings.

d. Procedural steps. Procedural steps shall be used to provide step-by-step instructions, such as disassembly or alignment procedures. Steps may be further divided into sub-steps. Procedural steps and checklist items shall be numbered in accordance with [figure 1](#). Procedural steps should be in blocked text format in accordance with MIL-STD-38784.

3.1.2 National Stock Numbers and Part Numbers. National Stock Numbers (NSNs) and Part Numbers (PNs) shall only be used in the procedures or the narrative portion of the I-Type publication if no other information is available. If NSNs or PNs are used, they shall follow the nomenclature and shall be listed in parentheses.

3.1.3 Level of coverage. The information provided in the I-Type publication shall be directed to the least experienced personnel expected to use it. The reading grade level shall be at the ninth grade level and evaluated in accordance with MIL-STD-38784 (see 6.2).

3.1.3.1 Use of words: shall, will, should, and may. The words “shall” or “will” shall be used to indicate a mandatory requirement. The word “should” shall be used to indicate a nonmandatory desire or preferred method of accomplishment. The word “may” shall be used indicate an acceptable or suggested means of accomplishment.

3.1.3.2 Language. The text shall be concise, accurate, and simple. The simplest words that convey the intended message shall be used.

3.1.3.3 Abbreviations and acronyms. The use of abbreviations and acronyms shall be consistent throughout the I-Type publication but shall be held to a minimum. The first use of abbreviations and acronyms shall be spelled out completely with the abbreviation or acronym in parentheses immediately after the word(s). The use of abbreviations and acronyms shall follow the following criteria (see 6.2):

- a. Technical abbreviations and acronyms shall be in accordance with ASME Y14.38.
- b. Marine Corps unique abbreviations and acronyms shall be in accordance with MCRP 1-10.2.
- c. Any new abbreviations and acronyms shall be approved by the acquiring activity.

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3.1.3.4 Equipment names and nomenclature. Only official names and nomenclature shall be used. Terms, names, and nomenclature shall be used consistently throughout the I-Type publication.

3.1.4 Figures/illustrations and tables. Figures/illustrations and table titles shall be shown in bold and assigned numbers and titles.

3.1.4.1 Figures/illustrations. As specified (see 6.2), figure/illustration titles shall follow two spaces after the figure number and shall be centered below the applicable illustration. The first letter of the first word and of each principal word shall be capitalized. Figure titles should begin with an identifying name. The title shall be short and describe the contents or purpose of the illustration.

3.1.4.2 Tables. As specified (see 6.2), table titles shall follow two spaces after the table number and shall be centered above the applicable table. The first letter of the first word and of each principal word shall be capitalized. The title shall be short and describe the contents or purpose of the table.

3.1.4.3 Warnings, cautions, and notes. Warnings and cautions shall precede the text to which each applies, but notes may precede or follow the applicable text depending on the material to be highlighted. Warnings, cautions, and notes shall not contain procedural steps nor shall they be numbered. When a warning, caution, or note consists of two or more paragraphs, the heading "WARNING", "CAUTION", or "NOTE" (whichever applies) shall not be repeated above each paragraph. If it is necessary to precede a paragraph with both a warning and a note, or a caution and a note, etc., they shall appear in the sequence of their importance, namely, warnings before either cautions or notes, and cautions before notes. [Figure 1](#) illustrates styles. Such inserts in the text shall be short and concise and used only to emphasize highly important, critical instructions.

3.1.5 Referencing. References to other documents and information within the I-Type publication shall be held to a minimum. References shall only be listed in the body of the I-Type publication and shall not be listed above paragraph 1. References made within the I-Type publication shall only include the necessary location data. References shall not be made to other documents unless they are readily available to the user. If reference to other documents is necessary, the reference shall include the document name and publication number. If the entire chapter is applicable, only the chapter number shall be referenced. If the information needed is found in one or more paragraphs, reference to the paragraph number(s) shall be made.

3.1.6 Page number. Page numbers shall appear in the footer area, flush to the left for even-numbered pages and flush to the right for odd-numbered pages. The Publication Control Number (PCN) shall be above the page number on page 1 with no blank space between the PCN and page number. Each blank page shall be assigned a number, but the number shall appear on the preceding page in Marine Corps publications (for example: 3/(4 blank)) in accordance to [figure 1](#).

3.1.7 Appendices. Appendices (see 6.3.1) shall be numbered in accordance with [figure 2](#).

3.1.8 Enclosures. Enclosures (see 6.3.2) shall be numbered in accordance with [figure 3](#).

3.1.8.1 Authenticated or contractor document. The enclosure number shall be inserted above the page number. The publication short title shall be inserted on the first page in the upper right-hand margin. The enclosure number and short title shall appear on the first page only.

3.1.9 Security and safeguarding of information. For classified I-Type publications security classification markings shall be applied in accordance with DoDM 5200.01 volumes 1 through 4. Security requirements shall be determined in accordance with DoDI 2030.08, SECNAVINST 5510.36, MCO 5510.20, and the DD-254 form attached to the contract (see 6.2).

3.1.9.1 Distribution statement markings. Distribution statements shall be applied in accordance with DoDI 5230.24. All I-Type publications shall have a distribution statement placed on the front of each publication. Prior to marking an I-Type publication as Distribution Statement A, the acquiring organization will notify the supplier in writing that the information in the I-Type publication is approved for public release (see 6.2).

