

**BY ORDER OF THE
SECRETARY OF THE AIR FORCE**

AIR FORCE INSTRUCTION 11-215

25 MARCH 2019



Aircrew Operations

FLIGHT MANUALS PROGRAM

Corrective Action completed, 17 July 2019

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at www.ePublishing.af.mil for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: AFMC/A3V

Certified by: AF/A3TF
(Lt Col Kathryn M. Nelson)

Supersedes: AFI11-215,
22 December 2008

Pages: 42

This instruction implements Air Force Policy Directive (AFPD) 11-2, *Aircrew Operations* and defines the USAF flight manual program. This instruction issues guidance that is consistent with that prescribed by or pursuant to the following publications: AFPD 10-9, Lead Command Designation and Responsibilities for Weapon Systems; AFPD 63-1, Integrated Life Cycle Management, AFI 63-101/20-101, Integrated Life Cycle Management, TOs 00-5-1, *AF Technical Order System*, 00-5-3, *AF Technical Order Life Cycle Management*, and 00-5-19, *Security Assistance Technical Order Program*. This instruction applies to all major commands (MAJCOMs) Operations Directorates, Air Force Life Cycle Management Centers (AFLCMC)/Product Center Single Managers and Technical Order (TO)Managers, unit level TO distribution activities, Flight Manual Managers (FMMs) and flight crewmembers who manage, prepare, review, approve, distribute, or use Flight Manuals. This publication is applicable to Regular Air Force, Air National Guard, and Air Force Reserve. This AFI may be supplemented at any level. Follow the supplement guidance in [paragraph 1.5](#) and [10.1](#). The authorities to waive wing/unit level requirements in this publication are identified with a Tier (T-0, T-1, T-2, T-3) number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the requestor's commander for non-tiered compliance items. See also [paragraph 1.3](#) for additional information on submitting waivers. Ensure that all records created as a result of processes prescribed in this publication are maintained In Accordance With (IAW) Air Force

Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional chain of command. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This document has been substantially revised and needs to be completely reviewed. Tiered AFI IAW AFI 33-360. Updated Air Logistic Center (ALC) to Air Force Life Cycle Management Center (AFLCMC) throughout the publication. Removed all references to Community of Practices (CoPs). Updated publication reference to AFI 63-101/20-101 and MIL-DTL-7700 throughout the publication. Updated the office symbol for the AFSC office to Air Force Safety Center (AFSEC) throughout the publication. Added supplement routing in **paragraph 1.5.1** to go through OPR prior to certification for verification. Updated reference to AFI 61-201 (formerly AFI 61-204), *Management of Scientific and Technical Information (STINFO)*. Added reference and verbiage about flight manuals and controlled unclassified information restrictions. Added examples of approved means of transmitting flight manual data. Changed waiver request form from AFMC form to the AF approved form. Deleted the mailing address for improvement recommendations. Updated the air refueling reference to ATP-3.3.4.2. Added flight crew information file guidance for waiver notification. Added performance conflict resolution guidance. Changed the supplement process for flight manuals and checklists. Deleted the scroll checklist information. Updated AFJI 21-301 with the new AFI 20-118. Added mandatory attendance to the Flight Manual Executive Steering Group meeting for MAJCOM Flight Manual Program Managers. Removed the USAFA from the membership in the Flight Manual Executive Steering Group. Updated the URL for the CTOM SharePoint site. Updated USAF Flight Manual SharePoint URL. Added the restriction from using unverified flight manuals. Updated the office symbol for 1-1M-34 point of contact. Updated the publication references for MAJCOM responsibilities Removed Field Operating Agencies and Direct Reporting Units from MAJCOM Flight Manual Program Managers requirements. Deleted the Standard Generalized Markup Language requirement for digital TOs. Defined PED as Portable Electronic Device. Deleted all references to ATOMS. Removed references to memory sticks and thumb drives. Added guidance for recommended changes to for F-35 flight manual publications. Removed NGB MAJCOM Stan/Eval coordination for AF Forms 847 as NGB no longer has a MAJCOM Stan/Eval office. Deleted reference to the IDEA program. Deleted all of old **chapter 10** (Recommending Air Force Publication Improvements), and renumbered **chapter 11** to **chapter 10**.

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Chapter 1

GENERAL INFORMATION

1.1. General. AFMC/A3 is appointed the executive agent for flight manuals and is responsible for program management, guidance, policy and procedures. This instruction establishes procedures and standards for personnel to manage and use USAF flight manuals to operate or maintain aircraft. It includes information and detailed instruction on the use of Air Force Form 847, Recommendation for Change of Publication.

1.2. Scientific and Technical Information Distribution Limitations and Distribution Statements. Publish, distribute and use all flight manuals and AF Forms 847 relating to flight manuals IAW AFI 61-201, Management of Scientific and Technical Information (STINFO), 00-5-series TOs, and this instruction.

1.2.1. Flight manuals (to include related supplements, changes, AF Forms 847, checklist procedures, take-off and landing data courseware, etc.) are subject to the security and information assurance rules governing scientific and technical information as well as controlled unclassified information. Personal computing devices will not be used for storing or processing flight manual information. **(T-1)**.

1.2.2. Examples of approved transmission methods include: encrypted email, ARL Secure Access File Exchange (SAFE) site, and restricted SharePoint sites.

1.3. Deviations and Waivers. Do not deviate from the policies and guidance in this AFI unless necessary to prevent personal injury, weapon system damage or the situation requires immediate attention.

1.3.1. The flight manual always takes precedence over other sources containing conflicting data. Report all deviations or exceptions through the responsible MAJCOM Stan/Eval function.

1.3.2. Waiver authority for the content of this instruction is AFMC/A3. Submit waivers on AF Form 679, Air Force Publication Compliance Item Waiver Request/Approval. Requests for deviations or waivers to specific Flight Manuals (TOs) are submitted through the operating MAJCOM Stan/Eval to the MAJCOM/A3 for approval. Waivers are intended to be of temporary nature and are for specific, case-by-case instances, and have specific beginning and ending dates. MAJCOM/A3s will consider waiver necessity for mission accomplishment and risk mitigation, as well as coordinate with appropriate aircraft program office engineering for concurrence. MAJCOM/A3s may delegate the waiver approval authority no lower than wing commanders for deviations or waivers that are necessary and part of an approved operational test or developmental test plan. MAJCOM/A3s will forward an information copy of all approved waivers to AFMC/A3V.

1.4. Roles and Responsibilities. As the executive agent for the flight manual program AFMC/A3 defines the following roles and responsibilities.

1.4.1. AFMC/A3 will appoint a Program Manager (PM) to manage the flight manual program for the AF. The AF Flight Manual Program Manager (AFFMPM) will be responsible for AF policy as it pertains to flight manuals.

1.4.2. The TO Manager (TOMA) is responsible for managing some or all of the TOs for a specific military system or commodity program for the entire life cycle. Management responsibilities typically include acquisition, sustainment, format, publishing, storage, distribution and archiving of TOs and related technical data.

1.4.3. Each Program Office will assign a Flight Manual Manager to oversee flight manual issues for the lifecycle of the weapon system. See [paragraph 5.1.1](#) for Flight Manual Manager qualification requirements. **(T-1)**.

1.4.4. MAJCOMs will appoint a primary and alternate MAJCOM Flight Manual Program Manager (MFMPM). The MFMPM will be the single source for all flight manual issues for that command. The primary and alternate MFMPM will be qualified crewmembers.

1.4.5. Crewmembers will follow flight manual publications, authorized supplements, and associated checklists during aircraft operations. **(T-1)**.

1.5. Supplements. This instruction is a basic directive. This AFI may be supplemented at any level, but all supplements that directly implement this publication must be routed for coordination prior to certification and approval. Limit supplement information to unique MAJCOM or mission design series (MDS) requirements. Forward an electronic copy of draft command supplements for coordination to AFMC/A3V (afmc.a3v@us.af.mil).

Chapter 2

FLIGHT MANUAL PROGRAM PUBLICATIONS

2.1. General. The following manuals are governed by this instruction: Basic Flight Manuals (-1 series), Basic Weight Checklist and Loading Data (-5 series), Functional Check Flight (-6CF series), Cargo Aircraft Loading Manuals (-9 series), Cargo Aircraft Nuclear Weapon Loading (-16 series), Nuclear Weapon Delivery (-25 through -31 series), Non-Nuclear Munitions Delivery (-34 series) and Mission Operation (-43 series).

2.1.1. NATO Allied Tactical Publication, ATP-3.3.4.2, Air-To-Air Refueling, has become the primary source to provide flight crewmembers with internationally standardized definitions, abbreviations and procedures to enable successful and safe air-to-air refueling operations. For aircraft with an in-flight refueling capability, the relevant TO-1 series provides supplemental MDS-specific information on air-to-air refueling orbit and rendezvous and procedures concerning tanker/receiver formations. ATP-3.3.4.2 can be found at <https://www.japcc.org/AAR/>.

2.2. Program Managers and System Program Directors. Program Managers (PMs) and System Program Directors (SPDs) of military aircraft acquisition programs are required to:

2.2.1. Establish a flight manual program when setting up a TO Management Agency (see TO 00-5-1). This responsibility extends for the life of the system and includes complete flight manual coordination responsibility across the AF system.

2.2.2. Appoint a qualified Flight Manual Manager (see [paragraph 5.1.1](#)) to manage the flight manual program. The life of the aircraft program includes initial acquisition and verification, sustainment, and periodic reviews.

2.2.3. Establish procedures to ensure flight manual program records are maintained for the life of the program. Records include: applicable source data, certification documents, verification records, waiver documents, change requests, Flight Manual Review Conference minutes, and Deficiency Reports that affect the flight manuals.

2.2.4. Ensure flight manuals for which the Program Manager is responsible are addressed in the mission design series/weapon system-specific Comprehensive Air Force TO Plan annex. Use Comprehensive Air Force Technical Order Plan data to report flight manual currency metric on a quarterly basis.

2.2.5. Ensure flight test programs contain adequate instructions to gather data for flight manuals. See MIL-DTL-7700, Detail Specification Flight Manual, Performance Data Appendix, Mission Crew Manual, Supplemental Manual, and Abbreviated Flight Crew Checklist for requirements.

