MILITARY SPECIFICATION

MANUALS, TECHNICAL, SHIP WEAPON INSTALLATIONS

This specification has been approved by the Naval Air Systems Command, Department of the Navy.

1. SCOPE

1.1 This specification establishes specific requirements for preparation of a technical manual describing ship installation of air launched weapons. The document shall be titled Ship Weapon Installations Manual (SWIM).

2. APPLICABLE DOCUMENTS

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

Specifications

Military

MIL-M-38784	Manuals, Technical; General Requirements for Preparation of
MIL-P-38790	Printing Production of Technical Manuals; General Requirements for

Standards

Military

MIL-STD-12	Abbreviations for Use on Drawings and in Technical-Type Publications
MIL-STD-444	Nomenclature and Definitions in the Ammunition Area

Publications

Military

DOD 5220.22-M	Industrial Security Manual for Safeguarding Classified Information

2.2 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. The preparing activity shall comply with any deviations to MIL-M-38784, as defined in the TMCR (Technical Manual Contract Requirements), and shall prepare a control document. In the event of conflict between this specification or MIL-M-38784 and the control document of the procuring activity, the procuring activity control document shall apply.

3. REQUIREMENTS

3.1 General. The SWIM (Ship Weapon Installations Manual) shall provide data to enable cognizant naval activities to design the facilities and general arrangements necessary for weapon handling, stowage, assembly, testing, and maintenance aboard ship. The manual shall be based on sound engineering principles, techniques, and analyses. Practices, procedures, and techniques contained in airborne weapons and missiles general maintenance, loading, tactical, and other technical manuals shall not be duplicated.

3.2 Preparation of SWIM. SWIM's shall be prepared in accordance with the general requirements of MIL-M-38784 unless otherwise specified herein, or in the procuring activity control document. The procuring activity shall specify the cover color, cover and paper stock, and the form in which the manual is to be furnished (reproducible copy, negatives, printed copies, etc.). Printing, binding, and negatives supplied shall be in accordance with MIL-P-38790.

3.3 Nomenclature. Weapon and component nomenclature shall conform to MIL-STD-444. When specific nomenclature pertinent to the SWIM under preparation is not listed in MIL-STD-444, it shall be furnished by the procuring activity.

3.4 Abbreviations. Abbreviations and acronyms shall be limited to those in accordance with the requirements of MIL-STD-12 and MIL-STD-444, except for those deviations permitted by MIL-M-38784.

3.5 Publication references. References shall be made in accordance with MIL-M-38784. Pertinent information contained in existing military technical manuals shall be referenced and not repeated except where specifically required for job performance and clarity, as defined by the procuring activity control document.

3.6 Security classification. The requirements established by DOD 5220.22-M shall govern the handling of classified material. The SWIM security classification level shall be specified and reported by the procuring activity on form DD 254, and shall be marked in accordance with MIL-M-38784, and the procuring activity control document.

3.6.1 Paragraphs, pages, and classification criteria. When information in paragraphs on the same page of a SWIM is of the same classification level, individual paragraphs need carry no classification marking. However, when the paragraph classification levels differ, each paragraph shall be separately classified and marked (U), (C) or (S) as appropriate (see figure 1). If possible, information with different levels of classification shall be separated into different paragraphs. When such separation would destroy context or continuity, the entire paragraph shall bear the highest classification of any item within it.

3.7 Illustrations. All illustrations shall be prepared in accordance with MIL-M-38784 and the procuring activity control document. Each illustration shall be referenced in the text. The foldouts (including tables) in the procuring activity control document shall be followed, except for rare instances of simple weapons, as defined by that document.

3.8 Writing style. Writing style shall be in accordance with MIL-M-38784, and the procuring activity control document.

3.9 SWIM format. The SWIM shall consist of front matter, text body, and back matter.

3.9.1 SWIM front matter. The front matter shall be in accordance with MIL-M-38784 and shall consist of the following:

a. Cover page and title page
b. List of effective pages
c. Foreword
d. Table of contents
e. List of illustrations
f. List of tables

3.9.1.1 Cover and title page. The format for the front cover and title page for each SWIM shall be in accordance with MIL-M-38784, and the procuring activity control document. Type size, paper size, and reproduction image area of covers, title pages, text, and art shall conform to the procuring activity control document. The SWIM shall carry a NAVAIR series number, assigned by NATSF (Naval Air Technical Services Facilities). The date, assigned by the procuring activity, shall be the 1st or 15th day of the month.

3.9.1.2 List of effective pages. A list of effective pages shall begin on the back of the title page. Format shall be in accordance with MIL-M-38784, and the procuring activity control document.

3.9.1.3 Foreword. Each SWIM shall contain a foreword which describes the purpose of the manual, number of sections and identification of the procuring activity. The foreword shall be the first right-hand page following the list of effective pages and shall not be numbered. It shall carry the word "FOREWORD" in the lower right-hand corner. Format shall be in accordance with figure 2 of this specification.

3.9.1.4 Table of contents. The table of contents shall be in accordance with MIL-M-38784, and the procuring activity control document.

3.9.1.5 List of illustrations. SWIM's containing 10 or more illustrations shall include a list of illustrations. Format shall conform to MIL-M-38784, and the procuring activity control document.

3.9.1.6 List of tables. SWIM's containing 10 or more tables shall include a list of tables. Format shall conform to MIL-M-38784, and the procuring activity control document.