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3.1.9.2 Destruction notice. All technical documents marked with Distribution Statements B, C, D, E, or F shall be marked with a destruction notice. Controlled Unclassified Information or For Official Use Only, documents shall be destroyed by any of the means approved for the destruction of classified information or by any other means that would make it difficult to recognize or reconstruct the information. Classified National Security Information shall be destroyed in accordance with DoDM 5200.01, Volume 3 or DoD 5220.22-M (see 6.2).

3.1.9.3 Export control markings. As specified (see 6.2), all I-Type publications detailing maintenance on equipment or other assets under the purview of the Export Control Act as amended (22 U.S.C. 2778 et seq.) and in accordance with DoDD 5230.25 shall be marked with the following export control warning statement:

WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, et seq.) or the Export Administration Act of 1979 (Title 50, U.S.C., App. 2401 et seq.), as amended. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoDD 5230.25.

3.2 Order of presentation. The content of I-Type publications shall be in the order as follows:

- a. Cover/Title Page (see 3.3.1).
- b. Purpose (see 3.3.2.1).
- c. Administrative Instructions (see 3.3.2.2).
- d. Supersedure Notice (see 3.3.2.3).
- e. Time Compliance Period (see 3.3.2.4).
- f. Information (see 3.3.2.5).
- g. Technical Manuals Affected (see 3.3.2.6).
- h. Major Items Affected (see 3.3.2.7).
- i. Components Affected (see 3.3.2.8).
- j. Materiel Affected (see 3.3.2.9).
- k. Special Tools, Jigs, and Fixtures Required (see 3.3.2.10).
- l. Special Instructions (see 3.3.2.11).
- m. Supply Action (see 3.3.2.12).
- n. Skills and Time Required (see 3.3.2.13).
- o. Procedures (see 3.3.2.14).
- p. Recording Instructions (see 3.3.2.15).
- q. Official (see 3.3.2.16).
- r. Authentication (see 3.3.2.17).
- s. Distribution (see 3.3.2.18).

3.3 Content. The content of I-Type publications shall be as specified in 3.3.1 through 3.3.2.18 and shall use the layout as shown in [figure 1](#).

3.3.1 Cover/title page. The general layout of the cover/title page shall be as depicted in [figure 1](#) and shall contain the following:

3.3.1.1 Header information. The Marine Corps emblem shall be in the upper left corner and the Marine Corps Systems Command address shall be in the top center.

3.3.1.2 Category. As specified (see 6.2), the category (URGENT or NORMAL) shall be centered one line below the address. For all I-Type publications, the category and criteria shall be in accordance with MCO 4790.2.

3.3.1.3 Publication short title. The publication short title shall appear on the first page, two lines below the category, right-aligned. On succeeding pages, the publication short title shall appear in the header, left-aligned for even pages and right-aligned for odd pages (see 6.2).

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3.3.1.4 Effective date. The effective date of the publication shall be the last working day of the month the publication is signed (not the date signed). It shall appear on the line beneath the publication short title. The month shall appear in upper/lower case letters.

3.3.1.5 Heading. The standard heading shall identify the type of instruction. This heading shall be centered on the second line beneath the date. The standard heading shall be "U.S. MARINE CORPS <TYPE> INSTRUCTION". The type is defined in 1.2.1.

3.3.1.6 Publication long title. The publication long title shall include the official nomenclature (name of the equipment/item), model number, and a brief descriptor. The title shall not exceed four lines. The title shall be centered vertically and horizontally evenly between the two sets of double lines on the cover page. Acronyms and abbreviations shall not be used.

3.3.1.6.1 Descriptor. The descriptor shall provide a brief explanation of the work or the information being conveyed. Examples of descriptors are included in, but not limited to, [table I](#) (see 6.2).

TABLE I. I-Type descriptors.

Type	Descriptor
I – MI	Modification Instruction
	Installation
	Replacement
	Software Upgrade
	Firmware Upgrade
II – TI	Technical Instruction
	New Procedures
	Pre-Fire Inspection
	Supplemental Technical Instructions
III – SI	Supply Instruction
	Warranty Instructions
	Replacement Instructions
	Warranty and Non-Warranty Repair Procedures
IV – LI	Lubrication Instruction
	Procedures

3.3.1.7 Distribution statement, destruction notice, and export control warning notice. The appropriate distribution statement, destruction notice, and export control warning notice shall be placed in a textbox in the footer section of the cover in accordance with DoDI 5230.24.

3.3.1.8 Appendices and enclosures. Appendices and enclosures, if any, shall be listed below the long title (see 6.2). For definitions see 6.3.

3.3.2 Paragraphs.

NOTE: Paragraph numbers in parenthesis represent the corresponding paragraph numbers in the I-Type template attached as [figure 1](#).

3.3.2.1 Purpose (paragraph 1). This paragraph shall describe the directed action for which the I-Type publication is being developed or information being conveyed. Applicability and limitations shall be included when appropriate, such as serial numbers being affected, percentage of equipment affected, or at commander's discretion, to which the instruction applies.