2.2.6. Ensure all program elements (engineering, logistics, funding, etc.) support the flight manual program and its timeline ([Attachment 4](#)).

2.2.7. Ensure all technical order management and support activities adhere strictly to the 00-5 series technical orders and the AF TO System. Ensure all flight manual program acquisitions are verified and certified IAW TO 00-5-3 and AFI 63-104, The SEEK EAGLE Program, for acquisitions involving aircraft-store compatibility.

2.2.8. Initiate the process to facilitate lead and user command Stan/Eval functions to access flight manual data when the flight manual data is not stored on the Enhanced Technical Information System (ETIMS).

2.3. Flight Manual Publications.

2.3.1. The minimum print quality for all flight manual program publications is Level III (Good Quality), as described in Government Publishing Office (GPO) Publication 310.1, Quality Assurance Through Attributes Program For Printing and Binding. These products require above average materials, printing, workmanship, quality control, and commensurate production time. Products of this level require clean, sharp printing of single or multi-color work (general process color work) and halftone reproductions up to 150-line screen. Above average quality of the original copy, films, composition, reproduction proofs and typography standards are required to ensure the accuracy, durability and appearance of the finished printed product.

2.3.2. Only the Flight Manual Manager (PM/SPD assigned) may change, add, delete, and rearrange procedures or information in assigned flight manual publications, preliminary flight manual publications, operational and safety supplements, and revisions as specified in TOs 00-5-1 and 00-5-3. This authority cannot be delegated to the MAJCOM level or the MDS engineer. The MDS flight manual manager and MDS primary engineer ensure an established process is in place which verifies accuracy of flight manual publication engineering content to support weapon system and lead command requirements. This process includes a quality review of flight manual content by the lead command or its delegate. The flight manual manager approves all MDS flight manual changes. Flight crew information files are not an authorized means of directing changes to flight manual guidance. Flight crew information files can be used to notify flight crewmembers of approved waivers to flight manuals. When a performance conflict is observed (between data produced by computer software program and manually extrapolated), the flight manual remains the source authority

2.3.3. A change or revision is the preferred method for updating flight manual publications. However, if a supplement is the most expeditious and logical way to provide critical information to the field, Flight Manual Managers may issue the supplement(s) with the concurrence of the lead and using commands. Hold supplemental write-in changes to an absolute minimum. Incorporate, supersede or rescind supplements as soon as practical, but not later than one year from date of issue. If the lead command and Flight Manual Manager deem that a supplement should remain past the one-year time limit, notify AFMC/A3V and AF/A4LM 30 days prior to expiration.

2.3.4. When supplements affect both the basic flight manual and its associated abbreviated checklist, Flight Manual Managers may publish separate flight manual and checklist supplements with lead command concurrence. Do not use supplements to update information or procedures in a previous supplement.

2.3.5. Formal supplements affecting procedural checklists will contain temporary checklist pages.

2.3.6. Interim supplements affecting flight crew checklists will authorize write-in changes to the affected checklist. If practical, temporary checklist pages (cut out) may be provided as an attachment to the interim supplement.

2.3.7. The Flight Manual Manager coordinates with lead command before deciding whether to formalize an interim supplement. Replace interim supplements affecting flight crew checklists with formal supplements containing temporary checklist pages. Publish a formal supplement or change and complete initial distribution within 40 calendar days after dispatch of the interim supplement. That decision may depend on whether a formal change is near the publishing stage of development.

2.3.8. The Flight Manual Manager will make sure flight manual publication interim or formal supplements will include a status page or a paragraph listing all current supplements outstanding against the affected flight manual. **(T-1)**. The Flight Manual Manager coordinates with lead and using commands on the supplement content prior to release. See [paragraph 5.2.16](#) for interim supplement timeline requirements.

2.3.9. If flight crewmembers use the flight manual as their primary procedural source (instead of abbreviated checklists) while the aircraft is in flight, the Emergency Procedures (EP) section will only be updated using a formal change, unless the interim or formal supplement provides replacement pages (i.e. no write-in changes for the EP section under these circumstances). Temporary replacement pages are permissible. The time to publish the change is the same as a formal supplement.

2.3.10. Unless authorized by the MAJCOM with approval from the Flight Manual Manager or in MDS-specific AFI/AFMAN, do not integrate combine checklists derived from different flight manuals to form single checklists. Checklist binders may contain different complete checklists, however crewmembers will not integrate the checklists with each other. **(T-2)**.

2.3.10.1. Unit developed checklists (e.g. fanfold, local checklists, etc.), to include performance data inserts, will not be used by crewmembers in lieu of flight crew checklists unless authorized in the AFI/AFMAN 11-2 MDS specific volumes and approved by MAJCOM Stan/Eval and MDS Flight Manual Manager. **(T-2)**. When approved, as a minimum, these checklists will contain all items (verbatim and in order, unless specifically addressed in the basic flight manual) listed in the applicable checklists. **(T-2)**. These checklists will reflect the same change number, change date and applicable supplement numbers as the flight crew checklist for configuration control. **(T-2)**.

2.3.10.2. MAJCOMs may authorize flight crewmembers to not carry specific sections of aircraft, weapons, and flight crew checklists that do not apply to unit MDS weapons systems or equipment. If flight crewmembers remove pages or sections that do not apply, they will annotate the List of Effective Pages to show which pages have been removed. **(T-2)**. Flight crewmembers maintain these sections as directed by MAJCOM Stan/Eval.

2.3.10.3. MAJCOMs may add more restrictive items to flight crew checklists to enhance training, tactical operations, or special operations with the concurrence of the Flight Manual Manager. Send copies of these items to the Flight Manual Manager and review at the next Flight Manual Review Conference for inclusion in flight manual.

2.3.11. MAJCOMs may authorize units to withhold supplements that do not apply to the aircraft they operate. If MAJCOMs use this authorization it will be identified in the MAJCOM supplement to this instruction.

2.4. Supplemental Flight Manuals.

2.4.1. Flight Manual Managers will develop classified flight manuals and checklists according to MIL-DTL-7700. (T-0).

2.4.2. Flight Manual Managers develop supplemental flight manuals and checklists for aircraft modifications intended to be permanent according to MIL-DTL-7700. (T-0). These manuals and checklists complement the basic flight manual and are incomplete without it. The source data and preliminary technical data for these manuals will be verified IAW TO 00-5-3 and, where appropriate, will be certified IAW AFI 63-104 for acquisitions involving aircraft-store compatibility. (T-1).

2.4.3. As part of the formal flight test plan, MAJCOMs may develop interim modification flight manuals and checklists outside of the formal TO development system.

2.4.3.1. These manuals and checklists provide operating instructions and information for a small number of aircraft modified for engineering and flight testing.

2.4.3.2. Only information and procedures resulting from the modification need to be included in the modification flight manual since a standard flight manual is required for the aircraft. Data from the standard flight manual is included in the modification flight manual only to the extent required for clarity and understanding.

2.4.3.3. MAJCOMs that conduct formal flight testing will establish procedures for developing these manuals.

2.4.3.4. The information, data, and procedures in these manuals and checklists will be verified by flight test crews IAW TO 00-5-3. (T-2).

2.5. Commercial Aircraft Flight Manuals. Commercial aircraft that have been certified by the Federal Aviation Administration (FAA) and are procured (to include leased or bailed aircraft) by the USAF may utilize manufacturer provided flight manuals, including checklists, provided the provisions of Department of Defense (DoD) MIL-PRF-32216, Evaluation of Commercial Off-The-Shelf Manuals and Preparation of Supplemental Data, have been met. The provisions of this instruction apply to commercial off-the-shelf operated aircraft.

2.6. Joint Flight Manuals. AFI 20-118, Instructions for the Interservicing of Technical Manuals and Related Technology Program, prescribes the policies, agreements, and procedures for exchanging technical manuals and associated information on common-use equipment by military services and the Defense Logistics Agencies (components). In development of new weapon systems, the Program Manager (PM) will coordinate with the lead command/CC to determine if the provisions of a Joint Flight Manual meet the mission requirements for their aircrew (see [paragraph 6.4.1.11](#) for lead command responsibilities for Joint Flight Manual coordination).

Chapter 3

FLIGHT MANUALS EXECUTIVE STEERING GROUP

3.1. General. The Flight Manuals Executive Steering Group is a working level group that reviews and approves all Air Force policy and guidance relating to the flight manual program. Additionally, the Group reviews MAJCOM requirements, management objectives, flight manual publication specifications, and timeliness of flight manual publications, problem areas, and flight manual publication plans.

3.2. AF Flight Manual Program Manager. The AF Flight Manual Program Manager is appointed by AFMC/A3. The AF Flight Manual Program Manager acts on behalf of the Air Staff through AFMC/A3 to meet all AF flight manual requirements, management objectives, instructions, and chairs the Flight Manuals Executive Steering Group. The AF Flight Manual Program Manager represents the Flight Manuals Executive Steering Group at the Centralized Technical Order Management (CTOM) Committee.

3.3. MAJCOM Flight Manual Program Manager. The MAJCOM Flight Manual Program Manager is appointed by the MAJCOM/A3. The MAJCOM Flight Manual Program Manager is responsible for guiding MAJCOM policy relating to MAJCOM weapon system flight manuals. This includes overseeing MAJCOM flight manual requirements, managing the change request processes at the MAJCOM, ensuring flight manual review processes are established in conjunction with the Flight Manual Manager, and identifying problem areas to the Flight Manual Manager. MAJCOM Flight Manual Program Managers are required to guide future flight manual strategies (including digital flight manuals) for weapon systems and ensure their inclusion in the MAJCOMs' Comprehensive Air Force Technical Order Plan. The MAJCOM Flight Manual Program Managers will attend the Flight Manual Executive Steering Group meetings.

3.4. Meetings. The Flight Manual Executive Steering Group meets annually (as determined by the AF Flight Manual Program Manager) or as deemed necessary by its members.

3.5. Membership. Members of the Flight Manuals Executive Steering Group include the MDS Flight Manual Manager, and MAJCOM Flight Manual Program Managers representatives from: HQ ACC; HQ AMC; HQ AFMC; HQ AFSOC; HQ AETC; HQ AFGSC; NGB; HQ AFRC;

3.5.1. Representatives from AFLCMC will be the MDS Flight Manual Manager from the System Program Office.

3.5.2. Representatives from each MAJCOM are the MAJCOM Flight Manual Program Managers.

3.5.3. Other activities may participate, as required, in the Flight Manual Executive Steering Group on a non-voting basis to address specific issues.