3.9.2 SWIM text body. The body of the SWIM shall consist of the following sections, each of which shall be carried in order and context:

Section	I	Introduction
	II	Applicable Documents
	III	Weapon Data
	IV	Ship Installations

Each section shall begin on a right-hand page. If a section is so short that it could be completed on that page, the following section shall begin on the same page. Format shall conform to figure 3 of this specification. All section titles and major subdivision titles shall always be carried; all primary side heads shall also be carried in all SWIM's. If a primary side head does not apply to a particular weapon, that side head shall still be carried followed by the words "NOT APPLICABLE". Every subordinate head in the procuring activity control document outline shall be considered for possible application to the particular weapon under study, as defined in that document. A thorough investigation of all heads in the outline shall be performed for all weapons, down to the fourth order sub-heads. Only in occasional instances may a head (or a series of heads) be skipped instead of listing a whole series with "NOT APPLICABLE". Indiscriminate head skipping or adding shall be avoided. Only after full consideration of all heads, down to the

fourth order sub-heads, may any head be added or omitted. Paragraph numbers may change as paragraphs are added or deleted.

3.9.2.1 Section I, Introduction. This SWIM section shall define in separate paragraphs the purpose and scope of the manual.

3.9.2.1.1 Purpose and scope. This heading shall be carried as a primary side head and shall appear in all SWIM's.

3.9.2.1.1.1 Purpose. This SWIM paragraph shall briefly state that the purpose of the SWIM is to serve as a data source for cognizant naval activities to effect ship installation of a weapon.

3.9.2.1.1.2 Scope. This paragraph shall briefly state the extent of coverage of the SWIM. It shall also state that the manual establishes the criteria used by cognizant activities to assure ship compatibility of a weapon.

3.9.2.2 Section II, Applicable documents. This SWIM section shall include a tabulation of all referenced documents and shall be in accordance with MIL-M-38784. The format shall follow that shown in figure 3 of this specification.

3.9.2.2.1 Military documents. This heading shall be carried as a primary side head and shall appear in all SWIM's. Sub-heads under this heading shall include all military specifications, military standards, and other military documents referenced in the SWIM.

3.9.2.2.2 Non-military documents. This heading shall be carried as a primary side head and shall appear in all SWIM's. Sub-heads under this heading shall include all other publications referenced in the SWIM.

3.9.2.3 Section III, Weapon data. This section shall briefly describe, in separate paragraphs and subparagraphs, the weapon characteristics, packaging, weapon support equipment, and weapon services required. Refer to procuring activity control document outline for paragraph headings.

3.9.2.3.1 Weapon characteristics. This heading shall constitute the first major subdivision of section III, and shall appear in all SWIM's.

3.9.2.3.1.1 Weapon description. This paragraph shall provide only a very brief description of the weapon, weapon models, and sections or components. For detailed description, it shall reference the applicable weapon manual. For complex weapons, the text shall be always brief, with the maximum illustration support highly resembling the foldout in the procuring activity control document.

For simple weapons, the minimum required illustration shall show all models, with tabulated dimensions of major sections (see figure 4), only when permitted by the procuring activity control document. The description of the weapon shall be in the following order:

a. Assembled weapon
b. Guidance and control section
c. Warhead (or fuze) section
d. Propulsion (or explosive section)
e. Wings (or fins)
f. Other functional components (chemical agents, consumables, special arming wires, seals, nose closures, and other expendable hardware)

3.9.2.3.1.2 Weapon technical data. This paragraph shall provide a description of the configuration of the weapon or component as received aboard ship (as a fleet issued unit load, on pallets, cradles, in containers, or bare). For complex weapons, the illustration support shall be the foldout and tabulation of the procuring activity control document, with minimum text. When specifically permitted by the procuring activity control document (for simple weapons), the minimum illustration format shall follow figure 5 of this specification. Containers shall be illustrated as detailed views of fleet issued unit loads; a table shall provide dimensions, weight, etc. of container and unit load. A separate paragraph shall provide design data necessary for the ship builder (stowage, environment, critical, and handling data). For complex weapons, the illustration support shall be the foldout and tabulation of the procuring activity control document, with minimum text. When specifically permitted by the procuring activity control document (for simple weapons), the minimum illustration format shall follow figure 6 of this specification. Hard areas, protrusions, suspension lugs, launch hooks, access doors, fins, fuzes, electrical connections, antenna tunnels, arming wire or cable tunnels, field breaks, etc. shall be shown, if applicable. Dimensional and design data shall include centers of gravity of the assembled weapon and for each component, under all pertinent conditions (loaded, empty, etc.); weights of weapon and individual components, etc. where applicable.

3.9.2.3.2 Weapon ground support equipment. This heading shall constitute the second major subdivision of section III, and shall appear in all SWIM's.

3.9.2.3.2.1 Tools and equipment required. This paragraph shall list, describe, and illustrate all specialized tools and equipment unique to the weapon. Only tools and equipment specifically manufactured for the weapon shall be included. Common tools shall not be included.

3.9.2.3.2.2 Tool and equipment packaging. This paragraph shall contain packaging information for all specialized tools and equipment. Packaging information shall include the mode of receipt aboard ship (pallets, boxes, crates, etc.), dimensions, weight, c.g., and cubage. The packaging illustration and table shall be prepared as defined in the procuring activity control document.

3.9.2.3.3 Weapon service requirements. This heading shall constitute the third major subdivision of section III, and shall appear in all SWIM's.

3.9.2.3.3.1 Services required. This paragraph shall contain, in table form, all electrical and non-electrical services required to support the weapon aboard ship. Electrical services information for each weapon and component shall include type of current needed, voltage (with tolerances), phase and frequency, and the location of the outlet. Non-electrical services shall include such items as special lighting, air-conditioning, decontamination stations, special suits, showers, water, steam, compressed air, oxygen, and nitrogen. For pressurized gases, state pressure, volume, etc. For either type of services, a typical arrangement illustration shall be prepared with specific dimensions, and shall conform to the procuring activity control document.

