

NOT MEASUREMENT SENSITIVE

MIL-M-81310E(AS)

1 October 1994

SUPERSEDING

MIL-M-81310D(AS)

1 March 1990

MILITARY SPECIFICATION

MANUALS, TECHNICAL: AIRBORNE WEAPONS/STORES LOADING (CONVENTIONAL AND NUCLEAR) WEAPON ASSEMBLY/DISASSEMBLY/SUPPORT EQUIPMENT CONFIGURATION

This specification is approved for use by the Naval Air Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification covers the requirements for preparation of technical manuals for aircraft preparation, for functionally testing various armament systems, and for loading/unloading conventional and nuclear airborne weapons/stores that are approved for carriage on/in naval aircraft, conventional weapons assembly/disassembly and airborne weapons support equipment description/configuration.

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 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 issue of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

Beneficial comments (recommendations, additions, deletions and any pertinent data which may be of use in improving this document should be addressed to: Commanding Officer, NAVAIRWARCENACDIV, Systems Requirements Department, Attn: Code SR3, Lakehurst, NJ 08733-5100 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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SPECIFICATIONS

MILITARY

MIL-M-38784 - Manuals, Technical: General Style and Format Requirements

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

HANDBOOKS

MILITARY

MIL-HDBK-274 - Electrical Grounding for Aircraft Safety

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.1.2 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 are those cited in the solicitation.

GOVERNMENT DOCUMENTS

DOD 5220.22-M - Industrial Security Manual for Safeguarding Classified Information

PUBLICATIONS

NAVPERS 18068 - Manual of Enlisted Manpower and Personnel Classifications & Occupational Standards

NAVMC 1008-PD - Military Occupational Specialty Manual

2.2 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, (except for related associated detailed specifications, specification sheets, or MS standards), 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. The general style and format of manuals prepared to this specification shall be in accordance with MIL-M-38784.

3.1.1 Data. Requirements for technical manual data established by this specification shall be prepared as specified in the contract.

3.2 Level of Writing. Level of writing shall be clear to an Aviation Ordnance "A" school graduate, or equivalent of the rating, maintaining the equipment as outlined in NAVPERS 18068 and NAVMC 1008-PD.

3.3 Format. Text shall be presented in double-column format. Each section page shall bear the section title in the appropriate upper right or left hand corner under the publication number, except Weapon Assembly/Disassembly publications which shall have the section title so placed on front matter pages only.

3.3.1 Nomenclature. Nomenclature shall be standardized throughout the manual. Nomenclature used shall be consonant with applicable source data (engineering drawings, illustrated parts breakdown, etc.), aircraft manuals, weapon manuals and aircraft/weapon paneling. Panel placarded nomenclature, such as switch or indicator light titles and switch positions, shall be typed the same as placarded when referred to.

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3.3.2 Illustrations. Illustrations shall be used as necessary to aid in the understanding of complex procedures, to present phases which are difficult to describe alone, reducing the amount of text necessary to describe a given component and to highlight details which are significant or related to safety. Illustrations and line drawings will be in accordance with MIL-M-38784 with changes to text indicated by a vertical line in the outer margin and changes to illustrations indicated by a hand, unless the complete illustration has changed. Line drawings will be used instead of halftone or continuous tone art. In preparing mounted (board) art, callouts shall be placed directly on the illustration; plastic overlays shall not be used.

3.3.3 Security classification. If classified information is required to satisfy manual requirements stated herein, a classified supplement shall be prepared in accordance with MIL-M-38784. The requirements for handling classified material shall be in accordance with DOD 5220.22-M.

3.4 Manual coverage. The manuals shall provide comprehensive aircraft loading, weapons assembly/disassembly and weapons support equipment functional information as applicable, for each weapon, family group of weapons, and support equipment authorized. Where techniques differ between land-based and shipboard environment, the differences shall be covered/explained in applicable portions of the manual. Manuals prepared on a particular aircraft/weapon/equipment incorporating different models/bureau numbers, modifications, variations, effectivities, etc., shall cover all differences by flagging, repetition of data, or other means to ensure full coverage. Procedures within a section pertaining to more than one aircraft station shall be presented once and cross-referenced for remaining stations. In manuals which incorporate data pertaining to both conventional and nuclear weapons, data pertaining to conventional weapons shall be presented first. Safety is an item of primary concern and shall be stressed in all applicable portions of the manual. The manual shall be prepared as one volume. When the page quantity exceeds 900 pages, the requiring activity will direct preparations of separate volumes and define the content of each volume (see 6.2.1).

3.5 Paragraph headings. Paragraphs, paragraph headings and paragraph numbers shall be prepared in accordance with MIL-M-38784 (see figure 1). Where additional paragraph heading/paragraphs are required, they shall be added as necessary. Where a particular heading or paragraph is not applicable, it shall be omitted. Primary (first order) headings shall be all capitals, bold, and stand alone. Secondary (second order) headings shall be all capitals, bold, followed by text. Subordinate headings (third order) shall be initial capitals, bold, followed by text. Primary, secondary and subordinate headings shall be the same font throughout text.

3.6 Glossary. All manuals prepared in accordance with this specification, excluding multiple-volume manuals, shall contain a glossary prepared in accordance with MIL-M-38784. Unless specified by the requiring activity (see 6.2.1), cross referencing of indexed material shall not be included.

3.7 Arrangement of manuals. Each section of manuals prepared in accordance with this specification shall start on a new right hand (odd numbered) page. The manual shall be arranged as follows:

3.7.1 Airborne weapons/stores loading manual and weapons assembly/disassembly manual.

- a. Front matter.
- b. Section I, Introduction.
- c. Section II, Description.
- d. Section III, Configuration data.
- e. Section IV, Release and control system checks (except weapons assembly/disassembly manuals).
- f. Section V, Common procedures.
- g. Section VI, and subsequent (specific weapon/store/group) Loading, unloading, assembly, disassembly.

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3.7.2 Armament weapons support equipment configuration manuals.

- a. Front matter.
- b. Section I, Introduction.
- c. Section II, Common procedures.
- d. Section III and subsequent, Configuration data.

