PERFORMANCE SPECIFICATION
TECHNICAL MANUALS:

REQUIREMENTS FOR PREPARATION OF MODIFICATION WORK ORDERS (MWOs)

This specification is approved for use by the Department of the Army and is available for use by all departments and agencies of the Department of Defense.

Comments, suggestions, or questions on this document should be addressed to: Commander, USAMC Logistics Support Activity, Logistics Engineering Center, ATTN: AMXLS-AP, Redstone Arsenal, AL 35898-7466 or e-mailed to usarmy.redstone.logsa.mbx.tmss@mail.mil. Since contact information can change, you may want to verify the currency of this address using the ASSIST Online database at https://assist.dla.mil/.
1. **SCOPE.** This specification contains the requirements for the preparation of Modification Work Orders (MWOs).

2. **APPLICABLE DOCUMENTS.**

2.1 **General.** The documents listed in this section are specified in section 3 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 documents cited in section 3 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 specification to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

**STANDARDS**

**DEPARTMENT OF DEFENSE**

MIL-STD-40051-1 — Preparation of Digital Technical Information for Interactive Electronic Technical Manuals (IETMs)


(Copies of the above standards are available online at https://assist.dla.mil/.)

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.

AR 25-30 — The Army Publishing Program
AR 95-1 — Flight Regulations
AR 750-10 — Army Modification Program
DA PAM 738-751 — Functional Users Manual for the Army Maintenance Management System-Aviation (TAMMS-A)
TM 55-1500-342-23 — Joint Service Technical Manual for Aircraft Weight and Balance
2.3 **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 style and format.** The general style and format of MWOs shall be in accordance with MIL-STD-40051-2 and this specification. MWO may be developed as an Interactive Electronic MWO. If so, general style and format and look and feel requirements in MIL-STD-40051-1 shall be followed.

3.1.1 **Paragraphs.** Text shall be divided into paragraphs and procedural steps. Procedural steps may be further divided if necessary. Paragraph numbering and formatting as described in 3.1.1.1 and 3.1.1.2 shall be used. See FIGURE 1 for an example.

3.1.1.1 **Primary paragraphs.** Primary paragraphs shall have a title. The sixteen primary titles (see 3.2.2.1) shall be numbered consecutively using Arabic numbers. Primary titles shall be on a separate line and shall be flush left. They shall appear bold and upcased. Primary paragraph text shall begin on the next line immediately below the paragraph title and shall be flush left.
3.1.1.2 **Subordinate paragraphs.** There shall be no more than six levels of subparagraphs. There shall be at least two subparagraphs at any level (e.g., if you have a you must at least have b, if you have (1) you must at least have (2), etc.). Subordinate paragraphs, procedures, and steps shall be numbered and formatted as follows:

a. First level paragraph, shall be numbered and have a title. The number shall be indented under the first word of text in primary paragraph and be lower case alphabetic character(s) followed by a period (e.g., “a.”). The title shall be in title case and shall be bold and shall be followed by a period. The text shall begin on the same line as the title indented two spaces after the period. The text shall have a hanging indent that begins the wrapped text directly under the beginning of the text of the first line. If paragraph numbering extends beyond the letter “z,” numbering shall continue using “aa.,” “ab.,” “ac.,” then go to “ba.,” “bb.,” etc. Should numbering go to double letters, the number position shall be right justified to maintain a consistent indent of the text.

b. Second level paragraph or step shall be numbered with an Arabic number enclosed in parentheses (e.g., “(1)”). The number shall be indented under the first word of the first level subparagraph. A title is optional. If a title is given, the title shall be in title case and shall be bold and shall be followed by a period. The text shall begin on the same line as the title indented two spaces after the period. If no title is given, text shall begin two spaces following the right parenthesis. The paragraph or step shall have a hanging indent that begins the wrapped text directly under the beginning of the text of the first line. For double digit numbering, the number position shall be right justified to maintain a consistent indent of the text.

c. Third level paragraph or step shall be numbered with a lower case alphabetic characters(s) enclosed in parentheses (e.g., “(a)”). The number shall be indented under the first word of the second level subparagraph. A title is optional. If a title is given, the title shall be in title case and shall be bold and shall be followed by a period. The text shall begin on the same line as the title indented two spaces after the period. If no title is given, text shall begin two spaces following the right parenthesis. The paragraph or step shall have a hanging indent that begins the wrapped text directly under the beginning of the text of the first line. The same criteria as for first level numbering shall be used.

