

MIL-T-27594A(USAF)

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Supersedes

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MILITARY SPECIFICATION

TECHNICAL MANUAL AND CHECKLIST ASSEMBLY, TEST, AND STORAGE PROCEDURES, MISSILE/WARHEAD MATING, PREPARATION OF

1. SCOPE

1.1 This specification covers the preparation of technical manuals and checklists for assembly, test, and storage procedures and missile/warhead mating operations.

2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issue in effect on the date of invitation for bids, form a part of this specification to the extent specified herein:

SPECIFICATIONS

Military

MIL-M-4410	Technical Manuals: Title Page, List of Effective Pages, and Reproduction Assembly Sheet; Photolith Negatives; Printing; and Binders
MIL-C-25816	Checklists for Special Weapon Delivery and Loading Technical Manuals, Preparation Of
MIL-M-8910	Manuals, Technical: Illustrated Parts Breakdown, Preparation Of
MIL-M-38730	Manuals, Technical: General Requirements for Preparation Of

REGULATIONS

Air Force

205-1	Safeguarding Military Information
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FSC 7610

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PUBLICATIONS

Technical Orders

T.O. 00-5-1

Air Force Technical Order
System

(Copies of documents required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

3. REQUIREMENTS

3.1 General Requirements

3.1.1 General Manner of Preparation. The general manner of preparation shall be in accordance with MIL-M-4410 and MIL-M-38730 with the exceptions specified herein. In cases where this specification and the general specifications conflict, this specification shall govern. The technical manual and checklist shall be submitted in the form of negatives.

3.1.1.1 Exceptions to MIL-M-38730. The following exceptions to MIL-M-38730 shall apply.

a. Lists. Lists of tables, illustrations, and TCTO's shall not be required.

b. Outline. An outline shall be required for a basic manual; outline will be reviewed and approved by the responsible engineering agency. An outline may be required for a revision.

c. Table of Contents. The table of contents shall be single column. Classification of items shall be indicated only when specific table of contents entries themselves are classified.

d. Revisions. Revision change bars shall not be required.

e. Illustrations. Illustrations may be used more than once, providing such use serves some essential purpose and creates no confusion. Reference in the text to illustrations need not state specifically the purpose of the illustration if the purpose is obvious.

f. Reference to Other Publications. Reference to other pertinent publications may be made. However, reference to specific paragraphs or sentences in other publications shall not be made. If a small amount (one printed page maximum) of information is

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needed from another publication, the applicable portion shall be extracted, modified if necessary, and included in the technical manual. If reference to the entire contents or a major portion of another publication is necessary, the reference shall be only to the applicable publication number. Reference shall not be made to a portion of another publication which requires still further reference to a third publication.

g. Relaxed Format. Text shall be presented in a single column (continuously across the page), with unjustified right hand margin. Standard office typewriters may be used to prepare reproducible copy; text type size and face shall be consistent within a manual. Final type size shall be approximately 10 pt. Artwork shall be integrated with the text. Text widths utilized shall be the full page width or of a line length to fit approximately 3-3/8 inch (20 pica) art.

h. Illustration Changes. Changes to illustrations shall be indicated by change bars.

3.1.2 Security Classification. For classified manuals, pages, paragraphs, and illustrations shall be marked as specified in MIL-M-38730.

3.1.3 Type of Manual to be Prepared. The technical manual shall be a single volume, in standard size, 8-1/4 by 10-3/4 inches trim size. The checklists shall be 5 by 8 inches trim size.

3.2 Arrangement. The technical manual shall have the following arrangement:

Front Matter

- Section I - Description
- Section II - Test and Handling Equipment
- Section III - Unpackaging, Test, and Assembly
- Section IV - Repackaging Procedures
- Section V - General Support Information
- Section VI - Illustrated Parts Breakdown
- Checklist

3.2.1 Front Matter. The front matter shall consist of the following items in the order indicated:

- Title Page
- List of Effective Pages
- Table of Contents
- Introduction

3.2.1.1 Title Page. The title page shall be prepared in accordance with the requirements of MIL-M-4410 for nuclear weapon loading manual title pages. Publication date shall be the negative delivery date.

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In addition, the following shall apply to classified manuals: The espionage clause shall not be used on title pages carrying the Restricted Data statement; it shall be used on FRD and non-RD pages.

3.2.1.2 List of Effective Pages. The list of effective pages shall be prepared in accordance with the requirements of MIL-M-4410 for nuclear weapons loading manuals.

3.2.1.3 Table of Contents. The table of contents shall be prepared in accordance with MIL-M-38730; it shall include section and paragraph headings.