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3.3.2.1.1 Information. Additional information to expand upon the purpose paragraph shall be used when it is necessary to:

- a. Provide the background of the problem, which the publication is intended to correct.
- b. Identify the source document that directs the publication (examples such as quality deficiency report, beneficial suggestion, and engineering change).
- c. Identify the advantages to be accrued by performing the action required by the publication.
- d. Announce a publication for recording purposes only.

3.3.2.2 Administrative instructions (paragraph 2). This paragraph shall provide the point of contact information, Navy Marine Corps (NAVMC) 10772 submittal for discrepancies or suggested changes for publication, and Operating Forces (Global Combat Support System-Marine Corps [GCSS-MC]) reporting methods for tracking MIs only.

3.3.2.2.1 Point of contact (paragraph 2.a). The following statement shall appear:

For questions or concerns with the content or procedures in this XXXXXXXXX Instruction (XI) contact (enter phone number or section mailbox email).

3.3.2.2.2 Notice of discrepancies (NAVMC 10772) (paragraph 2.b). The following statement shall appear (see 6.2):

Discrepancies or suggested changes for this publication may be reported by submitting a NAVMC 10772. For instructions on how to submit a NAVMC 10772, go to <https://mceits.usmc.mil/sites/pubs/default.aspx> and click on "NAVMC 10772 Submittal." Questions or concerns regarding the NAVMC 10772 program should be reported via email to SMB.LOG.Tech.Pubs.fct@usmc.mil. A response will be provided to you.

3.3.2.2.3 Global Combat Support System-Marine Corps (GCSS-MC) information (paragraph 2.c). For MIs only, the following statement shall appear in the Administrative Instructions:

Operating Forces (GCSS-MC users) will not manually add Modification Instructions (MI) into GCSS-MC Installed Base. Utilize manual reporting methods for tracking until loaded into GCSS-MC.

3.3.2.3 Supersedure notice (paragraph 3). This paragraph shall require the following statement to be added (see 6.2):

SUPERSEDURE NOTICE: This publication supersedes/cancels (insert "short title") dated (insert MONTH YYYY). (If not applicable, this paragraph shall be deleted.)

3.3.2.4 Time compliance period (paragraph 4). Unless otherwise specified (see 6.2), the time compliance period for NORMAL category I-Type publication, beginning with the date of the publication, shall be 1 year. If the time compliance period is NORMAL and has no specified timed completion, this paragraph is not needed and may be deleted. MIs are the only I-Type that shall be marked as URGENT; the modifications are for safety purposes. The stated time to complete shall be made for a period of less than a year with a specified completion date (MIs should not be issued until supply chain is primed). TIs, LIs, and SIs shall not be published as time-restrictive.

3.3.2.5 Information (paragraph 5). This paragraph provides additional information to expand upon the purpose paragraph and shall be used when it is necessary to:

- a. Provide the background of the problem, which the publication is intended to correct.
- b. Identify the source document that directs the publication (example such as a quality deficiency report, beneficial suggestion, and engineering change).
- c. Identify the advantages to be accrued by performing the action required by the publication.
- d. Announce a publication for recording purposes only.

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3.3.2.6 Technical manuals affected (paragraph 6). This paragraph shall identify the technical manual short title in sentence format for any technical publications that will be changed because of the I-Type publication.

NOTE

All software and firmware changes shall use an MI. Some items listed in software and firmware MIs may not contain an NSN, PN, or Commercial and Government Entity (CAGE) for the following paragraphs. If no NSN, PN, or CAGE, use Current Software/Firmware (S/F) Version in place of NSN in accordance with MCSCO 4130.2.

NOTE

If any of the tables continue onto the next page, the column headers must be used on all pages.

3.3.2.7 Major items affected (paragraph 7). This paragraph shall provide a description, in tabular format, of the major items affected by the I-Type publication (see 6.2). Column headings shall be as follows: Description, NSN, Table of Authorized Materiel Control Number (TAMCN), and Item Designator Number (I.D. No). In the event there is more than one I.D. No., the information shall be listed numerically by the I.D. No. Major items affected shall be described by complete, official nomenclature (all caps up to the first comma then first letter capitalization for each word). Acronyms or model numbers shall not be used in place of official nomenclature, but may be placed in parentheses following the official nomenclature. This paragraph shall be formatted in accordance with [figure 1](#).

3.3.2.8 Components affected (paragraph 8). This paragraph shall provide a description of the components affected by the I-Type publication. Components shall be described by complete, official nomenclature. Acronyms or model numbers shall not be used in place of official nomenclature, but may follow the official nomenclature. This paragraph shall be formatted in accordance with [figure 1](#).

3.3.2.9 Materiel affected (paragraph 9). One or more of the following paragraphs shall be used. In the event that only one of the paragraphs below is used, that paragraph heading shall become the primary heading and all other headings shall be deleted (see [figure 1](#).)