3.6. Voting. Flight Manuals Executive Steering Group decisions are made using a majority voting system, with one vote per MAJCOM and the MDS Flight Manual Manager. Voting is limited to those MAJCOMs and MDS Flight Manual Managers that are affected by the issue being voted upon. All members may vote for issues which affect all MAJCOMs and weapon systems. The Flight Manual Program Manager together with the lead command for the affected MDS and MDS Flight Manual Manager will resolve split decisions (if required).

3.7. Action Items. Any individual or agency that develops, acquires, or uses flight manuals may submit suggested action items through the parent MAJCOM Flight Manual Executive Steering Group representative (MAJCOM Flight Manual Program Managers). Suggested action items include a statement of the problem or initiative, the suggested corrective action or approach, previous action taken by the initiator to correct the problem, and the initiator's name and unit of assignment. The group representatives validates the action item, provides any previous actions to correct the situation, determines resources available to work the problem, and notes any anticipated benefits, costs and effects of other TO system users. The parent MAJCOM Flight Manuals Executive Steering Group representative submits the action items to AFMC/A3V who presents the issue to the next CTOM. MAJCOM Flight Manuals Executive Steering Group members ensure their MAJCOM CTOM representatives are aware of the proposed action item prior to the next CTOM. MAJCOM CTOM representatives are listed at the Air Force CTOM website: <https://cs2.eis.af.mil/sites/12837/default.aspx>. Organizational membership is listed in AFMCI 21-301, Air Force Materiel Command Technical Order System Implementing Policies.

Chapter 4

HQ AFMC RESPONSIBILITIES

4.1. AFMC/A3 Responsibilities.

- 4.1.1. Appoint the AF Flight Manual Program Manager (AFFMPM).
- 4.1.2. Provide operational senior officer oversight to the flight manual program. Receives updates and reports from the AF Flight Manual Program Manager as required.

4.2. AFMC/A3V Responsibilities.

- 4.2.1. Together with the Flight Manuals Executive Steering Group, develop and implement policy and guidance for the Air Force flight manual program and coordinate policies affecting TO System policies with the CTOM and AF/A4LM.
- 4.2.2. Coordinate approval or disapproval of MAJCOM requests for waivers or exceptions to this instruction.
- 4.2.3. Coordinate flight manual publication management with the DoD and other federal agencies.
- 4.2.4. Act as arbitrator and approving official for unresolved flight manual publication issues.
- 4.2.5. Maintain a single source Internet accessible website for all flight manual issues. This page is labeled “USAF Flight Manual Site” at: <https://cs2.eis.af.mil/sites/11270/default.aspx>. This website contains the following:
 - 4.2.5.1. Current listing of Flight Manual Managers by MDS. This includes the name, weapon system, office symbol, address, and DSN number for each Flight Manual Manager.
 - 4.2.5.2. Current listing of all MAJCOM Flight Manual Program Managers to include email, DSN, and office symbol.
- 4.2.6. Establish approval and control procedures for flight manuals and checklists for experimental, engineering, flight test, and special mission aircraft (see [paragraph 2.4.3](#)) as referenced in AFMCI 21-126, Temporary 2 (T-2) Modification of Aerospace Vehicles.
- 4.2.7. Identify specialized engineering and technical support centers for the Flight Manual Managers.

Chapter 5

AIR FORCE LIFE CYCLE MANAGEMENT CENTER (AFLCMC) RESPONSIBILITIES

5.1. PMs, SPDs and Technical Order Managers Responsibilities.

5.1.1. Appoint individual Flight Manual Managers who are technically qualified i.e. certified engineers, flight crewmembers with experience in the weapon system, personnel with military aircrew experience using flight manuals (reference [paragraph 2.1](#)) or experience as a Flight Manual Manager. It is highly desirable that the chief of the Flight Manual Manager organizational element (or the next higher level organizational element) assigned engineering responsibility for Flight Manual Managers have military aircrew experience or an aeronautical engineering degree, or have experience as a Flight Manual Manager.

5.1.2. Notify AFMC/3V if there are MDS or flight manual manager changes. If there are changes, personnel or MDS, provide contact information, assigned MDS, assigned TO number(s), and/or series as applicable.

5.1.3. Notify the AFLCMC/HBM OL1 (DSN 875-5828/2948; COMM 850-883-5828/2948; f14cw.todo@us.af.mil) Eglin AFB FL of any pending changes affecting aircraft performance to update the Flight Performance Model.

5.1.4. Ensure assigned Flight Manual Managers attend the Flight Manuals Executive Steering Group meetings.

5.1.5. Ensure proper support for flight manual publication from all Center elements. This includes developing procedures to ensure commodity managers and PMs coordinate proposed modifications that impact the flight manuals with the Flight Manual Manager office. Rapid and timely printing support of flight manual publications is essential for flight safety.

5.1.6. Technical Order Manager Specific Responsibilities:

5.1.6.1. Establish procedures to ensure the Flight Manual Manager is notified of all TO updates that could affect the flight manual publications. **(T-1)**.

5.1.6.2. Establish printing priorities for flight manual publications by coordination with the Flight Manual Manager and the TO Distribution and Print Services office. Give special attention to priorities and time limits for safety and operational supplements. **(T-1)**.

5.1.6.3. Track the production of all flight manual publications through the entire publication cycle. **(T-1)**.

5.1.6.4. Establish procedures so flight crewmembers do not operate new or modified equipment or aircraft, without proper companion technical data according to AFI 63-101/20-101, and 00-5-series TOs. **(T-1)**. Technical data must be at least to the level of verified preliminary TOs and will be in a format usable by flight crewmembers. Red-line or mark-up data will not be used. **(T-2)**. Ensure draft technical data is available a minimum of 30 days prior to delivery of new or modified equipment or aircraft.

5.1.6.5. Do not place unverified flight manual data on an aircraft for operational use. **(T-1)**.

5.1.6.6. Establish and support an online electronic format that meets Scientific and Technical Information requirements (e.g., SharePoint) in order to provide Flight Manual Managers an ability to effectively communicate and manage flight manual changes in coordination with the MAJCOMs representatives.

5.1.6.7. Coordinate with designated lead commands on any flight manual change affecting both operations and logistics.

5.2. Flight Manual Manager Responsibilities:

5.2.1. Manage the technical content, format and accuracy of assigned flight manual publications as defined below and specified in AFI 63-101/20-101, 00-5-Series TOs, MIL-DTL-7700 and successive standards that may apply. This includes initial acquisition and verification, sustainment and periodic reviews.

5.2.2. Coordinate with the TO manager for flight manual publication contracting, funding, numbering, printing, distribution, and indexing.

5.2.3. Ensure overall compliance with policies and procedures established by AF/A4L; AFMC/A4FI; AFMC/A3; the Director, Nuclear Weapons Product Support Center, AF Air Armament Center (AFNWC/NDBD, Eglin AFB FL, 32542); AF Air Armament Center (AFLCMC/LZSA, Eglin AFB FL, 32542) (for non-nuclear weapons); and the Human Systems Division (AFLCMC/WNU, Wright-Patterson AFB, OH, 45433).

5.2.4. Participate in the TO Planning and Requirements Conference, Guidance Conference, In Process Reviews, preliminary and critical design reviews, pre- and post-publication reviews, Flight TO Review Boards, and other acquisition functions to develop and maintain quality control in assigned flight manual publication and technical competence on their military system.

5.2.5. Determine requirements for new and updated flight manual publications through coordination with using commands. Provide using commands a flight manual copy (online posting considered appropriate) that allows tracking of changes electronically for a prepublication review and comment NLT 7 days after editing process is complete (Production Phase) and prior to print package preparation or distribution of electronic format. Maintain a permanent record of proposed MAJCOM changes and disposition of recommended changes. The MAJCOMs will be provided 7 days between the Flight Manual Managers editing process and the 10 – day prepublication review process to review changes in the flight manual.

5.2.6. Comply with timelines in [Attachment 4](#).

5.2.7. Support aircraft test and delivery schedules.

5.2.8. Send requests for deviation or waiver of flight manual publication TO specification requirements to lead command for coordination and AFMC/A4FI for approval (information copy to AFMC/A3V and AF/A4LM).

5.2.9. Maintain permanent records of all approved waivers and deviations to flight manual publication TO specifications for the life cycle of the MDS.

5.2.10. When lead command approves the use of commercial manuals, maintain a permanent copy of the approval letter or document for the life cycle of the MDS (see [paragraph 2.5](#)).

5.2.11. Monitor flight manual publications and other program TOs affecting the flight manual publication for compatibility. Advise the AF Flight Manual Program Manager of all potential conflicts in flight manual publication policy or specification.

5.2.12. Postpone minor corrections or updates to flight manual publication not affecting operations or safety until a major change or revision. If using an interactive electronic technical manual corrections and updates should be made when they are identified.

5.2.13. Submit flight manual publications and updates for publishing and distribution (see [Attachment 4](#)). Notify using commands and the AF Flight Manual Program Manager of delays citing the reason for delay and include new schedule dates. Notify lead commands when publication is distributed.

5.2.14. Issue an updated supplement concurrently with a change or revision when the change or revision contains part of that existing supplement. This ensures that the revised supplement matches the revised data that was changed by the change or revision. Issuance of an updated supplement is not required for obsolete instructions that are not incorporated in the change or revision. For example, completion of a Time Compliance Technical Order (TCTO) by the time the change is published may void the need for certain instructions in a supplement, while remaining instructions may be permanent guidance.

5.2.15. Ensure concurrent distribution of changes and revisions affecting flight manuals, associated checklists and any associated manuals.

5.2.16. Process safety and operational supplements as follows:

5.2.16.1. Issue an interim safety or operational supplement (if required) within 48 hours after receiving lead and using command and AFLCMC engineering (if required) validation and approval. The 48 hour clock begins when the MAJCOM approves the supplement. If no reply is received by using commands within 48 hours, then lead command and the Flight Manual Manager will consider the supplement approved.

