

CHAPTER 58. APPROVE A MINIMUM EQUIPMENT LIST

SECTION 1. BACKGROUND

1. PROGRAM TRACKING AND REPORTING SUBSYSTEM (PTRS) ACTIVITY CODES.

- Initial Approval: 1425
- Revision: 1426

2. OBJECTIVE. The objective of this task is to determine whether an operator meets the regulatory requirements for safe and appropriate flight, with certain instruments and equipment inoperative, under Title 14 of the Code of Federal Regulations (14 CFR) part 91. Successful completion of this task results in the issuance or denial of a letter of authorization to operate under part 91 with a Minimum Equipment List (MEL).

3. GENERAL.

A. Authority. Section 91.213 authorizes flight with inoperative equipment under specific conditions.

B. Definitions.

(1) *Aircraft Evaluation Group (AEG).* The AEG is the Federal Aviation Administration (FAA) office responsible for the development and publication of an approved Master Minimum Equipment List (MMEL) for those aircraft within its area of responsibility.

(2) *Aircraft Flight Manual (AFM).* The AFM is the source document for operational limitations and performance for an aircraft. The term AFM can apply to either an airplane flight manual or a rotor craft flight manual. The FAA requires an AFM for type certification. The responsible FAA Aircraft Certification Office (ACO) approves an AFM.

(3) *Aircraft Maintenance Manual (AMM).* The AMM is the source document for maintenance procedures for an aircraft. The term AMM can apply to either an airplane maintenance manual or a rotor craft maintenance manual. The FAA requires the AMM for type certification.

(4) *Airworthiness Directive (AD).* An AD is a mandatory airworthiness requirement for a particular make and model aircraft or installed equipment. An

AD is supplementary to the aircraft's original airworthiness approval.

(5) *Air Transportation Association (ATA) Numbering System.* The standard ATA numbering system refers to systems on different aircraft in a standardized manner. MMEL's use the ATA numbering system.

(6) The term "Calendar Days" includes all days, with no exclusion for weekends and holidays.

(7) Deactivation means to make a piece of equipment or an instrument unusable by the pilot/crew by preventing its operation.

(8) Deferred Maintenance is the postponement of the repair or replacement of an item of equipment or an instrument.

(9) Equipment List is an inventory of equipment installed by the manufacturer or operator on a particular aircraft.

(10) *Flight Operations Evaluation Board (FOEB).* The FOEB is composed of FAA personnel who are operations, airworthiness, avionics, and aircraft certification specialists. The FOEB develops an MMEL for a particular aircraft type under the direction of the AEG.

(11) Inoperative means a system and/or component malfunction to the extent that it does not accomplish its intended purpose and/or is not consistently functioning normally within approved operating limits or tolerances.

(12) *Kinds of Operations List (KOL).* The KOL specifies the kinds of operations (e.g., visual flight rules (VFR), instrument flight rules (IFR), day, or night) in which the aircraft can be operated. The KOL also indicates the installed equipment that may affect any operating limitation. Although the certification rules require this information, there is no standard format; consequently, the manufacturer may furnish it in various ways.

(13) *Letter of Authorization (LOA).* The Flight Standards District Office (FSDO) issues an LOA to an operator when the FSDO authorizes an operator to

operate under the provisions of an MEL. Together, the LOA, the procedures document (paragraph 3B(22)), and the MMEL constitute a Supplemental Type Certificate (STC). The operator must carry the STC in the aircraft during its operation (see figure 58-1). If applicable, issue the letter of authorization (figure 58-5) to the management company involved in fractional ownership arrangements. Each individual owner shall not be listed in the letter of authorization.

(14) Maintenance is the inspection, overhaul, repair, preservation, or replacement of parts. This definition excludes preventive maintenance (see paragraph 3B(21)). After a mechanic performs other than preventive maintenance, a properly certificated maintenance person must approve the aircraft for return to service.

(15) *Master Minimum Equipment List.* An MMEL contains a list of items of equipment and instruments that may be inoperative on a specific type of aircraft (e.g., BE-200, Beechcraft model 200). It is also the basis for the development of an individual operator's MEL.

(16) *Minimum Equipment List.* The MEL is the specific inoperative equipment document for a particular make and model aircraft by serial and registration numbers, e.g., BE-200, N12345. A part 91 MEL consists of the MMEL for a particular type aircraft, the preamble for part 91 operations, the procedures document, and an LOA. The FAA considers the MEL as an STC. As such, the MEL permits operation of the aircraft under specified conditions with certain equipment inoperative.

(17) The Next Required Inspection is the inspection required under either an FAA-approved inspection program, a 100-hour inspection, or an annual inspection, as appropriate.

(18) Operator refers to an individual or company (corporation, entity, etc.), and for purposes of this chapter ONLY refers to part 91 operators.

(19) O and M Procedures in the MMEL refer to the specific maintenance procedures the operator uses to disable or render inoperative items of equipment and to specific operating conditions and limitations, as appropriate.

(a) An "O" symbol in column 4 of the MMEL indicates that a specific operations procedure must be accomplished before or during operation with

the listed item of equipment inoperative. Normally, the flight crew accomplishes these procedures; however, other personnel, such as maintenance personnel, may be qualified and authorized to perform the procedure.

(b) An "M" symbol in column 4 of the MMEL indicates that a specific maintenance procedure must be accomplished before beginning operation with the listed item of equipment inoperative. Normally, maintenance personnel accomplish these procedures; however, other personnel, such as the flight crew, may be qualified and authorized to perform certain functions. Qualified maintenance personnel must perform procedures requiring specialized knowledge, skills, or the use of tools or test equipment.

(20) A Placard is a decal or label with letters at least 1/8-inch high. The operator or mechanic must place the placard on or near inoperative equipment or instruments so that it is visible to the pilot or flight crew and alerts them to the inoperative equipment.

(21) *Preventive Maintenance.* The term preventive maintenance refers to simple or minor preservation operations and/or the replacement of small standard parts not involving complex assembly. Title 14 CFR part 43, appendix A(c), contains a list of preventive maintenance items. Qualified mechanics or certificated pilots may accomplish preventive maintenance and approve the aircraft for return to service.

(22) Procedures Document pertains to a separate document containing the O and M procedures developed by the operator and any other operating information applicable to operation with an MEL, such as the "as required by 14 CFR" items that list the regulation by part and section or stipulate the operating conditions.

(23) *Proposed Master Minimum Equipment List (PMMEL).* The PMMEL is the working document used as the basis for development of the MMEL. Normally, the manufacturer proposes it during the certification process. However, an operator of a unique type aircraft, for which an MMEL does not exist, may submit a PMMEL for FAA approval.

(24) *Return to Service.* Return to service has two applications. An appropriately certificated person approves an aircraft for return to service after an inspection or after maintenance. A certificated pilot, in fact, returns the aircraft to service after the pilot

conducts an appropriate preflight and accepts the aircraft for an intended flight.

(25) Small Aircraft means aircraft with a maximum certificated takeoff weight of 12,500 pounds or less.

(26) *Supplemental Type Certificate.* An STC is a major change in type design not great enough to require a new application for a type certificate under 14 CFR part 21, § 21.19. An example would be installation of a powerplant different from what was included in the original type certificate.

(27) Type Certificate Data Sheets and Specifications (TCDS) is a document issued by the FAA which describes the aircraft's airworthiness requirements relating to a specific type and make and model of aircraft. These documents are available at the FSDO.

4. BACKGROUND. Except as provided in § 91.213, all instruments and equipment installed on an aircraft must be operative before its operation. However, the FAA recognized that safe flight can be conducted under the MEL concept and under specific conditions with inoperative instruments and equipment.

A. Regulatory History. Until the most recent change to § 91.213, the MEL concept only applied to air carrier and commercial operations and general aviation operators of multiengine aircraft for which the FAA had developed an MMEL. Operators of aircraft for which the FAA had not developed an MMEL had to comply with § 91.405. This section required that all aircraft discrepancies occurring between required inspections had to be repaired in accordance with part 43 before the aircraft could be operated. This meant that all the aircraft's instruments and equipment, regardless of whether they were essential or not to the flight operation conducted, had to be operative. Often, this requirement placed a burden on operators.

B. Amendments to part 91. Over the past decade, the FAA initiated several rulemaking projects to alleviate the regulatory burden of § 91.405 on part 91 operators. Before the issuance of a final rule change, the FAA encouraged public and industry participation, accepted and reviewed public comments, and conducted public hearings which were attended by other government agencies and the industry.

