TECHNICAL MANUAL

AFTECHNICAL ORDER SYSTEM

Prepared By: Automated Technical Order System (ATOS)

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CHAPTER 1

SYSTEM DESCRIPTION, RESPONSIBILITIES, AND METRICS

1-1 PURPOSE.

The purpose of this technical order (TO) is to describe the Air Force TO system established by Air Force Policy Directive (AFPD) 21-3, specify policies and responsibilities for operation and management of the TO system, and outline general procedures for use of the system. This TO identifies and explains the various types of TOs and the specific policies and procedures pertaining thereto. Changes to this TO shall be submitted in accordance with chapter 5 to OC-ALC/TILDT. Acronyms used in this TO are spelled-out in Appendix A.

- 1-1.1 The purpose of the Air Force TO system is to provide concise but clear instructions for safe and effective operation and maintenance of centrally acquired and managed Air Force military systems and commodities.
- 1-1.2 Information about the TO system (points of contact, policy documents, latest policy initiatives, etc.) can be accessed through the world wide web on the TO Home Page. The Home Page can be read using a web browser such as Mosaic or Netscape, and entering the following location address: http://www.afmc.wpafb.af.mil:12000/organizations/HQ-AFMC/EN/to_polcy.htm.

1-2 CONCEPT.

- The TO system is managed by HQ AFMC/ENBI, 4027 Col. Glenn Hwy., Ste 300, Dayton OH 45431-1672. TOs for individual military systems and commodities are managed by assigned TO Management Agencies (TOMAs) (table 5-1). TO management includes acquisition, maintenance, reproduction, distribution, and storage. Individual TO currency and accuracy is the responsibility of assigned technical content managers (TCMs). Flight Manual Managers (FMMs) [(AFI 11-215, Flight Manual Procedures, (FMP)] are the equivalent of TCMs for FMP publications. Each TO is assigned a unique TO number to facilitate use, indexing and control. The TO system and its operation are covered by this TO and TOs 00-5-2, 00-5-3, 00-5-15, and 00-5-18.
- 1-2.1 TOs are published by authority of the Secretary of the Air Force in accordance with AFPD 21-3. TOs are printed according to AFI 37-162, Printing, Duplicating, and Copying Management. Air Force TO (AFTO) Forms are developed and

- controlled according to AFI 37-160, Air Force Publications and Forms Management Programs, Volume 8, Developing and Processing Forms.
- 1-2.2 All situations within the TO system cannot be covered in the 00-5-series TOs; major commands (MAJCOMs) and bases are empowered to develop and document policies and procedures for those situations, using MAJCOM or base supplements. Any procedure not specifically forbidden may be adopted.
- 1-2.3 Decentralization of TO Management. The TO System Re-engineering Concept of Operations (CONOPS) for decentralizing management of TOs was signed by HQ AFMC/CC on 5 Jun 95. The CONOPS assigns total responsibility for TOs (content, budgeting, funding, publishing, printing, distribution, etc.) to the Single Manager (SM) responsible for the equipment or process covered by the TO
- 1-2.3.1 In most cases, implementation of the CONOPS will occur in conjunction with the implementation of the Joint Computer-Aided Acquisition Logistics Support (JCALS) System. The JCALS Technical Manual Sub-system will provide decentralized access to management data currently provided only by the centralized Logistics Management of TOs System (LMTOS G022).
- 1-2.3.2 Some SMs may implement the CONOPS based on existing capability. In these cases, the SM must provide instructions for TO users on such issues as where to submit improvement reports (chapter 5), how to order TOs (TO 00-5-2), etc., if they differ from current procedures.
- 1-3 CENTRALIZED TECHNICAL ORDER MANAGE-MENT (CTOM) COMMITTEE.
- 1-3.1 The CTOM Committee is a working level group that reviews and approves all Air Force policy and guidance relating to the TO system. HQ USAF/LGMM chairs the committee and provides the final authority for the policy. The CTOM Committee meets semiannually. HQ AFMC/ENBI acts as the CTOM Committee manager.
- 1-3.2 The CTOM Committee is a two-tier organizational structure consisting of the committee and ad hoc work groups (WGs) to solve specific problems.

1-3.3 Members of the CTOM Committee are:

HQ ACC/LGQ HQ AETC/LGM/TTRR HQ AIA/LGM HQ PACAF/LGM HQ AFMC/ENBI/DRM/ HQ USAFE/LGM ANGRC/LGM DOO/LGM/SEG HQ AFRES/LGM AFLMA/LGM HQ AFSOC/LGM AFSAC/XMXB HQ AFSPC/LGMM AFOTEC/SA/ST HQ AMC/LGQ HQ AFC4A/SYYM

NOTE

Other activities may participate in the CTOM Committee as required to address specific issues.

- 1-3.4 CTOM Committee decisions are made using a majority voting system, with one vote per MAJCOM.
- 1-3.5 WGs are formed through letters of tasking issued by HQ USAF/LGMM. The WG prepares minutes of each meeting. The CTOM Committee approves or disapproves WG recommendations.
- Suggested action items may be submitted by any individual or agency that develops, acquires, or uses TOs, through the parent MAJCOM or Field Operating Agency (FOA) CTOM Committee representative. They will include a statement of the problem or initiative, the suggested corrective action or approach, previous actions taken by the initiator to correct the problem, and identification of the initiator. The Committee representative will validate the action item, provide any previous actions to correct the situation, determine resources available to work the problem, and any anticipated benefits, costs, and effects on TO system users. The action item will be submitted to the committee manager (HQ AFMC/ENBI) for inclusion in the next meeting's agenda.
- 1-4 RESPONSIBILITIES.
- 1-4.1 HQ US Air Force. HQ USAF/LGMM:
- 1-4.1.1 Monitors compliance with AFPD 21-3.
- 1-4.1.2 Approves all service tests and studies of new techniques for use in the TO system.
- 1-4.1.3 Approves updates to 00-series TOs listed in chapter 2. Approves major revisions to all other 00-series TOs.
- 1-4.1.4 Reviews AFI 11-215 to ensure that FMP policies remain consistent with the TO system, and coordinates TO policy changes affecting FMP manuals with HQ AFMC/DOO.

- 1-4.2 General. All commands using TOs will:
- 1-4.2.1 Ensure that AFPD 21-3, AFI 11-215, and 00-5-series TOs applying to the TO system are followed command-wide.
- 1-4.2.2 Submit quarterly reports on compliance with AFPD 21-3 (paragraph 1-5) for systems and commodities acquired for the command.
- 1-4.2.3 Assist AFMC in determining the scope of technical requirements data to be included in specifications used for procuring TOs.
- 1-4.2.4 Assist the TOMA with TO acquisition according to this TO and 00-5-3.
- 1-4.2.5 Assist AFMC in controlling and reducing costs of TOs.
- 1-4.2.6 Conduct programs to familiarize command personnel with the TO system.
- 1-4.3 <u>Air Force Materiel Command.</u> AFMC is responsible for the operation and day-to-day management of the Air Force TO system (00-5 series TOs). AFMC:
- 1-4.3.1 Is the lead command for developing and coordinating TO system policy and procedures. Obtains Air Force CTOM Committee approval for major TO System policy changes prior to publishing them in 00-5-series TOs.
- 1-4.3.2 Establishes FMP policies and procedures for the Air Force (AFI 11-215). Provides operational management of the AFMC FMP.
- 1-4.3.3 Establishes approval and control procedures for flight crew checklists used in experimental, engineering, flight test, and special mission aircraft.
- 1-4.3.4 Reviews and evaluates all accident and incident reports to detect and correct TO deficiencies.
- 1-4.3.5 Participates in DoD-directed programs to develop joint procedures for military departments (AFI 21-301, Instructions for the Inter servicing of Technical Manuals and Related Technology Program).
- 1-4.3.6 Researches, evaluates and adopts promising new techniques and technology for technical data format, presentation, storage, and retrieval.
- 1-4.3.7 Manages the Air Force-assigned segment of the DoD TM Specifications and Standards (TMSS) program. Represents the Air Force in the DoD TMSS program. Ensures that Air Force TMSSs and Data Item Descriptions (DIDs) related to TO acquisition are current. Coordinates all revisions or amendments to TMSSs and DIDs with applicable Air Force and other DoD agencies.

Reviews and approves/disapproves requests for deviations and waivers to Air Force TMSSs and DIDs. Assists in resolving problems with Air Force TMSSs and DIDs.

- 1-4.3.8 Budgets for and funds TO programs.
- 1-4.4 Air Force Command, Control, Communications, and Computer Agency (AFC4A): Supports acquisition-related actions for Communications-Electronics (C-E) systems and equipment.
- 1-4.5 HQ Air Education and Training Command (AETC):
- 1-4.5.1 Provides training to support the TO System.
- 1-4.5.2 Provides personnel to support TO development on military systems and training equipment being procured for AETC, or for non-AETC

programs when requested and funded by a System Program Director (SPD). Personnel shall have signature authority for HQ AETC on TO matters during the developmental stage of the TOs.

- 1-4.6 Air Force Operational Test and Evaluation Center (AFOTEC):
- 1-4.6.1 Assists MAJCOMs during TO verification per agreement on a program-by-program basis (AFI 99-102, Operational Test and Evaluation).
- 1-4.6.2 Evaluates system TOs in conjunction with the user as a part of all AFOTEC-managed OT&E.

1-5.2.2 "Centrally-Procured" systems and commodities include the hardware and software acquired through an AFMC Single Manager (SM). Hardware will have National Stock Numbers (NSNs) assigned by the Cataloguing and Standardization Center (CASC), Battle Creek MI. Software will have a Computer Program Identification Number (CPIN) assigned by OC-ALC/TILUE, Tinker AFB OK.

1-5.3 Procedures:

- 1-5.3.1 Operating Units: Operating units which use TOs, including AFMC depot repair and operational test units, will complete an AFTO FORM 29 to provide information on new and modified hardware and software that is received without verified TOs. The completed forms will be forwarded to the appropriate MAJCOM POC.
- 1-5.3.1.1 Units will ensure that initial distribution (ID) requirements for the TOs were submitted at least 90 days prior to scheduled delivery of the hardware or software.
- 1-5.3.1.2 Systems and commodities delivered with copies of PTOs expressly for the purpose of verifying the TOs will not be reported.
- 1-5.3.1.3 Units will not report non-centrally-procured system or commodity hardware or software (local purchase, real property, or command-controlled assets), or other systems/items not covered by either the TO system (this TO) or the CPIN system (TO 00-5-16).
- 1-5.3.2 MAJCOMs: MAJCOM POCs will review each AFTO FORM 29 for accuracy and validity. Valid reports will be sent to the responsible SM.
- 1-5.3.2.1 Each MAJCOM will summarize its unit's reports for each system or item on an AFTO FORM 29 (one form per system/item) and submit the summary package to HQ USAF/LGMM quarterly. For the summary, block 8, Remarks, will be annotated with the number of units affected and a summary of the individual remarks received. A copy of the summary will be provided to HQ AFMC/ENBI. Negative reports are not required.
- 1-5.3.2.2 Each system or commodity TO delinquency will be reported only when it first occurs; and be included only once by each MAJCOM no matter how many units are involved, to avoid "skewing" the metric data.
- 1-5.3.3 Responsible AFMC Single Managers: Report TO status (i.e., when TOs are to be verified and approved for use, reason for non availability, etc.) to the submitter and MAJCOM POC within

- 30 days following receipt of an AFTO FORM 29. Provide copies of the reply to HQ USAF/LGMM and HQ AFMC/ENBI.
- 1-5.3.4 HQ AFMC/ENBI: Monitor the report summaries to detect any problem areas and apply corrective actions as required.
- 1-5.3.5 <u>HQ USAF/LGMM:</u> Consolidate MAJCOM reports and submit Air Force metrics.
- 1-5.4 Reporting Periods:
- 1-5.4.1 Operating units will submit AFTO FORMs 29 within 30 days of the time of occurrence.
- 1-5.4.2 MAJCOM reports will include incidents by FY quarters. Reports will be submitted not later than the last day of the month following the reporting period.
- 1-5.5 AFTO FORM 29 Completion Instructions.
- 1-5.5.1 <u>General</u>: The AFTO FORM 29 may be printed or <u>legibly</u> handwritten in blue-black ink. Enter the RCS number (see paragraph 1-5.1). The "DATE" will be the date approved for submittal (block 10).