3.3.2.9.1 Materiel required (paragraph 9.a). All items necessary to meet the requirements of the publication shall be listed either alphabetically, in the order in which the items are discussed in the text, or by item number. All parts required to perform the tasks set forth in the procedures shall be listed unless a removed part is retained for reinstallation or discarded.

a. Items shall be described by Item Number, Description, NSN, PN, and Quantity (Qty.) as shown in [figure 1](#). If an item has no NSN, the CAGE code shall be centered in parentheses under the PN as shown in [figure 1](#). If no PN and CAGE is assigned, and only as a last resort, item identifying marks or an explanation shall be inserted in the Description and the NSN and PN shall be blank.

b. Items making up a kit shall be listed as a “consisting of” or “includes” beneath the kit description, indented four spaces from the left margin.

c. Dimensions of each item may be listed.

d. Metric equivalents should be included in parentheses after the measurements.

3.3.2.9.2 Materiel discarded (paragraph 9.b). Materiel discarded shall be listed alphabetically or in the order in which the items to be discarded are discussed in the text. Unless special disposal instructions are provided, the phrase “Dispose of discarded materiel in accordance with current Marine Corps directives.” shall be used. Items shall be described by Description, NSN, PN, and Qty. If an item has no NSN, the CAGE shall be centered in parentheses under the PN as shown in [figure 1](#).

3.3.2.9.3 Materiel retained (paragraph 9.c). This paragraph shall describe the materiel retained for reinstallation or repurpose. Items shall be described by Description, NSN, PN, and Qty. If an item has no NSN, the CAGE shall be centered in parentheses under the PN as shown in [figure 1](#).

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3.3.2.9.4 Bulk and consumable materiel (paragraph 9.d). When applicable, a listing of bulk and consumable materiel required to apply the I-Type publication shall be listed either alphabetically or in the order in which the items are discussed in the text. Items shall be described by Description, NSN, PN, and Qty. If an item has no NSN, the CAGE shall be centered in parentheses under the PN as shown in [figure 1](#). (Note: If item numbers are added to materiel discarded, materiel retained, or bulk and consumable materiel, numbers shall be consecutive).

3.3.2.10 Special tools, jigs, and fixtures required (paragraph 10). When applicable, this paragraph shall describe detailed fabrication instructions for any tools, jigs, or fixtures that shall be fabricated to perform the modification, test, or other procedures of the equipment, or to meet the other requirements of the publication. Authorized tool kits need not be listed. One or more of the following paragraphs may be used. In the event only one of the following paragraphs is used, that paragraph heading shall be the primary heading and all other headings shall be deleted.

3.3.2.10.1 Special tools (paragraph 10.a). Special tools are those required as a direct result of the instruction to perform its prescribed procedures. When applicable, special tools shall be listed alphabetically and shall be identified by NSN and PN. If there is no NSN, the CAGE will be centered in parentheses under the PN as shown in [figure 1](#). If any special tool is to be procured by open purchase, the complete identification and address of the manufacturer shall be given (see MCO 4400.201 for more information on special tools.)

3.3.2.10.2 Jigs and fixtures (paragraph 10.b). When applicable, jigs and fixtures required to apply the modification, test procedure, or other procedures shall be listed alphabetically and shall be identified by NSN and PN. If an item has no NSN, the CAGE shall be centered in parentheses under the PN as shown in [figure 1](#).

3.3.2.11 Special instructions (paragraph 11). Any special instructions that are not applicable for other paragraphs in the publication may be given in this paragraph.

3.3.2.12 Supply action (paragraph 12). This paragraph shall give the instructions for procuring materiel, kits, or parts when they differ from established procedures. If the action is to be applied by other than established procedures, this information shall be added in a supply action paragraph.

3.3.2.13 Skill and time required (paragraph 13). This paragraph shall describe the title of the Military Occupational Specialty (MOS) required to perform the modification, test, operational check, or other procedures. MOS shall be defined by the acquiring activity. When applicable, the MOS title may be followed by "or technician with equivalent skills." The time it takes to perform the modification, test, or other action required by the I-Type publication shall be given in hours. If more than one MOS skill is required, the time shall be shown for each. Time requirements of less than 1 hour shall be shown in tenths of an hour (for example, 0.5 hours) as shown in [figure 1](#) (see 6.2).

NOTE

Procedures developed for the MC shall be placed within an I-Type and not developed as an appendix or enclosure.

3.3.2.14 Procedures (paragraph 14). The paragraph title shall coincide with the action it requires. Parts or materiel needed to complete tasks set forth in the procedures shall be identified by item number as shown in materiel required. If no item number has been assigned, the NSN or PN shall be used. Parts or materiel shall not be described by physical characteristics, such as length, thickness, inner and outer dimensions, or weight.

- a. The procedures in an MI shall not include technical, supply, or lubrication instructions.
- b. The procedures in a TI shall be titled in accordance with its contents (for example, action procedures, test procedures, or other procedures). The use of the word "modification" shall be avoided.
- c. The procedures in an SI shall explain technical aspects of supply matters and shall not address data applicable to modification or technical procedures except as it relates to information on acquisition, regulation, or availability. The use of words such as modification, test procedures, installation procedures, or other procedures, shall be avoided except when referencing an MI, TI, or other technical publication unless the publication directs and authorizes the use of the procedures contained in a document published by another military service or a commercial manufacturer.

3.3.2.15 Recording instructions (paragraph 15). For MIs only, the current approved recording instructions shall be used (see I-Type template for correct paragraph). For LIs, SIs, and TIs, the paragraph shall be deleted.

