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DETAIL SPECIFICATION MANUALS, TECHNICAL - WORK UNIT CODE



Comments, suggestions, or questions on this document should be addressed to AFLCMC/HIAM Technical Data Section, 4170 Hebble Creek Road, Bldg. 280, Door 15, Area A, Wright-Patterson AFB, OH 45433-5653 or emailed to SGMLsupport@us.af.mil. Since contact information can change, the currency of this address information should be verified using the ASSIST Online database at <https://assist.dla.mil/>.

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AREA TMSS

This detail 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 Scope. This specification prescribes the requirements for the development and preparation of Work Unit Code (WUC) manuals for Air Force equipment. This specification provides for electronic delivery of data through the use of the Document Type Definitions (DTD) listed in Appendix **B**.

1.1.1 Examples/figures. The figures used in the specification are examples only. The text of this specification takes precedence over the figures.

2 APPLICABLE DOCUMENTS.

2.1 General. 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 of documents cited in sections **3** and **4** of this specification, whether or not they are listed.

2.2 Government Documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract (see **6.2**).

DEPARTMENT OF DEFENSE STANDARDS

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

(Copies of federal and military specifications, standards and handbooks are available at <http://quicksearch.dla.mil/> or from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

AIR FORCE TECHNICAL MANUALS

| | |
|------------------------|--|
| TO 00-5-3 | AF Technical Order Life Cycle Management |
| TO 00-06-series | Work Unit Code Manuals |
| TO 00-20-2 | Maintenance Data Documentation |
| TO 00-25-06-2-1 | 412A Aircrew Flight Equipment (AFE) |
| TO 2J-1-24 | Equipment Comprising a Complete Basic Gas Turbine Engine |

(Copies of these documents required by users with ".mil" government web address access are available online at <https://www.my.af.mil/etims/ETIMS/index.jsp>. Refer to helpdesk information if obtaining copies without a TO subscription account. Copies of documents required by contractors in connection with specific procurement functions should be obtained from the acquiring activity or as directed by the contracting officer.)

AIR FORCE INSTRUCTIONS (AFI)

| | |
|-------------------|--|
| AFI 20-115 | Propulsion Management For Aerial Vehicles |
| AFI 21-101 | Aircraft and Equipment Maintenance Management |
| AFI 21-104 | Selective Management of Selected Gas Turbine Engines |
| AFI 33-110 | Air Force Data Administration Program |
| AFI 99-103 | Capabilities-Based Test and Evaluation |

(Copies of these documents may be obtained online from the Air Force e-Publishing at <http://www.e-publishing.af.mil/>. Copies of documents required by contractors in connection with specific procurement functions should be obtained from the acquiring activity or as directed by the contracting officer.)

2.3 Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein (except for related specification sheets), 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 Development and preparation. The general manner of development and preparation of WUC manuals shall be in accordance with the requirements of MIL-STD-38784, except as otherwise specified herein (see [6.8](#)).

3.1.1 General criteria. The following applies throughout this specification.

3.1.1.1 Electronic/print-unique functionality/formatting requirements. As specified by the acquiring activity (see [6.2b](#)), the electronic presentation or print presentation unique functionality/formatting requirements shall apply for the development of all manuals specified herein.

3.1.2 Format. The format of the manuals shall be in accordance with the requirements of MIL-STD-38784. Unless otherwise specified (see [6.2c](#)) by the acquiring activity, chapters and sections shall be arranged as outlined herein.

3.1.3 Manual size. Electronic Presentation: The restrictions for page sizes are N/A.

Print Presentation: Unless otherwise specified by the acquiring activity (see [6.2d](#)), preliminary manuals shall be 8 1/2 by 11-inches (with the same printing area size as 5 by 8-inch manuals). Formal manuals shall be prepared in 5 by 8-inch size, except training and Support Equipment (SE) manuals which shall be prepared in 8 1/2 by 11-inch size. The standard WUC manual shall always be 5 by 8-inch.

3.1.4 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.

3.1.5 Column arrangement. There shall be a blank line between WUC upper-case line entries (see [3.1.4](#)) and the preceding line entry (excluding support general codes).

Electronic Presentation: manuals shall be produced in single column format.

Print Presentation: Unless otherwise specified by the acquiring activity (see [6.2e](#)), 5 by 8-inch manuals shall be single column and 8 1/2 by 11-inch manuals shall be double column.

3.1.6 Page numbering. Electronic Presentation: The manual shall be divided and presented by WUC. The System Subsystem Reference Designation Index (SSRDI) and System Subsystem Sub-Subsystem Number (SSSN) shall be marked on the Table Of Contents (TOC). There are no specific requirements for running footer info regarding a SSRDI and SSSN. If the capability exists, the SSRDI and SSSN shall be placed on the bottom left corner of the screen for the data which it applies.

Print Presentation: The TOC, introduction, 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 and [6.18](#)). Pages containing WUCs shall be numbered in the lower outer corner of each page by the WUC system (or homogeneous group see [6.4](#)) number and consecutive page number (see [6.18](#)). Pages containing SSRDI numbers shall be numbered in the lower outer corner of each page by the system/subsystem number and consecutive page numbers (see [6.18](#)). Support General Codes 01000, 02000, 05000, 06000, 07000 and 09000 shall be listed on pages prefixed 01- (see Table [VIII](#)). Codes 03XXX and 04XXX shall appear on pages prefixed 03- and 04-, respectively (see Table [IX](#)).

3.1.7 Page entries. Electronic Presentation: The manual shall be divided and presented by system number.

Print Presentation: 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.

3.1.8 Standardization. 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.

3.1.9 Test program. 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 6.9), the WUC manual shall be completed prior to the start of the test program (see 6.2f). 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 Front matter. Front matter shall be prepared in accordance with the requirements of MIL-STD-38784, except as otherwise specified herein.

3.2.1 Title. If applicable, an effectiveness date notice shall be included on the title in accordance with the requirements of MIL-STD-38784. All WUC manual changes, supplements, or revisions, that contain a any change to a WUC shall contain an effectiveness date notice on the title. The effectiveness date provided by the acquiring activity shall be used (see 6.17).

3.2.2 List of effective pages. Electronic Presentation: A list of effective changes shall be prepared in accordance with the requirements of MIL-STD-38784 and linked to the data in which they apply.

Print Presentation: A list of effective pages shall be prepared in accordance with the requirements of MIL-STD-38784.

3.2.3 Table of contents. Electronic Presentation: The TOC entries shall be linked to the data to which it applies.

Print Presentation: Depending on the concept under which the WUC manual is to be prepared (see 3.3), the TOC shall list the code manual contents in the order shown in 3.3.1, 3.3.2 and 3.3.3, 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 (see 6.4) 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 TOC.

3.2.4 Introduction. The introduction shall be prepared in accordance with the requirements of MIL-STD-38784, except as otherwise specified herein.

3.2.4.1 Two-chapter manual. The following paragraph shall be included in the introduction for each WUC manual prepared in accordance with the two-chapter manual concept (see 3.3.2).

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 Standard WUC manual. 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.

3.2.4.3 Three-chapter manual. The following paragraph shall be included in the introduction for each WUC manual prepared in accordance with the three-chapter manual concept (see 3.3.3).

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.

3.2.5 Type maintenance, action taken, when discovered, and how malfunction codes. These codes are defined and listed in TO 00-20-2.

No changes or additions shall be made to these codes, without prior approval by the Air Force Technical Order Policy and Procedures (AF TOPP) (see 6.5 and 6.10).

3.2.5.1 Type maintenance code. This list shall include only those codes that are applicable to the equipment covered by the WUC manual (see 6.5.1). 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 Action taken code. The complete list of action taken codes shall be included in the manual (see 6.5.2).