NOTE

Submission will normally be mailed to the next addressee. However, when specified by the next level of coordination/approval, electronic versions of the form may be submitted via e-mail or on disk to facilitate follow-on entries.

- 1-5.5.2 <u>Instructions:</u> All addressees will be entered with complete mailing addresses including 9-digit ZIP codes.
- Block 1: Enter the parent MAJCOM's POC.
- Blocks 2 through 7: Self explanatory.
- Block 8: Enter any information which might assist with determining the cause of late delivery of TOs. Indicate what work-arounds, if any, were provided with the assets when they were delivered.
- Block 9: Submitters will type or print their name, title and DSN, and sign the form.
- Block 10: The unit Product Improvement (PI) activity will review the form for accuracy and indicate approval by signing this block. Type or print name, title, office symbol, and DSN. Enter the date signed in the "DATE" block (top of form).

- 2-3.5.5.1 Procedures for the control and release of TOs to non-US government agencies are specified in both TOs 00-5-2 and 00-5-19.
- 2-3.5.5.2 US government agencies are provided TOs according to AFI 21-301.
- 2-3.6 Changes, Revisions, and Supplements.
 TOs may be revised, changed, or supplemented according to this TO and TO 00-5-3. FMP publications will only be supplemented according to AFI 11-215. Using activities will not supplement TOs, except as specifically authorized hereunder.
- 2-3.6.1 Locally prepared workcards, checklists, job guides and page supplements are authorized when additional requirements related to local conditions (i.e. weather, physical restrictions, local environmental laws, etc.) are deemed necessary. Since locally prepared data are not TOs, they are exempt from Air Force indexing and repository storage. See paragraph 4-8.
- 2-3.6.2 For local publications, all parent TO procedures will be followed and no unsafe procedures will be introduced. No requirements for additional tools or test equipment will be introduced. Workcards, checklists, job guides and page supplements for nuclear munitions must be approved for nuclear safety at MAJCOM level after coordination with SA-ALC/NW. Fast reaction checklists for ICBM operations requirements will be approved by HQ AFSPC/DOMP and will not be forwarded to the SM.
- 2-3.7 MPTOs. All revisions and changes to the Category 00 MPTOs listed below must be approved by the HQ USAF OPR prior to publication.

2-3.7.1 HQ USAF/LGMM:

00-5-1 00-5-2 00-5-3 00-5-15	After AF CT consideration	OM Committee
00-5-18	00-20-6	00-25-108
00-20-1	00-20-7	00-25-115
00-20-2	00-20-8	00-25-172
00-20-3	00-20-9	00-25-195
00-20-4	00-20-14	00-25-240
00-20-4-1	00-25-4	00-35D-54
00-20-5	00-25-107	
		H9304702

2-3.7.2 HQ USAF/LGT:

00-20B-5	00-20D-1	00-25-246
00-25-249		

2-3.7.3 HQ USAF/LGMM approves major revisions to all 00-series TOs not listed above.

- 2-3.7.4 MAJCOMs and individual bases are authorized to supplement these MPTOs, provided that the supplement does not alter or conflict with the intent of the basic MPTO or contain redundant material. For those MPTOs that contain technically oriented data, the MAJCOM or base supplement must not alter any of the content. An information copy of all supplements must be sent to the HQ USAF and MAJCOM OPRs for that MPTO. All 00-5-series TO supplements must also be sent to HQ AFMC/ENBI. See paragraph 4-6.7 for additional requirements.
- 2-3.8 Hazardous Materials (HAZMAT) and Ozone Depleting Substances (ODS). Ensure newly-developed TO procedures prevent pollution by reducing the use of hazardous materials and the release of pollutants into the environment. TO development should comply with AFPD 32-70, Air Force 32-70 series instructions, and Federal Acquisition Regulations.
- 2-3.9 <u>Substitutions.</u> Items of test equipment and special tools listed in maintenance technical manuals for the performance of military system or commodity checkout and calibration can be substituted, provided the like item is capable of performing the same function and meets or exceeds the accuracy specification of the listed item. Items used to perform checkout and calibration of nuclear weapons will not be substituted until they have been certified for use by Detachment (Det) 1, Air Force Safety Agency (AFSA)/SENA, Kirtland AFB NM 87117-5000.
- Preliminary TOs (PTOs) (Paragraph 3-10). The TOMA, with the mutual written agreement of the SM and using command, may authorize the use of verified PTOs on specific programs pending distribution of formal TOs. The using command will be notified of the authorization in writing. Maximum duration of the authorization is 180 days, unless an extension is approved by the TOMA, SM and the using command. The TOMA authorization letter or message for specific PTOs or PTO groupings will identify the coordinating offices and will be maintained in the TO Distribution Office (TODO) of using organizations. PTOs which have not been 100 percent verified must contain a Verification Status Page (VSP). PTO title pages will be annotated "APPROVED FOR OPERATION AND MAINTENANCE, SEE VSP FOR RESTRICTIONS".
- 2-3.10.1 Unverified procedures in PTOs will not be used for hands-on training, operation and maintenance unless the procedures have been specifically authorized for use by the SM and the affected MAJCOM/LG.

2-3.13.12 Checklists are not required for every task, and it is recognized that not every task or common maintenance practice must be or will be covered by TOs prescribing every step.

2-4 CONTRACTOR DATA.

- 2-4.1 Data for Temporary or ICS Contracts. For programs using temporary or ICS contracts (support required until organic capability is attained), data used by the contractor to fulfill the terms of the contract is excluded from numbering and management in the TO System. However, if this data will transition to the Air Force, it is subject to review by the Air Force will comply with TO 00-5-3.
- 2-4.2 <u>Data for CLS Contracts.</u> When operation and/or maintenance are planned to be CLS, whether the military system or commodity is commercially available or is developed specifically for the Air Force, the SM acquires, numbers, and manages this data outside the TO system (no TO numbers are assigned). However:
- 2-4.2.1 The data is subject to Air Force technical content and reproducibility and rights reviews to ensure it is adequate for competition of follow-on contractor support ("Adequate" meaning usable by another contractor with comparable skills and experience to fulfill the terms of the contract).
- 2-4.2.2 Data developed or modified specifically for the CLS contract shall be validated or certified by the contractor, but verification is not required.
- 2-4.2.3 Pre-existing, unmodified commercial data shall be certified for adequacy and accuracy by the contractor acquiring the data for the CLS contract.
- 2-4.3 When military systems or commodities require partly organic support and partly CLS, the policy in TO 00-5-3 will be used to accept any COTS manuals and manuals developed from contractor data and to determine if they are included in or excluded from the TO System.
- 2-4.4 When existing military systems or commodities are transitioned from organic support to CLS, TOs which will continue to be used primarily by Air Force personnel will remain in the TO system. TOs which are peculiar to the system or commodity to be used totally (or with Air Force assistance) by the contractor, will normally be rescinded from the TO system and numbered and managed as directed by the CLS contract. However, CLS contracts will require the contractor to use and maintain any MILSPEC manuals in their MILSPEC format.

- 2-4.5 When CLS programs are transitioned to organic support, the policy in TO 00-5-3 will be used to evaluate, approve, number, and manage CLS manuals.
- 2-4.6 Factory Test Equipment (FTE) and Special Test Equipment (STE) Data. This equipment and its support data are designed by a contractor for internal use and are not commercially available. However, if the government decides to acquire the FTE and/or STE for organic use, the policy in TO 00-5-3 will be used to accept the support data and to determine if it is included in or excluded from the TO system.
- Service Bulletins, Operations Manual Bulletins, FAA Airworthiness Directives, Temporary Revisions, and Like Data (Paragraph 3-9.2). When applicable to TO-numbered manuals or supplements, depot engineering or technical support activities will determine if these publications will be referenced in the TO by their commercial number or have the information extracted for inclusion in supplements or other TO updates. Publications directing modifications (other than temporary modifications authorized in AF Sup 1 to DODI 5000.2) and initial or one-time inspections to be performed by Air Force organic resources will be numbered and managed as TCTOs. TCTOs and data codes will also be issued to update the configuration of CLS-managed systems and commodities when configuration control is the responsibility of the Air Force. For other time compliance type publications, the responsible activity will determine whether or not a TCTO number will be assigned based on program requirements. This may result in TCTO numbers being assigned and managed within the TO system for programs managing O&M manuals outside the system.

2-5 RECOMMENDING IMPROVEMENTS.

- 2-5.1 Recommendations for improvements in the existing TO system (except as noted in paragraphs 2-5.2 through 2-5.5) must be sent by letter or message through the respective major commands and HQ AFMC/ENBI for review, comment, and recommendation to HQ USAF/LGMM. Proposals for new types of TOs (not covered by commercial or MILSPECs) must be submitted to Det 2, ESC/AV-2 4027 Col. Glenn Hwy, Ste 300, Dayton OH 45431-1672, for review and disposition.
- 2-5.2 Recommendations for individual TO improvements, new maintenance instructions or procedures, correction of errors, or omissions of a technical nature are reported using the AFTO FORM 22 according to chapter 5 of this TO.

- 2-5.2.1 Changes will be incorporated in TOs using methods specified in chapter 4, unless they meet the exceptions of paragraph 2-2.12. In those cases and for work stoppages, pending AFMC action on AFTO FORMs 22 or requests for new TOs, assistance will be requested according to TOs 00-25-107 or 00-25-108 (paragraph 2-3.13.1).
- 2-5.3 Recommendations for improvement of FMP publications are submitted according to AFI 11-215. Recommendations for improvements during acquisition are submitted according to TO 00-5-3.
- 2-5.4 The interface between the TO system and the suggestion program is explained in chapter 5.
- 2-5.5 Air Force agencies developing new techniques or concepts relating to TOs must submit a proposal and justification through HQ AFMC/ENBI to HQ USAF/LGMM for approval before introducing the techniques or concepts. When the techniques or concepts require research and development (R&D), major commands must submit a Mission Need Statement (MNS) to HQ USAF for approval, according to AFI 10-601, Mission Needs and Operational Requirements Guidance and Procedures.

2-6 TO DISSEMINATION CONTROL.

- 2-6.1 Distribution and release of TOs are controlled to prevent unauthorized disclosure. Requisitioning of TOs for other than official business is not authorized. TO title or T-2 pages (NOT commercial manual TOs) shall include:
- 2-6.1.1 A disclosure notice according to MIL-M-38784, on all classified and unclassified TOs which have been approved for release to a foreign government, except for those assigned Distribution Statement A. This notice will be placed on <u>all</u> classified and unclassified nuclear TOs.
- 2-6.1.2 A distribution statement assigned according to MIL-STD-1806.
- 2-6.1.3 An export control warning, if applicable, according to MIL-STD-1806.
- 2-6.1.4 A handling and destruction notice in accordance with MIL-M-38784 for unclassified manuals or DoD 5200.1-R/AFI 31-401 for classified manuals. Unclassified manuals with distribution statement "A" do not need a handling and destruction notice.
- 2-6.1.5 Unclassified manuals with distribution statements other than "A" (Unlimited Distribution) may be destroyed by placing parts of the manuals in different recycling bins, or by tearing them into three or more pieces or shredding them before recycling, or by burning them. Proprietary data should be shredded before being recycled.

- 2-6.2 Security Classification. TOs are published as Unclassified, Confidential, or Secret. Those that contain Restricted Data (RD), Formerly Restricted Data (FRD), or Critical Nuclear Weapons Design Information (CNWDI) are marked with the additional warning notices described in DoD 5200.1-R/AFI 31-401.
- 2-6.2.1 Classified TOs must be safeguarded in accordance with DoD 5200.1-R/AFI 31-401. The security classification will only be changed or canceled in accordance with DoD 5200.1-R/AFI 31-401. If any Air Force activity has reason to believe that security considerations support the reclassification of a specific TO, the activity will report the discrepancy in accordance with procedures outlined in DoD 5200.1-R/AFI 31-401.
- 2-6.2.2 The current security classification of each classified TO is indicated in the applicable TO indexes. Use of classified titles shall be avoided if possible, but when classified titles are necessary they will be listed only in a classified supplemental TO Index. Classified TOs are marked and destroyed according to DoD 5200.1R/AFI 31-401.
- 2-6.2.3 Classified TOs are not releasable to foreign nations or their nationals except under the conditions prescribed in AFI 16-201, Foreign Disclosure of Classified and Unclassified Military Information to Foreign Governments and International Organizations.
- 2-6.3 For Official Use Only (FOUO). FOUO was used prior to the development of distribution statements required by AFI 61-207 (DoD 5230.25), listed in MIL-STD-1806, to mark unclassified data that must be withheld from public release under AFI 37-131, Air Force Freedom of Information Act Program. The TO title page will reflect the distribution statement; FOUO is no longer authorized.