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3.3.2.16 Official (paragraph 16). The paragraph shall appear two lines below the last paragraph and followed by four blank lines (Note: For order of presentation only).

3.3.2.17 Authentication (paragraph 17). The authentication lines shall be in accordance with MCO 5215.17 as shown in [figure 1](#) (Note: For order of presentation only).

3.3.2.18 Distribution (paragraph 18). All I-Type publications shall be EDO (Note: For order of presentation only).

4. VERIFICATION

4.1 Validation. When specified (see 6.2), validation of all procedures shall be conducted by an individual who represents the level of maintenance authorized by the publication to perform said procedure. As specified (see 6.2), the validation shall be certified in writing and submitted to the Government with the completed package assuring content supports the Weapon System per the approved maintenance plan. The Government reserves the right to witness the validation.

4.2 Verification. The verification requirements for I-Types shall be in accordance with MIL-PRF-85337 as specified (see 6.2).

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. MIs, TIs, SIs, and LIs, prepared with the general style and format requirements specified herein in accordance with MIL-STD-38784, are intended for use in the operation and maintenance of equipment/weapons systems that are in military service as follows.

6.1.1 Material. Any material used for development of a MI that affects a baseline change in equipment under configuration management will not be converted into an MI except by means of an approved ECP in accordance with Marine Corps Systems Command Order 4130.1, Configuration Management. Additionally, material for all I-Type technical publications is furnished in the form specified (see 6.2.).

6.1.2 Modification instruction. An MI disseminates the following:

- a. Urgency.
- b. Detailed step-by-step procedures for accomplishment of equipment modifications.
- c. Identifies specific types and items of equipment to be modified as well as the maintenance resources, skills, and time necessary for their accomplishment.
- d. Specifies the authority to perform the modification.
- e. Equipment requiring modification is identified by nomenclature, I.D. No., NSN, and the manufacturer's serial number for individual equipment, when appropriate.
- f. Modification kits, or parts or fabrication materials are identified by NSN and quantity.

6.1.3 Technical instruction. A TI disseminates the following:

- a. Professional techniques and maintenance procedures applied by designated personnel.
- b. Interim or supplementary technical information that later will be incorporated into a permanent technical manual or other document.

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c. Precautions concerning anticipated or developing technical problems and the instructions to published to correct them.

d. Technical details (primarily concerning equipment maintenance) better disseminated by an I-Type publication than by another type of publication or document. For example, details on forms to use, special safety measures, serviceability standards, or other similar type information.

e. Testing and inspection procedures.

6.1.4 Supply instruction. An SI disseminates the following:

a. Supply information on equipment acquisition, regulation, and availability. It explains technical aspects of supply matters but does not provide administrative instructions.

b. Directs and provides instructions for reporting equipment conditions, testing equipment, or requisitioning or disposing of equipment.

c. Directs and provides instructions for securing warranty, repair, and replacement services of equipment.

6.1.5 Lubrication instruction. An LI disseminates the following:

a. Instructions for lubrication of equipment.

b. Types of lubricant used on equipment.

c. Location of lube points on equipment.

d. Lubrication intervals for equipment.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this specification.

b. Level of coverage (see 3.1.3).

c. Abbreviations and acronyms (see 3.1.3.3).

d. Figures/illustrations titles (see 3.1.4.1).

e. Table titles (see 3.1.4.2).

f. Security and safeguarding of information (see 3.1.9).

g. Distribution statement markings (see 3.1.9.1).

h. Destruction notice (3.1.9.2).

i. Export control markings (see 3.1.9.3).

j. Category (i.e., NORMAL, URGENT) of the I-Type technical publication (see 3.3.1.2).

k. Publication short title (see 3.3.1.3).

l. Descriptor (see 3.3.1.6.1).

m. Appendices and Enclosures (see 3.3.1.8).

n. Enclosures (3.3.1.8).

o. Notice of discrepancies (see 3.3.2.2.2).

p. Supersedure notice (see 3.3.2.3).

q. Time compliance period (see 3.3.2.4).

r. Major items affected (see 3.3.2.7).

s. Skill and time required (see 3.3.2.13).

t. Validation and verification requirements (see 4.1 and 4.2).

u. Packaging requirements (see 5.1).

v. Form where material for I-Type technical publications is furnished (see 6.1.1).

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6.3 Definitions.

6.3.1 Appendices. An appendix is a dependent, supplementary element, such as a table or chart that augments an I-Type publication. An appendix expands on the main text and provides further information to assist users in understanding the main text (tables or charts) as supplemental components.

6.3.2 Enclosures. An enclosure is any information developed by the manufacturer or other service that is attached to the publication and is required to complete the directed action. Enclosures may include actual maintenance procedures or supplementary information, such as firing tables.

6.4 Subject term (key word) listing.

Format Procedures, I-Type

I-Type Publications

Lubrication Instruction

Modification Instruction

Supply Instruction

Technical Instruction

6.5 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

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**UNITED STATES MARINE CORPS**

Marine Corps Systems Command
2200 Lester Street
Quantico, VA 22134-6050

NORMAL

XI XXXXXX-XX/X

(Last working day of the month) DD Month YYYY

U. S. MARINE CORPS XXXXXXXXXX INSTRUCTION

LONG TITLE GOES HERE NOT TO GO ALL THE WAY ACROSS
THE PAGE, NOT TO EXCEED 4 LINES (NO ACRONYMS)

Appendix A: Title goes here if applicable

Enclosure (1): Title goes here if applicable.