5.2.16.2. Ensure initial distribution of formal safety or operational supplements that are not preceded by interim supplements within 48 hours for an emergency supplement. **NOTE:** Initial Distribution is complete on the date material is placed in Enhanced Technical Information Management System.

5.2.16.3. Request issuance of formal supplements, changes, or revisions to replace interim supplements affecting checklists after validating the contents of the interim supplement.

5.2.17. Distribute flight manual publication changes or supplements associated with Time Compliance Technical Orders (TCTOs) before the TCTO publication. **(T-1)**. Distribution must occur no later than 30 days prior to delivery or modification of the first aircraft affected. **(T-1)**. The Flight Manual Manager coordinates with the TO manager to ensure concurrent delivery of manuals and associated checklists, supplements, and TCTOs. The TO manager will use the technical order distribution and print gateway process for all print requirements. **(T-3)**.

5.2.18. Establish a Quality Assurance program to inspect and approve reproduction media and printed or electronic copies of publications before distribution (e.g., inspection of the first article of a publication print run). **NOTE:** The Quality Assurance program usually operates

through memoranda of agreement or understanding between the Flight Manual Managers organization and the inspecting agency.

5.2.19. Determine the need for, schedule and chair a Flight Manual Review Conference for assigned publications.

5.2.20. Ensure funding is available for administrative requirements (reproducible copies of flight manual publications) before convening a Flight Manual Review Conference.

5.2.21. Coordinate all aerial refueling changes affecting flight manuals through the normal AF Form 847 change process to Flight Manual Managers.

5.2.22. Coordinate changes that affect international standard definitions, abbreviations and procedures for refueling IAW ATP-3.3.4.2. US Standards Related Document (SRD) change procedures. Also coordinate AF-wide aerial refueling configuration changes that affect international refueling procedures IAW ATP-3.3.4.2 change process. It is essential that Flight Manual Managers provide comments, corrections, and queries regarding ATP-3.3.4.2 in order to keep the international standard up-to-date. Submit changes on an AF Form 847 through channels established by major commands, to AMC/A3VK.

5.2.23. Coordinate all MDS-specific non-nuclear weapons manual (-34 series) changes that impact specific weapons with the Flight Manual Manager for the parent TO 1-1M-34, Aircrew Weapons Delivery Manual (NONNUCLEAR) Standard Volume, (AFLCMC/LZSA). To ensure standardization of all weapons issues, accomplish coordination prior to finalizing any changes.

5.3. Flight Manual Review Conference (FMRC).

5.3.1. The Flight Manual Manager for a MDS acts as the chairperson for the Flight Manual Review Conference for that MDS and conducts a Flight Manual Review Conference at least annually unless using commands agree to delay. The Flight Manual Manager will notify the AF Flight Manual Program Manager and MAJCOM Flight Manual Program Managers of all scheduled Flight Manual Review Conference dates and any proposed rescheduled dates. The Flight Manual Manager will select and approve the location and venue of the FMRC with lead command concurrence.

5.3.2. Flight Manual Review Conference Agenda:

5.3.2.1. Develop an agenda to include a review of all recommended changes (AF Forms 847 or electronic change process request), service bulletins, Operations Manual Bulletins, FAA Airworthiness Directives, and Temporary Revisions and like data (ref. TO 00-5-Series TOs) that apply to the Flight Manual Review Conference directed weapon system.

5.3.2.2. Notify Flight Manual Review Conference participants, including AFMC/A3V and using commands, of the Flight Manual Review Conference date 90 days prior to the scheduled Flight Manual Review Conference.

5.3.2.3. Post proposed agenda items and AF Forms 847 to SharePoint or AF approved secure web page, no later than 30 days prior to the FMRC. Notify additional (supporting) Flight Manual Review Conference participants, as necessary, to include aircraft manufacturer, engineering support, publishing contractor, and Air Force Safety Center.

5.3.2.4. Agenda items from the field are due to the Flight Manual Manager no later than 45 days prior to the scheduled Flight Manual Review Conference. Routine items received after this time are addressed at the end of the Flight Manual Review Conference as “additional items.” Additional items may or may not be included in the subsequent change depending on completion of engineering analysis or other required actions.

Table 5.1. Flight Manual Review Conference Timeline.

Notification	Solicit Agenda Items	Publish Agenda and all submitted Form 847s	Publish Minutes
Notify participants of proposed FMRC 90 days prior to scheduled date.	Proposed agenda items due to the Flight Manual Manager 45 days prior to scheduled date.	30 days prior to scheduled FMRC start date.	30 days after completion of FMRC.

5.3.3. Ensure all mishap AF Forms 847 and quality deficiency reports affecting the Flight Manual Review Conference MDS aircraft are reviewed without regard to timelines specified in [paragraph 5.3.2.4](#)

5.3.4. Publish Flight Manual Review Conference minutes electronically on the Flight Manual Manager SharePoint or AF approved secure website within 30 days. Forward notification of posting to AFMC/A3V, lead and using commands and all attendees. Include a listing of all recommended changes considered with final disposition. Minutes will include both approved and disapproved AF Forms 847 and electronic change process requests with justifying comments. Recommendation reference numbers for safety change recommendations will be the AF Safety Automated System (AFSAS) mishap identification number. Recommendations reference numbers for routine changes will be the tracking number for the highest echelon AF unit in the recommendation process.

Chapter 6

MAJCOM RESPONSIBILITIES

6.1. General Responsibilities. Using commands (including Field Operating Agencies and Direct Reporting Units) will ensure personnel comply with this instruction, AFI 63-101/20-101, 00-5-Series TOs, and MIL-DTL-7700 publications.

6.2. MAJCOM Flight Manual Program Manager (MFMPM). Each command Operations Directorate (A3) is required to assign a primary and alternate Flight Manual Program Manager for the command. When there is a change in personnel forward the changed information to AFMC/A3V for inclusion on the AF Flight Manuals SharePoint. The MAJCOM Flight Manual Program Manager will:

6.2.1. Be the single point of contact for flight manual issues for all MDS in the command and serve as primary voting member of the Flight Manuals Executive Steering Group (reference [Chapter 3](#)). The position alternate serves as an alternate voting member. In addition, the Mobility Air Forces and Combat Air Forces MFMPMs will be advisory members to the AF CTOM Committee.

6.2.2. Assist in development of the MAJCOM Technical Order plan for each MDS the MAJCOM is responsible for, including new acquisition programs. Provide the AF Flight Manual Program Manager with a copy of the TO digitization strategy for each MDS for which the MAJCOM is lead at the beginning of each FY. The MAJCOM Flight Manual Program Manager will assist the System Program Director and MDS Flight Manual Manager in determining the scope of technical material to be included in flight manuals and the overall needs of the user. The MAJCOM Flight Manual Program Manager will update System Program Director and MDS Flight Manual Manager on new military specification, military standard, print, and paper requirements for budget inclusion in Comprehensive Air Force Technical Order Plan process.

6.2.3. Ensure verification is complete for flight manuals of assigned military MDS and IAW approved verification plans. The TO Manager, in coordination with the lead and using Commands, may designate or delegate this responsibility to a separate organization.

6.3. All MAJCOMs.

6.3.1. Publish a listing containing the MAJCOM Flight Manual point of contact for each MDS that the command operates. Forward this listing to AFMC/A3V for inclusion on the USAF Flight Manuals SharePoint, include the name, e-mail, and DSN. Additionally, each MAJCOM (and subordinate level) will establish a workflow email account address for receiving flight manual publication information that is capable of receiving encrypted email. **(T-2)**.

6.3.2. Establish procedures for processing and coordinating all recommended changes (AF Form 847) according to [Attachment 2](#) and the following instructions:

6.3.2.1. Ensure procedures prevent forwarding of duplicate recommended changes. Use only one AF Form 847 (or electronic change process request) when the identical change proposal effects both the basic flight manual and its abbreviated checklist.

6.3.2.2. Establish an electronic means to inform lead and using commands of the coordination requirements and disposition of recommended TO changes (SharePoint or AF

approved secure website). Ensure the originator is informed of the disposition of each recommended change at each level of the approval process; this may be accomplished using an online database accessible by the originator.

6.3.3. Ensure flight manual publications are maintained in the highest state of currency and accuracy including the evaluation of assigned publications according to AFI 11-202V2, *Aircrew Standardization and Evaluation Program*.

6.3.4. Ensure flight manual publications are readily available to meet aircrew and mission requirements. MAJCOMs will comply with the following instructions:

6.3.4.1. Establish procedures for the issuance and accounting of personal flight manual publications, in electronic or paper format, for aircrew on active flying status. Any flight crewmember who requests a personal copy will have it provided.

6.3.4.2. Do not issue new flight manual publications until in receipt of all associated basic and abbreviated checklist changes. MAJCOM Stan/Eval functions may only withhold the immediate release of updates, excluding interim or formal supplements, until the updates are available to all flight crewmembers on weapons system within their command.

6.3.4.3. Interim and formal supplements will be released immediately, unless supplement or notification instructions state otherwise or they contain errors that would jeopardize safety or operational posture. In such cases the safety or operational concern must be resolved within 30 days.

6.3.4.4. Establish internal distribution procedures for electronic or paper flight manual publications, including interim safety and operational supplements, so that flight crewmembers have all changes and revisions affecting required flight manuals, checklists, and any associated manuals before participating in flight operations.

6.3.4.4.1. As paper flight manuals continue to be the emergency backup for use inflight for the majority of the AF weapon system inventory, MAJCOMs may withhold release of digital media until paper is distributed (**NOTE:** flight manual printing costs are accounted for in the publication process (Comprehensive Air Force Technical Order Plan) and remain the responsibility of the PM and SPD office).

6.3.4.4.2. Establish procedures to ensure concurrent use of electronic checklists and paper flight manual publication products.

6.3.4.4.3. Establish policy requiring redundancy of any electronic flight crew information files, which are provided by electronic backup copies.

6.3.4.5. Electronic and paper checklists should be maintained concurrently if both media are in use. However, MAJCOMs may establish procedures to allow use of one medium with the other medium non-current provided operators are notified and aware of the difference. MAJCOMS will establish which checklist will be used as primary reference.

6.3.4.5.1. MAJCOMs are responsible for coordinating through appropriate maintenance channels to ensure update of the onboard integrated electronic checklists (when aircraft systems contain this material) to the most current version as soon as practical.