3.8 Front Matter. The front matter (see figures 2 through 9) shall be prepared in accordance with MIL-M-38784 and shall consist of the following:

3.8.1 Airborne weapons/stores loading manuals and weapons assembly/disassembly manuals.

- a. Title page.
- b. List of effective pages.
- c. Promulgation page.
- d. TPDR incorporation page.
- e. Table of contents.
 - (1) Double column format.
 - (2) Primary and secondary side head titles as main paragraphs.
 - (3) Subordinate side heads indented.
- f. List of illustrations.
 - (1) Double column format.
- g. List of tables.
 - (1) Double column format.
- h. Safety summary.
- i. Hazardous material warnings (weapons assembly/disassembly manuals only).

3.8.2 Armament weapons support equipment configuration manual.

- a. Title page.
- b. List of effective pages.
- c. TPDR incorporation page.
- d. Table of contents.
 - (1) Double column format.
 - (2) Primary and secondary side heads titles as main paragraphs.
 - (3) Subordinate side heads indented.

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- e. List of Illustrations.
 - (1) Double column format.
- f. List of tables.
 - (1) Double column format.
- g. Safety summary.

3.9 Section I, Introduction. Section I shall be prepared in accordance with MIL-M-38784 and shall consist of the following:

3.9.1 Airborne weapons/stores loading manuals, weapons assembly/disassembly manuals and AWSE configuration manuals.

- a. Purpose.
- b. Scope.
- c. Requisitioning and distribution.
- d. Changes to manual.
- e. Arrangement of manual.
- f. Warnings, cautions, and notes.
- g. Aircraft effectivities (aircraft loading manuals only).
- h. How to use the manual.
- i. Assumptions.
- j. Reference publications.
- k. Technical directives.

3.10 Section II, Description. Section II shall be prepared in accordance with MIL-M-38784 and shall consist of the following:

3.10.1 Airborne weapons/stores loading manuals.

- a. Introduction.
- b. Airframe.
 - (1) Aircraft external hazards.
 - (2) Ground safety devices.
 - (3) External power and grounding.
- c. Aircraft armament systems.
 - (1) Armament system.
- d. Component description and location.
 - (1) Armament system basic controls.

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- e. Operational description of armament sub-systems.
- f. Suspension/accessory equipment.
 - (1) Parent rack.
 - (2) Accessory racks.
 - (3) Launchers.
 - (4) Adapters.
 - (5) Other accessories.
- g. Mechanical/electrical fuzes.
- h. Cartridges and cartridge activated devices.
 - (1) Impulse cartridges.
 - (2) Spotting charges/signals.
- i. Weapons/stores.
 - (1) Retard/nonretard bombs.
 - (2) Destructors.
 - (3) Laser guided bombs/guided bombs units.
 - (4) Cluster bombs units.
 - (5) Firebombs.
 - (6) Air laid mines.
 - (7) MK-60 series mines.
 - (8) Glide weapons.
 - (9) Torpedos.
 - (10) Pyrotechnics.
 - (11) Dispensers.
 - (12) Practice bombs.
 - (13) Search stores.
 - (14) ECM.
 - (15) Forward firing weapons.
 - (a) Missiles.
 - (b) Rocket launchers.
 - (c) Guns.

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- (a) ECM pods.
- (b) Fuel tanks/external baggage container.
- (c) Camera.
- (d) Cargo pods.
- (e) Other.

(17) Nuclear weapons/bomb dummy units.**j. Armament weapons support equipment (AWSE).**

- (1) Armament support equipment (ASE).
 - (a) Includes special tools and test equipment.
- (2) Weapons support equipment (WSE).
 - (a) Includes special tools and test equipment.
- (3) Logistics support equipment (LSE).
 - (a) Includes special tools and containers.

k. Safety/protective devices/special tools.

- (1) Safety devices.
- (2) Protective devices.
- (3) Special tools.

3.10.2 Weapons assembly/disassembly manuals (WAM).

a. Weapons assembly/disassembly manuals Section II preparation will differ depending on weapon/weapon series to be addressed. At a minimum, this section shall consist of the following:

- (1) Introduction.
- (2) Weapon/stores.
- (3) Armament weapons support equipment (AWSE).
 - (a) Armament support equipment (ASE).
 - (b) Weapons support equipment (WSE).
 - (c) Logistics support equipment (LSE).

3.10.3 Section II (Common Procedures), Armament weapons support equipment (AWSE) configuration manuals.

- a. Introduction.
- b. Equipment preparation.

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- c. AWSE marking and weapons positioning.
- d. Authorized equipment/equipment combinations for weapons/stores handling and loading.

3.11 Section III, Configuration data. Section III shall be prepared in accordance with MIL-M-38784 and shall consist of the following:

3.11.1 Section III, Airborne weapons/stores loading manuals.

- a. Introduction.
- b. Aircraft configuration conversion (tables, charts, narrative or combinations thereof).
 - (1) Installation and removal of suspension/accessory equipment.
 - (2) Others, as required.

3.11.2 Section III, Weapons assembly/disassembly manuals (WAM).

- a. Introduction.
 - (1) Listing of tables defining appropriate AWSE for handling and transporting weapons during assembly and disassembly.

3.11.3 Section IV and subsequent, Armament weapons support equipment (AWSE) configuration manuals. Section III and subsequent sections shall contain procedural information for inspecting and configuring each end item of basic mobile support equipment authorized for use with weapons/stores and shall consist of the following:

- a. Introduction.
- b. Special tools and equipment.
- c. Equipment preparation/inspection.
- d. Configuration.

3.12 Section V, Airborne weapons/stores loading manuals and weapons assembly/disassembly manuals (as applicable), release and control or release and firing checks. Section V shall be prepared in accordance with MIL-M-38784 and shall consist of the following:

- a. Introduction.
- b. How to use this section.
- c. Armament weapons support equipment (AWSE).
- d. Aircraft preparation (loading manuals only).
- e. Preparation (weapons assembly/disassembly manuals only).
- f. Preloading checks (loading manuals).
 - (1) Jettison system check (emergency, selective wing, etc.).
 - (2) Normal release system checks (parent rack, bomb rack, wing release, ASE (installed/not installed), arming checks, rockets, etc.).
 - (3) Gun system check (internal, gun pods, crew served, etc.).