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 6.5.3).

3.2.5.4 How malfunction code. The How Malfunction Code (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 6.5.4).

3.2.5.4.1 Alphabetic and numeric sequence. The alphabetic and numeric sequence shall be further divided into the following four categories:

- a. Avionics/Electrical/Computer.
- b. Physical/Mechanical.
- c. Engine Related.
- d. No Defect.

3.2.5.4.2 Engine related HMCs. 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 6.5.4.1).

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

NOTE

Technicians must use a HMC from the engine related codes when documenting the removal of engines or engine components that are AFI 20-115 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 6.6.)

3.2.7 Work unit code. (see 6.7) Construction and application of WUCs shall be in accordance with Appendix A.

3.2.7.1 Used with but not part of. Work Unit Codes for these items shall be included (see 6.11).

3.2.8 Nomenclature. 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 6.2g).

3.2.9 Time change item (TCI), configured article, serially controlled, and warranty tracked items. (See 6.12).

3.2.9.1 Two-chapter and three-chapter. Items shall be denoted, between the WUC and its definition (nomenclature), as listed below:

| | |
|----------|------------------------------|
| C | Configured article |
| * | Serially tracked item |
| T | Time change/significant item |
| W | Warranty tracked |

These symbols may also be used in combinations, except “*” shall not be used with “C” or “W”. Additionally, time change items are further identified by the abbreviation (TCI) following the definition. An explanation of all symbols used shall be provided in the manual introduction (see 2.1 of Figure 3).

EXAMPLE:

Time change and time significant (T)

99ABC T Ignitor (TCI)

99ABB T Cable, Igniter (TCI)

Configured article (C)

99DEF C Stator

Serially controlled (*)

99TUV * Housing

12E00 * EJECTION SEAT, ACES II FWD & AFT

Time change items are further identified by the abbreviation (TCI) following the definition.

12EGA T Chute, Personnel 28 Ft (TCI)

Warranty tracked (W)

99XYZ W Amplifier

3.2.10 End item identification. Each end item of SE shall be identified by an “@” (at) symbol between the WUC and its nomenclature (see 6.13). EXAMPLE:

EXAMPLE:

SA000 SYSTEMS TEST EQUIPMENT

SAAAM @ Infrared detecting test set, P/N 1978650-1

SAEEW Transmitter, P/N 0N507630-2

3.2.11 Mobile Training Sets (MTS) and Resident Training Equipment (RTE). 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 introduction 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.”

3.2.12 Site effectivity identification. Effectivity symbols may be used for identification of equipment that is not applicable to all sites (squadron or wing) of a specific 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 6.2h). When effectiveness symbols are used in accordance with this paragraph, an appropriate reference explaining their use shall be included in the introduction.

3.2.13 System code/end item code page entries. Electronic Presentation: Data shall be formatted as a scrolling table viewable by WUC.

Print Presentation: 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).

3.2.14 New page entries. Electronic Presentation: Data shall be formatted as a scrolling table viewable by WUC.

Print Presentation: 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:

EXAMPLE:

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

3.2.14.1 Work unit code column heading. The first line entry at the top of each WUC column shall be the type of equipment to which the work unit codes apply.

EXAMPLE:

| | |
|-------|------------------------|
| 11000 | AIRFRAME |
| 25000 | SOLID ROCKET |
| SA000 | SYSTEMS TEST EQUIPMENT |

3.2.15 Skin diagrams. 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 4).

3.2.15.1 Coded segments. The view of coded segments shall be clearly distinguishable as to location on the airframe. These illustrations shall contain the following (see figure 4):

- 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.

3.2.15.2 Area site. Each access panel which is assigned a number (other than a part number) shall be coded individually (see figure 4 and 6.14).

3.3 Work unit code manual. The content and arrangement shall be specified by the acquiring activity. (see 6.2i and 6.15). If required by the acquiring activity, SE shall be included (see 6.2i and 6.15).

3.3.1 Standard WUC Manual. The standard WUC manual shall be arranged as follows, unless otherwise specified by the acquiring activity (see 6.2i). Appendix B provides the markup language tools 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 (munitions and SE codes, when applicable, shall be in separate lists).
- f. How malfunctioned codes alphabetical listing-avionics/electronics/computer.
- g. How malfunctioned codes alphabetical listing-physical/mechanical.
- h. How malfunctioned codes alphabetical listing-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-engine related.
- l. Support general codes (except 03000 and 04000).
- m. 03000 Support general codes.
- n. 04000 Support general codes.
- o. Work unit code - noun - system/subsystem/reference designation index.
- p. System/subsystem/reference designation index - noun - work unit code.
- q. Work unit codes - noun - equipment identification (SE only).

3.3.2 Two-chapter work unit code manual. Use the tagged language tools in Appendix **B**, if electronic delivery of this manual is required (see [6.2i](#)). 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. Chapter 1. Work unit code - noun - system/subsystem/reference designation index (equipment and SE).
- i. Chapter 2. System/subsystem/reference designation index - noun - work unit code (equipment and SE).

3.3.2.1 Chapter 1. The first chapter of the manual shall be developed to include WUC - Noun - System/Subsystem/Reference Designation Index (S/S/RDI) for the equipment. For a two-chapter manual, both the equipment and peculiar SE shall be listed (see [6.16](#)).

3.3.2.2 Chapter 2. 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 [6.16](#)).

3.3.3 Three-chapter work unit code manual. Use the tagged language tools in Appendix **B**, if electronic delivery of this manual is required (see [6.2i](#)). 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. Chapter 1. Work unit code - noun - system/subsystem/ reference designation index (equipment only).
- i. Chapter 2. System/subsystem/reference designation index - noun - work unit code (equipment only).
- j. Chapter 3. Introduction (see figure 5). Work unit codes - noun - equipment identification (SE only).

3.3.3.1 Chapter 1. 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 6.16).

3.3.3.2 Chapter 2. 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 6.16).

3.3.3.3 Chapter 3. The third chapter of the manual shall be developed to include WUC - Noun for peculiar SE (see 6.16).

4 VERIFICATION.

4.1 Verification Requirements. When the technical data produced according to this specification is offered for acceptance, all tests, reviews, and verifications required by the acquiring activity to determine that it conforms to the requirements in section 3 of the specification, shall be performed as specified in the solicitation or contract. The AF TOPP team provides the specific requirements for verification of technical data developed and delivered through this specification, as well as guidance for including these requirements in the solicitation or contract (see TO 00-5-3, AF Technical Order Life Cycle Management).

4.2 Compliance. TMs shall meet all requirements of section 3 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 (QA) 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 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6 NOTES

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

6.1 Intended use. WUC manuals are used to identify all "work unit" (support general and equipment identification), "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 Acquisition requirements. Acquisition documents must specify the following:

- a. Title, number, and date of this document.
- b. Which of either the electronic or print presentation functionality/formatting requirements herein apply throughout; identify any exceptions by specific paragraph number. Assign by individual manual types in cases where they require different presentation requirements than the overall set of manuals (see [3.1.1.1](#)).
- c. If the arrangement of chapters and sections is to be other than as specified in this document (see [3.1.2](#)).
- d. If the size of the preliminary and formal manuals are to be other than as specified in this document (see [3.1.3](#)).
- e. If the column arrangement is to be other than as specified in this document (see [3.1.5](#)).
- f. If the work unit code manuals must be completed prior to the start of the test program (see [3.1.9](#)).
- g. If abbreviations may be used as specified in this document (see [3.2.8](#)).
- h. The numeric characters to be used in parentheses between the WUC and the nomenclature (see [3.2.12](#)).
- i. If a 2-chapter, 3-chapter, or standard work unit code manual will be other than as specified in this document (see [3.3](#)).
- j. Packaging requirements (see [5.1](#)).
- k. If system code manuals are to be prepared by individual series (see [A.2.3.2](#)).
- l. If items installed in multiples, within a functional system/homogeneously grouped end item (see [6.4](#)), and perform within the same function/application parameters, except for location, will have a single code assigned as specified in this document (see [A.2.8.8](#)).