- 6.3.4.5.2. Flight crewmembers who use onboard integrated electronic checklists (Flight Management Systems, not a removable laptop system) as their primary reference in-flight, will use the most current publication. **(T-1)**.
- 6.3.4.6. Establish procedures for periodic reviews to ensure currency of flight crewmembers' flight manual publications.
- 6.3.5. Provide representative(s) and identify who has the authority to act for the command at Flight Manuals Executive Steering Group conferences and FMRCs for command operated aircraft.
- 6.3.6. Conduct a command analysis of applicable flight manual publications, including nuclear weapon and non-nuclear munitions delivery manuals, for each Flight Manual Review Conference. Send change recommendations to the MDS Flight Manual Manager a minimum of 30 calendar days before scheduled Flight Manual Review Conferences, or when the MDS Flight Manual Manager requests. **NOTE:** Non-MAJCOM reviewed recommended changes (i.e., walk-ins) may be considered at the Flight Manual Review Conference after all agenda items are covered.
- 6.3.7. Notify the MDS Flight Manual Manager of any unique requirements needed for the flight manual or checklist, (e.g., use of synthetic paper stock, indexed portable document format, new checklist style, etc.) at least 60 calendar days before the Flight Manual Review Conference. If funding differs from FY submitted Comprehensive Air Force Technical Order Plan, then coordinate for appropriate funding.
- 6.3.8. Establish procedures in the command supplement to this instruction to identify publication problems that are not reported by an AF Form 847 (or electronic change process request), such as word omissions, typographical, printing or quality errors.
- 6.3.9. If MAJCOMs conduct formal flight test, include modification flight manuals and checklists development guidance in the MAJCOM formal supplement. Include the review and approval levels of responsibility for the modification flight manual process in the supplement.
- 6.3.10. Establish an internal process through MAJCOM Stan/Eval offices (lead and using) whereby a prepublication review of flight manual changes or revisions can be accomplished for the MDS Flight Manual Manager. The MAJCOMs will be provided 7 days between MDS Flight Manual Manager editing process and the 10-day prepublication review process to review any changes in the flight manual.

6.4. Lead Commands.

- 6.4.1. Are advocates for their assigned flight manuals and respond to issues addressing status and use. Advocacy includes planning, programming, and budgeting for designated flight manuals and assisting in development of digitization strategy for flight manuals. Lead commands will:
- 6.4.1.1. Fund flight manuals needed by all using command.
- 6.4.1.2. Ensure all assigned flight manuals for which the Program Manager is responsible are addressed in the MDS system-specific Comprehensive Air Force Technical Order Plan annex and associated TO Information Spreadsheet.

6.4.1.3. Prioritize identified flight manual requirements with using commands in the yearly Technical Order Requirements Plan. The Technical Order Requirements Plan translates the PMs/SPD Comprehensive Air Force Technical Order Plan Annex and TO Information Spreadsheet into a year-by-year summary of requirements through the Future Years Defense Plan. This prioritization will take into account both the availability of funding and how the allocation of funding impacts lead and using command war-fighting capabilities.

6.4.1.4. Determine the relative priority of out-of-cycle requirements submitted outside of the Technical Order Requirements Plan process with using commands and whether or not each will be funded.

6.4.1.5. Verify that all using command routine and emergency recommendation changes concur and/or non-concur responses have been forwarded to the Flight Manual Manager and affected MAJCOM(s) and ensure the MDS Flight Manual Manager has all the submitted recommended changes prior to the Flight Manual Review Conference (electronic posting and notification will suffice in both cases).

6.4.1.6. Support the flight manual publication acquisition process IAW the requirements of the 00-5-Series TOs.

6.4.1.7. Coordinate with all using commands prior to approving changes and supplements. Using commands will have a minimum of 30 days for the review process. No response from the using command by the suspense date signifies concurrence. (Exception: the timeline for supplements as a result of an emergency 847 are specified in [paragraph 9.3.1.2](#)).

6.4.1.8. Coordinate with AFLCMC/LZSA on all recommended changes to MDS-specific -34 series technical orders that impact specific weapons.

6.4.1.9. Determine MDS specific distribution requirements and procedures IAW 00-5-Series TOs and fully coordinate these procedures with the System Program Office, Flight Manual Manager, and using commands. Flight manual products may be disseminated either electronically, through ETIMS, or through approved conventional means. In extenuating circumstances electronic distribution may include the use of encrypted e-mail or posting and download from an AF approved secure website or SharePoint IAW AFI 33-Series publications, however this is not the normal AF distribution method. At no time can unencrypted e-mail be used for restricted distribution or classified data. DoD Public Key Infrastructure encryption, as implemented in the Air Force Common Access Card, may be used to disseminate unclassified restricted distribution and proprietary data.

6.4.1.10. Host a SharePoint or AF approved secure website that provides a single source for management of its AF Forms 847 flight manual change request for all other MAJCOMs coordination.

6.4.1.11. Coordinate with the other component services Lead organizations and Flight Manual Managers to establish Joint use flight manuals (e.g. NATOPS) when required. MAJCOMs must balance component requirements with the AF requirements stated here in AFI 11-215 and other service component guidance. Include in the coordination and process development:

- 6.4.1.11.1. Flight manual engineering authority, publication, review (quality assurance), distribution, and change processes as outlined in this AFI and AFI 20-118.
- 6.4.1.11.2. Flight manual funding line of authority if it differs from AFI 20-118.
- 6.4.1.11.3. Modification flight manual publication, review, distribution, and change process as applicable to test aircraft.

Chapter 7

CREWMEMBER RESPONSIBILITIES, AND LIST OF EFFECTIVE PAGES (LEP) CHECKS

7.1. Crewmember Responsibilities.

7.1.1. Crewmembers will follow flight manual publications, authorized supplements, and associated checklists during aircraft operations. **(T-1)**.

7.1.2. Upon receipt of a supplement crewmembers will make write-in references to each affected paragraph in flight manuals to direct attention to current supplements. **(T-1)**. TOs will be posted prior to operating or maintaining equipment. Make write-in changes to checklists as specified in the interim supplement in full, if practical. Pencil write-ins or typed stickers are authorized to accomplish write-in changes to pages. Write in changes can also be performed by using software programs that allow text edit or over write functions.

7.1.3. Crewmembers may make notes in their individually assigned flight manuals and checklists. Highlighting of important information in personally issued paper flight manuals is permissible.

7.2. List of Effective Pages (LEP) Checks. For printed flight manuals, LEP checks are a comparison of the page and change numbers on each page of a flight manual with the data on the LEP. For digital flight manuals, an LEP check is not required if viewed on a Portable Electronic Device (PED).

7.2.1. LEP checks are mandatory when changes and revisions to paper flight manuals are posted. When changes are posted, only the changed pages are checked. When a revision is posted, all pages in the flight manual are checked. Annotate the title page or LEP with the date (DDMMYY), reviewer initials, as well as any discrepancies (missing pages, improper printing, etc.). If a digital TO file is used to print a flight manual, the flight manual will have an LEP posted by the individual that printed the TO. **(T-3)**.

7.2.2. LEP checks are required for commercial manuals with LEPs. Page checks are required for brief manuals or commercial off-the-shelf manuals without LEPs.

7.2.3. Report LEP discrepancies found in TOs to the MDS Flight Manual Manager through the Stan/Eval channels immediately using AF Forms 847. Discrepancies on preliminary TOs are reported to the MDS Flight Manual Manager as indicated on the title page of the preliminary technical order.

Chapter 8

ELECTRONIC FLIGHT MANUALS, AND DIGITAL DATA

8.1. General. AFI 11-202 Volume 3 directs MAJCOMs to provide operating guidance, procedures, and training prior to Electronic Flight Bag (EFB) usage.

8.1.1. Approval for in-flight use of any type of portable electronic device for viewing flight manuals (including checklists) will be obtained prior to use. The portable electronic device must be certified by the MDS System Program Office and approved by the MAJCOM/A3 through the Stan/Eval function.

8.1.2. As a minimum the System Program Office is required to provide flight manual data in a tabbed and hyperlinked PDF format for MAJCOMs that use Electronic Flight Bags. If the lead command requires data in a different format, the lead command will work with all using commands to create a requirement to meet the commands needs and forward the request to the System Program Office. The System Program Office will evaluate the request and provide the lead command with the proposed solution and estimated cost to meet the requirement. Lead command is responsible for funding the requirement.

8.2. Electronic Flight Publications and Portable Electronic Device Use.

8.2.1. MAJCOMs will establish policy and standardized programs to manage the distribution and verify currency of electronic flight publications issued to flight crewmembers.

8.2.2. The primary source for digital flight manuals is the TO Account subscription within ETIMS. Alternate sources of distribution are SharePoint or an AF approved secure website as long as all flight manual data is updated and verified with the ETIMS source data.

8.2.3. MAJCOMs will establish policy to ensure printing complete flight manuals from the digital file is limited to a case-by-case basis to prevent configuration control problems and minimize excessive printing cost. **NOTE:** Print cost for flight manuals are accounted for in the Comprehensive Air Force Technical Order Plan process. Printing small quantities of replacement pages is encouraged in lieu of requisitioning the entire flight manual. Any local printing is accomplished using print qualities as outlined in [paragraph 2.3.1](#).

8.2.4. Unit commanders determine the proper mix of paper and digital flight manual copies. Ensure sufficient flight manual copies are available for mission planning, in-flight operations, and personal study.

8.2.5. Personal copies of flight manuals may either be paper or digital copies as long as compliance with this chapter is met. Units that issue digital copies on portable electronic devices are required to establish a system of control to ensure distribution statements and data at rest requirements are met.

8.2.6. Identify procedures and policies for marking and storage of digital TOs on all devices (i.e. laptops, PEDs, etc.) IAW 00-5-series TOs.

8.2.7. MAJCOMs who elect to permit the use of portable electronic devices for displaying flight manual information will establish policy and procedure for use and include it in the MAJCOM supplement. Specifically address the following topics in the MAJCOM supplement:

8.2.7.1. Approved flight manual (or checklists) format for the portable electronic device display and crew position who use the device, and the portable electronic device flight manual update management process.