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- (4) Missile system check (air-to-ground, air-to-air, etc.).
- (5) Specialized stores system checks (data pods, ECM, tacts, sonobouys, etc.).
- (6) Nuclear weapons system checks.
- g. Release and firing checks (weapons assembly/disassembly manuals only).
- h. Individual system checks (loading manuals). Individual system check procedures shall consist of the following paragraphs in the order shown.
 - (1) Test equipment required.
 - (2) Applicable technical directives.
 - (3) Check preparation.
 - (4) Check procedure in tabularized/column format.
- i. Postcheck procedures. Explanation that postcheck procedures must be performed upon completion of the last release and control system check to assure that the aircraft is returned to a safe condition and ready to load. Explanatory statement shall be followed by procedural step(s) as necessary to accomplish postcheck procedures.
- j. A checklist abbreviating the airborne weapons/stores loading manual Section IV procedures and checks will be issued for each applicable family group, i.e., nuclear weapons systems, release and control (basic), release and control (missiles) air-to-air or air-to-ground. The checklist will follow standards developed and maintained by the Naval Air Warfare Center Weapons Division, Code C26303, China Lake, CA.

3.13 Section VI, (Common Procedures), Airborne weapons/stores loading manuals and weapons assembly/disassembly manuals. Section VI shall consist of the applicable paragraphs listed below:

3.13.1 Airborne weapons/stores loading manuals.

- a. Introduction. Statement that this section contains procedures which are common to more than one section in the manual and which must be performed to complete a safe and reliable weapons/store loading evolution. These procedures are presented once in this section to avoid repetition and are referenced in other sections.
- b. Aircraft preparation. Sequential presentation of steps, illustrated for clarity, which are common to more than one section of the manual such as procedures for aircraft grounding and parent rack preparation. Presentation shall include a tabulated listing of armament switches and circuit breakers and required positions to safe the system. Steps shall include procedures to ensure that the aircraft is fully prepared to accomplish a complete loading evolution in a safe and reliable manner.
- c. Accessory suspension equipment. Sequential preparation of steps, illustrated for clarity, for accomplishing functions which may be common to more than one loading and unloading evolution in Section VI and subsequent sections. Procedures pertaining to aircraft accessory equipment shall be presented first, and procedures pertaining to weapons/stores shall be presented last. Where special test equipment is required, it shall be identified by nomenclature and part number. Sequence of heading presentation is as follows:

- (1) MER/TER/BRU-41/42 preparation/inspection.
 - (a) Sway brace adjustment.
 - (b) Safety stop lever positioning/electrical safety pin installation.
 - (c) Suspension hook release.

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- (d) MER/TER mode selector setting.
- (e) Cartridge installation.
- (f) Other.

e. Hoist loading configuration. A brief paragraph defining hoist loading configuration followed by procedural data required to configure hoisting equipment sequence of heading presentation is as follows:

- (1) Installation.

f. Stray voltage checks. A brief paragraph defining stray voltage checks followed by procedural data required to perform the check. Sequence of heading presentation is as follows:

- (1) Stray voltage procedures.

g. General fuze handling and safety precautions. A brief paragraph defining general fuze handling followed by safety precautions and procedural data required to handle fuzes. Sequence of heading presentation is as follows:

- (1) Fuze procedures.
- (2) Electric fuze arming safety switch.

h. Arming wire procedures. A brief paragraph providing general arming wire routing/configuration to include attachment of wire to lugs, proper length and installation of prefabricated or composite wire, followed by procedural data required. Sequence of heading presentation is as follows:

- (1) General procedures.
- (2) Fabrication of arming wires.

i. Other. Procedural Data and/or tables necessary to accomodate yet to be identified common procedures (i.e., aircraft/weapon marriage checks, etc.).

j. Authorized armament/weapons handling equipment combinations for handling and loading. A brief paragraph defining equipment compatibilities and use followed by table depicting all authorized equipment used in loading and transportation. All equipment listed will be illustrated and described in Section II.

k. Arming and safety signals listing of standardized arming safety signal illustrations.

3.13.2 Weapons assembly/disassembly manual.

a. Introduction. Statement that this section contains procedures which are common to more than one section in the manual and which must be performed to complete a safe and reliable weapons assembly/disassembly. These procedures are presented once in this section to avoid repetition and are referenced in other sections.

b. Accessory suspension equipment preparation/inspection. Sequential preparation of steps, illustrated for clarity, for accomplishing functions which are common to more than one section of the manual. Sequence of heading presentation is as follows:

- (1) MER/TER/BRU-41/42 preparation/inspection.
 - (a) Breech assembly removal.
 - (b) Breech assembly installation.
 - (c) Safety stop lever positioning.

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(d) Other.

c. Emergency Procedures. A brief paragraph explaining the following:

- (1) Firefighting.
- (2) Medical.
- (3) Security.

d. Suspension Lug Installation. A brief paragraph explaining procedural data required for installation of suspension lugs on weapons.

e. Arming wire procedures. A brief paragraph providing general arming wire routing/configuration to include attachment of wire to lugs, proper length and installation of prefabricated or composite wire, followed by procedural data required. Sequence of heading presentation is as follows:

- (1) General procedures.
- (2) Fabrication of arming wires.

f. Accessory suspension equipment preloading data. A brief paragraph explaining preloading requirements.

g. Weapons assembly tools/equipment requirements. A brief paragraph referring to table for tool/equipment requirements.

3.14 Section VI and subsequent, Airborne weapons/stores loading manual (specific weapon/store, group) loading. Section VI and subsequent sections shall contain complete loading through unloading procedures for weapons/stores or family group which are authorized for loading into or onto the aircraft. A checklist abbreviating these procedures will be issued for each weapon/store or family group. The checklist will follow standards developed and maintained by the Naval Air Warfare Center Weapons Division, Code C26303, China Lake, CA. Where procedures are common to a family group of weapons, the series shall be covered as a single weapon in a family group, i.e., MK 81, Mk 82 and Mk 83 general purpose bombs. Unless otherwise specified (see 6.2.1) by the requiring activity (see 6.3), section sequence and content presentation shall be as follows:

- a. Bombs, retard/nonretard.
- b. Destructors.
- c. Laser guided bombs/guided bomb units/Paveway I, II & III.
- d. CBU.
- e. Fire bombs.
- f. Air-laid mines.
- g. Nonpropelled guided weapons (glide) (Walleye).
- h. Torpedoes.
- i. Pyrotechnics: includes JATO, flares, flare dispensers, and marine location markers.
- j. Dispensers.
- k. Practice bombs: includes small practice bombs such as Mk 76, Mk 106, BDU-48.