6.3 Technical manuals. 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 authorized and assigned an Acquisition Management Systems Control number 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 separate contract line item in the contract.

6.4 Homogeneous group. The use of homogeneous group (see [6.4](#)) in this document means the use of a major sub-assembly in different end item weapon systems, i.e. ACES II seat installed in different aircraft, 'common' power generators used to supply various ground stations, etc. They often have independent managers who are responsible for the codes associated with their hardware.

6.5 Codes. Type maintenance, action taken, when discovered, and how malfunction codes are assigned and controlled by TO 00-20-2. These codes must be approved by the AF TOPP (see [3.2.5](#)).

6.5.1 Type maintenance code. 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](#)).

6.5.2 Action taken code. 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](#)).

6.5.3 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](#)).

6.5.4 How malfunction code. This code consists of three numeric characters, and is used to identify how the equipment malfunctioned, (i.e., shorted, cracked, corroded, etc.) (see [3.2.5.4](#)).

6.5.4.1 Alphabetic and numeric sequence. 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](#)).

6.6 Support general codes.

NOTE: Use of the assigned codes (see Table [VIII](#) and Table [IX](#)) without change is mandatory.

Changes and additions must be approved by AF TOPP prior to including them in the manual. Support general codes are for recording production credit or repetitive tasks of a general nature (see [3.2.6](#) and [A.2.2.1](#)).

6.7 Work unit code. 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 [3.2.7](#)). For construction and application of WUCs, see Appendix [A](#).

6.8 Development and preparation. Work Unit, Type Maintenance, Action Taken, When Discovered, and How Malfunctioned Codes, and Support General WUCs will be in accordance with AFI 33-110, Air Force Data Administration Program (see [3.1](#)).

6.9 Test program. Collection of maintenance management type data during a test program (AFI 99-103, or equivalent) will be in accordance with AFI 21-101 (see [3.1.9](#)).

6.10 Code changes or additions. Changes or additions to type maintenance, action taken, when discovered, and how malfunction codes will be in accordance with the requirements of TO 00-20-2 (see [3.2.5](#)).

6.11 Used with, but not part of. 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 [3.2.7.1](#)).

6.12 Time change, configured article, serially controlled, and warranty tracked items. These items will be approved by the acquiring activity (see [3.2.9](#)).

6.13 End item identification. 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 [3.2.10](#)).

6.14 Area site. 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 judgment to contain an area large enough to provide the ability to localize deficiencies (see [3.2.15.2](#)).

6.15 Work unit code manual. 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](#)).

6.16 Chapters 1, 2, and 3. 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 [3.3.2.1](#), [3.3.2.2](#), [3.3.3.1](#), [3.3.3.2](#), [3.3.3.3](#)).

6.17 Effectivity date. 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](#)).

6.18 Page numbering. Print Presentation: The first page of the TOC 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 [3.1.6](#)).

6.19 Definitions. To clarify the terms used throughout this specification, the following definitions are given:

6.19.1 Verification. 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.

6.20 Subject term (key word listing).

Type maintenance code
Action taken code
When discovered code
How malfunctioned code
Support general WUCs

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

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| 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 |

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FIGURE 1. Typical work unit code page.

| TABLE OF CONTENTS | | TO XX-XX-06 |
|---|----------|-------------|
| CODE | PAGE | |
| TABLE OF CONTENTS | I-001 | |
| FOREWORD | II-001 | |
| TYPE MAINTENANCE CODES | III-001 | |
| 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-001 | |

FIGURE 2. Typical table of contents.

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TO XX-XX-06

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 ICE CONTROL | 41-001 |
| 42 | ELECTRICAL POWER SUPPLY | 42-001 |
| 44 | LIGHTING SYSTEM | 44-001 |
| 45 | HYDRAULIC AND PNEUMATIC POWER SUPPLY | 45-001 |
| 46 | FUEL SYSTEM | 46-001 |
| 47 | OXYGEN SYSTEM | 47-001 |
| 49 | MISCELLANEOUS UTILITIES | 49-001 |
| 51 | INSTRUMENTS | 51-001 |
| 52 | AUTOPILOT | 52-001 |
| 55 | MALFUNCTION ANALYSIS AND RECORDING EQUIPMENT | 55-001 |
| 61 | HF COMMUNICATIONS | 61-001 |
| 62 | VHF COMMUNICATIONS | 62-001 |

I-002

FIGURE 2. Typical table of contents. - Continued.

INTRODUCTION

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 its 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. 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.

2.2 DELETED.

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 Action Taken Code. This code consists of one alphabetic or numeric character, and identifies what work was done, (i.e., removed, replaced).

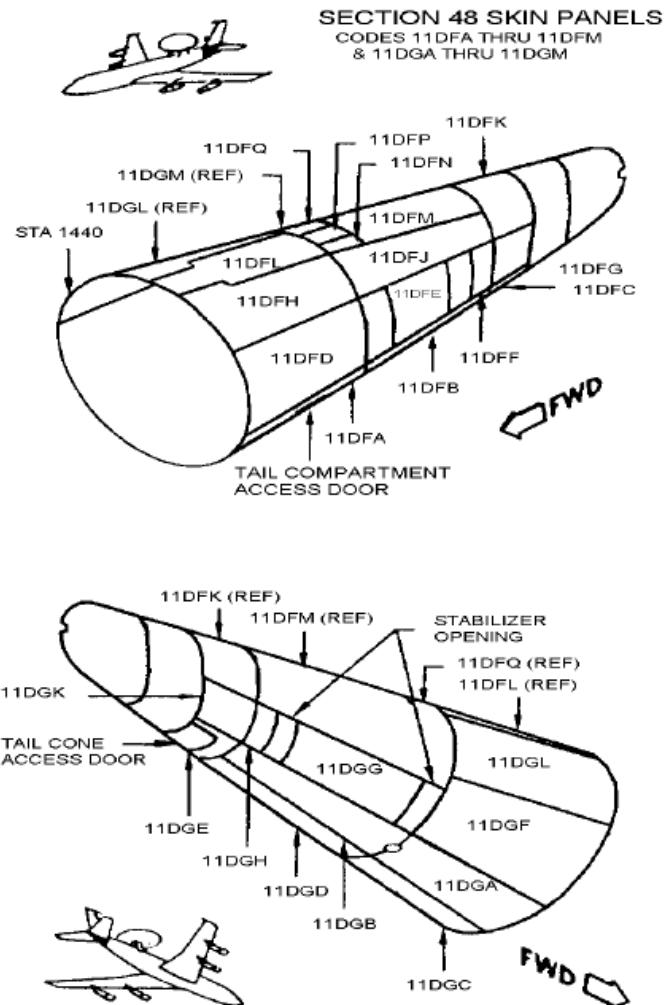
NOTE

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 How Malfunctioned Code. This code consists of three numeric characters, and is used to describe the equipment malfunction.

FIGURE 3. Example of Introduction.



11-123

FIGURE 4. Example of skin diagram.

CHAPTER 3**3.1 INTRODUCTION.**

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.

01-001

FIGURE 5. Example of chapter 3 introduction.

APPENDIX A

WORK UNIT CODE CONSTRUCTION/APPLICATION

A.1 SCOPE.