Fourth level paragraph or step shall be numbered with an underscored Arabic number followed by a period (e.g., “1.”). The number shall be indented under the first word of the third level subparagraph. A title is optional. If a title is given, the title shall be in title case and shall be bold and shall be followed by a period. The text shall begin on the same line as the title indented two spaces after the period. If no title is given, text shall begin two spaces following the period. The paragraph or step shall have a hanging indent that begins the wrapped text directly under the beginning of the text of the first line. The same criteria as for second level numbering shall be used.
d. Fifth level paragraph or step shall be numbered with an underscored lower case alphabetic character(s) followed by a period (e.g., “a.”). The number shall be indented under the first word of the fourth level subparagraph. A title is optional. If a title is given, the title shall be in title case and shall be bold and shall be followed by a period. The text shall begin on the same line as the title indented two spaces after the period. If no title is given, text shall begin two spaces following the period. The paragraph or step shall have a hanging indent that begins the wrapped text directly under the beginning of the text of the first line. The same criteria as for first level numbering shall be used.

e. Sixth level paragraph or step shall be numbered with a lower case roman numeral followed by a period (e.g., “i.”). The number shall be indented under the first word of the fifth level subparagraph. A title is optional. If a title is given, the title shall be in title case and shall be bold and shall be followed by a period. The text shall begin on the same line as the title indented two spaces after the period. If no title is given, text shall begin two spaces following the period. The paragraph or step shall have a hanging indent that begins the wrapped text directly under the beginning of the text of the first line. Should numbering go to double lower case roman numerals, the number position shall be right justified to maintain a consistent indent of the text.

3.1.2 Figure and table. All figures and tables shall be numbered, formatted, and titled. The requirements for numbering and placement of numbers and titles in MIL-STD-40051-2 shall be followed.

3.2 Content. The structure of the MWO shall include front matter, specific paragraphs, optional appendix(es), and rear matter. The content of an MWO shall be as described in the following paragraphs.

3.2.1 Front matter. Unless otherwise specified by the acquiring activity (see 6.2), the front matter shall consist of the information as described in the following paragraphs.

3.2.1.1 Cover/title page <frntcover>. The front cover/title page shall contain the following information as described in paragraphs 3.2.1.1 through 3.2.1.16 and shall use the layout as shown in FIGURE 2 through FIGURE 6:

   a. Security classification (Classified MWOs only)
   b. MWO Priority
   c. MWO Effective Date/Completion Date Statement
   d. MWO Number
   e. MWO Title
   f. National Stock Number (NSN)
   g. End Item Code (EIC), if applicable
   h. Service nomenclature
   i. MWO Date
   j. Reporting of Errors and Recommending Improvements
   k. Availability Notice (Command Authenticated MWOs only)
   l. Distribution Statement
   m. Export Control Warning
3.2.1.1.1 **Security Classification.** For classified MWOs, the security classification shall be marked in accordance with DODM 5200.01 volumes 1-4.

3.2.1.1.2 **MWO Priority.** For all MWOs, the front cover/title page shall contain one of the following 3 priorities as defined in AR 750-10:
   a. Routine
   b. Urgent
   c. Emergency

3.2.1.1.3 **MWO Effective Date/Completion Date Statement.** For all MWOs, the front cover/title page shall contain the following statement reflecting the effective date of the MWO and the required completion date for the MWO:
   
   "MWO effective date is (insert date) and the completion date is (insert date)."

3.2.1.1.4 **MWO Number (<tmno>).** For all MWOs, the front cover/title page shall contain the MWO number. The MWO number shall be constructed in accordance with AR 25-30/DA PAM 25-40 and shall be provided by the acquiring activity (see 6.2b).

3.2.1.1.5 **MWO Title.** For all MWOs, the front cover/title page shall contain the MWO title which shall consist of the words "MODIFICATION WORK ORDER" followed by the system nomenclature for the system being modified.

3.2.1.1.6 **National Stock Number (NSN).** For all MWOs, the front cover/title page shall contain the NSN for the system being modified.

3.2.1.1.7 **End Item Code (EIC).** For all MWOs, the front cover/title page shall contain the EIC for the system being modified if the system being modified is an end item and an EIC has been assigned.

3.2.1.1.8 **Service nomenclature.** For all MWOs, the front cover/title page shall contain one of the following two service nomenclature statements:
   a. For DA-Authenticated MWOs, the following authentication statement shall be included on the front cover/title page (see FIGURE 5 for example):
      "HEADQUARTERS, DEPARTMENT OF THE ARMY"
   b. For Command-Authenticated MWOs, the following authentication statement shall be included on the front cover/title page (see FIGURES 2-4 for examples):
      "(Insert title of organization head, e.g., COMMANDER), (Insert name of organization)"

3.2.1.1.9 **MWO Date.** For all MWOs, the front cover/title page shall contain the publication date of the MWO.

3.2.1.1.10 **Reporting errors and recommending improvements.** Every MWO shall contain a reporting of errors statement taken from one of those listed in 3.2.1.1.10.1 or 3.2.1.1.10.2.

3.2.1.1.10.1 **Reporting errors and recommending improvements in ROUTINE MWOs (<reporting>).** The following boxed statement, placed immediately below the date of the MWO, shall be included in all ROUTINE MWOs (see 6.2d):
REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS
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 (insert the address of the acquiring activity). You may also submit your recommended changes by E-mail directly to <(insert e-mail address)>. You may also submit your recommended changes at the following Web site <(insert appropriate URL)>.