2-7 TO WAIVERS.

- 2-7.1 TO System Policy and Procedures.
 Requests for waivers to TO system policies and procedures must be submitted through the parent MAJCOM to HQ AFMC/ENBI for approval or disapproval. When specified, waivers must receive final approval or disapproval from HQ USAF/LGMM.
- 2-7.2 Emergency Waivers. On-scene commanders are granted broad discretionary powers to waive compliance with TO procedures in emergency situations. This waiver authority must be used with caution to avoid placing personnel or equipment in jeopardy. The situation must be documented and sent to HQ USAF/LGMM and HQ AFMC/ENBI after the emergency is resolved.

- Ground C-E Systems. The chief of C-E maintenance, with the concurrence of the applicable AETC training supervisor, may waive compliance with those TO requirements which are jointly determined as not applicable or not economically justified because of the training environment. When such waivers are considered essential, the commander will ensure the chief of C-E maintenance of the maintaining organization establishes maintenance practices to ensure that AETC ground C-E training equipment is maintained to standards that fulfill AETC mission requirements. Waivers granted in the AETC environment will be reviewed annually and updated as required by changes in the source TO and/or training requirements.
- 2-7.7 <u>EOD Nonnuclear Category 60 TOs.</u> These TOs are joint service publications and are written only for the information and guidance of EOD personnel. These TOs do not address specific situations. The training and expertise of EOD personnel are used to determine procedures to render safe and/or dispose of explosive ordnance. Waivers to deviate from TO procedures are not required.
- 2-7.8 Methods and Procedures TOs (MPTOs). MAJCOMs may not waive compliance with policies in MPTOs unless specifically authorized within the individual TO. When a waiver is considered

necessary, the MAJCOM will forward a request to the HQ USAF OPR for that TO. The request must contain full justification for the waiver and a description of the alternate procedure which will be used.

2-8 POST-PUBLICATION REVIEWS.

Post-pub reviews are made to evaluate and improve formal TOs after delivery to the using commands.

- 2-8.1 <u>Command Reviews.</u> The need for a TO command review is determined by the TOMA and using command, based upon the number of modifications made to affected equipment, the complexity and extent of modifications and resultant TO changes, and the number of AFTO FORMs 22 or AF FORMs 847 received since the latest update.
- 2-8.2 Currency Reviews.
- 2-8.2.1 Unclassified TOs which have not been updated for five years will be reviewed by the TCM for currency, and updated or rescinded as required.
- 2-8.2.2 Classified TOs will be reviewed for possible reclassification and currency at every update or review, but at least once annually.

CHAPTER 3

TO AND OTHER SUPPORT DATA TYPES AND DESCRIPTIONS; NUMBERING

3-1 GENERAL.

Various types of TOs and support data used in the Air Force are described in this chapter (figure 3-1). New types of TOs for which there are no approved MILSPECs will not be acquired or prepared without the prior approval of HQ AFMC/ENBI (paragraph 2-5).

3-2 O&M TOs (FIGURE 3-2).

These TOs cover installation, operation, maintenance and handling of Air Force military systems and commodities. Examples are:

- Flight Manual Program (FMP) Publications.
 These TO Category 1 publications contain information on an aircraft, its equipment, operation and characteristics. They include flight manuals (-1 series), air refueling procedures (1-1C-1 series), etc. See AFI 11-215.
- On-Equipment Organizational Maintenance
 <u>Manual Sets.</u> These MIL-M-83495 sets, which
 include Job Guides (JG), General Vehicle (GV)
 TOs, Wiring Diagram (WD) manuals, etc., pro vide detailed procedures in step-by-step form
 for operational checkout, test, repair, adjust ment, and removal and replacement of accesso ries. The JG manuals are normally prepared in
 reduced size.
- Nuclear Weapons Manuals. These manuals are managed and controlled in the Joint Nuclear Weapons Publications System (JNWPS), not in the Air Force TO system (G022). Nuclear TOs for Air Force use are managed by the Weapons Directorate, SA-ALC/NW.
- Nonnuclear Munitions Manuals. These manuals consist of munitions loading TOs, weapons delivery TOs, nonnuclear Explosive Ordnance Disposal (EOD) manuals, and manuals for munitions handling, transportation, maintenance and inspection. Nonnuclear munitions include chemical and biological warfare weapons.
- Aircraft Emergency Rescue Information (Fire <u>Protection</u>). This TO provides required system information and establishes emergency rescue procedures for use during various types of ground emergencies on military and commercial aircraft.

- Communications-Electronics Manuals. These manuals include Facility, Subsystem, and System Installation - Engineering and Installation manuals, General Engineering and Planning manuals, and Standard Installation Practices TOs (SIPTOs).
- Work Package TOs. These MIL-M-87929 depot and intermediate maintenance manual sets contain individual work packages (WPs) which provide detailed procedures, in step-by-step form, to accomplish specific maintenance tasks. The depot or intermediate maintenance set contains all applicable WPs. Because multiple WPs are contained in each dash (-) numbered TO set, individual WPs may NOT be requisitioned.
- Computer-Related Manuals. Operator manuals for imbedded computer programs that provide instructions on loading and system operation may be managed in the TO System. This does NOT include instruction manuals for locallypurchased personal computers (PCs).

3-3 METHODS AND PROCEDURES TOS (MPTOS - FIGURE 3-3).

MPTOs (Category 00) are general in content and are not issued against specific military systems or commodities. There are two classes of MPTOs:

- 3-3.1 Those which specify policy, methods and procedures relating to the TO system, maintenance management, administration, inspection of Air Force equipment, control and use of repairable assets, configuration management, etc. Examples include the 00-5-series TOs.
- 3-3.2 Those which involve policies, methods and procedures relating to ground handling of aerospace vehicles, general maintenance practices, management of precision measurement equipment, and the safe use of Air Force equipment. They may specify common procedures for arrangement of maintenance production facilities or special inspection functions such as the joint oil analysis program. An example is TO 00-25-234, General Shop Practice Requirements for Repair, Maintenance, and Test of Electrical Equipment.

3-9.2 Service Bulletins, Operations Manual Bulletins, FAA Airworthiness Directives, Temporary Revisions, and Like Data. These are special purpose commercial publications providing information and instructions similar to those provided in the TO System by MILSPEC inspection manuals, TO supplements, and TCTOs. They are acquired by the SM as needed to meet program requirements, and will be accepted, numbered, and used like other COTS manuals or supplemental data.

3-10 PRELIMINARY TOS (PTOS - FIGURE 3-9).

PTOs are copies of TOs prepared in limited quantities during TO acquisition to support in-process reviews (IPRs), validation or certification, and verification of data against the military system or commodity being acquired. PTOs are formalized according to TO 00-5-3. Formalization is indicated when a TO update removes the word "PRELIMINARY" from the title page.

3-11 OTHER SUPPORT DATA.

Other types of data, described below, are used to support operation and maintenance of Air Force equipment and for the development of TOs. This support data is not managed in the TO system.

- 3-11.1 Locally-Prepared Workcards, Checklists, Job Guides and Page Supplements. The purpose of locally prepared documents is to formalize and control procedures unique to a base or area, and which do not apply or are not suitable for all TO users. They are generally formatted and used like formal TOs, and are approved at the base level. See chapters 2 and 4.
- 3-11.2 Packup Data. Packup data is approved interim data which may be used until formal data is available. This data is packed with equipment or placed aboard an aircraft and is marked as "PACKUP DATA". The using organization will establish requirements for the formal TO or approved commercial manual according to TO 00-5-2.
- 3-11.3 Contractor Data. This data is developed by the contractor for use in supporting TO development, production, R&D programs, interim contractor support (ICS) requirements, CLS contracts, etc. It can contain all forms of technical data, including manuals, documents, pamphlets, instructions, engineering drawings, etc., needed to support the contractor's functional requirements. The policy, conditions and restrictions for use of contractor data are provided in chapter 2. Types of contractor data include data for temporary or ICS contracts, data for CLS contracts, and factory test equipment (FTE) and special test equipment (STE) data.

3-11.4 Source Data. Source data is used in the TO system for the development or update of TOs not under the control of the acquisition of TO manager. There are several different types and formats of source data, including engineering documentation, LSAR and contractor data; the type and format depends on the specific needs of the TO program. Source data may be developed organically or acquired from contractors (TO 00-5-3).

3-12 DIGITAL MEDIA.

The volume of technical data necessary to maintain and support state-of-the-art weapon systems has increased so significantly that it is difficult and time consuming to use traditional paper TOs to perform even simple tasks. New-start acquisition programs are now required to purchase digital data rather than hard-copy unless it can be proven uneconomical over the system life-cycle (DODI 5000.2).

3-12.1 Continuous Acquisition and Life-Cycle Support (CALS) is the concept that focuses on accelerating the transition from our present paperintensive, non-integrated product development, design, manufacturing and support processes to highly automated, integrated modes of operation. The Joint Computer-aided Acquisition and Logistics Support (JCALS) System will implement CALS for technical data. JCALS is an automated information system that provides the hardware and software infrastructure for managing technical manuals throughout DoD. The goal is to enable the development, update, storage, distribution and use of TOs and other technical data via world-wide CALS standards.

3-12.2 There are different "types" of data formats, named according to an accepted industry standard scheme. These data types are:

- A printed (hard copy) pages.
- A + simple raster images (produced by "scanning" hard copy, and considered unchangeable until further converted to one of the below editable formats.)
- B- intelligent raster (with some limited change capability)
- B ASCII files digitally-tagged for style and format (changeable, page-turning output, similar to word processing files)
- B+ ASCII with additional tags for content (allows some linking of related subjects in different files)
- C Interactive Electronic Technical Manuals (IETMs) with all data entered in a data base and connected by "hypertext" links (non-page-based output, usable only with computers)

dence. Use the same precedence for information addresses only if they require the message with the same urgency. Addressees and message subject matter should be reviewed by the originator to determine whether addressees not operating on 24-hour a day schedule require immediate delivery warranting recall of personnel to handle the message, or if delivery could be delayed until reopening of the station. If delay is acceptable, an appropriate notation should be made at the start of the message text.

4-3 TITLE PAGES; LEPS; VSPS; CHANGE PAGE MARKING.

- 4-3.1 <u>Title Pages.</u> All TOs and TO updates except for interim TOs will have a title page formatted according to MIL-M-38784 (figure 4-1). In addition, when required, the TO may have a second title page, numbered T-2 (figure 4-2), to provide space for required warnings and notices. The date an update becomes effective will be included when this date is later than the update issue date. A supersedure notice will list all previously-published updates included in the new TO increment.
- 4-3.2 <u>Abbreviated Titles</u>. For TOs of eight pages or less, an abbreviated title may be used and all updates will be issued as revisions, without a LEP.
- List of Effective Pages (LEP). All TOs, revisions, changes and some supplements contain a LEP (figure 4-3) reflecting the dates of the basic or revision and any changes, and the change number of each page within the manual. LEPs, commonly called "A" pages, follow the title and T-2 pages. The first LEP is numbered "A" with additional LEPs, if required, numbered sequentially through the alphabet in capital letters. Under the "Page Number" column, all of the TO's pages are listed. Pages in unbroken numerical sequence are listed as "i - vi," "1-1 - 1-8," "2-1 - 2-16," etc. Under the "Change No." column, the change numbers for each page or series of pages are listed, such as 1, 2, 3. A zero (0) indicates a blank page or an original issue page or group of pages of the TO. The words "Deleted," "Added," or "Blank" are shown between affected page numbers and the change number.
- 4-3.4 Verification Status Pages (VSPs). VSPs will be included in PTOs and formal TOs containing unverified procedures. These pages will immediately follow the LEP and be formatted and numbered according to MIL-M-38784. A WARNING shall be placed on the TO title page in accordance with MIL-M-38784. VSPs must be reviewed to check the verification status before attempting to

use any procedure. Once all procedures in a TO are verified, an update will be issued to delete the VSPs and any verification-related warnings or notes.