1. Purpose. To provide instructions for the XXXXXXXXXX. (All second and subsequent lines of a paragraph go back to the left margin. This applies to the entire pub.) (Applicability will be included in this paragraph if required.)

2. Administrative Instructions

a. For concerns/issues with the content/procedures in this XXXXXXXXXX Instruction (XI) contact (enter phone number or section mailbox email).

b. Discrepancies or suggested changes for this publication may be reported by submitting a NAVMC 10772. For instructions on how to submit a NAVMC 10772 go to <http://www.marcorsyscom.marines.mil/Professional-Staff/SEAL/ALPS/> and click on "NAVMC 10772 Submittal." Questions or concerns regarding the NAVMC 10772 program should be reported via email to SMB.LOG.Tech.Pubs.fct@usmc.mil. A response will be provided to you.

c. Operating Forces (GCSS-MC Users) will not manually add MI into GCSS-MC Installed Base. Utilize manual reporting methods for tracking until loaded into GCSS-MC. (For MI's only)

3. Supersedure Notice. This publication supersedes/cancels (insert "short title") dated (insert MONTH YYYY). (If applicable)

4. Time Compliance Period. Only "URGENT" Modification Instructions (MI) must have completion date (insert date) of less than one year. When MI is "NORMAL" the time compliance period is one year unless otherwise indicated and paragraph is omitted. MI should not be issued until supply chain is primed.

DISTRIBUTION STATEMENT (Insert Letter): Add distribution in accordance with DOD Instruction 5230.24, Distribution Statements.

DESTRUCTION NOTICE: Destroy by any method that will prevent disclosure of contents or reconstruction of this document.

PCN XXX XXXXXX XX

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NOTE: Visit <https://mcscviper.usmc.mil/sites/kc/ALPSKC/update/td/SitePages/Technical%20Publications.aspx> or email USMC_STDZ@usmc.mil for the most current I-Type template.

FIGURE 1. Example I-Type template.

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XX XXXXXX-XX/X

5. **Information.** This **XI** contains procedures for **XXXXXXXXXXXX**.

6. **Technical Manuals Affected.** (Indicate all technical publications that will be changed by this document in sentence format. Do not put this list in table format.)

7. **Major Items Affected** (Model numbers cannot be used as a nomenclature.)

<u>Description</u>	<u>NSN</u>	<u>TAMCN</u>	<u>I.D. No.</u>
COMBAT OPERATIONS CENTER, AN/TSQ-239(V)2	5895-01-557-3118	A02717G	11493A
COMBAT OPERATIONS CENTER, AN/TSQ-239(V)3	5895-01-520-4341	A02547G	11032A
COMBAT OPERATIONS CENTER, AN/TSQ-239(V)4	5895-01-520-4360	A02557G	11031A

8. **Components Affected**

<u>Description</u>	<u>NSN</u>	<u>PN</u>
TRAILER ASSEMBLY, Generator, Environmental Control Unit, Tent	(In all tables, if no NSN, add CAGE under PN)	01-P53729E001 (1VPW8)
OR		
TRAILER ASSEMBLY, Generator, Environmental Control Unit, Tent		01-P54301E001 (1VPW8)

9. **Materiel Affected**

a. **Materiel Required**

<u>Item</u>	<u>Description</u>	<u>NSN</u>	<u>PN</u>	<u>Qty</u>
(1)	KIT, Helicopter Sling Load	2590-09-000-7141	2158701	1
	Consisting of:			
(2)	TIE DOWN STRAPS	5975-00-984-6582	MS3367-1-0	4
(3)	CAP, Blank		74024019 (1CSL0)	2
(4)	XXXXXXX, Xxxxxx		0000000 (CAGE)	0

FIGURE 1. Example I-Type template - Continued.

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b. Materiel Discarded. Dispose of discarded materiel in accordance with current Marine Corps directives.

<u>Description</u>	<u>NSN</u>	<u>PN</u>	<u>Qty</u>
SCREW, Cap, Hexagon	5305-00-071-2067	B1821BH050C125N	4
NUT, Self-locking, Hexagon	5310-01-412-1773	12449377-3	6

c. Materiel Retained

<u>Description</u>	<u>NSN</u>	<u>PN</u>	<u>Qty</u>
XXXXX, Xxxx, Xxxx	0000-00-000-0000	000000	0
XXXXX, Xxxxx		000000 (CAGE)	0

d. Bulk and Consumable Materiel

<u>Description</u>	<u>NSN</u>	<u>PN</u>	<u>Qty</u>
XXXXX, Xxxxx	0000-00-000-0000	000000	0
XXXXX, Xxxxx		000000 (CAGE)	0
XXXXX, Xxxxx	0000-00-000-0000	000000	0

10. Special Tools, Jigs, and Fixtures Required

a. Special Tools

<u>Description</u>	<u>NSN</u>	<u>PN</u>	<u>Qty</u>
XXXX, Xxxx, Xxxx	0000-00-000-0000	000000	0
XXXX, Xxxx, Xxxx		000000 (CAGE)	0

b. Jigs and Fixtures

<u>Description</u>	<u>NSN</u>	<u>PN</u>	<u>Qty</u>
XXXXX, Xxxx, Xxxx	0000-00-000-0000	000000	0

11. Special Instructions. (Not required if no special instructions exist. If used, list any special instructions necessary to complete MI).