A reply will be furnished to you.

3.2.1.1.10.2 Reporting errors and recommending improvements in URGENT and EMERGENCY MWOs <reporting>. In case of URGENT or EMERGENCY MWOs, the following boxed statement shall be used (see 6.2d):

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS
You can help improve this MWO. If you find any technical errors that could cause personal injury or damage to materiel, please let us know. Contact (insert the name of the acquiring activity) and report the needed corrections by telephoning DSN (insert number) or Commercial (insert area code and number). Additionally, complete a DA Form 2028, Recommended Changes to Publications and Blank Forms, and mail to (insert the address of the acquiring activity) or e-mail to (insert e-mail address). You may also submit your recommended changes at the following Web site <(insert appropriate URL)>.

A reply will be furnished to you.

3.2.1.1.11 Availability statement <avail> (Command-Authenticated MWOs only). For all command-authenticated MWOs used only in depot level maintenance, the front cover shall contain the following availability statement:

“This publication is not available through the St. Louis Media Distribution Division.
This publication is available through (insert the name and address of the acquiring activity)”

3.2.1.1.12 Distribution statement <dist>. All MWOs shall contain a distribution statement. Distribution statement requirements are contained in DOD Instruction 5230.24.

3.2.1.1.13 Export control warning notice <export>. All MWOs detailing modifications to equipment or other assets under the purview of the Export Control Act as amended (22 U.S.C. 2778 et seq.) and meeting the requirements of DOD Directive 5230.25 shall contain the following export control notice.

“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 DOD Directive 5230.25.”
3.2.1.14 **Destruction Notice** `<destr>`: All MWOs with a distribution statement “B” through “F” or “X” shall contain the following destruction notice:

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

3.2.1.15 **Copyright notice** `<copyrt>`: MWOs should not contain copyrighted information. If copyrighted material is included in an MWO, a copyright notice shall be placed on the front cover/title page of the MWO, immediately following the distribution statement, export warning control statement, or destruction notice, whichever is last. If copyrighted material is used, the MWO acquiring activity shall maintain a record of release from the copyright owner.

3.2.1.16 **Supersedeur Notice**. MWOs should not usually be revised. However, in the event a revision is necessary, an asterisk shall be placed to the left of the MWO number and the following supersession notice shall be included after any other notices on the front cover/title page of the MWO (see FIGURE 6 for example):

"SUPERSEDURE NOTICE: This MWO supersedes MWO (insert number) dated (insert date) with an effective date of (insert date) and a completion date of (insert date)."

3.2.2 **MWO body.**

3.2.2.1 **Text.** The technical data required for the MWO shall be contained in the following standard titled paragraphs. These paragraphs shall be numbered consecutively and presented in the sequence prescribed herein. The words “Not applicable” shall follow each standard paragraph title when the technical data is not required.

a. **Purpose** `<purpose>`
b. **Priority** `<priority>`
c. **End item(s) or system(s) to be modified** `<end_item_modify>`
d. **Module(s), (components, assemblies, subassemblies, boards, and cards) to be modified** `<assem_modify>`
e. **Part(s) to be modified** `<part_modify>`
f. **Application** `<application>`
g. **Technical publications affected/changed** `<changed_pubs>`
h. **MWO kit(s)/part(s) and their disposition** `<mwo_components>`
i. **Special tools; tool kits; jigs; test, measurement, and diagnostic equipment (TMDE); and fixtures required** `<special_tools>`

j. **Modification procedures** `<mod_procedures>`
k. **Calibration requirements** `<calibration_info>`
l. **Weight and balance data** `<wt_bal>`
m. **Quality assurance requirement** `<qa_requirement>`

n. **Recording and reporting of the modification** `<report_mod>`
o. **Materiel change number (MCN)** `<mc_number>`
p. **Modification identification** `<mod_id>`
3.2.2.2 Content of standard paragraphs. The content of the standard titled paragraphs shall be as described in the following paragraphs.

3.2.2.2.1 Paragraph 1 – Purpose <purpose>. This paragraph shall contain a brief explanation as to the purpose of the modification; e.g., what the modification will accomplish and how it will benefit the user.

3.2.2.2.2 Paragraph 2 – Priority <priority>. This paragraph shall contain one of the following statements as selected and specified by the acquiring activity (see 6.2e):

a. “This modification is classified ROUTINE.”

b. “This modification is classified URGENT as a result of a Safety of Use/Flight Message (cite message reference). Operating restrictions provided therein remain in effect until this modification is applied.”

c. “This modification is classified EMERGENCY as a result of an Emergency Safety of Use/Flight Message (cite message reference). The equipment is deadlined/grounded. The restriction remains in effect until this modification is applied.”

