Downloaded from http://www.everyspec.com

MIL-PRF-38804C(USAF)
1 March 1996
SUPERSEDING
MIL-T-38804B(USAF)
10 May 1991

PERFORMANCE SPECIFICATION

TIME COMPLIANCE TECHNICAL ORDERS - PREPARATION

This performance 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 performance specification prescribes the general style and format requirements for creating Time Compliance Technical Orders (TCTO) and TCTO supplements (see 6.1). TCTOs and supplements are developed according to this performance specification and those requirements specified by the acquiring activity. In addition to "paper" delivery, if required by the acquiring activity, this specification provides for electronic delivery of data using the Document Type Definitions (DTD) contained in Appendixes A and B.

1.2 Detail. The level of detail contained in this performance specification is necessary to comply with the requirements of the Joint Computer-aided Acquisition and Logistics Support (JCALS) system.

2. APPLICABLE DOCUMENTS.

2.1 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 documents cited in sections 3 and 4, 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,

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

AMSC F6136 AREA TMSS

Distribution Statement A. Approved for public release; distribution is unlimited

Downloaded from http://www.everyspec.com

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

SPECIFICATIONS

Military

MIL-W-25140	-	Weight and Balance Control Data (For Aircraft and Rotorcraft)

STANDARDS

Military

MIL-STD-129	-	Marking for Shipment and Storage
MIL-STD-130	-	Identification Marking of US Military Property
MIL-STD-1811	-	Mass Properties Control Requirement For Space Vehicles
MIL-STD-1915	-	Numbering, Coding, and Identification for Engineering Drawings and Associated Lists
MIL-STD-38784	-	Manuals, Technical: General Style and Format Requirements

(Unless otherwise indicated, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, 700 Robbins Avenue, Building 4D, 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 are those cited in the solicitation (see 6.2).

PUBLICATIONS

Air Force Technical Manuals

TO 00-5-15	-	Air Force Time Compliance Technical Order System
TO 00-20-2	-	Maintenance Data Collection
TO 00-20K-series	-	Inspection and Age Control of USAF Equipment
TO 1-1B-40	-	Weight and Balance Data
TO 1-1B-50	-	Basic TO for USAF Aircraft Weight and Balance Air Force Manuals
AFM 67-1	-	USAF Supply Manual
AFMAN 36-2108	-	Airman Classification

Air Force Instructions

AFI 11-215	-	Flight Manuals Program (FMP)
AFI 21-101	-	Maintenance Management of Aircraft

Downloaded from http://www.everyspec.com

AFI 21-103	-	Equipment Inventory, Status, and Utilization Reporting
AFI 21-114	-	Managing Intercontinental Ballistic Missiles Maintenance

(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.)

Federal Cataloging Handbook

H4/H8 Series	-	Commercial and Government Entity Codes

(Application for copies should be addressed to the Superintendent of Documents, US Government Printing Office, Washington, D.C. 20402 or the Defense Logistics Service Center, ATTN: DLSC-WXA, Federal Center, Battle Creek, MI 49017-3084.)

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

3. REQUIREMENTS.

3.1 General requirements. Appendix A provides the Document Type Definition (DTD) for electronic delivery of TCTOs (except supplements, see 3.6). All TCTOs shall be assigned a designator of urgency using the AFMC Form 873 (see 6.5). This designation of urgency shall be indicated as "Immediate Action", "Urgent Action", or "Routine Action" (see 6.4). The acquiring activity shall provide the AFMC Form 873 to the contractor during the approval cycle of the TCTO (see 6.2).

3.2 TCTO types.

3.2.1 Immediate action. Immediate action (see 6.4.4) TCTOs shall require immediate action to authorize new, or changes to computer programs, restrict/discontinue use of systems/equipment, or the immediate restriction/discontinued use of affected support equipment.

3.2.1.1 Immediate action marking. The first (title) page of immediate action TCTOs shall display a border of red Xs broken at the top center by the words "IMMEDIATE ACTION" also printed in red (see Figure 1).

3.2.1.2 Restriction. Where both initial restriction, or discontinued use information, and instructions for subsequent retrofit accomplishment are necessary, the immediate action TCTO shall be issued covering only the actual operations to be performed while the equipment is restricted or removed from use. Instructions covering subsequent retrofit change or rework shall be issued as a separate technical order in a type commensurate with the importance of the instructions. When the single TCTO method (see 3.5.2.9.5 and 6.4.3) is used, the TCTO shall be issued covering the actual operations to be performed while the equipment is restricted or removed from use as well as instructions covering retrofit change or rework.

3.2.2 Urgent action. Urgent action TCTOs (see 6.4.5) conditions shall compromise safety or embody risks which are calculated, by the acquiring activity (see 6.2), to be tolerable only within definite time limits after receipt of the TCTO and kit(s) (if kits are applicable).

3.2.2.1 Urgent action marking. The first (title) page of urgent action TCTOs shall display a border of red diagonals alternated with red Xs broken at the top center by the words "URGENT ACTION" also printed in red (see Figures 2 and 4).

Downloaded from http://www.everyspec.com

3.2.3 Routine action (see 6.4.6).

3.2.3.1 Compliance time period. The contractor shall use the compliance period for routine action TCTOs from the AFMC Form 873, provided by the acquiring activity (see 6.5).

3.2.3.2 Routine action marking. A distinguishing border, or designation of urgency heading, shall not be required for routine action TCTOs (see Figure 3).

3.2.3.3 Routine action record TCTO. If specified by the acquiring activity, routine action record TCTOs (see 6.4.7) shall be used to authorize the accomplishing and recording of retrofit changes, tabulate the equipment affected, index all necessary installation drawings and instructions (see 3.2.3.3.1), and list all parts required to perform the retrofit change. Arrangement and format shall be the same as that for other TCTOs except that paragraph 6 of the TCTO shall not provide detailed step-by-step retrofit change instructions; instead, it shall reference the existing drawings and instructions. These provisions do not eliminate the requirement for TCTOs that direct accomplishment of depot level retrofit changes which are not supported by drawings and other documents, or where information on drawings must be augmented by text and illustrations.

3.2.3.3.1 Drawings and instructions. Unless otherwise specified by the acquiring activity, the contractor shall not furnish installation drawings or instructions with a Record TCTO or kit (see 3.5.7.1.1.4).

3.2.3.3.2 Record TCTO Marking. A distinguishing border, or action category indicator, shall not be required for a Record TCTO. Identification of Record TCTOs shall have the following statement in paragraph 2, "Purpose," as subparagraph 2.1 (see 3.5.4 and Figure 4): "This is a RECORD TCTO and is not complete within itself. The purpose of this TCTO is to identify the retrofit change, tabulate all affected systems or equipment, index all necessary drawings and instructions, and list all parts necessary for accomplishment."

3.2.4 Maintenance level. The acquiring activity shall identify the designated maintenance level for accomplishment in accordance with TO 00-5-15 (see 3.5.6).

3.2.5 Interim TCTOs. When interim TCTOs or interim TCTO supplements are formalized, they shall bear the same publication date, data code, and TCTO number, and be identical in content except for correction of grammatical or typographic errors.

3.3 Information to be excluded. Instructions which result in the TCTO becoming the sole source of information pertinent to a continuing function shall not be included; for example, requirements for a one time inspection may be established by a TCTO; however, the permanent instructions for the recurring inspection shall be included in the appropriate maintenance or inspection manual.

3.4 Authority to issue. The contractor shall obtain approval from the acquiring activity (see 6.2), on a case-by-case basis, prior to preparation of a TCTO. When specified by the acquiring activity (see 6.2), the single TCTO method (see 6.4.3) shall be used.

3.5 TCTO Requirements. The contractor shall prepare TCTOs in accordance with the following requirements and the general requirements specified in 3.7. The contractor shall also include information contained on the applicable AFMC Form 873 (see 6.6), Time Compliance Technical Order Requirements, and AFMC Form 874 (see 6.6), Supply Data Requirements. After the government approves the AFMC Form 874, the contractor shall extract all of the required information from these forms and incorporate it into the TCTO. Appendix A provides the Document Type Definition (DTD) for electronic delivery of TCTOs (except supplements, see 3.6).

Downloaded from http://www.everyspec.com

3.5.1 Arrangement. TCTOs shall have the following elements arranged in the order indicated (see Figures 3 and 4). If a paragraph is not applicable to a particular situation, the words "Not applicable" shall be inserted after the paragraph title.

a. Heading (see 3.5.2)

b. Paragraph 1, entitled "APPLICATION" (see 3.5.3)

c. Paragraph 2, entitled "PURPOSE" (see 3.5.4)

d. Paragraph 3, entitled "WHEN TO BE ACCOMPLISHED" (see 3.5.5)

e. Paragraph 4, entitled "BY WHOM TO BE ACCOMPLISHED" (see 3.5.6)

f. Paragraph 5, entitled "WHAT IS REQUIRED" (see 3.5.7)

g. Paragraph 6, entitled "HOW WORK IS ACCOMPLISHED" (see 3.5.8)

h. Paragraph 7, entitled "SUPPLEMENTAL INFORMATION" (see 3.5.9)

i. Paragraph 8, entitled "RECORDS" (see 3.5.10)

j. "AUTHORITY" (see 3.5.11)

3.5.2 Heading. The heading of a TCTO shall consist of the following elements arranged as follows (see Figures 1 thru 6):

a. Designation of Urgency (Immediate Action, Urgent Action) (see 3.5.2.1)

b. Security Classification (see 3.5.2.2)

c. Issuing Activity (see 3.5.2.3)

d. Technical Manual Identification (TCTO) Number (see 3.5.2.4)

e. Data Code Number (see 3.5.2.5)

f. Date of Issuance (see 3.5.2.6)

g. Indicator of Safety Marking (see 3.5.2.7)

h. Supplement (when applicable) (see 3.6)

i. Title or Subject of Instructions (see 3.5.2.8)

j. Notes (see 3.5.2.9)

k. Disclosure Notice, Distribution Statement, Export Control Notice, and Destruction Notice (see 3.5.2.10)

3.5.2.1 Designation of urgency. The acquiring activity shall designate the urgency for immediate and urgent action type TCTOs using the AFMC Form 873 (see 6.5). The contractor shall place this designation at the top center of the first (title) page (see Figures 1 and 2). Routine action TCTOs do not require a designation of urgency heading.

3.5.2.2 Security classification. The security classification markings of the TCTO shall be as indicated in 3.7.5.

3.5.2.3 Issuing activity. The contractor shall place the following statement in bold at the top center of the first (title) page of the TCTO: "DEPARTMENT OF THE AIR FORCE TECHNICAL ORDER" (see Figures 1 thru 6). It shall be located beneath the IMMEDIATE ACTION or URGENT ACTION classification, when applicable.

Downloaded from http://www.everyspec.com

3.5.2.4 Technical manual identification (TCTO) number. The contractor shall use the TCTO number of each basic TCTO, and each supplement thereto (see 6.6) provided by the acquiring activity, using the AFMC Form 873. The contractor shall locate the TCTO number in the upper right corner of the first (title) page of the TCTO (see Figures 1 thru 6) and in the upper outer corner of each succeeding page (see Figures 3 and 7).

3.5.2.5 Data code number. The contractor shall use the data code number for each basic TCTO, and each supplement thereto, provided by the acquiring activity, using the AFMC Form 873 (see 6.5). The contractor shall locate the data code on the first (title) page only, immediately below and flush left with the TCTO number (see Figures 1 thru 6).

3.5.2.6 Date of issuance. The contractor shall use the issue date, provided by the acquiring activity, using the AFMC Form 873 (see 6.5). The contractor shall place the TCTO date in the upper right corner of the first (title) page, immediately below and flush left with the data code number. The day, month, and year shall be in the following format: 3 JULY 1991, 24 AUGUST 1992 (see Figures 1 through 6).

3.5.2.7 Indicator of safety marking. The contractor shall use the indicator of safety marking approved by the designated authority (Configuration Control Board [CCB], Item Manager [IM], System Program Manager [SPM], or Engine Manager [EM]) as affecting safety and requiring accomplishment by the approved level of maintenance within the specified compliance date. This marking does not reflect the designation of urgency but is used by the Air Force for scheduling purposes. When specified by the acquiring activity, on the AFMC Form 873 (see 6.5), the indicator of safety marking "SAFETY TIME COMPLIANCE TECHNICAL ORDER" shall be displayed in red immediately above the technical order title (see Figure 5).

3.5.2.8 Title or subject of instructions. The contractor shall use the TCTO title provided by the acquiring activity using the AFMC Form 873 (see 6.5). The title shall identify the item being modified or inspected, part number, model number, affected component of the item being modified, and part number of the applicable system/equipment. When applicable, the facility or site and associated training equipment to which it pertains shall be included. The title shall be narrative style which clearly indicates the nature of the TCTO, e.g., inspection or retrofit change (see Figures 1 thru 6).

3.5.2.8.1 Contract end item number. The contractor shall use the contract end item number from the AFMC Form 873(see 6.5). When a contract end item number has been assigned to a particular piece of equipment, the contract end item number shall be included, in parentheses, immediately preceding the noun description of the equipment.

3.5.2.9 Notes. Notes shall be inserted, immediately below the title of each TCTO, when necessary, to specify replacing, supplementing or personnel attention action. The following notes are typical but may be reworded to emphasize or clarify the situation (see Figures 1 thru 6).

3.5.2.9.1 Existing publications. One or more of following notes and variations, as approved by the acquiring activity shall be used to replace, supplement, or formalize existing publications, including interim action TCTOs:

a. "This technical order replaces TO ____ , data code ____, dated ____. Information in the text changed or added in this issue is indicated by a vertical line in the outer margins of affected pages; changes to illustrations and diagrams are indicated by shading or a pointing hand."

b. For TCTO Supplement note see 3.5.8.

c. "This technical order formalizes interim IMMEDIATE action TO ____ , data code ____, dated ____. Remove from active files."

Downloaded from http://www.everyspec.com

d. "This technical order is issued for the purpose of reinstating and extending the effectivity period of rescinded TO _____ , data code _____, dated _____."

3.5.2.9.2 Affected operational procedures. When the detailed instructions affect system or equipment operational procedures, that would concern and require the attention of personnel who would normally not have an interest in the particular series TCTO, a note shall be placed on the first (title) page below the title. This note shall read "Commanders are responsible for bringing this technical order to the attention of all Air Force personnel cleared for operation of the affected system."

3.5.2.9.3 Additional notes. The contractor shall use additional notes, as provided by the acquiring activity, on a case-by-case basis. For example, when a TCTO modifies life support systems, personal, or survival equipment, a note similar to the following shall be included: "All (operating, flight) personnel shall, prior to next (use, flight), be made aware of the effect this TCTO has upon the operation of the equipment."

3.5.2.9.4 Security assistance program. When kits are procured by an AFMC/AFCC organization that includes Security Assistance Program (Grant-Aid/Foreign Military Sales [FMS]) customers, special handling instructions, shall be provided by the acquiring activity. These shall be listed under "NOTES."

3.5.2.9.5 Single TCTO method. When the single TCTO method is used (see 6.4.3), the contractor shall use following note: "This TCTO is issued under the single TCTO method. No companion aircraft or commodity TCTO(s) shall be issued."

3.5.2.9.6 Omitted note heading. When none of the preceding conditions exist (3.5.2.9.1, 3.5.2.9.2, 3.5.2.9.3, 3.5.2.9.4, 3.5.2.9.5), the NOTE heading shall be omitted.

3.5.2.10 Disclosure notice, distribution statement, export control notice, and destruction notice. The acquiring activity shall provide the appropriate disclosure notices, distribution statements, export control notices, and destruction notices. These statements shall be placed at the bottom of the first (title) page of all TCTOs and supplements thereto (see Figures 1 thru 6) in accordance with MIL-STD-38784.