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- l. Search stores: includes ADSIDs, GSQ 117 and GSQ 141.
- m. Fuel tanks/EBC/starter pods.
- n. ECM: includes pods such as ALQ-31 and integral dispensing systems (AN/ALE-29/30).
- o. Rocket launchers: Launcher tube loading procedures will not be included unless otherwise specified by the procuring activity.
- p. Missiles: A separate section will be prepared for each type missile. All models of each missile will be covered in a single section unless otherwise specified. Section shall be sequenced according to mission and numerical designation, as follows:
 - (1) Air-to-air.
 - (2) Air-to-ground.
- q. Guns/gun pods/gun turret systems.
- r. Electronic pods.
- s. TALD.
- t. Others.
- u. Nuclear/BDUs: When applicable, each nuclear weapon, by numerical sequence of weapon designation and irrespective of alphabetical prefix, shall be covered in a separate section. The loading procedures for strike, maneuver, and logistic transport missions will be combined into one section. Procedures which are not performed for all types of missions and procedures which are applicable only to specific missions will be labeled for the mission they are applicable to and will be presented in the sequence where the task is normally performed.

3.14.1 Introduction. Identification of weapons/stores or a family group of weapons authorized for aircraft loading and for which loading procedures are relatively common. If too numerous, weapons/stores shall be presented in list form. Technical directives applicable to loading shall be listed. A note shall follow the introductory paragraph and precede the listing of weapons/stores and shall be worded as follows:

NOTE

The following list does not authorize station loading for flight. For specific authorization, refer to appropriate aircraft NATOPS/tactical manual.

- a. Armament weapons support equipment (AWSE). A paragraph referring to the applicable table in Section V for armament weapons support equipment. A paragraph of approved/authorized special tools and test equipment shall follow the AWSE paragraph listing special tool(s), (e.g., fuzing tools, rack unloading tools, etc., and if applicable, test equipment).
- b. Aircraft preparation/inspection. Sequential listing of steps, illustrated as necessary for clarity, which must be accomplished to prepare the aircraft for loading. Listing shall consist of those common aircraft preparation procedures presented in Section V and shall be followed by additional steps as may be required to complete preparation of the aircraft for the specific loading evolution.
- c. Weapon/store inspection. Sequential listing of steps, illustrated as necessary for clarity, which must be accomplished to complete an inspection of the weapon/store to be loaded; to include related components (e.g., fuzes, arming devices, etc.) and to ensure weapon/store serviceability and safety. Listing shall consist of those common inspection procedures presented in Section V and shall be followed by additional steps as may be required to complete weapon/store inspection.

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d. Weapon/store loading. Under this title the following shall be covered:

(1) Preparation. Sequential listing of steps which must be performed prior to loading to ensure maximum safety of personnel, equipment and aircraft. Procedures shall ensure that all applicable aircraft controls, switches, circuit breakers, etc., are in an OFF or SAFE position; that all applicable safety devices are installed in the aircraft, accessory equipment, and weapons/stores; and that all weapon explosive components are safed. Steps shall be illustrated as necessary in the interest of safety.

(2) Loading. Sequential listing of steps, illustrated as necessary for clarity, which must be accomplished to complete the loading of a specific weapon/store. Coverage shall include differences between shipboard and shore based operations. Where a particular weapon/store may be loaded with both powered and manually operated equipment, procedures for power equipment shall be presented first. Single weapons/store loading shall include lifting and attachment of individual weapons/store to the aircraft suspension equipment. Multiple loading (e.g., preloaded MER/TER/BRU-41/42) shall include lifting and attachment of weapons and associated accessory equipment to the aircraft suspension point(s). Steps involving safety of personnel and equipment (installation of arming wires, safety pins, breech caps, etc.) shall be illustrated. Where applicable, data such as identification of arming wires, impulse cartridges, etc., shall be presented in tabulated form.

e. Postloading inspection (conventional weapons). Sequential listing of steps which must be accomplished on the aircraft system, accessories, and individual weapons(s)/store(s) following loading to ensure that the weapon/system is operationally ready and in a safe configuration. Steps shall include checks for position of cockpit switches/circuit breakers, installation of accessory safety devices, installation of bombs and fuzes, removal of fuze safety devices, etc.

f. Postloading inspection(nuclear weapons). Steps which must be accomplished on the aircraft systems, accessories, and individual weapons following loading to ensure that the weapon system is operationally ready and in a safe configuration. Steps shall include power-on checks of the weapon and the AMAC system; positioning or checks of weapon pre-arming devices, accessory safety devices, cockpit/remote switches/circuit breakers as applicable; and connection of weapon electrical and mechanical components to the aircraft (CF cable bails, wire rope assembly, etc.).

g. Prior to launch (conventional weapons). Under this title, the following shall be covered:

(1) Rearming area. Sequential listing of steps required to prepare a loaded aircraft for launch. Steps shall include, as applicable, removal of safing devices, checks for stray voltage, securing access doors/panels, etc. Sequences of presentation will be as follows:

- (a) Rearming area (before engine turnup).
- (b) Rearming or arming area (after engine turnup).
- (c) Arming area.

h. Prior to launch (nuclear weapons). Under this title, the following shall be covered:

NOTE

Prelaunch preparation and prelaunch procedures may be combined.

(1) Initial steps, performed in the rearming area, required to prepare a weapon and aircraft for a designated mission. Steps are performed after postload checks. Steps shall include, as applicable, installation of ejector cartridges, removal of weapon protective covers, positioning of applicable aircraft circuit breakers and switches, positioning of weapon components as applicable in the mission requirements, etc.