4-3.5 Change Page Marking. The applicable change numbers are reflected next to the page number on each of the changed pages. Whenever feasible, change bars (vertical black lines in page borders) will indicate where new text changes in an update or revision occur. Corrections of minor inaccuracies of a non-technical nature such as spelling and punctuation will not be marked with a change bar unless the correction changes the meaning of instructive information and procedures. A miniature pointing hand may be used to indicate updates to illustrations or line drawings. Shading and screening may be used to highlight updated areas on diagrams and schematics.

4-4 TO REVISIONS.

A revision is a second or subsequent edition of a manual which supersedes the preceding edition. A revision incorporates all previous changes, supplements and new data that would normally have required a separate update, into the basic TO. Revisions may be prepared to existing TO style and format or the current version MILSPEC, depending on cost-effectiveness and usability.

- 4-4.1 The need for a revision will be based on factors such as the impact of changes and supplements on the usability of the TO, urgency of need for update, cost, quantity of stock on hand, and the existence of a reprint merging existing updates.
- 4-4.2 When an FMP scroll or digitized checklist (one displayed on a video display terminal in the aircraft) changes, the complete checklist is revised.

4-5 TO CHANGES.

Changes are issued when only part of the existing TO is affected. New pages in a change replace the corresponding numbered pages in the existing TO. All replaced pages are destroyed in accordance with the handling and destruction notice, when applicable (See paragraph 2-6.1.5).

4-5.1 If a change contains new material that cannot be included on an existing page, new pages are inserted between or after the affected pages: added pages are assigned the preceding page number and a suffix, such as 2-2.1 or 2-2A, etc., depending on the style of the manual and will be consistent throughout the manual. Pages added at the end of a chapter or section continue the page numbering in normal sequence. Blank pages are used as needed to avoid renumbering or issuing more than the minimum number of subsequent pages.

MAJCOMs, prior to submission to the responsible ALC. Recommended changes will be provided to the AGSEWG (MAJCOM AGSE managers) by message using AIG 10366. AGSEWG members will provide their concurrence or non concurrence by message within 15 calendar days of the originating command's message. Non response within the allotted time will be considered approval. Approval to change the subject TOs and submission to the responsible ALC will be based on the majority of AGSEWG responses. Changes to subject TOs submitted directly to an ALC without prior AGSEWG coordination and approval will be disapproved.

- 5-5.6 Corrosion Control Manuals. Send information copies of all reports on military system corrosion control manuals to Warner Robins ALC (WR-ALC)/CNC, 215 Page Road, Suite 232, Robins AFB GA 31098-1662.
- 5-5.7 <u>Nondestructive Inspection (NDI) Manuals.</u> Send information copies of all reports on NDI manuals to San Antonio ALC (SA-ALC)/TIFN, 512 Shop Lane, Kelly AFB TX 78241-6433.

5-6 AFTO FORM 22 ROUTING.

Some TO improvement reports require special routing -- see table 5-1, part I. If special routing does not apply, address action copies of emergency reports and block 2 of other reports to the ALC shown in the TO indexes (table 5-1, part II).

Table 5-1. AFTO FORM 22 Routing Addresses

- I. Specialized TOMA Mail and Message Addresses.
- A. Nuclear Munitions Maintenance and Loading Manuals, All Category 11N and 60N Manuals Listed in TO 0-1-11N for Air Force Use; Category 1 Nuclear Weapons Loading (-16) TOs and All Category 11N Manuals Listed in the TO 0-1-11N-C Supplement

Mail: SA-ALC/NWTD

413 N. LUKE DR

KELLY AFB TX 78241-5314

Message: WPNS DIR KELLY AFB TX//NWTD//

FAX: 945-7406 DSN: 945-3610

B. Category 60 EOD Manuals excluding Category 60N Manuals

Mail: DETACHMENT 63, ASC/CC

2008 STUMPNECK RD

INDIAN HEAD MD 20640-5099

Message: DET 63 ASC INDIAN HEAD MD//CC//

FAX: 354-4027 DSN: 354-6824

C. TO 00-105E-9 Aircraft Emergency Rescue Information

Mail: AFCESA/DF

139 BARNES DR STE 1

TYNDALL AFB FL 32403-5319

Message: AFCESA TYNDALL AFB FL//DF//

FAX: 523-6383 DSN: 523-6143

D. Disaster Preparedness Related Improvements.

Mail: AFCESA/DXD

139 BARNES DR. STE 1

TYNDALL AFB FL 32403-5319

Message: AFCESA TYNDALL AFB FL//DXD//

FAX: 523-6499 DSN: 523-6376

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Table 5-1. AFTO FORM 22 Routing Addresses - Continued

II. All Other Reports.

.C TO Manage	ment Office Mail and Message Addresses	ALC CODE
Mail:	AGMC/MLEP	AG
	813 IRVING-WICK DR. W	
	NEWARK AFB OH 43057-0001	
Message:	AGMC NEWARK AFB OH//MLEP//	
FAX:	346-7631 DSN: 346-8802	
Mail:	OC-ALC/TILU	NU
	7851 2ND ST, STE 200	
	TINKER AFB OK 73145-9147	
Message:	OC-ALC TINKER AFB OK//TILU//	
FAX:	336-5013 DSN: 336-2937	
Mail:	OC-ALC/TILDT	OC
	3001 STAFF DR. STE 1AB100	
	TINKER AFB OK 73145-3042	
Message:	OC-ALC TINKER AFB OK//TILDT//	
FAX:	336-3305 DSN: 336-5100	
Mail:	OO-ALC/TIEDM	00
	6042 FIR AVE (BLDG 1236)	
	HILL AFB UT 84056-5820	
Message:	OO-ALC HILL AFB UT//TIEDT//	
FAX:	777-7763 DSN: 775-2595	
Mail:	SA-ALC/TILD	SA
	485 QUENTIN ROOSEVELT RD, STE 2	
	KELLY AFB TX 78241-6421	
Message:	SA-ALC KELLY AFB TX//TILT//	
FAX:	945-1579 DSN: 945-6941	
Mail:	SM-ALC/TICDA	SM
	5019 Dudley Blvd, STE 1	
	MCCLELLĂN AFB CA 95652-1026	
Message:	SM-ALC MCCLELLAN AFB CA//TICDA//	
FAX:	633-3054 DSN: 633-3032	
Mail:	SA-ALC/NWTD	NW
	413 N LUKE DR	
	KELLY AFB TX 78241-5314	
Message:	WPNS DIR KELLY AFB TX//NWTD//	

FAX: 945-7406 DSN: 945-3610

WR-ALC/TILT Mail:

420 SECOND ST, STE 100 ROBINS AFB GA 31098-1640

Message: WR-ALC ROBINS AFB GA//TILT//

FAX: 468-6647 DSN: 468-3158

AFTO FORM 22 COMPLETION.

The AFTO FORM 22 may be typed or legibly handwritten in black or blue-black ink. All

addresses must be complete 3 or 4-line entries including 9-digit zip codes. Enough copies will be

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prepared to ensure that the original and two copies are forwarded to the organization having management responsibility for the TO (table 5-1). Carbon paper will be left intact in manifold set AFTO FORMs 22; electronic form (EF) versions will be printed in the number of copies specified above. When reviewers and/or evaluators have given prior approval, electronic forms may be transmitted on disk. The forms will be completed as follows:

5-7.1 PART I, REPORT:

- 5-7.1.1 <u>Block 1, REPORT DATE</u>. Enter the date the improvement report number was assigned.
- 5-7.1.2 Blocks 2 Through 9. Self-explanatory, with the following exceptions: (a) for block 7, enter only the first page affected and explain in block 11, and for work cards enter the routine and card number; (b) for block 8, enter the paragraph to be changed or which precedes added material, the grid number for microfiche, or the System/Subsystem/Subject Numbers (S/S/SN) for manuals using this system; (c) for block 9, enter "table" before the number when applicable.
- 5-7.1.3 Block 10, Technical Order Data. Submitting organizations will enter only the TO number (columns 6 30) and the improvement report number (columns 31 45), with only one character in a column. Leave column 5 blank. Use capital letters and slash zeros (\emptyset). Complete the entries as follows:
- 5-7.1.3.1 Columns 6 30, TECHNICAL ORDER NUMBER. Enter the complete basic TO number as it appears on the title page. Use a separate column for each character, including parentheses and dashes but NO blanks within the number. Leave unused columns through column 30 blank. For supplements, reference the complete supplement number in block 11.
- 5-7.1.3.2 Columns 31 45, IMPROVEMENT REPORT NUMBER. Alpha-numeric characters must be entered in all columns. No special characters, such as dashes, can be used. No columns can be left blank.
- Column 31. Preprinted "2."
- Columns 32 33. Enter the parent command's code as follows:

US Air Force Academy (USAFA)	0B
US Air Forces in Europe (USAFE)	$\emptyset D$
AF Accounting and Finance Center	$\emptyset \mathbf{E}$
Air Reserve Personnel Center (ARPC)	Ø I
Air Education and Training Command	ØЈ
(AETC)	
Air University (AU)	0 K
Air Force Reserve (AFRES)	0 M

Headquarters USAF	0 N
Standard Systems Center (SSC)	0O
Pacific Air Force (PACAF)	0R
Air Intelligence Agency (AIA)	0U
AF Special Operations Command	$\emptyset V$
(AFSOC)	
HQ AF Command, Control, Communica-	0 Y
tions and Computer Agency	
(AFC4A)	
AF Management Engineering Agency	01
(AFMEA)	
AF Safety Agency (AFSA)	02
AF Audit Agency (AFAA)	$\emptyset 6$
AF Office of Special Investigations	07
(AFOSI)	
AF Manpower and Personnel Center	09
(AFMPC)	
Air Combat Command (ACC)	1 C
Air Mobility Command (AMC)	1L
Air Force Materiel Command (AFMC)	1 M
AF Space Command (AFSPC)	1S
AF Engineering and Service Center	1 W
(AFESC)	
AF Technical Application Center	2L
(AFTAC)	
AF Element - US Strategic Command	3Q
(AFELM - USSTRAŤCOM)	•
AF Element - US Readiness Command	3R
(AFELM - USREDCOM)	
US Government, non DoD	4 C
Contractors	4 N
National Guard Bureau (NGB)	4Z
Military Assistance Program Countries	40
(Includes Security Assistance Pro-	
grams, Foreign Military Sales, etc.)	
Joint Communications Support Element	41
US Army	81
US Coast Guard	83
US Marine Corps	84
US Navy	85

NOTE

Some reports still being tracked in the G022 system may reflect superseded command codes, i.e., AAC - 0A, AFLC -0F, AFSC - 0H, MAC - 0Q, SAC -0S, TAC - 0T.