3.2.2.2.3 Paragraph 3 – End item(s) or system(s) to be modified <end_item_modify>. This paragraph shall contain information to identify the end item(s) or system(s) to be modified. This information shall be presented in tabular format, whenever practicable and shall include, but is not limited to, the nomenclature, the line item number (LIN), national stock number (NSN), part number, commercial and government entity codes (CAGECs), type or model number, and serial number(s) or serial number ranges of the end item(s) or system(s) to be modified. When a large number of units are to be modified and the exempt number of units is small, the serial numbers of the exceptions may be listed rather than the serial numbers of the units to be modified.

3.2.2.2.4 Paragraph 4 – Module(s) (components, assemblies, subassemblies, boards, and cards) to be modified <assem_modify>. This paragraph shall begin with the following statement: “The following items, whether installed or in PLL/ASL or depot stock, shall be modified.” This paragraph shall contain a tabular listing of items to be modified, identified by nomenclature, NSN, CAGEC, part number, and where applicable, by serial number(s) or ranges of serial numbers.

3.2.2.2.5 Paragraph 5 – Part(s) to be modified <part_modify>. This paragraph shall begin with this statement: “The following item(s), whether installed or in PLL/ASL or depot stock, shall be modified. Stocked parts shall be modified before issue and shall be marked so that it can be easily determined that modification has been accomplished.” This paragraph shall include a tabular listing of items to be modified, including item identification by nomenclature, NSN, CAGEC, part number, and, where applicable, by serial number(s) or range(s) of serial numbers.

3.2.2.2.6 Paragraph 6 – Application <application>. This paragraph shall include:

a. The following time compliance statement: “Time compliance schedule: MWO effective date is (insert date) and completion date is (insert date) <compliance_dates>.” The same MWO effective date/completion date statement shall be printed on the cover/title page of the MWO (see 6.2g). For examples, see FIGURES 2-6.

b. A level of maintenance statement indicating the lowest level of maintenance authorized to apply the MWO (see 6.2h) <maintlvl>.
c. Work force and man-hour requirements for application of the MWO to a single unit, end item, or system <work_hours_required> (see 6.2i). Workforce/skill requirements shall be listed by title/nomenclature and if applicable, Military Occupational Specialty (MOS). A sample computation and format for the presentation of this information is shown in FIGURE 7.

d. A listing of MWOs that must be applied before or concurrently with the application of this MWO <other_mwos_required>. This listing shall include MWOs required for other end items, systems, and TMDE that impact this MWO.

e. Any other information deemed necessary to assist in the application of the MWO <other_information>.

3.2.2.2.7 Paragraph 7 – Technical publications affected/changed <changed_pubs>. This paragraph shall list, by publication number and date (including changes and their dates), all the technical publications (i.e., Technical Manuals (TM), Depot Maintenance Work Requirements (DMWR), Field Manuals (FM), etc.) that have been or are being changed as a result of this MWO.

3.2.2.2.8 Paragraph 8 – MWO kit(s)/part(s) and their disposition <mwo_components>. This paragraph shall contain general information as to MWO kits, parts, and bulk material needed to apply the MWO and shall specifically address the following:

a. Kit(s)/part(s) needed to apply the MWO <kits_needed>. All kits needed to apply the MWO shall be listed and identified by NSN, nomenclature, CAGEC, and part number. Additionally, security classification of the MWO kit along with shipping data; e.g., weight, dimensions, and cubic displacement; shall be provided.

b. Contents of the MWO kit(s) <kit_contents>. Complete contents of each MWO kit shall be listed and shall provide the nomenclature, NSN, CAGEC, part number, and the quantity of each item needed for the modification. This data may be provided in a tabular format and shall include the appropriate figure numbers for each item listed when illustrations are used to clarify the MWO kit contents information.

c. Bulk and expendable material <bulk-expendable_material>. When applicable, a listing shall be provided of all bulk and expendable material needed to apply the MWO. The listing may be presented in a tabular format and shall include information as to the nomenclature, NSN, CAGEC, part number, and the quantity of the material needed to accomplish a single MWO application.

d. Parts disposition <parts_disposition>. Instructions shall be provided and shall cover the disposition of replaced/removed parts/components and those items in excess of the requirements for the completion of the MWO (see 6.2j).

e. Mandatory replacement parts <mandatory_replacement>. When applicable, this paragraph shall contain a list of parts that must be replaced during the modification.

f. NSNs. If any item will never have an NSN assigned “NA” shall be put in the NSN column in lieu of the NSN. All other information shall be listed.
3.2.2.2.9 **Paragraph 9 – Special tools; tool kits; jigs; test, measurement, and diagnostic equipment (TMDE); and fixtures required.** This paragraph shall contain a list of tool kits, special tools, jigs, fixtures, and TMDE, including associated test program sets and software that are required for the application of the MWO. This listing shall identify the item(s) by nomenclature, NSN, CAGEC, part number, and quantity. When applicable, this paragraph shall contain instructions for the disposition of the special tools, tool kits, jigs, TMDE, and fixtures after application of the MWO. For abbreviated MWOs, this paragraph shall contain just a reference to the applicable DMWR/NMWR, engineering drawings, and other technical data. See paragraph 3.2.5.