3.5.3 Application.

3.5.3.1 Identification. Subparagraph 1.1 shall completely identify the major item, component, assembly, part number, and serial numbers affected by the retrofit change or inspection (see Figures 1 thru 5). It is not necessary to list serial numbers for each item/system affected when the TCTO applies to the complete inventory, except when the item is still in production. The statement "all series" will also suffice. Where it is more practical, only the serial numbers of those items/systems excepted may be listed and so identified. When required for clarity, identification may be made through use of a tabular listing (see Figure 1). TCTOs issued to authorize use of computer programs and changes shall identify the major item and the applicable serial numbers plus the Computer Program Identification Number (CPIN) assigned to the program. They shall also identify the quantity of computer programs to be furnished to each activity possessing the applicable equipment.

3.5.3.1.1 Production change. Where an equivalent retrofit change or inspection is incorporated in production, the production change point shall be specified in subparagraph 1.1 (see Figure 3).

3.5.3.1.2 Removal from service. When removal from service is necessary to permit accomplishment of a commodity TCTO, subparagraph 1.1 shall identify the system TCTO to effect the removal from service action. The system TCTO application paragraph shall also correspondingly reflect the commodity TCTO by which the corrective change is effected. For TCTOs issued under the single TCTO method (see 6.4.3), removal from service information shall be contained in the single TCTO.

Downloaded from http://www.everyspec.com

3.5.3.1.3 Training equipment. When the acquiring activity specifies that training equipment is involved, subparagraph 1.1 shall completely identify the training equipment affected. When retrofit changes affect both a system and a simulator, separate TCTOs shall be issued; one in the system series and one in the 43-series (simulator) with cross reference to the respective TCTO numbers assigned.

3.5.3.2 Kit applicability. When the acquiring activity specifies (see 6.2) that kits are involved, subparagraph 1.2 of this section shall provide the kit applicability by serial number of the equipment or by other suitable identification if the items are not identified by serial number. If kits are not required, this paragraph shall read: "Kits are not required by this TCTO."

3.5.3.2.1 Multiple kits. If the acquiring activity allows it (see 6.2), TCTOs may prescribe multiple kits provided that only one kit per TCTO shall be applicable to a single serial numbered item of equipment. This is essential for configuration and kit management. Applicability shall be given by model/part number of the equipment, serial number of the equipment and applicable kit (see Figure 3). Two or more kits shall not be shown as applicable to a single serial numbered system or equipment. To ensure that there is only one kit per TCTO applicable to a single serial numbered item, the following clarification is provided. If, after issuing a TCTO, the acquiring activity determines additional components are required which would result in additional kits or re-engineering of the original kit, a new TCTO or supplement shall be issued with a new data code number. The new TCTO or supplement shall specify that it must be accomplished either concurrently with or subsequent to the original or basic TCTO.

3.5.3.3 TCTO proofing. Subparagraph 1.3 of the TCTO shall indicate if updating change/modification proofing was accomplished as prescribed by TO 00-5-15. The date, location, and equipment (serial number when applicable) on which proofing was accomplished shall be indicated (see Figures 3 and 5). If TCTO proofing has been waived, the office symbol approving the waiver shall be given (see Figures 1 and 2).

3.5.4 Purpose. This paragraph shall be a concise understandable explanation of the intention or aim of the TCTO, including reasons for any inspection, replacement or retrofit change required (see Figures 2 thru 5). In all TCTOs, sufficient background information shall be included concerning conditions which caused the retrofit change and the effect noncompliance shall have on mission capability. The failure, incidents or conditions which make this retrofit change necessary shall be summarized. If applicable, this paragraph shall identify the Material Improvement Project (MIP), Modification (MOD), Engineering Change Proposal (ECP), production change point, and/or class modification number that the retrofit change will incorporate. For Record TCTOs, subparagraph 2.1 shall contain the statement shown in 3.2.3.3.2 and subparagraph 2.2 shall contain the information required above.

3.5.5 When to be accomplished. The time limit for accomplishment of the TCTO, as established by the AFMC Form 873 (see 6.5), shall be stated in this paragraph (see Figures 2 thru 5). Computer program involvement shall always contain the statement "As directed by the using activity, but not later than ____ days after receipt of this TCTO and affected tape."

3.5.5.1 Immediate action statement. Time compliance for IMMEDIATE ACTION TCTOs shall, under all circumstances, state: "Immediate (discontinued use) (operating restriction) of affected system/equipment pending performance of the directed action."

3.5.5.2 Urgent action statement. Time compliance for URGENT ACTION TCTOs shall, under all circumstances, state: "Not later than ____ days after receipt of (this TCTO) (this TCTO and kits/parts). Failure to accomplish this TCTO by the preceding specified number of days shall result in discontinued use of the affected system/equipment."

Downloaded from http://www.everyspec.com

3.5.5.3 Routine action statements. Time compliance for ROUTINE ACTION TCTOs shall contain one of the following statements:

a. Routine action, Organizational/Intermediate level safety TCTO. "Not later than ____ days after receipt of (this TCTO) (kits) (parts) (special tools). Failure to accomplish this TCTO by the preceding specified number of days shall automatically restrict operations or shall be justification for withdrawing affected system/equipment from service until compliance is accomplished." The specified number of days for accomplishment shall be controlled by the degree of safety involved rather than the designated level of maintenance.

b. Routine action, Organizational/Intermediate level TCTO. Organizational/Intermediate level TCTOs having a compliance period in terms of days shall read: "Not later than ____ days after receipt of (this TCTO) (kits) (parts) (special tools). Failure to accomplish the work by expiration of the compliance period shall be justification for withdrawing the affected system/equipment from service until compliance is accomplished.

c. Event type. When the time period for accomplishment cannot be specified as a certain number of days after receipt of the TCTO, kits, parts or special tools, the TCTO may specify compliance at the time a known maintenance event occurs, such as "At the time of removal from Emergency War Order (EWO) status (or During scheduled modernization action). If not complied with by (date) the system/equipment shall be removed from active service until compliance with the TCTO is accomplished." The preceding phrase is an example of the type to be used and may be expanded or worded to the individual requirement as needed; use of the phrases "upon failure," "upon accumulation" or "when reaching" are not authorized for any TCTO.

d. Depot level maintenance. These modifications require specified accomplishment at a time designated by the acquiring activity by means of the AFMC Form 873 (see 6.6) at overhaul, contractor team, force modernization, AFMC schedule or whatever other phrase that is most appropriate.

3.5.5.4 Additional statements. When applicable, the contractor shall use the following additional statement(s) after the "when to be accomplished" heading as follows:

a. When work involved is dependent upon other technical order(s) or TCTO(s), an appropriate statement based on the following shall be used: "The work required by this technical order shall be accomplished (concurrently with) (prior to) (subsequent to) the work required by TO ____, data code _____, dated ____."

b. When the technical order replaces another and requires additional work, the following statement shall be used: "Additional work is required by this issue." However, when no additional work is required on the system/equipment which shows compliance with the TCTO replaced, the following statement shall be used: "No additional work is required on the system/equipment which shows compliance with TO ____, data code ____, dated ____ ."

c. "EWO missiles are not affected by this TCTO."

d. "Launch facilities shall not be removed from alert status solely for compliance with the TCTO. Instead, compliance shall be accomplished during unscheduled maintenance periods."

3.5.6 By whom to be accomplished. The designated maintenance level to accomplish the TCTO shall be indicated in this paragraph (see Figures 3 and 4). This shall be either "Organizational/Intermediate level maintenance" or "Depot level maintenance." The AFMC Form 873 (see 6.5) shall contain the required information. If the TCTO is applicable to more than one level, the lower echelon for accomplishment shall be specified. No requirements are to be issued using more than one TCTO number in order to authorize accomplishment at more than one level of maintenance. The contractor

Downloaded from http://www.everyspec.com

shall not issue a TCTO for requirements to be accomplished at split levels of maintenance, e.g., Depot level maintenance installs wiring and controls, makes structural changes, etc., and Organizational/Intermedate level maintenance installs a commodity(s).

3.5.7 What is required. This paragraph shall be divided into three subparagraphs (see Figures 3 and 4). When computer programs are involved, only information for paragraph "5.2 Personnel Information and Requirements" shall be included; paragraphs 5.1 and 5.2 shall be annotated "Not applicable."

a. Supply Information and Requirements.

b. Personnel Information and Requirements.

c. Special Tools, Fixtures, Test Equipment, and Software required.

3.5.7.1 Supply information and requirements. The contractor shall furnish the acquiring activity, using the AFMC Form 874 (see 6.6), for approval, the supply data they propose to insert in the TCTO. Where parts, items, or spares are not to be re-identified, condition tagged "TOC" (Technical Order Compliance), or condemned, this paragraph shall consist of the title followed by the statement "Not applicable." This paragraph shall have the following subparagraphs in the order indicated (see Figures 3 and 4). "Not applicable" shall follow the subparagraph titles, if appropriate.

a. Kits/Parts/Materials Required (see 3.5.7.1.1). This subparagraph shall contain the kits/parts/materials required to accomplish the retrofit change and those kits applicable to affected training equipment and War Reserve Material (WRM) assets, if different.

b. Action Required on Items in Chiefs of Supply or units stock (see 3.5.7.1.2).

c. Kits/Parts/Materials Required to Modify Items in Stock (see 3.5.7.1.3).

d. Disposition of Removed and Replaced Parts/Materials (see 3.5.7.1.4).

e. Drawings and Instructions Required (Record TCTOs only) (see 3.5.7.1.5).

f. Size, Weight, and Cost of Kits/Parts/Materials (see 3.5.7.1.6).

g. Disposition of Kits/Parts/Materials (see 3.5.7.1.7).

3.5.7.1.1 Kits/parts/materials required. This paragraph shall specify the distribution of kits, contain a bill of materials, percentages of parts replacement required and other information as required by the following paragraphs. All TCTOs requiring kits/parts/materials shall contain the following note:

"NOTE

AF activities shall insure that requisitioning of TCTO kits/parts is effected in an expeditious manner to ensure accomplishment of this TCTO within the designated time period."

3.5.7.1.1.1 Kit statements. One of the following statements, as applicable, shall be included: "The following parts will be furnished as a complete kit. The following kits shall be requisitioned in accordance with AFM 67-1." or "Not all components/parts/tools will be furnished in a kit, complete kit concept waived by (insert name/rank/office symbol/Defense Switched Network [DSN] phone number of using command/LG or Director of Maintenance [D/MA] individual authorizing waiver for complete kit concept). The following kits and/or individual items shall be requisitioned in accordance with AFM 67-1."

Downloaded from http://www.everyspec.com

3.5.7.1.1.2 Bill of materials. The bill of materials shall be a tabular listing of all the parts and materials required per unit of equipment. Quantity, stock number, part number, nomenclature, and supply source shall be given. Kit identification numbers shall be in accordance with TO 00-5-15. Stock and part numbers of components included in kits requiring shelf life control shall be identified with an appropriate control processing code, as specified in the TO 00-20K-series. For Kits with "K" National Stock Numbers (NSN) and parts with "ND" NSNs, which must be ordered through the supply system, the following information shall be included in the Bill of Materials: part number; noun; expendability, recoverability, repairability code (ERRC); source (commercial and government entity [CAGE] code, from Federal Cataloging Handbook H4/H8); shelf life code; quantity/unit pack; budget code; demilitarization code; precious metal code; controlled item code; unit of issue; and cost. When more than one kit is required, the components shall be identified in a group tabular form, as in the following example and Figure 3:

Qty Kits A	B	Stock Number	Part Number	Nomenclature	Source
1		5310K0168380ALH	-	Kits A and B,	AF Supply
	1	5310K0168380BLH	-	consisting of:	AF Supply
1	1		1X-XX-506	Technical Order	AF Supply
1		4935-00-210-6254	30415-1	Filter Housing	AF Supply
1	1		CP13-01	Filter Cartridge	CAGE Code 47132

3.5.7.1.1.3 Waiver to complete kit concept. If the acquiring activity has waived the kit concept, exempted parts or materials not furnished in the kit shall be listed in tabular form following the kit listing specified above. This shall include the quantity per equipment, stock number, part number, nomenclature, source of each item or material, if not stock listed, and percentage of parts replacement required. Where it is impossible to indicate the exact quantity, the best estimate shall be given followed by the word "estimate" in parentheses. For such items as sheet stock, the quantity column shall specify dimensions (not area), as well as quantity; for example, "4 ½ by 2 inches (for two)." The term "as required" shall be avoided. The listing shall be preceded by the statement "The following parts/material required to comply with this technical order are not furnished in the kit and shall be obtained through the appropriate supply source."

3.5.7.1.1.4 Parts required - record TCTOs. The parts required paragraph in record TCTOs shall contain a list of all kits and parts required to accomplish the retrofit change. The parts shall be listed in tabular form and shall include quantity, part number, brief nomenclature, and applicable FSC. The parts required for each station, area, or system shall be grouped and each group shall contain reference to applicable installation drawings and instructions, when appropriate (see 3.2.3.3.2). If a complete parts list is provided with the installation drawings, only the kits and parts requiring shelf life control shall be listed in this paragraph.

3.5.7.1.2 Action required on items in chiefs of supply or units stock. This paragraph shall specify whether action is or is not required on items in stock and other applicable information, as follows:

a. All items in stock requiring accomplishment shall be listed in tabular form giving the stock number, part number, nomenclature, and, if required, the NPPC Code. When a federal stock

Downloaded from http://www.everyspec.com

number has not been assigned, the part number shall be listed and identified with the manufacturer's CAGE code in parentheses following the nomenclature. (NPPC Code 4 indicates that items in supply require modification that will change form, fit, or function.)

b. Provide complete kit support for items in stock (see 3.5.7.1.3).

c. Identify that accomplishment is required prior to issue, shipment to or from depots, at time of overhaul, or other appropriate point. If spares are to be condemned, the time for condemnation (to prevent premature disposal) shall be specified. A statement shall also explain that the required action shall be accomplished on items in stock, including WRM assets, as directed by the TCTO. These actions shall be accomplished within the time frame of, and prior to the rescission of, the TCTO.

d. Provide accomplishment instructions necessary for any differences between installed items and spare items in stock.

3.5.7.1.3 Kits/parts/materials required to modify items in stock. Kits/parts/materials required to modify each spare shall be listed. Quick engine change, special purpose recoverable authorized maintenance (SPRAM), engine build-up, readiness spares packages (war reserve material, base-level self-sufficiency spares, war reserve spares kits), and similar assets affected by the TCTO shall be identified. Parts and materials shall be listed in tabular form showing the quantity, stock number, part number, nomenclature, and source (see 3.5.7.1.1.2 and 3.5.7.1.1.3). If the parts and materials are available as a kit, the listing of the individual parts and materials shall be preceded by the same information for the kit as for the individual parts and materials. Each listing shall be preceded by one of the following statements:

a. "Parts and materials required to modify each (nomenclature) (part number) in stock will be furnished as a kit. The following kits shall be requisitioned in accordance with AFM 67-1."

b. "Parts and materials required to modify items in stock shall be obtained through the appropriate supply source."

3.5.7.1.3.1 Same parts and materials required. If parts and materials required to modify spares and WRM are exactly the same as those required to modify the system, components, part, or other unit of equipment, detailed listings shall not be included. In lieu thereof, the following statement shall be inserted: "Same as parts and materials (specific) (or other specific unit of equipment) listed in subparagraph 5.1.1."

3.5.7.1.4 Disposition of removed and replaced parts/materials. This paragraph shall list removed and replaced parts/materials in tabular form giving stock number, part number, and nomenclature, and shall be marked to indicate the disposition action as shown by the approved AFMC Form 874 (see 6.5). For removed or replaced parts which are to be mutilated, the item or items shall be listed in the same tabular format as above but preceded with a WARNING. Appropriate instructions to effect mutilation and disposition, as prescribed by AFM 67-1, Supply Procedures, shall also be included.

3.5.7.1.4.1 Exchange of equipment or parts. When equipment or parts are to be returned to the contractor for necessary compliance on an exchange basis of components, the following note shall be included immediately after the disposition instructions of the item.

"NOTE

All (nomenclature of item) which have not been returned to the contractor for exchange by (date) will require separate negotiation with the contractor. Responsible activities will be required to justify noncompliance within the specified time."