Columns 34 - 40. Organizations with numeric designations will enter the numeric designation of the unit in columns 34 - 37 (precede the number with zeros if less than four digits), and enter the type of unit (BWG, CMS, etc.) in columns 38 - 40 (this may or may not be the same as the PIM unit shown in block 4). Organizations with symbol designations will enter the organization level and office address symbol, i.e., OCLAPPA for the OC-ALC C-135/E3 section, or 0HQ ENBI for the HQ AFMC TO Policy

- office (AFMC is indicated by the "1M" in columns 32 and 33). Contractors will enter the commercial and government entity (CAGE) code number from H4/H8 cataloging handbooks in columns 34 38, and use columns 39 40 for internal identification or enter zeros.
- Column 41. Enter the last digit of the calendar year entered in block 1.
- Columns 42 44. Each reporting organization will number reports sequentially through the calendar year, starting with 001 in January. If there are more than 999 reports in a year, use A01, etc.
- Column 45. Enter E for Emergency, U for Urgent, P for Priority or R for Routine. ("P" will be entered and tracked in G022 as "U", due to programming limitations.)
- 5-7.1.4 Block 11, BRIEF SUMMARY OF DEFICIENCY AND RECOMMENDED CHANGE (Use continuation sheets if necessary). For work package TO reports, the first entry in this block must state: "APPLICABLE TO WP NUMBER xxxxxx." Complete block 11 as follows:
- Identify the military system when this is not included in the TO number. If not a system, identify commodities by MDS or TMS and NSN or part number. Omit for general purpose MPTOs.
- Enter a concise description of the TO deficiency, reason for change and a brief description of the improvement recommended. When appropriate the source document will be indicated for changes in voltage, part number and so forth.
- Word the recommended change as closely as possible to the exact language which should appear in the corrected TO. If the wording is not known, that is, the correction will require engineering research or extensive verification, specify the type of correction ("Add more indepth fault isolation procedures.") and state "Unable to develop at field level."
- Attach additional sheets of paper if needed, showing the improvement report number in the upper right hand corner of each sheet. (The electronic 'EF' version includes a continuation sheet with automatic entry of the improvement report number.)
- If the initiator is submitting (or plans to submit) a suggestion with the improvement report, AND the initiator believes implementation would result in tangible savings, then they

- must attach an estimate of the amount of the savings with justification to the AFTO FORM 22. Reviewers and evaluators at all levels must review this estimate and add their concurrence or revised values as appropriate.
- For AFTO FORM 22 recommendations without tangible benefits, reviewers and evaluators must determine the value of intangible benefits and provide written justification in an attachment to the form. "Justification" will include why tangible benefits could not be assigned, what areas will be affected by the intangible benefits (safety, security, work flow, etc.), and why the particular levels (blocks 23 and 24 on the form) are being recommended.
- Comments by CCPs shall be identified as such and included here. PIM and MAJCOM reviewers who disapprove (or recommend disapproval) of an AFTO FORM 22 for any reason will document the action and reasons in this block. When the CCP official deems that expedited action is essential for a routine report, a request for expeditious processing with rationale may be entered.
- 5-7.1.5 Blocks 12 and 13. Self-explanatory.
- 5-7.1.6 Block 14, APPROVED BY (Supervisor's <u>Signature</u>). The initiator's supervisor or, for operations manuals (-1 series), the Stan-Eval officer will sign the form in this block. When the initiator is the MAJCOM reviewing authority, enter "N/A" and complete blocks 16A through 16C.
- 5-7.1.7 <u>Block 15, PIM OR EQUIVALENT</u> (Signature). The PIM or equivalent organization's branch chief will sign this block. For reports submitted from MAJCOM or equivalent level, enter "N/A".
- 5-7.1.8 Blocks 16A 16C (MAJOR COMMAND ACTION). The CCP reviewer for the TO must indicate approval or disapproval of the form, print or type the CCP office symbol and DSN number in block 16B, and sign and date the form. Reports received by ALC evaluators without entries in these blocks will be returned to the reporting organization without action or entry in the TOIS. The statement "Returned for command channel routing, in accordance with TO 00-5-1, paragraph 5-3.3" will be entered in block 11 of each report returned without action.
- 5-7.1.8.1 If contractor reports affect contract costs or schedules, these blocks will be completed by the contracting officer. Contractor reports which have no impact on contract costs and/or schedules are exempted.

5-7.2 PART II, REPLY:

NOTE

The following blocks are for use by TOMA/TCM activities ONLY.

- 5-7.2.1 <u>Blocks 17 and 18.</u> Addresses from blocks 2 and 4, respectively. On manifold sets (paper copies of the form), the entry "Return to addressee in block ___." may be used. Electronic (EF) versions will automatically enter the return addresses.
- 5-7.2.2 Block 19. Include the TCM's e-mail address and/or \overline{FAX} number with the mailing address.
- 5-7.2.3 <u>Block 20, ACTION TAKEN AND</u> <u>STATUS.</u> Most entries in these rows are self-explanatory. Enter zeros as "0". Definitions for the action taken in entry DBA, columns 55 66 are as follows:

- <u>Abeyance.</u> Reports cover TOs for systems or equipment listed in paragraph 5-10.1 and its subparagraphs. Evaluation delayed until maintenance management (or AF CTOM Committee) review. Resolution date will be entered in entry DBA, columns 67 - 72.
- Advisement. Engineering study required before evaluation can be completed. Evaluation time will extend beyond normal time limits. Resolution date will be entered in entry DBA, Columns 67 - 72.
- <u>Disapproved.</u> Reason will be explained in block 21.
- <u>Duplicate.</u> Same recommendation was submitted earlier and approved or disapproved. When applicable, the earlier improvement report or suggestion number will be entered in block 21. Must NOT be used for rebuttals of disapproved submissions.

APPENDIX A

LIST OF ACRONYMS

ACC Air Combat Command
AD Air Worthiness Directives

AETC Air Education and Training Command

AFC4A Air Force Command, Control, Communications and Computer Agency

AFCESA Air Force Civil Engineering Support Agency

AFI Air Force Instruction

AFIT Air Force Institute of Technology

AFLMA Air Force Logistics Management Agency

AFMC Air Force Materiel Command

AFOTEC Air Force Operational Test and Evaluation Center

AFPD Air Force Policy Directive

AFSAC Air Force Security Assistance Center (AFMC)

AFSEO Air Force SEEK EAGLE Office

AFSOC Air Force Special Operations Command

AFSPC Air Force Space Command
AFTO Air Force Technical Order
AGE Aerospace Ground Equipment

AGMC Aerospace Guidance and Metrology Center (AFMC)

AGSE Aircraft Ground Support Equipment

AGSEWG
AIA
AIr Intelligence Agency
ALC
AMC
AMC
ARS
AIR Mobility Command
ARS
AIR Rescue Service

ATOMS Automated TO Management System
ATOS Automated Technical Order System

CAGE Commercial and Government Entity (Code)
CALS Continuous Acquisition and Life-Cycle Support

CG Computer Generated

C-E Communications-Electronics

CLS/CS Contractor Logistics Support/Contractor Support
CNWDI Critical Nuclear Weapons Design Information

COTS Commercial-off-the-Shelf (Hardware, Software or Manuals)

CPIN Computer Program Identification Number

CSTO Country Standard TO

CTOCU Central Technical Order Control Unit

CTOM Centralized Technical Order Management (Committee) (HQ USAF)

DAC Designated Acquisition Commander
DCA Defense Communications Agency

DDN Defense Data Network

DFARS Defense Federal Acquisition Regulations Supplement

DIC Direct Image Copy
DID Data Item Description
DoD Department of Defense
DP Disaster Preparedness

DRU Direct Reporting Unit

DSM Development System Manager
DSN Defense Switched Network
DT&E Development Test & Evaluation

EF Electronic Form

EOD Explosive Ordnance Disposal

ES Equipment Specialist EWO Emergency War Order

FAA Federal Aviation Administration FAR Federal Acquisition Regulations

FCF Functional Check Flight FMM Flight Manual Manager

FMP Flight Manual Program (FM Procedures, AFI 11-215)

FMS Foreign Military Sales
FOA Field Operating Agency
FRD Formerly Restricted Data
FTE Factory Test Equipment
FTORB Flight TO Review Board

ICBM InterContinental Ballistic Missile ICS Interim Contractor Support

ID Initial Distribution

IETM Interactive Electronic Technical Manual

ILS Integrated Logistics Support
IOS Interim Operational Supplement
IPB Illustrated Parts Breakdown

IPR In-Process Review

ISS Interim Safety Supplement
ITCTO Interim Time Compliance TO
ITDS Improved Technical Data System

ITO Interim Technical Order

ITPS Identifying Technical Publication Sheet IWSM Integrated Weapon System Management

JCALS Joint Computer-Aided Acquisition Logistics Support

JG Job Guide

JNWPS Joint Nuclear Weapons Publication System

LEP List of Effective Pages

LOAP List of Applicable Publications

LPO Lead Project Office

LSA(R) Logistics Support Analysis (Record)

MAJCOM Major Command

MAP Military Assistance Program

MDS Model/Design/Series
MGM Materiel Group Manager
MILSPEC Military Specification
MIL-STD Military Standard
MNS Mission Need Statement
MPTO Methods and Procedures TO

NAVEODTECHDIV Navel EOD Technology Division

NC Numerical Control

NDI Non-Destructive Inspection
NSN National Stock Number

O&M Operation(s) and Maintenance

OJT On-the-Job Training

OMB Office of Management and Budget (DoD)

OPR Office of Primary Responsibility
OT&E Operational Test and Evaluation

PC Product Center (AFMC)
PCR Publication Change Request
PEO Program Executive Officer
PGM Product Group Manager

PIM Product Improvement Manager

PLAD Paperless LANTIRN Automated Depot

PMD Program Managment Directive
PSD Procedural Support Data
PTO Preliminary Technical Order

QA Quality Assurance

R&D Research and Development

RD Restricted Data
RGL Reading Grade Level
RSP Render Safe Procedures

RTO Responsible Test Organization

SAR Specification/Standard Application Record SATODS Security Assistance TO Data System

SB Service Bulletin

SCG Security Classification Guide

SD Schematic Diagram SE Support Equipment

SIPTO Standard Installation Practices TO

SM Single Manager (AFMC)

SMR Source Maintenance Recoverability (Code)

SOW Statement of Work

SPD System Program Director (AFMC)

SPO System Program Office

SSM System Support Manager (AFMC) S/S/SN System/Subsystem/Subject Number

STE Special Test Equipment

T&E Test and Evaluation

TCM Technical Content Manager

TCTO Time Compliance TO
TDY Temporary Duty
TM Technical Manual

TMCR Technical Contract Requirements (document)
TMQA (P) TM Quality Assurance (Plan or Program)

TMSS TM Specifications and Standards

TO Technical Order TOCU TO Control Unit

TODCA TO Distribution Control Activity

TODO TO Distribution Office
TOIS TO Improvement System
TOMA TO Management Agency
TOMP TO Management Plan
TOPS TO Page Supplement
TORB TO Review Board

USAF United States Air Force

VSP Verification Status Page

WD Wiring Diagram
WG Work Group
WP Work Package

APPENDIX B

TECHNICAL ORDER MANAGEMENT

TRAINING PLAN

B-1 PURPOSE:

The purpose of this plan is to provide a comprehensive training outline capable of meeting the training needs of all Air Force TO managers. The plan includes a description of the training products available to TO managers, a listing of the OPR for each training product, and two On-the-Job Training (OJT) Syllabuses. One syllabus addresses training areas of concern to AFMC TO managers and the second addresses training areas relevant to MAJCOM personnel involved in TO acquisition activities.

B-2 TRAINING PREMISE:

TO management within AFMC encompasses TO acquisition, improvement/update, printing, distribution, and ultimately rescission. Using Command TO managers are involved in TO acquisition, improvement, and distribution. To meet the training needs of these diverse management functions, the training products were developed to be used in a modular format. This allows tailoring of the product to the particular area of TO management the trainee will be supporting. Training for TO managers should start at familiarization with basic TO management principles and build to more complex and specific TO management functions. The following is a suggested progression for training accomplishment:

- B-2.1 <u>Air Force Acquisition Model (AFAM)</u> A comprehensive PC application that provides information for Air Force weapon system/commodity acquisition tasks across all functional disciplines. It is designed to assist inexperienced acquisition personnel in performing acquisition tasks for major category weapon system/commodity programs and most non-major acquisitions. The AFAM is structured on the phases of acquisition life-cycle, from pre-Concept Exploration to Operations and Support. An AFAM Supplement (AFAMSUP) contains numerous acquisition reference documents (e.g., policy directives, instructions, pamphlets, etc). AFAM and the AFAMSUP run on IBM compatible computers as a stand alone or Local Area Network (LAN) application. It is available to all Air Force personnel and is updated on a continuing basis. The AFAM should be used to acquaint the trainee with the TO acquisition process and how it interrelates to other management disciplines.
- B-2.2 <u>Air Force Institute of Technology System 230 Course</u> Two week course offered through the Air Force Institute of Technology (AFIT) held in-residence at Wright-Patterson AFB, or locally via a facilitator. Course offerings provide basic acquisition and integrated logistics support concepts, and TO specific acquisition and management principles. The course curriculum is targeted at newly assigned TO managers and managers of other logistics elements requiring basic knowledge of TO program management.
- B-2.3 TO Acquisition and Sustainment Computer Training (CBT) Course A resident PC-based software product. Provides in-depth detailed information on the concepts and processes concerning specific topic areas of TO acquisition and sustainment management. Students review instructional text at their own pace, completing review questions to reinforce learning. CBT is a very effective training tool and should be used during OJT or anytime as a refresher. CBT also offers the flexibility of accomplishment at the work place during available time. The guide is divided into the following seven modules that cover all aspects of TO management:
 - 1. Time Compliance Technical Orders (TCTO)
 - 2. Technical Manual Contract Requirements
 - 3. Technical Manual Specification and Standards
 - 4. TO Acquisition and Development

- 5. Interface
- 6. Budget and Costs
- 7. Printing and Distribution

B-2.4 <u>Seminar and Workshops</u> - If it becomes evident that a special acquisition program, AFMC center, or TO policy training requirement exists, a unique workshop or seminar can be developed to address the issue. Workshops are structured to be an open forum discussions with a hands-on lesson on topics tailored to the needs of a specific TO management level or area. The workshop can be held on site or at select

locations and structured commensurate with the time required to properly address the issue. Past workshops have addressed TMCR tailoring, TO policy updates, and Automated Technical Order Management System (ATOMS) functionality.