3.9.2.3.3.2 Service manpower required. This paragraph shall state the amount of personnel and time required for service and support equipment operation.

3.9.2.4 Section IV, Ship Installations. This section shall contain, in its subdivisions, the requirements for ship installation of the weapon. It shall include strikedown, stowage, assembly, ready service (if applicable), strikeup, and other special requirements. Only information which concerns the ship design and building activities shall be included. For actual handling, stowage, and maintenance procedures, reference the applicable weapon manual.

3.9.2.4.1 Standard handling equipment. This heading shall constitute the first major subdivision of section IV, and shall appear in all SWIM's. In separate paragraphs, it shall list and tabulate all handling equipment (specialized and standard, optimum and alternate) which may be used in ship installation of the weapon and its support equipment. Preferred and alternate weapon/skid load, shall be illustrated. It shall conform to figure 7 for preferred load, and to the procuring activity control document foldout and tables for alternate loads.

3.9.2.4.2 Strikedown to stowage. This heading shall constitute the second major subdivision of section IV, and shall appear in all SWIM's.

3.9.2.4.2.1 Strikedown requirements. This paragraph shall describe all tools, equipment, manpower, and time required for optimum strikedown procedure.

3.9.2.4.2.2 Strikedown procedure. This paragraph shall describe the ship requirements necessary for receipt and transfer to stowage. The requirements shall include those needed for receipt, temporary stowage, weapon unpacking, dunnage disposal, pre-stowage inspection and testing, and strikedown. Information shall include area location, clearance needed at passageways, hatches and access doors, and the capabilities of elevators for optimum and alternate strikedown. Optimum strikedown flow chart shall conform to figure 8; the time cycle chart shall conform to figure 9. Both illustrations shall be prepared, and shall conform to the procuring activity control document.

3.9.2.4.3 Stowage. This heading shall constitute the third major subdivision of section IV, and shall appear in all SWIM's.

3.9.2.4.3.1 Stowage requirements. This paragraph shall describe all tools, equipment, manpower, time and environment required for optimum stowage procedure. Environmental requirements may reference the table on the design data foldout. Stowage facilities required shall include sprinkler systems, blow-out facilities, electrical power, communications, alarms, pressurized gases, etc. Handling provisions required in the stowage space shall be included: elevator access, hoists (monorail, birail; manual, powered) bridge crane, pallet jack, forklift truck, hand carry. Also included shall be the required shock mitigating facilities, chocks, brackets, deck, bulkhead or stanchion fastening, and the stowage system (modular, conventional, or dunnage).

3.9.2.4.3.2 Stowage procedure. This paragraph shall describe, on the basis of preceding stowage requirements, the alternate methods used for stowage (shelf, bin, cradle). For complex weapons, the illustration support shall be the foldout in the procuring activity control document. For simple weapons, when permitted by the procuring activity control document, the illustration shall conform to figure 10.

3.9.2.4.4 Weapon assembly. This heading shall constitute the fourth major subdivision of section IV, and shall appear in all SWIM's.

3.9.2.4.4.1 Weapon assembly requirements. This paragraph shall describe the requirements for the weapon assembly area in the manner directed for stowage requirements.

3.9.2.4.4.2 Weapon assembly procedure. This paragraph shall describe the requirements connected with transfer to assembly area, and with assembly procedure. Included shall be the discussion of what is needed for both manual and mechanized assembly methods. If assembly is part of strikeup, simply reference the strikeup flow chart and include the assembly area on that chart. If MER/TER preloading is required, discuss the needed services.

3.9.2.4.5 Ready service. This heading shall constitute the fifth major subdivision of section IV, and shall appear in all SWIM's.

3.9.2.4.5.1 Ready service requirements. This paragraph shall describe the requirements for the weapon assembly area in the manner directed for stowage and assembly requirements.

3.9.2.4.5.2 Ready service procedure. This paragraph shall describe the requirements connected with transfer to the ready service area. If the transfer is part of strikedown, include it on the strikedown chart. If it is part of strikeup, include it on the strikeup chart. Include ready service stowage methods. If the weapon is assembled in ready service area, so state. Discuss weapon replenishment, and in-stowage inspection facilities. For the actual inspection and testing procedure, reference the applicable weapon manual.

3.9.2.4.6 Strikeup to aircraft. This heading shall constitute the sixth major subdivision of section IV, and shall be included in all SWIM's.

3.9.2.4.6.1 Strikeup requirements. This paragraph shall describe all tools, equipment, manpower, and time required for optimum strikeup procedure.

3.9.2.4.6.2 Strikeup procedure. This paragraph shall describe the ship requirements necessary for breakout from stowage and strikeup. Details shall conform to the procuring activity control document. Data shall include unpackaging requirements and container disposal from each mode of stowage. Information shall include area location, clearance needed at passageways, hatches and access doors, and the capabilities of elevators for optimum and alternate strikeup. Optimum strikeup flow chart shall conform to figure 8; the time cycle chart shall conform to figure 9. Both illustrations and multiple activity chart shall be prepared, and shall conform to the procuring activity control document. If assembly areas differ, describe transfer to each area. Describe weapon movement only as far as the aircraft loading deck. Do not describe aircraft weapon loading. Do not illustrate weapon load on aircraft, or the aircraft itself. Illustrate only load-to-aircraft clearance, in accordance with the procuring activity control document. For aircraft loading procedure, reference applicable weapon loading manual.

3.9.2.4.7 Special requirements. This heading shall constitute the seventh major subdivision of section IV, and shall appear in all SWIM's. For specific procedures, reference the applicable weapon manual.

