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PERFORMANCE SPECIFICATION

MANUALS, TECHNICAL: WORK UNIT CODE - PREPARATION OF

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

1. SCOPE.

- 1.1 <u>Scope</u>. This specification prescribes the requirements for the development and preparation of Work Unit Code (WUC) manuals for Air Force equipment.
- 1.2 <u>Detail</u>. The level of detail contained in this performance specification is necessary to comply with the requirements of the Joint Computer-aided Acquisition and Logistics Support (JCALS) system.

2. APPLICABLE DOCUMENTS.

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

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: HQ ESC/AV-2, 4027 Col Glenn Hwy, Suite 300, Dayton, OH 45431-1672 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC: N/A AREA TMSS

<u>Distribution Statement A.</u> Approved for public release; distribution is unlimited.

2.2.1 <u>Specifications, standards, and handbooks</u>. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those 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).

STANDARDS

Military

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

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

2.3 <u>Order of precedence</u>. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS.

- 3.1 <u>Development and preparation</u>. The general manner of development and preparation of WUC manuals shall be in accordance with the requirements of MIL-STD-38784 (see 6.7).
- 3.1.1 <u>Format</u>. The format of the manuals shall be in accordance with the requirements of MIL-STD-38784. Unless otherwise specified by the acquiring activity, chapters and sections shall be arranged as outlined herein (see 6.2).
- 3.1.2 <u>Manual size</u>. Unless otherwise specified by the acquiring activity, preliminary manuals shall be 8 ½ by 11-inches (with the same printing area size as 5 by 8-inch manuals) (see 6.2). Formal manuals shall be prepared in 5 by 8-inch size, except training and support equipment (SE) manuals which shall be prepared in 8 ½ by 11-inch size (see 6.2). The standard WUC manual shall always be 5 by 8-inch.
- 3.1.3 Style of type. For WUC entries, each line entry with a zero as the fifth character of the WUC shall be in upper-case type. Each line entry with other than a zero as the fifth character of the WUC shall be in lower-case type, with the first letter of each word in upper-case type (see Figure 1). For support general codes, the title of each code shall be in upper-case type. Tasks within that code shall be in lower-case type, with the first letter of each word in upper-case type. Descriptive text shall follow normal sentence capitalization. For unique data codes for the maintenance cost system (MCS), the title of each code shall be in lower-case type, with the first letter of each word in upper-case type. Descriptive text shall follow normal sentence capitalization.
- 3.1.4 <u>Column arrangement</u>. Unless otherwise specified by the acquiring activity, 5 by 8-inch manuals shall be single column and 8 ½ by 11-inch manuals shall be double column (see 6.2). There shall be a blank line between WUC upper-case line entries (see 3.1.3) and the preceding line entry (excluding support general codes).

- 3.1.5 Page numbering. The table of contents, introduction, foreword, type maintenance, action taken, when discovered, and how malfunctioned codes pages shall be numbered with a roman numeral for each category (when discovered, how malfunctioned codes avionic/electrical/computer [alphabetic sequence], etc.) and the page sequence within that category (see Figure 2) (see 6.17). Pages containing WUCs shall be numbered in the lower outer corner of each page by the WUC system (or homogeneous group) number and consecutive page number (see 6.17). Pages containing System/Subsystem/Reference Designation Index (S/S/RDI) numbers shall be numbered in the lower outer corner of each page by the system/subsystem number and consecutive page numbers (see 6.17). Support General Codes 01000, 02000, 05000, 06000, 07000 and 09000 shall be listed on pages prefixed 01-. Codes 03XXX and 04XXX shall appear on pages prefixed 03- and 04-, respectively. Unique data codes for MCS, except support general codes, shall be listed after the support general codes portion of the manual, and shall be on the page numbered 05-001.
- 3.1.6 <u>Page entries</u>. When a change occurs in the system number, i.e., 20-, 21-, 22-, the listing for each system shall begin on a new right-hand page.
- 3.1.7 <u>Standardization</u>. When similar systems and components are used in two different series of the same mission design aircraft, such as the F-15 A/B and the F-15 C/D, the first three characters of the WUC shall be the same in both manuals. To the maximum extent practicable, the fourth and fifth characters of the WUC should also be the same.
- 3.1.8 <u>Test program</u>. Unless otherwise specified by the acquiring activity, when the contract contains a requirement for the collection of maintenance management type data during a test program (see 6.8), the WUC manual shall be completed prior to the start of the test program (see 6.2). The contractor shall be responsible for making any necessary changes to the manual resulting from the test program, including the addition of new end items.
- 3.2 <u>Front matter</u>. Front matter shall be prepared in accordance with the requirements of MIL-STD-38784, except as otherwise specified herein.
- 3.2.1 <u>Title page</u>. If applicable, an effectivity date notice shall be included on the title page in accordance with the requirements of MIL-STD-38784. All WUC manual changes, supplements, or revisions, that contain a change to a WUC from one nomenclature to another, shall contain an effectivity date notice on the title page. The effectivity date provided by the acquiring activity shall be used (see 6.16).
- 3.2.2 <u>List of effective pages</u>. A list of effective pages shall be prepared in accordance with the requirements of MIL-STD-38784.
- 3.2.3 <u>Table of contents</u>. Depending on the concept under which the WUC manual is to be prepared (see 3.3), the table of contents shall list the code manual contents in the order shown in 3.3.1 or 3.3.2, in conjunction with the appropriate page reference. The WUC listing shall consist of the first two characters of the support general or equipment end item (except for homogeneously grouped items as noted below), and the title or narrative description of each code listed (see Figure 2). Homogeneously grouped items shall be listed under the homogeneous group title in alphabetic sequence by end item nomenclature, with the complete end item WUC contained in the code column of the table of contents.
- 3.2.4 Foreword or introduction. The foreword or introduction shall be as outlined in Figure 3.

3.2.4.1 <u>Two-chapter manual</u>. The following paragraph shall be included in the foreword for each WUC manual prepared in accordance with the two-chapter manual concept (see 3.3.1).

"This manual has been prepared in two chapters; Chapter 1 contains Work Unit Code - Noun - System/Subsystem/Reference Designation Index listings for the weapon system, and support equipment peculiar to the weapon system. Chapter 2 contains System/Subsystem/Reference Designation Index - Noun - Work Unit Code listings for the weapon system, and support equipment peculiar to the weapon system."

3.2.4.2 <u>Three-chapter manual</u>. The following paragraph shall be included in the foreword for each WUC manual prepared in accordance with the three-chapter manual concept (see 3.3.2).

"This manual has been prepared in three chapters; Chapter 1 contains Work Unit Code - Noun - System/Subsystem/Reference Designation Index listings for the weapon system equipment. Chapter 2 contains System/Subsystem/Reference Designation Index - Noun - Work Unit Code listings for the weapon system equipment. Chapter 3 contains Work Unit Code listings for support equipment peculiar to the weapon system."

- 3.2.4.3 <u>Standard WUC manual</u>. In the standard WUC manual, the introduction shall contain a brief description of the codes and their use. The standard WUC manual shall not contain chapters or sections.
- 3.2.5 <u>Type maintenance, action taken, when discovered, and how malfunction codes</u>. No changes or additions shall be made to these codes, without prior approval by the acquiring activity (see 6.3, 6.9).
- 3.2.5.1 <u>Type maintenance code</u>. This list shall include only those codes that are applicable to the equipment covered by the WUC manual (see 6.3.1). The following note shall be included in all WUC manuals following the type maintenance codes:

"NOTE

Refer to TO 00-25-06-2-1 for off-equipment and shop Type Maintenance codes."

- 3.2.5.2 <u>Action taken code</u>. The complete list of action taken codes shall be included in the manual (see 6.3.2).
- 3.2.5.3 When discovered code. Only the when discovered codes and definitions, for the equipment to which the WUC manual is applicable, shall be included in the manual (see 6.3.3).
- 3.2.5.4 <u>How malfunction code (HMC)</u>. The HMC shall be listed in both alphabetic and numeric sequence, and shall contain only those codes that are applicable to the specific equipment contained in the WUC manual (see 6.3.4).
- 3.2.5.4.1 <u>Alphabetic and numeric sequence</u>. The alphabetic and numeric sequence shall be further divided into four categories: avionics/electrical/computer; physical/mechanical; engine related; and no defect.
- 3.2.5.4.2 <u>Engine related HMCs</u>. Engine related HMCs are restricted and shall be further divided into five categories: observed or recorded operational conditions; identified components; condition

monitoring; chance occurrences; and managerial decision. These codes shall be used for engine related items (see 6.3.4.1).

3.2.5.4.3 <u>Restricted uses of HMC</u>. The following note shall immediately precede the alphabetical listing of HMC:

"NOTE

Technicians must use a How Malfunctioned Code (HMC) from the engine related codes when documenting the removal of engines or engine components that are AFI 21-104 reportable. For all other maintenance actions, on any type of equipment, there are no restrictions on the use of codes by category. If a code is appropriate for an observed malfunction, it may be used regardless of the category in which it is listed. Avionics shops may use engine codes. Engine shops may use avionics codes. Tire shops may use physical/mechanical, avionic, or engine codes, etc. Categories of codes were created primarily for ease in finding a specific code."

- 3.2.6 Support general codes. (see 6.4).
- 3.2.7 <u>Unique data codes for MCS</u>. These codes (see Figure 4.) shall be included in the WUC manual following the last page of support general codes. For two-chapter and three-chapter manuals they shall be printed on one page and it shall be numbered 05-001 (see 6.5). The standard WUC manual shall have the unique data codes printed on one page, and it shall be numbered XII-001.
- 3.2.8 <u>Work unit code</u>. (see 6.6). Construction and application of WUCs shall be in accordance with Appendix A.
- 3.2.8.1 Used with but not part of. Work Unit Codes for these items shall be included (see 6.10).
- 3.2.9 <u>Nomenclature</u>. Each WUC in the equipment identification listing shall reflect the information required to properly identify all levels of assembly, and shall include the basic noun for each individual item that is coded. If an official military type nomenclature has been assigned, it shall be used for identification. Part numbers may be used to identify items, if no official nomenclature exists. The basic part number only shall be used, (i.e., 47A102212-XX rather than 47A102212-05). Abbreviations may be used when necessary, if approved by the acquiring activity (see 6.2).
- 3.2.10 Time change, configured article, serially controlled, and warranty tracked items.
- 3.2.10.1 <u>Two-chapter and three-chapter WUC manual</u>. Time change, time significant, configured article, serially controlled, and warranty tracked items shall be denoted by use of capital "T," "C," "S," and "W," respectively, in parentheses, inserted between the WUC and its definition (nomenclature) (i.e., 99ABC (T) Ignitor (time change); 99DEF (C) Stator (configured article); 99TUV (S) Housing (serially controlled); 99XYZ (W) Amplifier (warranty tracked)). These symbols may also be used in combinations, except "S" shall not be used with "C" or "W" (see 6.11). An explanation shall be provided in the manual foreword (see 2.1 of Figure 3).
- 3.2.10.2 <u>Standard WUC manuals</u>. Time significant, serially controlled, or time change items are identified by an asterisk (*) between the WUC and the code definition. Additionally, time change items are further identified by the abbreviation (TCI) following the definition.

- 3.2.11 End item identification. Each end item of SE shall be identified by an "@" (at) symbol between the WUC and its nomenclature (see 6.12).
- 3.2.12 <u>Mobile Training Sets (MTS)</u> and <u>Resident Training Equipment (RTE)</u>. Items peculiar to the training equipment (not utilized in the operational equipment of the same type) shall be coded in the applicable operational equipment WUC manual. The abbreviation MTS or RTE, as applicable, shall be entered in parentheses following the code definition for these items. Codes for peculiar training equipment shall be restricted to items on which it is essential to collect maintenance data, such as, a motor to simulate actuation, or actuating devices necessary to simulate functions. Such items shall be coded following the applicable system codes for the operational equipment, with code spacing allowed to permit expansion of operational equipment codes. The following sentence shall be added to the end of paragraph 2.1 of the foreword when the preceding coding procedure is used:

"The abbreviation (MTS or RTE, as applicable) identifies training equipment (Mobile Training Sets or Resident Training equipment) peculiar items included in this Work Unit Code manual for recording purposes."

- 3.2.13 <u>Site effectivity identification</u>. Effectivity symbols may be used for identification of equipment that is not applicable to all sites (squadron or wing) of a specific Mission Design Series (MDS) missile or space system. Numeric characters, in parentheses between the WUC and its nomenclature, shall be used for this purpose, and shall be as specified by the acquiring activity (see 6.2). When effectivity symbols are used in accordance with this paragraph, an appropriate reference explaining their use shall be included in the foreword.
- 3.2.14 <u>System code/end item code page entries</u>. Each new system WUC, except support general codes, shall begin on a new right-hand page (i.e., following completion of code assignments for 11000, Code 12000 assignments shall begin on a right-hand page).
- 3.2.15 New page entries. When WUCs for a major system or lower level assembly are carried over to a new page, the first WUC entry shall be (1) the system code and title; (2) following that line entry shall be the WUC and title of the second level assembly (fourth character of the WUC) followed by "- Continued" (see Figure 1). If crowding will occur the "- Continued" may be placed on the following line (i.e., assuming that the last code of the preceding page is 11AAA Aileron Actuator:

11000 AIRFRAME System
 11AA0 OUTER PANEL - Continued Second Level Assembly
 11AAB Aileron Follow-up Cable Guide Third Level Assembly)

3.2.15.1 <u>Work unit code column heading</u>. The first line entry at the top of each WUC column shall be the type of equipment to which the work unit codes apply. For example:

11000 - AIRFRAME

25000 - SOLID ROCKET

RA000 - GUIDED MISSILE TEST SET

- 3.2.16 <u>Skin diagrams</u>. Skin and access panel diagrams shall be provided for System 11 (Airframe), 14 (Flight Controls), and 23 (Nacelle skin portion). The WUCs developed and published shall provide data on the skin/access panels only; the structure beneath being reportable by other codes (see Figure 5).
- 3.2.16.1 <u>Coded segments</u>. The view of coded segments shall be clearly distinguishable as to location on the airframe. These illustrations shall contain the following (see Figure 5):
 - a. Specific area. A small plan view of the aircraft with the specific area of the illustration shaded in, or a portion of the area being identified large enough to permit area identification, shall be included. A worded description, such as outboard wing, shall also be included in each diagram.
 - b. Particular Area. The illustration shall show the particular area of the airframe structure as a background figure, with the skin and access panel diagrams shown as exploded parts.
- 3.2.16.2 <u>Area site</u>. Each access panel which is assigned a number (other than a part number) shall be coded individually (see Figure 5) (see 6.13).
- 3.3 <u>Work unit code manual</u>. The content and arrangement of the work unit code manuals shall be, either a two-chapter manual, three-chapter manual, or a standard manual, as specified by the acquiring activity (see 6.2). If required by the acquiring activity, SE shall be included (see 6.2).
- 3.3.1 <u>Two-chapter work unit code manual</u>. The contractor shall use the Document Type Definition (DTD) in Appendix B, if electronic delivery of this manual is required (see 6.2). The two-chapter work unit code manual shall be arranged as follows:
 - a. Front matter.
 - b. Type maintenance codes.
 - c. Action taken codes.
 - d. When discovered codes.
 - e. How malfunctioned codes (alphabetic sequence).
 - f. How malfunctioned codes (numeric sequence).
 - g. Work unit codes support general.
 - h. Unique data codes for maintenance cost system.
 - i. Chapter 1. Work unit code noun system/subsystem/reference designation index (equipment and SE).
 - j. Chapter 2. System/subsystem/reference designation index noun work unit code (equipment and SE).