Downloaded from http://www.everyspec.com

3.5.7.1.4.2 Noncataloged items. Noncataloged items and small attaching hardware shall not be listed. The following note shall be used:

"NOTE

Parts removed, but not listed, shall be processed to the local Defense Reutilization and Marketing office if unserviceable or not cataloged. Serviceable stock listed items shall not be returned to stock unless the quantity removed exceeds $25.00 line item value."

3.5.7.1.4.3 Removed items. The following note shall apply to recoverable items removed/replaced during a modernization program:

"NOTE

Recoverable items removed/replaced during a modernization program shall be bench checked for serviceability, returned to Air Force inventory or repaired in accordance with directions provided by the IM. Retail supply systems shall report serviceable and unserviceable recoverable assets to the applicable IM for disposition action."

3.5.7.1.5 Drawings and instructions required (record TCTOs only). If drawings and instructions not furnished in the kits are required (see 6.2), the contractor shall provide the drawing and instruction number, manufacturer's CAGE code, and date as shown below. Instructions for obtaining the drawings and/or engineering instructions, provided by the acquiring activity, shall also be included. The contractor shall state if drawings and/or engineering instructions are not required (see 6.2). "Not applicable" shall be entered after the paragraph heading if they are not required.

Drawings/ Instructions/ Number	CAGE Code	Date	Revision	Source
D7392161	85421	3 July 70		Obtain from
D7392162	85421	3 July 70	J	Obtain from

3.5.7.1.6 Size, weight, and cost of kits/parts/materials. Size, weight, and cost of each kit, and of each part/material not furnished in a kit, shall be listed. Where more than one kit is required, information shall be included for each kit. For inspection, remove and replace with like item TCTOs, or those for which parts, kits, or materials are not required for accomplishment, this paragraph heading shall state "Not applicable."

3.5.7.1.7 Disposition of kits/parts/materials. Unless specified by the acquiring activity, this paragraph shall state: "(Kits/Parts/Materials) remaining in stock after rescission date or completion of modification requirements shall be reported as excess to kit manager in accordance with AFM 67-1." When specified by the acquiring activity (see 6.2), this paragraph shall give disposition instructions for kits/parts/materials remaining in stock after the retrofit change is completed. TCTOs not requiring disposition of items shall show this paragraph heading and state "Not applicable."

Downloaded from http://www.everyspec.com

3.5.7.2 Personnel information and requirements. Actual man-hours and Air Force Specialty Code determined from updating change/modification proofing shall be furnished whenever possible; otherwise, best estimates based on experience shall be provided. Man-hour figures shall be determined as the result of proofing of the TCTO and any previous estimates adjusted accordingly for this requirement. Refer to AFMAN 36-2108, Airman Classification, for Air Force Specialty Code requirements. TCTOs specifying accomplishment at organizational, intermediate or depot level shall include, as applicable, the following work phases and shall include the Air Force Specialty Code and man-hours for each phase (see Figure 3). TCTOs not requiring all phases shall show all the headings and state "Not applicable," as appropriate.

a. Unpacking (new equipment) (kits/parts).

b. Disassembly (gaining access to work area, preparing equipment, making safe for maintenance, etc.).

c. Installation (accomplishing work/inspection).

d. Assembly (reinstalling parts removed to gain access).

e. Operational check.

3.5.7.2.1 Man-hour information. Man-hour information shall be expressed in hours and tenths of an hour. When less than one hour is needed and only one person is essential, a statement shall be made that a (skill level) maintenance person is required and will require (tenths) of an hour to accomplish the task. Total man-hours required shall also be provided.

3.5.7.3 Special tools, fixtures, test equipment, and software required. This paragraph shall list all special tools, fixtures, test equipment (including test adapters), and software (test tapes or computer programs) required to support initial accomplishment when such equipment is peculiar to accomplishment of the projected retrofit change and will be used on either a one time basis or a continuing basis. When no special kit installation tools are required, an appropriate statement to that effect shall be made.

3.5.7.3.1 Listing of tools. If special tools, fixtures, or test equipment are required, they shall be listed by assigned stock numbers (for tools, fixtures, and test equipment to be used on a continuing basis only), part numbers, and nomenclature and shall be indicated on the applicable AFMC Form 874 (see Figure 3). If a tool kit is provided, only the kit shall be listed. Software shall be listed by CPIN, title, and date. The exact method by which tools, test equipment, fixtures, and software will be obtained, furnished or locally manufactured shall be stated and instructions for appropriate disposition of the tools, fixtures, test equipment, and software, after compliance with the technical order, shall be provided. One of the following statements shall be used, as applicable:

a. "This (tool [kit]) (fixture) (test equipment) (software) will be furnished to using activities, without requisition, by (contractor's name) through the contractor's Field Service Representative. After use of the (tool [kit]) (fixture) (test equipment) (software) is completed, it shall be (returned to the contractor's Field Service Representative) (returned to stock) (kept by the user) (disposed of as condemned property) (other)."

b. "This tool (kit) will be furnished to using activities upon requisition from (agency). After use of the tool (kit) is completed, it shall be (returned to stock) (kept by the user) (disposed of as condemned property) (other)."

c. "This tool will be locally manufactured using instruction(s)/illustration(s) (appropriate paragraph/figure reference) which provide the necessary manufacturing details. After use of the tool is completed, it shall be (kept by the user) (disposed of as condemned property) (other)."

Downloaded from http://www.everyspec.com

3.5.8 How work is accomplished. This paragraph shall contain all the text and illustrations necessary to give step-by-step instructions to perform all inspection, replacement, retrofit change, and re-identification required by the TCTO. This paragraph shall also include the work phases identified in 3.5.7.2. Step-by-step instructions shall not be provided for Record TCTOs (see 3.2.3.3.2).

3.5.8.1 Instructions (see Figure 3). The instructions shall be clear, comprehensive, and complete in detail so that subsequent correspondence and corrective TCTOs can be held to a minimum. Careful consideration shall be given to all equipment, materials, and processes involved in each phase of inspection, replacement, retrofit change, etc., specified. When the work required entails a scientific process or test (e.g., chemical, metallurgical, or similar), the requirement shall be stated in understandable language for the skill level actually accomplishing the task. TCTOs directing chemical use shall instruct the users who break down a chemical "Unit of Issue" into smaller containers to label the containers with shelf life and expiration dates. The TCTO shall specify a strength/integrity check on any chemical to be used prior to each use. When the TCTO affects equipment designated to establish reliability factors, instructions shall specify any special facilities and work standards required to ensure that the reliability factors stated in the applicable maintenance manuals will not be degraded. Where the exact configuration is not known, or several configurations exist, making it economically infeasible to show details of all configurations, a typical installation shall be illustrated. This illustration shall contain a note to the effect that variations in accordance with approved standard maintenance practices are permissible, provided the intent of the TCTO is accomplished.

3.5.8.1.1 War reserve material. If the inspection or retrofit change is to be accomplished on war reserve material, the instructions for accomplishing the work shall be included in this paragraph. If the instructions are the same, it shall be so stated. If instructions are different, separate subparagraphs shall be used to provide the instructions.

3.5.8.2 Completeness. Step-by-step instructions shall be written in simple, assembly/disassembly-sequence, order. All unusual or critical steps shall be covered in detail. Any procedures used that involve safety of personnel or material shall clearly be identified by appropriate warnings, cautions, or notes. Instructions shall direct that progressive checks be performed at intervals prior to completion of the work. Where more than one kit is required, the instructions for each kit shall be grouped individually. However, when this would result in unnecessary duplication, one or more subparagraphs shall be devoted to each operation. Step-by-step instructions may be illustrated, as appropriate, provided the text makes appropriate reference to such illustrations. Other illustrations shall be used, as appropriate, to support the text. These illustrations shall be in the form of perspective drawings, line drawings, etc., whichever give the clearest and simplest presentation.

3.5.8.3 Local manufacture. When local purchase, local manufacture, or other stock listed or non-stock listed items or materials are required to accomplish the TCTO, such items or materials shall be accumulated by the contractor or depot assembling the kits. These items and materials shall be packaged as prescribed in the TCTO and included as regular components of the TCTO kit. When emergency requirements make local manufacture by Organizational/Intermediate activities necessary, instructions shall be included which provide all manufacturing details essential for fabrication. The instructions and illustrations shall be sufficiently complete so that supplementary drawings are unnecessary.

3.5.8.4 Wiring diagrams. If required by the acquiring activity, suitable wiring diagram illustrations shall be included for installation or retrofit change. Graphic symbols, mechanical symbols, and reference designators shall be in accordance with the requirements of MIL-STD-38784.

3.5.8.5 References to parts or assemblies. Reference to major parts or assemblies shall include part number and nomenclature (federal item name). When retrofit changes affect parts, subassemblies or

Downloaded from http://www.everyspec.com

complete articles to the extent that the original and modified items are no longer completely interchangeable with respect to either installation, performance, function or fit, instructions shall be given for re-identification of the modified items. The part number of the item shall be changed if the conditions in MIL-STD-1915 apply, or when specified by the acquiring activity. When retrofit changes result in change of part numbers which are stamped, stenciled, etched, etc., on the affected equipment, instructions shall be given to identify the location and method of marking of the new part numbers. When practical, a new data plate shall be included in the kit to reflect the new part number or identification markings in lieu of stamping, stenciling, or etching. Instructions shall comply with the requirements of MIL-STD-130. The number, specification, shade of color, etc., of each referenced part shall be given.

3.5.8.5.1 Nameplates. If the retrofit change requires a new nameplate for the equipment, the nameplate shall be provided in the kit and instructions shall be furnished for completing the required information on the nameplate; for example, transferring the serial number.

3.5.8.6 Marking for inspection. Where changes or inspections are directed which are not readily apparent through visual inspection, instructions shall be given to mark the article during retrofit change in such a manner that accomplishment can be affirmed in the installed condition through visual inspection to the maximum extent practical. The instructions shall give the specific type and location of such markings. These markings shall not form a prefix or suffix to part numbers or stock numbers. Approval of the acquiring activity shall be obtained prior to preparation of instructions. The type of marking shall be indicated in the Records paragraph (see 3.5.10).

3.5.8.7 Marking containers. When modified equipment is to be packed or crated, instructions shall be included for marking the exterior of the container to indicate specific TCTO compliance. These instructions shall conform to the requirements of MIL-STD-129.

3.5.8.8 Demilitarization. When a removed or replaced part/material requires demilitarization prior to disposal action, instructions shall be given for demilitarizing the part/material.

3.5.9 Supplemental information. This paragraph shall include information, as applicable, pertaining to defuel/purge requirements, operational checkout requirements, weight and balance information, and technical manuals affected (see Figures 3 and 4).

3.5.9.1 Fuel system defuel/purge. This subparagraph shall contain a statement that (defueling/purging) of the fuel system (shall be accomplished/is not required) prior to accomplishing the TCTO.

3.5.9.1.1 Defuel/purge determination. Determination of whether (defueling/purging) shall be accomplished shall be based upon the following factors:

a. Preliminary Hazard Analysis.

b. Operating Hazard Analysis.

c. Area of equipment being modified.

d. Type of work being performed.

3.5.9.2 Operational checkout requirements. This subparagraph shall contain a statement that an operational checkout of the system or equipment after retrofit change (shall be accomplished/is not required) prior to normal operations.

3.5.9.2.1 Operational checkout instructions. The instructions shall direct that upon completion of the work required, an operational checkout (including functional check flight) be performed, as appropriate, to determine whether the affected equipment, parts or systems operate properly.

Downloaded from http://www.everyspec.com

Procedures for accomplishing the operational checkout, including necessary test tapes and computer programs, shall be provided if not already covered in an existing technical manual. Such instructions shall be limited to those required for one time use to check out the installation of the retrofit change. If procedures are provided in an existing technical manual, appropriate reference shall be made.

3.5.9.2.2 Operational checkout instructions appendix. When extensive operational checkout instructions, test tapes or computer programs are required for modified systems or equipment, which would preclude publication in the basic content of paragraph 7 of the TCTO, these instructions may be prepared in the form of an appendix to the basic TCTO. When used, such an appendix shall form an integral part of the basic TCTO. A statement shall be included that the instructions are for one time usage to check out the initial installation only and future operation and maintenance instructions shall be obtained from applicable technical manuals.

3.5.9.3 Weight and balance information. This subparagraph is applicable only to airborne weapon systems (aircraft, missiles, drones, guns, engines, etc). It shall contain sufficient data to document the weight and balance change resulting from TCTO accomplishment. Weapon system weight and balance status must be maintained in accordance with the management procedures of AFI 21-101, AFI 21-114, and AFI 11-215, per the requirements and instructions of TO 1-1B-40 and TO 1-1B-50. Therefore, TCTO weight and balance information shall be in the format specified in 3.5.9.3.4.

3.5.9.3.1 No change in weight and balance. When the weight and balance status of the weapon system is not changed as a result of TCTO accomplishment, the following statement shall be included: "There are no weight or balance changes resulting from the instructions contained herein."

3.5.9.3.2 Unknown change in weight and balance. When retrofit changes involve structural and/or subsystem changes which preclude the determination of the actual weight and balance change prior to TCTO accomplishment, a statement directing the weighing of the weapon system, in accordance with TO 1-1B-40 and TO 1-1B-50 requirements, shall be made.

3.5.9.3.3 Missile/launch vehicle weight and balance. The weight and balance control system requirements of MIL-STD-1811 shall be used in preparation of weight and balance data for missile/launch vehicle TCTOs. The mass and mass properties used shall be the ones established by the missile/launch vehicle contractor.

3.5.9.3.4 Aircraft/aircraft equipment weight and balance. The simplified moment system, as outlined in MIL-W-25140 and TO 1-1B-50, shall be followed in the preparation of weight and balance information. The moment constant shall be the one approved for use by the acquiring activity engineering personnel in the aircraft -5 series technical manuals. As a minimum, all Chart A entries must be separate Chart C line entries. Structural and subsystem changes greater than five pounds shall be listed as separate line items. Lesser weight may be summed together. TCTO weight and balance information shall be presented in the following format and shall comply with the preparation requirements and instructions of MIL-W-25140 and TO 1-1B-40 (see Figure 7). "Chart A Entry Information:

NOTE

When a Chart A entry is required and an aircraft inventory is not accomplished, the date of the entry must be placed (in pencil) in the item description column of Chart A. Marks in the "IN AIRCRAFT" and "CHART C ENTRY" columns of Chart A are made only at the time of a complete aircraft inventory.

Downloaded from http://www.everyspec.com

Item No. Item Description Weight Arm Moment/Constant

Compartment(s)

Chart C Entry Information:

Added/Removed:

Item No. Item Description Weight Arm Moment/Constant

Compartment(s)

Overall Change in Basic Weight: ± ... pounds and

Overall Change in Basic Moment: ± ... inch-pounds/constant"

3.5.9.4 Technical manuals affected. All technical manuals which require change as a result of the retrofit change shall be identified by technical manual identification number and date of the basic issue. If technical manuals are not affected by this retrofit change, the words "Not applicable" shall be entered after the subheading.

3.5.10 Records. This paragraph shall be used to convey the necessary reporting and recording accomplishment of the TCTO (see Figures 3 and 4).

3.5.10.1 Action required on maintenance records. Subparagraph 8.1 of the TCTO shall state "Upon completion of TCTO, update applicable maintenance data collection system(s) in accordance with the handbook for that system and TO 00-20-2. The item requiring TCTO accomplishment shall be identified by part number (PN), commercial and government entity (CAGE) code, Federal Supply Class (FSC), Standard Reporting Designator (SRD), and Work Unit Code (WUC):

Part Number CAGE FSC SRD WUC

3.5.10.1.1 No form entry required. In the event a form entry is not required, the words "None" shall be inserted following this heading.

3.5.10.1.2 No additional work required. When the TCTO replaces another TCTO, but requires no additional work, the following statement shall be included following the recording requirements: "No new form entry required. Change publication date and number, as necessary."

3.5.10.1.3 Additional work required. Supplements requiring additional work shall include appropriate requirements for form entry.