3.9.2.4.7.1 Maintenance requirements. This paragraph shall describe the maintenance facilities, special location, and required maintenance shops. Typical arrangement with location of facilities shall be illustrated.

3.9.2.4.7.2 Checkout requirements. This paragraph shall describe tools, location, special services, and test equipment required to accomplish the applicable type of checkout (group checkout, pre-flight test, etc.) not covered under strikedown, stowage, or strikeup.

3.9.2.4.7.3 Safety requirements. This paragraph shall describe only that safety equipment, and procedures necessary for safe ship installation. For other types of safety information, reference the applicable safety manual. Any information extracted from safety manuals shall be extracted in accordance with the procuring activity control document.

3.9.2.4.7.4 Emergency handling. This paragraph shall describe the handling equipment, tools, specialized equipment, and manpower required for elevator failure. Procedure given shall cover only emergency strikeup, and shall be extracted from the weapon manual in accordance with the procuring activity control document.

3.9.3 SWIM back matter. The back matter of the SWIM shall contain appendices and a glossary. As a minimum, it shall include the SIG (Ship Improvement Guide) card as appendix A.

3.9.3.1 Appendix A. SIG card. The SIG card shall be prepared for all weapons, in accordance with the procuring activity control document.

3.9.3.2 Glossary. All SWIM's shall have a glossary. Generally, the definitions contained in MIL-STD-444 shall not be repeated, unless the procuring activity control document contains a special definition of the same term. In the event of conflict between MIL-STD-444 and the procuring activity definition, the procuring activity definition shall apply. A minimum required glossary shall conform to the one specified in the procuring activity control document.

4. QUALITY CONTROL PROVISIONS

4.1 Quality control provisions shall be in accord with MIL-M-38784, unless specified otherwise by the procuring activity.

5. PREPARATION FOR DELIVERY

5.1 SWIM's shall be packaged and marked for shipment in accord with MIL-M-38784, unless specified otherwise by the procuring activity.

6. NOTES

6.1 Intended uses. Manuals prepared under this specification are intended primarily to provide cognizant naval activities data regarding ship compatibility of air launched weapons or air launched weapon systems. From these data, stowage, handling, servicing, and test facilities can be designed to provide a compatible ship weapon installation.

6.2 Ordering data. The requirements and control documents of the procuring activity should specify:

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

b. Cover color, cover and paper stock, and the form in which the SWIM is to be furnished (reproducible copy, negatives, or both).

c. Quality assurance requirements: When reproducible copy is required, no photostats and weak or broken art lines shall be accepted, in accordance with MIL-M-38784. When the SWIM is furnished as a printed copy, all illustrations containing fine details, zip-a-tone, or finely reduced print shall be printed from prints made from negatives. All illustration preparation and writing style shall conform to MIL-M-38784, and the procuring activity control document.

d. Packaging requirements: in accordance with MIL-M-38784, unless specifically excepted by the procuring activity.

e. Review validation and verification requirements: strict conformity to the outline, down to the fourth order sub-heads, in accordance with 3.9.2 of this specification, fully defined in the procuring activity control document. All validation of SWIM's shall be performed at the Naval Air Engineering Center Ship Weapon's Evaluation Facility (Philadelphia), as defined in the procuring activity control document.

6.3 Definitions. These following definitions are applicable to this specification:

6.3.1 Weapon. Weapon as used in this specification includes any munition which is designed to be, or normally is, launched from an aircraft. Included are missiles, rockets, bombs, mines, torpedoes, and pyrotechnics.

6.3.2 Weapon component. Weapon component is any part, assembly, or sub-assembly which is an independent part of the weapon. The operation of this independent component in conjunction with similar assemblies, is essential to the operation of the weapon (e.g., fuzes, fins, batteries, motors, guidance systems, etc.).

6.3.3 Specialized equipment. Specialized equipment, as used in this specification, is any equipment, gear, machinery, etc. which has been specifically designed for, and is presently meant to be used only with, the weapon under discussion.

6.3.4 Standard equipment. Standard equipment, as used in this specification, is any equipment, gear, machinery, etc. which is used during handling and stowage of a weapon aboard ship. It may or may not be presently aboard naval vessels, but it is in the naval inventory.

6.3.5 Simple and complex weapons. Simple weapons are conventional, free-fall weapons, such as Mk 80 series bombs, flares, and pyrotechnics. All other weapons are complex.

Custodians:
Navy - AS

Review Activities:
Navy - AS

User Activities:
Navy - AS

Preparing Activity:
Navy - AS
(NAEC, Engr. Dept., Phila.
Attn: Code NE-4)