(2) Final steps, performed in the rearming area, required to prepare a weapon and aircraft for a designated mission, which are performed after prelaunch preparation procedures have been completed and immediately prior to launch. Steps shall include, as applicable, removal of safing devices, actuation of applicable weapon components to or any condition

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required by the mission, "power on" compatibility check of weapon and AMAC system and repositioning of AMAC/ armament controls for launch, etc.

(3) Sequence of presentation will be as follows:

- (a) Rearming area (before engine turnup).
- (b) Rearming or arming area (after engine turnup).
- (c) Arming area.

i. After landing or ground abort. Statement explaining that these procedures pertain to an aircraft that has returned from a mission with weapons not expended or to an aircraft with loaded weapons as a result of a ground abort. Procedures for safing and turnaround will be included. Under this title the following shall be covered:

(1) Safing.

- (a) Dearming area (before engine shutdown).
- (b) Dearming or rearming area (immediately after engine shutdown).

(c) Turnaround. Procedures to relaunch the partially loaded aircraft when the aircraft does not require reconfiguration. Steps shall include all procedures for safing the weapon system for turnaround and only refer to previous steps, checks, or procedures for reinspection of the weapons/stores, and for reaccomplishment of postloading inspection and prior to launch procedures. Steps necessary to reload the empty station on a partially loaded aircraft which does not require configuration, shall include complete preparation of the loaded aircraft for subsequent mission. Steps shall refer to previously accomplished procedures as necessary to complete the operation.

j. Unloading. Under this title, the following shall be covered:

(1) Steps which must be performed prior to unloading to ensure maximum safety of personnel, equipment, and aircraft. Procedures shall ensure that all applicable aircraft controls, switches, circuit breakers, etc. are in OFF or SAFE position; that all applicable safety devices are installed in the aircraft, accessory equipment, and weapons/stores; and that all weapon explosive components are safed. Steps shall be illustrated as necessary in the interest of safety.

(2) Steps necessary to unload weapons/stores or family groups from the loaded aircraft. Sequence of presentation by weapon type shall be the same as used in loading procedures. Procedures applicable to more than one weapon rack or aircraft station shall be presented once and cross referenced for remaining racks/stations. Steps shall be illustrated as necessary in the interest of safety.

k. Inflight procedures(nuclear weapons). Inflight procedures will be outlined at the end of each nuclear unloading section. Statement explaining that the inflight procedures in this manual supplement those for operation of the basic aircraft contained in tactical manuals and its supplement. Statement to provide complete procedures to ensure safety and reliability. Under this title, the following shall be covered:

(1) After launch. Steps necessary to monitor the safe condition of the weapon(s) and status of the AMAC indicator lamp. When applicable, a warning pertaining to actuation of AMAC system controls during maneuver operation shall precede the paragraph title.

(2) When clear of friendly forces or as briefed. Steps required to prepare the aircraft and weapon(s) for the prescribed method of weapon delivery using normal release system (automatic and manual), release of the weapon(s), check that weapon has been released, and safing of aircraft systems after last release. Steps shall include, but are not be limited to:

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- (a) Selection of aircraft station for release, if applicable.
- (b) Arming of the weapon(s).
- (c) Selection of attack mode and delivery methods.
- (d) Release of weapon using desired release system.
- (e) Check that weapon has been released.
- (f) Repositioning of applicable aircraft system switches to OFF or SAFE., etc.

(3) Jettison procedure. Steps shall cover instructions for safing and for checking that weapon is safe prior to jettison and shall include instructions for disposition of weapon which due to malfunction, must be assumed to be armed. Steps shall be included to position applicable system switches/controls in OFF or SAFE after weapon jettison. The following type warning shall precede the paragraph title:

WARNING

During maneuver operations, stores or fuel tanks will not be released except as required by inflight emergencies. If the AMAC system, in safe position, indicates disagreement between it and conditions of a weapon that was previously armed, a malfunction exists and the weapon must be assumed to be armed. Disposition of a weapon that cannot be restored to safe condition is a command decision and should be established during briefing or by instructions from proper authority.

4. Abort or prior to landing. Paragraph explaining that if the mission is aborted for any reason prior to landing, nuclear weapons must be placed in safe condition. Include steps as necessary to safe the applicable aircraft systems, to ensure that weapon is in safe condition, procedures to cope with a weapon assumed to be armed, and instructions for transmitting essential information to aircraft control tower at destination prior to landing. Information to be transmitted to the control tower shall be as provided by responsible activity. The following type warning shall preclude the step which checks the safe condition of the weapon(s):

WARNING

If the AMAC system, in safe position, indicates disagreement between it and condition of a weapon that was previously armed, a malfunction exists and the weapon must be assumed to be armed. Disposition of a weapon that cannot be restored to a safe condition is a command decision and should be established during briefing or by instructions from proper authority.

3.14.2. Sections VI and subsequent, Weapons assembly/disassembly manuals, (specific weapon assembly/disassembly procedures). Section VI and subsequent sections shall contain complete weapon assembly/disassembly procedures for weapons authorized for carriage and release on aircraft. Where procedures are common to a family group of weapons, the series shall be covered as a single weapon in a family group. Section sequence will be presented according to numerical sequence of weapons (e.g., AIM-7, AIM-9, etc.).

3.15 Glossary. The glossary shall be prepared in accordance with MIL-M-38784. Content of glossary shall include a definition of terms used in the manual.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for performance of the inspection requirements specified herein unless disapproved by the Government. The Government reserves the right to perform any of the inspections

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set forth in the specification when such inspections are deemed necessary to assure supplies and service conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items shall meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling, inspection, as part of manufacturing operations, is an acceptable practice to ascertain conformance to requirements, however, this does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

4.2 Validation. Validation shall be performed in accordance with MIL-M-85337 to ensure adequacy of the data consistent with the purpose of the airborne weapon/stores publications.

5. PACKAGING

5.1 Packaging, packing, and marking for shipment. Packaging, packing and marking for shipment shall be in accordance with MIL-M-38784.