3.2.2.2.10 **Paragraph 10 – Modification procedures.** This paragraph shall provide instructions for the application of the MWO. Instructions for disassembly/assembly of the end item/assembly/system to be modified shall be provided by referencing appropriate TMs or DMWRs. Instructions for complex procedures may be included in an appendix when a standalone document is necessary for the expeditious accomplishment of the modification (see 6.2k). Illustrations shall provide adequate detail to support the written procedures. Illustration callouts shall be assigned and referenced as prescribed in MIL-STD-40051-2. Additionally, the modification procedures paragraph shall provide the following information:

a. Include instructions for operational checks before application and upon completion of the entire MWO or portion of the MWO. Instructions for operational checks shall be provided in the text or by reference to appropriate TM(s) and shall include values of all pertinent performance characteristics and tolerances.

b. When parts are to be removed and not used in reassembly, the procedures shall state “Remove and set aside for disposition per para 8.” The term “discard” shall not be used in the modification procedures.

c. When there are Item Unique Identification (IUID) markings used on the equipment being modified, any procedures for adding, changing, or preserving these markings shall be included in the modification procedures.

d. Include any instructions for verifying correct application of the modification and operability of the modified equipment.

For abbreviated MWOs, this paragraph shall contain just a reference to the applicable DMWR/NMWR, engineering drawings, and other technical data. See paragraph 3.2.5.

3.2.2.2.11 **Paragraph 11 – Calibration requirements.** This paragraph shall identify all calibration requirements upon completion of the MWO and shall reference the appropriate publications prescribing the calibration procedures and schedules. The level of required calibration support shall be specified for each separate calibration action and affected item(s) shall be identified by nomenclature and NSN. For abbreviated MWOs, this paragraph shall contain just a reference to the applicable DMWR/NMWR, engineering drawings, and other technical data. See paragraph 3.2.5.

3.2.2.2.12 **Paragraph 12 – Weight and balance data.** This paragraph shall contain the following information as applicable:

a. This paragraph shall include instructions for updating the weight and balance records. Specific guidance on weight and balance data is contained in TM 55-1500-342-23.
b. When weight and balance gross change made is negligible, this paragraph shall contain the following statement: “Weight and balance are not significantly affected.” Engineering services are available per AR 95-1 for determining negligible changes.

c. Instructions for verifying weight and balance data shall be included. Instructions should include weighing the equipment after modification is complete to verify actual weights and measuring to determine accurate center of gravity (longitudinal arm). Verification of lateral and vertical center of gravity may be needed in some applications.

3.2.2.2.13 Paragraph 13 – Quality assurance requirements <qa_requirement>. This paragraph shall contain information as to the quality assurance techniques and methods necessary to ensure proper application of the MWO. General quality assurance criteria cited shall be in accordance with TM 750-245-4. For abbreviated MWOs, this paragraph shall contain just a reference to the applicable DMWR/NMWR, engineering drawings, and other technical data. See paragraph 3.2.5.

3.2.2.2.14 Paragraph 14 – Recording and reporting of the modification <report_mod>. This paragraph shall contain the following information:

a. Records and reports <records_reports>. Detailed recording and reporting procedures shall be provided by referencing AR 750-10 and if necessary, DA Pamphlet 750-8 or DA Pamphlet 738-751. AR 750-10 contains the mandatory reporting/recording requirements for MWO applications. DA PAM 750-8 and DA PAM 738-751 contain the general reporting/recording requirements and provide detailed instructions for the completion of the various maintenance historical records.

b. Marking equipment <equipment_marking>. Specific instructions shall be provided for marking the modified item(s) to facilitate MWO application identification.

c. Identification data <identification_data>. When the modification results in a change in LIN, NSN, and model designation, information shall be provided about the nomenclature, LIN, model number, CAGEC, part number, and NSN changes on each affected item (end item, system, assembly, component, or part). This data may be presented in the following format:

<table>
<thead>
<tr>
<th>Nomenclature</th>
<th>Before Modification</th>
<th>After Modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAGEC/Part No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Nomenclature</th>
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<tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>CAGEC/Part No.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSN</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2.2.2.15 Paragraph 15 – Materiel Change Number (MCN) <mc_number>. This paragraph shall contain the following statement: “This MWO is authorized by materiel change number (insert complete MCN).” The MCN shall be provided by the acquiring activity (see 6.2l).
3.2.2.16 **Paragraph 16 – Modification identification** <mod_id>. This paragraph shall contain a narrative description and supporting illustration(s) of the completed modification to aid in physical inspection of the materiel to verify the modification has been completed.