A.1.1 Scope. 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 WORK UNIT CODE APPLICATION AND CONSTRUCTION

A.2.1 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 will not be assigned to locations, general terms, or homogeneous group (see 6.4) 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 will not have WUCs assigned. Work unit codes will 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.2.2 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 will 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 repairable/recoverable components, and identifies the lowest level of assembly below the end items.

A.2.2.1 Support general codes.

NOTE: Use of the assigned codes (03-04- series only) without change is mandatory. Changes and additions must be approved by AF TOPP prior to including them in the manual.

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 IX) provided. This is not intended to restrict documentation of tasks. All support general work must be identified to the most appropriate code. Support general code tasks, not applicable to the equipment being coded, will not be included in the manual.

A.2.2.2 Scheduled and special inspections.

NOTE: Use of the assigned codes without change is mandatory. Changes and additions must be approved by AF TOPP prior to including them in the manual.

Support general codes, for scheduled and special inspections, will be selected from Table IX, as applicable. Scheduled and special inspection codes, not applicable to the equipment being coded, will not be included in the manual.

A.2.3 Functional system concept. The functional system concept will be used for equipment breakout. A functional system will 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 will 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 will be included under System 14, "Flight Controls" which is a functional system. As another example, flight reference instruments, free air temperature, and similar instruments will be included in System 51, "Instruments,"; whereas position indicators, temperature or pressure sensing, and autopilot instruments will be included under the system that they function with, such as System 52, "Autopilot." The only exception to this rule is System 97, which will include all explosive devices regardless of the system with which they are associated.

APPENDIX A

A.2.3.1 Munitions work unit code breakout. Munition items of a complex nature, and support equipment (SE) peculiar to nuclear munitions, will be coded as individual end items utilizing major assembly, subassembly/mod number, and component breakout. All other munitions, components, etc., will be homogeneously grouped (see 6.4) and coded as major assemblies of a specific group.

A.2.3.2 Mission Design Series (MDS). Work unit code manuals will be prepared to cover each basic MDS aircraft, missile, or spacecraft. System code manuals will be prepared by individual series, if specified by the acquiring activity (see 6.2k). This will require that the AFMC Air Logistics Complexes Single Manager ensure that a standard reporting designator is assigned for that specific mission, design, and series in accordance with TO 00-20-2.

A.2.3.3 Trainer application. Class trainers, mobile training sets, and resident training equipment will 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 will be of sufficient cost or complexity to warrant detailed data analysis. This determination will not be predicated on cost alone.

A.2.4 Level of detail for each functional system. The WUCs for each functional system/homogeneous group (see 6.4) will cover each repairable item in the functional system/homogeneous group, as specified by the applicable source document (see A.2.5). Work unit codes will also be assigned to non-repairable components, if they are known or suspected to be vital to successful system operation, or to be significant maintenance hour consumers. These items will 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 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 will be assigned to the engine functional subsystem.

A.2.5 Source data. Systems engineering data (i.e., engineering analysis data, equipment maintenance analysis data, and contract end item detail specifications) will 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 will be used as source data in determining level of assembly.

A.2.6 Reserving codes for future use. The capability to ensure that new codes can be assigned for future modifications or additions of equipment will 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 compiled maintenance data.

A.2.7 Reuse of codes. When existing WUCs are deleted from a manual, they will 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.2.8 Work unit code construction.

A.2.8.1 Alphabetic and numeric codes. Upper-case letters A through Z (excluding I and O) and numbers 0 through 9 will be utilized for WUC assignments as specified in subsequent paragraphs. The letters I and O will not be used in any WUC to prevent confusion with the numbers one and zero.

A.2.8.2 End item code construction. 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 Technical Manual Specifications and Standards (TMSS).

APPENDIX A

A.2.8.3 First level of assembly code construction. Alphabetic and numeric characters will 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.

EXAMPLE:

| | |
|---------------------|-------------------------|
| 33000 | System |
| 33A00 through 33Z00 | First Level of Assembly |
| then | |
| 33100 through 33900 | First Level of Assembly |

A.2.8.4 Second level assembly code construction. Alphabetic and numeric characters will 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.

EXAMPLE:

| | |
|---------------------|--------------------------|
| 33000 | System |
| 33A00 | First Level of Assembly |
| 33AA0 through 33AZ0 | Second Level of Assembly |
| then | |
| 33A10 through 33A90 | Second Level of Assembly |

A.2.8.5 Third level assembly code construction. Alphabetic and numeric characters will 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).

EXAMPLE:

| | |
|---------------------|-----------------------------------|
| 33000 | System |
| 33A00 | First Level of Assembly |
| 33AA0 | Second Level of Assembly |
| 33AAA through 33AAZ | Third or Lowest Level of Assembly |
| then | |
| 33AA1 through 33AA8 | Third or Lowest Level of Assembly |
| 33A99 | NOC (First Level of Assembly) |

A.2.8.5.1 Use of "99 - NOC". 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 will relate to the first level of assembly, when the first level of assembly is the third character of the WUC. When the third character is the end item (homogeneous group see 6.4), the NOC code will relate to the end item rather than the first level of assembly. The "99 NOC" code will appear as the last entry under the last component in the first level of assembly (or end item for homogeneous groups) breakout. There will 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" will not be used in the fourth and fifth positions of the WUC to identify any specific type of equipment.

A.2.8.6 Coding capability. The construction of WUCs provides a capability to designate thirty-three first level assemblies (for other than homogeneously grouped items see 6.4), and thirty-two, third or lowest level

APPENDIX A

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).

EXAMPLE:

| | |
|-------|----------------------|
| 33AA0 | Dual Pumping Unit |
| 33AA8 | Controller |
| 33ABA | Controller Modulator |
| 33A99 | NOC |

A.2.8.7 Homogeneously grouped code construction. Exception to the above WUC construction will be taken when utilizing homogeneous grouping (see 6.4) for peculiar SE. The first two characters will identify the homogeneous group, the third character will identify the end item, the fourth character will identify the first level of assembly, and the fifth character will identify the lowest level of assembly.

EXAMPLE:

| | |
|---------------------|--------------------------|
| CA000 | Homogenous Group |
| CAA00 | End Item |
| CAAA0 | First Level of Assembly |
| CAAAA through CAAA8 | Lowest Level of Assembly |
| CAA99 | NOC (End Item) |

A.2.8.8 Multiple items serving a single system/homogeneously grouped end item. Identical components, within a system/end item performing peculiar functions, will 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 (pressure setting) in the PCU. In this case, each controller will have a unique WUC assigned. Unless otherwise specified by the acquiring activity, items installed in multiples, within a functional system/homogeneously grouped end item (see 6.4), that perform within the same function/application parameters except for location, will have a single code assigned (see 6.21). For instance, only one code will 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 will be done on an exception basis, and will not be a common practice.

A.2.8.9 Item serving multiple systems/homogeneous grouped end items. When a single component functionally services two or more major systems/end items or lower levels of assembly, only one WUC will appear in only one of the system/homogeneous grouped end item (see 6.4) listings. However, the item will 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 will be left blank.