8.2.7.2. Approved flight certified model and type of portable electronic device to be used by flight crewmembers.

8.2.7.3. If a portable electronic device is authorized for displaying flight manual information by the MAJCOM, additional portable electronic devices or applicable paper flight manuals will be on the aircraft to ensure data redundancy (in case of viewing device failure). If a certified weapon system interactive electronic technical manual is approved by Air Force weapon system PM, and is acquired for use, MAJCOMs will establish a backup system (either PED or paper copy) for viewing flight manuals in flight. In the case where paper is used as a backup, MAJCOMs will establish procedures to ensure paper copies are properly maintained and posted concurrently with electronic version.

8.2.7.4. All available formats of a TO or TO update (paper, digital medium, electronic file) should be released concurrently to maintain TO configuration control. When dual paper and digital flight manual media exist, MAJCOMs may establish procedures to allow use of one medium with the other medium non-current, provided operators are notified and aware of the differences. MAJCOMS establish which checklist will be used as primary reference.

8.2.7.4.1. Some MDS may employ integrated electronic checklists uploaded into aircraft computers and viewed on aircraft displays (Flight Management System) as the primary reference in-flight (in contrast to removable viewing devices such as a laptop, PED, etc.).

8.2.7.4.2. There may be cases where the paper copy of the electronic TOs are not available for reference before flight. If a new software push to the aircraft was accomplished or electronic file has been released in ETIMS and the paper copies have not arrived, MAJCOM Stan/Eval offices will coordinate with the Flight Manual Manager to obtain and print an updated paper copy of changes from a Flight Manual Manager source site and distribute accordingly (this responsibility may be delegated).

8.2.8. When approving digital data for in-flight use, MAJCOMs must consider whether human factors and effectiveness is adversely affected or diminished.

8.2.9. MAJCOMS may develop Take-Off and Landing Data and Weight and Balance programs (software). These programs must be approved by the Program Office.

Chapter 9

RECOMMENDING CHANGES TO FLIGHT MANUAL PUBLICATIONS

9.1. General. Configuration control of a weapon system is managed by the weapon system PM or SPD. The PM or SPD is responsible for the accuracy of any changes to the flight manual content; therefore, the PM or SPD has the authority to adjust the change proposal at any stage of the approval process to ensure the flight manual content is accurate. Use AF Form 847 to recommend improvements to flight manual publication TOs. **Exception:** Submit recommended changes to flight manual publications for F-35 aircraft IAW F-35 Program Instruction 1514.02, Problem Reporting and Resolution.

9.1.1. Flight manual data, at a minimum, is controlled unclassified information, and must be protected from disclosure by the submitter. (T-0). When AF Form 847s are emailed, the email will be marked FOUO and encrypted by the submitter. (T-0). If an AF Form 847 contains classified data, mark it according to guidance in DoD 5200.01-M Vol 2, Information Security Program: Marking of Classified Information or AFI 16-1404, Air Force Information Security Program, and route using classified SIPRNet channels as outlined in [Attachment 2](#) and in compliance with the instructions in [Attachment 3](#).

9.1.2. Submit emergency recommendation changes for conditions that require immediate correction to prevent fatality, serious injury to personnel, extensive damage or destruction of equipment or property, or inability to achieve or maintain operational posture. Submit routine reports for conditions that are potentially hazardous from prolonged use, have negative effects on operational efficiency, or reduce operational life or general service use of equipment.

9.1.3. Do not use the AF Form 847 (or electronic change process request) to call attention to line or word omissions, typographical, printing, or quality errors usually corrected during scheduled reviews unless they cause misinterpretation or affect comprehension.

9.1.4. The PM/SPD ensures that all data having potential impact on the flight manual publication that are generated from Quality Deficiency Reports, Engineering Assignments, Mishap Investigations, TCTO(s), or modifications are routed through the Flight Manual Manager for proper evaluation.

9.1.5. Use only one AF Form 847 (or ETIMS electronic change process) when the identical change proposal affects both the basic flight manual and its abbreviated checklist. Every effort should be made to ensure the originator is informed of the disposition of each recommended change at each level of the approval process. If the recommended change is too large to fit onto one AF Form 847, note this on the submitted form and provide an attached word document or an edited version (using text editing or over-writing software) of an electronic copy of the flight manual or checklist.

9.2. Processing Routine Recommended Changes.

9.2.1. Submit and process all AF Forms 847 or Enhanced Technical Information Management System electronic change process request (ETIMS) through MAJCOM channels as outlined in their supplement (if applicable) to this instruction, IAW routing as outlined in [Attachment 2](#) and in compliance with the instructions in [Attachment 3](#).

9.2.2. There are instances where AF Form 847 change request could affect adjustment, configuration, modification, repair, servicing, and operational checkout of aircraft weapons systems and related equipment thus affecting corresponding maintenance TOs. In these cases, forward a copy of the change request to the MAJCOM/A4 functional OPRs for their review.

9.2.3. Authority for disapproving a unit-submitted recommended change rests with the parent MAJCOM Stan/Eval function. All disapproved recommendations will be posted on either the MAJCOM SharePoint or an AF approved secure website for AF Form 847 coordination or returned to the unit. In either case they must include justification annotated on the AF Form 847 (or SharePoint) stating the reason for the disapproval.

9.2.4. Disapproved recommendations may be resubmitted with additional justification under a new control number.

9.2.5. Forward approved AF Forms 847 to all using commands. Using commands have 30 days to comment on recommended change suggestions. Comments on the AF Form 847 suggestions will be forwarded to the lead command or posted on the lead command SharePoint for AF Form 847 coordination. **(T-2)**. Lead commands will ensure all submitted recommended changes are forwarded to (or posted for review and action with notification) the Flight Manual Manager prior to the Flight Manual Review Conference. Any MAJCOM disagreements will be resolved at the next Flight Manual Review Conference.

9.2.6. When the recommended change reaches the Flight Manual Manager, the Flight Manual Manager will forward it to the MDS ALCMC engineering function for review (if required). If lead and all using commands have approved the change, the Flight Manual Manager may either publish the recommended change or hold the recommended change for the next Flight Manual Review Conference, based on its urgency and MAJCOM requirements. If the Flight Manual Manager disapproves the recommendation either before or at the Flight Manual Review Conference, or it is disapproved by an engineering review, the Flight Manual Manager will annotate the justification for disapproval and return the form to the submitting MAJCOM (by posting on Flight Manual Managers SharePoint or AF approved secure website), and address the disposition in the Flight Manual Review Conference minutes. **(T-1)**.

9.2.7. The Flight Manual Manager will notify the submitting MAJCOM of the disposition of all recommended changes by posting on the Flight Manual Manager SharePoint or an AF approved secure website, or in the minutes of the Flight Manual Review Conference, and if required, by e-mail within 30 days of receipt. **(T-1)**.

9.2.8. The recommended change and routing process for ATP-3.3.4.2 flows differently than the normal AF Form 847 process and can be found in the ATP-3.3.4.2. US Standards Related Document (SRD) manual. All previous paragraphs within this section (**paragraph 9.2**) apply to recommending changes for flight manuals and include the Flight Manual Manager as the final approval authority. However the final approval authority for the ATP-3.3.4.2 is AMC/A3VK. AMC/A3VK will provide the appropriate Flight Manual Manager feedback regarding their 847 during the ratification process of changes that affect these flight manuals prior to ATP-3.3.4.2 publication changes.

9.3. Emergency Generated Recommended Changes.

9.3.1. Submit an emergency recommendation change in the same manner as with routine submission. Mark the yes under block 5 of the AF Form 847 and annotate "EMERGENCY

RECOMMENDATION" as the first entry in Block 17. Route emergency AF Forms 847 as in **Table 9.1** Forward information copies as you would a routine AF Forms 847.

9.3.1.1. Send emergency recommendation changes to the parent command, with an information copy to the weapon system Flight Manual Manager.

9.3.1.2. Submitting command or commands receiving emergency recommendation changes from subordinate units, must send approved emergency recommendation changes to the weapon system Flight Manual Manager, Air Force Safety Center (AFSEC), and all using commands operating the same weapon system within 48 hours after receiving the original submission. Other using commands must send their concurrence or comments to the Flight Manual Manager (with information copies to the submitting command and AFSEC) within 48 hours after receipt.

9.3.1.3. The submitting command must send disapproved or downgraded (to routine) emergency recommendation changes (including justification for disapproval or downgrading) to the initiating unit, the Flight Manual Manager, AFSEC, and other using commands. The submitting command must process downgraded recommended changes as routine.

9.3.1.4. The MDS Flight Manual Manager must inform all commands and government agencies using affected TOs of intended action on emergency recommendation change within 60 hours after receipt. **(T-1)**. If a recommended change is disapproved or downgraded, the MDS Flight Manual Manager must include justification for this action. **(T-1)**. The Flight Manual Manager SharePoint or an AF approved secure website site may be used to provide this intended action.

9.3.1.5. If any command has not received notification of the MDS Flight Manual Manager's intended actions within 60 hours after its original approval message, they will take follow-up action within 12 hours. **(T-1)**.

Table 9.1. Emergency Recommendation Change Routing.

R U L E	A	B	C
	IF THE NOTIFICATION IS FROM:	AND IS ADDRESSED TO THE	THEN INFO COPY IS SENT TO
1	Unit		FMM
2	Safety Investigation Board	MAJCOM	FMM & AFSEC
3	MAJCOM	FMM or other MAJCOM	AFSEC and originating unit
4	FMM	MAJCOM	Other using commands

9.4. Safety Investigation Generated Recommended Changes. Safety investigation generated recommended changes must originate from a formal safety investigation. **(T-2)**. This includes mishaps, and other events defined in AFI 91-204, Safety Investigations and Hazard Reporting.

9.4.1. Recommended changes generated as a result of an aircraft safety investigation will be written by the safety investigation board and submitted electronically to the parent MAJCOM Stan/Eval function of the mishap aircraft. **(T-1)**. IAW 91-204, and when requested, the MAJCOM Stan/Eval office will provide a tracking number to the safety investigation board. The parent MAJCOM Stan/Eval function will make a determination if the recommendation requires immediate (emergency) action.