3.5.10.1.4 Inventory equipment. (Aircraft and missiles only) When the TCTO specifies installation, removal or relocation of inventory equipment, this subparagraph shall state that upon compliance with the TCTO, entry is required on DD Form 2691, Aircraft/Missile Equipment Property Record, in accordance with AFI 21-103. This subparagraph shall also contain a list of all items of inventory equipment affected (removed, added or relocated) by the TCTO and shall include quantity of items, nomenclature and location in aircraft/missile. Selection of inventory items shall be in accordance with the criteria established in AFI 21-103 and AFMCM 66-20, Chapter 4 (-21 TOs).

3.5.10.2 Action required on supply records. Subparagraph 8.2 of the TCTO shall be used to state the action that supply personnel must take to adjust their supply records to insure that parts removed from use by the TCTO are not reissued for the same application to maintenance personnel. Parts shall be listed by stock number, part number, and nomenclature. A list of stock/part numbers shall be on the AFMC Form 874 (see 6.5). The following sentences shall be used, as appropriate: "Supply records shall be appropriately annotated to reflect that the following part(s) shall not be issued for an unauthorized application.", Supply organizations maintaining Manual Stock Record Accounts shall

Downloaded from http://www.everyspec.com

hand scribe in the Remarks space of the appropriate AF Form 105F series, "DO NOT USE ON (equipment) PER TCTO (number)." Supply accounts maintaining mechanized records shall:

a. "Base Supply: Load applicable exception codes to the records to prevent automatic issue to customers in accordance with AFM 67-1, Volume II, Part Two, Chapter 11."

b. "Depot Support: Manager review code the listed items to prevent automatic issue."

c. "Inventory Manager: Manager review code "T" shall be assigned item(s) listed below to insure that shipments are not made to Air Force activities until proper application is confirmed." Use of other manager review codes, if applicable, is permissible.

d. "Property accounting personnel shall verify the intended application of the item requisitioned to insure that demodification will not result. Positive supply action shall be taken based upon results of verification of proper application."

3.5.10.2.1 No action required on supply records. If supply records are not affected by the TCTO, the words "Not applicable" shall be entered after the subheading.

3.5.10.3 Retrofit change or inspection identification marking. Subparagraph 8.3 of the TCTO shall list the special retrofit change or inspection identification markings, if required; for example, "TCTO number stenciled next to nameplate." Instructions for placing the marking shall be contained in paragraph 6 of the TCTO (see 3.5.8.6). Specify the location, size, and Military Standard applicable to marking colors and materials required. If markings are not required, this subparagraph shall be omitted.

3.5.11 Authority. The authentication requirements shall be included at the close of the TCTO. The names of the current Air Force Chief of Staff and Commander, Air Force Materiel Command, shall be used (see Figures 3 and 6).

3.5.11.1 Responsible organization. Each TCTO and/or supplement shall include a statement indicating the name of the organization, Defense Switchboard Network (DSN) telephone number, and extension, responsible for its preparation (see Figures 3 and 6). Those prepared at contractor's plants shall include, in parentheses, immediately following the name of the contractor, the word "for" and the symbol of the organization, DSN telephone number, and extension, authorizing preparation of the publication. Names of individuals within the organization shall not be included. TCTOs prepared by contractors shall include, beneath their names, the applicable contract number(s).

3.6 Supplements (see Figure 6). Supplements shall bear the heading "SUPPLEMENT TO BASIC TECHNICAL ORDER." Appendix B provides the Document Type Definition (DTD) for electronic delivery of TCTO supplements. All supplements shall be assigned a new data code number.

3.6.1 Rescission. Supplements shall carry the same rescission date as the basic TCTO to which they apply unless additional work is required by the supplement. Additionally a determination shall be made and approved by the Configuration Control Board (CCB) that an extension of the rescission date is warranted to accomplish the additional work. In this instance, a new rescission date shall be established applying to both the supplement and basic TCTO.

3.6.2 Additional work. Supplements which require additional work shall contain a statement regarding additional man-hours and personnel required, and shall include appropriate requirements for form entry (see 6.2).

3.6.3 Additional work with limited applicability. When a requirement develops for additional work and added kit support is also needed, but the applicability is peculiar only to one serial number, one block of serial numbers or partial inventory application, approval shall be obtained from the acquiring activity prior to issuance of a new TCTO.

Downloaded from http://www.everyspec.com

3.6.4 Supplement indicator of safety marking. The indicator of safety marking (see 3.5.2.7) shall not appear on supplements. Supplements carry the same level of urgency as the basic TCTO.

3.6.5 Supplement title. The title of each TCTO supplement shall be the same title as the basic TCTO.

3.6.6 Supplement note. When it is necessary to supplement a TCTO, the following note shall be used:

"NOTE

This technical order supplements TO ____, data code ____, dated ____, to make corrections as indicated herein.('No additional work is required by this supplement.' OR 'Additional work is required by this supplement and appropriate reference shall be entered on [specific maintenance form/record] for the equipment affected and an AFTO Form 349 submitted.') A SUITABLE REFERENCE TO THIS SUPPLEMENT SHALL BE MADE ON PAGE 1 AND, IF APPROVED BY MAJCOM, OPPOSITE EACH AFFECTED PARAGRAPH OR FIGURE IN THE BASIC PUBLICATION."

3.7 Development of contents.

3.7.1 Reading grade level (RGL). The RGL provisions of MIL-STD-38784 shall apply.

3.7.2 Reference to other publications. TCTOs shall present all information, using text and illustrations as required, necessary to effect the change. However, if assembly/disassembly instructions are located in a technical manual that is applicable and effective, reference shall be made in accordance with MIL-STD-38784.

3.7.3 Nomenclature. Positive identification is mandatory and, if necessary, redundancy is permitted to insure adequate parts identification is always maintained.

3.7.4 Use of "shall," "must," "will," "should", and "may". The provisions of MIL-STD-38784 shall apply.

3.7.5 Security classification. The security classification provisions of MIL-STD-38784 shall apply.

3.7.5.1 Title for classified TCTOs. An unclassified title shall be used for classified TCTOs, whenever possible, but adequately identifies the TCTO. Whenever this is possible, the title shall be shown as "unclassified." When an unclassified title will not adequately identify the technical order, a title of the lowest classification shall be selected and shown accordingly. When the title must be of the same classification as assigned to the TCTO, the classification shall still follow the title.

3.7.5.2 Notices for classified TCTOs. The disclosure notice, distribution statement, export control notice, and destruction notice for classified TCTOs shall be in accordance with 3.5.2.10.

3.8 Reproducible copy. Reproducible copy, artwork, paragraphs, pages, figures, and tables shall be in accordance with MIL-STD-38784, except that subordinate side heads should, but are not required to have text immediately following the title, or as specified herein (see Figures 1 thru 3, 5 thru 7).

3.8.1 Red border overlays. When specified by the acquiring activity (see 6.2), the contractor shall prepare an appropriate color overlay for all immediate and urgent action TCTOs. Reproducible copy for the red border shall be prepared in permanent black on overlays of frosted or matte finish acetate sheeting. The area that will appear in red on the first (title) page of the TCTO shall be left blank on the reproducible page.

Downloaded from http://www.everyspec.com

3.8.1.1 Dimension and spacing of overlays. The dimensions and spacing of red markings for immediate and urgent action TCTOs shall be as shown in Figures 1, 2, and 4.

3.8.1.2 Indicator of safety marking overlays. When the indicator of safety marking (see 3.5.2.7) is required, the appropriate overlay shall be furnished. Minor variations in size and spacing are acceptable.

3.8.2 Foldout pages. Foldout pages shall be in accordance with MIL-STD-38784.

3.8.3 Change symbols. Portions of text, illustrations, and schematic diagrams, changed or added in second and subsequent issues of TCTOs and supplements, shall be indicated by change symbols as required by MIL-STD-38784.

3.8.4 Illustrations. Except as specified below, illustrations shall be prepared in accordance with MIL-STD-38784 to supplement the text.

3.8.4.1 Illustrations in record TCTOs. The use of illustrations in Record TCTOs shall be held to a minimum. Illustrations shall be sufficient to determine that the specific retrofit changes have been accomplished. Illustrations in Record TCTOs merely aid in identifying retrofit changes and they shall not normally contain part numbers.

3.8.5 Numbering. Numbering of pages, paragraphs, figures, tables, etc., shall be in accordance with MIL-STD-38784, except that no chapter number shall precede page, paragraph, figure, table, etc., numbers.

4. VERIFICATION.

4.1 Verification. Unless otherwise specified in the contract or purchase order (see 6.1):

a. Validity of the accuracy and scope of the TCTO technical content shall be the responsibility of the contractor (see 6.2).

b. The contractor shall provide suitable facilities to perform the validation functions specified herein.

c. The contractor's existing quality assurance procedures shall be used.

d. The government reserves the right to review any of the verifications, when such reviews are deemed necessary to ensure supplies and services conform to the prescribed contractual requirements.

4.1.1. Minimum verification requirements. As a minimum, verification shall ensure the following:

a. Suitability of the TCTO for the intended maintenance environment.

b. Usability by the intended users.

c. Compatibility with other Government systems.

4.1.2 Compliance. All TCTOs shall meet all of the requirements of sections 3 and 5 of this specification and the appropriate DTD Appendix, as required by the acquiring activity (see 6.2). The requirements set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any requirements in this specification shall not relieve the contractor of the responsibility of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Use of sampling inspections shall be in accordance with commercially acceptable quality assurance procedures; however, Government approval for use of sampling in QA procedures does not authorize submission

Downloaded from http://www.everyspec.com

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 actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

5.2 Printed copies. When specified by the acquiring activity, the contractor shall include one printed copy of the TCTO for each kit being furnished (see 6.2). The quantities of copies, when specified, shall be indicated in the appropriate document at the time of coordination processing of the TCTO. Kits determined as not requiring a copy of the TCTO shall contain a tabular listing of all the items required to accomplish the TCTO. The format of minimum information shall be as follows:

BILL OF MATERIALS

TCTO (Number)		Kit (Number)		
Quantity	Stock number	Part Number	Nomenclature	Source

6. NOTES.

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

6.1 Intended use. TCTOs are used to accomplish and provide a record of any one-time inspection, removal and replacement or installation of components, retrofit change or alteration to the design or construction of any aeronautical, nonaeronautical, Communication-Electronic (CE), air launched or surface launched missile, space vehicle systems or ground vehicles, their related equipment, site, facility, support systems, and associated Aerospace Ground Equipment (AGE). If required by the acquiring activity, TCTOs may also be used to announce computer program changes affecting weapon systems, automatic test equipment, simulator, and on board command and control systems utilizing digital computer systems.

6.2 Acquisition requirements. Acquisition documents must specify the following:

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

b. Issue of the DODISS to be cited in the solicitation, and if required, the specific issue of individual documents referenced (see 2.2.1, 2.2.2).

c. Designator of urgency assigned (see 3.1 and 3.5.2.1).

d. Urgent action time limits for accomplishment (see 3.2.2 and 3.5.5.2).

e. Routine action compliance period (see 3.2.3.1 and 3.5.5.3).

f. If furnishing of installation drawings or instructions with a Record TCTO or kit is other than as specified herein (see 3.2.3.3.1).

g. Authority to issue TCTO (see 3.4).

Downloaded from http://www.everyspec.com

h. If the single TCTO method is used (see 3.5.2.9.5).

i. Approved AFMC Form 874 information (see 3.5).

j. Assigned TCTO number (see 3.5.2.).

k. Assigned Data code (see 3.5.2.5).

l. Issue date (see 3.5.2.6).

m. If indicator of safety marking is required (see 3.5.2.7).

n. Title or subject of instructions (see 3.5.2.8).

o. Contract end item number assigned (see 3.5.2.8.1).

p. If additional notes are required (see 3.5.2.9.3).

q. If Security assistance program notes are required (see 3.5.2.9.4).

r. Designated Maintenance level (see 3.5.6).

s. If instructions for disposition of kits/parts/materials are going to be other than as specified herein (see 3.5.7.1.7).

t. If part number changes are required to be made (see 3.5.8.5).

u. When new additional work with limited applicability TCTO supplements are required (see 3.6.3).

v. If border overlays are required (see 3.8.1).

w. If performance of inspections is going to be other than as specified herein (see 4.1).

x. If a printed copy of the TCTO for each kit is going to be furnished (see 5.1 or 5.2).

y. If kits are involved, are they listed by stock number, etc.? (see 3.5.3.2)

aa. If multiple kits will be used (see 3.5.3.2.1).

ab. If a document type definition (DTD) is required. (see 4.1).

6.3 Technical manuals. The requirement for technical manuals should be considered when this specification is applied on contract. If technical manuals are required, performance specifications, and standards that have been listed in DoD 5010.12L, Acquisition Management System and Data Requirements Control List (AMSDL) must be listed on a separate Contract Data Requirements List (DD Form 1423), which is included to the contract. The technical manuals must be acquired under a separate line item in the contract.

6.4 Definitions.

6.4.1 Time Compliance Technical Order (TCTO). A TCTO is prepared to authorize use of changed computer programs, impose or direct temporary usage restrictions, accomplishment of retrofit changes, special "one time" inspection/replacement of components of systems/equipment, or in combination, where applicable.

6.4.2 Interim TCTO (ITCTO). A time compliance technical order that, because of urgency, is issued by the Air Force by electrical means (i.e., message).

6.4.3 Single TCTO method. The single TCTO method is used only on items which are tracked through the Comprehensive Engine Management System (CEMS). The single TCTO consists of all information required to accomplish the one time inspection, replacement or installation of

Downloaded from http://www.everyspec.com

components, retrofit change or alteration to the design or construction of the equipment. For example, the single TCTO would provide instructions for removal of the part from the aircraft, modification of the part, installation of the part in the aircraft and returning the aircraft to service.

6.4.4 Immediate action. This type of TCTO is used to correct safety conditions which could result in fatal or serious injury to personnel, extensive damage or destruction of property, or conditions which could affect national security.

6.4.5 Urgent action. This type of TCTO is used to correct potentially hazardous conditions or conditions affecting operational factors which could result in injury to personnel, damage to property or unacceptable reductions in operational efficiency.

6.4.6 Routine action. This type of TCTO is used to give instructions to correct equipment or procedural deficiencies of a material, mechanical, operational, or tactical nature which could:

a. Constitute a hazard through prolonged continued usage.

b. Have a deteriorative effect on operational efficiency.

c. Reduce tactical or support utility.

d. Reduce operational life or general service utilization of equipment. Such conditions embody degrees of risk calculated to be tolerable within broad time limits.

6.4.7 Routine action record TCTO. A routine action Record TCTO is used when a retrofit change is of such magnitude or complexity that it must be accomplished by contractors, mobile depot maintenance, or specific Air Force activities higher than organizational or intermediate level and for which detailed instructions would not be required.

6.4.8 Verification. Verification (section 4), in the context of this specification equates to the contractor's quality assurance program for validating the content of the TCTO. 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 technical manual procedure, simulate the actions required by comparing the task steps to the hardware, while not actually removing any equipment.

c. Table top analysis. Primarily for non-procedural data, compares the technical content to source data to ensure the technical accuracy and depth of coverage.

6.5 AFMC Forms 873 and 874. Instructions for completing AFMC Forms 873 and 874 are contained in TO 00-5-15, Time Compliance Technical Order System, and AFLCR 8-4, Air Force Technical Order System. The AFMC Form 873 shall be provided to the contractor by the acquiring activity during the approval cycle of the TCTO. Government approval is required for the AFMC Form 874.

6.6 Subject term (key word) listing.

Comprehensive Engine Management System
Computer Program Identification Number
Data Code
Engineering Change Proposal
Immediate Action
Kits/Parts/Materials

Downloaded from http://www.everyspec.com

Material Improvement Project
Modification
Record TCTO
Routine Action
TCTO
Time Compliance Technical Order
Urgent Action
Verification

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

Downloaded from http://www.everyspec.com

IMMEDIATE ACTION

DEPARTMENT OF THE AIR FORCE
TECHNICAL ORDER

TO 1F-16-1140
DATA CODE: 0162903
1 FEBRUARY 1983

Text and Border Printed in RED

INSPECTION OF CONSTANT SPEED DRIVE (CSD)
ACCUMULATOR MOUNTING BRACKETS,
PART NO. 16P1531-23, F-16A/B AIRCRAFT

NOTE

This technical order formalizes IMMEDIATE action TO 1F-16-1140, data code 0162903, dated 4 February 1983. Remove from active files.