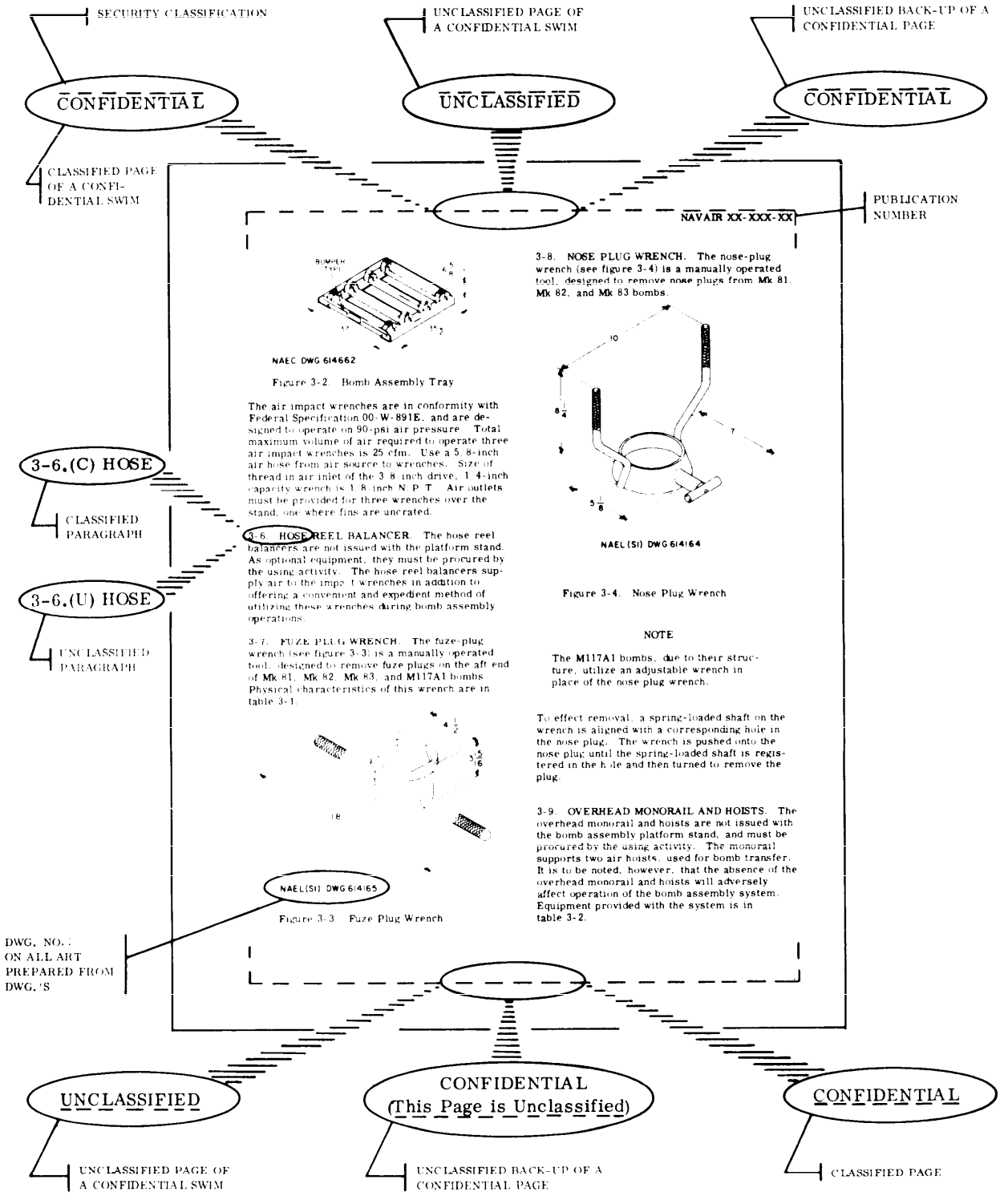


Figure 1. Sample of Page Classification and Text

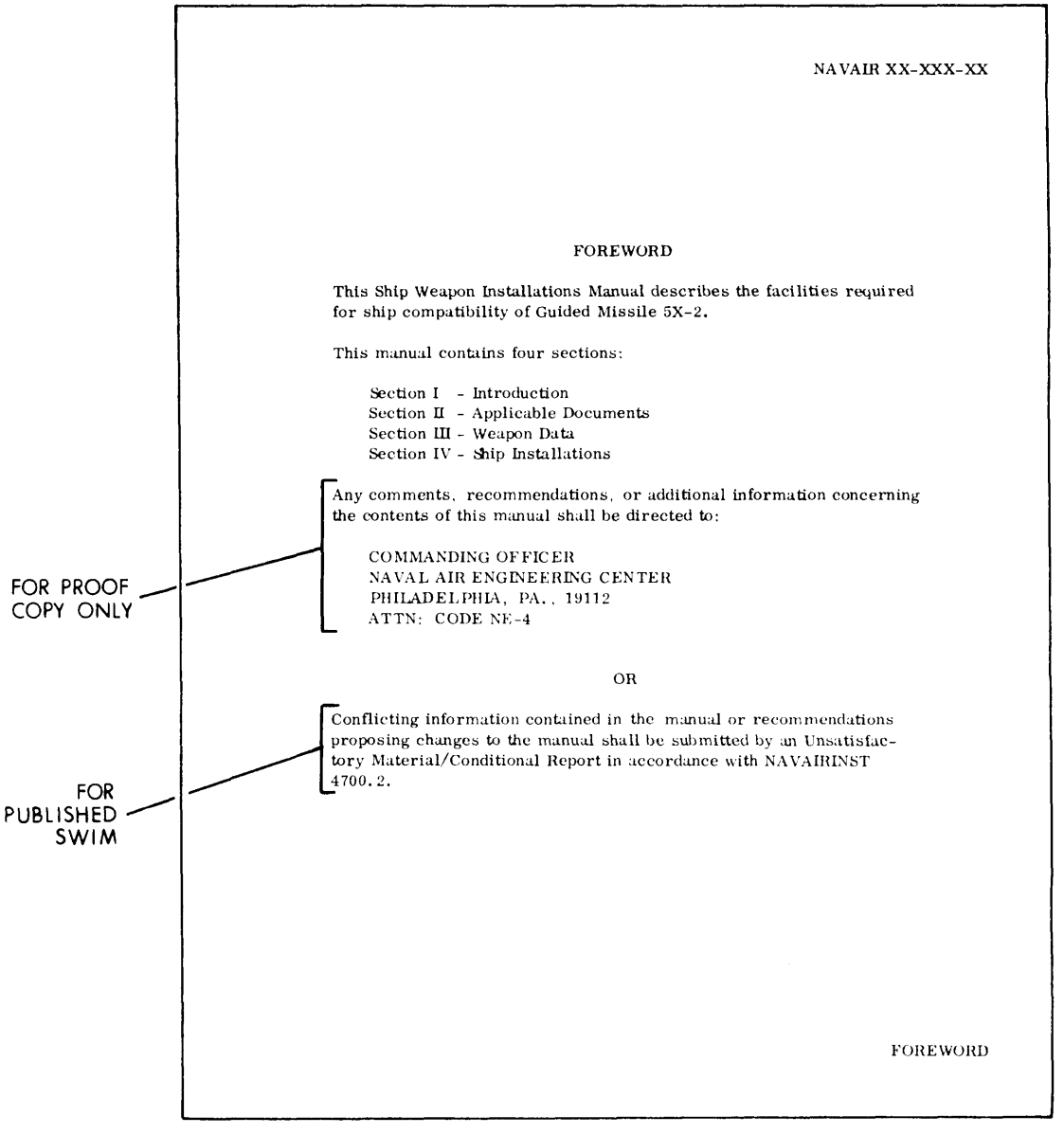


Figure 2. Sample Foreword Page

SECTION I
INTRODUCTION

1-1. PURPOSE AND SCOPE.

1-2. PURPOSE. This Ship Weapon Installations Manual (SWIM) is a guide for cognizant naval activities, to effect ship installation of the Mk 8X Mod 0 Fragmentation Bomb.

1-3. SCOPE. This SWIM describes the physical characteristics, handling and stowage facilities, and support systems required for ship installation of the Mk 8X Mod 0 Fragmentation Bomb. This manual establishes the criteria necessary to insure ship compatibility of the weapon.

SECTION II
APPLICABLE DOCUMENTS

2-1. MILITARY DOCUMENTS.

2-2. The following documents of the issue in effect on the date of this SWIM contract (or preparation order), form a part of this manual to the extent specified herein.

ORDNANCE PAMPHLETS

OP 4	Ammunition Afloat