3.2.3 **Appendixes** <appendix>. When specified by the acquiring activity (see 6.2), complex modification procedures may be included in an appendix. When used, the appendix(es) shall follow the modification identification paragraph. Each appendix shall consist of the following:

a. Appendix title
b. Task title
c. Setup
d. Procedures

3.2.4 **Rear matter** <mwo_rear>.

3.2.4.1 **DA Form 2028** <da2028>. When specified by the acquiring activity, one filled-out sample copy of a DA Form 2028, provided by the acquiring activity, and a minimum of three blank DA Forms 2028 with the respective TM number, date, and title shall be included.

3.2.4.2 **Authentication** <authent>. All MWOs shall have an authentication block. An MWO shall be DA-authenticated if field level personnel will apply it. MWOs applied by someone other than field level personnel (e.g., depot, contractor, command level, etc.) shall be command authenticated. See FIGURE 8 for examples of authentication blocks.

3.2.4.3 **Foldout section** <foldsect>. If the MWO contains foldouts, they shall be placed at the end of the MWO before the back cover and after everything else.

3.2.5 **Abbreviated MWO (Short Form)** (Command-Authenticated MWOs only). When specified by the acquiring activity, the MWO shall be prepared in an abbreviated format. In an abbreviated MWO, the requirements of 3.2.2.2.9, 3.2.2.2.10, 3.2.2.2.11, and 3.2.2.2.13 shall be satisfied by referencing the appropriate portion(s) of the applicable DMWR (see 6.3.3), engineering drawings, and other technical data. Additionally, 3.2.2.2.6 shall be abbreviated to include only the time compliance schedule, the level of maintenance information, and work force and man-hour requirements.

4. **VERIFICATION.**

4.1 **Verification.** The validation and/or verification requirements for the MWO shall be in accordance with the statement of work and as specified by the acquiring activity (see 6.2m).

5. **PACKAGING.**

5.1 **Packaging.** For acquisition purposes, the packaging requirements shall be specified in the contract or order (see 6.2o). 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. MWOs are to be used as an authenticated and uniform means of providing instructions for modification of materiel.

6.2 Acquisition requirements. Acquisition documents should specify the following:
   a. Title, number, and date of this specification.
   b. Title and number of the MWO (3.2.1.1, 3.2.1.1.4, 3.2.1.1.5).
   c. Distribution Statement (3.2.1.1.12).
   d. Reporting errors and recommending improvements (3.2.1.1.10.1, 3.2.1.1.10.2).
   e. MWO priority classification (3.2.1.1.2, 3.2.2.2.2).
   f. Whether items are to be shown in tabular form or in narrative text (3.2.2.2.3, 3.2.2.2.8b).
   g. Time compliance schedule information (3.2.2.2.6a).
   h. Level of maintenance information (3.2.2.2.6b).
   i. Workforce and man-hour information (3.2.2.2.6c).
   j. Parts disposition information (3.2.2.2.8).
   k. Separate modification procedures appendix (3.2.2.2.10).
   l. Materiel Change number (MCN) (3.2.2.2.15).
   m. Abbreviated MWO (3.2.5).
   n. Verification requirements (4.1).
   o. Packaging requirements (5.1).
   p. Content/Format Selection Summary (Appendix A of this document).

6.2.1 Technical Manuals (TMs). The requirement for TMs should be considered when this specification is applied on contract. If TMs are required, specifications and standards that have been authorized and assigned an Acquisitions Management Systems Control (AMSC) number must be listed on a separate Contract Data Requirements List (DD Form 1423), which is included as an exhibit to the contract. The TMs must be acquired under separate contract line item in the contract.

6.2.2 Document Type Definition (DTD). Appendix B, DTD Use and Access, provides information on the use of the MWO DTD and how to access it.

6.3 Definitions.

6.3.1 Abbreviated MWO (Short Form). This is a command-authenticated Army publication that is used for reporting configuration and fiscal accounting procedures. An abbreviated MWO is used in lieu of a fully scripted MWO for situations where other documents adequately describe the work to be done and the modification is performed only by a depot, contractor, or command team (see 3.2.5).

6.3.2 Acquiring Activity. An element of an agency designated by the agency head and delegated broad authority regarding acquisition functions.
6.3.3 **Depot Maintenance Work Requirement (DMWR).** A maintenance serviceability standard for depot maintenance operations. It prescribes the following: scope of work to be performed on an item by organic depot maintenance facilities or contractors; types and kinds of materiel to be used; quality of workmanship; repair method; procedures and techniques; modification requirements; fits and tolerances; equipment performance parameters to be achieved; quality assurance discipline; and other essential factors which ensure that an acceptable and cost-effective product is obtained.