1. APPLICATION.

1.1 Identification. This technical order is applicable to the following aircraft:

Model	Serial Numbers
F-16A	AF78-0001, 78-0003, 78-0005, 78-0008, 78-0026, 78-0056 through 78-0059, 78-0061, 78-0064, 78-0128, 78-0146, 78-0152 through 78-0154, 78-0215, 78-0224, 78-0224, 78-0225, 78-0278, 79-0334 through 79-0336, 79-0339, 79-0363, 79-0364, 79-0379, 79-0380, 79-0402, 80-0479, 80-0481, 80-0482, 80-0488, 80-0508 81-0689, 81-0732 through 81-0768, 81-0770, 81-0772
F-16B	AF78-0077, 78-0081, 78-0084, 78-0088, 78-0095 through 78-0097, 78-0100, 78-0104, 78-0166, 78-0302, 79-0419, 79-0423, 79-0425, 79-0430, 80-00638, 81-0812, 81-0814, 81-0815

1.2 Kit Applicability. Kits are not required by this TCTO.

1.3 Proofing. Kit proof testing, in accordance with TO 00-5-15, has been waived by OO-ALC/XYZTV

Disclosure Notice - This information is furnished upon the condition that it will be not be released to another nation without the specific authority of the Department of the Air Force of the United States, that it will be used for military purposes only, that individual or corporate rights originating in the information, whether patented or not, will be respected, that the recipient will report promptly to the United States, any known or suspected compromise, and that the information will be provided substantially the same degree of security afforded it by the Department of Defense of the United States. Also, regardless of any other markings on the document, it will not be downgraded or declassified without the written approval of the originating United States Agency.

Distribution Statement B. Distribution authorized to US Government agencies only; administrative and operational user; 1 May 1990. Other requests for this document shall be referred to SA-ALC/XYZABC, Gone AFB, TX 78241-0000.

WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, st seq.) or the Export Administration Act of 1979, as amended (Title 50, U.S.C., App. 2401 et seq.). Violations of these export laws are subject to severe penalties. Dissemination in accordance with provisions of DoD Directive 5230.25.

Destruction Notice - For unclassified, limited documents, destroy by any method that will prevent disclosure of the contents or reconstruction of the document.

1

FIGURE 1. Example of title page for immediate action TCTO.

Downloaded from http://www.everyspec.com

URGENT ACTION

DEPARTMENT OF THE AIR FORCE
TECHNICAL ORDER

TO 1F-16-1140
DATA CODE: 0162903
1 FEBRUARY 1983

Border and Text
Printed in RED

INSPECTION OF CONSTANT SPEED DRIVE (CSD)
ACCUMULATOR MOUNTING BRACKETS,
PART NO. 16P1531-23, F-16A/B AIRCRAFT

NOTE

This technical order formalizes URGENT action TO 1F-16-1140, data code 0162903, dated 4 February 1983. Remove from active files.

1. APPLICATION.

1.1 Identification. This technical order is applicable to the following aircraft:

Model	Serial Numbers
F-16A	AF78-0001, 78-0003, 78-0005, 78-0008, 78-0026, 78-0056 through 78-0059, 78-0061, 78-0064, 78-0128, 78-0146, 78-0152 through 78-0154, 78-0215, 78-0224, 78-0224, 78-0225
F-16B	AF78-0077, 78-0084, 78-0088, 78-0095 through 78-0097, 78-0100, 78-0104, 78-0166, 78-0302, 79-0419, 78-0423, 79-0425, 79-0430, 80-0638, 81-0812, 81-0814 81-0815

1.2 Kit Applicability. Kits are not required by this TCTO.

1.3 Proofing. Kit proof testing, in accordance with TO 00-5-15, has been waived by OO-ALC/XYZTV

2. PURPOSE.
The purpose of this Time Compliance Technical Order (TCTO) is to direct an inspection of the Constant Speed Drive Accumulator Mounting Brackets. Failure of the bracket leading to loss of electrical power in-flight established the requirements for this TCTO. Failure to accomplish this inspection could result in failure of the accumulator mounting bracket and subsequent loss of electrical power.

Disclosure Notice.- This information is furnished upon the condition that it will be not be released to another nation without the specific authority of the Department of the Air Force of the United States, that it will be used for military purposes only, that individual or corporate rights originating in the information, whether patented or not, will be respected, that the recipient will report promptly to the United States, any known or suspected compromise, and that the information will be provided substantially the same degree of security afforded it by the Department of Defense of the United States. Also, regardless of any other markings on the document, it will not be downgraded or declassified without the written approval of the originating United States Agency.

Distribution Statement B. Distribution authorized to US Government agencies only; administrative and operational user; 1 May 1990. Other requests for this document shall be referred to SA-ALC/XYZABC, Gone AFB, TX 78241-0000.

WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, st seq.) or the Export Administration Act of 1979, as amended (Title 50, U.S.C., App. 2401 et seq.). Violations of these export laws are subject to severe penalties. Dissemination in accordance with provisions of DoD Directive 5230.25.

Destruction Notice - For unclassified, limited documents, destroy by any method that will prevent disclosure of the contents or reconstruction of the document.

1

FIGURE 2. Example of title page for urgent action TCTO.

Downloaded from http://www.everyspec.com

DEPARTMENT OF THE AIR FORCE
TECHNICAL ORDER

TO 1C-5-556
DATA CODE: 0170354
1 JULY 1990

INSPECTION OF MAIN LANDING GEAR LOWER BEARING KEY SLOTS, PART NO. 4G94448-105A/B, AND LOCK KEYS, PART NO. 4G14648-101 - C-5A/B AIRCRAFT

NOTE

Commanders are responsible for bringing this technical order to the attention of all Air Force personnel cleared for operation of affected system.

1. APPLICATION.

1.1 Identification. This technical order is applicable to all series C-5A aircraft, and C-5B aircraft, serial numbers AF83-11285 through AF85-0005. The intent of this modification will be accomplished on C-5B aircraft, serial numbers AF85-006 and subsequent by the Contractor during production prior to delivery.

1.2 Kit Applicability by Model and Serial Number.

Model	Serial Number	Kit Required
C-5A	All	A
C-5B	AF83-1285, 84-0059 through 84-0062	A
C-5B	AF85-0001 through 85-0005	B

1.3 Proofing. Kit proof testing, in accordance with TO 00-5-15, was accomplished at SA-ALC, Kelly AFB, Texas, on C-5B aircraft serial number 84-0060, 1 May 1990.

Disclosure Notice - This information is furnished upon the condition that it will not be released to another nation without the specific authority of the Department of the Air Force of the United States, that it will be used for military purposes only, that the individual or corporate rights originating in the information, whether planned or not, will be respected, that the recipient will report promptly to the United States, any known or suspected compromises, and that the information will be provided substantially the same degree of security afforded it by the Department of Defense of the United States. Also regardless of any other markings on the document, it will not be downgraded or declassified without written approval of the originating United States agency.

Distribution Statement B - Distribution authorized to US Government agencies only; administrative and operational use; 1 May 1990. Other requests for the document shall be referred to SA-ALC/XXX, Kelly FB, TX 78241-5990.

WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, et seq.) Or the Export Administration Act of 1979, as amended (Title 50, U.S.C., App. 2401 et seq.). Violators of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5320.25.

Destruction Notice - For unclassified, limited documents, destroy by any method that will prevent disclosure of the contents or reconstruction of the document.

1

FIGURE 3. Example of Routine action TCTO.

Downloaded from http://www.everyspec.com

TO 1C-5-566

2. PURPOSE.

The purpose of this Time Compliance Technical Order (TCTO) is to extend the life of existing Main Landing Gear (MLG) lower bearings and lock keys until new design bearings and keys are available in supply. Excessive failure of lower bearings and keys established requirements for this TCTO. Failure to accomplish this inspection will result in decreased life of the MLG lower bearings. This TCTO incorporates SA-ALC MIP NO. SANDA88-1919.

3. WHEN TO BE ACCOMPLISHED.

Next Home Station Check (HSC) or not later than 60 days after receipt of this TCTO.

4. BY WHOM TO BE ACCOMPLISHED

Organizational/intermediate level maintenance.

5. WHAT IS REQUIRED.

5.1 Supply information and requirements

5.1.1 Kits/parts/materials required. The following parts will be furnished as a complete kit. The following kits shall be requisitioned in accordance with AFM 67-1.

NOTE

AF activities shall ensure that requisitioning of TCTO kits/parts is effected in an expeditious manner to ensure accomplishment of this modification within the designated time period.

QTY Kits A	QTY Kits B	Stock Number	Part Number	Nomenclature	Source
1	-	5310K0168380ALH	-	Kits A and B	AF Supply
-	1	5310K0168380BLH	-	consisting of:	AF Supply
1	1		1C-5-566	Technical order	
1	-	5310-00-807-1467	AN960-616	Nut	AF Supply
-	1	5340-00-854-6556	MS21919-ND32	Bolt	AF Supply
3	2		NAS463XDD616	Spacer	CAGE Code 12345
9 ft	9 ft	1280-00-978-3487	MS2875900ABG18	Wire	AF Supply
3	2		NAS-679C06M	Nut	CAGE Code 12345

5.1.2 Action required on items in chiefs of supply or units stock. The following items in stock shall be modified in accordance with this TCTO prior to issue.

Stock Number	Part Number	Nomenclature	NPPC Code
4321-00-321-1772	4G127695-101	Forward MLG Strut Assembly	-
4321-00-321-1778	4G127696-105	Aft MLG Strut Assembly	4

5.1.3 Kits/Parts/Materials Required to Modify Items in Stock. Same as parts and materials listed in subparagraph 5.1.1.

2

.

FIGURE 3. Example of routine action TCTO - Continued.

Downloaded from http://www.everyspec.com

5.1.4 Disposition of Removed and Replaced Parts/Materials.

NOTE

Parts removed, but not listed, shall be processed to the local Defense Reutilization and Marketing office if unserviceable or not cataloged. Serviceable stock listed items shall not be returned to stock unless the quantity removed exceeds $25.00 line item value.

Stock Number	Part Number	Nomenclature
3120-01-059-1160	MS2140-04C008	Bearing[1]
5306-00-137-3297	NAS654V14D	Bolt[1]
4321-00-321-2846	4G94448-105A/B	Key Slot[1]
4321-00-321-2858	4G14648-101A	Lock Key[1]

[1]Take immediate disposal action through local Defense Reutilization and Marketing Office. Do not record these items as condemnations in records for Stock Balance and Consumption Report or Stock leveling purposes.

5.1.5 Drawings and Instructions Required. Not Applicable.

5.1.6 Size, Weight, and Cost of Kits/Parts/Materials.

Kit	Size	Weight	Cost
A	12 by 12 by 12 inches	10 pounds	$600.00
B	12 by 12 by 12 inches	11 pounds	$623.00

5.1.7 Disposition of Kits/Parts/Materials. Kits remaining in stock after date of compliance of modification requirements shall be reported as excess to kit manager in accordance with AFM 67-1.

5.2 Personnel Information and Requirements.

Work Phases	AFSC Skills	Man-Hours
Unpacking	431X2	0.5
Disassembly	423X4/431X2	2.5
Installation	423X4	2.0
Assembly	423X4/431X2	2.0
Operational	423X4	1.5
	Total Man-hours	8.0

5.3 Special Tools, Fixtures, Test Equipment, and Software Required. These tools will be furnished to using activities upon requisition from SA-ALC/XXXX. After use of these tools is completed, they shall be disposed of as condemned property.

Stock Number	Part Number	Nomenclature
3560-00-173-2937	2560101	Spanner Wrench
3560-01-509-1610	2560103	Spanner Wrench

FIGURE 3. Example of routine action TCTO - Continued.

Downloaded from http://www.everyspec.com

TO 1C-5-566

6. How Work is Accomplished.

NOTE

- Variations in accordance with standard maintenance are permissible, provided the intent of the technical order is accomplished.
- This technical order will only be accomplished on struts mounted in the aircraft or in serviceable stock. Struts being returned for overhaul need not comply with requirements of this technical order.

a. Remove existing lock keys by removing safety wire and lock key bolts.

b. Inspect lock keys for any damage or warping. Replace defective lock keys as required.

c. Inspect bearing key slots for damage. Look for upset metal and worn areas on threaded portion of bearing adjacent to key slots.

WARNING

Failure to support aircraft when releasing upper chamber pressure will cause main landing gear to collapse. Collapse of main landing gear may result in injury to or death of personnel, and damage to equipment.

d. Support aircraft as follows:

(1) Forward MLG struts. Before releasing forward MLG strut upper chamber pressure, service both aft MLG struts to support aircraft.

(2) Aft MLG struts. Before releasing aft MLG strut upper chamber pressure, service both forward MLG struts and install stabilizer Jacks at station 1964 in accordance with TO 1C-5A-2-1 to support aircraft.

e. Release MLG upper chamber pressure in accordance with TO 1C-5A-2-1.

f. Some gland assemblies used as a shim, part no. 4G13438-103A, between gland (packing) nut and lower end of outer cylinder. If shim is not visible, Proceed per paragraph 6.g. below. If shim is visible, proceed as follows:

(1) Using spanner wrench, part no. 256101 to engage packing nut, loosen packing nut seven to nine turns.

(2) Using diagonal cutters, cut shim and remove.

NOTE

Design of lower bering is such that it can rotate in outer cylinder when packing nut is tightened.

g. Use spanner wrench, part no. 2560103 to hold lower bearing.

h. Using spanner wrench, part no. 2560101 to engage packing nut, screw packing nut onto lower bearing until it bottoms.

i. Loosen packing nut until its lock key positions align with the first set of undamaged or lest damaged lower bearing key slots (180 degrees apart).

j. Install lock keys and lock key bolts ensuring that lock keys are pushed as far as possible into bearing key slots while tightening bolts. Torque bolts to 45 ± 5 inch-pounds and safety wire each set of bolts together.

4

FIGURE 3. Example of routine action TCTO - Continued.

Downloaded from http://www.everyspec.com

k. Reservice MLG struts in accordance with TO 1C-5A-2-1.

l. Remove stabilizer jacks in accordance with TO 1C-5A-2-1.

m. Stamp "TO 1C-5-566" on outer cylinder next to name plate.

7. **SUPPLEMENTAL INFORMATION**.

7.1 Fuel System Defuel/Purge. Defueling/purging of the fuel system is not required prior to accomplishing this TCTO.

7.2 Operational Checkout Requirements. The landing gear shall require an operational checkout in accordance with TO 1C-5A-2-10, Landing Gear Checkout Procedure. Functional check flight is not required.

7.3 Weight and Balance Information. Not applicable.

7.4 Technical Manuals Affected.

TO Number	Date of Basic Issue
1C-5A-2-1	10 December 1986
1C-5A-2-10	5 August 1985
1C-5A-2-10CL-1	18 October 1985

8. **RECORDS**.

8.1 Action Required on Maintenance Records.

a. Update AFTO Form 95 to show TCTO compliance.

b. Report TCTO compliance in accordance with TO 00-20-2-2, Table 2-3, Rule 2.

8.2 Action required on Supply Records. Not applicable.

8.3 Retrofit Change or Inspection Identification Marking. TCTO number stamped on outer cylinder next to nameplate.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

RONALD R. FOGLEMAN, General, USAF
Chief of Staff

HENRY VICCELIO, Jr, General, USAF
Commander, AFMC

Prepared by ABCXYZ Co., Dayton OH. (For SA-ALC/XXXX, DSN 787-8564)

FIGURE 3 Example of routine action TCTO - Continued.