B-2.5 On-the-Job-Training (OJT) - OJT consists of actual performance of the TO management function under the supervision and guidance of experienced TO managers. OJT activities can include reading of policy and guidance, attendance at meetings, review of programmatic documents, and hands-on accomplishment of TO management functions. A comprehensive OJT program administered by supervisory personnel can provide detailed standardized instruction and guidance of the day-to-day job requirements. OJT is a long-term activity that should be accomplished in parallel with the above training activities.

B-3 TO TRAINING PRODUCTS ACCESS LIST:

The following are the Points of Contact/OPRs for TO training products:

B-3.1 AFAM and AFAMSUP

ASC/CYMP

2060 Monohan Way, Bldg. 17

Wright-Patterson AFB OH 45433-6503

DSN 785-0423 FAX 785-4102

B-3.2 TO Acquisition and Sustainment Computer Based Training (CBT) Course

AFMC Course #MWECIM003301CB (AFMCP 50-5)

88 MSS/DPEOM

5212 Thurlow St. Ste 4

Wright-Patterson AFB OH 45433-5544

DSN 787-2941 FAX 986-1771

B-3.3 AF Institute of Technology (AFIT) Courses

AFIT/LSY

2950 P St

Wright-Patterson AFB OH 45433-7765

DSN 785-3375, ext 3294 FAX 785-8458

B-3.4 Defense Acquisition University (DAU) Logistics Support Analysis Course, LOG 202

Commandant

U.S. Army Logistics Management College

ATTN: ATSZ-ATR

Fort Lee VA 23801-6041

DSN 539-4965 FAX 539-4663

B-3.5 TO Points of Contact Roster, TO Home Page (WWW), and Seminars/Workshops

HQ AFMC/ENBI

4027 Col Glenn Hwy, Ste 300

Dayton OH 45431-1672

DSN 787-2229 FAX 787-5881

B-3.6 Field Training Detachment (FTD) TO System Training Courses (TODO Personnel)

a. J4AMF2E066-038 General TO System Course (Instructor-led)

b. J6AZU2E066-038 General TO System Course (CBT)

c. J4AMF2E066-039 Advanced TO System Course (Instructor-led)

d. J6AZU2E066-039 Advanced TO System Course (CBT)

ANNEXES

Annex 1 On-the-Job Training Syllabus --Technical Order Manager pg B-3

Annex 2 On-the-Job Training Syllabus --Using MAJCOM Personnel pg B-13

ANNEX 1

ON-THE-JOB TRAINING SYLLABUS TECHNICAL ORDER MANAGER

MONTH 1

Basic Technical Order Familiarization

Reading

AFPD 21-3. Technical Orders

TO 00-5-1, AF Technical Order System

TO 00-5-2, Technical Order Distribution System

TO 00-5-15, Air Force Time Compliance Technical Order System

TO 00-5-18, USAF Technical Order Numbering System

AFMCI 21-301, Air Force Technical Order System

TM-86-01, Technical Manual Contract Requirements (TMCR) document (Generic and tailored for the particular contract)

Trainee Familiarization

- a. The trainee should become thoroughly familiar with the TO system as a whole and the specific types and uses of TOs. Basic understanding of the management system used to control TO improvement, update, printing, stocking, distribution, and rescission is essential.
- b. The trainee must understand the local management structure and the responsibilities of fellow TO management personnel. This will help clarify the trainee's position within the organization and define duty responsibilities.
- c. Contractor Relationships: Trainee will be briefed by the TOMA for the program and the OJT instructor on the specific working relationships established with the applicable contractor(s). This will cover those topics which are within the responsibilities of the trainee and those topics which are to be referred to the TOMA or a contracting officer.
- d. The OJT instructor should ensure the TO Manager in training is briefed on the SPO functional responsibilities and interfaces with: Configuration Management, Data Management, Contracting, Integrated Logistics Support, Engineering, Manufacturing, Program Control, Projects, and Training.

MONTH 2

Basic Acquisition Familiarization

Reading

Program Management Directive (PMD)

Mission Need Statement (MNS)

Statement of Work (SOW) for the specific program

*AFI 63-101, AF Acquisition System Procedures

AFMC 21-301, AF Technical Order System, chapters 1 and 2

*DODI 5000.2, AF Sup 1, Defense Acquisition Management Policies and Procedures

TO 00-5-1, AF Technical Order System, chapters 3 - 5

*TO 00-5-3, AF Technical Manual Acquisition Procedures, chapters 1, 2, 3, and 4

Integrated Logistics Support Plan (ILSP)

DoD Index of Specifications and Standards (DODISS)

NOTE: Basic familiarity with location and content arrangement only.

^{* -}Documents available in the AFAMSUP.

Month 2, - continued

Formal Training Requirement

AFIT Systems 100 Course: Introduction to Acquisition Management

Training Tool

* AFAM and AFAMSUP

TO A&S CBT Course, lessons 2 and 4 (CBT-2 and CBT-4)

Trainee Familiarization

- a. The trainee should understand how an acquisition program is established from the basic user requirement as stated in the Mission Need Statement (MNS) to the Statement of Work (SOW). (CBT-4)
- b. The OJT instructor should provide the trainee with the local procedures for conducting a data call and guidance conference. Basic knowledge is required of TO acquisition procedures and their impact upon future sustainment functions. (CBT-4)
- c. The different types of TO reviews (In-Process Review, Validation, Verification, and Pre-Publication) and the role of the sustainment TO manager should be understood by the trainee. (TO 00-5-3)
 - d. The trainee should learn how to use the AFAM.
- e. The trainee should review the TO task breakdown structure of the AFAM for all acquisition and sustainment phases.
- f. The trainee should review the DoD requirement to acquire digital data and understand the process of evaluating TO data life-cycle costs. (DODI 5000.2, CBT-4).
- g. The trainee should become familiar with the DODISS to the extent necessary to locate a particular specification and verify its status. The trainee should understand the structure of the DODISS and identify the various sections of the DODISS. (CBT-2)

Trainee Participation

- a. The trainee should participate in a program data call to observe the process of identifying TM requirements. Review of documentation from previous data call efforts may provide insight into the programmatic issues addressed during this requirements identification process.
- b. The trainee should attend a TO guidance conference. Trainee should be aware of the program requirements that will ensure sustainment capabilities after conclusion of the acquisition portion of the program. If a guidance conference is not scheduled in the near future, then review of previous guidance conference minutes will provide information normally covered during a typical conference.

MONTH 3

Identification of Interfacing Organizations and Associated Documentation

Reading

- * TO 00-5-3, AF Technical Manual Acquisition Procedures, chapters 3, 4, and 5
- * DODI 5000.2, AF Sup 1, Defense Acquisition Management Policy and Procedures AFI 11-215, Flight Manuals Program (If required for your program)

Formal Training Requirement

AFIT System 230 Course: Air Force Technical Order Acquisition and Management

Training Tools

AFAM and AFAMSUP

TO A&S CBT Course, lesson 5 (CBT-5)

Month 3, - continued

Trainee Familiarization

- a. The OJT instructor will ensure the trainee is familiar with required interfaces: (CBT-5)
- (1) Using Command and/or Technology Repair Center (TRC): The main interface will be the defining and refining of TO requirements and TO verification.
- (2) Supporting Activity: The main interface will be with the applicable ALC having TRC responsibility and the centralized TO management activity involved with sustainment functions.
- (3) Contractor: The main interface will be for clarification of contractual requirements, oversight of the Quality Assurance Program and monitoring the TO/source data development.
- (4) Defense Plant Representative: The main interface will be with the Administrative Contract Officer (ACO) and the Quality Assurance representative.
- (5) (Central) Technical Order Control Unit (CTOCU/TOCU): The main interface will be the CTOCU management of the acquisition TO quality program as authorized by the TOMA.
- b. The OJT instructor will ensure the TO Manager in training is familiar with Memorandums of Agreement (MOAs), Memorandums of Understanding (MOUs) and Program Introductory Documents (PIDs) as they exist and affect the relationship among participating agencies. The MOA between the SPO/PO and the Defense Plant Representative, and the PID with the CTOCU are of particular interest.

MONTH 4

Acquisition Review Activities

Reading

AFPD 21-3, Technical Orders

TO 00-5-1. AF Technical Order System

*TO 00-5-3, AF Technical Manual Acquisition Procedures, chapters 6 thru 10, Apdxs B and C

*AFMCP 800-60, Integrated Weapon System Management (IWSM)

TM-86-01, Technical Manual Contract Requirements (TMCR) Document

Training Tools

AFAM and AFAMSUP

TO A&S CBT Course, lessons 2, 3, and 4

Trainee Familiarization

- a. The trainee should be familiar with the numerous reviews that occur during TO acquisition. The trainee must understand the purpose of each review and the appropriate agencies that participate. (TO 00-5-3, CBT-4)
- b. The trainee must be able to create and coordinate the various management plans (e.g. TO Management Plan (TOMP) and TO Verification Plan (TOVP)) required to support TO acquisition management. To aid in development of these plans generic samples are available in TO 00-5-3.

Trainee Participation

- a. The OJT instructor will ensure the trainee participates in a Technical Order Planning/Requirements Conference. This participation is to include tailoring of the appropriate Technical Manual specifications in accordance with TM-86-01 Preparation Instructions, paragraph 7, and utilizing the applicable Specification Application Records (SARs) of section 4. NOTE: The term "Technical Manual" (TM) includes TOs, commercial manuals, technical data, source data, etc. (CBT-2 and CBT-3)
- b. The trainee will participate in the development of TM contract requirements through the tailoring of TM-86-01.
- * Documents available in the AFAMSUP.

Month 4, Trainee Familarization - continued

- c. The trainee will review those interfaces that are essential to the successful completion of TM inprocess reviews.
- d. The trainee will participate in the planning, scheduling, interface actions and accomplishment of a TM in-process review.
- e. The trainee will assist in the preparation and/or update of the Technical Order Management Plan (TOMP).
 - f. The trainee will assist in accomplishing a TO verification activity.
- g. The trainee will assist in the preparation of a verification plan. This should consist of the research required to identify the applicable TMs, personnel requirements (by specialty and skill level), support equipment (SE) and consumables required, facilities and suggested location.

MONTH 5

Data Requirements Definition and Review Processes

Reading

*TO 00-5-3, AF Technical Manual Acquisition Procedures, chapters 6, 7, 8, 9, and 10

DoD 5010.12-M, Procedures for Acquisition and Management of Data

DoD 5010.12-L, Acquisition Management Systems and Data Requirements Control List (AMSDL)

*AFI 65-601, Vol. 1, Financial Management, Budget Guidance and Procedures

*AFMC Financial Management Handbook

DODI 5000.2, AF Sup 1, Defense Acquisition Management Policies and Procedures

*MIL-HDBK-245, Preparation of Statement of Work (SOW)

AFI 60-114, Contractor Data Management

*AFMCMAN xx-xxx (Draft), Acquisition Management/Acquisition Logistics Management

*AFMCP 63-104, IWSM Configuration Management Implementation Course

*AFMCP 64-102, AFMC Request for Proposal (RFP) Process Course

Training Tools

AFAMSUP

TO A&S CBT Course, lessons 2 and 4

Formal Training Requirement

AFIT Systems 225 Course: Acquisition Logistics

Trainee Familiarization

- a. The trainee must understand the different methods by which TO requirements are identified and how those requirements are reviewed and approved. This includes thoroughly defining specific requirements in preparation for review / approval at Data Requirements Review Boards, Support Equipment Review Boards, and Configuration Control Boards. (CBT-2 and CBT-4)
- b. The trainee should understand their participation in the review process and their responsibility to defend the defined TO requirement. (CBT-2 and CBT-4)

Trainee Participation

- a. Data Requirements: assist in the preparation of AF FORM 585 justifying requirements for TM management support data. (DoD 5010.12-M, AFI 60-114)
- b. Trainee will complete DD FORM 1423, when required, in support of TO support data. (DoD 5010.12-M)
 - c. Data Requirements Review Board (DRRB): assist in preparation for and attend a DRRB.
- * Documents available in the AFAMSUP.