TABLE I. Systems Codes (Aircraft)

| | |
|----|------------------------|
| 10 | Ground Control Station |
| 11 | Airframe |
| 12 | Cockpit and Fuselage |
| 13 | Landing Gear |
| 14 | Flight Control |

APPENDIX A**TABLE I. Systems Codes (Aircraft) - Continued**

| | |
|--|---|
| 15 | Helicopter Rotor System |
| 16 | Escape Capsule |
| 17 | Aerial Recover System |
| 18 | Vertical Or Short Takeoff and Landing Power and Control Transmission System |
| 19 | Engine Starting |
| 21 | Reciprocating Power Plant |
| 22 | Turboprop/Turboshaft Propulsion System |
| 23 | Turbojet/Turbofan Propulsion System |
| (Those basic engine components as defined in TO 2J-1-24, Equipment Comprising a Complete Basic Gas Turbine Engine) | |
| NOTE: Constant speed drives will be coded to system 42, Electrical Power Supply | |
| 24 | Auxiliary Power Plant |
| 25 | Rocket Power Plant |
| 26 | Helicopter Rotary Wing Drive System |
| 27 | Turbojet/Turbofan 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 |
| 44 | Lighting System |
| 45 | Hydraulic and Pneumatic Power Supply |
| 46 | Fuel System |
| 47 | Oxygen System |
| 48 | Indicating/Recording |
| 49 | Miscellaneous Utilities |
| 51 | Instruments |
| 52 | Autopilot |
| 53 | Drone Airborne Launch and Guidance Systems |
| 54 | Telemetry |
| 55 | Malfunction Analysis and Recording Equipment |
| 56 | Automatic All Weather Landing System |
| 58 | Milstar Communications System |

APPENDIX A**TABLE I. Systems Codes (Aircraft) - Continued**

| | |
|----|--|
| 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., Very High Frequency, Ultra High Frequency, etc.) |
| 60 | Very Low Frequency/Low Frequency Communications |
| 61 | High Frequency Communications |
| 62 | Very High Frequency Communications |
| 63 | Ultra High Frequency Communications |
| 64 | Interphone |
| 65 | Identification, Friend or Foe |
| 66 | Emergency Communications |
| 67 | Super High Frequency/Extra High Frequency |
| 68 | Air Force Satellite Communications |
| 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 |
| 77 | Photographic/Reconnaissance |
| 80 | Special Mission Equipment |
| 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**

| MISSILE BASIC | |
|---------------------------------------|--|
| 11 | Airframe |
| 13 | Wing and Fin-Fold |
| 19 | Pylon |
| PROPULSION | |
| 23 | Gas Turbine Engine |
| 24 | Liquid Rocket |
| 25 | Solid Rocket |
| MISSILE 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 |
| ARMAMENT AND EXPLOSIVE DEVICES | |
| 41 | Warhead |
| 43 | Destruct |
| 44 | Arming and Fusing |
| 45 | Separation |
| 47 | Flares |
| FLIGHT CONTROLS | |
| 52 | Flight Controls |
| 55 | Auto Pilot |
| 56 | Flight Reference |
| GUIDANCE | |
| 61 | Command |
| 62 | Inertial |
| 63 | Integrated Guidance and Flight Controls |
| 64 | T.V. Guidance |
| 65 | Target Seeking, Infrared Radiation |
| 67 | Tracking (Radar) |
| PROPELLANT | |
| 73 | Air Breathing Engine Fuel |

APPENDIX A

TABLE II. System Codes (Missile), Air Launch - Continued

| | |
|---|-----------------------------------|
| 75 | Chemical |
| COMMUNICATIONS AND DATA HANDLING | |
| 91 | Telemetry |
| 92 | Bomb Damage Assessment |
| 93 | Instrumentation |
| 95 | Airborne Co-Operational Equipment |
| 96 | Data Recording and Retrieval |
| 97 | Simulation |
| 98 | Reconnaissance |

TABLE III. System Codes - Support Equipment

| | |
|------------|--|
| AA THRU AZ | Aircraft Support Equipment, not covered under other prefixes |
| 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 |
| 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 |
| WN THRU WZ | Mission Simulator |
| XA THRU XZ | * |
| YA THRU YZ | * |
| ZA THRU ZZ | Miscellaneous |

* These codes are unassigned. Changes and additions must be approved by AF TOPP prior to including them in the manual (see 6.6).

APPENDIX A**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 | * |
| PROPELLION | |
| 21 | * |
| 22 | * |
| 23 | Turbo Jet |
| 24 | Liquid Rocket |
| 25 | Solid Rocket |
| 26 | Orbital Maneuvering Engine |
| 27 | * |
| 28 | Retro Rocket (excludes primary propulsion when used in retro fire mode) |
| 29 | * |
| MISSILE OR SPACECRAFT ENVIRONMENTAL CONTROL 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 |
| FLIGHT CONTROL | |
| 51 | Orbital Attitude Maneuvering |

APPENDIX A**TABLE IV. System Codes (Missile or Spacecraft), Ground Launched - Continued**

| | |
|--------------------------------|---|
| 52 | Flight Control |
| 53 | * |
| 54 | * |
| 55 | Auto Pilot |
| 56 | Flight Reference |
| 57 | Combined Controls |
| 58 | Deceleration and Surface Recovery (Excludes Retro Rocket) |
| 58 | * |
| GUIDANCE | |
| 61 | Command |
| 62 | Inertial |
| 63 | Integrated Guidance and Flight Controls |
| 64 | Navigator/Celestial |
| 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 | * |
| MISSILE 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 | * |

APPENDIX A**TABLE IV. System Codes (Missile or Spacecraft), Ground Launched - Continued**

| | |
|--|------------------------------------|
| 89 | * |
| COMMUNICATION AND DATA HANDLING | |
| 91 | Telemetry |
| 92 | Tracking and Range Instrumentation |
| 93 | Intercom |
| 94 | Communications |
| 95 | * |
| 96 | Data Recording and Retrieval |
| 97 | * |
| 98 | Reconnaissance |
| 99 | * |

* These codes are unassigned. Changes and additions must be approved by AF TOPP prior to including them in the manual (see **6.6**).

TABLE V. System Codes, Support Equipment/Real Property Installed Equipment

| | |
|------------|--|
| 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 Equipment |
| 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 |

APPENDIX A

TABLE V. System Codes, Support Equipment/Real Property Installed Equipment - Continued

| | |
|------------|-----------------------------------|
| WN THRU WZ | Mission Simulator |
| XA THRU XZ | Real Property Installed Equipment |
| YA THRU YZ | Real Property Installed Equipment |
| ZA THRU ZL | Miscellaneous |
| ZM THRU ZZ | * |

* These codes are unassigned. Changes and additions must be approved by AF TOPP prior to including them in the manual (see 6.6).

TABLE VI. Systems Codes - Munitions**SAMPLE HOMOGENEOUS (see 6.4) GROUPING IDENTIFICATION CODES**

| | |
|-------|--------------------------------|
| AA | Ammunition |
| AAA | Shot Gun |
| AAAA0 | 12 Gauge |
| AAAB0 | 410 Gauge |
| AAB | Carbine, Rifle and Machine Gun |
| AABA0 | CAL .22 |
| AABB0 | 5.56 MM |
| AABC0 | CAL .30 Carbine |
| AABD0 | CAL .30 Rifle and Machine Gun |
| AABE0 | 7.62 MM Rifle and Machine Gun |
| AAC | Pistol and Revolver |
| AACA0 | CAL .38 |
| AACB0 | CAL .45 |
| AAD | Machine Gun |
| AADAO | CAL .50 |
| AAE | Cannon |
| AAEA0 | 20 MM |
| AAEB0 | 40 MM |
| AAEC0 | 90 MM |
| AAF | Mortar |
| AAFA0 | 60 MM |
| AAFB0 | 81 MM |
| BA | Bombs |
| BAA | General Purpose |
| BAAA0 | 250 Pound, MK 81, Mod 1 |

APPENDIX A**TABLE VII. System codes, Communication Electronic****STANDARD 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 | Electronic Counter-Counter Measures System |
| AU | Timing System |
| AV | Radio Frequency System |
| AX | Tower System |
| BA | Communications and Inter-Communications |
| BC | Identification, Friend or Foe System |
| BE | Optics System |
| BF | Mapping System |
| BH | Support Equipment |
| BK | Performance Monitor |
| BM | Television System |
| BW | Miscellaneous System |
| BY | Multiplexer System |