- 3.3.1.1 <u>Chapter 1</u>. The first chapter of the manual shall be developed to include WUC Noun S/S/RDI for the equipment. For a two-chapter manual, both the equipment and peculiar SE shall be listed (see 6.15).
- 3.3.1.2 <u>Chapter 2</u>. The second chapter of the manual shall be developed to include S/S/RDI Noun WUC for the equipment. For a two-chapter manual, both the equipment and peculiar SE shall be listed (see 6.15).
- 3.3.2 <u>Three-chapter work unit code manual</u>. The contractor shall use the DTD in Appendix B, if electronic delivery of this manual is required (see 6.2). The three-chapter work unit code manual shall be arranged as follows:
 - a. Front matter.
 - b. Type maintenance codes.
 - c. Action taken codes.
 - d. When discovered codes (munitions and SE codes, when applicable, shall be in separate lists).
 - e. How malfunctioned codes (alphabetic sequence).
 - f. How malfunctioned codes (numeric sequence).
 - g. Work unit codes support general (equipment and SE codes shall be separate lists).
 - h. Unique data codes for maintenance cost system.
 - i. Chapter 1. Work unit code noun system/subsystem/reference designation index (equipment only).
 - j. Chapter 2. System/subsystem/reference designation index noun work unit code (equipment only).
 - k. Chapter 3. Introduction (see Figure 6).
 Work unit codes noun equipment identification (SE only).
- 3.3.2.1 <u>Chapter 1</u>. The first chapter of the manual shall be developed to include WUC Noun S/S/RDI for the equipment. For a three-chapter manual, only the equipment shall be listed (see 6.15).
- 3.3.2.2 <u>Chapter 2</u>. The second chapter of the manual shall be developed to include S/S/RDI Noun WUC for the equipment. For a three-chapter manual, only the equipment shall be listed (see 6.15).
- 3.3.2.3 <u>Chapter 3</u>. The third chapter of the manual shall be developed to include WUC Noun for peculiar SE (see 6.15).

- 3.3.3 <u>Standard WUC manual</u>. The standard WUC manual shall be arranged as follows. Appendix B provides the Document Type Definition (DTD) for the electronic delivery of this manual.
 - a. Table of contents.
 - b. Introduction.
 - c. Type maintenance codes.
 - d. Action taken codes.
 - e. When discovered codes.
 - f. How malfunctioned codes alphabetical listing avionics/electronics/computer.
 - g. How malfunctioned codes alphabetical listing physical/mechanical.
 - h. How malfunctioned codes listing reason for removal engine related.
 - i. How malfunctioned codes numerical listing avionics/electronics/computer.
 - j. How malfunctioned codes numerical listing physical/mechanical.
 - k. How malfunctioned codes numerical listing reason for removal engine related.
 - 1. Unique data codes MCS (Maintenance cost system).
 - m. Support general codes (except 03000 and 04000).
 - n. 03000 Support general codes.
 - o. 04000 Support general codes.
 - p. Work unit code system.

4. VERIFICATION.

- 4.1 <u>Verification</u>. Unless otherwise specified in the contract or purchase order:
 - a. Validity of the accuracy and scope of the work unit code manuals, the technical content, and user interface functionality shall be the responsibility of the contractor (see 6.20.1).
 - b. The contractor shall provide suitable facilities to perform the validation functions specified herein.
 - c. The contractor's existing quality assurance (QA) procedures shall be used.

- d. The Government reserves the right to review any of the verifications when such reviews are deemed necessary to ensure supplies and services conform to the prescribed contractual requirements.
- 4.1.1 Minimum verification requirements. As a minimum, verification shall ensure the following:
 - a. Suitability of the work unit code manuals for the intended environment.
 - b. Usability by the intended users.
 - c. Compatibility with other government systems.
- 4.1.2 <u>Compliance</u>. All WUC manuals shall meet all of the requirements of sections 3 and 5 of this specification and the appropriate DTD appendix, as required by the acquiring activity (see 6.2). The requirements set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any requirements in this 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. Use of sampling inspections shall be at the discretion of the contractor, and in accordance with commercially acceptable quality assurance procedures. However, use of sampling in QA procedures does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to accept defective material.

5. PACKAGING

5.1 <u>Packaging</u>. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of material is to be performed by DOD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES.

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

6.1 <u>Intended use</u>. WUC manuals are used to identify all "work unit" (support general and equipment identification), "unique data codes for MCS," "type maintenance," "action taken," "when discovered," and "how malfunctioned" codes that apply to the equipment covered by the manual. Under the Air Force data collection system, each maintenance action performed on Air Force equipment must be fully and accurately documented. The volume of data collected requires the use of Automatic Data Processing (ADP) techniques. The use of ADP equipment requires that the data input be coded in such a manner that it can be read by the data processing machines. Standard codes have been developed for recording the type of maintenance being performed, the action taken to correct a deficiency, when a deficiency was discovered, and the type of malfunction that occurred.

Identification codes, called "work unit codes," are used to identify the specific assembly or part within an end item on which an action was performed.

- 6.2 <u>Acquisition requirements</u>. Acquisition documents must specify the following:
 - a. Title, number, and date of this document.
 - b. Issue of the DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2.1, 2.2.2).
 - c. If the arrangement of chapters and sections is to be other than as specified in this document (see 3.1.1).
 - d. If the size of the manuals is to be other than as specified in this document (see 3.1.2).
 - e. If the column arrangement is to be other than as specified in this document (see 3.1.4).
 - f. If the work unit code manuals must be completed prior to the start of the test program (see 3.1.8).
 - g. If abbreviations may be used as specified in this document (see 3.2.9).
 - h. The numeric characters to be used in parentheses between the WUC and the nomenclature (see 3.2.13).
 - i. If a 2-chapter, 3-chapter, or standard work unit code manual is to be developed (see 3.3).
 - j. If electronic delivery of the work unit code manual is required (see 3.3.1, 3.3.2).
 - k. Packaging requirements (see 5.1).
 - 1. If system code manuals are to be prepared by individual series (see A.3.3.2).
 - m. If items installed in multiples, within a functional system/homogeneously grouped end item, and perform within the same function/application parameters, except for location, will have a single code assigned as specified in this document (see A.3.8.9).
- 6.3 <u>Codes</u>. Type maintenance, action taken, when discovered, and how malfunction codes are assigned and controlled by AFI 33-110 (Air Force Data Administration Program). These codes must be approved by the acquiring activity (see 3.2.5).
- 6.3.1 <u>Type maintenance code</u>. This code consists of one alphabetic character, and identifies the type of work performed, (e.g., scheduled or unscheduled maintenance) (see 3.2.5.1).
- 6.3.2 <u>Action taken code</u>. This code consists of one alphabetic or numeric character, and identifies what work was done (e.g., removed, replaced, removed and reinstalled same part, etc.). The WUCs and the action taken code, collectively, identify a "unit of work" as defined in AFI 21-101 (Maintenance Management of Aircraft) (example; Work Unit Code 23130, Igniter Assembly, Action Taken Code R Remove and Replace) (see 3.2.5.2).

- 6.3.3 When discovered code. This code consists of one alphabetic or numeric character, and identifies when a defect was discovered, or when a maintenance requirement was discovered, (i.e., during a periodic inspection, in-flight, etc.) (see 3.2.5.3).
- 6.3.4 <u>How malfunction code</u>. This code consists of three numeric characters, and is used to identify how the equipment malfunctioned, (i.e., shorted, cracked, corroded, etc.). Codes applicable to reciprocating engines should not be listed in TO 21M-AGM38A-06-1 (see 3.2.5.4).
- 6.3.4.1 <u>Alphabetic and numeric sequence</u>. Engine related HMCs are restricted. Engine maintenance technicians are required to use codes from the engine related group for any items which are AFI 21-104 (Selective Management of Selected Gas Turbine Engines) reportable (see 3.2.5.4.1).
- 6.4 <u>Support general codes</u>. Support general codes are for recording production credit or repetitive tasks of a general nature (see 3.2.6 and A.3.2.1).
- 6.5 <u>Unique data codes for MCS</u>. Unique data codes for MCS are listed in Figure 4 (see 3.2.7).
- 6.6 <u>Work unit code</u>. The WUC consists of five characters, and is used to identify the system, subsystem, or component on which maintenance is required, or was accomplished. WUCs will be reviewed and approved during in-process reviews (see 3.2.8). For construction and application of WUCs, see Appendix A.
- 6.7 <u>Development and preparation</u>. Work Unit, Type Maintenance, Action Taken, When Discovered, and How Malfunctioned Codes, Support General WUCs, and Unique Data Codes for Maintenance Cost System (MCS) will be in accordance with AFI 33-110 (Air Force Data Administration Program) (see 3.1).
- 6.8 <u>Test Program</u>. Collection of maintenance management type data during a test program (AFI 99-101, Developmental Test and Evaluation, or equivalent) will be in accordance with AFI 21-101 (Maintenance Management of Aircraft) (see 3.1.8).
- 6.9 <u>Code changes or additions</u>. Changes or additions to type maintenance, action taken, when discovered, and how malfunction codes will be in accordance with the requirements of AFI 33-110 (Air Force Data Administration Program) (see 3.2.5).
- 6.10 <u>Used with, but not part of</u>. An item which extends the use of equipment beyond its assigned functions, and is issued for use with that equipment only under special circumstances, is considered as used with, but not part of, that equipment (see 3.2.8.1).
- 6.11 <u>Time change, configured article, serially controlled, and warranty tracked items</u>. These items will be approved by the acquiring activity (see 3.2.10).
- 6.12 <u>End item identification</u>. End item identification is intended to aid the maintenance technicians in identifying what equipment should be entered in the "end item Work Unit Code" block of the maintenance forms (see 3.2.11).
- 6.13 <u>Area site</u>. In determining the area of skin panel size for individual coding, the rivet lines are normally used as a boundary. It is a matter of judgement to contain an area large enough to provide the ability to localize deficiencies (see 3.2.16.2).

- 6.14 <u>Work unit code manual</u>. Work unit code manual construction will vary depending on the concept dictated by the equipment to which it applies. SE that is commonly used in the Air Force is included in the TO 00-06-series Work Unit Code manuals. Clarification of equipment applicability will be provided by the applicable system manager through the acquiring activity (see 3.3).
- 6.15 <u>Chapters 1, 2, and 3</u>. These chapters provide information used by maintenance personnel to record maintenance tasks accomplished directly on the end item, components, or equipment undergoing repair, servicing, testing, calibration, or bench check in specialized shops (see 3.3.1.1, 3.3.1.2, 3.3.2.1, 3.3.2.2, 3.3.2.3).
- 6.16 <u>Effectivity date</u>. The effectivity date will be a minimum of 30 days subsequent to the actual distribution date. All effectivity dates will be the first day of the month. The effectivity date will be established by the acquiring activity (see 3.2.1).
- 6.17 <u>Page numbering</u>. The first page of the table of contents will be I-001, and the fifth page of the how malfunctioned codes engine related (alphabetical sequence) will be X-005. The first page of the support general codes will be 01-001, and the eleventh page of inertial guidance systems codes (air launched missile) will be 62-011. The first page of the engine turbine/turboprop/combustion section will be 72-30-01, and the sixth page of the landing gear/steering section will be 32-50-06 (see 3.1.5).
- 6.18 <u>Technical manuals</u>. The requirement for technical manuals should be considered when this specification is applied on a contract. If technical manuals are required, specifications and standards that have been cleared and listed in DOD 5010.12-L, Acquisition Management Systems and Data Requirements Control List (AMSDL) must be listed on a separate Contract Data Requirements List (DD Form 1423), which is included as an exhibit to the contract. The technical manuals must be acquired under a separate contract line item in the contract.
- 6.19 Acronyms. The acronyms used in this document are defined as follows:

ADM - Air Defense Missile. AFI - Air Force Instruction.

AFSATCOM - Air Force Satellite Communications.

AGM - Air to Ground Missile.

AMAC - Aircraft Monitor and Control.

AWACS - Airborne Warning and Control System.
 AWCS - Airborne Weapon Control System.
 CAE - Computer Assisted Enrollment.
 CE - Communication Electronic.
 CIE - Controlled Interval Extension.

DODISS - Department of Defense Index of Specifications and Standards.

DTD - Document Type Definition.

EMUX - Electrical Multiplex.

HF - High Frequency.

HMC - How Malfunction Code.

IFF - Identification, Friend or Foe.

IR - Infrared Radiation.

JCALS - Joint Computer-aided Acquisition and Logistics Support.

LF/LCF - Low Frequency/Low Cycle Fatigue.

LLC/TCI - Limited Life Component/Technical Critical Item.

MCS - Maintenance Cost System.

MDS - Mission Design Series.
 MTS - Mobile Training Sets.
 NOC - Not Otherwise Coded.
 NRTS - Not Repairable This Station.
 ORI - Operational Ready Inspection.