3.2.1.4 Introduction. In addition to the requirements of MIL-M-38730, include the following data: Definitions of note, caution, and warning; list of applicable reference documents; statements concerning submission of deficiency reports and technical responsibility of the manual.

3.2.2 Section I - Description. The section shall contain complete identification, with illustrations, of the warhead and any applicable equipment.

3.2.3 Section II - Test and Handling Equipment. This section shall contain descriptive data with illustrations, if required, of the applicable test and handling equipment.

3.2.4 Section III - Unpackaging, Test, and Assembly. This section shall provide procedural instructions for unpackaging the warhead, performing any necessary warhead tests, and assembling the adapters to the warhead.

3.2.5 Section IV - Repackaging Procedures. This section shall contain procedures for removing the adapters and returning the warhead to stockpile storage configuration.

3.2.6 Section V - General Support Information. This section shall contain information relative to the storage limitations of the warhead and the use of the aerospace ground equipment (operation of the trailers). Dummy warhead and training warhead instructions shall be included.

3.2.7 Section VI - Illustrated Parts Breakdown (IPB). This section shall contain group assembly parts list, with applicable illustrations, for the equipment required by the manual. The IPB shall be prepared in accordance with MIL-M-8910 with the following exceptions:

- a. Example 3, page 17, MIL-M-8910 shall be used for the parts list.
- b. Figure numbers for the IPB shall be single arabic numerals.
- c. Change bars shall not be used in the IPB.

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3.2.8 Checklist. The checklist shall contain condensed versions of the detailed procedures in the manual. Each major operation shall be listed on a separate page. A table of contents, and introduction, and a Safety Precautions page shall be included. Page format, layout, and general manner of preparation shall be in accordance with MIL-C-25816 for Type III Checklists.

3.3 Maintenance of the Manual. The manual (both procedural volumes and checklist) shall be maintained in accordance with the requirements of MIL-M-38730. Change and revision requirements shall be established by the responsible engineering agency.

4. QUALITY ASSURANCE PROVISIONS

4.1 Basic Manual and Checklist. Preliminary manuscripts shall be submitted to the responsible engineering agency for review. Comments and corrections resulting from this review shall be incorporated into the prepublication review copies.

4.1.1 Review Conference. A review conference shall be held at the contractor's facility, or if combined with a verification (reference T.O. 00-5-1) at an operational location. Review copies shall contain all data required by this specification and shall be in the form of manuscript (text double spaced) with art. The copy shall be reviewed for technical adequacy and accuracy. Before preparation of reproducible copy is begun, final manuscripts shall be approved for technical content and to ascertain that results of review/verification have been correctly incorporated into the copy.

4.1.2 Review of Reproducible Copy. Prior to preparation of negatives, reproducible copy shall be reviewed by the responsible engineering agency for technical accuracy and conformance to specifications.

4.1.3 Proof Copies. Four proof copies, reproduced from the final negatives by ozalid or other means, shall be forwarded to the responsible engineering agency on or before the date of shipment of the negatives.

4.2 Changes

4.2.1 Preliminary Review. Preliminary drafts of the manuscript for changes shall be submitted to the responsible engineering agency for review. Manuscript for changes shall be submitted to the responsible engineering agency for review. Manuscripts for changes shall be clear and legible and shall include, as a minimum, a listing of existing art work to be used. Any changes in the art or requirements for new art shall be indicated. Comments and corrections resulting from this review shall be returned to the contractor for inclusion in the reproducible copy.

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4.2.2 Review of Reproducible Copy and Proof Copies. Reproducible copy of changes shall be reviewed and proof copies furnished as specified for the basic manual.

4.3 Revisions. Revisions shall normally be prepared, reviewed and approved, and proof copies furnished as specified for the basic manual. Printed copies of the previous issue of the manual may be used for review/verification.

4.4 Negatives. Negatives shall meet the requirements of MIL-M-4410.

5. PREPARATION FOR DELIVERY

5.1 Negatives. Negatives shall be prepared for shipment in accordance with MIL-M-4410.

5.2 Security Provisions. All shipments shall observe the applicable provisions of Air Force Regulation 205-1.

6. NOTES

6.1 Intended Use. Technical manuals and checklists prepared according to this specification are for the use of SAC maintenance crews only for nuclear weapon assembly test and storage and warhead mating operations.

6.2 Responsible Engineering Agency. The Air Force Weapons Laboratory is the responsible engineering agency for technical manuals prepared in accordance with this specification.

Custodian
Air Force 15

Preparing Activity
Air Force - 15

W.IR
EAC/pfg