STANDARD 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 |
| DM | Support Equipment |
| EA THRU EZ | Sites and Shelters |
| FA THRU FE | Imagery Intelligence Systems |
| FF THRU FK | Signals Intelligence Systems |
| FL THRU FQ | Multiple Intelligence Systems |

APPENDIX A**TABLE VII. System codes, Communication Electronic - Continued**

| | |
|-------------|--|
| FR THRU FV | Communications Segment |
| FW THRU FZ | Non-Baseline Systems |
| GA THRU GZ | Workstations |
| HA THRU HZ | Equipment Racks |
| JA THRU JM | Tri-Band Field Terminal |
| JN THRU JZ | Tri-Band Medium Earth Terminal |
| KA THRU KM | Modular Interoperable Surface Terminal |
| LA THRU LK | Servers |
| LL THRU LQ | Raids |
| LR THRU LZ | Desktop Computers |
| MA THRU ME | Laptop Computers |
| MF THRU MK | Printers |
| ML THRU MQK | External Computer Devices (Drives, Mice, KVM, Card Readers, Keyboard) |
| MR THRU MV | Router/Switch/Hub |
| MW THRU MZ | Monitors |
| NA THRU NB | Patch Panels |
| NC THRU NE | Fiber Optic Devices/Media Converters |
| FN THR NG | Multiplexers |
| NH THRU NK | Video TeleConference Systems/Wall Screens |
| NL THRU NN | Video Systems |
| NP THRU NQ | Audio Systems |
| NR THRU NS | Timing Systems |
| NT THRU NU | Sensor/Tap |
| NV THRU NW | Power Systems (Universal Power Supply, Power Distribution Unit, Generator) |
| NX | Telephone |
| NY THRU NZ | Cable |
| PA THRU PC | Environmental Control Unit |
| PD THRU PF | Antenna Systems |
| PG THRU PJ | Transmitters |
| PK THRU PM | Receivers (Assigned by CPSG CRYPTO) |
| QA THRU QZ | Software |

TABLE VIII. General Support General Codes

| | |
|--------------|--|
| 01000 | Ground handling, servicing, and related tasks |
| | Ground handling |
| | Equipment moving or repositioning |

APPENDIX A**TABLE VIII. General Support General Codes - Continued**

| | |
|--------------|---|
| | 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 |
| 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, de-preservation, and storage of equipment |
| 06000 | Ground safety |
| 07000 | Preparation and maintenance of records |
| | The 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). |
| 08000 | Special purpose |
| 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. |

APPENDIX A**TABLE VIII. General Support General Codes - Continued**

Testing and servicing fire extinguishers
Reclamation

TABLE IX. Standard Support General Codes

NOTE: This table has been completely re-worked per REMIS WUC analysis completed after the last revision.

| | |
|--------------|--|
| 03000 | Scheduled inspection or maintenance (inspections driven by the passage of time, not event driven) |
| 030-- | Hourly Inspections |
| 0302A | 10 Hour Inspection |
| 0302B | 25 Hour Inspection |
| 0302C | 50 Hour Inspection |
| 0303A | 100 Hour Inspection |
| 0303C | 150 Hour Inspection |
| 0303D | 200 Hour Inspection |
| 0303E | 300 Hour Inspection |
| 0303F | 400 Hour Inspection |
| 0303G | 600 Hour Inspection |
| 0303H | 700 Hour Inspection |
| 0303J | 800 Hour Inspection |
| 0303K | 900 Hour Inspection |
| 0304A | 1000 Hour Inspection |
| 0304B | 1200 Hour Inspection |
| 0304D | 1500 Hour Inspection |
| 0305A | 2000 Hour Inspection |
| 0305B | 2400 Hour Inspection |
| 0307A | 4200 Hour Inspection |
| 031-- | Dated Inspections |
| 0310A | Acceptance |
| 0310B | Before Use Inspection |
| 0310D | Daily Inspection |
| 0311W | 7 Day/Weekly interval |
| 0312W | 14 Day/Bi-Weekly/Semi-Monthly Interval |
| 03115 | 15 Day Interval |
| 0313W | 21 Day Interval |
| 0314W | 28 Day Interval |
| 0311M | 30 Day/Monthly Interval |

APPENDIX A**TABLE IX. Standard Support General Codes - Continued**

| | |
|--------------|--|
| 03142 | 42 Day Interval |
| 03156 | 56 Day Interval |
| 0342M | 60 Day/Bi-Monthly Interval |
| 03184 | 84 Day Interval |
| 0313M | 90 Day/3 Month/Quarterly Interval |
| 0314M | 120 Day/4 Month interval |
| 03136 | 136 Day Interval |
| 03168 | 168 Day Interval |
| 0316M | 180 Day/6 Month/Semi-Annual interval |
| 0319M | 270 Day/9 Month interval |
| 03136 | 336 Day Interval |
| 03112 | 360 Day/12 Month/Annual interval |
| 03148 | 480 Day/16 Month Interval |
| 03118 | 540 Day/18 Month interval |
| 0312Y | 720 Day/2 Year Interval |
| 03125 | 900 Day/30 Month/2.5 Year Interval |
| 031Y3 | Triennial/3 Year Inspection |
| 031Y4 | Quadrennial/4 Year Inspection |
| 031Y5 | Quinquennial/5 Year Inspection |
| 032-- | Aircraft Flight Related Inspections |
| 03230 | Preflight Inspection |
| 03235 | End of Runway Check |
| 03200 | Thruflight Inspection |
| 03205 | Combat Quick Turn Inspection |
| 03209 | Alert Exercise Postflight |
| 03210 | Basic Postflight (end of day inspection) |
| 03212 | Aircraft Recovery Inspection |
| 03215 | Combined Preflight/Postflight Inspection |
| 033-- | Hourly Postflight Inspections (Aircraft/Engine) |
| 03300 | Hourly Postflight Inspection |
| 034-- | Aircraft Phase Inspections |
| 03400 | Periodic Inspection/Phase Inspection, Basic Phase (not for use as a generic calendar inspection) |
| 0341A | Phase 1 (A) |
| 0341B | Phase 2 (B) |
| 0341C | Phase 3 (C) |
| 0341D | Phase 4 (D) |

APPENDIX A**TABLE IX. Standard Support General Codes - Continued**

| | |
|--------------|------------------------------------|
| 0341E | Phase 5 (E) |
| 0341F | Phase 6 (F) |
| 0341G | Phase 7 (G) |
| 0341H | Phase 8 (H) |
| 0341J | Phase 9 (J) |
| 0341K | Phase 10 (K) |
| 0341L | Phase 11 (L) |
| 0341M | Phase 12 (M) |
| 0341N | Phase 13 (N) |
| 0341P | Phase 14 (P) |
| 0341Q | Phase 15 (Q) |
| 0341R | Phase 16 (R) |
| 0341S | Phase 17 (S) |
| 0341T | Phase 18 (T) |
| 0341U | Phase 19 (U) |
| 0341V | Phase 20 (V) |
| 0341W | Phase 21 (W) |
| 0341X | Phase 22 (X) |
| 0341Y | Phase 23 (Y) |
| 0341Z | Phase 24 (Z) |
| 03420 | Contingency Phase |
| 0342A | Contingency Phase 1 |
| 0342B | Contingency Phase 2 |
| 0342C | Contingency Phase 3 |
| 0342D | Contingency Phase 4 |
| 035-- | Service/Storage Inspections |
| 03510 | Incoming/Receiving (entering shop) |
| 03520 | Shipping/Final (leaving shop) |
| 03530 | Scheduled Calibration |
| 03540 | Service inspection |
| 03550 | Shelter maintenance |
| 03560 | In-storage inspection |
| 03570 | Fueling |
| 036-- | Armament/Missile |
| 03610 | Armament test equipment |
| 03620 | Armament |