(1) The FAA briefly suspended § 91.213 and allowed issuance of MEL's by exemption. During this period the FAA gained valuable information on the

usefulness and safety aspects of using MEL's in general aviation.

(2) Further, general aviation operators have a history of safe operations using § 91.205 as the sole reference for determining the instrument and equipment requirements for a particular flight.

(3) However, operators indicated the need for relief from § 91.405. The FAA agreed that the regulation should reflect current operational practices. Consequently, the FAA amended parts 43 and 91 in December 1988.

C. Regulatory Requirements. The amendment to parts 43 and 91 provides a regulatory basis for the operation of aircraft with inoperative instruments and equipment. Operators conduct these operations within a framework of a controlled program of maintenance inspections, repairs, and parts replacement. HOWEVER, operators must exercise good judgement and have, at each required inspection, any inoperative instrument or equipment repaired or inspected or the maintenance deferred, as appropriate.

5. APPLICABILITY. This chapter does NOT apply to operators holding certificates issued under 14 CFR parts 121, 125, 129, and 135. (For part 125 MEL's, refer to volume 2, chapter 86, Approve a Minimum Equipment List for a FAR Part 125 Operator. For parts 121, 129, and 135, refer to FAA Order 8400.10, Air Transportation Operations Inspector's Handbook.) This chapter provides guidance for the operation of the following aircraft under part 91:

A. Aircraft for Which no MMEL has been Developed.

- (1) Rotorcraft
- (2) Nonturbine powered airplanes
- (3) Gliders
- (4) Lighter-than-air aircraft

B. Aircraft for Which an MMEL has been Developed but for Which the FSDO has not Authorized Operation with an MEL.

- (1) Small rotor craft
- (2) Non-turbine powered small single and multiengine airplanes

C. Other. This chapter applies to all other aircraft which have a part 91 MEL or for which an operator seeks MEL authorization under § 91.213.

D. Experimental Aircraft. An operator may operate an aircraft, for which the FAA has issued an original experimental airworthiness certificate, in

accordance with § 91.213 only when authorized in that certificate's operating limitations.

E. Deviation Holders. Holders of letters of full deviation authority from part 125 who operate under part 91, subpart F, may apply for authorization to operate with a part 91 MEL.

6. MEL VS. § 91.213(d). Although the FAA amended part 91 to provide relief to operators under the MEL concept, some operators may find it less burdensome or less complicated to operate under the provisions of § 91.213(d). The inspector should discuss the requirements of each method with the applicant to help the applicant decide which method of compliance better suits the particular operation. Figure 58-2 contains a list of commonly asked questions which may assist.

A. Listing of Equipment. An MEL is a precise listing of instruments and equipment and procedures that allow an aircraft to be operated under specific conditions with inoperative equipment. The MMEL, as part of the MEL, by nature does not cover equipment installed or modified under other STC's or field approvals. Any STC or other major modification may make the MMEL for a particular modified aircraft invalid.

B. Regulatory Requirements. The regulations require that all equipment installed on an aircraft in compliance with the airworthiness standards and operating rules be operative. The FAA-approved MMEL includes those items of equipment and other items which the FAA finds may be inoperative and yet maintain an acceptable level of safety. The MMEL does not contain obviously required items such as wings, flaps, rudders, etc. When a part 91 operator uses an MMEL as an MEL, all instruments and equipment NOT covered in the MMEL must be operative at all times regardless of the operation conducted, unless:

(1) They are newly installed and are not a "safety of flight" item such as a terminal collision avoidance system (TCAS), an extra piece of navigational equipment, a windshear detection device, a ground proximity warning system, a radar altimeter, passenger convenience items, etc.;

(2) The operator has developed appropriate procedures for disabling or rendering them inoperative; and

(3) The operator has contacted the FSDO having oversight within 10 calendar-days following an

installation and requested in writing that the equipment be added to the MMEL.

(a) The operator must furnish the following information:

i. A copy of the STC or FAA Form 337, Major Repair and Alteration, that approved each equipment installation and the associated limitations listed in the AFM supplement or on the FAA Form 337. The FOEB needs this information to account for installation differences as well as maintaining MMEL relief that is consistent with the limitations.

ii. A system description that sufficiently details the interface of the equipment with the crew, i.e., location, controls, operation, how it is used, etc.

iii. A statement that describes the transfer of function when the equipment is inoperative, i.e., not required for the flight, as per crew procedures, because of alternate systems, etc.

(b) If the FAA determines that the equipment has been previously considered by the FOEB for inclusion in the MMEL and denied, or if the FOEB convenes and denies inclusion, the FAA will not grant relief. The equipment must be operational before the aircraft can take off.

(c) If the FOEB determines that the equipment should be added to the MMEL, the operator will receive the updated MMEL and must prepare O and M procedures for that piece of equipment.

(4) The FSDO should review these petitions to ensure they contain the above information before forwarding the petitions to the FOEB.

C. Operational Options. If the FAA has not yet authorized operating with an MEL for an operator's specific aircraft, the operator may apply for an MEL. However, the operator can always elect to operate without an MEL under the provisions of § 91.213(d).

(1) Section 91.213(d) requires only those instruments listed in § 91.213(d)(2) to be operative.

(2) The operator can operate the aircraft with those instruments and equipment NOT listed in § 91.213(d)(2) inoperative.

7. CLARIFICATION OF MEL 10 CALENDAR-DAY SUBMISSION POLICY. This policy change refers to a perceived requirement to submit changes to the geographically responsible FSDO within 10 days of installation of "non-safety of flight" equipment for inclusion in the MMEL by the appropriate Flight Operations Evaluation Board (FOEB).

A. Reference is made to current Advisory Circular (AC) 91-67, Minimum Equipment Requirements for General Aviation Operations Under 14 CFR part 91, and policy guidance provided by Order 8700.1. While AC 91-67 refers to a 10 day application period, no regulatory requirement exists to support this position. The AC, while in question, closely parallels the guidance material published in Order 8700. 1, volume 2, chapter 58, paragraph 6B(3).

B. An operator who wishes to install a new piece of equipment, which is not a "safety of flight" item-listed in § 91.213(b), on an existing airframe, and wishes to operate with an MEL under the provisions of § 91.213(a), may do so and utilize the manufacturer's MMEL for that purpose. Handbook guidance provides for the operator to submit certain documentation to the geographic FSDO within 10 days of the completion of the installation. Such documentation must provide information as required by the Order 8700.1, volume 2, chapter 58, section 1, paragraphs 6B(2) and (3)(a)(i), (ii), and (iii).

C. Amendments to parts 43 and 91 in December, 1988 provided a regulatory basis for the operation of aircraft with inoperative instruments and equipment. The concept involves the conduct of operations within a framework of a controlled program of maintenance inspections, repairs, and parts replacement. The required item not addressed is that of the expected utilization of good judgment on the part of the operator such that at the next required inspection, any inoperative instruments or equipment will be repaired or inspected, or have the maintenance deferred as appropriate.

D. This office is in agreement with the proposal to change the wording used in the order to reflect the real intent of the guidance. An operator who purchases an aircraft to be used in part 91 operations (as opposed to part 125, 135, or 121 operations (Air Carrier)) and wishes to add equipment to further utilize and take advantage of the rapid advances in aviation technology may be placed in a disadvantageous position if he/she is required to submit the documentation required for submittal to the FOEB within 10 days of a completion of the installation. While it is true that some operators may have sufficiently pre-planned to complete the detailed information prior to contracting the installation, particularly for a new-high-tech piece of equipment, others may see this as a daunting task.

E. The paragraphs, as written, lend the impression that any application to the FOEB for inclusion of new equipment on the manufacturer's MMEL would be

denied if the applicant submitted the documentation later than 10 days after installation. The intent of the policy is to provide for timely submission of material to the geographic FSDO.

F. An applicant that has non-safety of flight equipment installed on an aircraft, should be able to submit the appropriate documentation within a "reasonable" time period. Once installed in an aircraft operating under the provisions of 14 CFR § 91.213(a), the equipment must be listed on the MEL (Manufacturer's MMEL) so as to permit a takeoff if the equipment becomes inoperative. When the operator makes a proposed change to the MEL for acceptance by the FOEB, through the FSDO in accordance with current policy, the operator may then operate as if the change was accepted until being notified otherwise.

G. This office agrees that there should be no requirement for an operator to remove equipment currently installed on an aircraft in an attempt to meet the 10 day requirement. A proposed change to the FOEB in addition to the required documentation should be all that is necessary to continue to operate in accordance with 14 CFR § 91.213(a).

