

CHAPTER 109. APPROVE FAR PART 125 MINIMUM EQUIPMENT LIST/REVISION

Section 1. Background

1. WPMS ACTIVITY CODES

- A. Maintenance: 3312 (initial)/3313 (revision)
- B. Avionics: 5312 (initial)/5313 (revision)

3. OBJECTIVE. This chapter describes the process used to evaluate and approve a Minimum Equipment List/Revision.

5. GENERAL

A. A Minimum Equipment List allows an operator to continue a flight or series of flights, with certain equipment inoperative, to a place where repairs can be made. For the operator to be able to use the Minimum Equipment List, the procedural requirements for the equipment loss must be met. In the absence of an approved Minimum Equipment List, further flights will be suspended until the repair or replacement of non-functioning equipment is accomplished.

(1) The failure of any instruments or equipment required or installed in the aircraft must be compensated for by controlled conditions providing an acceptable level of safety. Controlled conditions include the following:

- Restrictions for certain flight operations
- Changes to in-flight operational procedures
- Temporary deactivation of components

(2) An operator, through a controlled program, must make repairs within specific time frames referenced by current guidance and the operator's approved maintenance program. Although the approved lists provide for specific time limitations for certain items, the operator should repair or replace the affected item before the time limit expires.

B. Many aircraft have installed equipment that is not essential for safe operations under all operating conditions. Much of this equipment is required for certain kinds of operations, such as night, instrument flight rules (IFR), or operation in icing conditions. Other equipment, such as entertainment systems and galley equipment, may be installed for convenience. If some deviation from the type certificated configuration and equipment were not permitted, the aircraft

could not be flown unless all such equipment was operable and/or installed.

(1) The Minimum Equipment List and the Configuration Deviation List should be carried on board the aircraft.

(2) No flight can take off from any airport with inoperative equipment other than the items provided for in the Minimum Equipment List and/or Configuration Deviation List.

7. REDUNDANT EQUIPMENT ITEMS. Most aircraft have some redundancy of systems and equipment to provide both schedule reliability and the necessary level of safety. The FAA encourages aircraft manufacturers and operators to install additional items of equipment to serve as alternatives for required instruments/equipment under certain conditions.

9. AIRCRAFT SYSTEMS. The Minimum Equipment List must address specific aircraft systems to ensure that airworthiness is not degraded.

A. Where the Master Minimum Equipment List states for a particular item "as required by the FAR", the operator's Minimum Equipment List should specify in the remarks column the conditions under which the specific item may be inoperative. This will provide definitive guidance to the maintenance and operations personnel as to which equipment may be inoperative for a particular operation.

B. The operator's Minimum Equipment List and Configuration Deviation List may be more restrictive than the Master Minimum Equipment List. Under no circumstances may the operator's lists be less restrictive.

(1) The operator's lists must be compared item by item with the current Master Minimum Equipment List and Aircraft Flight Manual for the subject aircraft.

(2) Placards, alternate operating procedures, and instructions for the isolation of malfunctions must be technically correct.

11. PRINCIPAL INSPECTOR RESPONSIBILITIES. The Principal Operations Inspector must coordinate with maintenance and avionics inspectors on approval and acceptance of Minimum Equipment Lists and Configuration Deviation Lists.

13. MASTER MINIMUM EQUIPMENT LISTS. The Master Minimum Equipment List serves as a guideline in the development of a Minimum Equipment List.

A. Master Minimum Equipment Lists are developed by Flight Operations Evaluation Boards.

B. Instruments and items of equipment that will be covered by a Minimum Equipment List include:

- The minimum items required for type certification
- The minimum items required by the operating rules
- Any optional items not evaluated in an inoperative condition during type certification flight test
- Equipment considered as part of the type design

15. CONFIGURATION DEVIATION LISTS. Under an amendment to the type certificate, the Aircraft Certification Office (ACO) may approve the operation of aircraft with missing secondary airframe and engine parts. To qualify, the aircraft must be certificated under FAR Part 25 or CAR 4b, and intended for use under the operating rules of FAR Part 125.

A. The aircraft manufacturer develops the Configuration Deviation List and submits it to the Aircraft Certification Office for approval. The approved list is incorporated into the limitations section of the Aircraft Flight Manual as an appendix.

B. The Configuration Deviation List must be a part of the operator's manual system.

17. REFERENCE AND MANUAL REQUIREMENTS

Section 2. Procedures

1. PREREQUISITES AND COORDINATION REQUIREMENTS

A. Prerequisites

- Knowledge of FAR Part 125
- Knowledge of Minimum Equipment List Preamble

B. *Coordination.* This task requires close coordination between operations and airworthiness staffs. Coordination may also be required with the Flight Oper-

A. The Standard Minimum Equipment List Preamble will be used for all Minimum Equipment Lists.

B. The operations and maintenance procedures in the operator's Minimum Equipment List may reference instructions in the operator's manual.

C. The operator's maintenance manual must include instructions governing use of the Minimum Equipment List and Configuration Deviation List.

D. *Page Control System.* The operator must have a page control system to show that the Minimum Equipment List and Configuration Deviation List are current and complete.