APPENDIX A**TABLE IX. Standard Support General Codes - Continued**

| | |
|--------------|---|
| 03630 | Ramjet |
| 03640 | Missile maintenance |
| 03650 | Missile Interface Unit |
| 03660 | Mobile Ground Power |
| 03670 | Disassembly |
| 03680 | SMATE |
| 03690 | IMSOC |
| 037-- | Aircraft Isochronal Inspections |
| 03700 | Isochronal Inspection |
| 03710 | Major inspection |
| 0371A | Major inspection 1 |
| 0371B | Major inspection 2 |
| 0371C | Major inspection 3 |
| 0371D | Major inspection 4 |
| 03720 | Minor inspection |
| 0372A | Minor inspection 1 |
| 0372B | Minor inspection 2 |
| 0372C | Minor inspection 3 |
| 0372D | Minor inspection 4 |
| 03730 | Home station check |
| 0373A | Home station check 1 |
| 0373B | Home station check 2 |
| 0373C | Home station check 3 |
| 0373D | Home station check 4 |
| 038-- | ICBM |
| 03800 | Re-entry Vehicle Recycle |
| 03802 | Re-entry vehicle recycle for higher headquarters evaluation |
| 03803 | Re-entry vehicle recycle for Time Compliance Technical Order |
| 03804 | Re-entry vehicle for Limited Life Component/Technical Critical Item replacement |
| 03806 | Disassembly for Operational Test/Follow-On Operational Test |
| 03807 | Assembly for Operational Test/ Follow-on Operational Test |
| 03810 | Inspection Crews |
| 039-- | Miscellaneous/NOC |
| 03950 | Cannibalization (Status reporting only) |
| 03955 | Cannibalization Recovery (Status reporting only) |
| 03600 | Look Phase of Programmed Depot Maintenance |

APPENDIX A

TABLE IX. Standard Support General Codes - Continued

| | |
|--------------|---|
| 03900 | Scheduled Depot Maintenance for time or Operational Limits (no other defects) |
| 03999 | Scheduled Inspections, NOC |
| 04000 | Special Inspections (event driven, not driven by the passage of time) |
| 040-- | Functional/Operational Checks |
| 04010 | Operational or System Check |
| 04020 | Functional/Operational Check |
| 04030 | Functional Taxi Check |
| 04040 | Functional Check Flight |
| 04050 | Operational Check Flight |
| 04060 | Accomplishment of checklists |
| 04070 | Checks Requiring Special Checkout Equipment |
| 041-- | Conditional Inspections |
| 04101 | FOD Inspection |
| 04117 | Battery Capacity/Specific Gravity Check |
| 04100 | Missile and Pylon Inspection |
| 04118 | Compass Swing Check |
| 0411K | Ground Receptacle Inspection |
| 04122 | Landing Gear Retraction Check |
| 04123 | Wheel/Brake Inspection |
| 04124 | Pitot-Static Purge/Check |
| 04125 | Oxygen system components check |
| 0412A | Seat/ejection seat or emergency egress system check |
| 0412J | Aircraft fuselage section inspection |
| 0412C | Integrated electronics system check |
| 0412H | Remote compass check |
| 04143 | Air conditioning system check |
| 04170 | Equipment inventory |
| 04112 | Hydrostatic (includes inspection, weighing, and servicing) Inspection |
| 0411J | Operationally ready inspection |
| 04140 | Cabin Pressurization/Leak Test |
| 04141 | Corrosion control inspections |
| 04119 | Oil/Fuel Tank Sumps Drained Inspection |
| 0414X | High Winds Inspection |
| 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 |

APPENDIX A

TABLE IX. Standard Support General Codes - Continued

| | |
|--------------|--|
| 04160 | Post-Refurbishment Inspection |
| 04161 | Stray voltage check |
| 04162 | Moisture |
| 04163 | Desiccant check |
| 04164 | * |
| 04111 | Special Modification Inspection |
| 041M4 | Mode 4 transponder functional check |
| 041M5 | Mode 5 transponder functional check |
| 042-- | Specific Occurrence Inspections |
| 04248 | Incident/accident |
| 04258 | Evidence of tampering |
| 0421F | Birdstrike Inspection |
| 0421G | Lightning Strike Inspection |
| 04214 | Excessive "G" load inspection |
| 04225 | After Fire Inspection |
| 0421H | Fuel components contamination check |
| 0421C | Hydraulic system contamination check |
| 0421E | Rough Field Mission Check |
| 04221 | Hard landing inspection |
| 0422E | Severe turbulence inspection |
| 0422P | Inspection, overweight landing |
| 0422Q | Inspection, landing GR/DR overspeed |
| 04290 | Sudden stoppage inspection |
| 04289 | Maximum effort stop/high energy braking inspection |
| 0422K | Flap Overspeed |
| 04260 | Rotor overspeed inspection |
| 04261 | Powertrain over torque inspection |
| 04262 | Vibration analysis |
| 04263 | Transmission interval |
| 04264 | Dropped Item Inspection |
| 043-- | Missile/Munitions Inspections (other than ICBM) |
| 04310 | Receiving inspection |
| 04311 | Uncrating |
| 04314 | Blown fuse/squib or parameter activated |
| 04315 | Purging |
| 04316 | Assembly |

APPENDIX A

TABLE IX. Standard Support General Codes - Continued

| | |
|-------|---|
| 04317 | Disassembly |
| 04320 | Hangfire inspection |
| 04321 | Misfire inspection |
| 04322 | 30 Day on aircraft |
| 0431A | Missile pylon/launcher simulator check |
| 0431B | Missile under the wing/integrated systems check |
| 0431C | Fire control and Airborne Weapon Control System system checks |
| 0431D | Bombing-navigation-communications system checks |
| 0431E | Armament 25 Hour Inspection |
| 0431F | Calibration of Airborne Weapon Control System |
| 0431G | Weapon suspension system inspection |
| 0431H | Missile Simulated Launch Check |
| 0431J | Mal 45 Day inspection |
| 0431K | Mal 90 Day inspection |
| 04327 | DPM-14 checkout |
| 04330 | Extreme temperature |
| 04340 | Load/unload |
| 04342 | Abort |
| 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 |
| 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, servo-positioner, wing cowling is removed or installed |
| 04355 | When fuse antenna is being installed |
| 04356 | When missile or missile components are stored in shipping/storage containers |
| 04359 | Whenever radioactive atmosphere has been encountered |
| 04360 | Wind/rolleron and fin check |
| 04361 | When guidance unit is exposed to sunlight |
| 04363 | Holding area |
| 04364 | Return to holding area |
| 04365 | Physical shock |
| 04366 | Transfer from container to MHU-12 trailer |