OP 2216	Aircraft Bombs, Fuzes and Associated Components
OP 2173 Volumes 1 and 2	Handling Equipment for Ammunition Explosives

2-3. NON-MILITARY DOCUMENTS.

2-4. The following documents of the issue in effect on the date of this SWIM contract (or preparation order), form a part of this manual to the extent specified herein.

BULLETINS

Aviation Armament Bulletin
No. 357, Rev. A, Vol. 1

SERVICE MANUALS

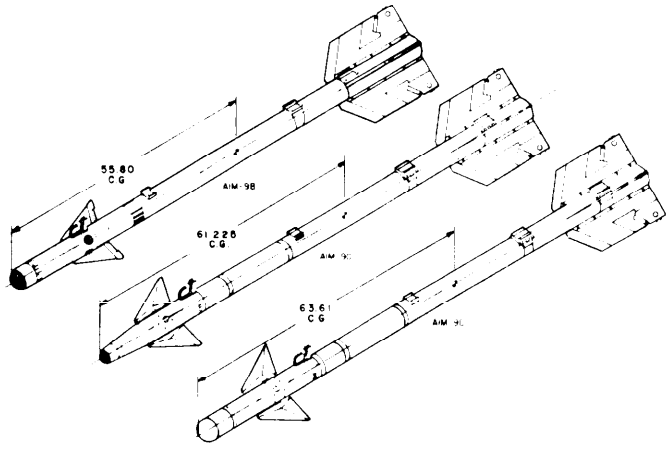
W37 MODEL 9109 W37S MODEL 9110 W37H MODEL 9817	Air Impact Wrench, Thor Power Tool Co., Aurora, Ill.

SERVICE BULLETINS

Bulletin No. 12190 13 May 1965	Air Impact Wrench, Thor Power Tool Co., Aurora, Ill.

1-1/2-1

Figure 3. Sample Text, Sections I and II



SIDEWINDER MISSILE DIMENSIONS

MISSILE	OVERALL LENGTH (INCHES)	BODY DIAMETER (INCHES)	FIN SPAN (INCHES)	WING SPAN (INCHES)	WEIGHT (POUNDS)	REQUIRED CUBAGE (CUBIC FEET)
AIM-9B	111.50	5.00	15.06	22.00	154	20
AIM-9C	117.94	5.00	18.39	24.81	194	2
AIM-9D	113.00	5.00	16.40	24.81	187	21