6. NOTES

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

6.1 Intended use. Manuals prepared in accordance with this specification are intended to provide information required to cover aircraft armament configuration, perform functional checkout of weapon release and control systems on the aircraft, and load/unload conventional/nuclear airborne weapons/stores along with assembly/disassembly of weapons and configuration of airborne weapons support equipment.

6.2 Ordering data.

6.2.1 Acquisition Requirements. Acquisition documents should specify:

- a. Title, number, and date of this specification.
- b. Issue of DODISS to be cited in the solicitation, and if required, the specific issue of individual documents.
- c. Cross referencing of indexed material, if required (see 3.4).
- d. Manual shall be volumized, if required (see 3.4).
- e. Sequence of presentation of descriptive data, if required.
- f. Sequence of coverage for specialized stores, if required.
- g. Sequence of specific manual sections, if required.
- h. Responsibility for inspection (see 4.1).

6.3 Technical manual acquisition. This specification must be listed on the Contract Data Requirements List (DD Form 1423) in order to acquire the technical manuals described by this specification, except where DOD FAR Supplement 27.475-1 exempts the requirements for a DD Form 1423.

6.4 Definitions.

6.4.1 NAVAIRWARCENWPNDIV, China Lake, CA. Cognizant Field Activity (CFA) responsible for conventional/nuclear weapons loading issues.

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6.4.2 Responsible activity. The responsible activity is defined as the NAVAIRWARCENWPNDIV, Code C26303, China Lake, CA.

6.4.3 Requiring activity. The organization of a using military service or that organization delegated by a using service which is responsible for the selection of, and determines requirements for, a specific support element.

6.4.4 Conventional weapons. Conventional weapons include all weapons or weapon components (bombs, rockets, guns, ammunition, pyrotechnics, sonobouys, etc.) which are not normally aircraft inventory items and which do not carry nuclear devices.

6.4.5 Nuclear weapons. Nuclear weapons are Department of Energy (DOE) developed nuclear bombs and warheads, and service developed missiles, incorporating nuclear warheads, or service developed nuclear practice bombs and warheads.

6.4.6 Armament weapons support equipment (AWSE). Equipment required to support weapons/stores handling, transportation and loading on aircraft.

6.4.7 Suspension/accessory equipment. Suspension/accessory equipment is an item which is required to mate the conventional or nuclear weapon to the aircraft and which remains as an integral part of the system (e.g., pylon, missile launcher and adapters, bomb release unit, rocket launcher, ejector cartridge, etc.).

6.5 Figures contained in this specification. The figures illustrated in this specification are typical examples intended to illustrate style, format and sample content. They shall not be used for interpretation of specific technical contents or exact scale requirements.

6.6 Subject term (key word) listing.

Accessories

Airborne weapon/stores loading manual

Airborne weapons assembly/disassembly manual

Armament system

Armament weapons support equipment (AWSE) manuals

Conventional weapons

Fuzes

Illustrations

Military specifications

Nuclear weapons

Release and control

Suspension/accessories equipment

Technical manual

Weapon loading/unloading

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

Preparing Activity

Navy-AS

Project TMSS- N252

MIL-M-81310E(AS)

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Description

2-141. HOSE-CUT Switch (A/A42A-1/31-301). The HOSE-CUT switch (figure 2-24), marked SAFE and CUT, is provided to cut and crimp the store hose if a store malfunction prevents drogue retraction. The hose cut switch has a safety guard to hold the switch in the SAFE position when not used.

2-142. PWR Switch (A/A42A-1/31-301). When placed to ON the switch provides electrical power to the Air Refueling Store System.

2-143. LBS/STOW and PRESS (A/A42A-1/31-301). The LBS indicator along with STOW and PRESS lights are used to verify power to the control panel.

2-144. DROGUE JETT Switch (KA-6D). The DROGUE JETT switch (figure 2-25) is a guarded two-position SAFE and JETT switch. The JETT position is deactivated on the ground through the left weight-on-wheels switch and airborne when the hose drogue is in the stowed position. Selecting JETT automatically shuts off the fuel transfer/and/dump pumps, shuts off hydraulics, locks the hose-reel and after 1-second time delay, severs the hose and closes the refuel shutoff valve in the internal air refueling system.

2-145. JETTISON SYSTEM.

2-146. The jettison system permits selective and emergency jettison of stores on the Aero 7 series ejector racks. Selective jettison is used primarily when dropping empty fuel tanks, rocket launchers, or stores/weapons that have not released through normal release circuits and are a potential hazard to the aircraft. Emergency jettison is used to simultaneously jettison all stores/weapons. In either selective or emergency jettison, all power is interrupted to the fuzing circuits, so that stores/weapons are jettisoned in the safe (unarmed) condition. The jettison system in the A-6E has the SEL JETT switch on the ARMAMENT panel.

2-147. EMERGENCY JETTISON (A-6E). The emergency jettison switch receives power from the essential DC BUS through the emergency jettison CD 6030 (weight-on-wheel switch closed). When the emergency jettison switch is closed, power is applied to CB 91-95, also emergency jettison relay No. 1 and 2 are energized. Power from CB 91-95 through energized emergency jettison relays is applied to the five stations of the aircraft.

2-148. EMERGENCY JETTISON (KA-6D). With the aircraft off the ground (weight-on-wheels switch closed), depressing the EMER STORES JETTISON button allows 28 volts DC to be supplied from the DC essential bus, through the 7.5-ampere ESS AMT BUS FDR circuit breaker, to the master jettison relay, energizing the relay. Electrical power is now supplied from the essential armament bus through STORES JETTISON STA 1, 2, 3, 4, and 5 circuit breakers and the closed contacts of the master jettison relay, to the ejector racks, jettisoning all weapons simultaneously.

2-149. EMERGENCY JETTISON (EA-6A). The EMER STORES JETTISON button, on the upper left corner of the pilot's instrument panel, jettisons weapons from all stations. With the aircraft off the ground (weight-on-wheels switch closed), depressing the EMER STORES JETTISON button allows 28 volts DC to be supplied to all ejector racks to release all weapons simultaneously.