APPENDIX A

TABLE IX. Standard Support General Codes - Continued

| | |
|--------------|--|
| 04367 | Launcher post download inspection |
| 04370 | After 20 Weapon System Evaluator Missile flights |
| 04371 | Whenever engine exhaust gas temperature exceeds limits |
| 04372 | First run after engine change |
| 04373 | Whenever emergency engine shutdown occurs |
| 044-- | * |
| 045XX | ICBM special inspections |
| 04572 | Missile/launch verification (simulation) |
| 04573 | Missile/launch verification (no simulation) |
| 04574 | Missile verification |
| 04575 | Launch verification (simulation) |
| 04576 | Launch verification (no simulation) |
| 04578 | Combined systems test |
| 04583 | Thrust maintenance operation |
| 04584 | Silo door operation |
| 04550 | Initial build-up Recovery Vehicle |
| 046-- | Non-Destructive Inspections |
| 04610 | Nondestructive testing (all types) |
| 04611 | Eddy Current Process Control |
| 04612 | Magnetic Particle Process Control |
| 04613 | X-Ray Process Control |
| 04614 | Ultrasonic Process Control |
| 04615 | Fluorescent Penetrant Process Control |
| 04630 | Research and development of new or revised nondestructive inspection techniques |
| 047-- | Miscellaneous |
| 04744 | Post maintenance check of fuel gages |
| 04745 | Transformer Rectifier unit capacitor check for electrolyte leakage/corrosion |
| 04747 | Penetration aids confidence/self test |
| 0475B | ALE-20 system check prior to flare loading |
| 04781 | Airborne Weapon System Evaluator Missile rail checkout |
| 04782 | Harmonization of sights, guns and cameras (fire control, bomb-nav and photo systems) |
| 04785 | Squib continuity and corrosion check |
| 04786 | Inspection of guns and feeder mechanisms |
| 04787 | Quantity indicating system(s) calibration |
| 04788 | Flight director group operational check |
| 0478A | Air data computer and associated pitot and static instruments leak check |

APPENDIX A

TABLE IX. Standard Support General Codes - Continued

| | |
|--------------|--|
| 0478B | Overheat and fire warning system inspection |
| 0478C | Refueling boom-probe-drogue-special inspection |
| 04727 | Controlled Interval Extension Inspection Accomplished Separately From Scheduled Inspections |
| 04728 | MAU 12 bomb ejector rack inspections |
| 04760 | Program, re-program, load, re-load, keying, re-keying, of software or keys. |
| 0471A | Climatization (includes preparation for Arctic, desert, or tropical operation) / Quality Control |
| 048-- | Engine Specific occurrence inspection |
| 0482B | Auxiliary power plant inspection |
| 04831 | Engine or cylinder change inspection (includes pre-oil) |
| 04832 | Hot start or overspeeding inspection |
| 04833 | Valve check |
| 04834 | Compression check |
| 04835 | Propeller shaft due check |
| 04836 | Engine or ignition analyzer check |
| 04837 | Engine conditioning (scheduled) |
| 04838 | Minor engine conditioning (unscheduled) |
| 04839 | Engine trim check |
| 0483A | Propeller oil control assembly and dome flushing check |
| 0483B | Engine hot section inspection |
| 0483C | Engine Air Inlet/Exhaust Inspection |
| 0483E | Cylinder borescope inspection/engine compression borescope inspection |
| 0483F | Engine valve decarbonization inspection |
| 0483H | Re-torque of propeller components following engine or propeller change |
| 0483J | Exhaust gas temperature (Jet Cal) calibration |
| 0483K | Engine ramp system functional check |
| 0483L | By pass bellmouth functional check |
| 0483M | Bleed air system pressure loss test check |
| 0483N | Engine oil screen inspection/oil strainer inspection |
| 0483P | Engine stall/flameout check |
| 04842 | Engine bay inspection-engine removed |
| 049-- | Special inspections |
| 04999 | Special inspections NOC |
| 04Y?? | IAT Inspections |
| 04Z?? | ASIP Inspections |

* These codes are unassigned. Changes and additions must be approved by AF TOPP prior to including them in the manual (see 6.6).

APPENDIX B**WORK UNIT CODE TECHNICAL MANUAL
MARKUP LANGUAGE TOOLS****B.1 SCOPE.**

B.1.1 Scope. This appendix describes the standard Air Force (AF) tagged language digital tools created for developing and delivering AF Technical Manuals (TMs). These tools are available as subsets in the Digital Support Suites (DSS) provided by the AF TMSS activity (see [B.2](#)). This appendix is a mandatory part of this detail specification. The information herein is intended for compliance.

B.1.2 Template Tool. The DTD is the primary tool that is used as the structure for authoring AF TMs and is based on rules outlined in MIL-HDBK-28001 and ISO 8879. See [B.2.1](#) for information about the DTD specified for this appendix subset.

B.2 DSS.

The DSS is comprised of the following tools for authoring and rendering the TM. See [B.3](#) for information about obtaining DSS component files in digital format through the TMSS activity website. For information about the current status and availability of DSS tools, see [B.3.4](#).

B.2.1 DTD. The DTD provides the structure and content template in accordance with the content specific requirements of this specification (see [3.1](#)). To be delivered digitally, the TM shall be tagged using the applicable DTD provided through the TMSS activity. Information concerning the tagged language type and use of DTDs currently provided, i.e., Standardized General Markup Language (SGML), may be obtained through the contacts listed under [B.3](#).

B.2.2 Formatted Output Specification Instance (FOSI). The FOSI provides formatting for each element of an SGML tagged instance for rendering as a page-oriented document. It contains formatting information that conforms to the content specific requirements of this specification.

B.2.3 Tag Description Table (TDT). The TDT provides detailed descriptions of the elements contained in the DTD. The TDT contains the element tagging structure, parent elements, full element name, source paragraph for this specification, attribute descriptions unique to the element, and entities.

B.2.4 OmniMark™. DSSs contain OmniMark™ scripts designed to be used as a text processing language that enables authors to auto-generate redundant material that may be difficult to tag manually.

NOTE: FOSIs and OmniMark™ scripts are no longer supported and may not be available for some DSSs.

B.3 OBTAINING DSS TOOLS.

B.3.1 Obtaining files by users with .mil web site access. The following applies to those interested in obtaining DSS component files who are on a .mil internet domain, having .mil web address access.

B.3.1.1 AF TMSS web site. DTDs, TDTs, and other files in the DSS can be accessed on the TMSS web site at <https://techdata.wpafb.af.mil/TMSS/>. On the web page, the “Baseline” menu option in the left pane contains three bulleted options called “Specifications”, “Standards”, and “Handbooks”. Hover the cursor over “Specifications” and a listing of the TMSS specifications will appear. Hover over the desired specification number and another drop down list will appear that contains an entry indicating the Portable Document Format version of the specification and other entries for the associated appendices. To obtain the preferred subset DTD, select the desired appendix from the list. The following items will appear on the downloading page: The name of the specification, the appendix number and name, the current version of the DSS, buttons to download specific DSS files provided and a “Download” button to download the entire DSS zip file.

B.3.2 Obtaining files by users with a Public Key Infrastructure (PKI) certificate or a Common Access Card (CAC). The following applies to those interested in obtaining DSS component files who have a PKI certificate or a CAC:

B.3.2.1 AF TMSS SharePoint web site. DTDs, TDTs, and other files in the DSS can be accessed at the AF TMSS SharePoint web site: <https://cs3.eis.af.mil/sites/OO-LG-MC-38/default.aspx>.

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B.3.3 Obtaining files by users without .mil access, PKI certificate, or CAC. Those seeking to obtain DSS files who do not have .mil web access, a PKI certificate, or a CAC should contact their government Program Management Office or see [B.3.4](#) to obtain information.

B.3.4 TMSS Helpdesk assistance. Address any requests or questions relating to the DSS by E-mail to SGMLSUPPORT@us.af.mil (organizational address: Wright-Patterson AFLCMC/HIAM_AF TMSS HLPDSK) or by postal mail to Air Force Technical Manual Specifications and Standards, AFMC AFLCMC/HIAM, 4170 Hebble Creek Road, Building 280, Door 15, Wright-Patterson AFB OH 45433-5653.

CONCLUDING MATERIAL

Custodians:
Air Force - 16

Preparing activity:
Air Force - 16
(Project TMSS - 2014 - 026)

Review activities:
Air Force - 01, 02, 10, 11, 13, 19, 70, 71, 84, 99

NOTE

The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.dla.mil>.