OT/FOT - Operational Test/ Follow-on Operational Test.

PCU - Pressurization Control Unit.
PDM - Programmed Depot Maintenance.

PMC - Post Maintenance Check.

QA - Quality Assurance.

RPIE - Real Property Installed Equipment. RTE - Resident Training Equipment.

RV - Recovery Vehicle. SE - Support Equipment.

SHF/EHF - Super High Frequency/Extra High Frequency.

SIF - Selectable Identification Feature.

SM - System Manager.

SRAM - Short Range Attack Missile.

S/S/RDI - System/Subsystem/Reference Designation Index.

TCTO - Time Compliance Technical Order.

T/R - Transformer Rectifier.
UHF - Ultra High Frequency.
VHF - Very High Frequency.

VLF/LF - Very Low Frequency/Low Frequency.V/STOL - Vertical or Short Takeoff and Landing.WSEM - Weapon System Evaluator Missile.

WUC - Work Unit Code.

- 6.20 <u>Definitions</u>. To clarify the terms used throughout this specification, the following definitions are given:
- 6.20.1 <u>Verification</u>. Verification (section 4), in the context of this specification, equates to the contractor's quality assurance program for validating the content of the manuals. Suggested validation methods include:
 - a. Actual performance. Using production configured equipment, hands-on performance of the procedure using the technical instructions as written.
 - b. Simulation. Using production configured equipment and the manual, simulate the actions required by the task steps.
 - c. Table top analysis. Primarily for nonprocedural data, compare the technical content to source data to ensure the technical accuracy and depth of coverage.

6.21 Subject Term (key word listing).

Type maintenance code Action taken code When discovered code How malfunctioned code Support general WUCs Unique data codes Maintenance cost system

6.22 <u>Changes from previous issue</u>. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

TO XX-XX-06 WORK UNIT CODE 73000 BOMBING NAVIGATION 73FC0 AN/AJN-8 HEADING VERTICAL REFERENCE SET INSTALLATION - Continued 73FCC Electronic Control and Power Supply 73FCD Amplifier 73FCE Amplifier Azimuth 73FCF Compensator 73FCG Integrator Bias 73FD0 J-4 COMPASS INSTL 73FDA Control, Directional 73FDB Amplifier, Servo 73FDC Servo, Azimuth 73FE0 COMPASS AMPLIFIER INSTL 73FEA Amplifier, Compass Signal Power, Type ME-1 73FEB Amplifier, Compass Signal Power, Type C-1 73F99 NOC 73-17

FIGURE 1. Typical work unit code page.

	TABLE OF CONTENTS	TO XX-XX-0
CODE		PAGE
	TABLE OF CONTENTS	I-001
	FOREWORD	II-001
	TYPE MAINTENANCE CODES	III-001
	AIDORAET ENGINE (SHOP)	
	AIRCRAFT ENGINE (SHOP) TYPE MAINTENANCE CODES	IV-001
	CLASS 1 TRAINER TYPE	
	MAINTENANCE CODES	V-001
	ACTION TAKEN CODES	VI-001
	WHEN DISCOVERED CODES	VII-001
	HOW MALFUNCTIONED CODES	
	AVIONIC/ELECTRICAL/	
	COMPUTER (ALPHABETICAL	
	SEQUENCE)	VIII-001
	HOW MALFUNCTIONED CODES	
	PHYSICAL/MECHANICAL	
	(ALPHABETICAL SEQUENCE)	IX-001
	HOW MALFUNCTIONED CODES	
	ENGINE RELATED	
	(ALPHABETICAL SEQUENCE)	XI-001
	HOW MALFUNCTIONED CODES	
	AVIONIC/ELECTRICAL/	
	COMPUTER (NUMERICAL	
	SEQUENCE)	XII-001
	HOW MALFUNCTIONED CODES	
	PHYSICAL/MECHANICAL	
	(NUMERICAL SEQUENCE)	XIII-001
	HOW MALFUNCTIONED CODES	
	NO DEFECT (NUMERICAL	
	SEQUENCE)	XIV-001
		I-00

FIGURE 2. Typical table of contents.

	TABLE OF CONTENTS (CONT.)	
	. ,	
CODE		PAGE
	HOW MALFUNCTIONED CODES	
	ENGINE RELATED	
	(NUMERICAL SEQUENCE)	XV-001
	UNIQUE SUPPORT GENERAL	
	CODES	XVI-001
	SUPPORT GENERAL CODES	
	(EXCEPT 03 AND 04 SERIES)	01-001
	SUPPORT GENERAL CODES	
03	LOOK PHASE OF SCHEDULED	
	INSPECTIONS	03-001
04	SPECIAL INSPECTIONS	04-001
	IDENTIFICATION CODES	
11	AIRFRAME	11-001
12	COCKPIT AND FUSELAGE	
	COMPARTMENTS	12-001
13	LANDING GEAR	13-001
14	FLIGHT CONTROL	14-001
23	TURBO FAN POWER PLANT	23-001
24	AUXILIARY POWER PLANT	24-001
41	AIR CONDITIONING,	
	PRESSURIZATION AND SURFACE	41.001
42	ICE CONTROL	41-001
42	ELECTRICAL POWER SUPPLY	42-001
44	LIGHTING SYSTEM	44-001
45	HYDRAULIC AND PNEUMATIC	45-001
46	POWER SUPPLY	
46 47	FUEL SYSTEM	46-001 47-001
47 49	OXYGEN SYSTEM MISCELLANEOUS UTILITIES	47-001 49-001
		49-001 51-001
51 52	INSTRUMENTS AUTOPILOT	51-001 52-001
		32-001
55	MALFUNCTION ANALYSIS AND RECORDING EQUIPMENT	55-001
61	HF COMMUNICATIONS	61-001
62	VHF COMMUNICATIONS	62-001
I-002		32 331

FIGURE 2. <u>Typical table of contents</u> - Continued.

TO XX-XX-06

FOREWORD

1. GENERAL.

The complete details on use of codes printed in this manual are prescribed in AFI 21-101 and TO 00-20-2-series Technical Orders.

2. USE OF CODES.

It is necessary to use codes for recording maintenance actions in order to convert this information into language for translation by accounting machines and computers. The maintenance forms are sent to data automation, and information recorded on them is used periodically to produce reports for use in the management of the maintenance function, such as determining deficient material, facilities, or procedures.

- 2.1 Work Unit Code. This code consists of five alphabetic and numeric characters and is used to identify the system, subsystem, and component which were worked on. For items Not Otherwise Coded, the abbreviation NOC is used. The number 99 is used in the fourth and fifth characters of the work unit code followed by the abbreviation NOC and should only be used when an item does not have a specific work unit code assigned. NOTE: Communication-Electronic (CE) use code "00NOC." An AFTO Form 22 may be submitted when a 99NOC code is used due to lack of a work unit code for a repairable item. Time change, time significant, configured article, serially controlled, and warranty tracked items require special documentation per the TO 00-20-series technical orders. These items are denoted by use of capital "T," "C," "S," and "W," respectively, in parentheses, inserted between the WUC and it's definition. For example: 99ABC (T) Ignitor (time change); 99DEF (C) Stator (configured article); 99TUV (S) Housing (serially controlled); 99XYZ (W) Amplifier (warranty tracked). This manual has been prepared in two chapters; Chapter 1 contains Work Unit Code Noun System/Subsystem/Reference Designation Index listings for the weapon system, and support equipment peculiar to the weapon system.
- 2.2 <u>Unique Data Codes for MCS</u>. This code consists of five alphabetic or numeric characters, and is used to identify direct labor man-hours expended in other than direct labor, i.e., alert duty, detail, leave, training, etc.
- 2.3 Type Maintenance Code. This code consists of one alphabetic or numeric character, and identifies the type of maintenance being performed, (i.e., scheduled or unscheduled maintenance).
- 2.4 <u>Action Taken Code</u>. This code consists of one alphabetic or numeric character, and identifies what work was done, (i.e., removed, replaced).

NOTE

Collectively, the Work Unit Code and the Action Taken Code identify a "unit of work" as defined in AFI 21-101.

- 2.5 When Discovered Code. This code consists of one alphabetic or numeric character, and is used to describe at what time a discrepancy was discovered.
- 2.6 <u>How Malfunctioned Code</u>. This code consists of three numeric characters, and is used to describe the equipment malfunction.

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2.7 Standard Reporting Designator for 11N Work Unit Code Manuals Only. The standard reporting designator is a threecharacter code used to identify the type of equipment being reported on. The following codes are assigned to the equipment in this manual.

SRD	Equipment
YWW	MK-12 AVE (WUC REXXX, RPXXX, RRXXX)
GZC	Test Equipment (WUC TPXXX)
GY6	Handling Equipment (WUC JMXXX, JXXX)

3. SECURITY.

When maintenance is being performed on classified equipment, the listing of a Work Unit Code could possibly lead to a breach of security, such as betraying mission capability. Extreme caution should be exercised. If any question exists, it will be resolved according to AFI 31-401 and other applicable directives.

4. CHANGES TO CODES.

- 4.1 System Codes. The system codes in this manual are standard throughout the Air Force, and will only be revised by official publication. Recommended changes to this manual regarding its use, format, procedures, or the action taken, when discovered, how malfunctioned, or support general codes, will be submitted through command channels.
- 4.2 Changes. Recommended changes to work unit codes or equipment listings, in this manual, shall be submitted on an AFTO Form 22, in accordance with TO 00-5-1.

5. SUPPORT EQUIPMENT.

Support Equipment (SE), which is normally construed as an end item of SE, in accordance with the definition in Section VI of TO 00-20-1, is identified with an "@" (at) symbol between the work unit code and its definition. This is intended to be a guide for filling out maintenance source documents.

6. TRAINING DEVICES ONLY.

6.1 Training Devices. Due to the number of training devices of various types, separate manuals in the TO 43-1-06-series are prepared by groups as follows:

TO 43-1-06-2	Flight Simulators, Cockpit Procedure Trainers, Instrument Flying Trainers and Navigation Trainers
TO 43-1-06-3	Radio and Radar Training Equipment (Including fire control, bombing-navigation and electronic warfare).

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FIGURE 3. Example of foreword - Continued.

TO XX-XX-06

TO 43-1-06-4 Missile Training Equipment

TO 43-1-06-5 Armament Trainers, Physiological

Trainers, Miscellaneous Trainers and

Classroom Aids

- 6.2 <u>Training Equipment Installed on Aircraft</u>. Training equipment which is installed on aircraft (target towing equipment, radar scorers) or connected into the missile system, and maintained by the using activity, will be coded in the applicable weapon system work unit code manual.
- 6.3 <u>Obsolescent and Limited Quantity Training Equipment</u>. Obsolescent and limited quantity training equipment is listed in a separate section in the back of each manual under Miscellaneous Trainer Codes. These codes will be used to code all training equipment not otherwise coded.
- 6.4 <u>General Equipment Identification</u>. The following general equipment identification codes are common to all training equipment, and shall be included as the last chapter in each training equipment work unit code manual. The work unit code ZY000 is not an authorized code, and shall not be used for documenting maintenance performed on Class I or III training equipment.

Class I and III Training Equipment

ZYA00 Class I Training Equipment Not Otherwise

Coded.

ZY200 Class III Training Equipment Not

Otherwise Coded.

7. COMMUNICATION ELECTRONIC (CE) ONLY.

(This paragraph will appear only in general type ground CE code manuals. The parentheses appearing in the first sentence will be replaced by the applicable system number.) Complete details on use of the codes contained in this manual are prescribed in AFI 21-101 and 00-20-2-series Technical Orders.

NOTE

This Work Unit Code manual should only be used for reporting maintenance actions on equipment which is a part of system (...). Complete details on use of the codes contained in this manual are prescribed in AFI 21-101 and 00-20-2-series Technical Orders.

II-003

FIGURE 3. Example of foreword - Continued.

TO XX-XX-06

UNIQUE DATA CODES FOR MCS (Maintenance Cost System)

Data Code Description

ALT00 Alert Duty. All man-hours expended while waiting

for alert aerospace vehicles to takeoff or land, such as strategic, defense, tactical, standing by for crash alert, or for alert missile when no work is being accomplished. Not to be used for standby, awaiting work assignments, lag or other delays, or when direct productive effort is being expended.

CMP00 Compensatory Time for Overtime. All direct

assigned man-hours excused from normal duty as a result of previously expended overtime man-hours.

DTL00 Detail, Squadron or Base Duties. Man-hours expended

by direct labor personnel (labor code 100) performing on-base duties such as charge of quarters, policing, building maintenance, driver, dining hall, parade, commanders call, general military training, nontechnical

training, etc.

LVE00 Leave. Man-hours excused from duty, pass or

official, military, medical, or sick leave.

TRN00 Maintenance Training. Man-hours expended in on-the-job

training, formal and informal maintenance technical training.

NOTE

These codes are to be used to account for man-hour expenditures of personnel with an assigned "direct" labor code when performing one of the above functions. Documentation guidance for AFTO Form 349 entries is contained in 00-20-2-series Technical Orders.

05-001

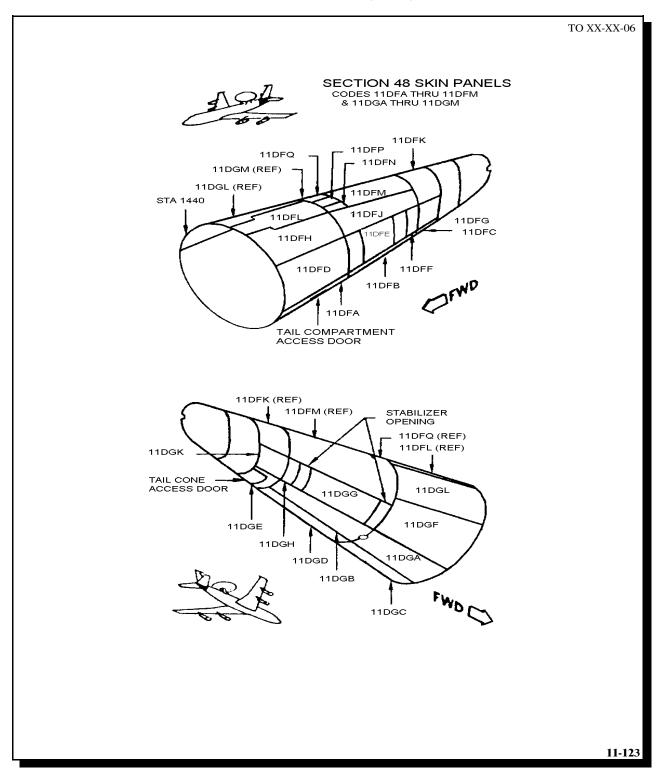


FIGURE 5. Example of skin diagram.