Downloaded from http://www.everyspec.com

	TYPE SIZE	PARAGRAPH REFERENCE
HEADING		3.5.2
Designation of Urgency	24	3.5.2.1
Security Classification	24	3.5.2.2
Issuing Activity	14	3.5.2.3
TCTO Number	12	3.5.2.4
Data Code Number	12	3.5.2.5
Date of issuance	12	3.5.2.6
Indicator of safety marking	18	3.5.2.7
Supplement	14	3.6
Title or subject of instructions	18	3.5.2.8
Notes	10	3.5.2.9
Disclosure notice, distribution statement, export control notice and destruction notice	8	3.5.2.10
1. APPLICATION	10	3.5.3
1.1 Identification	10	3.5.3.1
1.2 Kit applicability	10	3.5.3.2
1.3 Proofing	11	3.5.3.3
2. PURPOSE	10	3.5.4
2.1 Identification of TCTO (Record TCTOs)	10	3.5.4
2.2 Purpose (Record TCTOs)	10	3.5.4
3. WHEN TO BE ACCOMPLISHED	10	3.5.5
4. BY WHOM TO BE ACCOMPLISHED	10	3.5.6
5. WHAT IS REQUIRED	10	3.5.7
5.1 Supply information and requirements	10	3.5.7.1
5.1.1 Kits/parts/materials required	10	3.5.7.1.1
5.1.2 Action required on items in chiefs of supply or units stock	10	3.5.7.1.2
5.1.3 Kits/parts/materials required to modify items in stock	10	3.5.7.1.3
5.1.4 Disposition of removed and replaced parts/materials	10	3.5.7.1.4
5.1.5 Drawings and instructions required (record TCTOs only)	10	3.5.7.1.5
5.1.6 Size, weight, and cost of kits/parts/materials	10	3.5.7.1.6
5.1.7 Disposition of kits/parts/materials	10	3.5.7.1.7
5.2 Personnel Information and requirements	10	3.5.7.2
5.3 Special tools, fixtures, test equipment, and software required	10	3.5.7.3
6. HOW WORK IS ACCOMPLISHED	10	3.5.8

FIGURE 4. Outline of TCTOs, elements, and equivalent type sizes.

Downloaded from http://www.everyspec.com

7. SUPPLEMENTAL INFORMATION	10	3.5.9
7.1 Fuel system defuel/purge	10	3.5.9.1
7.2 Operational checkout requirements	10	3.5.9.2
7.3 Weight and balance information	10	3.5.9.3
7.4 Technical manuals affected	10	3.5.9.4
8. RECORDS	10	3.5.10
8.1 Action required on maintenance records	10	3.5.10.1
8.2 Action required on supply records	10	3.5.10.2
8.3 Retrofit change or inspection identification marking	10	3.5.10.3
AUTHORITY	12	3.5.11
Text of paragraphs and subparagraphs	10	

BORDER MARKINGS

Immediate Action TCTO

"X" Cross pieces	(approx) 3/32-inch
	(approx) 9/32-inch width

Urgent Action TCTO

"X"	(approx) 3/32-inch
	(approx) 9/32-inch width
	Spacing (approx) 9/16-inch (measured from center Xs)
"/"	(approx) 1/16-inch
	45 degree angle - between Xs

FIGURE 4. Outline of TCTOs, elements, and equivalent type sizes - Continued.

Downloaded from http://www.everyspec.com

DEPARTMENT OF THE AIR FORCE
TECHNICAL ORDER

TO 1F-16-1140
DATA CODE:0169354
3 AUGUST 1987

RED ➪ SAFETY TIME COMPLIANCE TECHNICAL ORDER ⇦ *RED*

INSTALLATION OF AIR FORCE SEAWATER ACTIVATED RELEASE SYSTEM (SEWARS) ON ALL F-16 ACES II PARACHUTES, PART NO. JII4509-523

NOTE

Commanders are responsible for brining this technical order to the attention of all Air Force personnel cleared for operation of affected system.

1. **APPLICATION**.

1.1 Identification. This technical order is applicable to all series F-16 aircraft with ACES II personnel parachutes.

1.2 **Kit Applicability**. Kits are not required by this TCTO.

1.3 Proofing. Kit proof testing in accordance with TO 00-5-15, was accomplished at Eglin AFB, Florida, on F-16C aircraft serial number 84-1285, 10 September 1986.

2. **PURPOSE**.

The purpose of this technical order is to effect removal of the ACES II Recovery Parachute Assembly and installation of the Air Force Seawater Activated Release System (SEWARS) in accordance with TO 14D3-10-509, data code 1400700, dated 3 August 1987.

3. **WHEN TO BE ACCOMPLISHED**.

a. Not later than 90 days after receipt of this TCTO. Failure to accomplish this TCTO by the preceding specified number of days shall Automatically restrict operations or shall be justification for withdrawing affected system/equipment from service until compliance is accomplished.

b. The work required by this technical order shall be accomplished concurrently with the work required by TO 14D3-10-509, data code 1400700, dated 3 August 1987.

Disclosure Notice - This information is furnished upon the condition that it will not be released to another nation without the specific authority of the Department of the Air Force of the United States, that it will be used for military purposes only, that individual or corporate rights originating in the information, whether patented or not , will be respected, that the recipient will report promptly to the United States, any known or suspected compromise, and that the information will be provided substantially the same degree of security afforded it by the Department of Defense of the United States. Also, regardless of any other markings on the document, it will not be downgraded or declassified without written approval of the originating United States agency.

Distribution Statement B - Distribution authorized to US Government agencies only; administrative and operational use; 1 May 1990. Other requests for this document shall be referred to SA-ALC/XXXX, Kelly AFB, TX 78241-5990.

WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, et. seq.) or the Export Administration Act of 1979, as amended (T9tle 50, U.S.C., App. 2401 et seq.). Violators of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.

Destruction Notice.- For unclassified, limited documents, destroy by any method that will prevent disclosure of the contents or reconstruction of the document.

1

FIGURE 5. Example of title page for routine action TCTO with indicator of safety marking.

Downloaded from http://www.everyspec.com

DEPARTMENT OF THE AIR FORCE
TECHNICAL ORDER

TO 1C-5-556C
DATA CODE: 0170365
21 AUGUST 1990

SUPPLEMENT TO BASIC TECHNICAL ORDER
INSPECTION OF MAIN LANDING GEAR LOWER BEARING KEY SLOTS, PART NO. 4G9448-105A/B, AND LOCK KEYS, PART NO. 4G14648-101A - C-5A/B AIRCRAFT

NOTE

This technical order supplements TO 1C-5-566, data code 0170354, dated 1 July 1990, to make corrections as indicated herein. No additional work is required by this supplement. A SUITABLE REFERENCE TO THIS SUPPLEMENT SHALL BE MADE ON PAGE 1 AND OPPOSITE EACH AFFECTED PARAGRAPH OR FIGURE IN THE BASIC PUBLICATION.

1. Page 4, paragraph 6j of basic technical order is amended to read:

   J. Install lock keys and lock key bolts ensuring that lock keys are pushed as far as possible into bearing key slots while tightening bolts. Torque bolts to 85 ± 10 inch-pounds and safety wire each set of bolts together.

BY ORDER OF THE SECRETARY OF THE AIR FORCE

RONALD R. FOGLEMAN, General, USAF
Chief of Staff

HENRY VICCELLIO, Jr, General, USAF
Commander, AFMC

Prepared by ABCXYZ Co, Dayton, OH. (For SA-ALC/XXXX, DSN 787-8564)

Disclosure Notice - This information is furnished upon the condition that it will not be released to another nation without the specific authority of the Department of the Air Force of the United States, that it will be used for military purposes only, that individual or corporate rights originating in the information, whether patented or not, will be respected, that the recipient will report promptly to the United States, any known or suspected compromise, and that the information will be provided substantially the same degree of security afforded by the Department of Defense of the United States. Also, regardless of any other markings on the document, it will not be downgraded or declassified without written approval of the originating United States agency.

Distribution Statement B - Distribution authorized US Government agencies only; administrative and operational use; 1 May 1990. Other requests for this document shall be referred to SA-ALC/XXXX, Kelly AFB, TX 78241-5990.

WARNING - This document contains technical data whose export is restricted by the Arms Export Control Act (Title 22, U.S.C., Sec 2751, et. seq.) Or the Export Administration Act of 1979, as amended (Title 50, U.S.C., App 2401 et. seq.). Violators of these export laws are subject to severe criminal penalties. Disseminate in accordance with provisions of DoD Directive 5230.25.

Destruction Notice - For unclassified, limited documents, destroy by any method that will prevent disclosure of the contents or reconstruction of the document.

1/(2 blank)

FIGURE 6. Example TCTO supplement page.

Downloaded from http://www.everyspec.com

TO 1C-135-1131

7.3 Weight and Balance Information. Documentation of the weight and balance changes resulting from accomplishment of this TCTO is required per TO 1-1B-50. The following is the weight and balance summary data of installed and removed items due to this TCTO.

7.3.1 Chart A Entry Information:

NOTE

When a Chart A entry is required and an aircraft inventory is not accomplished, the date of the entry must be placed (in pencil) in the item description column of Chart A. Marks in the "IN AIRCRAFT" and "CHART C ENTRY" columns of Chart A are made only at the time of a complete aircraft inventory.

Item No.	Item Description		Weight	Arm	Moment/1000
Center Instrument Panel					
B-	Unit, Remote Display	372-029-001	3.0	197	0.59
B-	Panel, Integrated Fuel Management	372-028-001	27.5	203	5.58
B-	Unit, Integrated Control Display	622-5647-001	10.0	203	2.03
Lower Fuselage Compartment					
BB-	Computer, Fuel Management	367-046-001	48.0	220	10.56
BB-	FMC Tray Installation	82-01925-001	12.5	360	4.50
Electronic Equipment Cabinet					
B-	Unit, Bus/Subsystem Interface	622-5648-001	10.0	360	3.60
B-	Computer, Fuel Savings Advisory	7893005-031	26.2	360	9.43
B-	`FSA Pallet Installation	82-01101-001	12.5	360	4.50

7.3.2 Chart C Entry Information:

Added

Item No.	Item Description		Weight	Arm	Moment/1000
Center Instrument Panel					
B-	Unit, Remote Display	372-029-001	3.0	197	0.59
B-	Panel, Integrated Fuel Management	372-028-001	27.5	203	5.58
B-	Unit, Integrated Control Display	622-5647-001	10.0	203	2.03
B-	Pedestal Installation	82-01060-001	25.0	203	5.08
B-	Wiring and Cabling Installation	82-01209-001	75.0	220	16.50
Lower Fuselage Compartment					
BB-	Computer, Fuel Management	367-046-001	48.0	220	10.56
BB-	FMC Tray Installation	82-01925-001	8.0	220	1.76

100

FIGURE 7. Example weight and balance data

Downloaded from http://www.everyspec.com

Added - Continued:

Item No.	Item Description		Weight	Arm	Moment/1000
Electronic Equipment Cabinet					
B-	Unit, Bus/Subsystem Interface	622-5648-001	10.0	360	3.60
B-	Computer, Fuel Savings Advisory	7893005-031	26.2	360	9.43
B-	FSA Pallet Installation	82-01101-001	12.5	360	4.50
Removed					
Center Console					
B-	Panel, Fuel Control	-	20.0	203	4.06
B-	Pedestal Assembly	-	15.0	203	3.05
B-	Unit, Control Display	7891250-011	3.8	206	0.80
B-	Panel, CDU Select	7027-21400-1	0.5	206	0.10
B-	Wiring and Cables	-	10.0	220	2.20
Lower Fuselage					
BB-	Unit, Summation	-	10.0	222	2.20

7.3.3 Overall Change in Basic Weight + 194.4 pounds
Overall Change in Basic Moment + 49.1 inch-pounds/1000

FIGURE 7. Example weight and balance data - Continued..

Downloaded from http://www.everyspec.com

TIME COMPLIANCE TECHNICAL ORDERS
DOCUMENT TYPE DEFINITION (DTD)
APPENDIX A

A.1 SCOPE.

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

A.2 APPLICABLE DOCUMENTS.

A.2.1 Government documents.

A2.1.1 Specifications, standards, and handbooks. The following performance specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

Military

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

STANDARDS

Federal Information Processing Standards

FIPS PUB 152	-	Standard Generalized Markup Language (SGML)

A.2.2 Non-Government publications.

ISO 8879	-	Information Processing - Text and Office Systems - Standard Generalized Markup Language (SGML)

(Application for copies should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.)

A.3 DOCUMENT TYPE DEFINITION.

A.3.1 SGML document type definition. Data to be delivered digitally in accordance with this specification shall be tagged using the DTD found in this Appendix. The procedure for accomplishing this is found in MIL-PRF-28001 and FIPS PUB 152 (ISO 8879).

A.3.2 Template document type for time compliance technical orders (TCTO). The DTD for TCTOs is as follows:

Downloaded from http://www.everyspec.com

APPENDIX A

```
<!-- ********************** START OF FILE ********************** -->
<!-- The following set of declarations may be referred to by using a
public entity as follows:
<!ENTITY % m38804 PUBLIC
      "-//USA-DOD//DTD MIL-PRF-38804 TCTO//EN" >
%m38804;
-->
<!-- NOTE: In order to parse the following DTD subset alone, append
the following statement to the beginning of the file:
     <!DOCTYPE doctcto [
and the associated "]>" to the end of the file. -->
<!-- ENTITY DECLARATIONS -->
<!ENTITY % wb "(itemnowb, descwb, partnowb, weight, arm, momentwb)+" >
<!ENTITY % supp "IGNORE" >
<!ENTITY % shortitleuse "IGNORE" >
<![ %shortitleuse; [
<!ENTITY % shortitle ", shorttitle?" >
]]>
<!ENTITY % shortitle " " >
<!ENTITY % titles "title %shortitle;" >
<!ENTITY % bodyele "application, purpose, timelimit, maintlevel, req,
howaccomp, suppleinfo, record, authority" >
<!ENTITY % idinf "(tmidno, datacode, issdate, suppl?, prtitle,
contractno?, note*, discl?, distrib, expcont?, destr?)" >
<!ENTITY % nparcon "(warning*, caution*, note*, (title %shortitle;)?,
(para,note*)?, (step1, step1+)?)" >
<!ENTITY % nparcon1 "(warning*, caution*, note*, (title %shortitle;)?,
(para,note*)?, (step1, step1+)?)" >
<!ENTITY % tctopara0 "((%titles;)?, warning*, caution*, note*, (para,
note*)?, (step1, step1+)?, subpara1*)" >
<!ENTITY % frnt "(idinfo)" >
<!ENTITY % rr "(appendix+)" >
<!-- Redefined % tabl so we would not have to have table titles and
```

Downloaded from http://www.everyspec.com


```
numbers in the TCTO. -->
<!ENTITY % tabl "tgroup+" >
<![ %supp; [
<!ENTITY % m38784-supp PUBLIC "-//USA-DOD//DTD MIL-STD-38784 SUPP//EN"
>
%m38784-supp;
<!ENTITY % m38784use "IGNORE" >
]]>
<!ENTITY % m38784 PUBLIC "-//USA-DOD//DTD MIL-STD-38784//EN" >
<!ENTITY % m38784use "INCLUDE" >
<![ %m38784use; [
%m38784;
]]>
<!ENTITY additional "Additional work is required by this issue." >
<!ENTITY accounting "Property accounting personnel shall verify the
intended application of the item requisitioned to insure that
demodification will not result. Positive supply action shall be taken
based upon results of verification of proper application." >
<!ENTITY basesupply "Base Supply: Load applicable exception codes to
the records to prevent automatic issue to customer in accordance with
AFM 67-1,Volumn II, Part Two, Chapter 11." >
<!ENTITY depotsupport "Depot Support: Manager review code the listed
items to prevent automatic issue." >
<!ENTITY chartanote "When a Chart A entry is required and an aircraft
inventory is not accomplished, the date of the entry must be placed (in
pencil) in the item description column of chart A. Marks in the 'IN
AIRCRAFT' and 'CHART C ENTRY' columns of Chart A are made only at the
time of a complete aircraft inventory." >
<!ENTITY commanders "Commanders are responsible for bringing this
technical order to the attention of all Air Force personnel cleared for
operation of the affected system." >
<!ENTITY currency "Technical orders packed with kits shall be checked
for currency against the latest applicable index prior to use." >
<!ENTITY ewo "EWO missiles are not affected by this TCTO." >
<!ENTITY followparts "The following parts will be furnished as a
complete kit. The following kits shall be requisitioned in accordance
with AFM 67-1." >
```