Figure 3-2. Assembled AIM-9B, AIM-9C, and AIM-9D Guided Missiles

Figure 4. Sample Illustration of Weapon Models

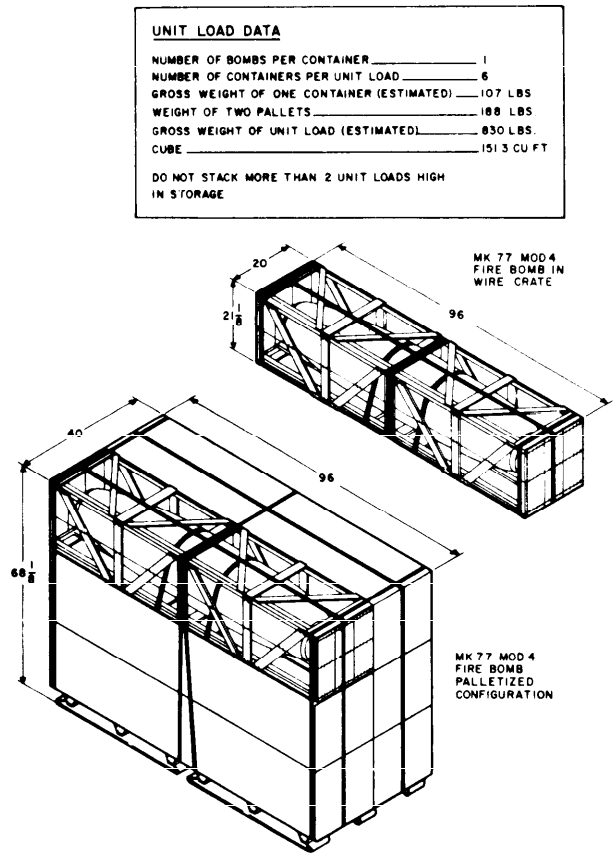


Figure 3-2. Shipping Configurations for Fire Bomb

3-3

Figure 5. Sample Weapon Packaging Illustration

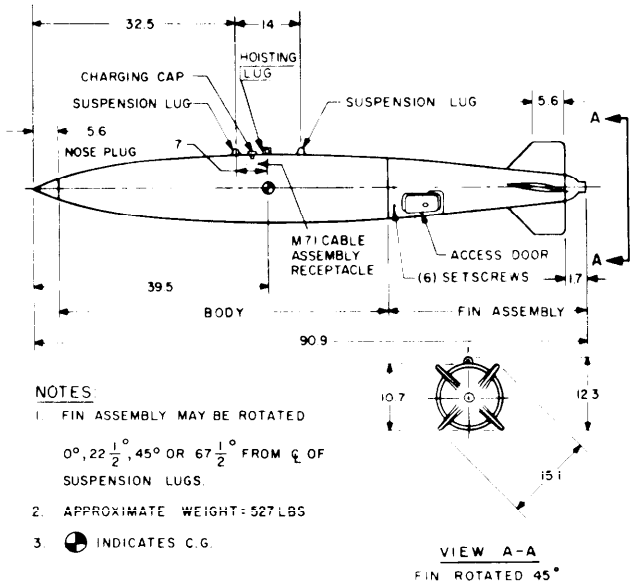
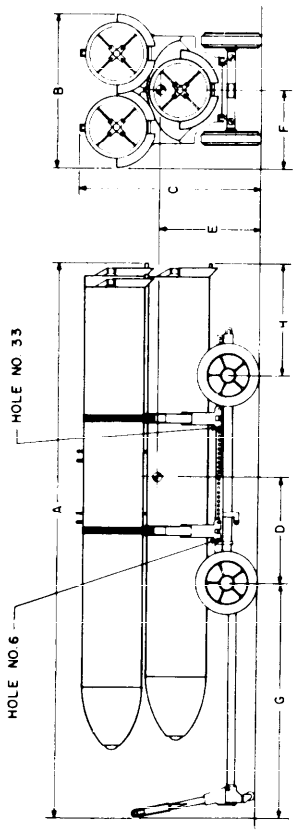


Figure 3-3. Assembled Mk 82 Bomb - Fin Configuration

3-5

Figure 6. Sample Weapon Dimensional Data Illustration

NAVAIR XX-XXX-XX



NOTE C G LOCATIONS ARE FOR ENTIRE CONFIGURATION

TANK CONDITION	DIMENSION							
	A	B	C	D	E	F	G	H
EMPTY	10FT-7.5	36.0	42.0	24.2	23.6	18	54.2	25.3
WITH BALLS	10FT-7.5	36.0	42.0	24.4	22.9	18	54.2	25.3

Figure 4-1. Chemical Tank, Mk 12 Mod 0, on Aero 21 A Skid/Aero 58A Adapter

4-2

Figure 7. Sample Illustration of Weapon/Skid Load

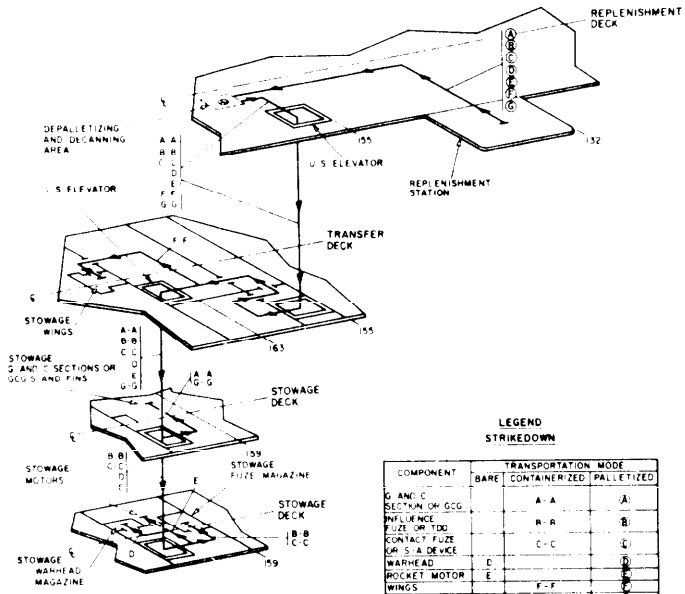


Figure 4-1. Representative Strikedown Flow Chart, CVA 19 Class.