TO XX-XX-	06
CHAPTER 3	
3.1 <u>INTRODUCTION</u> .	
This chapter of the manual contains work unit codes for Support Equipment (SE) that was specifically designed for, or is peculiar to, the equipment covered in Chapter 1 and 2 of this manual. This portion of the manual shall be used by maintenance personnel to record maintenance tasks accomplished directly on the end items of SE or SE components, or equipment undergoing repair, servicing, testing, calibration, or bench check in specialized shops. The Type Maintenance, Action Taken, When Discovered, How Malfunctioned, and Support General Codes are contained in this manual. Common work unit codes are contained in TO 00-25-06- series Work Unit Code manuals.	
01-0	01

FIGURE 6. Example of chapter 3 introduction.

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WORK UNIT CODE CONSTRUCTION/APPLICATION

A.1 SCOPE.

A.1.1 <u>Scope</u>. The Work Unit Code consists of five characters, and is used to identify the system, subsystem, and component on which maintenance is required, or on which maintenance was accomplished. This appendix provides instructions for construction and application of WUCs. This appendix is a mandatory part of the specification. The information contained herein is intended for compliance.

A.2 APPLICABLE DOCUMENTS.

A.2.1 <u>Government documents</u>. The following document forms a part of this appendix to the extent specified herein.

OTHER PUBLICATIONS

Technical Order

TO 2J-1-24 - Equipment Comprising a Complete Basic Gas Turbine Engine

A.3 WORK UNIT CODE APPLICATION AND CONSTRUCTION

- A.3.1 Application of work unit codes. The primary purpose of WUCs is to identify the hardware on which work has been accomplished, and the relationship of hardware within a major assembly, subassembly, etc. Work unit codes shall not be assigned to locations, general terms, or homogeneous group titles. For instance, station numbers, geographic locations, and terms such as mechanical components or miscellaneous equipment may be used as a title to aid in locating WUCs within the code manual, but these titles shall not have WUCs assigned. Work unit codes shall not be assigned to common hardware or soft goods, such as nuts, bolts, washers, clamps, seals, packing, and O-rings. Work on these type items is normally reported against the coded assembly on which the item is attached.
- A.3.2 Work unit code equipment identification. This is a five position code which identifies the end item, major assembly, subassembly, or component that requires maintenance. The first two positions of the WUC shall be assigned in accordance with Tables I through VII, and controlled by the acquiring activity, to identify the end item of equipment. The third and fourth characters include major assemblies and subassemblies, and identify first and second levels of assembly. The fifth position of the WUC includes reparable/recoverable components, and identifies the lowest level of assembly below the end items.
- A.3.2.1 <u>Support general codes</u>. Support general codes are for recording production credit of repetitive tasks of a general nature, and are not used for recording malfunctions, repair, Not Repairable This Station (NRTS), or condemnation actions. The multitude of tasks, which must be accomplished, precludes listing them all in the support general tables (Table VIII and IX) provided. This is not intended to restrict documentation of tasks. All support general work must be identified

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to the most appropriate code. Support general code tasks, not applicable to the equipment being coded, shall not be included in the manual.

- A.3.2.2 <u>Scheduled and special inspections</u>. Support general codes, for scheduled and special inspections, shall be selected from Tables X through XVIII, as applicable. Use of the assigned codes without change is mandatory. Changes and additions must be approved by HQ AFMC/SCXR prior to including them in the manual. Scheduled and special inspection codes, not applicable to the equipment being coded, shall not be included in the manual.
- A.3.3 <u>Functional system concept</u>. The functional system concept shall be used for equipment breakout. A functional system shall consist of those units which make up a system without regard to whether the units are hydraulic, electrical, pneumatic, electronic, or mechanical in nature. The components which comprise a functional system shall be those components which contribute to the actual function or activation of the system. For example, the components which supply the hydraulic or pneumatic source of power shall be included under System 14, "Flight Controls" which is a functional system. As another example, flight reference instruments, free air temperature, and similar instruments shall be included in System 51, "Instruments,"; whereas position indicators, temperature or pressure sensing, and autopilot instruments shall be included under the system that they function with, such as System 52, "Autopilot." The only exception to this rule is System 97, which shall include all explosive devices regardless of the system with which they are associated.
- A.3.3.1 <u>Munitions work unit code breakout</u>. Munition items of a complex nature, and support equipment (SE) peculiar to nuclear munitions, shall be coded as individual end items utilizing major assembly, subassembly/mod number, and component breakout. All other munitions, components, etc., shall be homogeneously grouped and coded as major assemblies of a specific group.
- A.3.3.2 <u>Mission, design, and series (MDS)</u>. Work unit code manuals shall be prepared to cover each basic mission and design aircraft, missile, or spacecraft. System code manuals shall be prepared by individual series, if specified by the acquiring activity (see 6.2). This will require that the AFMC Air Logistics Center Single Manager (SM) ensure that a standard reporting designator is assigned for that specific mission, design, and series in TO 00-20-2.
- A.3.3.3 <u>Trainer application</u>. Class trainers, mobile training sets, and resident training equipment shall not be coded in the training equipment WUC manuals. Class III training equipment does not require detailed WUCs; one code is presently assigned for recording production credit on Class III trainers. The criteria for establishing WUCs for Class I training equipment is as follows: There must be five or more trainers in the inventory, or five or more trainers programmed for the inventory within the next fiscal year, from time of determination. They shall be of sufficient cost or complexity to warrant detailed data analysis. This determination will not be predicated on cost alone.
- A.3.4 Level of detail for each functional system. The WUCs for each functional system/homogeneous group shall cover each reparable item in the functional system/homogeneous group, as specified by the applicable source document (see A.3.5). Work unit codes shall also be assigned to nonrepairable components, if they are known or suspected to be vital to successful system operation, or to be significant maintenance hour consumers. These items shall have a WUC assigned in order to report those critical "on-equipment" actions for reliability and maintainability evaluation purposes. In some cases it may be necessary to arbitrarily assign "interface" type items

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of equipment (i.e., interface connectors, tubing, couplings, wire, etc.) to a functional system. These decisions will be made after primary consideration is given to the maintenance responsibilities and training of the technicians who are required to maintain the interface items of equipment. For example, if a piece of tubing, with a regulator attached, makes the interface between the pneumatic and engine systems, and the engine technician is responsible for adjustments and maintenance of the regulator, then the tubing and associated regulator shall be assigned to the engine functional subsystem.

- A.3.5 <u>Source data</u>. Systems engineering data (i.e., engineering analysis data, equipment maintenance analysis data, and contract end item detail specifications) shall be used as source data for WUC assignment. Maximum correlation between the component content of a contract end item and the assignment and grouping of WUCs is desirable. When available concurrently with the WUC manual preparation, illustrated parts breakdown technical manuals shall be used as source data in determining level of assembly.
- A.3.6 <u>Reserving codes for future use</u>. The capability to ensure that new codes can be assigned for future modifications or additions of equipment shall be designed into each code manual in the third, fourth, and fifth positions of the WUC. If expansion capability is designed into the original codes, new equipment can be added without disturbing the original codes. Minimum code changes are essential to prevent loss of identity for previously complied maintenance data.
- A.3.7 <u>Reuse of codes</u>. When existing WUCs are deleted from a manual, they shall not be reassigned for a minimum of ninety days following their deletion, nor without prior approval of the acquiring activity. If there is no other code, or code sequence, that can be used, WUCs may be reassigned by the acquiring activity without waiting ninety days.
- A.3.8 Work unit code construction.
- A.3.8.1 <u>Alphabetic and numeric codes</u>. Upper-case letters A through Z (excluding I and O) and numbers 0 through 9 shall be utilized for WUC assignments as specified in subsequent paragraphs. The letters I and O shall not be used in any WUC to prevent confusion with the numbers one and zero.
- A.3.8.2 <u>End item code construction</u>. The first two characters of the WUC are alphabetic or numeric, and identify the end item of equipment. These characters are assigned by Tables I thru VII, and controlled by the acquiring activity. No deviations are authorized without prior approval by the acquiring activity.
- A.3.8.3 <u>First level of assembly code construction</u>. Alphabetic and numeric characters shall be used as the third character of the WUC to designate first level of assembly below major system. Thirty-three (33) separate levels may be identified in this manner. For example:

33000 - SYSTEM

33A00 - FIRST LEVEL OF ASSEMBLY through 33Z00

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```
33100 - FIRST LEVEL OF ASSEMBLY through 33900
```

A.3.8.4 <u>Second level assembly code construction</u>. Alphabetic and numeric characters shall be used as the fourth character of the WUC to designate second level of assembly below major system. Thirty-three separate levels may be identified in this manner. For example:

```
33A00 - SYSTEM

33A00 - FIRST LEVEL OF ASSEMBLY

33AA0 - SECOND LEVEL OF ASSEMBLY through
33AZ0

then

33A10 - SECOND LEVEL OF ASSEMBLY through
33A90
```

A.3.8.5 <u>Third level assembly code construction</u>. Alphabetic and numeric characters shall be used as the fifth character of the WUC to designate third or lowest level of assembly below the major system. Thirty-two levels may be identified in this manner. The number "99" is used in the fourth and fifth positions to indicate Not Otherwise Coded (NOC). For example:

```
33A00 - SYSTEM

33A00 - FIRST LEVEL OF ASSEMBLY

33AA0 - SECOND LEVEL OF ASSEMBLY

33AAA - THIRD OR LOWEST LEVEL OF ASSEMBLY through

33AAZ

then

33AA1 - THIRD OR LOWEST LEVEL OF ASSEMBLY through

33AA8

33A99 - NOC (FIRST LEVEL OF ASSEMBLY)
```

A.3.8.5.1 <u>Use of "99 - not otherwise coded"</u>. The number "99" is used in the fourth and fifth characters of the WUC, followed by "NOC." This code is used to provide a WUC for components that do not have specific codes assigned. NOC codes shall relate to the first level of assembly, when the

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first level of assembly is the third character of the WUC. When the third character is the end item (homogeneous group), the NOC code shall relate to the end item rather than the first level of assembly. The "99 NOC" code shall appear as the last entry under the last component in the first level of assembly (or end item for homogeneous groups) breakout. There shall be a spaced separation between the last component of the first level of assembly/end item and the NOC code to provide easy recognition of the NOC code. The number "99" shall not be used in the fourth and fifth positions of the WUC to identify any specific type of equipment.

A.3.8.6 <u>Numerics</u>. Numerics may be assigned first in the third, fourth, and fifth positions of the WUC, when there is positive assurance that the numeric coding capacity will not be exceeded during initial code assignment, or by future equipment additions or modifications.

A.3.8.7 <u>Coding capability</u>. The construction of WUCs provides a capability to designate thirty-three first level assemblies (for other than homogeneously grouped items), and thirty-two, third or lowest level assemblies. If equipment breakout exceeds these capabilities, it will be necessary to continue the listing with the next available code (note the change in the fourth character of the WUC). For example:

33AA0 - DUAL PUMPING UNIT

33AA8 - Controller

33ABA - Controller Modulator

33A99 - NOC

A.3.8.8 <u>Homogeneously grouped code construction</u>. Exception to the above WUC construction will be taken when utilizing homogeneous grouping for peculiar SE. The first two characters shall identify the homogeneous group, the third character shall identify the end item, the fourth character shall identify the first level of assembly, and the fifth character shall identify the lowest level of assembly. For example:

CA000 - HOMOGENOUS GROUP

CAA00 - END ITEM

CAAA0 - FIRST LEVEL OF ASSEMBLY

CAAAA - LOWEST LEVEL OF ASSEMBLY

through CAAA8

CAA99 - NOC (END ITEM)

A.3.8.9 <u>Multiple items serving a single system/homogeneously grouped end item</u>. Identical components, within a system/end item performing peculiar functions, shall have individual WUC assignments for each peculiar function/application. For example, a Pressurization Control Unit (PCU) in a system may contain four identical controllers, but each controller has a different usage

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(pressure setting) in the PCU. In this case, each controller shall have a unique WUC assigned. Unless otherwise specified by the acquiring activity, items installed in multiples, within a functional system/homogeneously grouped end item, that perform within the same function/application parameters except for location, shall have a single code assigned (see 6.2). For instance, only one code shall be assigned for items having left and right application, even though they have different part numbers. The acquiring activity may grant exceptions to this requirement, for items that have high failure rates, or warrant detailed reporting for analysis purposes. If exceptions are granted, the nomenclatures of the items will reflect part number references to distinguish between the like items. This shall be done on an exception basis, and shall not be a common practice.

A.3.8.10 <u>Item serving multiple systems/homogeneous grouped end items</u>. When a single component functionally services two or more major systems/end items or lower levels of assembly, only one WUC shall appear in only one of the system/homogeneous grouped end item listings. However, the item shall be listed (by identical nomenclature only) in the remaining applicable system(s)/homogeneously grouped end item(s) with a reference to the previously assigned work unit code, e.g., "Manifold Sequence Valve (Reference 33FAA)." The WUC column for such items shall be left blank.

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TABLE I. Systems codes (aircraft).

11	AIRFRAME
12	COCKPIT AND FUSELAGE
13	LANDING GEAR
14	FLIGHT CONTROL
15	HELICOPTER ROTOR SYSTEM
16	ESCAPE CAPSULE
17	AERIAL RECOVER SYSTEM
18	VERTICAL OR SHORT TAKEOFF AND LANDING (V/STOL) POWER AND CONTROL
	TRANSMISSION SYSTEM
19	ENGINE STARTING
21	RECIPROCATING POWER PLANT
22000	TURBOPROP/TURBOSHAFT PROPULSION SYSTEM
23000	TURBOJET/TURBOFAN PROPULSION SYSTEM
(T	hose basic engine components as defined in TO 2J-1-24, Equipment
	omprising a Complete Basic Gas Turbine Engine)
	mprionig a complete 2 and can rational Engine)
	NOTE
Co	onstant Speed Drives shall be coded to System 42, Electrical Power Supply
24	AUXILIARY POWER PLANT
25	ROCKET POWER PLANT
26	HELICOPTER ROTARY WING DRIVE SYSTEM
27	TURBO JET/TURBO FAN PROPULSION SYSTEM
	ACCESSORY GEAR BOX (B-1 only)
31	ELECTRIC PROPELLER
32	HYDRAULIC PROPELLER
33	ELECTRO HYDRAULIC PROPELLER
34	MECHANICAL AND FIXED PITCH PROPELLERS
39	ICE AND RAIN PROTECTION
41	AIR CONDITIONING, PRESSURIZATION, AND SURFACE
	ICE CONTROL
42	ELECTRICAL POWER SUPPLY
43	ELECTRICAL MULTIPLEX (EMUX)
44	LIGHTING SYSTEM
45	HYDRAULIC AND PNEUMATIC POWER SUPPLY
46	FUEL SYSTEM
47	OXYGEN SYSTEM
48	INDICATING/RECORDING
49	MISCELLANEOUS UTILITIES
51	INSTRUMENTS

APPENDIX A

TABLE 1. Systems code (aircraft) - Continued.

52	AUTOPILOT
53	DRONE AIRBORNE LAUNCH AND GUIDANCE SYSTEMS
54	TELEMETRY
55	MALFUNCTION ANALYSIS AND RECORDING EQUIPMENT
56	AUTOMATIC ALL WEATHER LANDING SYSTEM
57	INTEGRATED GUIDANCE AND FLIGHT CONTROL (Includes
	auto pilot when part of integrated system)
59	CREW COMMUNICATIONS (Use if ground communications is
	desired, i.e., VHF, UHF, etc.)
60	VERY LOW FREQUENCY/LOW FREQUENCY (VLF/LF)
	COMMUNICATIONS
61	HIGH FREQUENCY (HF) COMMUNICATIONS
62	VERY HIGH FREQUENCY (VHF) COMMUNICATIONS
63	ULTRA HIGH FREQUENCY (UHF) COMMUNICATIONS
64	INTERPHONE
65	IDENTIFICATION, FRIEND OR FOE (IFF)
66	EMERGENCY COMMUNICATIONS
67	SUPER HIGH FREQUENCY/EXTRA HIGH FREQUENCY (SHF/EHF)
68	AIR FORCE SATELLITE COMMUNICATIONS (AFSATCOM)
69	MISCELLANEOUS COMMUNICATIONS EQUIPMENT
70	NUCLEAR DETECTION
71	RADIO NAVIGATION
72	RADAR NAVIGATION
73	BOMBING NAVIGATION
74	FIRE CONTROL
75	WEAPON DELIVERY
76	ELECTRONIC COUNTERMEASURE (ECM)
77	PHOTOGRAPHIC/RECONNAISSANCE
81	AIRBORNE WARNING AND CONTROL SYSTEM (AWACS)
82	COMPUTER AND DATA DISPLAY (GRAPHIC)
89	AIRBORNE BATTLEFIELD COMMAND CONTROL CENTER (CAPSULE)
91	EMERGENCY EQUIPMENT
92	TOW TARGET EQUIPMENT
93	DRAG CHUTE EQUIPMENT
94	METEOROLOGICAL EQUIPMENT
95	SMOKE GENERATOR, SCORING AND TARGET AREA AUGMENTATION SYSTEMS, AND AIRBORNE CO-OPERATIONAL EQUIPMENT
96	PERSONNEL AND MISCELLANEOUS EQUIPMENT
97	EXPLOSIVE DEVICES AND COMPONENTS
98	ATMOSPHERIC RESEARCH EQUIPMENT
99	R & D

APPENDIX A

TABLE II. System codes (missile), air launch.

11	AIRFRAME
13	WING AND FINFOLD
19	PYLON
PROPU	LSION
23	GAS TURBINE ENGINE
24	LIQUID ROCKET
25	SOLID ROCKET
MISSIL	E SUPPORT SYSTEMS
31	AIR CONDITIONING (including Atmospheric and Environmental Control)
32	PRESSURIZATION (When Separate from Air Conditioning)
33	HYDRAULIC PNEUMATIC POWER SUPPLY AND DISTRIBUTION
34	ELECTRIC POWER SUPPLY AND DISTRIBUTION
35	ELECTRICAL DISTRIBUTION (Wiring Harness)
36	COMPONENT COOLING
37	GAS DRIVEN TURBINE (Mark 4 Power Plant)
39	MISCELLANEOUS
ARMAN	MENT AND EXPLOSIVE DEVICES
41	WARHEAD
43	DESTRUCT
44	ARMING AND FUSING
45	SEPARATION
47	FLARES
FLIGH'	T CONTROLS
52	FLIGHT CONTROLS
55	AUTO PILOT
56	FLIGHT REFERENCE

APPENDIX A

TABLE II. System codes (missile), air launch - Continued.

GUIDA	NCE
61	COMMAND
62	INERTIAL
63	INTEGRATED GUIDANCE AND FLIGHT CONTROLS
64	T.V. GUIDANCE
65	TARGET SEEKING, INFRARED RADIATION (IR)
67	TRACKING (RADAR)
PROPE	ELLANT
73	AIR BREATHING ENGINE FUEL
75	CHEMICAL
COMM	UNICATIONS AND DATA HANDLING
91	TELEMETRY
92	BOMB DAMAGE ASSESSMENT
93	INSTRUMENTATION
95	AIRBORNE COOPERATIONAL EQUIPMENT
96	DATA RECORDING AND RETRIEVAL
97	SIMULATION

TABLE III. System codes - support equipment.

ı			
	AA THRU AZ	*	
	BA THRU BZ	LAUNCHER	
	CA THRU CZ	SERVICING EQUIPMENT	
	DA THRU DZ	COMBINED SERVICING AND HANDLING EQUIPMENT	
	EA THRU EZ	*	
	FA THRU FZ	HANDLING EQUIPMENT	
	HA THRU HZ	ENVIRONMENTAL CONTROL	
	JA THRU JZ	ELECTRICAL GENERATION AND DISTRIBUTION	
	KA THRU KZ	PROPELLANT LOADING AND STORAGE	
	LA THRU LZ	*	
	MA THRU MZ	GUIDANCE AND INSTRUMENTATION	

APPENDIX A

TABLE III. System codes - support equipment - Continued.

NA THRU NZ	LAUNCH CONTROL
PA THRU PZ	*
QA THRU QZ	COMMUNICATIONS
RA THRU RZ	MISSILE TEST EQUIPMENT
SA THRU SZ	SYSTEMS TEST EQUIPMENT
TA THRU TZ	TRAINING AND EQUIPMENT
UA THRU UZ	CHECKOUT EQUIPMENT
VA THRU VZ	*
WA THRU WM	WEAPON SYSTEM EVALUATOR MISSILE (WSEM)
WN THRU WZ	MISSION SIMULATOR
XA THRU XZ	*
YA THRU YZ	*
ZA THRU ZZ	MISCELLANEOUS
* These codes or	a unassigned. Their utilization shall require prior approval of the acquiring
activity.	re unassigned. Their utilization shall require prior approval of the acquiring

TABLE IV. System codes (missile or spacecraft), ground launched.

11	AIRFRAME/BOOSTER STRUCTURE
12	ALL-UP-ROUND
13	WING AND FINFOLD
14	*
15	*
16	ORBITAL CRAFT STRUCTURE
17	SPACE FERRY AND/OR MANNED RE-ENTRY VEHICLE STRUCTURE
18	*
19	*
PROPU	ULSION
21	*
22	*
23	TURBO JET
24	LIQUID ROCKET

APPENDIX A

TABLE IV. System codes (missile or spacecraft), ground launched - Continued.

26	ORBITAL MANEUVERING ENGINE
27	*
28	RETRO ROCKET (Excludes Primary Propulsion when used in Retro Fire Mode)
29	*
MISSIL	E OR SPACECRAFT ENVIRONMENTAL
CONTR	OL AND LIFE SUPPORT SYSTEMS
31	AIR CONDITIONING (Including Atmospheric and Environmental Control)
32	PRESSURIZATION (When separate from Air Conditioning)
33	HYDRAULIC/PNEUMATIC POWER SUPPLY AND DISTRIBUTION
34	ELECTRICAL POWER SUPPLY AND DISTRIBUTION
35	ELECTRICAL DISTRIBUTION
36	*
37	SUBSISTENCE/WASTE
38	SPACE SUIT, LIFE SUPPORT AND PERSONAL MANEUVERING EQUIPMENT
39	MISCELLANEOUS
40	*
41	ARMAMENT AND EXPLOSIVE DEVICES
42	INITIATORS
43	DESTRUCT RANGE SAFE AND ARMING
45	STAGE SEPARATION
FLIGH	Γ CONTROL
51	ORBITAL ATTITUDE MANEUVERING
52	FLIGHT CONTROL
53	*
54	*
55	AUTO PILOT
56	FLIGHT REFERENCE
57	COMBINED CONTROLS
58	DECELERATION AND SURFACE RECOVERY (Excludes Retro-Rocket)
59	*
GUIDA	NCE
61	COMMAND
62	INERTIAL
63	INTEGRATED GUIDANCE AND FLIGHT CONTROLS
64	NAVIGATOR/CELESTIAL

APPENDIX A

TABLE IV. Systems codes (missile or spacecraft), ground launched - Continued.

65	TARGET SEEKING
66	TRACKING
67	RENDEZVOUS RADAR
68	*
69	*
71	LIQUID ROCKET FUEL
72	LIQUID ROCKET OXIDIZER AND HYPERGOLIC
73	AIR BREATHING ENGINE FUEL
74	FUEL AND OXIDIZER PRESSURIZATION SYSTEMS
75	CHEMICAL
76	NUCLEAR MATERIALS
77	*
78	*
79	*
MISSIL	E RE-ENTRY SYSTEM
81	RE-ENTRY VEHICLE (Including Warhead, Arming and Fuzing)
82	RE-ENTRY SYSTEM (Including Penetration Aids)
83	*
84	*
85	*
86	*
87	*
88	*
89	*
COMM	UNICATION AND DATA HANDLING
91	TELEMETRY
92	TRACKING AND RANGE INSTRUMENTATION
93	INTERCOM
94	COMMUNICATIONS
95	*
96	DATA RECORDING AND RETRIEVAL
97	*
98	RECONNAISSANCE
	*

APPENDIX A

 $TABLE\ V.\ \underline{System\ codes}, \underline{Support\ Equipment/Real\ Property\ Installed\ Equipment\ (SE/RPIE)}.$

AA THRU AZ	*
BA THRU BZ	LAUNCHER AND LAUNCH FACILITY
CA THRU CZ	SERVICING EQUIPMENT
DA THRU DZ	COMBINED SERVICING AND HANDLING EQUIPMENT
EA THRU EZ	COMBINED SERVICING AND DECONTAMINATION EQUIPMEN
FA THRU FZ	HANDLING EQUIPMENT
GA THRU GZ	GAS GENERATING EQUIPMENT
HA THRU HZ	ENVIRONMENTAL CONTROL
JA THRU JZ	ELECTRICAL GENERATION AND DISTRIBUTION
KA THRU KZ	PROPELLANT LOADING AND STORAGE
MA THRU MZ	GUIDANCE, TRACKING NETWORK AND INSTRUMENTATION
NA THRU NZ	LAUNCH CONTROL AND LAUNCH CONTROL FACILITIES
PA	SHELTER COMMUNICATIONS AND SHELTER ELEMENT
PB THRU PZ	*
QA THRU QZ	COMMUNICATIONS
RA THRU RQ	MISSILE/SPACECRAFT TEST EQUIPMENT
SA THRU SZ	SYSTEMS TEST EQUIPMENT
TA THRU TZ	TRAINING EQUIPMENT
UA THRU UZ	CHECKOUT EQUIPMENT
VA THRU VZ	*
WA THRU WM	WEAPON SYSTEM EVALUATOR MISSILE (WSEM)
WN THRU WZ	MISSION SIMULATOR
XA THRU XZ	RPIE
YA THRU YZ	RPIE
ZA THRU ZL	MISCELLANEOUS
ZM THRU ZZ	*
* These codes ar activity.	re unassigned. Their utilization shall require prior approval of the procuri

APPENDIX A

TABLE VI. Systems codes - munitions.

	SAMPLE HOMOGENEOUS GROUPING IDENTIFICATION CODES
AA	AMMUNITION
AAA	SHOT GUN
AAAAO	12 GAUGE
AAABO	410 GAUGE
AAB	CARBINE, RIFLE AND MACHINE GUN
AABAO	CAL .22
AABBO	5.56MM
AABCO	CAL .30 CARBINE
AABDO	CAL .30 RIFLE AND MACHINE GUN
AABEO	7.62MM RIFLE AND MACHINE GUN
AAC	PISTOL AND REVOLVER
AACAO	CAL .38
AACBO	CAL .45
AAD	MACHINE GUN
AADAO	CAL .50
AAE	CANNON
AAEAO	20MM
AAEBO	40MM
AAECO	90MM
AAF	MORTAR
AAFAO	60MM
AAFBO	81MM
BA	BOMBS
BAA	GENERAL PURPOSE
BAAAO	250 POUND, MK81, MOD 1

APPENDIX A

TABLE VII. System codes, Communication Electronic (CE).

STAN	DARD RADAR SYSTEM CODES (Not Applicable to Navigational Radar)
AA	ANTENNA SYSTEM
AE	CONTROL SYSTEM
AF	TEST CONTROL SYSTEM
AG	INDICATOR SYSTEM
AK	TRANSMITTER SYSTEM
AP	RECEIVER SYSTEM
AQ	DATA HANDLING SYSTEM
AT	ECCM SYSTEM
AU	TIMING SYSTEM
AV	RF SYSTEM
AX	TOWER SYSTEM
BA	COMMUNICATIONS AND INTER-COMMUNICATIONS
BC	IFF SYSTEM
BE	OPTICS SYSTEM
BF	MAPPING SYSTEM
BH	SUPPORT EQUIPMENT
BK	PERFORMANCE MONITOR
BM	TELEVISION SYSTEM
BW	MISCELLANEOUS SYSTEM
BY	MULTIPLEXER SYSTEM
STAN	DARD COMPUTER SYSTEM CODES
CA	CENTRAL PROCESSING SYSTEM
CF	INPUT/OUTPUT CONTROL SYSTEM
CL	INPUT/OUTPUT SYSTEM
CQ	AUXILIARY STORAGE SYSTEM
CT	POWER CONTROL AND DISTRIBUTION SYSTEM
CW	DISPLAY/PROJECTION SYSTEM
DA	TEST/MONITOR AND ALARM SYSTEM
DE	AUXILIARY DEVICES SYSTEM
DJ	INTERFACE SYSTEMS

APPENDIX A

TABLE VIII. Support general codes (except CE).

01000 GROUND HANDLING, SERVICING AND RELATED TASKS

Ground Handling (includes positioning, moving to a new position, or moving crashed or disabled equipment)

Loading and Unloading Engines/Cargo in Aircraft

Parking and Pre-Taxi (includes temporary parking, permanent parking, fireguard, SE operations, installation and removal of chocks, pins, locks, or covers)

Engine Runup

Drag Chute - Delivery, Installation, and Recovery

Mooring (tiedown, blade stoppage, installation of covers, etc.)

Flying - Flight Mechanics Performing Crew Duty

Launch Support Team Duty

Escort or Monitoring Visitors/Contractors

Monitoring Charging of Low Frequency/Low Cycle Fatigue (LF/LCF) Storage Batteries

Site Penetration/Back-Out

Dispatch Preparation (pre/post)

Water or Water/Alcohol Injection Fluid

Hydraulic Oil

Miscellaneous Servicing (includes anti-icing fluid, nitrogen, refrigerant, water, etc.)

APPENDIX A

TABLE VIII. Support general codes (except CE) - Continued.

RELATED TASKS

Armament (includes handling, routine cleaning, loading and unloading of guns and arms)

ATO/RATO Racks (servicing, loading, and unloading)

Bomb-practice, conventional, incendiary, and special stores; (includes servicing, loading and unloading of bombs, racks, dispensers, and associated equipment)

Rockets and Missiles Loading, Unloading and Servicing (includes dummy, checkout or test missiles, racks, launchers, etc.)

Tow Target/Tow Reel, etc

Radio and Radar Receiver/Transmitter Frequency Changes, and Installation or Removal of Crystals

Ballast (loading and unloading)

Identification Friend or Foe/Selectable Identification Feature (IFF/SIF) Receiver/Transmitter Conversions or Codings

Passenger/Cargo Reconfiguration (includes installation and ramps, and auxiliary flooring)

Communications and Electronics Equipment Reconfiguration to Meet Mission Requirements (do not use for Time Compliance Technical Order (TCTO) accomplishment).

Tape Installation and Removal

Tape Development, Reproduction and Analysis

Electronic Countermeasures (ECM), Chaff or Equipment Loading and Unloading

Photographic - Equipment or Film Changes (loadings, or unloading, and film development and analysis)

Electronic Spares (replacement)

SE Positioning, Pickup and Delivery

APPENDIX A

TABLE VIII. Support general codes (except CE) - Continued.

RELATED TASKS - Continued.

780 Equipment Pickup/Delivery (includes pickup/delivery of canopy covers, drag chutes, batteries, etc., to and from maintenance shops)

Survival Equipment (loading and unloading)

Pod, Pylon and External Tank Handling (includes installation and removal)

Refueling Boom (includes installation and removal)

02000 EQUIPMENT CLEANING

Washing, Decontamination, Snow, Frost and Ice Removal, Vacuuming, Wiping, Polishing, Cleaning and Treating of Equipment to Prevent Corrosion (do not use this code for treating corroded parts or accessories)

05000 PRESERVATION, DEPRESERVATION, AND STORAGE OF EQUIPMENT

06000 WEAPON AND GROUND SAFETY

Arming and Disarming of Guns, Rockets, Explosive Squibs, Seats, Canopies, External Tanks/Pods/Pylon Ejectors, Armament Bay Doors, Missile Launchers, Wing and Fuselage Center Line Racks, Bomb Bay Release Mechanisms/Controls, etc. Also includes Connecting and Disconnecting Aircraft Batteries

07000 PREPARATION AND MAINTENANCE OF RECORDS

This code Will be Used by Maintenance Personnel to Record Only the Direct Labor Expended in Preparation/Maintenance of Status and Historical Forms (this excludes initiation and completion of production documentation forms)

09000 SHOP SUPPORT GENERAL CODES

Fabricating (includes bending, cutting, forming, casting, holding, machining, soldering, assembly, local manufacture, etc., not done as part of a fix on a specific job)

Stenciling/Painting (includes stenciling, lettering, installing decals, instrument range marking, etc., and painting for cosmetic purposes only). Do Not Use This Code For Treating Corrosion or Painting of Parts/Assemblies/Equipment For Corrosion Prevention/Control

APPENDIX A

TABLE VIII. Support general codes (except CE) - Continued.

09000 <u>SHOP SUPPORT GENERAL CODES</u> - Continued.

Engine/or Power Pack Buildup or Teardown

Engine Operation - Test Stand (includes installation of engines in test stand)

Wheel and Tire Buildup or Teardown

Cleaning/Servicing (includes recharging, sandblast, degreasing, preparation for, and/or removal from storage or shipment, etc.)

Reclamation (includes demilitarization, disassembly, preparation for resale, and disposal of aerospace and nonaeronautical equipment)

Processing of Small Arms and Ammunition

Inspection/Repack of Parachutes (all types)

Inspection/Repack of Flotation Equipment

Inspection of Personal Equipment (includes helmets, specialized flight suits, etc.)

Fabric Testing

Plating (includes cleaning and preparation for plating)

Testing and Servicing Fire Extinguishers

APPENDIX A

TABLE IX. Support general codes CE.

Ground Handling.

Equipment Moving or Repositioning

Installation/Relocation of Equipment

Removal of Equipment

Mission Equipment Operation or Support When Not Associated With Scheduled or Unscheduled Maintenance

Servicing and Related tasks.

Scheduled Power Changeover

Troubleshooting End Items or Facilities (use only for end items or facilities that do not have a WUC assigned)

Unscheduled Power Changeover

Power Production Service and Checkout

Environmental Control

Rehabilitation of Antenna Systems

Unscheduled Antenna System Service

Clearing of Antenna/Transmission Right-of-Way

Installation of New Antenna System

Receiver or Transmitter Frequency Changes

Tape Development, Reproduction and Analysis

Telephone Number Change

Rehabilitation of Equipment

APPENDIX A

TABLE IX. <u>Support general codes (CE)</u> - Continued.

02000	EQUIPMENT AND FACILITY CLEANING
	Washing or Degreasing
	Cleaning and Treating Equipment to Prevent Corrosion
	Ground Snow, Frost and Ice removal
	Cleaning Antenna Systems, Mobile Facilities, and Fixed Facilities
	Decontamination
05000	PRESERVATION, DEPRESERVATION, AND STORAGE OF CE EQUIPMENT
06000	GROUND SAFETY
07000	PREPARATION AND MAINTENANCE OF RECORDS
	This Code Will be Used to Record Only the Direct Labor Expended in Preparation/Maintenance of Status and Historical Forms (this excludes initiation and completion of production documentation forms).
09000	SHOP SUPPORT GENERAL CODE
	Fabricate (Includes fabrication or local manufacture of miscellaneous items).