9.4.2. Annotate the AFSAS identification number in the unit identification portion of the AF Form 847 for all safety investigation generated AF Forms 847 and check “yes” under block 5. The AFSAS number will be the primary means of identifying safety investigation generated AF Forms 847. If the safety investigation generated AF Form 847 is also an emergency submission, annotate "EMERGENCY RECOMMENDATION" as the first entry in Block 17.

9.4.3. Forward all emergency generated recommended changes submitted as a result of a safety investigation IAW **Attachment 2** and **paragraph 9.3**. Forward information copies to MAJCOM/SE and AFSEC. Notify AFSEC and the command having accident accountability of the final recommended change disposition.

9.4.4. The MDS Flight Manual Manager, lead, or using command(s) must justify any non-concurrence with recommended changes submitted as a result of a safety investigation. **(T-1)**. Forward those comments to the command having accident accountability, AFSEC and using commands. MAJCOMs must also notify the MDS Flight Manual Manager if they disapprove any recommended changes submitted as a result of a safety investigation.

Chapter 10

LOCAL FLIGHT MANUAL PROGRAM PROCEDURES

10.1. General. Units may generate a supplement to this instruction to facilitate implementation of the flight manual publication. Distribute this supplement to MAJCOM and NAF OPRs, as applicable. This supplement should not duplicate and cannot be less restrictive than the provision of this or any other flight manual program publication without prior authorization from the appropriate MAJCOM and NAF OPR.

10.2. Local Operating Procedures. The purpose of the unit local flight manual publication procedures supplement is to document specific local procedures. Post the unit supplement behind the basic volume. If requirements of this supplement are incorporated in another base instruction, a single page supplement is used for either referencing the base instruction, or as a cover for other instruction inserted, as appropriate.

MARK D. KELLY, Lt Gen, USAF
Deputy Chief of Staff, Operations

Attachment 1**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION*****References***

GPO Publication 310.1, Quality Assurance Through Attributes Program For Printing and Binding, August 2002

DoD 5200.01-M, Vol 2, DoD Information Security Program: Marking of Classified Information, 24 February 2012

DoDD 5000.01, The Defense Acquisition System, 12 May 2003

AFPD 10-9, Lead Command Designation and Responsibilities for Weapon Systems, 8 March 2007

AFPD 11-2, Aircrew Operations, 31 January 2019

AFI 11-202, Volume 2, Aircrew Standardization and Evaluation Program, 6 December 2018

AFMAN 17-1301, Computer Security (COMPUSEC), 10 February 2017

AFI 16-1404, Air Force Information Security Program, 29 May 2015

AFI 20-118, Instructions for the Interservicing of Technical Manuals and Related Technology Program, 3 February 2016

AFMCI 21-126, Temporary 2 (T-2) Modification of Aerospace Vehicles, 19 July 2005

AFMCI 21-301, Air Force Material Command Technical Order System Implementing Policies, 13 January 2017

AFI 33-360, Publications and Forms Management, 1 December 2015

AFMAN 33-363, Management of Records, 1 March 2008

AFI 61-201, Management of Scientific and Technical Information, 29 January 2016

AFPD 63-1, Integrated Life Cycle Management, 7 August 2018

AFI 63-101/20-101, Integrated Life Cycle Management, 9 May 2017

AFI 63-104, The SEEK EAGLE Program, 20 January 2005

AFI 91-204, Safety Investigations and Hazard Reporting, 27 April 2018

ATP 3.3.4.2, Air-to-Air Refueling, 18 November 2018

F-35 Program Instruction 1514.02, Program Reporting and Resolution, 16 June 2011

TO 00-5-1, AF Technical Order System, 16 July 2018

TO 00-5-3, Methods and Procedures AF Technical Order Life Cycle Management, 4 June 2018

TO 00-5-19, Security Assistance Technical Order Program (SATOP), 15 February 2018

TO 1-1M-34, Aircrew Weapons Delivery Manual (NONNUCLEAR) Standard Volume, 17 August 2018

MIL-PRF-32216, Evaluation of Commercial Off-The-Shelf Manuals and Preparation of Supplemental Data, 17 October 2006

(https://quicksearch.dla.mil/qsDocDetails.aspx?ident_number=275451)

MIL-DTL-7700, Detail Specification Flight Manual, Performance Data Appendix, Mission Crew Manual, Supplemental Manual, and Abbreviated Flight Crew Checklist, 25 April 2014

(https://quicksearch.dla.mil/qsDocDetails.aspx?ident_number=6562)

Adopted Forms

AF Form 679, Air Force Publication Compliance Item Waiver Request/Approval

AF Form 847, Recommendation for Change of Publication

Abbreviations and Acronyms

AFFMPM—Air Force Flight Manual Program Manager

AFMC—Air Force Material Command

AFRC—Air Force Reserve Command

AFLCMC—Air Force Life Cycle Management Center

AFSAS—AF Safety Automated System

AFSEC—Air Force Safety Center

ATP—Allied Tactical Publication

CTOM—Centralized Technical Order Management (Committee)

DAPS—Defense Automated Printing Service

DoD—Department of Defense

DSN—Defense Switched Network

EFB—Electronic Flight Bag

ETIMS—Enhanced Technical Information Management System

FAA—Federal Aviation Administration

FMM—Flight Manual Manager

FMRC—Flight Manual Review Conference

GPO—Government Printing Office

IPDF—Indexed Portable Document Format (Adobe™).

LEP—List of Effective Pages

MAJCOM—Major Command

MFMPM—MAJCOM Flight Manual Program Manager

MDS—Mission Design Series

NAF—Numbered Air Force

NATIP—Naval Aviation Technical Information Product

NATOPS—Naval Air Training and Operating Procedures Standard

NGB—National Guard Bureau

OPR—Office of Primary Responsibility

PED—Portable Electronic Devices

PM—Program Manager

SIPRNet—Secret Internet Protocol Router Network

SPD—System Program Director

TCTO—Time Compliance Technical Order

TM—Technical Manual

TO—Technical Order

Terms

Data At Rest—Requires encryption of Sensitive Unclassified Data at Rest (DAR) on Mobile Computing Devices and Removable Storage Media Used Within the (DoD)

Distribution Statement—A statement used in marking a technical document, regardless of publication media or form, to denote the extent of its availability for distribution, release, and disclosure without additional approvals and authorizations from the controlling DoD office (see AFI 61-204).

Electronic Flight Bag/Portable Electronic Device (EFB/PED)—Is an electronic information management device that helps flight crews perform flight management tasks more easily and efficiently with less paper. It is a general purpose computing platform intended to reduce, or replace, paper-based reference material often found in the flight crewmembers' carry-on flight bag, including the flight manual, AFIs, and navigational charts (including moving map for air and ground operations). In addition, the EFB/PED can host purpose-built software applications to automate other functions normally conducted by hand, such as performance take-off calculations.

Electronic Technical Manual (ETM) (Type 1)—A manual containing technical data authored in a linear fashion for the purpose of page or in-line presentation (Type 1). ETMs may have a wide range of functionality ranging from indexed raster, hypertext linking, multimedia, interactivity between the data and the user, procedural guidance, navigational directions, and supplemental information. ETMs may also contain operational-support functions supplemental to procedures and are displayed according to TMSS specifications.

Enhanced Technical Information Management System, (ETIMS)—Enhanced Technical Information Management System is the Air Force primary tool to support warfighters by providing focused, timely, accurate, and complete technical information in digital form at the point of use. ETIMS allows personnel involved in all of the major business process areas of the Technical Order (TO) system (managing, acquiring, sustaining, distributing, storing, and using TOs) to carry out their responsibilities and access their required data using current Commercial Off-the-Shelf technology.

Interactive Electronic Technical Manual (IETM)—(Type 2)—An information oriented, digital technical manual whose format and style are optimized for computer presentation. IETM organization facilitates easy user access to technical information while the display device provides interactive procedural guidance, navigational directions, and supplemental information. It is technical data authored in a non-linear fashion for the purpose of non-linear presentation. IETMs have the following characteristics: allow a high level of interactivity between the data and the user providing procedural guidance, navigational directions, and supplemental information; may provide assistance in carrying out operational-support functions supplemental to procedures.

Lead Command—The Air Force assigns responsibility for overall management of each system to a “lead command” to ensure that all requirements associated with every system receive comprehensive and equitable consideration. The lead command provides a primary input into the process of developing and maintaining a force structure with a balance of complementary capabilities, and it establishes a basis for rational allocation of scarce resources among competing requirements. When only one command uses a weapon or equipment system, it is automatically assigned Lead Command. See AFPD 10-9 for aircraft MDS weapon system assignments.

Program Manager (PM)—As used in this instruction applies collectively to System Program Director, Product Group Manager, Supply Chain Manager or acquisition program manager. The designated individual with responsibility for and authority to accomplish program objectives for development, production, and sustainment to meet the user's operational needs. The PM shall be accountable for credible cost, schedule, and performance reporting to the Milestone Decision Authority (MDA) IAW DoDD 5000.1, The Defense Acquisition System. **(T-1)**.

Shall, Will, Should—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.

STINFO—Scientific and Technological Information. Information relating to research, development, engineering, testing, evaluation, production, operation, use, and maintenance for military products, services, and equipment for military systems. This includes production, engineering, and logistics information.

System Program Director (SPD)—The individual in a System Program Office who is ultimately responsible and accountable for decisions and resources in overall program execution. SPD is the designated title for the program manager of a program that reports to a Program Executive Officer (PEO), and who presents the single face to the user while overseeing the seamless life- cycle processes.

Technical Data—Recorded information, regardless of form or method of recording, of a scientific or technical nature. Information that can be used, or adapted for use, to design, develop, assemble, engineer, produce, manufacture, modify, operate, repair, test, overhaul, maintain, or reproduce equipment and related technology.

Technical Manual (TM)—A document that contains operational or maintenance instructions, parts lists or parts breakdown, or other related technical information or procedures (exclusive of administrative procedures) for a weapon system, weapon system component, support equipment or other item procured by DoD. This data can be presented in any form (for example hard copy, audio and visual displays, magnetic tape, disks, or other electronic devices).