2-150. Outboard Stores Jettison Button. The outboard stores jettison button marked OUTER PNL STORES JETT on the pilot's left console provides for emergency, simultaneous jettison of the stores on the outer wing stations A and B. With the aircraft off the ground (weight-on wheels switch closed), depressing the OUTER PNL STORES JETT button allows 28 volt DC electrical power to be supplied to the two outboard ejector racks and releases the stores simultaneously.

2-151. EMERGENCY JETTISON (EA-6B). The emergency stores jettison button on the left side of the pilot's instrument panel is surrounded by yellow and black stripes and placarded EMER STORES JETTISON. Pressing this button (with weight-on-wheels and essential 28 volt DC available) will instantaneously clean all stations. Power for emergency jettison is routed from the 28 volt DC essential bus through the 10-ampere EMER STORES JETT circuit breaker on the forward left circuit breaker panel and then to each station through individual 5-ampere STORE JETTISON circuit breakers on the aft cockpit main circuit breaker panel.

2-152. SELECTIVE JETTISON. With the wheels up and locked, MASTER ARM switch to ON, and the desired station selected, then placing the SELECTIVE STORES JETTISON switch to JETTISON, allows 28 volt DC to be supplied from the DC essential bus through the 7. 5-

FIGURE 1. Example of paragraph headings.

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TECHNICAL MANUAL

AIRBORNE WEAPONS/STORES LOADING MANUAL NAVY MODELS A-6 SERIES, EA-6, AND KA-6 AIRCRAFT

THIS PUBLICATION SUPERSEDES
NAVAIR 01-85AD-75 DTD 1 MAY 1989
AND ALL CHANGES THERETO

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Published by direction of Commander, Naval Air Systems Command.

0801LP1014570



NAVAIR 01-85AD-75

1 MAY 1992

FIGURE 2. Example of title page.

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NAVAIR 01-75PA-75
List of Effective Pages

LIST OF EFFECTIVE PAGES

Insert latest changed pages; destroy superseded pages in accordance with applicable regulations.

NOTE: On a changed page, the portion of the text affected by the latest change is indicated by a vertical line, or other change symbol, in the outer margin of the page. Changes to illustrations are indicated by miniature pointing hands. Changes to wiring diagrams are indicated by shaded areas.

Dates of issue for original and changed pages are:

Original Including RACs 1 through 17 0 1 MAR 1992

CHANGE 1 1 SEP 1992

Total number of pages in this manual is 484 consisting of the following:

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*Zero in this column indicates an original page.

A

FIGURE 3. Example of list of effective pages.

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CHIEF OF NAVAL OPERATIONS
OPNAV (OP-50)
DEPARTMENT OF THE NAVY
WASHINGTON, D.C. 20350

1 February 1991

LETTER OF PROMULGATION

1. The Airborne Weapons/Stores Loading Manual standardizes all respective loading or unloading procedures. The information provided in this manual is abbreviated by approved and verified NAVAIR Airborne Weapons, Stores and Release and Control checklists. The use of the Airborne Weapons/Stores Loading Manual or associated checklists is mandatory for all airborne weapons evolutions.
2. Procedural information contained herein assumes the aircraft is ready to receive the weapon/store, the weapon/store is ready to be loaded, and the weapon/store is ready for flight.
3. The Airborne Weapons/Stores Loading Manual/Checklists do not provide authorization for flight or tactical doctrine.
4. If there is a conflict between this manual and any other publication, with the exception of paragraph 1-3 of this publication, the provisions of this manual shall prevail until the conflict is resolved by the Commander, Naval Air Systems Command.

JEREMY D. TAYLOR
Rear Admiral, U.S. Navy
Director, Aviation Plans and Requirements Division

FIGURE 4. Example of letter of promulgation.

MIL-M-81310E(AS)

NAVAIR 11-140-9
List of TPDRs Incorporated

*LIST OF TECHNICAL PUBLICATION
DEFICIENCY REPORTS (TPDRs) INCORPORATED*

Originator	Report Control Number	Location
MAG 12, MALS-12	R09112-91-0019	Pg. 2-1, Para. 2-7 and Table 2-1

FIGURE 5. Example of list of TPDRs incorporated.

MIL-M-81310E(AS)

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FIGURE 4. Example of letter of promulgation.

MIL-M-81310E(AS)

NAVAIR 11-140-9
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MAG 12, MALS-12	R09112-91-0019	Pg. 2-1, Para. 2-7 and Table 2-1

FIGURE 5. Example of list of TPDRs incorporated.

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FIGURE 7. Example of list of illustrations and list of tables.

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Safety Summary**SAFETY SUMMARY**

The following are general safety precautions that are not related to any specific procedures and, therefore, do not appear elsewhere in this publication. These are precautions that personnel must understand and apply during many phases of aircraft rearming. FOLLOW APPROVED AND VERIFIED PROCEDURES.

Explosive accidents are prevented by thorough preplanning, extensive knowledge of ordnance and associated equipment, and careful handling of ordnance. The phrase "The life you save may be your own" applies especially to ordnance handlers. It is the responsibility of each individual to ensure that only safe, approved practices and procedures are followed when handling ordnance.

Safety devices shall always be used and maintained in proper working order.

Changes, modifications, disassembly or additions to ordnance material shall not be made without being approved by proper authority.

No ammunition or explosive shall be used in any weapon/store or accessory for which it is not designed/authorized.

Personnel who authorize movement of ordnance material by power shall ensure that an adequate safety watch is maintained in the area.

Personnel must be certified for handling aviation ordnance in accordance with the requirements of current instruction/directives.

Personnel working with or near high voltages shall be familiar with modern methods of resuscitation.

Restrictions specified in assembly publications are mandatory and must be adhered to by all personnel.

Strict compliance with procedures and precautions in NAVSEA OP 3565/NAVAIR 16-1-529/NAVELEX 0967-LP-624-6010 is mandatory when in a HERO environment.

Ordnance must never be handled in a rough and hasty manner.

Access to safety equipment such as fire alarms, fire fighting equipment, first aid equipment, etc. shall not be blocked at any time.

Anyone knowing of (a) defective ammunitions or other explosive ordnance or defective containers or handling devices, (b) rough or improper handling, or (c) willful or accidental violation of the safety precautions, however slight, shall immediately report the act to his immediate supervisor.