Month 5, Trainee Participation - continued

- d. Support Equipment Review Board (SERB): attend and review documents for review board.
- e. Engineering Change Proposal (ECP)/Contract Change Proposal (CCP): assist in evaluation of an ECP/CCP and assist in preparation of comments/CCB presentation materials. (AFMCP 63-104)
 - f. Configuration Control Board (CCB): assist in preparation for and attend a CCB. (AFMCP 63-104)

MONTH 6

Integrated Logistics Support (ILS) and Logistic Support Analysis (LSA)

Reading

- *TO 00-5-3, AF Technical Manual Acquisition Procedures, chapter 3
- *DODI 5000.2, AF Sup 1, Defense Acquisition Management Policies and Procedures
- *MIL-STD-1388-1A and 2B, Logistic Support Analysis (Handbook under development) NOTE: Trainee should read the introduction and become familiar with the requirement application.
- *AFMCP 800-35, AF 1A/2B LSA Primer
- *AFMCMAN xx-xxx (draft), Acquisition Management/Acquisition Logistics Management

Training Tools

AFAMSUP

TO A&S CBT Course, lessons 4 and 5

Formal Training Requirements

Defense Acquisition University (DAU) LOG 202, Logistics Support Analysis (LSA) Course

Training Familiarization

- a. The OJT instructor will ensure the TO Manager in training is familiar with responsibilities for the ILS elements and their interface. This will include meeting the ILS Managers for each of the elements. (AFMCMAN xx-xxx)
- b. The trainee will coordinate with the ILS manager responsible for Logistic Support Analysis (LSA) and become familiar with the LSA process as it applies to Technical Manual (Data) development. (CBT-4 and CBT-5)

Training Participation

- a. The trainee will participate with the LSA Manager in defining the LSA requirements for the program in acquisition.
- b. The trainee will participate in a LSA review to ensure that the required TO source data is accurate and available for TO development.
 - c. The trainee should attend an LSA in-process review (IPR) of the LSA "C" tables.
- d. The trainee should participate in an Integrated Logistics Support Management Team (ILSMT) meeting, as well as a Depot Maintenance Activation Working Group (DMAWG) meeting.

^{* -} Documents available in the AFAMSUP.

MONTH 7

CFAE/CFE Notice Processing, TO Numbering and TCTO

Reading

AFMCI 21-301, AF Technical Order System, chapters 1, 2, 5, & 6

AFMCI 21-302. Processing Interim Technical Orders

AFMCR 8-5, TO Mechanized Information Numbering, Indexing and Distribution System, chapters 1 & 2

TO 00-5-1, AF Technical Order System, chapter 3

TO 00-5-15, AF Time Compliance Technical Orders

TO 00-5-18, USAF Technical Order Numbering System

DI-TMSS-80067, Technical Manual CFAE/CFE Notice

TM-86-01, Technical Manual Contract Requirements, section 1, Part F

Formal Training

None.

Training Tools

AFAM and AFAMSUP

TO A&S CBT Course, lessons 1, 2, 4, and 7

Trainee Familiarization

- a. The trainee should become familiar with the requirements of the CFAE/CFE Notice DID, DI-TMSS-80067 and the procedures utilized in the evaluation of submitted notices. It is important to understand the different formats used to submit CFAE/CFE notices and the essential information items required on the notice. The procedures used to access the need for the requested data must be fully understood by the trainee. (CBT-4)
- b. The trainee must understand how to prepare approval/disapproval letters on CFAE/CFE notices or other contractual matters for the Procuring Contract Officer's (PCO) signature.
- c. The assignment, control, tracking, and management of TO numbers is an essential step in the development of TOs. The trainee should review TO 00-5-18 and the usage of ITIES in the review of existing TO for future number assignment. (CBT-4, CBT-7, TO 00-5-2, AFMCR 8-5)
- d. The trainee must be familiar with the conditions that form the basis for TCTO development and selection of appropriate TCTO type. Knowledge of forms usage must include; appropriate form selection, form functionality, data element information sources, and routing sequence. (CBT-1, AFMCIs 21-301 and 302, TO 00-5-15)
- e. The trainee must become familiar with and assist in the preparation of an Advance Change Study Notice that has Technical Manual (Data) impact. (CBT-4)

Trainee Participation

- a. The trainee should assist in the evaluation of a CFE/CFAE notice.
- b. The trainee will assist in the TO number assignment process to include accomplishment of the AFMC FORMs 203/204. (AFMCR 8-5)
- c. The trainee will assist in the development, finalization, routing, and tracking of a TCTO. (TO 00-5-15, AFMCIs 21-301 and 302)
- d. If possible, the trainee should either witness or attend a TCTO kit-proofing effort. (CBT-1, TO 00-5-15)

MONTH 8

AFTO FORM 22, AFMC FORM 252, Print Package, TO Reprints

Reading

AFMCI 21-301, AF Technical Order System, chapter 1, 2, & 4

AFMCI 21-302, Processing Interim Technical Orders

AFMCR 8-5, TO Mechanized Information Numbering, Indexing and Distribution System, chapters 1 & 2 TO 00-5-1, AF Technical Order System, chapter 5

*TO 00-5-3, AF Technical Manual Acquisition Procedures, chapter 9 & 10

AFI 37-162, Printing, Duplicating, and Copying Management

AFI 11-215, Flight Manual Program

Training Tools

AFAM and AFAMSUP TO A&S CBT Course, lessons 4 and 7

Trainee Familiarization

- a. Technical Order improvement reports are submitted to recommend changes to TOs. The trainee should review the different types of improvement reports (emergency, urgent, routine) and understand the associated unique processing requirements. The trainee should consult local guidance for unique processing methods utilized at his/her center. The OJT trainer should identify how the trainee's function fits into the total TO improvement approval/implementation process. This includes the accomplishment of the AFMC FORM 252 and the associated update and printing of TO changes. (TOs 00-5-1 & -3, AFMCI 21-301, AFI 11-215)
- b. TO printing/reprinting management is a complex process. The TO manager must be able to coordinate with numerous outside agencies to accomplish printing of TOs. The trainee must know printing process POCs and the roles and responsibilities each play in the printing process. (TO 00-5-3, AFI 37-162, CBT-7)
- c. A critical part of the print management process is the quality review of the reproducible package. The package is reviewed prior to submission to the printing agency. The trainee should understand the review procedure, the critical inspection items, and the process for correcting deficient products. (CBT-4)

Trainee Participation

a. The trainee should actually perform the procedural steps in the Technical Improvement Report process. This should include the evaluation of the AFTO FORM 22, accomplishment of the AFMC FORM 252, development of the TO update, review of the print package, and the routing to the appropriate print agency.

MONTH 9

TO Distribution, Processing AFTO FORMs 187, ATOMS

Reading

AFMCR 8-5, TO Mechanized Information Numbering, Indexing and Distribution System, chapters 1 & 2 TO 00-5-2, Technical Order Distribution System, chapters 3 & 4

TO 00-5-2-2 & -102, Automated Technical Order Management System (ATOMS) users manual and software

Formal Training

FTD General and Advanced TO System Courses (see paragraph B-3.6)

Training Tool

TO A&S CBT Course, lesson 7

Month 9, - continued

Trainee Familiarization

- a. The trainee should understand how TODO codes are assigned and how to complete the AFTO FORM 43 to request or change TODO codes. (TO 00-5-2, CBT-7)
- b. The trainee must understand how ATOMS is used to maintain TO account requirements and distribution records, and to prepare TO Publication Requests. (TOs 00-5-2, -2-2, & -2-102)
- c. The trainee should understand the process by which ID labels are requested and received. Knowledge of the various G022 products associated with the distribution process, TO indexes, AFTO FORM 273, AFTO FORM 274, AFTO FORM 578, ID Summary Listings, and Security Assistance Program (SAP) Control Record Listings is required. (AFMCR 8-5, TO 00-5-2)

MONTH 10

Requisition Processing, Freedom of Information, Release of TOs to Public, and Release Under AFI 61-204

Reading

TO 00-5-2, Technical Order Distribution System, chapters 4, 5, 6, 7, 10 & 11

*TO 00-5-3, AF Technical Manual Acquisition Procedures, chapter 13

DoD 5200.1-R/AFI 31-401, DoD Information Security Program Regulation

DODD 5230.24/AFI 61-204, Controlling the Distribution of Classified and Unclassified Scientific and Technical Information

AFI 37-131, Air Force Freedom of Information Act Program

AFMCR 8-5, TO Mechanized Information Numbering, Indexing and Distribution System, chapters 1 & 2

Trainee Familiarization

- a. The trainee should understand the process involved in TO requisitions submitted by field organizations. Both manual and automated requisitions must be understood. Requisitions can include requests for Classified, Unclassified, Foreign Military Sales, Special Weapons, and Country Standard TOs. (TOs 00-5-2, -2-2, & -2-102)
- b. The trainee must understand the legal rights of individuals to request information including TOs under the Freedom of Information Act. Knowledge of the proper forms usage and evaluation criteria is required. The trainee must be able to properly screen and evaluate information requester's qualifications to receive data. Proper control log book usage is stressed. (AFI 37-131, DODD 5230.24, TO 00-5-2)
- c. The trainee must be able to evaluate/calculate the cost of the requested information and request payment from the requester. (AFI37-131)

Trainee Participation

- a. The trainee should assist in screening of Freedom of Information Act TO requests and log book usage. The trainee should calculate costs of numerous TO request to gain insight into cost variances.
- b. The trainee should actually process a TO requisition through all of the steps from processing computer generated shipping labels through processing emergency requests.

MONTH 11

TO Budget, Contractor Proposal

Reading

*TO 00-5-3, AF Technical Manual Acquisition Procedures, chapters 3 & 5

AFMCI 21-301, AF Technical Order System, chapters 1 & 2

ASCP 800-7, Acquisition Management One-hour Course to Fact-finding and Technical Evaluations

Month 11, - continued

Training Tools

AFAMSUP

TO A&S CBT Course, lessons 4 and 6

Trainee Familiarization

- a. The trainee must be familiar with the budgeting process used to estimate TO sustainment fund requirements. Analysis of programmatic requirements and establishment of critical priorities is an essential part of the funds manager's job. If funding shortfalls occur, unfunded requirements will be briefed and alternative funding sought. (TO 00-5-3, CBT-4)
- b. The trainee must know how to evaluate contractor proposals. Evaluation will include analysis of hours, costs and determination program requirement fulfillment. The trainee should understand the procedures that must be followed and forms used to process the proposal for approval. (ASCP 800-7, CBT-6)

Trainee Participation

- a. The trainee should assist in the processing of a TO budget estimate.
- b. The trainee should assist in the evaluation/approval of a contractor proposal, to include accomplishment of proper forms documentation.

MONTH 12

ATOS

Reading

AFPD 33-2, Command, Control, Communications, and Computer Systems Security AFI 33-202, The Air Force Communications Security (COMSEC) Program

Trainee Familiarization

- a. The trainee must understand the functionality of ATOS. This requires knowledge of how to access the ATOS database, capture text, edit/manipulate data, save data, and produce camera ready copy.
- b. The trainee should be familiar with basic computer security procedures. The trainee must also understand the requirements for monthly reporting to HQ AFMC.