Downloaded from http://www.everyspec.com

APPENDIX A

<!ENTITY invmanager "Inventory Manager: Manager review code 'T' shall be assigned item(s) listed below to insure that shipments are not made to Air Force activities until proper application is confirmed." >

<!ENTITY kitfnotreq "Kits are not required by this TCTO." >

<!ENTITY launch "Launch facilities shall not be removed from alert status solely for compliance with the TCTO. Instead, compliance shall be accomplished during unscheduled maintenance periods." >

<!ENTITY nochange "There are no weight or balance changes resulting from the instructions contained herein." >

<!ENTITY noformreq "No new form entry required. Change publication date and number, as necessary." >

<!ENTITY partsnot "The following parts/material required to comply with this technical order are not furnished in the kit and shall be obtained through the appropriate supply source." >

<!ENTITY partsremoved "Parts removed, but not listed, shall be processed to the local Defense Reutilization and Marketing office if unserviceable or not cataloged. Serviceable stock listed items shall not be returned to stock unless the quantity removed exceedes $25.00 line item value." >

<!ENTITY record "This is a Record TCTO and is not complete within itself. The purpose of this TCTO is to identify the retrofit change, tabulate all affected systems or equipment, index all necessary drawings and instructions, and list all parts necessary for accomplishment." >

<!ENTITY removeditems "Recoverable items removed/replaced during a

modernization program shall be bench checked for serviceability, returned to Air Force inventory or repaired in accordance with directions provided by the IM. Retail supply systems shall report serviceable and unserviceable recoverable assets to the applicable IM for disposition action. ">

<!ENTITY requisition "AF activities shall insure that requisitioning of TCTOkits/parts is effected in an expeditious manner to ensure accomplishment of this TCTO within the designated time period." >

<!ENTITY single "This TCTO is issued under the single TCTO method. No companion aircraft or Commodity TCTO(s) will be issued." >

<!ENTITY suppadd "(No additional work is required by this supplement. OR additional work is required by this supplement and appropriate reference shall be entered on [specific Maintenance Form/Record] for the supplement affected and an AFTO Form 349 submitted.)" >

<!ENTITY supply "Supply records shall be appropriately annotated to reflect that the following part(s) shall not be issued for an unauthorized application." >

Downloaded from http://www.everyspec.com

APPENDIX A

```
<!ENTITY supplyinfo "AF activities will insure that requisitioning of
TCTO kits/parts is effected in an expeditious manner to ensure
accomplishment of this TCTO within the designated time period." >

<!-- ELEMENT and ATTRIBUTE LIST DECLARATIONS -->
<!ELEMENT actionreqstk     - o  (%nparcon1;, instock?, subpara3*) >
<!ATTLIST actionreqstk     %sub2att;
                           %secur; >

<!ELEMENT actmaintrec      - -  (%nparcon;, subpara2*, maintaccomp?,
                           inventory?) >
<!ATTLIST actmaintrec      %sub1att;
                           %secur; >

<!ELEMENT actsupplyrec     - o  (%nparcon;, subpara2*, (suprectable,
                           subpara2*)?) >
<!ATTLIST actsupplyrec     %sub1att;
                           %secur; >

<!ELEMENT addedwb          - o ((compartment, wbtable)+) >
<!ATTLIST addedwb          %secur; >

<!ELEMENT added            - -  (inventable) >

<!ELEMENT afmc             - o  (#PCDATA) >

<!ELEMENT afsc             - o  (%text;) >
<!ATTLIST afsc             %secur; >

<!ELEMENT application      - o  (ident, kitapplic, tctoproof) >
<!ATTLIST application      %para0att;
                           %secur; >
<!ELEMENT arm              - o  (%text;) >
<!ATTLIST arm              %secur; >

<!ELEMENT assem            - o  (na | (afsc, manhours)+) >
<!ATTLIST assem            %secur; >

<!ELEMENT authority        - o  (usaf, afmc, prepby) >
<!ATTLIST authority        %secur; >

<!ELEMENT billmat          - - (%tabl;)   +(tfnid | tfnref |
                           tfndisplay) >
<!ATTLIST billmat          %tabatts; >

<!ELEMENT cage             - o  (%text;) >
<!ATTLIST cage             %secur; >
```

Downloaded from http://www.everyspec.com


```
<!ELEMENT charta          - - (%nparcon1;, (compartment, wbtable)+)
                          +(note)>
<!ATTLIST charta          constant NUMBER #REQUIRED
                          %sub2att;
                          %secur; >

<!ELEMENT chartc          - -  (%nparcon1;, addedwb?, removedwb?)
                          +(note) >
<!ATTLIST chartc          %sub2att;
                          %secur; >

<!ELEMENT compartment     - o  (%text;) >
<!ATTLIST compartment     %secur; >

<!ELEMENT cost            - o  (%text;) >
<!ATTLIST cost            %secur; >

<!ELEMENT cpin            - o  (%text;) >
<!ATTLIST cpin            %secur; >

<!ELEMENT cpinlist        - -  (%nparcon1;, cpintable)   +(note) >
<!ATTLIST cpinlist        %sub2att;
                          %secur; >
<!ELEMENT cpintable       - -  (cpin, cpintitle, cpindate)+ +(tfnid |
                          tfnref) >
<!ELEMENT (cpintitle,
          cpindate)       - o  (#PCDATA) >

<!ELEMENT datacode        - o  (#PCDATA) >
<!ATTLIST datacode        %secur; >

<!ELEMENT descwb          - o  (%text;) >
<!ATTLIST descwb          %secur; >

<!ELEMENT disassem        - o  (na | (afsc, manhours)+) >
<!ATTLIST disassem        %secur; >

<!ELEMENT disp            - o  (%nparcon1;, subpara3*) >
<!ATTLIST disp            %sub2att;
                          %secur; >

<!ELEMENT displist        - -  ((warning?, note?, disptable)+) >
<!ATTLIST displist        %secur; >

<!ELEMENT disposition     - o  (%text;) >

<!ELEMENT disptable       - - ((stockno, partno, nomen)+, tfndisplay)
                          +(tfnid | tfnref)>
```

Downloaded from http://www.everyspec.com


```
<!ELEMENT disprr          - o  (%nparcon1;, displist?, subpara3*)
                          +(note)>
<!ATTLIST disprr          %sub2att;
                          %secur; >

<!ELEMENT doctcto         - -  (front, body)   +(pgbrk | brk |
                          figure|table | line) >
<!ATTLIST doctcto         service %service; 'AF'
                          %docatt;
                          %secur;
                          urgency (immed | urgent | routin) "routin"
                          safety %yesorno; "0" >

<!ELEMENT drawinst        - o  (%nparcon1;, drawtable?, subpara3*) >
<!ATTLIST drawinst        %sub2att;
                          %secur; >

<!ELEMENT drawtable       - -  (drawno, cage, date, rev?, source)+
                          +(tfnid | tfnref)>

<!ELEMENT drawno          - o  (%text;) >
<!ATTLIST drawno          %secur; >

<!ELEMENT fsc             - o  (%text;) >
<!ATTLIST fsc             %secur; >

<!ELEMENT fuelpurge       - o  (%nparcon;, subpara2*) >
<!ATTLIST fuelpurge       %sub1att;
                          %secur; >
<!ELEMENT groupdesc       - o  (%text;) >
<!ATTLIST groupdesc       %secur; >

<!ELEMENT howaccomp       - o  (%tctopara0;) >
<!ATTLIST howaccomp       %para0att;
                          %secur; >

<!ELEMENT ident           - o  (%nparcon;, subpara2*) >
<!ATTLIST ident           %sub1att;
                          %secur; >

<!ELEMENT install         - o  (na | (afsc, manhours)+) >
<!ATTLIST install         %secur; >

<!ELEMENT instock         - -  (((stockno | cage), nppc?, partno,
                          nomen)+)+(tfnid | tfnref) >
<!ATTLIST instock         %secur; >
```

Downloaded from http://www.everyspec.com


```
<!ELEMENT inventory        - -  (%nparcon1;, subpara3*, added?,
                           removed?, relocated?) >
<!ATTLIST inventory        %sub2att;
                           %secur; >

<!ELEMENT inventable       - -  (qty, nomen, invlocation)+ >

<!ELEMENT issdate          - o  (#PCDATA) >
<!ATTLIST issdate          %secur; >

<!ELEMENT itemnowb         - o  (%text;) >
<!ATTLIST itemnowb         %secur; >

<!ELEMENT kit              - o  (%text;) >
<!ATTLIST kit              %secur; >

<!ELEMENT kitapplic        - o  (%nparcon;) >
<!ATTLIST kitapplic        %sub1att;
                           %secur; >

<!ELEMENT kitreq           - o  (%nparcon1;, ((billmat?, kitwaiver?) |
                           partsreq?), subpara3*) >
<!ATTLIST kitreq           %sub2att;
                           %secur; >

<!ELEMENT kitreqmod        - o  (%nparcon1;, billmat?, kitwaiver?,
                           subpara3*) >
<!ATTLIST kitreqmod        %sub2att;
                           %secur; >

<!ELEMENT kittable         - -  (qty, stockno?, partno, nomen, (source
                           |cage))+ +(tfnid | tfnref)>
<!ATTLIST kittable         quadding (center | left) #IMPLIED>

<!ELEMENT kitwaiver        - -  (%nparcon1;, kittable?)   +(ftnote) >
<!ATTLIST kitwaiver        %sub3att;
                           %secur; >

<!ELEMENT maintaccomp      - -  (partno, cage, fsc, srd, wuc)+ +(tfnid
                           | tfnref) >
<!ATTLIST maintaccomp      %secur; >

<!ELEMENT maintlevel       - o  (%tctopara0;) >
<!ATTLIST maintlevel       %para0att;
                           %secur; >

<!ELEMENT manhours         - o  (%text;) >
<!ATTLIST manhours         %secur; >
```

Downloaded from http://www.everyspec.com


```
<!ELEMENT markings          - o  (%nparcon;, subpara2*) >
<!ATTLIST markings          %sub1att;
                            %secur; >

<!ELEMENT moment            - o  (%text;) >
<!ATTLIST moment            %secur; >

<!ELEMENT momentwb          - o  (%text;) >
<!ATTLIST momentwb          %secur; >

<!ELEMENT na                - o  EMPTY >

<!ELEMENT nppc              - o (#PCDATA) >

<!ELEMENT opcheckout        - o  (na | (afsc, manhours)+) >
<!ATTLIST opcheckout        %bodyatt;
                            %secur; >

<!ELEMENT opco              - o  (%nparcon;, subpara2*) >
<!ATTLIST opco              %sub1att;
                            %secur; >

<!ELEMENT overall           - o  (weight, moment) >
<!ATTLIST overall           %secur; >

<!ELEMENT partnowb          - o (#PCDATA) >

<!ELEMENT partsreq          - -  (%nparcon1;, (groupdesc?, partstable)+)
                            >
<!ATTLIST partsreq          %sub3att;
                            %secur; >

<!ELEMENT partstable        - -  (qty, partno, nomen, fsc)+ +(tfnid |
                            tfnref)>

<!ELEMENT persnreq          - o  (%nparcon;, (persnreqtable | table),
                            subpara2*) >
<!ATTLIST persnreq          %sub1att;
                            %secur; >

<!ELEMENT persnreqtable     - -  (unpack, disassem, install, assem,
                            opcheckout, totalmh) +(tfnid|tfnref)>

<!ELEMENT prepby            - o  (#PCDATA) >
<!ELEMENT purpose           - o (%tctopara0;) >
<!ATTLIST purpose           %para0att;
                            %secur; >
```

Downloaded from http://www.everyspec.com


```
<!ELEMENT qty              - o  (#PCDATA) >
<!ATTLIST qty              %secur; >

<!ELEMENT record           - o  (actmaintrec, actsupplyrec, markings?)>
<!ATTLIST record           %para0att;
                           %secur; >

<!ELEMENT relocated        - -  (inventable) >

<!ELEMENT removedwb        - o  ((compartment, wbtable)+) >
<!ATTLIST removedwb        %secur; >

<!ELEMENT removed          - -  (inventable) >

<!ELEMENT req              - o  (supplyreq, persnreq, spectools) >
<!ATTLIST req              %para0att;
                           %secur; >

<!ELEMENT rev              - o  (%text;) >
<!ATTLIST rev              %secur; >

<!ELEMENT size             - o  (%text;) >
<!ATTLIST size             %secur; >

<!ELEMENT source           - o  (%text;) >
<!ATTLIST source           %secur; >

<!ELEMENT spectools        - o  (%nparcon;, stteflist?, cpinlist?,
                           subpara2?)>
<!ATTLIST spectools        %sub1att;
                           %secur; >

<!ELEMENT srd              - o  (%text;) >
<!ATTLIST srd              %secur; >

<!ELEMENT stockno          - o  (%text;) >
<!ATTLIST stockno          %secur; >

<!ELEMENT stteflist        - -  (%nparcon1;, stteftable)   +(note) >
<!ATTLIST stteflist        %sub2att;
                           %secur; >

<!ELEMENT stteftable       - -  (stockno, partno, nomen)+ +(tfnid |
                           tfnref)>

<!ELEMENT suppleinfo       - o  (fuelpurge, opco, weightbal,
                           tmaffected)>
<!ATTLIST suppleinfo       %para0att;
```

Downloaded from http://www.everyspec.com


```
                          %secur; >

<!ELEMENT supplyreq       - o  (kitreq, actionreqstk, kitreqmod,
                          disprr, drawinst, swc, disp) >
<!ATTLIST supplyreq       %sub1att;
                          %secur; >

<!ELEMENT suprectable     - -  (stockno, partno, nomen)+ +(tfnid |
                          tfnref)>

<!ELEMENT swc             - -  (%nparcon1;, swctable?, subpara3*) >
<!ATTLIST swc             %sub2att;
                          %secur; >

<!ELEMENT swctable        - -  (kit, size, weight, cost)+ +(tfnid |
                          tfnref)>

<!ELEMENT invlocation     - o  (#PCDATA) >
<!ATTLIST invlocation     %secur; >

<!ELEMENT tctoproof       - o  (%nparcon;, subpara2*) >
<!ATTLIST tctoproof       %sub1att;
                          %secur; >

<!ELEMENT timelimit       - o  (%tctopara0;) >
<!ATTLIST timelimit       %para0att;
                          %secur; >

<!ELEMENT tmaffected      - -  (%nparcon;, tmtable?, subpara2*) >
<!ATTLIST tmaffected      %sub1att;
                          %secur; >

<!ELEMENT tmtable         - -  (tmidno, pubdate)+ >

<!ELEMENT totalmh         - o (#PCDATA) >

<!ELEMENT unpack          - o  (na | (afsc, manhours)+) >
<!ATTLIST unpack          %secur; >

<!ELEMENT usaf            - o  (#PCDATA) >

<!ELEMENT wbtable         - - (%wb;) >

<!ELEMENT weight          - o  (%text;) >
<!ATTLIST weight          %secur; >

<!ELEMENT weightbal       - o  (%nparcon;, (charta, chartc, overall)?,
                          subpara2*) >
```

Downloaded from http://www.everyspec.com


```
<!ATTLIST weightbal        %sub1att;
                           %secur; >

<!ELEMENT wuc              - o  (%text;) >
<!ATTLIST wuc              %secur; >
<!-- ************************ END OF FILE ************************ -->
```

A.4 DETAILED DESCRIPTION.

A.4.1 Document type definition. The DTD within this appendix provides the structure and content of documents prepared in accordance with this performance specification. The DTD is available in digital format. See A.5 for information on obtaining the file.

A.4.2 Tag description table. The tag description table provides detailed descriptions of the tags above. It provides the element tagging structure, full element name, tag minimization requirements, element structure, referencing elements, source paragraph, and attribute descriptions unique to the element. See A.5 for information on obtaining this table.

A.4.3 Attribute description table. The attribute description table provides detailed descriptions of the attributes above. See A.5 for obtaining this table.

A.5 OBTAINING FILES.