12. Supply Action. (Not required if no supply actions exist. If used, list any supply information or directions).

FIGURE 1. Example I-Type template - Continued.

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13. Skill and Time Required. (Indicate all MOS's and time required to complete specific action).

14. Procedures

WARNING

WARNINGS CONTAIN FOUR PARTS: WARNING ICON, CONCISE STATEMENT OF THE HAZARD, MINIMUM PRECAUTIONS, AND POSSIBLE RESULTS IF THE WARNING OR CAUTION IS DISREGARDED, UNLESS OBVIOUS. IN CASES WHERE HAZARDOUS MATERIALS ARE BEING USED AND THE CONDITIONS EXIST A HAZARDOUS MATERIAL ICON SHALL BE USED. WARNING HIGHLIGHTS AN ESSENTIAL OPERATING OR MAINTENANCE PROCEDURE, PRACTICE, CONDITION, STATEMENT, ETC., WHICH, IF NOT STRICTLY OBSERVED, COULD RESULT IN LONG TERM HEALTH HAZARDS, INJURY TO, OR DEATH OF PERSONNEL. WARNINGS ARE ALWAYS ALL UPPERCASE. THE HEADER IS UPPERCASE AND BOLD. (THE TEXT OF THE WARNING IS NOT BOLD) THEY APPEAR ABOVE THE PROCEDURE OR STEP IT APPLIES TO. BOTH LEFT AND RIGHT MARGINS FOR WARNINGS WILL BE SET TO 0.25 INCHES. TEXT WILL BE LEFT JUSTIFIED UNLESS IT IS A SINGLE LINE. WARNINGS SHOULD NEVER APPEAR AT THE BOTTOM OF A PAGE.

CAUTION

Caution statements should consist of four parts: a single word or icon, a concise statement of the hazard, minimum precautions, and possible result if the caution is disregarded, unless obvious. A Caution highlights an essential operating or maintenance procedure, practice, condition, statement, etc. which, if not strictly observed, could result in damage to, or destruction of, equipment or loss of mission effectiveness. A Caution should appear above the procedure or step it applies to. The header is always uppercase and bold. The text is sentence case. Both left and right margins for Cautions will be set to 0.25 inches. Text will be left justified unless it is a single line. Cautions should never appear at the bottom of the page.

NOTE

Notes highlight an essential operating or maintenance procedure, condition, or statement. Notes can go before or after the paragraph or procedure they pertain to. The header is always upper case and bold. The text is sentence case. Both left and right margins for Notes will be set to 0.25 inches. Text will be left justified unless it is a single line.

NOTE

Any single line warning, caution, or note is centered on the page.

- a. Separate Barreled Action from the stock IAW TM 05539D-24A&P/2.
- b. Remove Front Bipod Stud and sling from stock, only if it interferes with placement in the vice.

FIGURE 1. Example I-Type template - Continued.

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XX XXXXXX-XX/X

- (1) Locate the center of the forward side flush-cup and mark a line to the top of the stock. Continue this line across the top of the stock. This line is for reference only (see Figure 1).
- (2) Measure 7/8-inch forward of this line and mark or scribe a new line. This line will mark the location of the front of the rail assembly. (See Figure 2.)
 - (a) Place bottom accessory rail upside down on the stock next to the forward line centered with the long axis of the stock. Verify the flush-cup is centered between the front two legs of the rail. Trace the outline of the rail to the stock. Be sure the pattern is centered along the barrel channel and does not cross over outside edge of the green gel-coat of the stock (see Figures 3 and 4).
 - 1 The gel-coat is the hard green "shell" of the stock.
 - 2 The top of the stock edge will be considered the vertical limit. Measure 1/2-inch into the stock from the vertical limit. This will be considered the depth limit.
 - (b) If the rifle sits too high in the stock, a skim-glass may be necessary to readjust the position of the barreled action to allow equal space around the barrel when the rail is added, even with the shim set.
- (3) Installation of Stock Accessory Rail.
 - (a) Cover the inside of the rail, shims, and screws with a light coat of grease or mold-release agent.
 - 1 Mix 5:1 epoxy and catalyst IAW manufacturer's instructions.
 - 2 Fill the mortise with glass.
 - (b) Ensure there is equal clearance between top and bottom of rail and barrel. A maximum of four shims may be used. If more than four shims are needed, lowering the barrel action in the stock is needed by skim-glassing the rifle to reenter the barrel in the stock. (See Figures 5 and 6.)

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FIGURE 1. Example I-Type template - Continued.

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XX XXXXXX-XX/X

15. Recording Instructions. GCSS-MC Recording. Ensure that appropriate records are updated in accordance with MSG # DTG: 141835Z Nov 14 GCSS-MC User Guide. (for MI's only)

(Two (2) blank lines)

16. OFFICIAL

(Four (4) blank lines)

17. NAME OF SIGNING OFFICIAL IN ALL CAPS

Program Manager

18. DISTRIBUTION: EDO

If your document ends on an odd page the page number will be written 5/(6 blank).