6.3.4 **Emergency.** Emergency is the highest priority in the modification program. Affected materiel is deadlined/grounded by an Emergency Safety of Use/Flight Message. The materiel remains deadlined/grounded until the modification is applied. (Refer to AR 750-10)

6.3.5 **Modification Work Order (MWO).** This is a Department of the Army or command publication that provides authority and instructions for the modification of Army materiel. An MWO is a Department of the Army publication if it is performed at the field maintenance level. It is a command publication if it is performed at the depot, contractor, or command team level. MWOs are meant for one-time use and are not usually changed or revised. Each modification requires its own MWO and is assigned its own unique Material Control Number (MCN).

6.3.6 **Routine.** Routine is the lowest priority in the modification program. Routine MWOs may be applied anytime from the effective date of the MWO to the prescribed completion date of the MWO. (Refer to AR 750-10)

6.3.7 **Urgent.** Urgent is the second highest priority in the modification program. Affected materiel may continue to be operated under the restrictions prescribed by an Operational Safety of Use/Flight Message until the modification is applied. (Refer to AR 750-10)

6.4 **Subject term (keyword) listing.**

- Materiel change number (MCN)

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.
1. PRIMARY PARAGRAPH TITLE

   Text
   a. First Level Paragraph, Procedure, or Step if no Procedure.
   b.  
      (1) Second Level Paragraph or Step.
      (2)  
         (a) Third Level Paragraph or Step.
         (b)  
            1. Fourth Level Paragraph or Step.
            2.  
               a. Fifth Level Paragraph or Step.
               b.  
                  i. Sixth Level Paragraph or Step.
                  ii. 

FIGURE 1. Paragraph numbering and formatting example.
FIGURE 2. Example of a new command-authenticated ROUTINE MWO.
FIGURE 3. Example of a new command-authenticated URGENT MWO.
FIGURE 4. Example of a new command-authenticated EMERGENCY MWO.
FIGURE 5. Example of a new DA-authenticated MWO.
FIGURE 6. Example of a revised command-authenticated MWO.
FIGURE 7. Sample computation and format for presentation of work force and man-hour requirements.
FIGURE 8. Examples of Authentication Blocks.
CONTENT/FORMAT SELECTION MATRIX.

A.1 SCOPE.

A.1.1 Scope. This appendix is to be used by the acquiring activity to specify which optional requirements of this specification are to be contractually imposed in the acquisition of MWOs. This appendix is a mandatory part of this specification. The information contained herein is intended for compliance.

A.2 APPLICABLE DOCUMENTS.

This section has been tailored out as not applicable.

A.3 REQUIREMENTS.

A.3.1 Application. This appendix is intended to be copied/reproduced, completed, and become a part of the Technical Manual Contract Document Summary List for solicitation/contract application.

A.3.2 Explanation of columns in TABLE A-1 Content Matrix for MWO. Column 1, TM Content, is self-explanatory. Column 2, MWO, is the type of requirement where R indicates required content and O indicates optional content. Shaded cells indicate that content shall be required when needed to support the equipment. Column 3, MIL-PRF-63002 Reference, identifies the applicable paragraph in this specification. Column 4, Element Name, is self-explanatory.
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### TABLE A-1 Content Matrix for MWO

<table>
<thead>
<tr>
<th>TM Content</th>
<th>MWO</th>
<th>MIL-PRF-63002 Reference</th>
<th>Element Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRONT MATTER</td>
<td>R</td>
<td>3.2.1</td>
<td></td>
</tr>
<tr>
<td>Front cover/title page</td>
<td>R</td>
<td>3.2.1.1</td>
<td>&lt;frntcover&gt;</td>
</tr>
<tr>
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<td></td>
<td>3.2.1.1.1</td>
<td></td>
</tr>
<tr>
<td>MWO Priority</td>
<td>R</td>
<td>3.2.1.1.2</td>
<td></td>
</tr>
<tr>
<td>MWO effective date/completion date</td>
<td>R</td>
<td>3.2.1.1.3</td>
<td></td>
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<td>3.2.1.1.4</td>
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<td>National Stock Number (NSN)</td>
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<td></td>
</tr>
<tr>
<td>End Item Code (EIC)</td>
<td></td>
<td>3.2.1.1.7</td>
<td></td>
</tr>
<tr>
<td>Service nomenclature</td>
<td>R</td>
<td>3.2.1.1.8</td>
<td></td>
</tr>
<tr>
<td>MWO Date</td>
<td>R</td>
<td>3.2.1.1.9</td>
<td></td>
</tr>
<tr>
<td>Reporting of errors</td>
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<td>&lt;reporting&gt;</td>
</tr>
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<td>Distribution statement</td>
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<td>Export control warning notice</td>
<td></td>
<td>3.2.1.1.13</td>
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<td>Destruction notice</td>
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<td>3.2.1.1.14</td>
<td>&lt;destr&gt;</td>
</tr>
<tr>
<td>Copyright notice</td>
<td></td>
<td>3.2.1.1.15</td>
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<tr>
<td>Supersede notice</td>
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<td>3.2.1.1.16</td>
<td></td>
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<tr>
<td>MWO BODY</td>
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<td>3.2.2</td>
<td></td>
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<td>Purpose</td>
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<tr>
<td>Priority</td>
<td>R</td>
<td>3.2.2.2</td>
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<td>End item or system to be modified</td>
<td>R</td>
<td>3.2.2.3</td>
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</tr>
<tr>
<td>Module(s), (components, assemblies,</td>
<td>R</td>
<td>3.2.2.4</td>
<td>&lt;assem_modify&gt;</td>
</tr>
<tr>
<td>subassemblies, boards, and cards) to be</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>modified</td>
<td>R</td>
<td>3.2.2.5</td>
<td>&lt;part_modify&gt;</td>
</tr>
<tr>
<td>Part(s) to be modified</td>
<td></td>
<td>3.2.2.6</td>
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<tr>
<td>Application</td>
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<td>3.2.2.7</td>
<td>&lt;changed_pub&gt;</td>
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<tr>
<td>Technical publications affected/changed</td>
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<td>3.2.2.8</td>
<td>&lt;mwo_components&gt;</td>
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<tr>
<td>MWO kit(s)/part(s) and their disposition</td>
<td>R</td>
<td>3.2.2.9</td>
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</tr>
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<td>Special tools; tool kits, TMDE, etc.</td>
<td></td>
<td>3.2.2.10</td>
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</tr>
</tbody>
</table>
## APPENDIX A