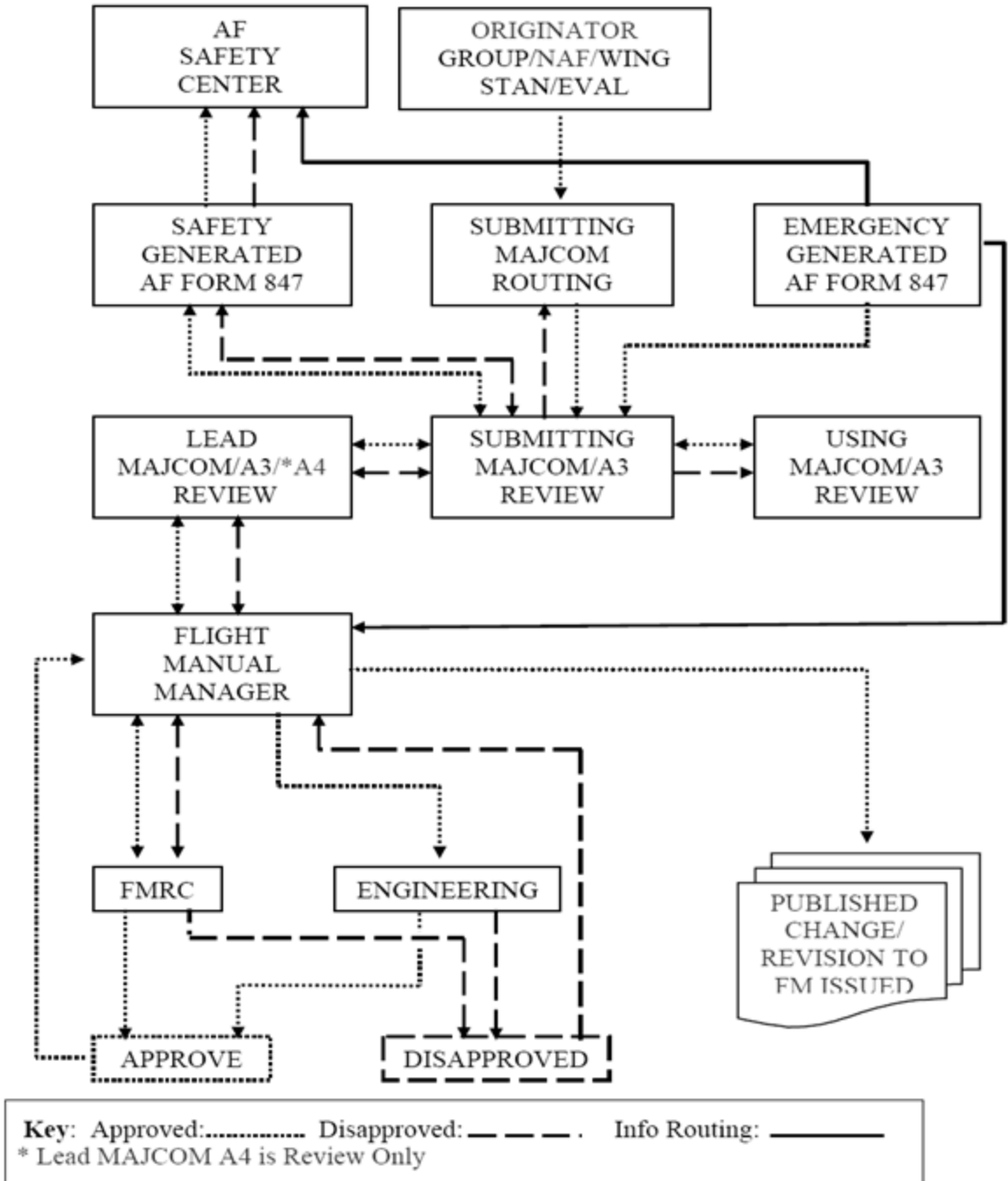
Technical Order (TO)—TMs developed to military specifications or commercial manuals reviewed and approved IAW MIL-PRF-32216 managed in the Air Force TO System, and meeting the criteria for TMs listed above. The term Technical Order is equivalent to the DoD term Technical Manual.

TO Manager—The TO Manager is responsible for managing some or all of the TOs for a specific military system or commodity program. Management responsibilities include acquisition, sustainment, format, publishing, storage and distribution of TOs and related technical data IAW AFI 63-101/20-101, and 00-5-series TOs.

Attachment 2

RECOMMEND CHANGE ROUTING PROCESS

Figure A2.1. Change Routing Process.



Attachment 3

INSTRUCTIONS FOR COMPLETING AF FORM 847

Table A3.1. Instructions for completing AF Form 847.

Block 1	Self-explanatory
Block 2	Control number of the submitting group or wing (i.e., 46OG-2018-001). If there is no group or wing Stan/Eval function, then use the submitting organizational control number. For safety investigation generated AF Forms 847, annotate the AF Safety Automated System number.
Block 3	Reserved for submitting MAJCOM control number.
Block 4	Publication or technical order number.
Block 5	Indicate if this is an Emergency or Safety Incident generated AF Form 847 (as defined in Chapter 9).
Block 6	Full name of the publication or technical order, distribution type and statement code found on the cover of the technical order.
Block 7	Date of the basic publication or technical order.
Block 8	Date of the latest change or revision.
Block 9	Page number of the text or figure which the recommendation is based on.
Block 10	The major or sub paragraph title or number or figure number of the recommended change.
Block 11	If the recommendation is a checklist, annotate the item or step number within the checklist.
Block 12	If the recommendation is an AFI, list the organizational OPR (located on the first page of the document).
Block 13	Annotate this block if any supporting documents are attached. If supporting documents are attached they must be clearly legible and indicate what is incorrect or missing.
Block 14	If the recommendation affects more than one series of aircraft in an MDS (i.e., it affects all F-16 aircraft), then mark the "YES" block. If it is unique to only one series (i.e., only the F-16C or C-130J), then mark "NO." If unsure, leave the block blank and either the lead command or the Flight Manual Manager will determine applicability.
Block 15	List the areas of text (or figure) where changes are proposed.
Block 16	List what the text (or figure) should read.
Block 17	Annotate EMERGENCY RECOMMENDATION if applicable, as the first entry. Fully explain and justify the rationale as to why the text or figure should be changed. The submitting individual must complete all the identification blocks at the bottom of the page.
Block 18	List the name and rank of the originator.
Block 19	Signature of originator.
Block 20	List organization of originator.
Block 21	List the DSN (or commercial) voice and FAX numbers of originator.
Block 22	List the full mailing address of the originator.

Block 23	List the e-mail address of originator.
Reverse	There are four levels (and sections) of review and coordination. Each level of review is allocated a Section on the backside of AF Form 847.
Section 1:	The first level is the submitting organization group, wing, or detachment Stan/Eval function. Indicate whom the form will be forwarded to (i.e. NAF or MAJCOM). Annotate the appropriate level of concurrence. If you agree with the intent, but not the wording, then mark "CONCUR WITH INTENT" and annotate the recommended wording in the remarks section.
Section 2:	The second level of review is reserved for NAF (if applicable). They comply with the same instruction as outlined above. If there is no NAF function then the second section is left blank.
Section 3:	The third level of review is reserved for MAJCOM use. MAJCOMs will assign their control number (i.e., ACC 18-150) in block 3 on the front side of the form. If the submitting MAJCOM is lead command, then they annotate their command in the "LEAD MAJCOM" block and forward copies to using commands of that MDS. If the submitting MAJCOM is not lead, they annotate who is lead and forward the original and information copies to the lead and using commands. Any AF Form 847 submitted by a using command and disapproved by the lead command will automatically be forwarded to the FMRC for final resolution. Lead command forwards all AF Forms 847 to the Flight Manual Manager.
Section 4:	The final level of review is reserved for the FMM or if the recommendation is for an instruction, the action officer responsible for the instruction. For flight manuals, if the using commands have concurred with the recommendation, the FMM will indicate "CONCUR" and hold the recommendation for incorporation into the next change (or revision). If the FMM determines the recommendation cannot be accepted in its present form but still has merit the FMM will indicate "CONCUR WITH INTEN" or "FORWARD TO _____ FOR REVIEW AND/OR ACTION" (Lead command with recommended review and/or action) or hold the recommendation for the next FMRC. The FMRC will be the final resolution authority for disputed recommendations. If the recommendation requires additional review (i.e., engineering), the FMM will forward the form to the appropriate office and mark that block. The FMM (or final approval authority) must notify the submitting MAJCOM as to the final status and disposition of the recommendation within 30 days of receipt. (T-1).

NOTES:	<ol style="list-style-type: none"><li data-bbox="461 218 1425 394">1. If an AF Form 847 is initiated at or above the wing or group level review, coordination documentation will begin in Section 1 for the next approving level. An AF Form 847 originating from an intermediate level of review (i.e., the NAF level) will complete Section 2 and forward to the next level.<li data-bbox="461 420 1414 485">2. Recommendations submitted as emergency or as a result of a safety investigation are required to follow the procedures outlined in Chapter 9.
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Attachment 4

FLIGHT MANUAL PUBLICATION CHANGE PRODUCTION TIMELINE

A4.1. Below is the timeline for developing and producing routine publication changes. The timeline for emergency or urgent changes, distributed by message, is detailed in [Chapter 9](#). These timelines ensure flight manual publications are updated in a timely and accurate manner.

Table A4.1. Timeline for Developing and Producing Routine Publication Changes.

Pre-Production Phase	Production Phase	Reproduction Phase	Initial Distribution
As Required	75 calendar days for change 105 calendar days for revision	45 Days	Date change or revision is mailed from printer or warehouse to the field or released electronically
Begins: - 60 days after FMM announces the update - 30 days after end of FMRC - Delivery of Preliminary Technical Order	1. Begins at end of Pre-Production Phase 2. FMM submits Publication Change Request to TO manager or contractor. - This phase allows: - 60 days for editing (90 days for revision) - MAJCOM 7-day review - 10 days for prepublication review - 5 days for print package preparation	1. Begins at end of Production Phase 2. GPO/DAPS forwards the reproduction media to a printing contractor 3. Includes provisions for pre-initial distribution quality inspection	1. Begins at end of Reproduction Phase 2. Includes acquisition of labels 3. Changes distributed to the field NLT than 120 calendar days after beginning of Production Phase 4. Revision distributed to the field NLT than 150 calendar days after beginning of Production Phase

NOTE: These times are for planning purposes only. Extension will be coordinated with lead and affected MAJCOM(s). **(T-2)**.