FIGURE 1. Example I-Type template - Continued.

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TI XXXXXX-XX/X

APPENDIX A LIMITED TECHNICAL INSPECTION (LTI) XXXXXX/NAME, Specifications (MARINE CORPS USE ONLY)			
1.SCOPE This appendix shows the Marine Corps Limited Technical Inspection (LTI) for the NAME, Specification.			
2.GENERAL This LTI is to be used in conjunction with PMCS in TM XXXXX-XX/X. Local reproduction of this LTI is authorized.			
Date: _____		Inspector: _____	
END ITEM S/N:	TUBE S/N	RFD'S/EFC'S	Cannon S/N
BREECH RING No.	REBUILD DATE	CARRIAGE No.	RECOIL No.
			R _____ / L _____
Condition Codes (CC)	Dead Lining Criteria (DLC)	Defect Codes (D/C)	Corrected By (C/B)
S - Serviceable R - Repairable U - Unserviceable N/A - Non- Applicable	RD - Repairable/ Deadline RN - Repairable/ Non-Deadline	A - Adjust C/D - Corrosion/Dirty Replace L - Lubricate M - Missing R - Repair RP -	O - Operator F - Using Unit Maintainer/IMA D - Depot
For details on each Item see PMCS Section of TM 10407-OI/2			
ITEMS TO CHECK	C/C	DLC	D/C C/B
External surface: Visually inspect the equipment for obvious signs of damage; replace as necessary. Clean the exterior with soap and water. Use a wire brush to remove any buildup of foreign matter in the threads. Clean using rags. Inspect equipment for any loose, damaged or broken parts and replace as necessary			
Fluid pressure: Fluid pressure should be between 150-210 PSI. Check for any leaks or loose items, confirm fluid volume.			_____ PSI

A-1/(A-2 blank)

FIGURE 2. Sample appendix.

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TI XXXXXX-XXX

APPENDIX B Removal From Long Term Storage Maintenance Procedures for the XXXXXX				
			Removal From Long Term Storage Maintenance Procedures for the XXXXXX	
SYSTEM	NUMBER	FREQUENCY	TASK	Comment
Equipment	1	On completion of LTS	Remove all covers and storage equipment	
	2	On completion of LTS	Complete cleaning process, complete removal of all preservative and lubricants from exterior surfaces.	
	3	On completion of LTS	Re-install batteries on equipment.	
	4	On completion of LTS	Perform full quarterly Maintenance per the IETM if equipment has been in storage for 6 months or more.	Quarterly service kit will be required to be ordered for use.
	5	On completion of LTS	Complete Full LTI (including DFCS checks) and ensure equipment is FMC. Verify all pressures and fluid levels are correct.	
	6	On completion of LTS	In storage excess of 365 days; Perform full service test	Performed by MDMC
	7	On completion of LTS	Check maintenance records and complete up to date	Link to maintenance tasks
	8	On completion of LTS	Confirm Users Guide is up to date	Make sure User Guide is up to Date.
OFC	1	On completion of LTS	Verify lights are serviceable and illuminate.	
DFCS	1	Upon hand off	In storage, excess of 365 days, Perform Navigation run prior to issue	Performed by MDMC

B-1/(B-2 blank)

FIGURE 2. Sample appendix - Continued.

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XI XXXXXX-XXX

<p>ROUTINE</p> <p>MWO effective date is (insert date) and completion date is (insert date).</p> <p>MWO X-XXXX-XXX-XX-XX</p> <p>MODIFICATION WORK ORDER</p>
<p>(INSERT NOMENCLATURE)</p> <p>NSN (INSERT NSN) EIC (INSERT EIC)</p>
<p>Commander, U.S. Army Aviation and Missile Lifecycle Management Command Insert MWO date</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p style="text-align: center;">REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS</p> <p>You can help improve this MWO. If you find any mistakes, or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to <i>(insert the address of the acquiring activity)</i>. You may also submit your recommended changes by E-mail directly to <i><(insert e-mail address)></i>. A reply will be provided to you.</p> </div> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <p><u>AVAILABILITY NOTICE</u> – This publication is not available through the St. Louis Media Distribution Division. This publication is available through <i>(insert name and address of the acquiring activity)</i>.</p> <p><u>DISTRIBUTION STATEMENT D</u>. Distribution authorized to the Department of Defense and U.S. DOD contractors only, due to critical technology. This determination was made on 6 Jan 2013. Other request shall be referred to: <i>(insert address)</i>.</p> <p><u>WARNING</u> - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C. Sec. 2751 et seq.) or the Export Administration Act of 1979 (Title 50, U.S.C., App. 2401 et seq.), as amended. Violations of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DOD Directive 5230.25.</p> <p><u>DESTRUCTION NOTICE</u> – Destroy by any method that will prevent disclosure of contents or reconstruction of this document.</p> </div>

Enclosure (1)

1

FIGURE 3. Sample enclosure.

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CONCLUDING MATERIAL

Preparing activity:
Navy – MC
(Project TMSS-2020-002)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.