	Stenciling/Painting (includes stenciling, lettering, installing decals, instrument range marking, etc., and painting for cosmetic purposes only). Do Not Use This Code For Treating Corrosion or Painting of Parts/Assemblies/Equipment For Corrosion Prevention/Control.
	Testing and Servicing Fire Extinguishers
	Reclamation

APPENDIX A

TABLE X. Aircraft support general codes.

Code	<u>Description</u>
03100	Preflight Inspection
03101	End of Runway Check
03109	Daily Walk Around Inspection on Alert Aircraft
03110	Daily/Special Inspection (H-34 Only)
03200	Basic Postflight/Thruflight Inspection, as applicable
03209	Alert Exercise Postflight
03210	Basic Postflight/End of Day Inspection
03215	Combined Preflight/Postflight Inspection
03220	7-Day Calendar Inspection
03221	14-Day Calendar Inspection
03300	Hourly Postflight Inspection
03400	Periodic Inspection/Phase Inspection, Basic Phase
03600	Look Phase of Programmed Depot Maintenance (PDM)
	ISOCHRONAL INSPECTION CONCEPT
03710	Major Inspection
03720	Minor Inspection
03730	Home Station Check
	SPECIAL INSPECTIONS
0411A	Climatization (includes preparation for arctic, desert, or tropical operation)
0411B	Nondestructive Inspection Accomplished Separately From Scheduled Inspection
0411C	Hydraulic System Contamination Check
0411D	Oil Sampling for Spectrometric Analysis
0411E	Rough Field Mission Check
0411H	Fuel Components Contamination Check
0411 J	Operationally Ready Inspection (ORI)
0411K	Ground Inspection
04111	Special Modification Inspection
04112	Acceptance Inspection
04113	After Fire Inspection
04114	Excessive "G" Load Inspection
04115	Functional Taxi Check
04116	Aircraft Accident/Incident Check

APPENDIX A

TABLE X. <u>Aircraft support general codes</u> - Continued.

04117	Battery Capacity/Specific Gravity Check
04118	Compass Swing Check
04119	Oil/Fuel Tank Sumps Drained Inspection
0412A	Seat/Ejection Seat or Emergency Egress System Check
0412B	Auxiliary Power Plant Inspection
0412C	Integrated Electronics System Check
0412D	Armament 25 Hour Inspection
0412E	Severe Turbulence Inspection
0412F	Calibration of Airborne Weapon System (AWCS)
0412G	Weapon Suspension System Inspection
0412H	Remote Compass Check
0412 J	Aft Fuselage Section Inspection
0412L	Missile Simulated Launch Check
0412M	MA1 45 Day Inspection
0412N	MA1 90 Day Inspection
04121	Hard Landing Inspection
04122	Landing Gear Retraction Check
04123	Wheel/Brake Inspection
04124	Pitot-Static Purge/Check
04125	Oxygen System Components Check
04126	Missile Pylon/Launcher Simulator Check
04127	Missile Under the Wing/Integrated Systems Check
04128	Fire Control and AWCS System Checks
04129	Bombing-Navigation-Communications System Checks
0413A	Propeller Oil Control Assy and Dome Flushing Check
0413B	Engine Hot Section Inspection
0413C	Engine Air Inlet Inspection
0413E	Cylinder Borescope Inspection/Engine Compressor
	Borescope Inspection
0413F	Engine Valve Decarbonization Inspection
0413H	Retorque of Propeller Components Following Engine or Propeller Change
0413 J	Exhaust Gas Temperature (Jet Cal) Calibration
0413K	Engine Ramp System Functional Check
0413L	By Pass Bellmouth Functional Check
0413M	Bleed Air System Pressure Loss Test Check
0413N	Engine Oil Screen Inspection/Oil Strainer Inspection
0413P	Engine Stall/Flameout Check
04131	Engine or Cylinder Change Inspection (includes pre-oil)
04132	Hot Start or Overspeeding Inspection
04133	Valve Check

APPENDIX A

TABLE X. <u>Aircraft support general codes</u> - Continued.

04134	Compression Check
04135	Propeller Shaft Due Check
04136	Engine or Ignition Analyzer Check
04137	Engine Conditioning (scheduled)
04138	Minor Engine Conditioning (unscheduled)
04139	Engine Trim Check
04140	Cabin Pressurization/Leak Test
04141	Corrosion Control Inspections Accomplished Separately from Scheduled Inspections
04142	Engine Bay Inspection - Engine Removed
04143	Air Conditioning System Check
04144	Post Maintenance Check (PMC) of Fuel Gages
04145	Transformer Rectifier (T/R) Unit Capacitor Check for Electrolyte/Corrosion
04147	Penetration Aids Confidence/Self Test
04149	Integral Weight and Balance Check (C-130)
0415A	Datscal (F-106)
0415B	ALE-20 System Check Prior to Flare Loading (B-52)
0415C	AWM-13 Stray Voltage Check
04150	Weight and Balance (includes weighing)
04151	Emergency Equipment (includes life raft, first aid kits, emergency radio, etc.)
04152	Inspection of Seat Belts and all Harnesses
04160	Rotor Overspeed Inspection
04161	Powertrain Over Torque Inspection (helicopters)
04162	Vibration Analysis (helicopters)
04163	Transmission Interval (oil filter inspection, helicopters)
04170	Equipment Inventory
04180	Checks Requiring Special Checkout Equipment
0418A	Air Data Computer and Associated Pitot and Static Instruments Leak Check
0418B	Overheat and Fire Warning System Inspection
0418C	Refueling Boom-Probe-Drogue-Special Inspection
0418D	SRAM System Interface Check (B-52)
0418E	SRAM CAE Checkout (B-52)
0418F	Aero 27 900 Hour Inspection
04181	Airborne WSEM Rail Check
04182	Harmonization of Sights, Guns and Cameras (Fire Control, Bomb-Nav, and Photo Systems
04183	ADM-20C Bomber Checkout
04184	Partial AGM-28 Combined Systems Checkout
04185	Squib Continuity and Corrosion Check
04186	Inspection of Guns and Feeder Mechanisms
04187	Quantity Indicating System(s) Calibration

APPENDIX A

TABLE X. <u>Aircraft support general codes</u> - Continued.

04188	Flight Director Group Operational Check
04189	Maximum Effort Stop/High Energy Braking Inspection
04190	Sudden Stoppage Inspection
04199	Special Inspection, Not Otherwise Coded
04210	Functional Check Flight
04221	Corrosion Inspection Phase I (KC-135 and B-52)
04222	Corrosion Inspection Phase II (KC-135 and B-52)
04223	AMAC and Release Test (W10) (FB-111)
04224	AMAC and Release Test (W13) (FB-111)
04224	Ejector Rack Release Test (W8) (FB-111)
04226	Conventional Bomb Release Test (W9) (FB-111)
04227	Controlled Interval Extension (CIE) Inspection Accomplished Separately From Scheduled Inspections
04228	MAU 12 Bomb Ejector Rack Inspections
04229	MAU 140 Missile Ejector rack Inspections (FB 111 B/A only)
04510	Refurbishment Inspection (C-5A and C-141 Only)
04610	Nondestructive Testing (All Types)
04620	Analysis of Oil Samples
04630	Research and Development of New or Revised Nondestructive Inspection Techniques

APPENDIX A

TABLE XI. Air launched missile support general codes.

	"LOOK" PHASE OF SCHEDULED AND SPECIAL INSPECTIONS
	SCHEDULED INSPECTIONS
Code	Description
03100	Preflight/Daily Inspection
03110	Preflight
03120	Daily
03200	Postflight/Down Load Inspection
03210	Postflight
03220	Down Load
03300	Storage Inspection (Live)
03310	7 Day
03320	30 Day
03330	90 Day
03340	180 Day
03350	270 Day
03360	360 Day/Annual
03400	Storage Inspection (Dead)
03410	7 Day
03420	30 Day
03500	Periodic Inspection
03510	30 Day
03520	60 Day
03530	90 Day
03550	180 Day
03570	270 Day
03590	360 Day
03595	540 Day
03596	720 Day/2 Year
03597	900 Day
	SPECIAL INSPECTIONS
04100	Missile and Pylon
04110	Hard Landing
0411D	Oil Sampling for Spectrometric Analysis
04120	Calendar
04130	Modification

APPENDIX A

TABLE XI. <u>Air launched missile support general codes</u> - Continued.

04140	Excessive G Loading
04141	Corrosion Control
04150	Transfer
04160	Non-Tactical Instrumentation
04170	Cold Weather
04180	Combined Systems Checkout
04270	Partial Combined Systems Checkout
04280	Checks Requiring Special Checkout Equipment
04310	Receiving Inspection
04311	Uncrating
04313	Stray Voltage Check
04314	Blown Fuse/Squib or Parameter Activated
04315	Purging
04316	Assembly
04317	Disassembly
04320	Hangfire
04321	Misfire
04322	30 Day on Aircraft
04323	10 Captive Flights
04324	Moisture
04325	Desiccant Container
04326	Dust Cover Plug
04327	DPM-14 Checkout
04330	Extreme Temperature
04340	Load/Unload
04341	Whenever Sealing Sleeve is Removed
04342	Abort
04343	When Chassis #5 or Frequency Converter is Replaced
04344	Whenever Warhead Safe Arm Device or Fuse is Removed from Missile
04345	Whenever Rocket Motor is Removed from Missile
04346	Whenever Power Plant is Removed from Missile
04346	Whenever Access Covers are Removed from WSEM or Missile
04348	Incident/Accident
04349	When Hydraulic or Electrical Connections are Disconnected
04350	Whenever Branched Warhead Harness has been Installed for 24 Months
04351	Whenever Guidance Unit is Removed from Missile
04352	When the Warhead is to be Removed from Missile
04353	When Warhead is Handled
04354	When Control Surfaces, Servopositioner, Wing, or Cowling is Removed or Installed
04355	When Fuse Antenna is being Installed

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TABLE XI. <u>Air launched missile support general codes</u> - Continued.

04356	When Missile or Missile Components are Stored in Shipping/Storage Containers
04358	Evidence of Tampering
04359	Whenever radioactive Atmosphere has been Encountered
04360	Wing/Roller on and Fin Check
04361	When Guidance Unit is Exposed to Sunlight
04362	Whenever Forward Body Section Displays a Dent or Deterioration
04363	Holding Area
04364	Return to Holding Area
04365	Physical Shock
04366	Transfer from Container to MH-12 Trailer
04367	Launcher Post Download Inspection
04370	After 20 WSEM Flights
04371	Whenever Engine Exhaust Gas Temperature Exceeds Limits
04372	First Run After Engine Change
04373	Whenever Emergency Engine Shutdown Occurs
04400	Droppage Inspections (These codes shall be assigned as required thru/with code 04400
04425	
04610	Non-Destructive Testing (All Types)
04620	Analysis of Oil Samples
04630	Research and Development of New or Revised Non-Destructive Inspection Techniques.
04999	Special Inspections Not Otherwise Coded

APPENDIX A

TABLE XII. Air launched missile SE support general codes.

	SCHEDULED INSPECTIONS
<u>Code</u>	<u>Description</u>
03A00	Preflight/Daily Inspection
03B00	Postflight
03D00	Storage
03E00	Periodic
03E20	14 Day
03E30	30 Day
03E40	60 Day
03E50	180 Day
03E60	170 day
03600	Replacement
	SPECIAL INSPECTIONS
04A20	Calendar
04A30	Modification
04A41	Corrosion Control
04A50	Transfer
04B80	Checks Requiring Special Checkout Equipment
04C30	Desiccant Check
04E20	Moisture
04E30	Loading Inspection
04E40	Incident/Accident
04E80	Droppage
0411D	Oil Sampling for Spectrometric Analysis
04113	Functional Check
04610	Nondestructive Testing (All Types)
04630	Research and Development of New or Revised Nondestructive Inspection
	Techniques
04999	Special Inspection Not Otherwise Coded

APPENDIX A

TABLE XIII. Ground launched missile support general codes.

	"LOOK" PHASE OF SCHEDULED AND SPECIAL INSPECTIONS
	SCHEDULED INSPECTIONS
Code	Description
03100	Receiving Inspection (includes assembly)
03110	Inspection Crews
0311K	Armament
0311L	Shelter Maintenance
0311M	Ramjet
0311N	Missile Maintenance
0311P	Missile Interface Unit (MIU)
0311Q	Mobile Ground Power
0311R	Fueling
0311S	Disassembly
0311T	SMATE
0311U	IMSOC
03200	Installation (do not use for missile to launcher installation)
03300	Pre-Launch
03400	Daily
03500	Periodic (phase if authorized)
03107	7 Day
03114	14 Day
03510	15 Day
03121	21 Day
03128	28 Day
03520	30 day
03142	42 Day
03156	56 Day
03530	60 Day
03184	84 Day
03540	90 Day
03268	168 Day
03550	180 Day
03336	336 Day
03560	360 Day
03570	Control Equipment
03580	Armament Test Equipment
03600	Post-Launch/Static Firing
03700	Storage

APPENDIX A

TABLE XIII. <u>Ground launched missile support general codes</u> - Continued.

	SCHEDULED INSPECTIONS
Code	Description
03701	Storage Inspection
03800	Re-entry Vehicle Recycle
03802	Re-entry Vehicle Recycle for Higher Headquarter Evaluation
03803	Re-entry Vehicle Recycle for Time Compliance Technical Order (TCTO)
03804	Re-entry Vehicle for Limited Life Component/Technical Critical Item (LLC/TCI) Replacement
03806	Disassembly for Operational Test/Follow-on Operational test (OT/FOT)
03807	Assembly for OT/FOT
	SPECIAL INSPECTIONS
04110	Pressure Checks, Warheads
04111	Nuclear Certification
04112	Nuclear Decertification
04120	Missile/Shelter Reset
04130	Pressure Check, Air Bottle
04141	Corrosion Control Inspections Accomplished Separately From Scheduled Inspections
04500	Accomplishment of Checklists
04572	Missile/Launch Verification (Simulation)
04573	Missile/Launch Verification (No Simulation)
04574	Missile Verification
04575	Launch Verification (Simulation)
04576	Launch Verification (No Simulation)
04577	Dynamic Response Test
04578	Combined Systems Test
04583	Thrust Maintenance Operation
04584	Silo Door Operation
04650	Initial Build-up-Recovery Vehicle (RV)
04610	Nondestructive Testing (all types)
04630	Research and Development of New or Revised Nondestructive Inspection Techniques
04999	Special Inspections Not Otherwise Coded
04111	Operational or System Check
04112	Special Modification Inspection

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TABLE XIII. <u>Ground launched missile support general codes</u> - Continued.

04141	Corrosion Control Inspections Accomplished Separately From Scheduled Inspections
04610	Nondestructive testing (all types)
04620	Analysis of Oil Samples
04630	Research and Development of New or Revised Nondestructive Inspection Techniques

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TABLE XIV. Nonnuclear weapons support general codes.

	SCHEDULED INSPECTIONS
Code	<u>Description</u>
03111	Daily
03112	6 Month
03113	Annual
03115	Shipping
03130	In-Storage Inspection
03500	Periodic
	SPECIAL INSPECTIONS
0411A	Quality Control
0411B	TCTO
0411C	Assembly Inspection
0411D	Receiving Inspection
0411E	Pre-Issue Inspection
04111	Continuity
04112	Stray Voltage
04113	Moisture
04114	Hard Landing
04115	After Operational Use
04116	Functional Test
04117	Lot Number
04118	Date of Manufacture
04120	Damage Inspection
04130	Special Modification Inspection
04141	Corrosion Control Inspections Accomplished Separately from Scheduled Inspection
04150	Return to Storage Area
04160	Incident/Accident
04280	Checks Requiring Special Checkout Equipment
04610	Nondestructive testing (all types)
04620	Analysis of Oil Samples
04630	Research and Development of New or Revised Nondestructive Inspection Technique
04999	Special Inspections Not Otherwise Coded

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 $TABLE\ XV.\ \ \underline{Peculiar\ munitions\ SE\ support\ general\ codes}.$

	"LOOK" PHASE OF SCHEDULED AND SPECIAL INSPECTIONS
	SCHEDULED INSPECTIONS
Code	Description
03100	Daily Inspection Prior to Use
03111	Service Inspection
03112	Acceptance
03114	Periodic
	SPECIAL INSPECTIONS
04111	Special Modification Inspection
04112	Hydrostatic (includes inspection, weighing, and servicing) Inspection
04113	Functional/Operational Check
04114	Special Inspection - General Requirements
04115	Special Inspection - Special Event Inspection Requirements
04117	Battery Capacity/Specific Gravity Check
04119	Corrosion Control Inspection
04610	Nondestructive Testing (all types)
04620	Analysis of Oil Samples
04630	Research and Development of New or Revised Nondestructive Inspection Techniques
04999	Special Inspections Not Otherwise Coded

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TABLE XVI. Communication electronic support general codes.

	"LOOK" PHASE OF CE SCHEDULED AND SPECIAL INSPECTIONS
	SCHEDULED INSPECTIONS
<u>Code</u>	<u>Description</u>
03100	As Required (other than as specified below)
03101	Daily
03107	7 Day Interval
03114	14 Day Interval
03121	21 Day Interval
03128	28 Day Interval
03142	42 Day Interval
03156	56 Day Interval
03184	84 Day Interval
03268	168 Day Interval
03336	336 Day Interval
	PHASED INSPECTIONS
03410	Daily
0341A	Phase 1
0341B	Phase 2
0341C	Phase 3
0341D	Phase 4
0341E	Phase 5
0341F	Phase 6
0341G	Phase 7
0341H	Phase 8
0341 J	Phase 9
0341K	Phase 10
0341L	Phase 11
0341M	Phase 12
0341N	Phase 13
0341P	Phase 14
0341Q	Phase 15
0341R	Phase 16
0341S	Phase 17
0341T	Phase 18
0341U	Phase 19

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TABLE XVI. <u>Communication electronic support general codes</u> - Continued.

0341V	Phase 20
0341W	Phase 21
0341X	Phase 22
0341Y	Phase 23
0341Z	Phase 24
0342A	Phase 25
0342B	Phase 26
	SPECIAL INSPECTIONS
04110	Operational or System Checks
04111	Special Modification Inspection
04112	Equipment Inventory
04119	Special Inspections NOC
04141	Corrosion Control Inspections Accomplished Separately From Scheduled Inspections
04610	Nondestructive Testing (all types)
04630	Research and Development of New or Revised Nondestructive Inspection Techniques

APPENDIX A

TABLE XVII. Support equipment support general codes.

	SCHEDULED INSPECTIONS
Codes	Description
03111	Service Inspection
03112	Acceptance
03113	Incoming (entering shop)
03114	Periodic
03115	Final (leaving shop)
03310	7 Day Interval
03320	14 Day Interval
03330	30 day Interval
03340	60 Day Interval
03350	90 Day Interval
03360	120 Day Interval
03370	180 Day Interval
03380	270 Day Interval
03390	360 Day Interval
03395	540 Day Interval
03400	720 Day Interval
	SPECIAL INSPECTIONS
0411C	Hydraulic System Contamination Check
0411D	Oil Sampling for Spectrometric Analysis
04111	Special Modification Inspection
04112	Hydrostatic (includes inspection, weighing, and servicing)
04113	Functional/Operational Check
04114	Special Inspection - General Requirements
04115	Special Inspection - Special Event Inspection Requirement
04117	Battery Capacity/Specific Gravity Check
04119	Corrosion Control Inspection (use if accomplished separately from a scheduled inspect
04610	Nondestructive Testing (all types)
04620	Analysis of Oil Samples
04630	Research and Development of New or Revised Nondestructive Inspection Techniques
04919	Special Inspection Not Otherwise Coded

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TABLE XVIII. Training equipment support general codes.

"LOOK" PHASE OF SCHEDULED INSPECTIONS (Includes all work such as greasing, etc., included on the work cards, minor fixes, such as tightening clamps and connections, and unbuttoning and buttoning up the trainer.)

<u>Code</u>	<u>Description</u>
03100	Daily Inspection
03200	Periodic Inspection
04100	Special Modification Inspection
04199	Special Inspections Not Otherwise Coded
04200	Unscheduled Periodic Inspection
04610	Nondestructive Testing (all types)
04630	Research and Development of New or Revised Nondestructive Inspection Techniques

Downloaded from http://www.everyspec.com

APPENDIX B

WORK UNIT CODE MANUALS DOCUMENT TYPE DEFINITION (DTD) SUBSET

B.1 SCOPE.

B.1.1 <u>Scope</u>. The markup tags described herein are based on rules outlined in MIL-PRF-28001 and the Information Processing - Text and Office Systems - Standard Generalized Markup Language (SGML) document, International Organization for Standardization (ISO) 8879, as incorporated in Federal Information Processing Standards (FIPS) PUB 152. The Documentation Type Definition (DTD) subset within this appendix provides the structure and content of documents prepared in accordance with this specification. Digital copies of the DTD (see B.4.1), Tag Description Table (see B.4.2), and Attribute Description Table (see B.4.3) are available (see B.5). This appendix is a mandatory part of this specification. The information contained herein is intended for compliance.

B.2 APPLICABLE DOCUMENTS.

B.2.1 Government documents.

B.2.1.1 <u>Specifications, standards, and handbooks</u>. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those 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).

SPECIFICATIONS

Military

MIL-PRF-28001 - Markup Requirements and Generic Style Specification for Electronic Printed Output and Exchange of Text

STANDARDS

Federal Information Processing Standards

FIPS PUB 152 - Standard Generalized Markup Language (SGML)

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

(Copies of Federal Information Processing Standards (FIPS) are available to Department of Defense activities from the Standardization Documents Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094. Others must request copies of FIPS from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161-2171.)

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B.3 DOCUMENT TYPE DEFINITION SUBSET.

<!ENTITY % status

- B.3.1 <u>SGML</u> document type definition subset. Data to be delivered digitally in accordance with this specification shall be SGML tagged using the DTD found in MIL-STD-38784 as modified by the DTD subset in this section. The procedure for accomplishing this is found in MIL-PRF-28001 and FIPS PUB 152 (ISO 8879).
- B.3.2 <u>Template document type for Work Unit Code Manuals</u>. The DTD subset for the Work Unit Code Manuals DTD is as follows:

```
<!-- ****************** START OF FILE ******************************
<!-- SUPPLEMENT NOTICE: This file is made available to provide the user with
a digital representation of the DTD found in Appendix B of MIL-PRF-38769D.
This file is incomplete without MIL-PRF-38769D. -->
<!-- NOTE: The start and end of this file are marked with a row of asterisks.
If these rows are not present the file may not be complete! -->
<!-- MIL-PRF-38769D Work Unit Code DTD -->
<!-- The following set of declarations may be referred to by using
a public entity as follows:
<!ENTITY % d38769db PUBLIC "-/USA-DOD//DTD MIL-PRF-38769D WUC//EN">
%d38769db; -->
<!-- NOTE: In order to parse the following DTD subset alone, append
the following statement to the beginning of the file:
     <!DOCTYPE docwuc [
and the associated "|>" to the end of the file. -->
<!-- ENTITY DECLARATIONS -->
<!ENTITY % bodyele "((twochap1, twochap2) | (threechap1, threechap2,
           threechap3) | (wucsy, figure*)+)" >
<!ENTITY % titles "(title)" >
<!ENTITY % frnt "idinfo, warnpage?, chginssht?, lep,
       verstat?, chgrec?, contents, illuslist?,
       tablelist?, (foreword | intro), safesum?, codes" >
<!ENTITY % yesorno "NUMBER" >
                      "delete | real | reserve | NA" >
<!ENTITY % delstat
```

"empty | deleted | reserved | notapp" >

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```
<!ENTITY % itemid
"unit CDATA #IMPLIED
module CDATA #IMPLIED
lru CDATA #IMPLIED
compon CDATA #IMPLIED
partno CDATA #IMPLIED
refdes CDATA #IMPLIED" >
<!ENTITY % content
"skilltrk NMTOKENS #IMPLIED
contype (desc | proc) #IMPLIED
assocfig IDREFS #IMPLIED
assoctab IDREFS #IMPLIED" >
<!ENTITY % db "%itemid; %content;" >
<!ENTITY % chgatt
"deltype (%delstat;) #IMPLIED
inschlvl NMTOKEN #IMPLIED
delchlvl NMTOKEN #IMPLIED
status (%status;) #IMPLIED
revchg %yesorno; '0'" >
<!ENTITY % bodyatt
"label CDATA #IMPLIED
sssn CDATA #IMPLIED
indexid CDATA #IMPLIED
%chgatt;
%db;" >
<!ENTITY % chapatt
"emergency %yesorno; '0'
id ID #IMPLIED
%bodyatt;" >
<!ENTITY % secur "security (u | c | s) 'u'" >
<!ENTITY % verified
"verdate CDATA #IMPLIED
verrem CDATA #IMPLIED" >
<!ENTITY % codeatt
"%chqatt;
%secur;
%verified;" >
<!ENTITY % m38784std PUBLIC "-//USA-DOD//DTD MIL-STD-38784//EN" >
%m38784std;
<!ENTITY hmcnote "Technicians must use a How Malfunctioned Code
(HMC) from the engine related codes when documenting the removal of
engines or engine components that are AFI 21-104 reportable. For all
other maintenance actions, on any type of equipment, there are no
```