### TM Requirements Matrix for Modification Work Orders

<table>
<thead>
<tr>
<th>TM Content</th>
<th>MWO</th>
<th>MIL-PRF-63002 Reference</th>
<th>Element Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calibration requirements</td>
<td>R</td>
<td>3.2.2.2.11</td>
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</tr>
<tr>
<td>Weight and balance data</td>
<td>R</td>
<td>3.2.2.2.12</td>
<td>&lt;wt_bal&gt;</td>
</tr>
<tr>
<td>Quality assurance requirements</td>
<td>R</td>
<td>3.2.2.2.13</td>
<td>&lt;qa_requirement&gt;</td>
</tr>
<tr>
<td>Recording and reporting of the modification</td>
<td>R</td>
<td>3.2.2.2.14</td>
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</tr>
<tr>
<td>Materiel change number (MCN)</td>
<td>R</td>
<td>3.2.2.2.15</td>
<td>&lt;mc_number&gt;</td>
</tr>
<tr>
<td>Modification identification</td>
<td>R</td>
<td>3.2.2.2.16</td>
<td>&lt;mod_id&gt;</td>
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<tr>
<td>APPENDIX</td>
<td>O</td>
<td>3.2.3</td>
<td>&lt;appendix&gt;</td>
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<td>REAR MATTER</td>
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<tr>
<td>DA Form 2028</td>
<td>R</td>
<td>3.2.4.1</td>
<td>&lt;da2028&gt;</td>
</tr>
<tr>
<td>Authentication</td>
<td>R</td>
<td>3.2.4.2</td>
<td>&lt;authent&gt;</td>
</tr>
<tr>
<td>Foldout section</td>
<td></td>
<td>3.2.4.3</td>
<td>&lt;foldsect&gt;</td>
</tr>
<tr>
<td>ABBREVIATED MWO (SHORT FORM)</td>
<td>O</td>
<td>3.2.5</td>
<td></td>
</tr>
</tbody>
</table>

---

**Legend:**
- **R** Required
- **O** Optional
- **Shaded** As Required

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Completed by:  

(authorized signature)

Publications Activity: ___________________________ Date: ____________
B.1 SCOPE.
B.1.1 Scope. This appendix provides information for use and accessing of the Document Type Definitions (DTDs) and Stylesheets associated with this specification.

B.2 APPLICABLE DOCUMENTS.
This section has been tailored out as not applicable.

B.3 REQUIREMENTS.
B.3.1 Use of the DTD/Stylesheets. The DTD/stylesheets referenced in this specification interprets the technical content and structure for the requirements contained in this specification and its use is mandatory. For additional information on DTDs/stylesheets, refer to MIL-STD-2361.

B.3.2 Obtaining the DTD/Stylesheets. The DTD/stylesheets may be obtained from the LOGSA website: https://www.logsa.army.mil/mil40051/tmssspecs.cfm or via e-mail to usarmy.redstone.logsa.mbx.tmss@mail.mil. Requests may also be mailed to:

USAMC Logistics Support Activity
ATTN: AMXLS-AP
Redstone Arsenal, AL 35898-7466
MIL-PRF-63002M(TM)

CONCLUDING MATERIAL

Custodians: Preparing Activity:
Army - TM Army - TM

Review Activities: Project Number:
Army - AR, AT, AV, CR, TMSS 2018-004
EA, GL, MI

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/online/start.