E. *Revisions.* Changes to an operator's Minimum Equipment List and Configuration Deviation List may affect training programs and the instructions in the operator's manual. Both the initial lists and any subsequent changes must be approved by the Principal Operations Inspector or the manager of the Certificate Holding District Office, with the concurrence of the assigned avionics and maintenance inspectors.

F. The operator's maintenance manual must include instructions and provisions appropriate to the use of the Minimum Equipment List and Configuration Deviation List.

G. Procedures must be established for advising the pilot in command of any inoperative or removed items prior to a flight.

19. DELETING ITEMS FROM THE MINIMUM EQUIPMENT LIST/CONFIGURATION DEVIATION LIST. Principal inspectors may act to delete certain items from the operator's Minimum Equipment List and Configuration Deviation List when repairs or replacements are not accomplished according to approved procedures.

ations Evaluation Board, Flight Operations Policy Board, and regional specialists.

3. REFERENCES, FORMS, AND JOB AIDS

A. References

- Section 604 of the Federal Aviation Act of 1958, amended
- FAR § 125.201
- Master Minimum Equipment List for subject aircraft

- Operator's Aircraft Maintenance Manual for subject aircraft
- Approved Aircraft Flight Manual
- Operator's General Maintenance Manual
- Operator's Aircraft Operating Manual for subject aircraft
- Operator's General Operations Manual
- Order 8700.1, Operations Inspector's Handbook
- Order 8300.10, Airworthiness Inspector's Handbook

B. *Forms.* None.

C. *Job Aids.* None.

5. PROCEDURES

A. *Receive Operator's Minimum Equipment List/Configuration Deviation List.*

- (1) Coordinate with principal inspectors.
- (2) Review the proposed lists.
- (3) If this task is performed as part of an original certification, review the Schedule of Events to ensure this task can be accomplished according to the schedule.

B. *Evaluate the Proposed Minimum Equipment List*

- (1) Ensure the operator's proposed Minimum Equipment List addresses all items listed in the Master Minimum Equipment List. Ensure agreement between the lists in the "Number Required" sections.
- (2) Ensure that the number of equipment items listed in the "Number Installed" column agrees with the number actually installed according to the current airplane equipment list.
- (3) Ensure that the "Remarks or Exceptions" column includes the following information:
 - All restrictions and special provisions of the Master Minimum Equipment List
 - All maintenance procedures required, identified by an "M"
 - A specific reference to the document containing maintenance procedures

(4) Review all maintenance procedures described in the "Remarks and Exceptions" column for completeness.

(5) Ensure that the operator has a revision system for the proposed Minimum Equipment List to guarantee that changes to the Master Minimum Equipment List will be reflected.

(a) Instructions for the use of the revision system must be provided.

(b) The Minimum Equipment List must be current. The document must contain a List of Effective Pages.

(6) Ensure that the Standard Minimum Equipment List Preamble is used in its entirety, without modification.

(7) Ensure that the list includes a Table of Contents, and that pages are numbered according to the applicable Air Transport Association numbering system (e.g., Air Conditioning Systems, page 21-1, 21-2, 21-3, etc.)

(8) Ensure that all abbreviations and symbols used in the document are defined.

C. *Ensure Required Procedures Are Developed and Included in the Operator's Maintenance Manual*

(1) Ensure the operator's maintenance manual includes the following:

- A list of personnel responsible for Minimum Equipment List management
- A list of personnel authorized to defer maintenance in accordance with the Minimum Equipment List
- A description of personnel training requirements for Minimum Equipment List procedures
- Procedures for authorizing personnel to defer maintenance on the Minimum Equipment List
- Instructions for the placarding of inoperative/removed items, and samples of placards

(2) Ensure the operator's maintenance manual contains procedures for control of Minimum Equipment List deferred maintenance items, including:

- Parts procurement and distribution for corrective action of deferred items

- Scheduling of corrective action, describing when and where maintenance will be performed
- Coordination between the operator's maintenance and flight departments for possible restrictions, exceptions, and procedures
- Reporting and recording of the deferral and subsequent corrective maintenance, pertinent to both maintenance and flight departments

D. *Analyze Findings.* Determine what, if any corrective action is required. Provide the Principal Operations Inspector with the findings.

E. *Schedule and Conduct Meetings.* If deficiencies are discovered during the review, coordinate with assigned principal inspectors to schedule a meeting with the operator to discuss the problem areas. Brief the operator on the findings and discuss how to resolve any deficiencies

7. TASK OUTCOMES

A. *File WPMS Transmittal Form*

B. Completion of this task will result in issuance of a letter of authorization in accordance with FAR §§ 125.201(b)(2) and one of the following:

- For certification, the applicant's Minimum Equipment List will be approved by initial and date on each page
- For a revision, the operator's Minimum Equipment List will be revised according to the operator's approved revision procedures
- A formal letter to the operator/applicant stating the reasons for disapproval of the Minimum Equipment List or Revision

C. *Document Task.* File all supporting paperwork in the operator/applicant's office file.

9. **FUTURE ACTIVITIES.** Normal surveillance.