8. RELATIONSHIP BETWEEN THE PMMEL, MMEL, AND MEL. When an aircraft is first manufactured, the FOEB determines the minimum operative instruments and equipment required for safe flight in that aircraft type in each authorized operating environment. During the type certification process, the manufacturer submits a PMMEL to the FOEB. Based on its determinations, the FOEB reviews the PMMEL and develops an MMEL from it. Once the FOEB approves the MMEL, a copy is available to each FSDO and operator via an automated system that allows the FSDO or operator to download the MMEL. The FSDO provides MMEL's to applicants to use, along with the procedures document, preamble, and LOA, as an MEL.

A. MMEL Revisions. As technology changes and new equipment becomes available, the FOEB will reconvene to develop new MMEL's or to revise and update existing ones.

B. Notification of Changes. When an FOEB makes a change to an MMEL, all operators using that MMEL as their MEL will receive a postcard advising them of the revised MMEL. The FSDO provides operators copies of the revised MMEL. The operator then makes the necessary changes to the procedures document through the normal revision process.

9. SINGLE- AND MULTIENGINE MEL'S. The FAA has developed MMEL's for most of the FAA type-certificated aircraft in general service today. All multiengine airplanes have an MMEL that is specific to the type design, e.g., Beech Baron, BE-58. The FAA has developed a generic single engine MMEL to provide to operators of single engine aircraft.

10. AIRCRAFT FOR WHICH NO MMEL HAS BEEN DEVELOPED.

A. General. If an FOEB has not developed an MMEL for a certain type of rotor craft, nonturbine powered airplane, glider, or lighter-than-air aircraft, that aircraft may be operated with inoperative equipment under the provisions of § 91.213(d).

B. Older or Rare Designs. In those cases where an operator has an older or rare design aircraft that has no MMEL, the operator may submit a PMMEL to the appropriate FOEB for evaluation. Once the AEG approves the MMEL, the operator could use it, along with the other required documents, as the MEL.

11. MEL RESTRICTIONS. Operators of small rotor craft, nonturbine powered small single- and multiengine airplanes and other aircraft for which an MMEL has been developed may elect to operate with an MEL or under the provisions of § 91.213(d). However, the latter option does NOT apply if the aircraft has an MEL approved under part 121, 125, 129, or 135. For example, an owner has leased an aircraft to an air carrier operator, and the air carrier operator has applied for and received an approved MEL for part 135 operations. Compliance with that MEL is mandatory, even during part 91 operations. If the operator wants to operate under § 91.213(d), the operator would have to surrender the MEL authorization.

12. REMOVAL OR DEACTIVATION. When an operator elects to operate without an MEL, any inoperative instrument or equipment must be either removed (§ 91.213(d)(3)(i)) or deactivated (§ 91.213(d)(3)(ii)), then placarded.

A. Removal. Removal of any item of equipment that affects airworthiness of an aircraft requires following an approved procedure. A properly certificated maintenance person must record the removal in accordance with § 43.9. A person authorized by § 43.7 must make the appropriate adjustments to the aircraft's weight and balance information and the equipment list, fill out and

submit FAA Form 337, and approve the aircraft for return to service.

B. Deactivation. The operator must evaluate any proposed deactivation to assure there is no adverse effect that could render another system less than fully capable of its intended function.

(1) A certificated pilot can accomplish deactivation involving routine pilot tasks, such as turning off a system. However, for a pilot to deactivate an item or system, that task must come under the definition of preventive maintenance in part 43, subpart A.

(2) If the deactivation procedures do not fall under preventive maintenance, a properly certificated maintenance person must accomplish the deactivation. The maintenance person must record the deactivation according to § 43.9.

C. Placarding. Placarding can be as simple as writing the word "inoperative" on a piece of masking tape and attaching it to the inoperative equipment or to its cockpit control. Placarding is essential since it reminds the pilot that the equipment is inoperative. It also ensures that future flight crews and maintenance personnel are aware of the discrepancy.

13. INOPERATIVE EQUIPMENT AND REQUIRED INSPECTIONS. An operator may defer maintenance on inoperative equipment that has been deactivated or removed and placarded as inoperative.

A. Inspection Due. When an aircraft is due for inspection in accordance with the regulations, the operator should have all of the inoperative items repaired or replaced.

B. Indefinite Deferral. If an owner does not want specific inoperative equipment repaired, then the maintenance person must check each item to see if it conforms to the requirements of § 91.213(d). The operator and maintenance personnel should also assess how permanent removal of the item could affect safe operation of the aircraft.

(1) The repair interval categories (A,B,C,D) in the MMEL do NOT apply to part 91 MEL's.

(2) The maintenance person must furnish the owner/operator with a signed and dated list of all discrepancies not repaired.

(3) The maintenance person must ensure that each item of inoperative equipment that is to remain inoperative is placarded appropriately.

14. CONDUCTING OPERATIONS WITHOUT AN MEL.

A. Applying § 91.213(d). Operating under § 91.213(d) requires no application to or approval from the FAA. An operator, after operating under § 91.213(d), may elect at any time to apply for authorization to operate under an MEL.

B. The Decision Sequence. Figure 58-3 is a flow chart depicting the typical sequence of events a pilot or operator, operating under § 91.213(d), should follow when the pilot or operator discovers inoperative equipment. For example, during a preflight inspection for a day, VFR, cross-country flight, the pilot discovers that the No. 2 automatic direction finding (ADF) head is inoperative.

(1) The pilot checks the aircraft's equipment list or KOL to see if the No. 2 ADF is a required item (§ 91.213(d)(2)(ii)). If the No. 2 ADF is required in the equipment list or KOL, the aircraft is not airworthy. The operator must have the No. 2 ADF replaced or repaired before operating the aircraft. In this example, the No. 2 ADF is not a required item on the equipment list.

(2) Next, the pilot checks the airworthiness regulation under which the aircraft was certificated to determine if the No. 2 ADF is part of the VFR day type certificate (§ 91.213(d)(2)(i)). If the No. 2 ADF is required as part of the VFR day type certification, the aircraft is not airworthy. The operator must have the No. 2 ADF replaced or repaired before operating the aircraft. In this example, the No. 2 ADF is not required by type certification.

(3) Next, the pilot checks to see if an AD requires the No. 2 ADF. The pilot can accomplish this by checking the aircraft's maintenance logs to see if the No. 2 ADF was installed as a result of an AD. However, it may be necessary for the pilot to consult a qualified maintenance person to determine AD compliance. If an AD requires the No. 2 ADF to be operative, the aircraft is not airworthy. The operator must have the No. 2 ADF replaced or repaired before operating the aircraft. In this example, there is no AD requiring the No. 2 ADF to be operative.

(4) Next, the pilot checks to see if the No. 2 ADF is required by §§ 91.215, 91.205, or 91.207. The pilot can accomplish this by checking those sections of the regulations or by consulting with a maintenance technician or FSDO personnel. If any of those sections of the regulations require a No. 2 ADF, then

the aircraft would not be airworthy with the No. 2 ADF inoperative. The operator must have the No. 2 ADF replaced or repaired before operating the aircraft. In this example, those sections of the regulations do not require the No. 2 ADF to be operative.

(5) At this point, the inoperative No. 2 ADF must either be removed from the aircraft (§ 91.213(d)(3)(i)) or deactivated (§ 91.213(d)(3)(ii)). The person removing or deactivating the No. 2 ADF must placard it as inoperative in the appropriate location. (A pilot should consult maintenance personnel before deactivating or have maintenance personnel remove any item of equipment.)

(6) Finally, the pilot should decide whether the inoperative No. 2 ADF creates a hazard for the anticipated conditions of the flight, e.g., Day VFR.

15. OPERATING AIRCRAFT WITH AN MEL.

A. Applying for MEL Approval. The FAA has only one procedure for the issuance of part 91 MEL's, which is described below. This is the only process the FSDO will follow for part 91 MEL authorizations. The operator who wishes to conduct operations with an MEL must contact the FSDO that has jurisdiction over the geographic area where the aircraft is based and make an appointment.

(1) For part 91 operators seeking MEL authorization, the FSDO will assign a Flight Standards inspector to advise the applicant about regulatory requirements pertinent to using an MEL. During the initial appointment, the applicant will likely be dealing with a team of inspectors from the operations, airworthiness, and avionics units.

(a) The operator must develop the O and M procedures using guidance contained in the manufacturer's aircraft flight and/or maintenance manuals, the manufacturer's recommendations, engineering specifications, and other appropriate sources. An operator may consult FSDO inspectors for advice or clarification, but the operator is responsible for preparing the document.