A.5.1 Obtaining files. The DTD, attribute and tag description tables are available as ASCII files by either of two methods (see A.5.1.1 and A.5.1.2). In the event of a conflict between the text of this document and any downloaded files, the text of this document takes precedence. These files are for convenience and informational purposes only.

A.5.1.1 File Transfer Protocol (FTP). The procedures for obtaining files via FTP are as follows.

a. Connect to "WPCDSO1.wpafb.af.mil" using the FTP software available at your site. For example, if your FTP software is invoked using the "ftp" command, type "ftp WPCDSO1.wpafb.af.mil". Do not attempt to log-in to this site using a "telnet connection. If this connection fails, connect using "129.52.152.8".

b. Log-in (login, name, remote user name, etc.) as "ftp" and press "enter".

c. For password, type electronic mail (e-mail) name followed by "@" (at) and press "enter".

d. Type “cd sgml” (or the command your system requires to change to "sgml" directory) and press "enter". At this point, a short new users message will normally appear. If the new users message does not appear, it should be downloaded and read. Download file by typing "get.message" (or the command your system requires to download a file) and press "enter".

e. Type "get filelist.txt" (or the command your system requires to download a file and press "enter". This file contains a list of all files available. This file is updated as new items are added, therefore it should be downloaded and read before downloading any other file.

f. If the needed file ends with ".zip", see g. below, otherwise type "asc" (or the command your system requires for and ASCII transfer) and press "enter". Type "get XXXXXX.XXX" (where XXXXXX.XXX is the name of the file to be downloaded) and press "enter" to download needed file. Repeat for each file to be downloaded.

Downloaded from http://www.everyspec.com

g. If the needed file ends with ".zip", type "bin" (or the command your system requires for a binary transfer) and press "enter". Type "get XXXXXX.XXX" (where XXXXXX.XXX is the name of the file to be downloaded) and press "enter" to download needed file. Repeat for each file to be downloaded. Zipped files were compressed using PKZIP Version 2.04.

h. File "nc.txt" contains information on the naming conventions used on all files in this directory. Type "get nc.txt" to download this file.

A.5.1.2 World Wide Web (WWW). Obtain files via the Air Force Product Data Systems Modernization (PDSM) Program Office (AFPPO) home page at http://www.pdsm.wpafb.af.mil/. Select TMSS from the graphical menu and follow the directions presented.

Downloaded from http://www.everyspec.com

Downloaded from http://www.everyspec.com

TIME COMPLIANCE TECHNICAL ORDER SUPPLEMENT DOCUMENT TYPE DEFINITION (DTD) SUBSET APPENDIX B

B.1 SCOPE.

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

B.2 APPLICABLE DOCUMENTS.

B.2.1 Government documents.

B.2.1.1 Specifications, standards, and handbooks. The following performance specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

SPECIFICATIONS

Military

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

STANDARDS

Federal Information Processing Standards

FIPS PUB 152	-	Standard Generalized Markup Language (SGML)

B.2.2 Non-Government publications.

ISO 8879	-	Information Processing - Text and Office Systems - Standard Generalized Markup Language (SGML)

(Application for copies should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.)

B.3 DOCUMENT TYPE DEFINITION.

B.3.1 SGML document type definition. Data to be delivered digitally in accordance with this specification shall be tagged using the DTD found in this Appendix. The procedure for accomplishing this is found in MIL-PRF-28001 and FIPS PUB 152 (ISO 8879).

Downloaded from http://www.everyspec.com

APPENDIX B

B.3.2 Template document type for time compliance technical orders (TCTO) supplements. The DTD for TCTO supplements is as follows:

```
<!-- ******************** START OF FILE ********************** -->

<!-- SUPPLEMENT NOTICE:    This file is made available to provide the
user with a digital representation of the DTD found in Appendix B of
MIL-PRF-38804C.  This file is incomplete without MIL-T-38804B. -->

<!-- NOTE: The start and end of this file are marked with a row of
asterisks. If these rows are not present the file may not be complete!
-->

<!-- MIL-PRF-38804 Supplement DTD -->

<!-- The following set of declarations may be referred to by using a
public entity as follows:

<!ENTITY % m38804supp PUBLIC

    "-//USA-DOD//DTD MIL-PRF-38804 SUPP//EN" >

%m38804supp;

-->

<!-- NOTE: In order to parse the following DTD subset alone, append the
following statement to the beginning of the file:

     <!DOCTYPE doctctosupp [

and the associated "]>" to the end of the file. -->

<!-- ENTITY DECLARATIONS -->

<!ENTITY % supp "INCLUDE" >

<!ENTITY % m38804 PUBLIC

      "-//USA-DOD//DTD MIL-PRF-38804//EN" >

<!ENTITY % bodyele "(para, (warning | caution | note | para0 | subpara1
| subpara2 | subpara3 | step1 | step2 | step3 | step4 | step5 | step6 |
step7)?)+" >

<!ENTITY % idinf "(tmidno, datacode, issdate,contractno?, prtitle,
suppl, note*, discl?, distrib, expcont?, destr?)" >

%m38804;

<!ELEMENT doctctosupp      - -  (front, body)  +(pgbrk | brk | figure |
                           table | line) > <!ATTLIST doctctosupp
                           service %service; "AF"

                           %docatt;

                           %secur; >

<!-- ******************** END OF FILE ******************** -->
```

Downloaded from http://www.everyspec.com

APPENDIX B

B.4.1 Document type definition. The DTD within this appendix provides the structure and content for Time Compliance Technical Order Supplement structure and content in accordance with this performance specification. See A.5 for information on obtaining this file in digital format.

B.4.2 Tag description table. The tag description table provides detailed descriptions of the tags above. See A.5 for information on obtaining this file in digital format.

B.4.3 Attribute description table. The attribute description table provides detailed descriptions of the attributes above. See A.5 for information on obtaining this file in digital format.

B.5 OBTAINING FILES.

B.5.1 Obtaining files. See A.5 for procedures to download this DTD, attribute table, and tag description table.

Downloaded from http://www.everyspec.com

Downloaded from http://www.everyspec.com

INDEX

	Para	Page
Acquisition requirements	6.2	22
Action required on items in units stock	3.5.7.1.2	11
Action required on maintenance records	3.5.10.1	18
Action required on supply records	3.5.10.2	18
Additional notes	3.5.2.9.3	7
Additional statements	3.5.5.4	9
Additional work	3.6.2	19
Additional work required	3.5.10.1.3	18
Affected operational procedures	3.5.2.9.2	7
AFMC Forms 873 and 874	6.5	24
Air Force Instructions		2
Air Force Technical Manuals		2
Aircraft/aircraft equipment weight and balance	3.5.9.3.4	17
Appendix A TCTO DTD		39
Appendix B TCTO Supplement DTD		51
Applicable Documents	2	1
Arrangement	3.5.1	5
Authority	3.5.11	19
Authority to issue	3.4	4
Bill of materials	3.5.7.1.1.2	11
By whom to be accomplished	3.5.6	9
Change symbols	3.8.3	21
Completeness	3.5.8.2	15
Compliance time period	3.2.3.1	4
Contract end item number	3.5.2.8.1	6
Data code number	3.5.2.5	5
Date of issuance	3.5.2.6	6
Definitions	6.4	23
Defuel/purge determination	3.5.9.1.1	16
Demilitarization	3.5.8.8	16
Designation of urgency	3.5.2.1	5
Destruction notice	3.5.2.10	7
Detail	1.2	1
Development of contents	3.7	20
Dimension and spacing of overlays	3.8.1.1	21
Disposition of kits/parts/materials	3.5.7.1.7	13
Disposition of removed and replaced parts/materials	3.5.7.1.4	12
Distribution statement	3.5.2.10	7

Downloaded from http://www.everyspec.com

INDEX

	Para	Page
Drawings and instructions	3.2.3.3.1	4
Drawings and instructions required (record TCTOs only)	3.5.7.1.5	13
Exchange of equipment or parts	3.5.7.1.4.1	12
Existing publications	3.5.2.9.1	6
Export control notice	3.5.2.10	7
Federal Cataloging Handbook		3
Fixtures	3.5.7.3	14
Foldout pages	3.8.2	21
Fuel system defuel/purge	3.5.9.1	16
General	2.1	1
General requirements	3.1	3
Government documents	2.2	1
Heading	3.5.2	5
How work is accomplished	3.5.8	15
Identification	3.5.3.1	7
Illustrations	3.8.4	21
Illustrations in record TCTOs	3.8.4.1	21
Immediate action	3.2.1	3
Immediate action	6.4.4	24
Immediate action marking	3.2.1.1	3
Immediate action statement	3.5.5.1	8
Indicator of safety marking	3.5.2.7	6
Indicator of safety marking overlays	3.8.1.2	21
Information to be excluded	3.3	4
Intended use	6.1	21
Interim TCTO (ITCTO)	6.4.2	23
Interim TCTOs	3.2.5	4
Inventory equipment	3.5.10.1.4	18
Issuing activity	3.5.2.3	5
Kit applicability	3.5.3.2	8
Kit statements	3.5.7.1.1.1	10
Kits/parts/materials required	3.5.7.1.1	10
Kits/parts/materials required to modify items in stock	3.5.7.1.3	12
Listing of tools	3.5.7.3.1	14
Local manufacture	3.5.8.3	15

Downloaded from http://www.everyspec.com

INDEX

	Para	Page
Maintenance level	3.2.4	4
Man-hour information	3.5.7.2.1	14
Marking containers	3.5.8.7	16
Marking for inspection	3.5.8.6	15
Missile/launch vehicle weight and balance	3.5.9.3.3	17
Multiple kits	3.5.3.2.1	8
Nameplates	3.5.8.5.1	16
No action required on supply records	3.5.10.2.1	19
No additional work required	3.5.10.1.2	18
No change in weight and balance	3.5.9.3.1	17
No form entry required	3.5.10.1.1	18
Nomenclature	3.7.3	20
Noncataloged items	3.5.7.1.4.2	13
Notes	3.5.2.9	6
Notes	6	22
Notes, additional	3.5.2.9.3	6
Notices for classified TCTOs	3.7.5.2	20
Numbering	3.8.5	21
Omitted note heading	3.5.2.9.6	7
Operational checkout instructions	3.5.9.2.1	16
Operational checkout instructions appendix	3.5.9.2.2	17
Operational checkout requirements	3.5.9.2	16
Order of precedence	2.3	3
Other Government documents, drawings, and publications	2.2.2	2
Packaging	5.1	22
Parts required - record TCTOs	3.5.7.1.1.4	11
Personnel information and requirements	3.5.7.2	14
Printed copies	5.2	22
Production change	3.5.3.1.1	7
Purpose	3.5.4	8
Reading grade level (RGL)	3.7.1	20
Record TCTO Marking	3.2.3.3.2	4
Records	3.5.10	18
Red border overlays	3.8.1	20
Reference to other publications	3.7.2	20
References to parts or assemblies	3.5.8.5	15

Downloaded from http://www.everyspec.com

INDEX

	Para	Page
Removal from service	3.5.3.1.2	7
Removed items	3.5.7.1.4.3	13
Reproducible copy	3.8	20
Requirements	3	3
Rescission	3.6.1	19
Responsible organization	3.5.11.1	19
Restriction	3.2.1.2	3
Retrofit change or inspection identification marking	3.5.10.3	19
Routine action	3.2.3	4
Routine action	6.4.6	24
Routine action marking	3.2.3.2	4
Routine action record TCTO	3.2.3.3	4
Routine action record TCTO	6.4.7	24
Routine action statements	3.5.5.3	9
Same parts and materials required	3.5.7.1.3.1	12
Scope	1.1	1
Security assistance program	3.5.2.9.4	7
Security classification	3.7.5	20
Security classification	3.5.2.2	5
Single TCTO method	3.5.2.9.5	7
Single TCTO method	6.4.3	23
Size, weight, and cost of kits/parts/materials	3.5.7.1.6	13
Software required	3.5.7.3	14
Special tools	3.5.7.3	14
Specifications		2
Standards		2
Supplement indicator of safety marking	3.6.4	20
Supplement note	3.6.6	20
Supplement title	3.6.5	20
Supplemental information	3.5.9	16
Supplements	3.6	19
Supply information and requirements	3.5.7.1	10
TCTO proofing	3.5.3.3	8
TCTO Requirements	3.5	4
TCTO types	3.2	3
Technical manual identification (TCTO) number	3.5.2.4	6
Technical manuals	6.3	23
Technical manuals affected	3.5.9.4	18
Test equipment	3.5.7.3	14

Downloaded from http://www.everyspec.com

Time Compliance Technical Order (TCTO) 6.4.1 23
Title for classified TCTOs 3.7.5.1 20
Title or subject of instructions 3.5.2.8 6
Training equipment 3.5.3.1.3 8

Unknown change in weight and balance 3.5.9.3.2 17
Urgent action 3.2.2 3
Urgent action 6.4.5 24
Urgent action marking 3.2.2.1 3
Use of "shall," "must," "will," "should", and "may 3.7.4 20

Verification 4.1 21
Verification 6.4.8 24
Verification compliance 4.1.2 21
Verification requirements 4.1.1 21

Waiver to complete kit concept 3.5.7.1.1.3 11
War reserve material 3.5.8.1.1 15
Weight and balance information 3.5.9.3 17
What is required 3.5.7 10
When to be accomplished 3.5.5 8
Wiring diagrams 3.5.8.4 15

Concluding Material:

Custodian:
Air Force 16

Review Activities:
Air Force 01,10,99

Preparing Activity:
Air Force 16
(Project TMSS F624)

Downloaded from http://www.everyspec.com

Downloaded from http://www.everyspec.com

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of the form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waiver any portion of the referenced document(s) or to amend contractual requirements.

I RECOMMEND A CHANGE:	1. DOCUMENT NUMBER MIL-PRF-38804C(USAF)	2. DOCUMENT DATE (YYMMDD) 96/03/01

3. DOCUMENT TITLE
Performance Specification, Time Compliance Technical Orders - Preparation

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

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME *(Last, First, Middle Initial)*	b. ORGANIZATION	
c. ADDRESS *(include Zip Code)*	d. TELEPHONE *(Include Area Code)* (1) Commercial (2) AUTOVON *(If applicable)*	e. DATE SUBMITTED *(YYMMDD)*

8. PREPARING ACTIVITY

a. NAME Det 2, HQ ESC/AV-2C	b. TELEPHONE *(Include Area Code)* (1) Commercial (513) 257-3085 (2) AUTOVON 787-3085
c. ADDRESS *(Include Zip Code)* 4027 Col Glenn HWY, Suite 300 Dayton, OH 45431-1672	**IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:** Defense Quality and Standardization Office 5203 Leesburg Pike, Suite 1403, Falls Church, VA 22041-3466 Telephone (703) 756-2340 AUTOVON 289-2340

Downloaded from http://www.everyspec.com

INSTRUCTIONS: In a continuing effort to make our standardization documents better, the DoD provides this form for use in submitting comments and suggestions for improvement. All users of military standardization documents are invited to provide suggestions. This form may be detached, folded along the lines indicated, taped along the loose edges *(DO NOT STAPLE)*, and mailed. In block 5, be as specific as possible about particular problem areas such as wording which required interpretation, was too rigid, restrictive, loose, ambiguous, or was incompatible, and give proposed wording changes which would alleviate the problems. Enter in block 6 any remarks not related to a specific paragraph of the document. If block 7 is filled out, an acknowledgement will be mailed to you within 30 days to let you know that your comments were received and are being considered.

NOTE: This form may not be used to request copies of documents, nor to request waivers, deviations, or clarifications of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document or to amend contractual requirements.

(Fold along this line)

(Fold along this line)

DEPARTMENT OF THE AIR FORCE

NO POSTAGE NECESSARY IF MAILED IN THE UNITED STATES

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE
$300

BUSINESS REPLY MAIL

FIRST CLASS PERMIT NO. 73236 WASHINGTON D.C.

POSTAGE WILL BE PAID BY THE DEPARTMENT OF THE AIR FORCE

Det 2, HQ ESC/AV-2C
4027 Col Glenn Hwy, Suite 300
Dayton, OH 45433-1672