MONTH 13

CALS, JCALS, and DIGITAL DATA

Reading

*DODI 5000.2, Defense Acquisition Management Policy and Procedures, Part 6, section N DODI 5000.1, Defense Acquisition

MIL-HDBK-59, Computer-Aided Acquisition and Logistic Support Program Implementation Course MIL-STD-1840, Automated Interchange of Technical Information

MIL-D-28000, Digital Representation for Communication of Product Data: IGES Application Subsets and IGES Application Protocols

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

MIL-R-28002, Raster Graphics Representation in Binary Format, Requirements for

MIL-D-28003, Digital Representation for Communication of Illustration Data: CGM Application Profile MIL-STD-38784, Manuals, Technical: General Style and Format Requirements

Month 13, - continued

Training Tool

AFAMSUP

TO A&S CBT Course, lessons 2 & 3

Trainee Familiarization

- a. The trainee should understand the Continuous Acquisition and Life-Cycle Support (CALS) concept and the strategy employed by DoD to migrate from manual paper-intensive defense system operations to integrated, highly automated acquisition and support processes. (DODI 5000.2, CBT-2)
- b. The trainee should be familiar with the Integrated Weapon System Data Base concept and how it functions as an integral part of the CALS strategy. (CBT-4)
- c. The trainee must understand the digital data acquisition requirements as defined within DoD 5000.2 and how these requirements are translated into the TMCR. (DODI 5000.2, CBT-4)
- d. The trainee must be familiar with the digital data creation, access, and delivery requirements as defined within MIL-STD-1840. A basic familiarization of the standards for data format include: Raster, Vector, Standard Generalized Markup Language (SGML), and Computer Graphics Metafile (CGM). (MIL-STD-1840, 28000-series MILSPECS)
- e. The trainee must understand how to evaluate digital data cost effectiveness over the life-cycle of a military/commodity system.
- f. The trainee must be familiar with the Joint Computer-aided Acquisition Logistics Support (JCALS) system functionality and infrastructure. This will include how JCALS supports TO acquisition, management, improvement, publishing, and distribution. (MIL-HDBK-59)

Trainee Participation

- a. The trainee will participate in tailoring a TMCR for the acquisition of digital data.
- b. The trainee will participate in analyzing the cost of digital data over the life-cycle of a military/commodity system.
- c. The trainee will review the lessons learned from programs that have previously acquired digital data.

MONTH 14

OJT INSTRUCTOR'S END OF COURSE EVALUATION

The OJT instructor and TO Manager-in-training will review training accomplishments to:

- a. Ensure TOMA has completed mandatory training requirements
- b. Evaluate results of training
- c. Prepare recommended course improvements, as applicable
- d. Ensure new TOMA's training records and training database are updated
- e. Identify and schedule residual training requirements

ANNEX 2

ON-THE-JOB TRAINING SYLLABUS USING MAJCOM PERSONNEL

MONTH ONE

Basic Technical Order Familiarization

Reading

AFPD 21-3, Technical Orders
TO 00-5-1, AF Technical Order System
Program Management Directive (PMD)
Mission Need Statement (MNS)
Statement of Work (SOW) to include TM-86-01
Organizational Documents
AFPD 39-29, Personnel Standards of Conduct
*DODI 5000.2, Defense Acquisition Management Policies and Procedures, Parts 6 & 9

Training Tools

AFAMSUP

TO A&S CBT Course, lessons 2 & 4

Trainee Familiarization

- a. The trainee should review the above documents to gain an overview of the Technical Order System as a whole and the management documents of the acquisition program(s) they are to support. Understanding basic program requirements is a critical foundation on which to build proper MAJCOM program support. (CBT-2 & CBT-4)
- b. The trainee should be familiar with the DoD documents that prescribe the policy and procedures for the acquisition of technical data. These DoD documents set the requirements for program definition and documentation.
- c. The trainee should also review all organizational documents (organization charts, local operating instructions, etc.) that define how the MAJCOM organization supports acquisition programs.
- d. The trainee should understand the standards of conduct and ethics involved with Government/ Contractor relations. Issues which must be addressed are, the impact of attending interchange meetings at contractor facilities, accepting gratuities, and the appearance of impropriety.

MONTH TWO

Basic Acquisition Guidance

Reading

DOD 5010.12-M, Procedures for the Acquisition and Management of Technical Data *TO 00-5-3, AF Technical Manual Acquisition Procedures TM-86-01, Technical Manual Contract Requirements Document TO 00-5-15, Air Force Time Compliance Technical Order System

TO 00-5-18, USAF Technical Order Numbering System

TO 00-5-19, Security Assistance Technical Order Program

Month 2, - continued

Training Products

AFAM & AFAMSUP TO A&S CBT Course, lessons 2 & 4

Trainee Familiarization

- a. The trainee should thoroughly understand the acquisition process/procedures as defined in TO 00-5-3. Of particular importance are the program responsibilities of the using command. The responsibilities of the MAJCOM in relation to all other program support organizations (AFOTEC, Test Activities, AETC, etc.) should be defined by the System Program Office TOMA. (CBT-4)
- b. The trainee should obtain a listing of organizations, POCs, telephone, and FAX numbers for all program participants.
- c. The trainee must be familiar with the contents of the TMCR as tailored for trainee's program. (CBT-2, Program's TMCR)
- d. The AFAM should be reviewed for the relevant sections on Using Command participation in acquisition programs.
- e. The CBT modules on TO Development and TMCR tailoring should be used to provide insight as to the process and importance of establishing complete and accurate TM requirements in the SOW and TMCR. (CBT-2 & CBT-4)

MONTH THREE

Specific Acquisition Procedures

Reading

MIL-M-38784, Manuals, Technical: General Style and Format Requirements MIL-STD-1808, System/Subsystem/Subject Number (S/S/SN) Numbering System MIL-M-87929, Manuals, Technical: O&M Instructions in Work Package Format MIL-M-83495, Manuals, Technical: On-Equipment Set, Organizational Maintenance

Manuals; Detailed Requirements for Preparation of

MIL-M-38807, Manuals, Technical: Illustrated Parts Breakdown, Preparation of

MIL-M-7700, Manuals, Flight

Other Program-Specific MILSPECs

Formal Training Requirement

AFIT Systems 230, Technical Manual Acquisition and Management

Training Tools

TO A&S CBT Course, lessons 2 & 3

Trainee Familiarization

- a. The trainee should review the Technical Manual Specifications and Standards (TMSS) relevant to their program. A clear understanding of the specification requirements, maintenance concept, and operational concept is necessary to evaluate the adequacy of the technical manuals in development.
- b. The trainee should attend the AFIT Systems 230 course to gain knowledge on the TO management system in general and TO acquisition processes specifically.

MONTH FOUR

Specific Acquisition Activities

Reading

TO 00-5-3, Air Force Technical Manual Acquisition Procedures Samples of Documents from existing programs:

- a. Verification Plans
- b. Technical Order Management Plans
- c. Program Technical Manual Schedules
- d. Specification Interpretation Document (SID)
- e. TM 86-01 & Specification Application Record (SAR)
- f. Minutes from IPRs, Validations, Verifications

Training Tools

TO A&S CBT Course, lesson 4

Trainee Familiarization

- a. The trainee should review program documents from existing acquisition programs to gain insight to issues commonly addressed during acquisition.
- b. Particular attention must be paid to TO conference and review meeting minutes and comment tracking methods utilized within the trainee's specific program. Familiarization with TO contract deliverable requirements is necessary.

Trainee Participation

a. The trainee should attend and observe typical acquisition activities (IPR, Verification, etc.) to gain first hand exposure to the TO development environment.

GLOSSARY

Α

- ACCURACY--A publication is accurate if it is free of errors (correct procedural steps, in the correct order, parts data that match parts used, etc).
- ADEQUACY--A publication is adequate if it permits the intended users to do their job in accordance with the approved maintenance or operational concept (read and understand all materials to a level that results in successful task performance).
- AUTOMATED TECHNICAL ORDER MANAGEMENT SYSTEM (ATOMS)--The ATOMS is a computer program which is designed to assist TODOs in accomplishing record-keeping functions associated with TO distribution. The computerized AFTO FORM 110, TECHNICAL ORDER/CPIN DISTRIBUTION RECORD, system is designed to be an optional system which eliminates the need to maintain hard copy AFTO FORMS 110 and AFTO FORMS 131, TECHNICAL ORDER INDEX ROUTINE AND ANNUAL CHECK records. ATOMS is published as TO 00-5-2-102 on floppy disk, with a users' manual published as TO 00-5-2-2.
- AUTOMATED TECHNICAL ORDER SYSTEM (ATOS)--The computerized system used by ALCs for the storage, retrieval and maintenance of TOs. ATOS is capable of producing both digital and hard copy reproducibles.

C

- CENTRAL TECHNICAL ORDER CONTROL UNIT (CTOCU)--A TO acquisition-phase agency responsible for the TO QA program under the direction of the TOMA. Its location and management shall be determined by the TOMA (TO 00-5-3). The CTOCU normally includes representatives from AFMC, the using command and the contractor. The CTOCU is no longer authorized after completion of the acquisition phase without the express written agreement of the SPD and using command(s).
- COMMODITY--A designated item, subsystem, or system which is not identified as a weapon system. Commodities are grouped into Product Groups or Materiel Groups which possess similar characteristics and applications benefitting from similar developmental, acquisition, and logistics support management processes. INTEGRATED COMMODITIES are so tied to a weapon system that separate management is not feasible.
- COMMAND CONTROL POINT (CCP)--The MAJCOM office or delegated activity responsible for review and approval of AFTO FORMs 22 on a designated system, commodity, or specialty area.
- CONFIGURATION MANAGED EQUIPMENT--Equipment that reflects the current configuration of military systems and/or commodities currently in the Air Force operational inventory. This equipment requires the use of the latest TO information as listed in the appropriate TO Index.

D

DEVELOPMENT SYSTEM MANAGER (DSM)--The lead individual at a Product Center when an SM located at a Logistics Center delegates a specific development task to the Product Center. The DSM reports directly to the SM.

F

FLIGHT MANUAL MANAGER (FMM)--The individual responsible for managing the technical content of FMP publications. This includes initial acquisition and verification, maintenance, and periodic reviews.

GLOSSARY - Continued

M (Cont)

NONCONFIGURED EQUIPMENT--Equipment that is representative of but does not reflect the current configuration of vehicles or systems in the Air Force operation inventory. The latest issues of the TO information compatible with the specific items of equipment are mandatory for use with this equipment; publication date will not necessarily be listed in the TO index (chapter 2, paragraph 2-6.12).

P

PRELIMINARY TECHNICAL ORDERS (PTOs)--PTOs are produced in limited quantities for Air Force personnel to review and approve the contents during acquisition, and for development of initial training packages (TO 00-5-3).

PRODUCT GROUP--A compilation of several specific commodities in all life-cycle phases, characterized by an on-going development requirement and a much larger cumulative sustainment effort.

PRODUCT GROUP MANAGER (PGM)--The single manager for a Product Group, who has the same responsibilities as a System Program Director or Materiel Group Manager for the assigned products (AFMCR 500-11).

PRODUCT IMPROVEMENT MANAGER (PIM)--The individual or office at an activity responsible for the quality and continuous improvement of the activity's operations and maintenance of assigned equipment (formerly "Quality Assurance" or "Quality Control").

S

SHALL, WILL, SHOULD, MAY--In TOs the word "shall" is used to express a provision that is binding. The words "should" and "may" are used when it is necessary to express non-mandatory provisions. "Will" may be used to express a mandatory declaration of purpose or when it is necessary to express a future event.

SINGLE MANAGER (SM)--The generic term encompassing System Program Directors (SPD), Product Group Managers (PGM), and Materiel Group Managers (MGM) (see definitions).

SYSTEM PROGRAM DIRECTOR (SPD)--The individual in an AFMC SPO who is ultimately responsible and accountable for decisions and resources in overall program execution. The single face to the user who oversees the seamless process. SPD is the designated title for the single manager of a program who reports to a Program Executive Officer (PEO) or Designated Acquisition Commander (DAC) (AFMCR 500-11).

SYSTEM PROGRAM OFFICE (SPO)--The integrated AFMC organization responsible for cradle-to-grave military system management.

SYSTEM SUPPORT MANAGER (SSM)--The lead individual at the Logistics Center responsible for support when the SM is located at the product center. The SSM reports directly to the SM.

T

TECHNICAL CONTENT MANAGER (TCM)--The individual or office responsible for the accuracy, adequacy, modification, classification and review of TO procedures, engineering data and the related technical contents of a TO. TCMs are not generally responsible for style and format or other nontechnical aspects of manuals.