(b) The inspector must discuss with the operator the following considerations for preparing the procedures document:

i. The operator's procedures document may be more restrictive than the MMEL either by the applicant's choice or because of AD's or operating rules. The operator's procedures document may not be less restrictive than the MMEL.

ii. The title page of the procedures document must contain the following statement:

"This MEL is applicable to part 91 operations only and may not be used for operations conducted under parts 121, 125, 129, or 135."

iii. The operator must use the ATA numbering system for equipment and instruments, as is used in all MMEL's. The operator must use the ATA numbering system in sequence when describing O and M procedures, including the numbers for equipment installed in the aircraft. When equipment is not installed in a specific aircraft, the applicant need not develop O and M procedures for those items of equipment.

iv. Operators must ensure that the procedures document lists the items of equipment that are actually installed on the specific aircraft (except those items over and above the type design or previously approved by the AEG). This provides guidance to a pilot as to which items of equipment may be inoperative for a particular operation.

v. Equipment specifically required by the airworthiness rule under which the aircraft is type certificated, equipment required by AD, and equipment required for specific operations under § 91.213(b)(1) through (3) must be operative. It is important to note that all items related to the airworthiness of the aircraft that are not included on the MMEL must be operative.

vi. The repair interval categories (A, B, C, D) listed in column 1 of the MMEL apply only to operations conducted under parts 121, 125, 129, and 135.

vii. Where the MMEL states "As required by FAR (now referenced as 14 CFR)," the procedures document should list the particular regulation by part and section or describe the actual 14 CFR requirement applicable to the operator's particular operation. For example, where the regulation requires a clock for IFR flight, the operator's procedures document should say, "May be inoperative for VFR."

viii. The procedures document must specify suitable limitations in the form of placards, maintenance procedures, crew operating procedures, and other restrictions to ensure an acceptable level of safety.

ix. The procedures document must specify those conditions under which an item may be inoperative. The remarks must also identify required maintenance or operational tasks. The symbol "O" or "M", placed in column 4 of the MMEL, indicates that an O or M procedure is applicable to that item. Indi-

cating the O and M procedures in the procedures document provides flight crews and ground support personnel with a single procedural reference document.

x. If the O and M procedures are already stated in the AFM, the maintenance manual, or other available FAA-approved source, the operator needs only to show the reference; e.g., O: AFM, pp. 3-8 through 3-10, paragraph 3-47. If the operator uses this reference format in the procedures document, the referenced source must be readily available to the ground support personnel, and a copy of the references source must be carried in the aircraft and be readily available to the flight crew.

xi. If O and M procedures are not in the AFM, maintenance manual, or other available FAA-approved source, or if the operator wishes to use a different procedure, then the operator must list the procedure in the procedures document.

xii. The procedures document may not conflict with AFM limitations, emergency procedures, AD's, or the aircraft maintenance manual.

(2) An operator may begin operations before completion of the procedures document. If the operator has not yet developed a procedure for an item, that item must be operative. When an instrument or item of equipment becomes inoperative, the operator must follow the procedure indicated in the procedures document or the operator could be in noncompliance with the regulations.

B. MEL Authorization. The MEL applies only to a particular aircraft make, model, serial number, and registration number and only to the operator who received the authorization.

(1) When more than one person has operational control of a specific aircraft, all operators must meet with inspectors from the issuing FSDO to discuss MEL operational considerations. The FSDO may find it appropriate to list all operators on the LOA with the exception being a fractional ownership situation as noted in paragraph 3B(13). Each operator must sign the "Statement of Operator" on the LOA.

(2) The FSDO may issue operators who use several aircraft of the same type a single LOA that lists each aircraft by serial and registration numbers. The FSDO will issue separate LOA's for different types of aircraft.

(a) When operators add or delete aircraft of the same type from their fleet, they must notify the FSDO having oversight within 10 calendar-days following the change. The FSDO will reissue the LOA containing the new information. Again, both the operator and the inspector must sign the new LOA.

(b) The operator must surrender the previous LOA upon reissuance of a new one. The FSDO should place the old LOA in the operator's file.

(3) At any time after operating with a part 91 MEL, an operator may elect to operate under § 91.213(d). The operator must surrender the LOA to the issuing FSDO and must conform to all provisions of § 91.213(d) during operations.

C. Revisions. The operator may have to revise the procedures document under several conditions: The AEG may authorize an FOEB to revise the MMEL, the operator may add equipment, or the FOEB may develop a type-specific MMEL for a single-engine aircraft.

(1) When the FOEB revises an MMEL, the FAA automated national MMEL database notifies operators who have MEL authorizations by mail. The operator is then responsible for obtaining a copy of the revised MMEL. Within 30 calendar-days of notification, the operator must replace the superseded revision of the MMEL with the current revision and add or delete procedures to its procedures document, as applicable. The operator should advise the issuing FSDO that they have revised their MEL with the current MMEL revision.

(2) Within 10 calendar-days of installing new equipment not on the MMEL, the operator may request that the MMEL be amended if the operator seeks relief for that item.

(a) If the items of newly installed equipment are not safety related and exceed what is listed on the MMEL, and if the FSDO determines that the equipment has not previously been denied for inclusion in an MMEL, the operator may petition the FOEB for inclusion of the newly installed equipment in the MMEL. All petitions, with appropriate supporting information, will be forwarded by the FSDO to the appropriate FOEB. The operator may then temporarily add the equipment to the MMEL and develop appropriate O and M procedures for the equipment. The operator may then operate with the equipment inoperative pending a decision by the FOEB on the operator's request for an MMEL revision to include the equipment.

(b) If the FOEB has previously denied the inclusion of the equipment, if the equipment is safety related, or if the equipment was previously installed or is "factory original," the operator may still petition the FOEB through the FSDO to include the equipment on the MMEL. However, the operator may not gain relief for the equipment by temporarily adding it to the

MMEL and adding procedures to the procedures document pending the FOEB's decision. The equipment must be operative before operating the aircraft.

(3) Although the FAA has developed a generic MMEL for operators of single-engine aircraft, an FOEB may decide that a complex, turbine powered single-engine aircraft requires a type specific MMEL. For example, an FOEB has developed a type specific MMEL for the Cessna 208 Caravan.

(a) When an FOEB develops a specific MMEL for a single-engine aircraft, the FAA will notify all holders of MEL's for that aircraft under a generic MMEL that the specific MMEL is available.

(b) Within 30 calendar-days of notification, the operator must obtain the MMEL and begin the process for a new LOA. Only by issuing a new LOA will the FSDO be assured that the operator has and is using the type specific MMEL.

(c) Once the FSDO issues the new LOA, the operator must develop, within an additional 30 calendar-days, a new procedures document that conforms to the requirements of the type specific MMEL. The operator will find that most of the procedures that were acceptable under the generic MMEL will transfer to new procedures document. If equipment becomes inoperative while the operator is developing the new procedures document, the operator may still use the previous procedures, as appropriate.

D. Conducting Operations with an MEL. In addition to carrying the documents that comprise the MEL on board the aircraft, the operator must have on board any technical manuals needed to accomplish O and M procedures. Figure 58-4 illustrates the sequence of events involved in applying the MEL to inoperative equipment.

(1) *Items Inoperative Before Flight.* During a preflight inspection for a day VFR flight, the pilot discovers that the navigation lights are inoperative.

(a) The pilot checks the aircraft's MEL to determine under what, if any, flight conditions the aircraft could be operated without operable navigation lights. The MEL indicates that the aircraft may be operated during daylight hours without operable navigation lights.

(b) The pilot checks the procedures document and finds that the "O" procedure is to deactivate the navigation lights by pulling the correct circuit breaker and having it collared by an appropriately certificated person.

(c) The pilot places a placard, which indicates that the lights are inoperative, near the navigation light control.

(d) The pilot examines the conditions of the proposed flight and determines that the flight can be conducted safely without navigation lights.

(2) *In-flight Failures.* An MEL applies only to the takeoff of an aircraft with inoperative instruments or equipment. The pilot's operating handbook (POH) or the AFM indicates procedures to follow for instrument or equipment failure in flight. The pilot-in-command (PIC) should handle the in-flight failure in accordance with those procedures. As soon as possible after landing safely, the PIC must enter a notation of the inoperative equipment in the aircraft's maintenance records, logbooks, or discrepancy record. Before the next takeoff, the pilot must apply the MEL to inoperative equipment as per the procedures in paragraph 14D(1). An MEL allows the PIC to defer maintenance on items under the following conditions:

(a) The aircraft is in condition for safe flight, and

(b) For the inoperative item, the pilot has followed the specific conditions, limitations, and procedures in the procedures document.