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restrictions on the use of codes by category. If a code is appropriate for an observed malfunction, it may be used regardless of what category it is listed. Avionics shops may use engine codes. Engine shops may use avionics codes. Tire shops may use physical/mechanical, avionic or engine codes, etc. Categories of codes were created primarily for ease in finding a specific code." >

<!ENTITY speccodes "The abbreviation (MTS or RTE, as applicable)
identifies training equipment (Mobile Training Sets or Resident
Training Equipment) peculiar items included in this Work Unit Code
manual for recording purposes." >

<!ENTITY threechap "This manual has been prepared in three chapters; Chapter 1 contains Work Unit Code - Noun - System/Subsystem/Reference Designation Index listings for the weapon system equipment. Chapter 2 contains System/Subsystem/Reference Designation Index - Noun - Work Unit Code listings for the weapon system equipment. Chapter 3 contains Work Unit Code listings for support equipment peculiar to the weapon system." >

<!ENTITY twochap "This manual has been prepared in two chapters;
Chapter 1 contains Work Unit Code - Noun System/Subsystem/Reference Designation Index listings for the
weapon system and support equipment peculiar to the weapon system.
Chapter 2 contains System/Subsystem/Reference Designation Index Noun - Work Unit Code listings for the weapon system and support
equipment peculiar to the weapon system." >

<!ENTITY chap3intro "<para0><title>Introduction</fitle><para>
This chapter of the manual contains work unit
codes for Support Equipment (SE) that was specifically designed for,
or is peculiar to, the equipment covered in Chapter 1 and 2 of this
manual. This portion of the manual shall be used by maintenance
personnel to record maintenance tasks accomplished directly on the
end items of SE or SE components, or equipment undergoing repair,
servicing, testing, calibration, or bench check in specialized shops.
The Type Maintenance, Action Taken, When Discovered, How Malfunctioned,
and Support General Codes are contained in this manual. Common work unit
codes are contained in TO 00-25-06- series Work Unit Code manuals.

<!ENTITY typmaintnote "Refer to TO 00-25-06-2-1 for off-equipment and shop Type Maintenance codes." >

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```
<!ELEMENT chap1wuc
                           - o (wuc, noun, ssrdi)+ >
<!ATTLIST chap1wuc
                          %tabatts; >
<!ELEMENT chap2wuc
                           - o (ssrdi, noun, wuc)+ >
<!ATTLIST chap2wuc
                          %tabatts; >
                          - o (code, codedesc)+ >
<!ELEMENT chocc
                          - o (codetitle, description?, note?) >
<!ELEMENT codedesc
<!ELEMENT code
                           - o (%text;) >
<!ATTLIST code
                          %secur; >
<!ELEMENT codetitle
                           - o (%text;) >
<!ELEMENT codes
                           - o (typmntcds, acttakcds, whndiscds,
                           howmalcdsalpha, howmalcdsnum, (uniqdatacds |
                           supgencds)+, supgen3000?, supgen4000?) >
<!ATTLIST codes
                           %secur; >
<!ELEMENT conmon
                           - o (code, codedesc)+ >
<!ELEMENT description <!ATTLIST description
                          - o (%text;) >
                          %secur; >
<!ELEMENT docwuc
                           - - (front, body, rear?)
                           +(pgbrk | brk | line | emphasis | subjinfo |
                           modreq) >
                           service %service; 'AF'
<!ATTLIST docwuc
                          %docatt; %secur; >
<!ELEMENT engrel
                          - o ((oprecopcon, idcom, conmon, chocc, mandec),
                           nodef) >
<!ELEMENT grpcode
                         - o (%text;) >
<!ELEMENT grpcodetitle
                         - o (%text;) >
<!ELEMENT howmalcdsalpha
                          - o (note, avelcom, physmech, engrel) >
<!ATTLIST howmalcdsalpha
                          %codeatt; >
<!ELEMENT howmalcdsnum
                          - o (avelcom, physmech, engrel) >
<!ATTLIST howmalcdsnum
                         %codeatt; >
<!ELEMENT idcom
                          - o (code, codedesc)+ >
<!ELEMENT mandec
                          - o (code, codedesc)+ >
<!ELEMENT noc
                          - o EMPTY >
                          - o (code, codedesc)+ >
<!ELEMENT nodef
                          - o EMPTY >
<!ELEMENT none
```

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```
<!ELEMENT noun
                          - o (%text;) >
                          - o (code, codedesc)+ >
<!ELEMENT oprecopcon
<!ELEMENT pecwuc
                          - - ((pecwuc, pnoun)+ | none) >
                          %tabatts; >
<!ATTLIST pecwuc
<!ELEMENT physmech
                          - o ((code, codedesc)+, nodef) >
<!ELEMENT pnoun
                          - o (%text;) >
<!ELEMENT pwuc
                          - o (%text;) >
<!ELEMENT ssrdi
                          - o (%text;) >
<!ELEMENT supgen3000
                          - o (supgrp)+ >
<!ATTLIST supgen3000
                          %codeatt; >
<!ELEMENT supgen4000
                          - o (supgrp)+ >
<!ATTLIST supgen4000
                          %codeatt; >
<!ELEMENT supgencds
                          - o (note?, code, codedesc)+ >
<!ATTLIST supgencds
                         %codeatt; >
<!ELEMENT supgrp
                          - o (grpcode, grpcodetitle,
                          (code, codedesc)*) >
<!ELEMENT threechap1
                         - - (para0, chap1wuc) >
<!ELEMENT threechap2
                         - - (para0, chap2wuc) >
<!ELEMENT threechap3
                         - - (para0, pecwuc) >
<!ELEMENT twochap1
                         - - (para0, chap1wuc, para0?, pecwuc) >
<!ELEMENT twochap2
                         - - (para0, chap2wuc, para0?, pecwuc) >
<!ELEMENT typmntcds
                         - o (code, codedesc)+ >
<!ATTLIST typmntcds
                         %codeatt; >
                          - o (code, codedesc)+ >
<!ELEMENT uniqdatacds
<!ATTLIST uniqdatacds
                          %para0att; >
<!ELEMENT whndiscds
                         - o (code, codedesc)+ >
<!ATTLIST whndiscds
                          %codeatt; >
<!ELEMENT wuc
                          - - (%text;) >
<!ELEMENT wuc1
                          - - ((wucode, wucdesc)+, wuc2*) >
                          - - ((wucode, wucdesc)+, wuc3*) >
<!ELEMENT wuc2
<!ELEMENT wuc3
                          - - (wucode, wucdesc)+ >
```

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ELEMENT wucsy</th <th> ((wucode, wucdesc?, note?)+, wuc1*) ></th>	((wucode, wucdesc?, note?)+, wuc1*) >
ATTLIST wucsy</td <td>wuc CDATA #REQUIRED ></td>	wuc CDATA #REQUIRED >
ELEMENT wucdesc</td <td>- o (noc %text;) ></td>	- o (noc %text;) >
ELEMENT wucode</td <td>- o (%text;) ></td>	- o (%text;) >
*************</td <td>****** END OF FILE ********************</td>	****** END OF FILE ********************

B.4 DETAILED DESCRIPTION.

- B.4.1 <u>Document type definition</u>. The DTD within this appendix provides the structure and content of documents prepared in accordance with this specification. The DTD is available in a digital format. See B.5, for information on obtaining the file.
- B.4.2 <u>Tag description table</u>. The tag description table provides detailed descriptions of the tags above. It provides the element tagging structure, full element name, tag minimization requirements, element structure, referencing elements, source paragraph, and attribute descriptions unique to the element. See B.5, for information on obtaining this table.
- B.4.3 <u>Attribute description table</u>. The attribute description table provides detailed descriptions of the attributes above. See B.5, for information on obtaining this table.

B.5 OBTAINING FILES.

- B.5.1 Obtaining files. The DTD, attribute, and tag description tables are available as ASCII files (see B.5.1.1 and B.5.1.2). In the event of a conflict between the text of this document and any downloaded files, the text of this document takes precedence. These files are for convenience and informational purposes only.
- B.5.1.1 File Transfer Protocol (FTP). The procedures for obtaining files via FTP are as follows:
 - a. Connect to "WPCDSO1.wpafb.af.mil" using the FTP software available at your site. For example, if your FTP software is invoked using the "ftp" command, type "ftp WPCDSO1.wpafb.af.mil." Do not attempt to log-in to this site using a "telnet" connection. If this connection fails, connect using "129.52.152.8."
 - b. Log-in (log-in, name, remote user name, etc.) as "ftp" and press "enter."
 - c. For password, type electronic mail (e-mail) name followed by "@" (at) and press "enter."
 - d. Type "cd pub/tmss-web" (or command your system requires to change to "pub/tmss-web" directory) and press "enter." At this point, a short new users message will normally appear. If the new users message does not appear, it should be downloaded and read. Download file by typing "get.message" (or the command your system requires to download a file) and press "enter."

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- e. Type "get filelist.txt" (or the command your system requires to download a file) and press "enter." This file contains a list of all files available. This file is updated as new items are added, therefore it should be downloaded and read before downloading any other file.
- f. If the needed file ends with ".zip," see g. below, otherwise type "asc" (or the command your system requires for an ASCII transfer) and press "enter." Type "get XXXXXX.XXX" (where XXXXXX.XXX is the name of the file to be downloaded) and press "enter" to download needed file. Repeat for each file to be downloaded.
- h. File "nc.txt" contains information on the naming conventions used on all files in this directory. Type "get nc.txt" to download this file.
- B.5.1.2 <u>World Wide Web (WWW)</u>. Obtain files via the Air Force Product Data Systems Modernization (PDSM) Program Office (AFPPO) home page at: "http://www.pdsm.wpafb.af.mil/." Select TMSS from the graphical menu and follow the directions presented.

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