All persons who supervise work in connection with the inspection, care, preparation, use, or handling of ammunition or explosives shall exercise utmost care that all regulations and instructions are observed.

Do not work beneath a weapon/store unnecessarily.

Protective equipment such as safety eye glasses or eye shields, safety helmet or hats, ear protective devices, gloves, mittens, etc. and safety shoes shall be worn as required to guard against personal injury.

Smoking. Smoking is not permitted in magazines, nor in the immediate vicinity of handling or loading operations involving explosives or ammunition.

FIGURE 8. Example of safety summary.

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NAVAIR 11-140-9
Hazardous Material Warnings**WARNINGS APPLICABLE TO HAZARDOUS MATERIALS.**

Warnings for hazardous materials listed in this manual are designed to warn personnel of hazards associated with such items when they come in contact with them by actual use. Additional information related to hazardous materials is provided in OPNAVINST 5100.23, Navy Occupational Safety and Health (NAVOSH) Program Manual, NAVSUPINST 5100.27, Navy Hazardous Material Control Program, and the DOD 6050.5, Hazardous Materials Information System (HMIS) series publication. For each hazardous material used within the Navy, a Material Safety Data Sheet (MSDS) is required to be provided and available for review by users. Consult your local safety and health staff concerning any questions on chemicals, MSDSs, personal protective equipment requirements, and appropriate handling and emergency procedures and disposal guidance.

Complete warnings for hazardous materials referenced in this manual are identified by use of an icon, nomenclature and specification or part number of the material, and a numeric identifier. The numeric identifiers have been assigned to the hazardous materials in the order of their appearance in the manual. Each hazardous material is assigned only one numeric identifier. Repeated use of a specific hazardous material references the numeric identifier assigned at its initial appearance.

In the text of the manual, the caption "warning" will not be used for hazardous materials. Such warnings will be identified by an icon. The material nomenclature will also be provided. The user is directed to refer to the listed corresponding identifier for the complete warning applicable to the hazardous material.

FIGURE 9. Example of hazardous material warnings.

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NAVAIR 11-140-9
Safety Summary

CHEMICAL



FIRE



EXPLOSION



POISON

EYE
PROTECTION

VAPOR



EXPLANATION OF HAZARD SYMBOLS



The symbol of drops of a liquid onto a hand shows that the material will cause burns or irritation of human skin or tissue.



The rapidly expanding symbol shows that the material may explode if subjected to high temperatures, sources of ignition, or high pressure.



The symbol of a person wearing goggles shows that the material will injure your eyes.



The symbol of a flame shows that a material can ignite and burn you.



The symbol of a skull and crossbones shows that a material is poisonous or is a danger to life.



The symbol of a human figure in a cloud shows that vapors of a material present a danger to your life or health.

Figure 9. Example of hazardous material warnings - Continued.

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NAVAIR 11-140-9
Safety Summary

HAZARDOUS MATERIALS WARNINGS

<u>Index</u>	<u>Material</u>	<u>Warning</u>
1	SEALING COMPOUND, THREAD LOCKING, MIL-S-46163, TYPE I, GRADE K, L; TYPE II, GRADE M, N, O; OR TYPE III, GRADE R	Thread locking, sealing compound, MIL-S-46163, Type I, II or III, may cause dermatitis on prolonged contact. Avoid prolonged skin contact. Protection: rubber gloves, chemical goggles and protective skin compound.
2	INK, STENCIL, A-A-2-8, TYPE III	Stencil ink, A-A-208, Type III is toxic and flammable. Avoid breathing vapors. Use with adequate ventilation. Do not spray in eyes. Do not puncture or incinerate cans. Do not take internally. Keep away from heat, sparks and flame. Do not store above 120° F. Store large quantities in buildings designed and protected for storing of NFPA Class 1A flammable liquids. Protection: neoprene gloves and chemical goggles; protective clothing and respirator with organic vapor cartridge and paint mist pre-filter are required during spray operations.
3	SOLVENT, DRY CLEANING, P-D-680, TYPE III	Dry cleaning solvent, P-D-680, Type III, is toxic and flammable. Avoid contact with skin and eyes. Avoid breathing vapors. Use with adequate ventilation. Keep away from heat, sparks and flame. Avoid contact with strong oxidizing agents. Protection: neoprene gloves and chemical goggles; faceshield and protective clothing required when splashing is possible or expected; respirator with organic vapor cartridge required in poorly ventilated areas.
4	COMPOUND, CORROSION PREVENTIVE, MIL-C-16173, GRADE OPTIONAL	Corrosion preventive compound, MIL-C-16173, is toxic and flammable. Avoid contact with skin and eye. Avoid breathing vapors. Store in sealed containers away from heat, sparks and flame. Avoid contact with oxidizing agents. Protection: rubber gloves, chemical goggles and laboratory apron; faceshield required when pouring large quantities; respirator with acid/organic vapor cartridge and mist pre-filter required during spray operations or in poorly ventilated areas.

FIGURE 9. Example of hazardous material warnings - Continued.

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
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I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER

MIL-M-81310E(AS)

2. DOCUMENT DATE
(YYMMDD)

941001

3. DOCUMENT TITLE

MANUAL, TECHNICAL; AIRBORNE WEAPONS/STORES LOADING (CONVENTIONAL AND NUCLEAR) WEAPON ASSEMBLY/DISASSEMBLY/SUPPORT EQUIPMENT CONFIGURATION

4. NATURE OF CHANGE (Identify paragraph number and include proposed rewrites, if possible. Attach extra sheets as needed.)

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE
(Include Area Code)

7. DATE SUBMITTED
(YYMMDD)

(1) Commercial:

(2) DSN:

(If Applicable)

8. PREPARING ACTIVITY

a. NAME
COMMANDER
NAVAL AIR WARFARE CENTER

b. TELEPHONE NUMBER (Include Area Code)

(1) Commercial
(908) 323-7488

(2) DSN
624-7488

c. ADDRESS (Include Zip Code)
ATTN: CODE 41K1008120-3
HIGHWAY 647
LAKEHURST, NJ 08733-5100

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