E. Correcting MEL Inoperative Items. The MEL permits operations with inoperative equipment for the minimum period of time necessary for equipment repair. It is important that inspectors encourage operators to have repairs done at the earliest opportunity in order to return the aircraft to its design level of safety and reliability. In all cases, inoperative equipment must be repaired or the maintenance deferred at the aircraft's next required inspection (§ 91.405(c)).

(1) Operators shall establish procedures to correct those inoperative items authorized within specified time requirements.

(2) Owners of aircraft operated under part 91 may opt to use one of several types of airworthiness inspection systems, depending upon how the operator uses the aircraft. Therefore, the time between required inspections or inspection segments will vary.

(3) Items of inoperative equipment authorized by the MEL to be inoperative must be inspected or repaired by qualified maintenance personnel or maintenance deferred at the next 100-hour, annual, progressive, or unscheduled inspection. However, if § 91.213 requires that an item be repaired, the item cannot be deferred.

F. Record Keeping Requirements. A record of inoperative equipment must remain in the aircraft so pilots will be aware of all discrepancies.

(1) Since some operators do not carry aircraft logbooks in the aircraft, a discrepancy record or log is a good alternative. When an operator uses this type of discrepancy log in lieu of the aircraft's maintenance records, the operator must retain the log as a part of the aircraft's records as per § 91.417(b).

(2) If the operator elects to use the aircraft maintenance record to log inoperative items, that portion of the record must be carried on board the aircraft during all operations.

(3) Maintenance procedures and corrective actions shall be accomplished and be recorded according to §§ 43.9, 91.405, and 91.417.

(4) Failure to record an inoperative item may result in operation of the aircraft contrary to the regulations because subsequent pilots would not be able to determine the airworthiness of the aircraft.

G. Aircraft Used in Multiple Operations. Section 91.213(c) allows a person who has an approved MEL under part 121, 125, 129, or 135 to use that MEL for part 91 operations. A part 121, 125, 129, or 135 MEL must specify requirements for authorized part 91 operators to comply with the more restrictive provisions established in the approved MEL. It is important that operators be capable of conducting operations in accordance with the MEL. This includes, but is not limited to, accomplishing required maintenance in accordance with the certificate holder's requirements.

(1) The use of a leased aircraft creates a situation where several persons may be operating the same aircraft under different regulations. For example, a Cessna 340 could be operated by an approved school under part 141, an air carrier under part 135, and by a rental pilot under part 91. The FAA will not approve multiple MEL's, which would create pilot confusion with multiple discrepancy lists and multiple sets of procedures for the same aircraft. In the example, the aircraft would operate under the part 135 MEL, including the repair interval categories, with approval from the FSDO for other users to conduct operations under other regulations.

(2) FAA allows multiple operator use of a part 121, 125, 129, or 135 MEL subject to the following conditions:

(a) The operator is responsible for training all persons in the MEL's use, including the logging and

clearing of discrepancies and the use of the repair interval categories.

(b) Operators shall maintain a complete, current list of all persons trained and authorized to use the MEL.

(c) The operator is responsible for determining the aircraft's maintenance status on its return from a part 91 operation. The operator must accomplish this before the aircraft returns to part 121, 125, 129, or 135 service.

(d) FAA Principal Operations Inspectors (POI) shall verify that operators have established procedures that ensure an acceptable level of safety before authorizing persons to use the MEL under part 91.

16. OFFICE FILES. In order to track MEL authorizations and operator revisions, FSDO's must keep an office file on each part 91 operator with an MEL authorization. The file should contain, but is not limited to, the following:

- A copy of the current revision of the MMEL
- A copy of the LOA
- Any information on the operator retrieved from the various Aviation Safety Analysis System and subsystems
- Any petitions from the operator for revisions to the MMEL
- Any negative responses from the FOEB to petitions for MMEL revisions
- Inspection reports
- Any other correspondence from or to the operator concerning MEL authorization

17. INSPECTION OF THE PROCEDURES DOCUMENT. Since the FAA does not approve procedures documents for part 91 operators with an MEL authorization, inspectors must take advantage of any opportunities to examine them and to check that the operator is using the current revision of the MMEL.

A. Surveillance. During part 91 ramp inspections, inspections of corporate/executive operators (including full part 125 deviation holders), or base inspections of any operator or air agency, inspectors shall examine the procedures documents for content and appropriateness. (Refer to volume 2, chapter 55, Inspect an Executive/Corporate Operator; and chapter 56, Conduct a FAR Part 91 Ramp Inspection.)

B. Investigations. While investigating any incident, accident, or case of noncompliance, the inspector should review the operator's LOA and procedures document and incorporate them as official exhibits, if appropriate.

C. Airman Certification. When conducting airman certification functions, an inspector should remind the pilot to have the STC, if applicable, on board the aircraft when arriving for the practical test. The inspector should examine the procedures document, the LOA, and the MMEL before conducting the practical test.

D. Results. The inspector must document the results of checking an operator's MEL authorization under any of the above circumstances.

(1) The inspector should place the results of examining the procedures document in the office file on the operator.

(2) If an inspector encounters any problems with the procedures outlined in the document, the inspector should describe to the operator how they can be fixed and follow up in writing to the operator. Again, the inspector should place this record in the operator's office file.

(3) The inspector should note the revision number of the MMEL used by the operator then compare it with the most current revision. If the operator does not have the current revision, the inspector must contact the operator and inform the operator of the current revision's availability.

(4) If the operator has been issued an MEL authorization from another FSDO, the inspector should transmit a copy of the findings to the issuing office for their records.

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[PAGES 58-13 THRU 58-16 RESERVED]

SECTION 2. PROCEDURES

1. PREREQUISITES AND COORDINATION REQUIREMENTS.

A. Prerequisites. This task requires knowledge of the regulatory requirements of part 91 and FAA policies and qualification as an aviation safety inspector (operations). If applicable, the inspector should hold the appropriate type rating for the aircraft for which the operator is seeking MEL authorization or be rated in the same category and class of aircraft.

B. Coordination. This task requires coordination with airworthiness and avionics and possibly with the appropriate AEG or FOEB.

2. REFERENCES, FORMS, AND JOB AIDS.

A. References.

- All applicable regulations
- Advisory Circular (AC) 91-67, Minimum Equipment Requirements for General Aviation Operations under FAR Part 91

B. Forms.

- FAA Form 8430-7, Master Minimum Equipment List

C. Job Aids.

- Sample letters and figures

3. PROCEDURES.

A. Initial Inquiry. Upon inquiry from an operator concerning operation with an MEL, determine the make and model aircraft for which the operator is seeking MEL authorization.

(1) Schedule an appointment for a meeting with the operator.

(2) Coordinate with the airworthiness unit for representation at the meeting.

(3) Open PTRS.

B. Meeting with MEL Applicant.

(1) At the meeting provide the applicant with the following:

(a) A copy of the appropriate MMEL with the preamble applicable to part 91 operations (see figure 58-1).

(b) A sample title page.

(c) A copy of AC 91-67.

(2) Discuss the differences between operating under § 91.213(d) and operating with an MEL. (See section 1, paragraphs 13 and 14.)

(a) If the operator elects to continue with the MEL process, continue the briefing.

(b) If the operator elects to operate under § 91.213(d), reiterate the process for operating with inoperative equipment (see figure 58-3). Close out PTRS with an appropriate comment.

(3) Discuss with the applicant the MMEL and how it reflects the equipment installed on the applicant's particular aircraft.

(a) If the operator has installed items of equipment that are not on the MMEL, inform the operator that he/she must request through the FSDO that the MMEL be amended to include those items of equipment.

(b) Explain that the repair interval categories on the MMEL are applicable only to part 121, 125, 129, and 135 operations.

(4) Discuss the requirements for the procedures document.

(a) See section 1, paragraph 14A(1)(b)i-xii.

(b) Explain that the provisions of the procedures document may not be less restrictive than those of the MMEL.

(5) Discuss the operator's responsibilities when operating with an MEL:

(a) What operations will be authorized.

(b) Operations with inoperative equipment.

(c) Repair or replacement of items at the next inspection.

(d) Deferral of repairs or replacements.

(e) Removal and deactivation.

(f) Placarding.

(g) Record keeping requirements.

(h) Multiple operations, if applicable. (See section 1, paragraph 14G.)

(i) Revisions.

(6) Based upon the discussion with the applicant, determine if the applicant understands the requirements for operating with an MEL authorization.

(a) If it is apparent the operator requires further study of the responsibilities involved with MEL authorizations, schedule a meeting at a later date. Remind the operator that the operator must conduct operations under § 91.213(d).

(b) If the operator fully understands what is required for operation with an MEL authorization, issue the LOA (figure 58-5).

(7) *Issue the LOA.* Assure that letters of authorization issued to management companies indicate the name of the management company and NOT the individual owners. When preparing the letter of authorization as per the sample in figure 58-5, insert the name of the management company only in each instance where the sample says, “[name of operator].”

(a) Explain that the LOA, the MMEL, and its Preamble constitute an STC and as such is the MEL for the particular aircraft.

(b) Explain that the LOA is issued to the applicant under the applicant's legal name and to the address of the operator's principal base of operations.

(c) Explain that the operator is now responsible for developing the procedures document.

i. Explain that the operator may begin operations under the MEL authorization while developing the procedures document.

ii. Remind the operator that if the operator has not yet developed a procedure for an item of equipment, that item of equipment must be operative until the procedure is developed.

iii. Remind the operator that once the operator has developed a procedure for an item of equipment and that item of equipment becomes inoperative, the operator must follow the appropriate procedure in the procedures document.

(d) Sign the LOA and have the operator (or the operator's bonafide representative) sign it.

C. *PTRS.* Close out PTRS.

4. MEL REVISIONS.

A. *FOEB Revisions.*

(1) Provide the operator with the revised MMEL.

(2) Inform the operator that the operator must incorporate the applicable changes to the procedures document.

B. *Operator Installation of Equipment not on*

MMEL.

(1) Inform the operator that the operator must apply through the FSDO for MMEL amendment within 10 days of installing the equipment.

(2) Inform the applicant that once the FOEB approves the addition to the MMEL, the operator must amend the procedures document.

(3) If the FOEB denies the amendment to the MMEL, inform the operator that the equipment cannot be added to the procedures document. Remind the operator that the equipment must be operative when conducting operations.

C. *Issuance of Type-Specific Single Engine MMEL's.*

(1) Upon receipt of notification of the type-specific MMEL, inform the operator that:

(a) The FAA must issue a new LOA, and

(b) The operator must develop a new procedures document based on the type-specific MMEL.

(2) Follow the procedures in section 2, paragraph 3 for issuing the new LOA.

(3) Make appropriate PTRS entries.

5. TASK OUTCOMES.

A. Issuance of an LOA.

B. Issuance of a new LOA based on a revision to an MMEL.

6. FUTURE ACTIVITIES.

A. Discussing MMEL revisions with applicants.

B. Issuance of a new LOA after revision of an MEL.

C. Surveillance of holders of MEL authorizations.

D. Possible enforcement investigation if operators do not operate in accordance with the MEL authorization.

E. Cancellation of a part 91 MEL because of change of ownership, because of the operator's failure to comply with MEL requirements, or at the operator's request.

[PAGES 58-19 THRU 58-22 RESERVED]

FIGURE 58-1
PREAMBLE FOR PART 91 OPERATIONS

Page:
Revision:
Date:

FEDERAL AVIATION ADMINISTRATION

MASTER MINIMUM EQUIPMENT LIST

(INSERT AIRCRAFT TYPE)

Preamble - PART 91 ONLY

(Effective 7/5/90)

This preamble is applicable to, and will be included in, master minimum equipment lists (MMEL) issued under the provisions of Section 91.213(a)(2). It is not applicable to MMEL's issued under the provisions of Parts 121, 125, 129, and 135 of the FAR (now referenced as 14 CFR).

Except as provided in Section 91.213(d), or under the provisions of an approved MMEL, all equipment installed on an aircraft in compliance with the airworthiness standards or operating rules must be operative. Experience has shown that with the various levels of redundancy designed into modern aircraft, operation of every system or component installed may not be necessary when the remaining equipment can provide an acceptable level of safety.

The MMEL is developed by the FAA, with participation by the aviation industry, to improve aircraft utilization and thereby provide more convenient and economic air transportation for the public. The FAA-approved MMEL includes only those items of equipment which the Administrator finds may be inoperative and yet maintain an acceptable level of safety by appropriate conditions and limitations. The MMEL and FAA-issued letter of authorization are used as an MEL by an operator and permit operation of the aircraft with inoperative equipment.

The MMEL includes all items of installed equipment that are permitted to be inoperative. Equipment required by the FAR (now referenced as 14 CFR), and optional equipment in excess of FAR (now referenced as 14 CFR) requirements, is included with appropriate conditions and limitations. For each listed item, the installed equipment configuration considered to be normal for the aircraft (except for passenger convenience items such as galley equipment and passenger entertainment devices), such as "TCAS," windshear detection devices, and ground proximity warning systems (GPWS) that are in excess of what is required, and are not listed on the MMEL, must be operational for dispatch unless MMEL relief is sought through the FSDO having jurisdiction for the operator. If MMEL relief is sought, the operator must notify the FSDO who will make a request of the FOEB to convene and consider adding the equipment to the MMEL. The operator may then dispatch with the equipment disabled, or rendered inoperative, in accordance with all FAR. It is incumbent on the operator to endeavor to determine if O and/or M procedures for that equipment must be developed. If so, any procedures developed must comply with all FAR (now referenced as 14 CFR). Procedures developed to use the MMEL must not conflict with either the aircraft flight manual limitations, emergency procedures, or with airworthiness directives (AD), all of which take precedence over the MMEL and those procedures. Suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures, and other restrictions, as necessary, are required to be accomplished by the operator to ensure that an acceptable level of safety is maintained. Those procedures should be developed from guidance provided in the manufacturer's recommendations, engineering specifications, and other appropriate sources. Procedures must not be contrary to any FAR (now referenced as 14 CFR). Wherever the statement "as required by FAR (now referenced as 14 CFR)" appears in the MMEL, the operator must either list the specific FAR (now referenced as 14 CFR) by part and section and carry the FAR (now referenced as 14 CFR) on board the aircraft or specify the requirements and/or limitations to conduct the flight in accordance with the appropriate FAR (now referenced as 14 CFR).

FIGURE 58-1
PREAMBLE FOR PART 91 OPERATIONS - Continued

Page:
Revision:
Date:

FEDERAL AVIATION ADMINISTRATION

MASTER MINIMUM EQUIPMENT

LIST (INSERT AIRCRAFT TYPE)

Preamble - PART 91 ONLY

(Effective 7/5/90)

The MMEL is intended to permit operations with inoperative items of equipment for the minimum period of time necessary until repairs can be accomplished. It is important that repairs be accomplished at the earliest opportunity in order to return the aircraft to its design level of safety and reliability. Inoperative equipment in all cases must be repaired, or inspected and deferred, by qualified maintenance personnel at the next required inspection [Section 91.405(c)]. The repair intervals indicated by the Letters A, B, C, and D inserted adjacent to column 2 are NOT applicable to this MMEL.

The MMEL provides for release of the aircraft for flight with inoperative equipment. When an item of equipment is discovered to be inoperative, it is reported by making an entry in the aircraft maintenance records. The item is then either repaired or deferred per the MMEL or other approved means acceptable to the Administrator prior to further operation. In addition to the specific MMEL conditions and limitations, determination by the operator that the aircraft is in condition for safe operations under anticipated flight conditions must be made for all items of inoperative equipment. When these requirements are met, the aircraft may be considered airworthy and returned to service. Operators are responsible for exercising the necessary operational control to ensure that an acceptable level of safety is maintained. When operating with multiple inoperative items, the interrelationship between those items, and the effect on aircraft operation and crew workload, must be considered. Operators are expected to establish a controlled and sound repair program, including the parts, personnel, facilities, procedures, and schedules to ensure timely repair.

WHEN USING THE MMEL, COMPLIANCE WITH THE STATED INTENT OF THE PREAMBLE, DEFINITIONS, CONDITIONS, AND LIMITATIONS SPECIFIED IN THE MMEL IS REQUIRED.

FIGURE 58-2
COMMONLY ASKED QUESTIONS ABOUT MEL's

1. Can an operator make changes to an MEL document without changes having been made to the MMEL? How do they get approved?

To make changes to the MEL, the operator must contact the FSDO exercising jurisdiction over its operation and state, in writing, that it wishes to have the MMEL revised. This would apply to newly installed equipment that is not required by type certification rules, operating rules, and/or is in excess of what is required and is not listed on the MMEL. The FSDO will contact the FOEB and request the equipment be considered at the next meeting of the FOEB. During the interim, the aircraft may be operated with the items of equipment inoperative provided the operator has developed (O) and (M) procedures (as applicable) that comply with all regulations.

2. What happens if my aircraft is destroyed in an accident? Do I need to return the MEL and LOA to the issuing FSDO?

If the MEL and letter of authorization (LOA) survive in a readable form, they must be surrendered to the issuing FSDO, or the FSDO having jurisdiction for the operator, with an official notification of the aircraft's destruction in an accident. An NTSB indication of the aircraft's destruction is sufficient evidence if the aircraft was destroyed outside of the appropriate FSDO's jurisdiction.

3. What if an FAA inspector asks to see my MEL, procedures document, and LOA?

Because the regulations require that the MEL, procedures document, and LOA be carried on board the aircraft, the operator must show an FAA inspector, or other authorized representative of the Administrator, the documents when requested to do so.

4. What happens when an original MEL is no longer appropriate?

This would depend on the conditions that caused the MEL to become inappropriate, since an MEL must be revised when an MMEL is revised.

5. Does the FAA perform any type of surveillance after approval of an MEL? If so, how often?

FAA inspectors do not specifically survey or inspect operators using an MEL. However, as part of a ramp inspection, inspectors will check to determine if an aircraft is operating with an MEL or under the provisions of § 91.213(d).

6. What happens to the MEL if the aircraft is sold?

The MEL and LOA are not transferable. The MEL and LOA must be surrendered to the FSDO exercising jurisdiction. The new owner must decide if he or she wants to operate with an MEL or under the provisions of § 91.213(d). If the owner elects to operate with an MEL, he or she must apply at the appropriate FSDO.

7. Can an operator request withdrawal of an approved MEL and elect to operate under § 91.213(d)?

Both provisions of § 91.213 offer relief to operators. Operators will find more relief operating with an MEL. However, an operator can surrender an MEL and LOA by submitting them to the issuing district office with a letter indicating that the operator no longer wishes to operate with an MEL. As of the date the MEL and LOA were surrendered, the aircraft must be operated under § 91.213(d), provided it can meet the requirements of § 91.213(d). If the FSDO determines it cannot, it must continue to operate under the MEL.

8. Can an applicant operate an aircraft under § 91.213(d) while awaiting approval for a proposed MEL?

Under the regulation, the operator would have no choice except to operate under § 91.213(d), to whatever extent he or she can, until authorization to operate under an MEL is received and the LOA issued.

FIGURE 58-2
COMMONLY ASKED QUESTIONS ABOUT MEL's - Continued

9. If an MEL letter of authorization is issued in one FSDO's jurisdiction, do I have to have it reissued if I'm operating in another area of jurisdiction?

No. The FAA considers an MEL letter of authorization issued by one FSDO as sufficient for use in any other FSDO's jurisdiction.

10. How do I transfer an MEL and LOA if I move out of the jurisdiction of the issuing FSDO?

For a part 91 operation, the operator must notify both the FSDO exercising oversight, and the FSDO that will exercise oversight, of the new location of the aircraft within 10 calendar days following the relocation. The previous FSDO will then forward the operator's MEL file to the acquiring FSDO through the FAA's regional office having jurisdiction for the new location. The acquiring FSDO will enter the new location information into the national MMEL data base for revision and update.

11. There are a number of items on the Beech 58P Baron MMEL that need clarifying. For example, the MMEL states that you can take off with one fuel quantity indicator inoperative provided that an approved reliable means is established to determine there is enough fuel required by regulation. What is an example of "an approved means?"

The pilot can visually check the fuel and, if it is full, know how much fuel is on board for the flight. A dipstick calibrated for that aircraft, or any other means that provides a positive measurement, would be acceptable.

12. If I hold a part 125 Deviation, may I receive authorization to conduct operations under a part 91 MEL?

If an operator holds a Deviation to part 125 and does not hold a part 125 Operating Certificate, they may be issued a LOA to conduct operations under the provisions of a part 91 MEL.

13. Since I no longer have to submit my (O) and (M) procedures to the FSDO for approval prior to receiving the LOA, can I do this by mail?

No. It is important that Aviation Safety Inspectors from the issuing FSDO meet with you (or a bonafide representative of you or your organization/company, etc. having signature authority) to discuss MEL operating procedures prior to issuance of the LOA. This is necessary to ascertain your ability to operate in accordance with the provisions of an MEL. All MEL letters of authorization, therefore, can only be issued in person.

14. Who is a bonafide representative?

It can be anyone with signature authority, i.e.: the chief pilot, director of operations, director of maintenance, or other company officer. In the event that none of the above are applicable, a letter on company letterhead introducing the individual as a bonafide representative and signed by a company officer may suffice.

15. Must I make my request for a meeting with the FSDO inspectors in writing?

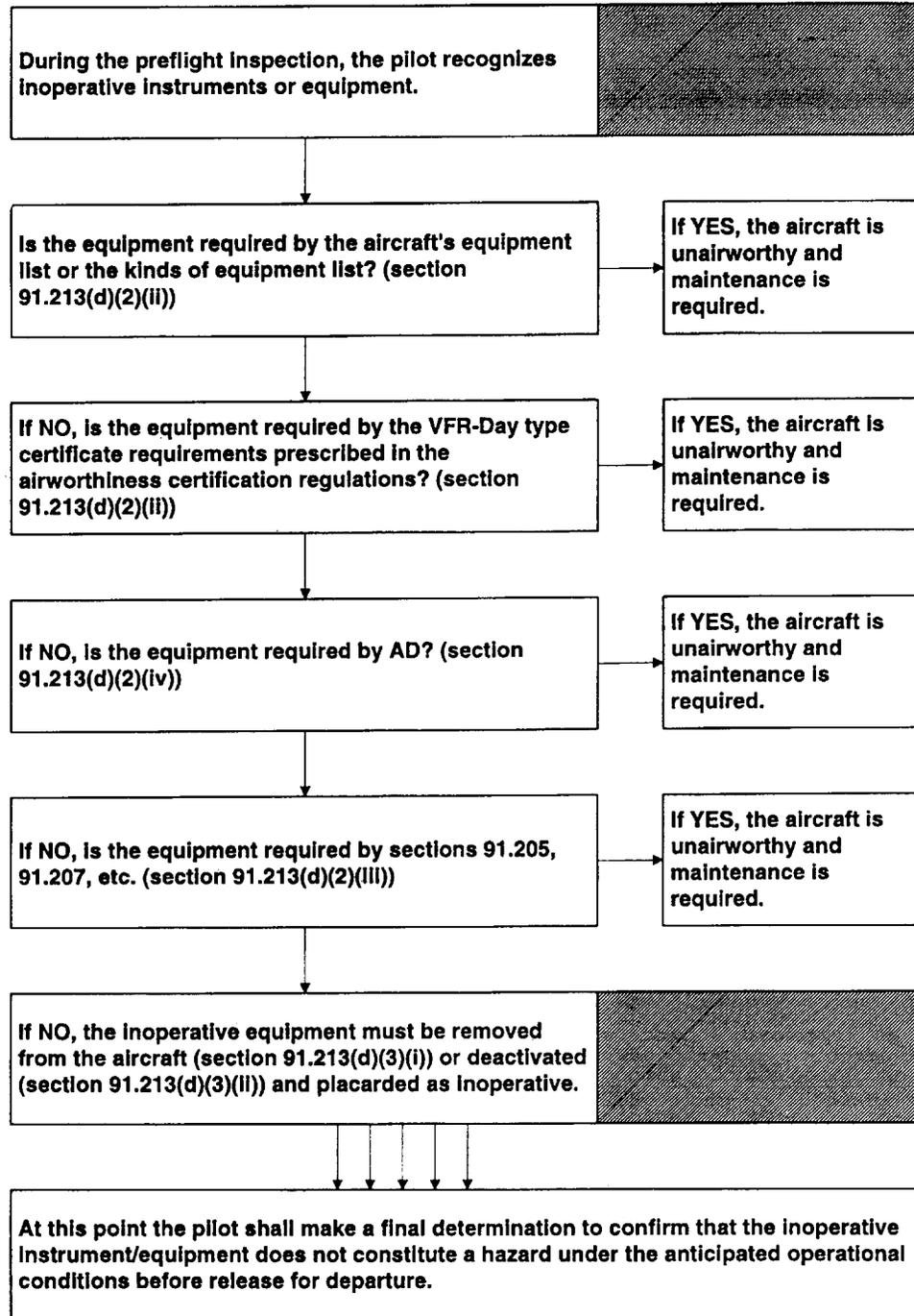
There is no specified requirement that the request be made in writing; however, it is the prerogative of the FSDO to make such a request at their option.

16. Must Aviation Safety Inspectors from all three disciplines (operations, maintenance, and avionics) be available for the meeting to discuss MEL operating procedures?

It is preferred that all three disciplines be represented; however, it is not necessary if due to work constraints they will not be available within a reasonable period of time. It is important that an operations inspector be involved in the discussion since the MEL is an operating document.

**FIGURE 58-3
FLOW CHART - OPERATING WITHOUT AN MEL**

PILOT DECISION SEQUENCE WHEN OPERATING WITHOUT AN MEL



**FIGURE 58-4
FLOW CHART - OPERATING WITH AN MEL**

PILOT DECISION SEQUENCE WHEN OPERATING WITH AN MEL

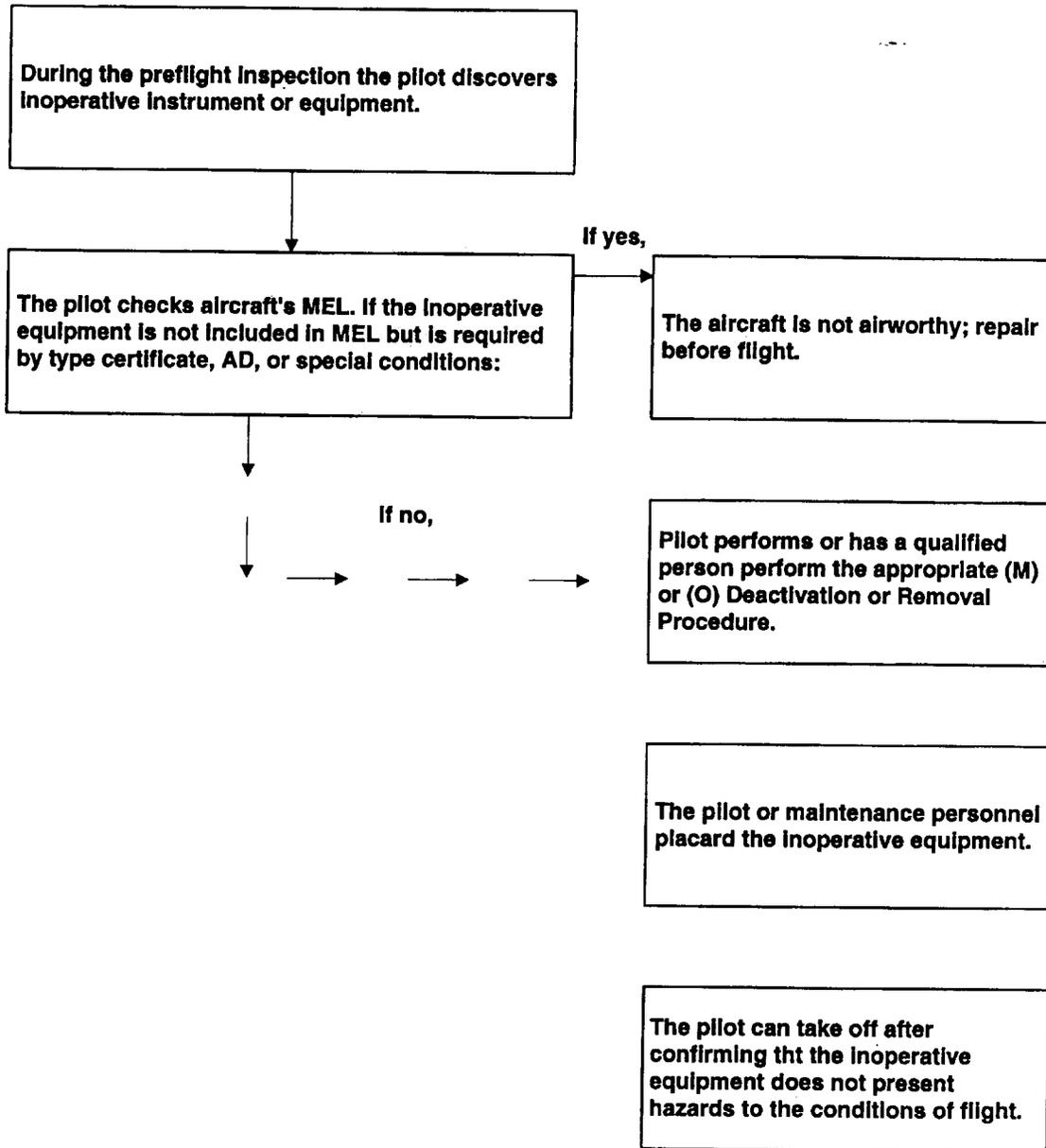


FIGURE 58-5
LETTER OF AUTHORIZATION

FAA LETTERHEAD

NAME AND ADDRESS OF OPERATOR

Dear [*name of operator*]:

This letter is issued under the provisions of § 91.213(a)(2) and authorizes [*name of operator*] ONLY to operate [*make and model of aircraft, n-number, and serial number*] under the master minimum equipment list (MMEL), using it as a minimum equipment list (MEL).

This letter of authorization and the MMEL constitute a supplemental type certificate for the aircraft and must be carried on board the aircraft as prescribed by § 91.213(a)(2).

Operations must be conducted in accordance with the MMEL. Operations and maintenance (O and M) procedures for the accomplishment of rendering items of equipment inoperative must be developed by the operator. Those procedures should be developed from guidance provided in the manufacturer's aircraft flight and/or maintenance manuals, manufacturer's recommendations, engineering specifications, and other appropriate sources. Such operations or maintenance procedures must be accomplished in accordance with the provisions and requirements of part 43, 91, or 145.

A means of recording discrepancies and corrective actions must be in the aircraft at all times and available to the pilot in command. Failure to perform O and M procedures in accordance with part 43, 91, or 145, as appropriate, or to comply with the provisions of the MMEL, preamble, O and M procedures, and other related documents, is contrary to the regulations and invalidates this letter. All MMEL items that contain the statement, "as required by FAR (now referenced as 14 CFR)" must either state regulation by part and section with the appropriate regulation carried aboard the aircraft, or the operational requirements/limitations required for dispatch must be clearly stated. When the MMEL is revised by the FOEB, [*name of operator*] will be notified by postcard of the revision. [*name of operator*] must then obtain a copy of the revision from this Flight Standards District Office (FSDO) or the FSDO having jurisdiction and incorporate any changes as soon as practicable, including Os and Ms as required.

[*name of operator*] must develop O and M procedures that correspond with those listed in the MMEL. [*name of operator*] must also list the "as required by FAR (now referenced as 14 CFR)" by specific part and section or state the operational requirements/limitations for dispatch. These items must be contained in a document separate from the MMEL and must accompany the MMEL, preamble, and letter of authorization. They must all be on board the aircraft anytime it is operated.

Equipment installed on this aircraft (other than passenger convenience items such as galley equipment and passenger entertainment devices) that are in excess of what is required, and are not listed on the MMEL, must be operational for dispatch unless a request is made to this FSDO (or subsequent FSDO that has jurisdiction) to seek relief from the FOEB, through a revision to the MMEL, at the earliest opportunity for the FOEB to convene. If MMEL relief is sought, this FSDO (or subsequent FSDO) must be notified within 10 calendar days (including weekends and holidays) following installation. The operator may dispatch provided the excess equipment, if inoperative, is disabled or rendered inoperative, in accordance with all regulations. It is the responsibility of [*name of operator*] to endeavor to determine if O and/or M procedures must be developed for disabling, or rendering inoperative. If so, any procedures that are developed must comply with all regulations. If MMEL relief is not sought, the FSDO need not be notified following installation of the equipment.

FIGURE 58-5
LETTER OF AUTHORIZATION - Continued

Should [*name of operator*] relocate its principal base of operations at [*address*], it must notify, in writing, both this FSDO and the new FSDO that will have jurisdiction within 10 calendar days following relocation.

This letter is issued without an expiration date and will remain valid until voluntarily surrendered by [*name of operator*], until [*name of operator*] ceases to be the operator of [*aircraft n-number*], or it is surrendered or revoked for cause by the FAA. In any case, should it become invalid, it must be returned to this office or the FSDO having jurisdiction within 10 calendar days from the date it becomes invalid.

Sincerely,

[*signed by the Principal Operations Inspector*]

[*date*]

STATEMENT OF OPERATOR

As evidenced by my signature below, I certificate that [*name of operator*] will operate [*aircraft make and model and n-number*] in compliance with the authorizations, provisions, and limitations incumbent with the use of this letter of authorization issued in accordance with § 91.213(a)(2). A copy of this letter will be made a part of the MEL file maintained by this FSDO and [*name of operator*].

[*signed by the operator*]

[*Title*]

[*signed by the Principal Operations Inspector,*]

[*date*]