Figure 8. Sample Flow Chart

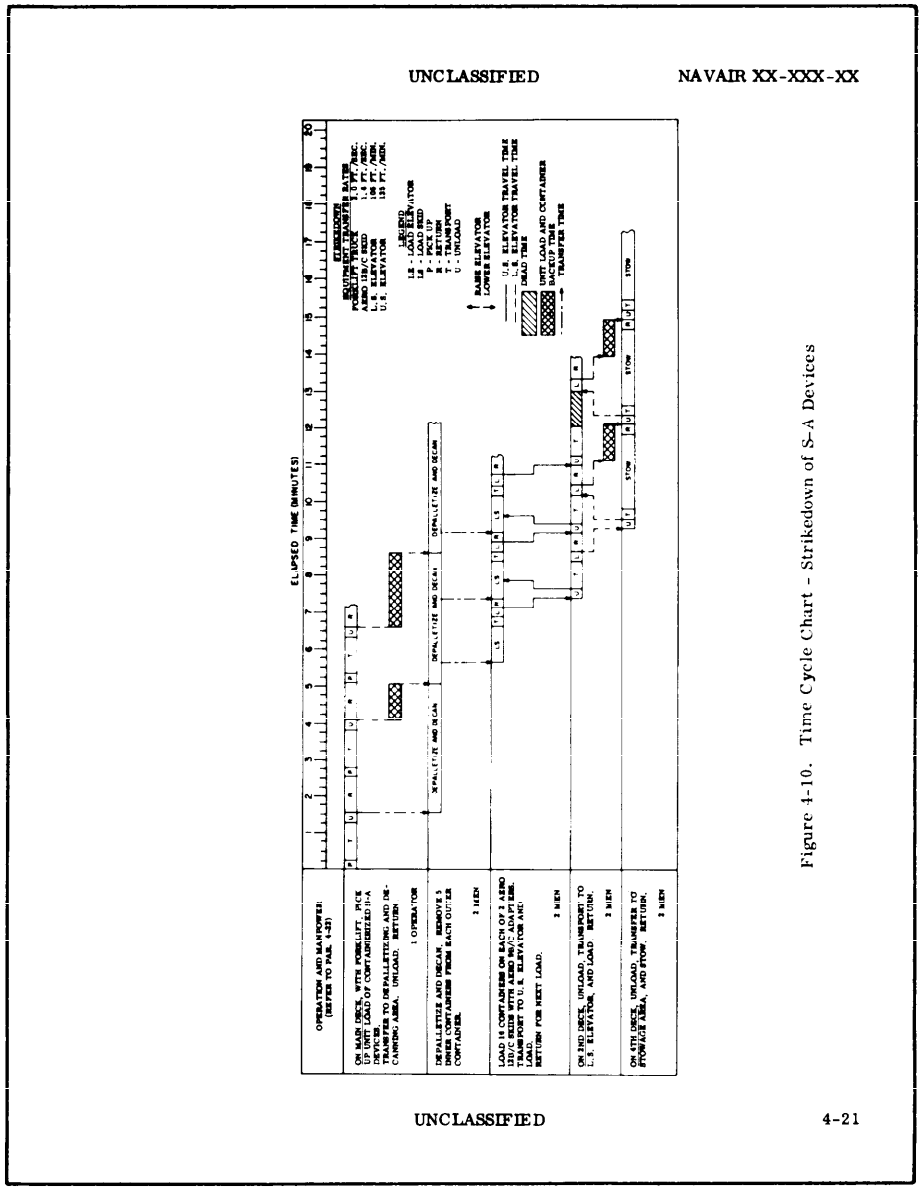
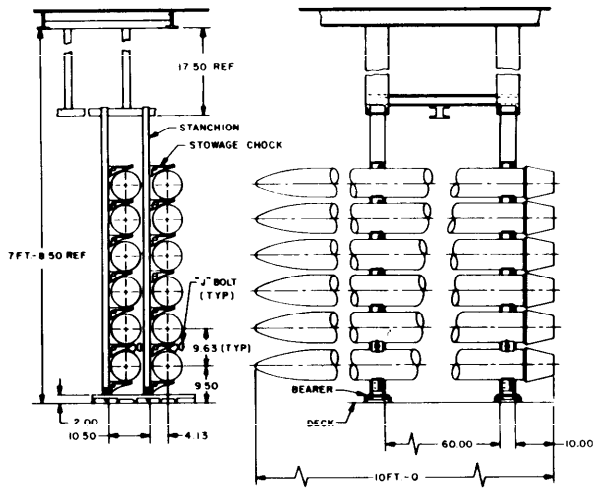


Figure 4-10. Time Cycle Chart - Strikedown of S-A Devices

Figure 9. Sample Time Cycle Chart



NOTES:
1 STOWAGE SHOWN IS TYPICAL FOR SHRIKE READY SERVICE MISSILE. STOWAGE MAY BE REARRANGED TO ACCOMMODATE COMPARTMENT SIZE, HATCH OPENINGS, DOOR OPENINGS AND ACCESS WAYS.

CONVENTIONAL
STOWAGE ARRANGEMENT
OF SHRIKE MISSILE

Figure 4-6. Stowage Arrangement

Figure 10. Sample Illustration of Stowage Arrangement

 *U.S. GOVERNMENT PRINTING OFFICE: 1969-343-226/1110

SPECIFICATION ANALYSIS SHEET

Form Approved Budget Bureau No. 119-R004

INSTRUCTIONS

This sheet is to be filled out by personnel either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity.

SPECIFICATION

MIL-M-81715(AS) MANUALS, TECHNICAL, SHIP WEAPON INSTALLATIONS

ORGANIZATION	CITY AND STATE

CONTRACT NO.	QUANTITY OF ITEMS PROCURED	DOLLAR AMOUNT
		$

MATERIAL PROCURED UNDER A

☐ DIRECT GOVERNMENT CONTRACT ☐ SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

☐ YES ☐ NO IF "YES" IN WHAT WAY?

4. REMARKS *(Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)*

SUBMITTED BY *(Printed or typed name and activity)*	DATE

DD FORM 1 APR 63 1426 REPLACES NAVSHIPS FORM 4863, WHICH IS OBSOLETE. AF-WP-O-MAY 64 505

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DEPARTMENT OF THE NAVY

Naval Air Systems Command
Washington, D.C. 20360

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DEPARTMENT OF THE NAVY
WASHINGTON, D.C. 20360

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SERIES shall be designated in the following manner: