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**U.S. Department  
of Transportation**

Federal Aviation  
Administration

# Advisory Circular

**Subject:** Minimum Equipment Requirements  
for General Aviation Operations  
Under 14 CFR Parts 91, 133, 137,  
and 141

**Date:** DRAFT

**AC No:** 91-67A

**Initiated by:** AFS-800

**Change:**

This advisory circular (AC) describes acceptable methods for the operation of aircraft with certain inoperative instruments and equipment items which are not essential for safe flight under Title 14 of the Code of Federal Regulations (14 CFR) parts 91, 133, 137, and 141. This AC is not mandatory and does not constitute a regulation. This AC describes an acceptable means, but not the only means, to operate an aircraft with certain nonessential inoperative instruments and equipment items. However, if you use the means described in the AC, you must follow it in all important respects.

Rick Domingo  
Executive Director, Flight Standards Service

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## CHAPTER 1. GENERAL

### 1.1 Purpose of This Advisory Circular (AC).

- 1.1.1** This AC describes acceptable methods for the operation of aircraft with certain inoperative instruments and equipment items which are not essential for safe flight under Title 14 of the Code of Federal Regulations (14 CFR) parts [91](#), [133](#), [137](#), and [141](#), specifically in accordance with part 91, § [91.213](#). The methods described are not the only means to comply with § 91.213. The Federal Aviation Administration (FAA) will consider other means of compliance an operator may elect to present. However, if you use the means described in this AC, you must follow it in all important respects. Terms such as “shall” and “must” are used only in the sense of ensuring applicability of these particular means of compliance when the acceptable means of compliance described in this AC are used.
- 1.1.2** This guidance is not legally binding in its own right and will not be relied upon by the Department of Transportation (DOT) or the FAA as a separate basis for affirmative enforcement action or other administrative penalty. Regardless of whether you rely on this guidance, you are independently required to comply with all existing laws applicable to the operation of an aircraft with inoperative instruments and equipment items. Conforming your actions with this guidance is voluntary and nonconformity will not affect any right or obligation under any existing statute or regulation. The contents of this document do not have the force and effect of law and are not meant to bind the public in any way. This document is intended only to provide clarity to the public regarding existing requirements under the law or agency policies.

### 1.2 Audience.

- 1.2.1** This AC applies only to operators and pilot schools under parts 91, 133, 137, and 141 who conduct operations of aircraft with certain inoperative instruments and equipment items.
- 1.2.2** This AC does not apply to operators certificated under 14 CFR parts 91 subpart K (part [91K](#)), [121](#), [125](#) (including part 125 Letter of Deviation Authority (LODA) holders), [129](#), and [135](#). These operators are required to comply with their approved minimum equipment list(s) (MEL), even when conducting part 91 operations.

**1.3 Where You Can Find This AC.** You can find this AC on the FAA’s website at [http://www.faa.gov/regulations\\_policies/advisory\\_circulars](http://www.faa.gov/regulations_policies/advisory_circulars).

**1.4 What This AC Cancels.** AC 91-67, Minimum Equipment Requirements for General Aviation Operations Under FAR Part 91, was cancelled on November 3, 2017.

**1.5 Related 14 CFR Sections.** All regulatory references in this AC are found in 14 CFR unless otherwise indicated. The following 14 CFR sections are related to this AC. You can download the full text of these regulations at the U.S. Government Publishing Office (GPO) electronic Code of Federal Regulations (e-CFR) website at <http://ecfr.gov>. You can order a paper copy by sending a request to the U.S. Superintendent of Documents,

U.S. Government Publishing Office; by calling telephone number (202) 512-1800; or by sending a request by facsimile to (202) 512-2104.

- Part [21](#), § [21.197](#).
- Part [43](#), §§ [43.9](#) and [43.11](#).
- Part [91](#), §§ [91.7](#), [91.205](#), [91.213](#), and [91.405](#).

#### **1.6 Related Documents (current editions):**

- Master Minimum Equipment List (MMEL) Policy Letter (PL)-25, MMEL and MEL Definitions.
- MMEL PL-36, 14 CFR Part 91 MEL Approval and Preamble.
- AC [43-9](#), Maintenance Records.
- AC [43-12](#), Preventive Maintenance.

#### **1.7 Terminology.** The following terms are specific to this AC:

- 1.7.1 Letter of Authorization (LOA).** The term “LOA” used throughout this AC refers to an operator-specific LOA, which is the MEL authorizing document containing conditions and limitations the operator must comply with in order to conduct aircraft operations with specific inoperative items. When used in this AC, the term “LOA” refers to all LOAs issued under the provisions of § 91.213(a) to part 91 operators, part 133 rotorcraft external-load operators, part 137 agricultural aircraft operators, and part 141 pilot schools.
- 1.7.2 Master Minimum Equipment List (MMEL).** The term “MMEL” used throughout this AC means an FAA-approved, aircraft make, model, and series (M/M/S)-specific master list of aircraft instrument and equipment items that may be inoperative under certain operational conditions, while maintaining the airworthiness of the aircraft and providing an Acceptable Level of Safety (ALoS). An MMEL is the document upon which an operator must base its aircraft-specific MEL.
- 1.7.3 Minimum Equipment List (MEL).** The term “MEL” used throughout this AC means a document listing items that may be inoperative during flight for a specific aircraft or a fleet of aircraft. Operation of the aircraft under the MEL is authorized by an operator-specific LOA. An MEL constitutes an approved change in the aircraft type design. Each operator must base their MEL on the MMEL applicable to the aircraft M/M/S. An operator’s MEL may be more restrictive than the MMEL, but it must never be less restrictive. Unless specified otherwise, the term “MEL” used throughout this AC refers to both: (1) the MEL approval under LOA D095, MMEL and Operator’s Procedures Document Used as an MEL, consisting of an MMEL and operator’s procedures document, and (2) the MEL approval under LOA D195, Minimum Equipment List (MEL), consisting of an operator-developed MEL.

- 1.7.4 Operator.** The term “operator” used throughout this AC refers to parts 91, 133, and 137 aircraft operators or holders of a part 141 pilot school/provisional pilot school certificate. Unless specified otherwise, this AC uses the singular term “operator” for simplicity.
- 1.7.5 Principal Base of Operations.** The term “principal base of operations” used throughout this AC is the physical address where an operator or pilot school conducts business or resides. This is a physical location where the FAA can contact the operator. It may not be a post office box. While the principal base of operations may coincide with the place where the aircraft is located, this is not always the case. Depending upon the applicable 14 CFR part, this location may be an operator’s residence, business address, home base of operations, or a pilot school’s principal business office. For simplicity, this AC uses the singular term “principal base of operations” to refer to all of these locations.
- 1.7.6 Responsible Flight Standards Office.** The term “responsible Flight Standards office” used throughout this AC refers to the Flight Standards (FS) office with a service area covering the operator’s principal base of operations or principal business office location. The responsible Flight Standards office is responsible for issuance and oversight of all LOAs for the operator. FAA office locations are available at [http://www.faa.gov/about/office\\_or\\_g/field\\_offices/fsdo/](http://www.faa.gov/about/office_or_g/field_offices/fsdo/) and [http://www.faa.gov/about/office\\_org/field\\_offices/ifo/](http://www.faa.gov/about/office_org/field_offices/ifo/).
- 1.7.7 Responsible Person.** The term “Responsible Person” used throughout this AC is the person who has legal authority to sign the LOA on behalf of the operator. Such person should have ongoing knowledge of the operations of the aircraft. The Responsible Person may be the individual who acts as operator or, if the operator is a legal entity, an officer, employee, or person duly designated to act on behalf of the operator. The person assumes responsibility for ensuring the operator complies with all applicable regulations, requirements, limitations, and provisions. If the Responsible Person relinquishes responsibility, the LOA is no longer valid.
- 1.8 Definitions.** The following are definitions specific to this AC. For additional MMEL and MEL definitions, refer to MMEL PL-25, MMEL and MEL Definitions, at <http://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=MMEL%20Policy%20Letters>.
- 1.8.1 Airworthiness Directive (AD).** ADs are legally enforceable regulations issued by the FAA in accordance with 14 CFR part [39](#) to correct an unsafe condition in a product. Part 39 defines a product as an aircraft, engine, propeller, or appliance.
- 1.8.2 Air Transport Association of America (ATA)/Joint Aircraft System/Component (JASC) Coded System Section Components.** MMEL system sections are organized by aircraft system according to the ATA or JASC coded numbering system. MMEL system numbers use the ATA codes that are standardized for each aircraft system. The ATA numbering system provides an industrywide standard for numbering aircraft systems and is relevant for all aircraft. The ATA changed its name to Airlines for America (A4A) in 2011; however, the acronym “ATA” is still used for coded aircraft systems. The acronyms “ATA” and “A4A” are considered interchangeable. The alternate format for aircraft system coding is the JASC codes, which are a modified version of the ATA codes. For additional information on JASC coding, refer to the Federal Aviation Administration



Joint Aircraft System/Component Code Table and Definitions, which is accessible at [http://av-info.faa.gov/sdrx/documents/JASC\\_Code.pdf](http://av-info.faa.gov/sdrx/documents/JASC_Code.pdf).

- 1.8.3** Configuration Deviation List (CDL). A CDL plays an important role in the operator’s ability to safely continue flight operations. It is a list of exposed (external) aircraft parts that may be missing for flight under specific conditions and limitations. CDLs are developed by aircraft manufacturers for each specific model, and approved by the FAA. Aircraft manufacturers develop a CDL for most U.S.-built transport 14 CFR part [25](#) aircraft and many 14 CFR part [23](#) aircraft during the initial certification process. This is not a requirement for aircraft certification. The manufacturer makes the decision to develop or not to develop a CDL.
- 1.8.4** Deferral. The term “deferral” is used to describe the authorization for an operator to delay repair and continue operating with a required item inoperative, under the authority of their FAA-approved MEL. Authority to defer an inoperative item is subject to specific conditions and limitations, as described in the associated proviso.
- 1.8.5** Flight Operations Evaluation Board (FOEB). An FOEB is made up of technically qualified specialists, engineering representatives, and aviation safety inspectors (ASI) responsible for developing MMELs from the proposed MMEL provided by the aircraft manufacturer. An aircraft MMEL is usually developed for and timed to initial aircraft certification. FOEBs are also responsible for developing MMEL revisions. FOEBs coordinate with internal and external stakeholders, such as the responsible FAA Aircraft Certification Service offices, FAA Flight Standards District Offices (FSDO), aircraft and engine manufacturers, operators, and private sector groups.
- 1.8.6** Item. The word “item” used throughout this AC refers to an aircraft instrument, equipment, system, component, message, or function item which is eligible for deferral.
- 1.8.7** Kinds of Operations Equipment List (KOEL). The KOEL 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 KOEL 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.
- 1.8.8** Nonessential Equipment and Furnishings (NEF). NEF are those items installed on the aircraft as part of the original type certificate (TC), Supplemental Type Certificate (STC), Engineering Order (EO), or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification or operational rules. These are items that, if inoperative, damaged, or missing, have no effect on the aircraft’s ability to be operated safely under all operational conditions. NEF items are not items already identified in the MEL or CDL of the applicable aircraft. NEF do not include items that are functionally required to meet the certification rule or for compliance with any operational rule.

- 1.8.9** Operational Control. As defined in 14 CFR part [1](#), § [1.1](#), operational control, “with respect to a flight, means the exercise of authority over initiating, conducting or terminating a flight.”
- 1.8.10** Supplemental Type Certificate (STC). An STC is a TC issued when an applicant has received FAA approval to modify an aeronautical product from its original design. The STC, which incorporates by reference the related TC, approves not only the modification but also how that modification affects the original design.
- 1.9** **Transition Period for Phaseout of LOA D095**. The FAA will phaseout the approval method of MMELs used as MELs under LOA D095. Operators desiring to operate using an MEL under § 91.213(a) after the dates below must apply for an operator-developed MEL approval under LOA D195.
- 1.9.1** LOA D095 will not be valid for international operations after December 31, 2022. All MEL approvals that have been issued or reissued under LOA D095 will expire and become invalid for any operation after December 31, 2024.
- 1.9.2** Additionally, the FAA will not accept requests for MEL approval under LOA D095 after December 31, 2022. However, LOA D095 may be reissued after December 31, 2022, for change of aircraft registration number, removal of an aircraft from the LOA, operator change of principal base of operations or principal business office location, or change of Responsible Person.
- 1.10** **AC Feedback Form**. For your convenience, the AC Feedback Form is the last page of this AC. Note any deficiencies found, clarifications needed, or suggested improvements regarding the contents of this AC on the Feedback Form.

## CHAPTER 2. MINIMUM EQUIPMENT LIST (MEL)

### 2.1 General.

- 2.1.1** Requirement for All Aircraft Equipment to be Operative. Except as provided in §§ [21.197](#), [91.213\(d\)](#), or under the provisions of an MEL and LOA, all instruments or equipment items installed on an aircraft in compliance with the airworthiness standards or operating rules must be operative for takeoff.
- 2.1.2** MEL Characteristics. An MEL constitutes an approved change in the aircraft type design. An MEL allows an operator to continue a flight (or series of flights) with certain items inoperative or reposition to a place where repairs can be made. An operator’s MEL may be more restrictive than the MMEL, but it must never be less restrictive.
- 2.1.3** MEL Development and Content. MEL development is the responsibility of the operator. Each operator must base their MEL on the MMEL applicable to the aircraft M/M/S, or the generic single-engine airplane MMEL, if appropriate. When developing an MEL, operators must consider their particular aircraft equipment configurations and operational conditions. An MEL lists all of the MMEL items for which the operator desires relief, based on their aircraft configuration and operation. An operator’s MEL must meet the requirements listed in their LOA. Except for NEF program items and items specified in Global Change (GC) MMEL PLs, MEL relief may not be taken for items not listed in the MMEL. See Appendix [A](#), Content of an Operator’s Procedures Document, and Appendix [B](#), Content of an Operator-Developed Minimum Equipment List (MEL), for detailed information concerning MEL content.
- 2.1.4** MEL Restrictions. An operator’s MEL must not deviate from or be in any way less restrictive than the following:
- The MMEL from which it was developed;
  - Title 14 CFR;
  - The operator’s LOA D095 or D195;
  - The approved flight manual limitations and emergency procedures;
  - MMEL PLs with GC;
  - STC/instructions for continued airworthiness (ICA) (as applicable); or
  - Applicable ADs.
- 2.1.5** MEL Conflicts with ADs. Occasionally, an AD applies to an item that may be authorized to be inoperative under the MEL. In those cases, the operator must fully comply with the terms of the AD or an FAA-approved alternative method of compliance (AMOC) with the AD. When provisions of an AD allow operation of the aircraft on the condition certain installed items be used or be operative, those affected items must be operative, even if the MEL provides for deferral of repair.

**2.1.6** MEL Management Program Not Required. A part [91](#), [133](#), or [137](#) operator or part [141](#) pilot school is not required to have an MEL management program. However, a means of recording discrepancies and corrective actions must be in the aircraft and available to the pilot in command (PIC) at all times. Additionally, the operator must have any inoperative item that is permitted to be inoperative either repaired, replaced, removed, or inspected within the proviso-defined repair interval period or at the next required aircraft inspection, whichever comes first.

## **2.2 MEL Versus § 91.213(d).**

**2.2.1** Operating an Aircraft with Inoperative Instruments or Equipment Items. Section 91.213 provides three methods for operating an aircraft with inoperative items:

- An MEL and LOA,
- Under the provisions of § 91.213(d), or
- Under a special flight permit (SFP) issued in accordance with §§ 21.197 and [21.199](#).

**2.2.2** Simultaneous MEL and § 91.213(d) Operations Not Permitted. Operators with an MEL and LOA may not operate without an MEL under the provisions of § 91.213(d). If the operator desires to conduct operations under § 91.213(d), the operator must first surrender their LOA to the responsible Flight Standards office.

**2.2.3** Allowable Aircraft. In accordance with § 91.213(d)(1), only the following aircraft may conduct flight operations with inoperative items without an MEL:

- Glider,
- Lighter-than-air aircraft,
- Small rotorcraft,
- Small non-turbine-powered airplanes,
- Powered Parachute (PPC) for which an MMEL has not been developed,
- Weight-shift-control aircraft for which an MMEL has not been developed,
- Large rotorcraft for which an MMEL has not been developed, and
- Large non-turbine-powered airplanes for which an MMEL has not been developed.

**2.2.4** Aircraft Not Allowed Under § 91.213(d). The following aircraft may not be operated under § 91.213(d):

- Turbine-powered airplanes,
- Large rotorcraft for which an MMEL has been developed, and
- Large non-turbine-powered airplanes for which an MMEL has been developed.

**Note:** The generic single-engine airplane MMEL applies to single-engine reciprocating and turbine-powered airplanes operated under parts 91, 133, 137, and 141.

- 2.2.4.1 Experimental Aircraft.** An operator may not operate an aircraft for which the FAA issued an original experimental Airworthiness Certificate with inoperative items, unless specifically authorized in the aircraft’s operating limitations.
- 2.3 MEL Letter of Authorization (LOA).** The FAA indicates approval of an MEL under the provisions of § 91.213(a) through issuance of an LOA authorizing operation of the specific aircraft with inoperative items in accordance with the MEL and the conditions and limitations of the LOA. The LOA becomes part of the MEL and together they constitute an STC for the aircraft and must be carried on board the aircraft, as prescribed by § 91.213(a)(2).
- 2.3.1 LOA D095 Versus LOA D195.** The FAA provides two types of approvals for MELs under the provisions of § 91.213(a): LOA D095 and LOA D195.
- 2.3.1.1 MEL Approval Under LOA D095.** The MEL approved under LOA D095 consists of the aircraft M/M/S-specific MMEL along with the operator’s procedures document. The MMEL and the operator’s procedures document together constitute the MEL. Note that LOA D095 is being phased out. See paragraph [1.9](#) above. See Appendix [A](#) for detailed information on operator’s procedures document content.
- 2.3.1.2 MEL Approval Under LOA D195.** The MEL approved under LOA D195 consists of an operator-developed MEL document, which must be based on the aircraft M/M/S-specific MMEL. See Appendix [B](#) for detailed information on operator-developed MEL content.
- 2.3.2 Multiple Aircraft for a Single Operator.** For an operator with multiple aircraft or more than one type of aircraft, the aircraft serial number, registration number, and M/M/S must be entered on the LOA for each aircraft. It is possible for an operator to have some aircraft with an MEL approved under LOA D095 and other aircraft with an MEL approved under LOA D195. Only one LOA D095 and one LOA D195 may be issued per operator.
- 2.3.3 Operational Control.** LOAs are issued to the person exercising operational control of the aircraft. For example, under an aircraft dry lease agreement, the lessee assumes operational control of the aircraft. The lessee, as operator of the aircraft, is prohibited from using the lessor’s MEL authorization; they may only use an MEL LOA specifically issued to them.
- 2.3.4 Multiple Operators of a Single Aircraft.** An MEL LOA is issued to a specific operator for specific aircraft. It is common for multiple operators to use a single aircraft on a nonexclusive basis (e.g., multiple dry leases for the use of any one aircraft can be in place at one time). In such instances, each individual operator is required to request and be

issued an MEL LOA in their own name. Under timesharing, interchange, or joint ownership agreements, as defined in § [91.501\(c\)](#), the LOA is issued to the person exercising operational control.

- 2.4 Aircraft Operated Under Multiple 14 CFR Parts.** Section 91.213(c) requires an operator who has an approved MEL issued under either part [91K](#), [121](#), [125](#) (including part 125 LODA holders), [129](#), or [135](#) to use that MEL for part 91 operations. Only the approved operator may use their MEL in part 91 operations; they may not allow another operator to use their MEL. If a part 91K, 121, 125, 129, or 135 operator (the lessor) dry leases their aircraft to another operator (the lessee), the lessee is prohibited from using the lessor’s MEL.
- 2.4.1 Determining Maintenance Status.** Parts 91K, 121, 125 (including part 125 LODA holders), 129, and 135 operators are responsible for determining the aircraft’s maintenance status on its return from operations conducted under part 91. The operator must accomplish this before the aircraft is put back into service under part 91K, 121, 125, 129, or 135.
- 2.5 Fleet MEL.** An operator may develop a fleet MEL for multiple aircraft of the same M/M/S. The operator is not required to list aircraft serial or registration numbers on a fleet MEL. When a fleet MEL is used, aircraft of the same M/M/S may have differing numbers of specific items installed. Operators may use a fleet MEL to reflect all of the items applicable to a specific aircraft fleet type. This is allowable provided the MMEL applies to all of the M/M/S aircraft contained in the fleet. For example, the MMEL applies to all Cessna 500 models: CE-500, 501, 550, S550, 551, 552, and 560 aircraft.
- 2.5.1 Identify Each Model and Configuration Difference.** A fleet MEL must identify each aircraft configuration difference, when appropriate. Operators may use whatever methodology they deem appropriate to distinguish applicability of individual MEL items to aircraft within the fleet. Methods include, but are not limited to, registration number, serial number, pre/post-Service Bulletin (SB) accomplishment, or system characteristics (e.g., three-display configuration, five-display configuration). The method chosen should make it clear to users which individual MEL item applies.
- 2.5.2 Modifications Within a Fleet.** The aircraft manufacturer determines the configuration of the aircraft, the items installed, and the official parts listed during the initial aircraft type certification process conducted at the time of manufacture. Any subsequent installation or removal of items must be accomplished through the use of an STC or other FAA-approved/accepted data (as appropriate). Operators with a fleet MEL may continue to operate under the provisions of the current fleet MEL with new items installed in one or more fleet aircraft. However, operators may not defer repair of the new items until the items are included in the MMEL and the fleet MEL is revised to include the additional items.

## CHAPTER 3. MASTER MINIMUM EQUIPMENT LIST (MMEL)

### 3.1 General.

**3.1.1** MEL is Based on an MMEL. An MMEL is the document on which an operator must base its aircraft-specific MEL. MMELs are developed for most FAA TC'd aircraft in general service today. Most multiengine airplanes have an MMEL specific to the type design (e.g., Beech Baron, BE-58). The FOEB has developed a generic single-engine airplane MMEL. The generic single-engine airplane MMEL is for single-engine airplanes that have not been issued an MMEL specific to its make and model. When a new MMEL is published for a specific make and model single-engine aircraft, the operator's MEL must be revised to conform to the new M/M/S MMEL within 90 calendar-days of MMEL publication.

**3.1.2** Prohibited Items. An MMEL will not include obviously required items such as wings, flaps, and rudders. An MMEL will not include items an AD requires to be operative, unless the AD specifically allows them. An MMEL must not include items listed in an aircraft's CDL.

**3.2** ATA/JASC Coded System Section Components. These sections are organized by aircraft system according to the ATA or JASC coded numbering system (see Figure 3-1, Example MMEL ATA Coded System Section Page) and contain the following components:

**3.2.1** System Numbers. MMEL system numbers use the ATA codes that are standardized for each aircraft system. The ATA numbering system provides an industrywide standard for numbering aircraft systems and is relevant for all aircraft. The alternate format for aircraft system coding is the JASC codes, which are a modified version of the ATA codes. For additional information on JASC coding, refer to the Federal Aviation Administration Joint Aircraft System/Component Code Table and Definitions at [http://av-info.faa.gov/sdrx/documents/JASC\\_Code.pdf](http://av-info.faa.gov/sdrx/documents/JASC_Code.pdf).

**3.2.2** Individual Item Sequence Numbers. Individual item sequence numbers are the unique identification for each item within an ATA system category. The numbering scheme may be modified to align with the aircraft operator's specific MEL format and may differ from the MMEL. They are not required to match ATA system item numbers. A triple asterisk (\*\*\*) below the sequence number in column 1 of an MMEL indicates that an item, which is not required by regulations, has been installed on some models of a particular aircraft M/M/S.

**3.2.3** Item. An item is an aircraft instrument, equipment, system, component, message, or function item which is eligible for deferral. An MMEL may contain multiple versions of particular items (e.g., flight deck display systems, navigation equipment, or engine instrumentation) installed on different models or series of the aircraft covered by the MMEL.

**3.2.4** Repair Categories. The repair category intervals indicated by the letters A, B, C, and D in column 1 of the MMEL are not applicable to an MEL issued under the provisions of



§ [91.213\(a\)](#), but operators must comply with any provisos defining a repair interval (flights, flight legs, cycles, hours, days, etc.). The operator must have any inoperative items, which are permitted to be inoperative, either repaired, replaced, removed, or inspected within the proviso-defined repair interval period or at the next required aircraft inspection, whichever comes first.

- 3.2.5** Number of Items Installed (Number Installed). The “Number Installed” column of an MEL lists the number (quantity) of the specified item normally installed on the aircraft. This number typically represents the aircraft configuration used to develop the aircraft MMEL.
- 3.2.6** Variable Number Installed. A dash (-) for number installed indicates a variable number (quantity) of the installed item.
- 3.2.7** Number Required for Dispatch. The “Number Required for Dispatch” column of an MEL reflects the minimum number (quantity) of items required for flight, provided the conditions specified in the “Remarks or Exceptions” are met.
- 3.2.8** Variable Number of Items Required for Dispatch. A dash (-) indicates a variable number required for dispatch.
- 3.2.9** Remarks or Exceptions. The “Remarks or Exceptions” column includes provisos, notes, “as required by 14 CFR” statements, and Maintenance (M) and Operations (O) symbols. Some MMEL “Remarks or Exceptions” are intentionally general to accommodate a variety of operators and operating rules.



Figure 3-1. Example MMEL ATA Coded System Section Page

AIRCRAFT: (insert aircraft make and model)		TABLE KEY				
		1. REPAIR CATEGORY	2. NO. INSTALLED	3. NO. REQUIRED FOR DISPATCH	4. REMARKS OR EXCEPTIONS	
<b>31. INDICATING/RECORDING SYSTEMS</b>						
Sequence No.	Item	1	2	3	4	Change Bar
-30-01 ***	Flight Data Recorder (Cont'd)					
-03	Flight Data Recorder (FDR) Parameters required by 14 CFR operating rule	A	-	-	Up to three recording parameters may be inoperative provided: a) Cockpit Voice Recorder (CVR) operates normally, and b) Repair are made within 20 calendar days.	
-04	Flight Data Recorder (FDR) Parameters not required by 14 CFR operating rule	A	-	-	May be inoperative provided repairs are made prior to completion of next scheduled inspection of FDR.	
-05	Underwater Locator Device (ULD)	D	-	0	May be inoperative or missing provided device is not required by 14 CFR operating rule.	
-40-01	Amber CHECK MAINTENANCE CAS Message Displayed (Collins Pro Line Fusion Equipped Airplanes)	C	1	0	(O) May be inoperative provided CHECK MAINTENANCE procedure in the AFM is followed to determine APM Fail message is displayed.  NOTE: Check Maintenance amber caution CAS message may be displayed.	

**3.3 Operator Responsibility for Obtaining an MMEL.** Operators that hold an MEL LOA must obtain a copy of the current MMEL. Operators may download MMELs from the MMEL and Aircraft Evaluation Group (AEG) guidance documents section in the Flight Standards Information Management System (FSIMS) at <http://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=MMEL>.

**3.4 Aircraft for Which No MMEL Has Been Developed.** Some aircraft for which no MMEL has been developed may be operated under the provisions of § 91.213(d).

**Note:** Operators of single-engine airplanes that do not have an MMEL for their specific M/M/S may use the generic single-engine airplane MMEL.

**3.4.1** The following aircraft may not be operated under § 91.213(d):

- Turbine-powered airplanes,
- Large rotorcraft for which an MMEL has been developed, and
- Large non-turbine-powered airplanes for which an MMEL has been developed.

**Note:** The generic single-engine airplane MMEL applies to single-engine reciprocating and turbine-powered airplanes operated under parts [91](#), [133](#), [137](#), and [141](#).

- 3.5 Obtaining Relief for Equipment Not Listed on an MMEL.** Except for NEF program items, and items specified in GC MMEL PLs, MEL relief may not be taken for items not listed in the MMEL. An operator may request additions or changes to the MMEL through its responsible Flight Standards office, which may make a request of the FOEB to convene and consider the requested additions or changes to the MMEL. If the FOEB determines the additions or changes will be incorporated in the next MMEL revision, they will inform the responsible Flight Standards office in writing. A principal inspector (PI) within the responsible Flight Standards office may then approve the operator to incorporate the additions or changes into its MEL until the next MMEL revision, at which time the operator will ensure its MEL aligns with the revised MMEL.
- 3.6 MMEL Policy Letters (PL).** MMEL PLs communicate FAA policy for matters related to the development and approval of MMELs and MELs. The primary audience for PLs are the FOEB chairman and members. However, sometimes PLs apply to operators and are specific to MEL considerations.
- 3.6.1 Mandatory MMEL PLs.** Operators must include applicable information from MMEL PL-25 (definitions) and MMEL PL-36 (preamble) in their MEL. See Appendices [A](#) and [B](#) for additional information.
- 3.6.2 Global Change (GC) Policy Letters (PL).** The FAA may designate an MMEL PL as a GC for a variety of reasons, including provision of immediate relief for items required by a new regulatory requirement, policy change, or new technology. The benefit of a GC is that operators may revise their MEL to include information in any GC MMEL PL without additional FOEB review and inclusion of the information in the MMEL. An operator is not required to revise their MEL to include GC MMEL PL information.
- 3.6.3 Where to Find MMEL PLs.** All MMEL PLs are found within FSIMS at <http://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=MMEL%20Policy%20Letters>.

**CHAPTER 4. APPLICATION FOR MEL LETTER OF AUTHORIZATION (LOA)**

- 4.1 Application for an MEL Approval Issued Under LOA D095.** An operator applying for an MEL approval issued under LOA D095 must submit a signed, written request for issuance of LOA D095 to the responsible Flight Standards office having jurisdiction over the area in which the operator’s principal base of operations is located. An electronic signature, or a signed and scanned request transmitted via email is acceptable. The operator’s request must contain the information described in Figure 4-1, Sample LOA D095 Request Letter. Except for reapplication after cancellation, rescission, or revocation, the operator is not required to submit the operator’s procedures document to the FAA.
- 4.2 Application for an MEL Approval Issued Under LOA D195.** An operator applying for an MEL approval issued under LOA D195 must submit a signed, written request for issuance of LOA D195, along with a copy of the operator-developed MEL (an electronic copy is preferred), to the responsible Flight Standards office having jurisdiction over the area in which the operator’s principal base of operations is located. An electronic signature, or a signed and scanned request transmitted via email is acceptable. The operator’s request must contain the information described in Figure 4-2, Sample LOA D195 Request Letter. International operators who currently hold an LOA D095 should state so in their request letter.
- 4.3 Request for Approval of an MEL That Does Not Conform to This AC.** An operator may request approval of an operator-developed MEL that does not conform to the content described in this AC. If an operator-developed MEL does not conform to the content described in this AC, the operator should:
- Submit a signed, written request to the responsible Flight Standards office for approval of an MEL that does not conform to this AC (see Figure 4-3, Sample MEL Approval Request Letter for an Operator-Developed MEL That Does Not Conform to the Content Described in AC 91-67);
  - Explain in their request letter how their MEL differs from the content described in this AC;
  - Provide a copy of the operator-developed MEL (an electronic copy is preferred) with the request; and
  - Be aware that approval of the MEL may be delayed.
- 4.4 Oversight.** The FAA may review an operator’s MEL during normal surveillance activity. If the FAA determines the MEL does not comply with the conditions and limitations of the operator’s MEL LOA, the FAA may rescind the LOA.

**Figure 4-1. Sample LOA D095 Request Letter**

To: Responsible Flight Standards Office

I request issuance of Title 14 of the Code of Federal Regulations (14 CFR) part 91 [or 133, 137, 141] Letter of Authorization (LOA) D095 under the provisions of part 91, § 91.213 to [complete legal name of operator] for the aircraft listed below.

I attest that I have a copy of the current make, model, and series (M/M/S)-specific Master Minimum Equipment List (MMEL) and have developed an operator's procedures document for the listed aircraft, and that the operator's procedures document conforms to the content described in Advisory Circular (AC) 91-67 and contains:

1. The operator's name, aircraft serial number(s), registration number(s) (or "Fleet"), aircraft M/M/S, and the MMEL revision number on which the minimum equipment list (MEL) is based;
2. Maintenance (M) and Operations (O) procedures that correspond with the (M) and (O) provisos listed in the MMEL;
3. A list of applicable MMEL items that contain the statement "as required by 14 CFR;"
4. Definitions, per current MMEL Policy Letter (PL)-25; and
5. A preamble, per current MMEL PL-36.

Principal base of operations [or principal business office] address of the operator:

[Mailing address of the operator, if different from the principal address]

Responsible Person's full name, email address, and/or telephone number [not required for part 133, 137, or 141]:

Aircraft serial number:

Aircraft registration number:

Aircraft M/M/S:

[List information for additional aircraft, if applicable]

Sincerely,

[Signature]

[Full name of person legally authorized to make request on behalf of the operator]

**Figure 4-2. Sample LOA D195 Request Letter**

To: Responsible Flight Standards Office

I request issuance of Title 14 of the Code of Federal Regulations (14 CFR) part 91 [or 133, 137, 141] Letter of Authorization (LOA) D195 under the provisions of part 91, § 91.213 to [complete legal name of operator] for the aircraft listed below.

I attest that the attached minimum equipment list (MEL) conforms to the content described in Advisory Circular (AC) 91-67 and is based on the current make, model, and series (M/M/S)-specific Master Minimum Equipment List (MMEL), and is not less restrictive than the current MMEL, and contains:

1. The operator's name, aircraft serial number(s), registration number(s) (or "Fleet"), aircraft M/M/S, and the MMEL revision number on which the MEL is based;
2. A table of contents;
3. A log of revisions;
4. Definitions, per current MMEL Policy Letter (PL)-25;
5. A preamble, per current MMEL PL-36;
6. Control page(s);
7. Air Transport Association of America (ATA) coded system sections;
8. Maintenance (M) and Operations (O) procedures that correspond with the (M) and (O) provisos listed in the MMEL; and
9. Applicable MMEL items that contain the statement "as required by 14 CFR."

Principal base of operations [or principal business office] address of the operator:

[Mailing address of the operator, if different from the principal address]

Responsible person's full name, email address, and/or telephone number [not required for part 133, 137, or 141]:

Aircraft serial number:

Aircraft registration number:

Aircraft M/M/S:

[List information for additional aircraft, if applicable]

Sincerely,

[Signature]

[Full name of person legally authorized to make request on behalf of the operator]

**Figure 4-3. Sample MEL Approval Request Letter for an Operator-Developed MEL That Does Not Conform to the Content Described in AC 91-67**

To: Responsible Flight Standards Office

I request review and approval of a Title 14 of the Code of Federal Regulations (14 CFR) part 91 [or 133, 137, 141] minimum equipment list (MEL) that does not conform to the content described in Advisory Circular (AC) 91-67. Upon review and approval, I request issuance of Letter of Authorization (LOA) D195 under the provisions of part 91, § 91.213 to [complete legal name of operator] for the aircraft listed below.

[Explain how the MEL differs from the content described in AC 91-67]

I have attached the proposed MEL for your review and approval.

Principal base of operations [or principal business office] address of the operator:

[Mailing address of the operator, if different from the principal address]

Responsible Person's full name, email address, and/or telephone number [not required for part 133, 137, or 141]:

Aircraft serial number:

Aircraft registration number:

Aircraft make, model, and series (M/M/S):

[List information for additional aircraft, if applicable]

Sincerely,

[Signature]

[Full name of person legally authorized to make request on behalf of the operator]

## CHAPTER 5. CONDUCTING OPERATIONS WITH AN MEL

- 5.1 Operating with an MEL.** If the aircraft has an MEL and LOA, the pilot may defer inoperative items by following the MEL procedures.
- 5.1.1 MEL Availability.** The MEL and LOA must be on board the aircraft anytime it is operated.
- 5.1.2 MEL Applicability.** MEL relief may be applied to an MEL item newly identified as inoperative up until the point an aircraft has taken off. Takeoff is defined as the act of beginning a flight in which an aircraft is accelerated from a state of rest to that of flight. For the purposes of MEL relief, this translates to the point at which the pilot physically begins to apply power to initiate the takeoff from the runway or takeoff surface.
- 5.1.3 Item Failures After Takeoff.** MEL relief does not apply for item failures occurring after takeoff. After takeoff, pilots should follow approved flight manual procedures. After landing safely, a record of the equipment failure should be made in the aircraft’s maintenance records, logbooks, or discrepancy record. Before the next takeoff, the inoperative item must either be repaired or the pilot may follow MEL procedures.
- 5.1.4 Safety Evaluation of Proposed Operation with Inoperative Items.** Before operating an aircraft with inoperative items using an MEL, the operator should carefully evaluate whether the aircraft and pilot(s) are capable of safely conducting the proposed operation under anticipated flight conditions with inoperative equipment. The evaluation should include:
- A determination that the inoperative instrument or equipment, including the failure condition, does not constitute a hazard to the aircraft;
  - Interrelationship and effects of multiple instrument or equipment item failures;
  - Adverse weather;
  - Night operations;
  - Departure and destination airports and their surrounding environment;
  - En route environment;
  - Diversion and alternate airport options;
  - Additional crew workload caused by inoperative items; and
  - Crew fatigue.
- 5.2 Documentation of Deferred Items.** A means of recording discrepancies and corrective actions must be in the aircraft and available to the PIC at all times. Additionally, when an instrument or equipment item is discovered to be inoperative, an entry must be made in the aircraft maintenance records. Since some operators do not carry aircraft logbooks in the aircraft, a discrepancy record or log (see Figure [5-1](#), Sample Aircraft Equipment Discrepancy Record) is an acceptable alternative. When an operator uses this type of discrepancy log in lieu of the aircraft maintenance records, the operator must retain the log as a part of the aircraft’s records, per § [91.417\(b\)](#). If the operator elects to use the aircraft maintenance record to log inoperative items, that portion of the record must be carried onboard the aircraft during all operations.

- 5.3 Placarding.** Each inoperative item must be placarded to inform and remind the crewmembers and maintenance personnel of the item’s condition. To the extent practical, placards should be securely affixed to a location adjacent to the control or indicator for the item affected. The placard may be in any form, but should be legible and visible to the pilot, should not obscure other controls or indicators, and should not interfere with aircraft operation. Unless otherwise specified (i.e., MMEL proviso), placard wording and location will be determined by the aircraft operator.
- 5.4 Performing (M) and (O) Procedures.** The presence of either (M) or (O) symbols in the “Remarks or Exceptions” column indicate a specific (M) or (O) procedure is required to be accomplished. Failure to perform (M) and (O) procedures in accordance with part [43](#), [91](#), or [145](#), as appropriate, is contrary to the regulations and invalidates the MEL LOA. In addition to carrying the documents that comprise the MEL onboard the aircraft, the operator must have available any technical manuals needed to accomplish (M) and (O) procedures.
- 5.4.1 (M) Procedures.** The (M) symbol indicates a specific maintenance procedure that must be accomplished prior to operation with the listed item inoperative. Normally, (M) procedures are accomplished by maintenance personnel; however, other personnel may be qualified and authorized to perform certain functions. Procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment, should be accomplished by maintenance personnel. The satisfactory accomplishment of all (M) procedures, regardless of who performs them, is the responsibility of the aircraft operator. Appropriate procedures are required as a part of the aircraft operator’s MEL.
- 5.4.2 (O) Procedures.** The (O) symbol indicates a specific operations procedure that must be accomplished prior to operation with the listed item inoperative. Normally, these procedures are accomplished by the flightcrew; however, other personnel may be qualified and authorized to perform certain functions. These procedures may be required for flight planning purposes, or they may require action by the flightcrew. Additionally, MEL items affecting the aircraft Weight and Balance (W&B) and cargo loading may require procedures for additional personnel, such as those involved with aircraft load control. The satisfactory accomplishment of all (O) procedures, regardless of who performs them, is the responsibility of the aircraft operator. Appropriate procedures are required as a part of the aircraft operator’s MEL.
- 5.5 Repair of Deferred Instruments or Equipment Items.** The MEL is intended to permit operations with inoperative items for the minimum period of time necessary until repairs can be accomplished. It is important repairs be accomplished at the earliest opportunity in order to return the aircraft to its design level of safety and reliability.
- 5.5.1 Accomplishing Repair, Replacement, Removal, or Inspection of Deferred Items.** The operator must have any inoperative items, which are permitted to be inoperative, either repaired, replaced, removed, or inspected within the proviso-defined repair interval period or at the next required aircraft inspection, whichever comes first.



**5.5.2** Continued Deferral. If an operator chooses to defer maintenance on an inoperative item beyond a required aircraft inspection, certificated maintenance personnel must inspect the item for conformance with the requirements of the MEL and § [43.11\(b\)](#).

- The maintenance person must give the aircraft owner or lessee a signed and dated list of all discrepancies not repaired.
- The maintenance person must ensure each inoperative item that remains inoperative is placarded appropriately.

**Note:** Compliance with §§ [91.7\(b\)](#), [91.213\(d\)\(4\)](#), and [91.405\(c\)](#) will provide adequate safeguards without time limits on the repair or replacement of inoperative equipment.

**Figure 5-1. Sample Aircraft Equipment Discrepancy Record**

COMPANY OR OPERATOR’S NAME: \_\_\_\_\_

REGISTRATION NUMBER: \_\_\_\_\_

LOG SHEET NUMBER: \_\_\_\_\_

DATE: \_\_\_\_\_

LOCATION: \_\_\_\_\_

DISCREPANCY: \_\_\_\_\_

CORRECTIVE ACTION: \_\_\_\_\_

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Certificate Number/Kind of Certificate

\_\_\_\_\_  
Date

### Figure 5-2. Pilot Decision Sequence

Figure 5-2 illustrates the sequence of events involved in using an MEL to operate an aircraft with inoperative items. This chart is not required to be part of the operator's MEL.

Instrument or equipment item is discovered to be inoperative before takeoff.		
↓		
Make entry in the aircraft maintenance records.		
↓		
Does the MEL allow item to be deferred?	→	If <b>NO</b> , repair item before takeoff.
↓		
If <b>YES</b> , review all applicable MEL procedures, conditions, or limitations for that item.		
↓		
Is operator able to comply with and perform all applicable MEL procedures, conditions, or limitations?	→	If <b>NO</b> , repair item before takeoff.
↓		
If <b>YES</b> , conduct safety risk analysis.		
↓		
Are the aircraft and pilot(s) capable of safely conducting the proposed operation under anticipated flight conditions with inoperative items?	→	If <b>NO</b> , repair item before takeoff.
↓		
If <b>YES</b> , perform applicable MEL procedures <sup>1</sup> , placard item appropriately, and return aircraft to service.		

<sup>1</sup> The pilot must ensure all applicable (M) and/or (O) procedures are performed and must comply with applicable conditions or limitations listed in the "Remarks or Exceptions" column of the MEL.

## CHAPTER 6. CONDUCTING OPERATIONS WITHOUT AN MEL

- 6.1 Operating Without an MEL.** This chapter provides guidance for operators who elect to conduct flight operations under the provisions of § [91.213\(d\)](#).
- 6.1.1 No Application Required.** No application, written request, or approval is required to operate under § 91.213(d).
- 6.1.2 Section 91.213(d).** Operators who do not have an MEL per § 91.213(a) may operate with inoperative instruments or equipment items under the provisions of § 91.213(d). Instruments and equipment required by § 91.213(d)(2) must be operative. The following aircraft may not be operated under § 91.213(d):
- Turbine-powered airplanes,
  - Large rotorcraft for which an MMEL has been developed, and
  - Large non-turbine-powered airplanes for which an MMEL has been developed.
- 6.1.3 Safety Evaluation of Proposed Operation with Inoperative Equipment Items.** Before operating an aircraft with inoperative items permitted under § 91.213(d), the operator should carefully evaluate whether the aircraft and pilot(s) are capable of safely conducting the proposed operation under anticipated flight conditions with inoperative equipment. The evaluation should include:
- A determination that the inoperative instrument or equipment, including failure conditions, does not constitute a hazard to the aircraft;
  - Interrelationship and effects of multiple instrument or equipment item failures;
  - Adverse weather;
  - Night operations;
  - Departure and destination airports and their surrounding environment;
  - En route environment;
  - Diversion and alternate airport options;
  - Additional crew workload caused by inoperative items; and
  - Crew fatigue.
- 6.2 Removal, Deactivation, and Placarding.** When an operator elects to operate without an MEL, any inoperative instrument or equipment items must either be removed or deactivated, then placarded. Removal or deactivation should be performed by a person authorized to perform aircraft maintenance in accordance with § [43.3](#).
- 6.2.1 Removal.** Removal of any item requires an appropriately authorized person to:
- Properly record the removal of the item in maintenance records in accordance with § [43.9](#);
  - Properly adjust the aircraft’s W&B information and equipment list in accordance with § [43.7](#);
  - Placard the cockpit controls or indicators, as appropriate;

- Complete and submit an FAA Form [337](#), Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance), as appropriate; and
- Approve the aircraft for return to service, as appropriate.

**6.2.2** Deactivation. Deactivation may involve more than simply turning off a system switch, which does not remove power from the system. Deactivation should involve pulling and securing the circuit breaker and/or removing the equipment. Deactivation of an inoperative system is not preventive maintenance as described in part [43](#) appendix [A](#). Regardless of the method of deactivation, a person authorized to approve the aircraft for return to service under § 43.7 must make the maintenance record entry required by § 43.9. No person may operate the aircraft without the entry required by § 43.9.

- Only appropriately qualified maintenance personnel may conduct procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment. The satisfactory accomplishment of all maintenance procedures, regardless of who performs them, is the responsibility of the operator.
- An appropriately authorized person must accomplish the deactivation.

**6.2.3** Placarding. Each inoperative item must be placarded (i.e., inoperative) to inform and remind the crewmembers and maintenance personnel of the item’s condition. To the extent practical, placards should be securely affixed to a location adjacent to the control or indicator for the item affected. The placard may be in any form, but should be legible and visible to the pilot, should not obscure other controls or indicators, and should not interfere with aircraft operation. Unless otherwise specified, placard wording and location will be determined by the aircraft operator.

**6.3** **Continued Operation with Inoperative Items**. The operator of the aircraft must ensure any inoperative instrument or item of equipment, permitted to be inoperative by § 91.213(d)(2), is repaired, replaced, removed, or inspected at the next required inspection, and when listed discrepancies include inoperative instruments or equipment, shall ensure that a placard has been installed, as required by § [43.11](#).

- The maintenance person must give the aircraft owner or lessee a signed and dated list of all discrepancies not repaired.
- The maintenance person must ensure each inoperative item that remains inoperative is placarded appropriately.

**Note:** Compliance with §§ [91.7\(b\)](#), [91.213\(d\)\(4\)](#), and [91.405\(c\)](#) will provide adequate safeguards without time limits on the repair or replacement of inoperative equipment.

### Figure 6-1. Sample Maintenance Record Entries

#### MAINTENANCE ENTRY (§ 43.9):

(DATE) Total time \_\_\_\_ hours. Aircraft heater and control switch deactivated by capping heater fuel lines in accordance with (manufacturer) maintenance manual, chapter \_\_\_\_\_, page \_\_\_\_\_. Heater control switch placarded inoperative.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Certificate Number/Kind of Certificate

\_\_\_\_\_  
Date

### Figure 6-2. Pilot Decision Sequence

Figure 6-2 illustrates the sequence of events involved in operating an aircraft under § 91.213(d) with inoperative items.

Instrument or equipment item is discovered to be inoperative before takeoff.		
↓		
Make entry in the aircraft maintenance records.		
↓		
Is the inoperative item required under § 91.213(d)(2)?	→	If <b>YES</b> , repair item before takeoff.
↓		
If <b>NO</b> , conduct safety risk analysis.		
↓		
Are the aircraft and pilot(s) capable of safely conducting the proposed operation under anticipated flight conditions with inoperative items?	→	If <b>NO</b> , repair item before takeoff.
↓		
If <b>YES</b> , remove or deactivate inoperative item and placard, per § 91.213(d)(3), and return aircraft to service.		

## CHAPTER 7. MEL REVISIONS

**7.1 General.** MEL revisions may be initiated by either the FAA or the operator. The revision to an operator’s MEL must comply with the conditions and limitations of the operator’s MEL LOA.

- MEL revisions for an MMEL and operator’s procedures document used as an MEL under LOA D095 consist of using the latest mandatory MMEL revision and revising the operator’s procedures document, as required.
- MEL revisions for an operator-developed MEL under LOA D195 consist of revising the operator-developed MEL.

**7.1.1 Operator Responsibility to Obtain MMEL Revisions.** It is the responsibility of an operator to obtain the latest revisions to their MMEL and applicable MMEL PLs. Current revisions of MMELs and MMEL PLs may be obtained on the FSIMS website at <http://fsims.faa.gov/PublicationForm.aspx>.

- Operators may keep informed of MMEL revisions by subscribing to receive automatic email notifications for their aircraft. To subscribe, visit: <https://service.govdelivery.com/accounts/USFAAMMEL/subscriber/new>.
- Recent revisions to MMEL PLs are posted on the FSIMS website at <http://fsims.faa.gov/>. New documents will remain on the FSIMS home page for 30 calendar-days.

**7.1.2 Submission of Revised Operator-Developed MEL to the FAA.** Operators must submit a copy (an electronic copy is preferred) of the revised operator-developed MEL to the responsible Flight Standards office within 90 calendar-days of the MEL revision. Operators are not required to submit a revised operator’s procedures document to the FAA. If the MEL is revised due to a mandatory MMEL revision, the operator has 90 calendar-days to revise their MEL, and then an additional 90 calendar-days to submit their revised operator-developed MEL to the FAA.

**Note:** MEL revisions solely for the purpose of documenting inapplicability of a mandatory MMEL revision, or to incorporate revised MMEL PL-25 or MMEL PL-36 content, are not required to be submitted to the FAA.

**7.2 FAA-Initiated MEL Revisions.** An FAA-initiated MEL revision may be due to an MMEL revision, MMEL PL revision, AD, or deficiencies discovered in the MEL.

**7.2.1 MMEL Revision.** There are two types of MMEL revisions: nonmandatory/interim and mandatory/standard.

**7.2.1.1 Nonmandatory/Interim MMEL Revision.** A nonmandatory/interim MMEL revision means that revision to an operator’s MEL is optional and not required. If the relief granted by the nonmandatory/interim MMEL revision is applicable to an operator’s aircraft operations, then it is advisable the operator revise their MEL to incorporate the MMEL revision. If the

nonmandatory/interim MMEL revision is not applicable to an operator's aircraft operations, they may disregard the MMEL revision altogether. For example, a nonmandatory/interim MMEL revision is issued to provide for optional equipment such as logo lights, which are not installed on all aircraft of a particular type. Operators who operate aircraft without logo lights may simply ignore the MMEL revision. Operators whose aircraft have logo lights may choose to incorporate the MMEL revision if the operator would like MEL relief for inoperative logo lights.

1. A nonmandatory/interim MMEL revision is identified by the current standard revision number plus a lowercase letter. For example, a nonmandatory/interim revision following revision 5 will be identified as revision 5a. There may be subsequent interim revisions to the same standard revision. These carry the next lowercase letter (e.g., 5b, 5c, 5d).
2. The operator's MEL revision number does not have to match the MMEL revision number. Operators may use their own revision numbering system.
3. If an MMEL revision results in a change to the system number or sequence item number, the operator does not need to modify or close an open MEL item and reinitiate it under its new number. Instead, the item may continue to be tracked under its original item number until the item is repaired and the deferral cleared.

**7.2.1.2 Mandatory/Standard MMEL Revision.** A mandatory/standard MMEL revision means that revision to an operator's MEL is required. A mandatory/standard MMEL revision includes changes applicable to all operators using an MEL for a specific aircraft type.

1. A mandatory/standard MMEL revision is identified by the next successive change to the basic MMEL revision number. For example, the next mandatory/standard revision following nonmandatory/interim revision 6a, 6b, or 6c is revision 7. The next mandatory/standard revision following revision 7 is revision 8.
2. The operator is required to review the mandatory/standard MMEL revision to determine if the more restrictive revised content is applicable to their aircraft and operation and revise their MEL as follows:
  - MMEL and operator's procedures document used as an MEL under LOA D095. The operator must carry the latest mandatory revision to the MMEL on board the aircraft, and incorporate any changes within 90 calendar-days of the date of the most recent MMEL revision in the operator's procedures document by revising or including any (M) and (O) or “as required by 14 CFR” procedures, as applicable. If no changes are determined to be applicable to the aircraft or operator, then the operator is not required to update the operator's procedures document. However, it is recommended the operator make a statement

in the operator’s procedures document that the mandatory revision has been reviewed and determined not to apply.

- Operator-developed MEL under LOA D195. If the revised content of the mandatory/standard MMEL revision is applicable, the operator must revise their MEL and incorporate applicable changes within 90 calendar-days of the date of the most recent MMEL revision. If the revised content of the mandatory/standard MMEL revision is not applicable, the operator must document the inapplicability of the mandatory/standard MMEL revision by revising the MEL control page to indicate the MEL is in compliance with the required MMEL revision within 90 calendar-days.
3. If an MMEL revision results in a more restrictive proviso, the operator does not have to close and reinitiate an existing open MEL item affected by the revision. Existing MEL items may remain open in accordance with the original proviso under which the item was initially deferred, until such time as the item is repaired and the MEL item is closed.
  4. If an MMEL revision results in a change to the system number or sequence item number, the operator does not need to modify or close an open MEL item and reinitiate it under its new number. Instead, the item may continue to be tracked under its original item number until the item is repaired and the deferral cleared.

**7.2.2** Revisions as a Result of an MMEL PL GC. A GC is newly developed or changed MMEL relief for an item which may or may not be time-sensitive. The sole purpose of a GC designation is to allow operators to obtain timely MEL relief for installed items referenced in an MMEL PL prior to the release of a revised MMEL. GCs are applicable to many MMELs and will specify applicability (inclusion or exclusion) when not applicable to all aircraft types. GCs may be used to provide immediate relief for items required by a new regulatory requirement, policy change, or new technology. GCs will not typically occur in great number or regularity, and their application and use will typically be limited.

- GCs are identified by the letters “GC” after the MMEL PL revision number on the title page. For example, “MMEL Policy Letter (PL)-54, R10 GC.”
- GCs will contain a header box explaining its applicability (e.g., to what types of aircraft, operators, and/or operations). The header box will also contain requirements on how to apply the sample proviso(s) of the GC to an operator’s MEL. See Figure 7-1, Sample Global Change Header Box.
- Relief from GCs may be included in an operator’s MEL revision at their discretion on the basis that the GC is an approved addendum to the existing MMEL.



**Figure 7-1. Sample Global Change Header Box**

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**MMEL GLOBAL CHANGE (GC)**

This is an approved addendum to all existing MMEL documents. Operators may seek use of the specific relief contained in this PL by revising their minimum equipment list (MEL). In doing so, each applicable sample proviso stating the relief in this PL must be copied verbatim in the operator’s MEL. Approval of a revised MEL is gained utilizing established procedures. This GC expires 9/13/2025.

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- 7.2.3** Revisions Initiated by the Responsible Flight Standards Office. The responsible Flight Standards office may initiate an MEL revision for reasons such as the issuance of an AD, upon discovery of deficiencies in the operator’s MEL (including (M) and (O) procedures), or upon discovery that the operator has modified their aircraft.
- The responsible Flight Standards office will inform the operator of the need to revise their MEL in writing and provide the reasons why the revision must be accomplished.
  - The responsible Flight Standards office will allow the operator 90 calendar-days to complete the revision process. If the FS office determines safety of flight could be affected (e.g., AD), they may specify a shorter period of time.
- 7.2.4** MMEL PL-25 (Definitions) or MMEL PL-36 (Preamble) Revision. A revision to MMEL PL-25 does not require revision of the operator’s MEL. However, the current revision to MMEL PL-25 should be incorporated in the next FAA or operator-initiated MEL revision. A revision to MMEL PL-36 will require a revision to an operator’s procedures document under LOA D095 or an operator-developed MEL under LOA D195.
- 7.3** **Operator-Initiated MEL Revisions.** An operator may revise their MEL for a number of reasons. An operator-initiated MEL revision must not be, in any way, less restrictive than the MMEL.
- 7.3.1** Major Aircraft Modifications. An operator may need to initiate an MEL revision due to major aircraft modifications, such as an STC, a major alteration (FAA Form [337](#)), or a modification to the TC.
- 7.3.2** Installation of Additional Items. An operator may initiate a change based on the installation of additional items. An operator may only add an item to their MEL if it is included in the MMEL. An operator may request additions or changes to the MMEL by notifying its responsible Flight Standards office, which may make a request of the FOEB to convene and consider the requested additions or changes to the MMEL. If the FOEB determines the additions or changes will be incorporated in the next MMEL revision, the responsible Flight Standards office may approve the operator to incorporate the additions or changes into its MEL until the next MMEL revision, at which time the operator will ensure its MEL aligns with the revised MMEL.

**7.3.3 Changes in Operational Complexity.** An operator may need to revise their MEL due to changes in its operational complexity, such as adding a type of operations (e.g., Reduced Vertical Separation Minimum (RVSM), Category (CAT) II/III landing minimums, etc.). An operator may need to revise their MEL for the purpose of adding or revising (M) and (O) procedures based on operational complexity.

**7.4 Vertical Bar (Change Bar).** A change bar denotes change in content. For MMELs, a change bar is placed in the right margin; location in the operator’s MEL is a matter of choice. A change due to copy editing (e.g., punctuation, spelling, grammatical structure) does not need a vertical bar in an MMEL or MEL. All change bars applicable to the previous revision of the MMEL are removed at the next revision. It is permissible to issue an MMEL or MEL revision without vertical bars when the revision affects most or all relief items. In which case, in lieu of vertical bars, a note is added to the “Highlights of Change” page instructing operators to consider all content revised and indicating that vertical bars are not used. Other alternate means of compliance may be used if approved by the Administrator.

## CHAPTER 8. NONESSENTIAL EQUIPMENT AND FURNISHINGS (NEF)

- 8.1 Definition.** NEF are those items installed on the aircraft as part of the original TC, STC, EO, or other form of alteration that have no effect on the safe operation of flight and would not be required by the applicable certification or operational rules. These are items that, if inoperative, damaged, or missing, have no effect on the aircraft’s ability to be operated safely under all operational conditions. NEF items are not items already identified in the MEL or CDL of the aircraft. NEF do not include items that are functionally required to meet the certification rule or for compliance with any operational rule.
- 8.2 Background.** NEF originate from what was once called “Passenger Convenience Items (PCI).” PCI were those items related to passenger convenience, comfort, or entertainment and were located in the passenger compartment, galley, and lavatory areas. However, PCI do not allow for nonessential items that were missing or inoperative located elsewhere in the aircraft. Due to the limited nature of PCI, the FAA replaced the PCI title in ATA code 25 of all MMELs with NEF. An NEF program allows operators to defer nonessential items located throughout the aircraft.
- 8.3 The NEF Program.** An operator’s MEL issued under the provisions of § 91.213(a) may include an NEF program that allows relief for nonessential items. An NEF program is developed by an operator to meet its individual needs. An operator’s NEF program is a supplement to the operator’s MEL. The NEF program encompasses: (1) an (optional) list of NEF items located in the operator’s MEL, (2) a process for evaluating an item in accordance with NEF requirements, (3) reporting procedures, and (4) policies and procedures for repair and/or replacement.

1. NEF items are:

- Items installed on the aircraft that have no effect on the safe operation of the aircraft.
- May be items installed as part of the original TC, STC, EO, or other form of alteration not required by certification or operational rules.
- Items that if inoperative, damaged, or missing have no effect on the safe operation of the aircraft under all operational conditions.
- Nonessential items located throughout the aircraft, including the flight deck area, service areas, cargo areas, and crew rest areas, in addition to the passenger compartment, lavatories, and galley areas.
- Cosmetic items not associated with an MEL or CDL item.

**Note:** Cosmetic items may have associated fire retardant/blocking requirements that must be considered when listing them as an NEF item.

2. NEF items are not:

- Instruments and equipment already identified in the MMEL, MEL, or CDL of the applicable aircraft.
- Instruments and equipment functionally required for meeting any certification rule.
- Instruments and equipment required for compliance with any operational rule.
- Items deferred contrary to an operator’s Continuous Airworthiness Maintenance Program (CAMP).
- Paint (mismatched, bad, or worn condition).

**Note:** Paint is addressed in other maintenance documents utilized for determining airworthiness; the NEF program is not applicable.

- Rodent or pest (bug) infestations of any type.
- Items which are only dirty or soiled (e.g., carpet, seats, interior side walls, dirty garbage can, etc.).

**Note:** An NEF item is not to be used as an administrative control item (ACI). An ACI is listed in the MEL for tracking and informational purposes (refer to MMEL PL-25 for more information regarding ACIs).

**8.4 Deferral Authority.** Authority for an operator’s NEF program is inherent in their MEL LOA. An operator may defer NEF items in accordance with their operator-developed NEF program.

- Although the NEF program is listed under ATA chapter 25, it may address items that fall under other ATA chapters.
- The operator’s NEF process must not provide for deferral of items within serviceable limits identified in the manufacturer’s maintenance manual, Structural Repair Manual (SRM), ADs, or operator’s maintenance program (e.g., CAMP, etc.).
- NEF items are not deferred under the authority of an Airframe and Powerplant (A&P) certificate, but rather are deferred under the operator’s NEF program.

**8.5 NEF Program Development.** The operator develops, implements, maintains, and revises its NEF program. The NEF program provides the operator the ability to defer NEF items whose failure would otherwise result in an aircraft being grounded until an item not affecting safety of flight could be repaired or replaced. The FAA may conduct surveillance on an operator’s NEF program at any time. An operator’s failure to comply with their NEF program may result in the cancellation, rescission, or revocation of the operator’s MEL LOA.

**8.6 Required NEF Program Contents.** An operator should design their NEF program to fit the scope and depth of their operation. However, at a minimum, it must contain the following nine processes and procedures:

1. Method of Tracking NEF Items. An NEF item list or other equivalent method of tracking NEF items may be used.
  - An NEF item list does not need to be developed and maintained, nor does an operator need to include the specific NEF items inside the MEL. However, operators who choose not to develop an NEF item list must submit their NEF program to the FAA for approval.
  - Operators who choose not to develop an NEF item list must treat each NEF deferral as a newly discovered NEF item, as outlined in their individual NEF program, and report each newly identified and deferred NEF item to the FAA.
  - If used, the NEF item list should be comprehensive but may be listed in general terms. For example, “cosmetic trim-strips” may be listed rather than identifying each strip individually on the NEF item list.
  - The NEF item list does not have to be part of the MEL and may be kept in a form and manner determined by the operator.
  - Operators are not required to submit revisions to their NEF item list to the FAA, and the FAA is not required to review revisions to the list.
  - Whether in paper or electronic format, the applicable portions of the NEF item list and NEF process must be available to the flight and cabin crews, maintenance, and flight operations personnel, as appropriate, when items are being deferred in accordance with the operator’s NEF program.
2. Identifying Deferrals. Procedures and processes for identifying NEF items that may be deferred.
3. Tracking Deferrals. Procedures for tracking program deferrals.
4. Documentation Procedures. Documentation procedures for inoperative, damaged, or missing NEF items.
5. (M) and (O) Procedures. Appropriate (M) and/or (O) procedures.
6. Follow-Up Maintenance. Procedures for follow-up maintenance, repair, and replacement.
7. Repair Intervals. Repair intervals are prescribed for NEF items. Operators may use the current MEL deferral categories at their discretion or an alternate method acceptable to the Administrator.
8. Section 43.13 Compliance. Any portions of an NEF program that reference maintenance or a maintenance procedure must comply with standard practices, as defined in § 43.13.

9. NEF Proviso. The following proviso to an NEF program (see Figure 8-1, Required NEF MEL Proviso for an Operator’s NEF Program) must be included in the operator-developed MEL ATA chapter 25, or in the case of an MMEL used as an MEL, included in the operator’s procedures document. The reference proviso must be copied verbatim. However, as indicated in the proviso, the aircraft operator’s manual where the NEF program is found must contain specific processes and procedures.

**Figure 8-1. Required NEF MEL Proviso for an Operator’s NEF Program**

System & Sequence Numbers 25 Equipment/ Furnishings	Repair Interval	Number Installed	Number Required For Dispatch	Remarks or Exceptions
Nonessential Equipment and Furnishings (NEF)	-	-	0	<p>May be inoperative, damaged, or missing provided that the item(s) is deferred in accordance with the NEF deferral program. The NEF program, procedures, and processes are outlined in the operator’s [insert name] manual. (M) and (O) procedures, if required, must be available to the flightcrew and included in the aircraft operator’s appropriate document.</p> <p><b>NOTE:</b> Exterior lavatory door ash trays are not considered NEF items.</p>

**8.7 NEF Program Approval.** Except for operators who choose to not develop an NEF item list, an operator is not required to submit its NEF program to the FAA, and the FAA is not required to review it. However, the FAA may conduct surveillance on an operator’s NEF program at any time.

**8.8 Criteria for Selection of NEF Items.** NEF items are not safety-of-flight items. They have not been evaluated through the normal AEG review process and may require the concurrence of maintenance and/or operations managers. Before an operator can list an item as being deferrable under the NEF program, they must follow their NEF program procedures. When reviewing items for inclusion in an operator’s NEF item list, operators should ask the following questions:

- Is the item required for the operational rules in which the aircraft is operated?
- Does the item create the potential for fire/smoke or other hazardous condition?
- Could the item have an adverse effect on other required systems or components?

- Does the item’s condition potentially affect the safety of passengers, crew, or service personnel?
- Could the item have a negative impact on emergency or abnormal procedures?
- Does the item create an additional workload for the crew at critical times of flight or flight preparation?
- Do crewmembers need to evaluate the deferred NEF item on a flight-by-flight basis?

**8.9 NEF Deferral Process.** The following sequence is a guide for developing an NEF deferral process. The process may be modified to facilitate inclusion in an operator’s overall MEL deferral program; however, the intent of the elements outlined below must be addressed:

1. Documentation. For an inoperative, damaged, or missing item to be considered for inclusion in an NEF program, the discrepancy must be documented in the aircraft maintenance records per the operator’s discrepancy recording system. This action is completed by the flightcrew, maintenance personnel, or personnel authorized and approved to perform such functions, as outlined in the operator’s NEF program.
2. Current NEF Items. If the inoperative, damaged, or missing item is already on the NEF item list (if used), the established procedures for NEF deferral of the item will be followed.
3. MMEL, CDL, or MEL Items. An MMEL, CDL, or MEL item may not be deferred in accordance with the operator’s NEF program. Deferral procedures for inoperative, damaged, or missing items listed in the MMEL, CDL, or operator’s MEL must be followed.
4. Subcomponents of MMEL, CDL, or MEL Items. If the inoperative, damaged, or missing item is a subcomponent of a system identified in the MMEL/CDL/MEL, where no previous relief was authorized, the subcomponent may not be deferred in accordance with the operator’s NEF program.
5. Required by Certification or Operational Rules. If the item is required by any applicable certification or operational rules, the item may not be deferred in accordance with the operator’s NEF program. If the item is functionally required to meet a certification rule, or for compliance with any operational rule, the item may not be deferred in accordance with the operator’s NEF program.
6. Safety-of-Flight Issues. If it is obvious from a maintenance or operational perspective that the item, in and of itself, could have an adverse effect on the safe conduct of flight, or if there is a safety-of-flight issue with an inoperative, damaged, or missing item, that item may not be deferred and must be repaired prior to flight.
7. Source (Underlying Cause). If the presence of a safety-of-flight issue is unknown, not present, or not applicable, ascertain whether the source or root cause for the inoperative, damaged, or missing item can be identified. If the source or root cause cannot be identified or safely isolated, that item may not be deferred in accordance with the operator’s NEF program and must be repaired prior to flight.

- If the source can be identified, determine whether that source affects an equivalent level of safety (ELOS). If the item has no effect on an ELOS, that item may be deferred in accordance with the operator’s NEF program.
  - If the source cannot be identified, but the item can be isolated using applicable maintenance procedures, it may be isolated and then reevaluated, and if no safety-of-flight concern exists after the reevaluation, the item may be deferred in accordance with the operator’s NEF program.
8. Defer in Accordance with the Operator’s NEF Program. Defer the item if, after completing the previous seven steps, the item can be deferred in accordance with the NEF program.
  9. Update. Update the NEF item list, as required.
  10. Report NEF Items. Report newly identified and deferred NEF items to the FAA, if required.



## CHAPTER 9. CONFIGURATION DEVIATION LIST (CDL)

**9.1 General.** A CDL is a list of exposed (external) aircraft parts that may be missing for flight under specific conditions and limitations. CDLs are developed by aircraft manufacturers for each specific model and approved by the FAA. Aircraft manufacturers develop a CDL for most U.S.-built transport part [25](#) aircraft and many part [23](#) aircraft during the initial certification process. This is not a requirement for aircraft certification. The manufacturer makes the decision to develop or not to develop a CDL.

1. U.S.-Manufactured Aircraft. An FAA-approved CDL is either:
  - Incorporated into the limitations section of the AFM as an appendix; or
  - Published as a supplement to the AFM.
2. Aircraft Manufactured Outside the United States. The CDL may be a standalone document that is part of the SRM or other manufacturers' document.

**9.2 Attaching CDL to MEL.** An operator may attach specific sections of an FAA-approved or manufacturer's CDL, or an operator's customized CDL, to their MEL for quick reference by flightcrew or maintenance personnel.

### 9.3 Operator's Customized CDL.

1. An operator's customized CDL must meet the following criteria:
  - Subject aircraft must have an FAA-approved or manufacturer's CDL.
  - Operators may omit items not installed on their aircraft or for which they do not desire relief.
  - Operators may make their customized CDL more restrictive than the FAA-approved or manufacturer's CDL by increasing fuel and/or performance penalties or adding additional limitations and/or restrictions.
  - Any additional penalties/restrictions must be clearly identified as operator-specific.
  - Under no circumstances may the operator's customized CDL be less restrictive than the FAA-approved or manufacturer's CDL.
2. The operator's customized CDL must include:
  - A clear statement that the customized CDL is not the FAA-approved CDL or manufacturer's CDL.
  - Information on where to access the current FAA-approved CDL or manufacturer's CDL.
  - A description of how the customized CDL is applied and used in their operation.
  - Methods for the proper application of fuel and performance penalties, procedures, and/or restrictions and limitations while conducting flight operations utilizing the CDL.
  - A page control system to show that the customized CDL is current and complete.

3. An operator’s customized CDL must specify how to conduct operations with missing CDL items, including:
  - Any missing CDL item must be entered into the aircraft maintenance records.
  - Each missing CDL item must be listed on a placard affixed to the cockpit in clear view of the flightcrew.
  - Flightcrews must adhere to fuel and performance penalties specified in the CDL.

**9.4 Customized CDL Approval.** An operator is not required to submit their customized CDL to the FAA, and the FAA is not required to review it. However, the FAA may conduct surveillance on an operator’s customized CDL at any time.

**APPENDIX A. CONTENT OF AN OPERATOR’S PROCEDURES DOCUMENT**

**A.1 Minimum Equipment List (MEL) Approval Under Letter of Authorization (LOA) D095, MMEL and Operator’s Procedures Document Used as an MEL.** The MEL approved under LOA D095 consists of two documents: the aircraft make, model, and series (M/M/S)-specific Master Minimum Equipment List (MMEL) and the operator’s procedures document. An operator must carry the current mandatory revision of the MMEL, the operator’s procedures document, and LOA D095 on board the aircraft.

**A.2 Operator’s Procedures Document Content.** This appendix provides information to ensure the operator’s procedures document meets the requirements listed in LOA D095.

1. The operator’s procedures document must contain the operator’s name, aircraft serial number(s), registration number(s) (or “Fleet”), aircraft M/M/S, and the MMEL revision number on which the MEL is based.
2. An operator’s procedures document must include specific content based on the items installed on the operator’s aircraft. The operator’s procedures document may omit an MMEL item if the item or configuration is not installed or if the operator elects to not take relief. If the operator does not take relief for an installed item, the procedures document should clearly state that no MEL relief is provided for that item and it must be operative for takeoff.
3. An operator’s procedures document should incorporate the phraseology used in the MMEL, wherever appropriate, to ensure clarity and standardization.

**A.3 Operator’s Procedures Document Required Sections.** The operator’s procedures document must contain the following sections:

**A.3.1 Definitions.** MMEL and MEL definitions are contained in MMEL Policy Letter (PL)-25, MMEL and MEL Definitions. Operators must include these definitions in their operator’s procedures document. Not all of the MMEL definitions are required to be in an operator’s procedures document, as some are related to format issues, specific aircraft types, and certain types of operations. Certain portions of an MMEL definition may be edited and/or not required, but the intent of the definition must be the same and must not be less restrictive than the MMEL PL-25 definitions. All MMEL PLs are available in the Flight Standards Information Management System (FSIMS) under “Publications,” “Active Publications” list, “MMEL & AEG Guidance Documents” at <http://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=MMEL%20Policy%20Letters>.

**A.3.2 Preamble.** The preamble contained in MMEL PL-36, 14 CFR Part [91](#) MEL Approval and Preamble, is applicable to all § [91.213\(a\)](#) MEL approvals under LOA D095. This preamble must be reproduced verbatim in the operator’s procedures document.

**A.3.3 As Required by 14 CFR.** An operator must develop a list of all MMEL items containing the statement “as required by 14 CFR” or any similar statement, based on the items installed on the operator’s aircraft for which the operator desires MEL relief. The operator’s procedures document will: (1) list the specific 14 CFR part and section (e.g., 14 CFR part 91, § [91.209](#)) and carry the 14 CFR on board the aircraft, (2) state the

content of the applicable 14 CFR part and section verbatim, or (3) specify the operational requirements and/or limitations to conduct the flight in accordance with the appropriate 14 CFR. MMEL PL-25 contains a list of regulatory references according to the Air Transport Association of America (ATA) section. This list is not all-inclusive.

**Note:** The term "14 CFR" has replaced Federal Aviation Regulation (FAR) as the current reference to Federal regulations pertaining to aviation. Many MMELs and MELs still contain the acronym "FAR" and should be updated to "14 CFR" as they are revised.

**A.3.4 Maintenance (M) and Operations (O) Procedures.** The presence of either (M) or (O) symbols in the MMEL "Remarks or Exceptions" column indicate specific (M) or (O) procedures are required to be accomplished prior to operation when the item is inoperative. The operator's procedures document must contain (M) and (O) procedures corresponding to the (M) and (O) provisos listed in the MMEL for all installed equipment for which the operator desires MEL relief. The operator's procedures document's (M) and (O) procedures:

- Must meet the intent of the (M) and (O) provisos in the MMEL.
- Must never be less restrictive than the (M) and (O) provisos in the MMEL.
- May be either manufacturer's (M) and (O) procedures or operator-developed (M) and (O) procedures.

**Note:** Operators may use the Original Equipment Manufacturer's (OEM) document (e.g., maintenance operational placarding procedures (MOPP), dispatch deviation guide (DDG), maintenance procedures manual (MPM)) as the required (M) and (O) procedures element.

- May be developed from the manufacturer's (M) and (O) procedures or the guidance provided in the manufacturer's Aircraft Flight Manual (AFM) or Aircraft Maintenance Manual (AMM), manufacturer's recommendations, engineering specifications and other appropriate sources. Operators are not required to copy the manufacturer's recommended (M) and (O) procedures verbatim in their MEL. When a manufacturer-recommended procedure exists, the operator may use it as published, or develop equivalent procedures for their procedures document.
- Must comply with all 14 CFR requirements and must not deviate from the AFM limitations, emergency procedures, or Airworthiness Directives (AD), all of which take precedence over the MEL.
- Must specify suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures, and other restrictions, which must be accomplished by the operator to ensure an Acceptable Level of Safety (ALoS) is maintained.
- May reference a procedure in an FAA-approved or FAA-accepted manual. The manual reference must be preceded by a specific instruction defining the action required and direct the use of the current revision of that manual to include specific chapter, section, task, or paragraph references for the procedure.

**A.4 Operator's Procedures Document Optional Sections.** An operator may include the optional sections listed below. The operator may also include additional sections containing information relevant to their MEL.

**A.4.1 Cover Page.** The cover page format and information may be the same as the MMEL.

**A.4.2 Table of Contents.** The table of contents is a list of all of the sections/chapters in the operator's procedures document by title and the corresponding page identification. The format varies due to operator formatting preferences.

**A.4.3 Log of Revisions.** The log of revisions contains the revision identification (typically a number and/or letter) and the date of the revision. At the operator's discretion, it may also contain a list of the revised pages, a block for the initials of the person posting the change, and additional enhancements for use by the operator. The format varies due to operator formatting preferences.

**A.4.4 Highlights of Change Page.** This page list contains a summary of the changes made by the operator in each revision.

**A.5 Example "As Required by 14 CFR" and (M) and (O) Procedures.** Figures A-1(a) through A-3(b) are examples of MMEL and corresponding operator's procedures document "as required by 14 CFR" and (M) and (O) procedures. These are examples only and are not intended to be used or depicted as actual MMEL or operator's procedures document procedures.

**Figure A-1(a). Example MMEL "As Required by 14 CFR" Statement**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b>				
		1. REPAIR CATEGORY				
		2. NO. INSTALLED				
		3. NO. REQUIRED FOR DISPATCH				
		4. REMARKS OR EXCEPTIONS				
<b>34. NAVIGATION</b>						
Sequence No.	Item	1	2	3	4	Change Bar
33-07	Landing Light	C	-	0	As required by 14 CFR	

**Figure A-1(b). Example Operator's Procedures Document "As Required by 14 CFR" Regulatory Reference, Regulation, or Requirement/Limitation**

34-33-07: 14 CFR Reference: 14 CFR 91.205(c)(4) and 91.205(d)(1).  
[And carry the 14 CFR part and section on board the aircraft.]

Or

34-33-07:  
14 CFR 91.205(c). For VFR flight at night, the following instruments and equipment are required: (4) If the aircraft is operated for hire, one electric landing light.

14 CFR 91.205(d). For IFR flight, the following instruments and equipment are required: (1) Instruments and equipment specified in paragraph (b) of this section, and, for night flight, instruments and equipment specified in paragraph (c) of this section.

Or

34-33-07: The landing light must be operative for night flight operations if the aircraft is being operated for hire.

**Note:** Illustrated in the examples above, the operator’s procedures document will: (1) list the specific 14 CFR part and section and carry the 14 CFR on board the aircraft; (2) state the content of the applicable 14 CFR part and section verbatim; or (3) specify the operational requirements and/or limitations to conduct the flight in accordance with the appropriate 14 CFR.

**Figure A-2(a). Example 1 MMEL Maintenance (M) and Operations (O) Symbols and Provisos**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b>				
		1. REPAIR CATEGORY 2. NO. INSTALLED 3. NO. REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
<b>78. Engine Exhaust</b>						
Sequence No.	Item	1	2	3	4	Change Bar
-30-01	Thrust Reverser	C	2	0	(M)(O) May be inoperative provided: a) Affected thrust reverser is locked in the forward thrust position, and b) Appropriate performance penalties are applied.	

**Figure A-2(b). Example 1 Operator’s Procedures Document Maintenance (M) and Operations (O) Procedures.**

78-30-01:

**Maintenance (M) Procedure**

Lock affected thrust reverser in the forward thrust position in accordance with AMM 78-30-12.

**Operations (O) Procedure**

Refer to AFM Performance Section, Thrust Reverser inoperative for applicable takeoff and landing penalties.

**Note:** AMM 78-30-12 and AFM in the above example are FAA-approved or FAA-accepted manuals.

**Figure A-3(a). Example 2 MMEL Maintenance (M) and Operations (O) Symbols and Provisos**

AIRCRAFT: (insert aircraft make and model)		TABLE KEY				
		1. REPAIR CATEGORY				
		2. NO. INSTALLED				
		3. NO. REQUIRED FOR DISPATCH				
		4. REMARKS OR EXCEPTIONS				
28. FUEL						
Sequence No.	Item	1	2	3	4	Change Bar
28-21-25	XBP Crossfeed Valve	A	2	0	(M) One or more may be inoperative in closed position provided: a) All Booster Pumps are operative, b) Affected XBP Crossfeed Valve is secured in closed position, and c) Repairs are made within 3 consecutive calendar-days.	

**Figure A-3(b). Example 2 Operator's Procedures Document Maintenance (M) and Operations (O) Procedures**

28-21-25:

**Maintenance (M) Procedure****CROSSFEED VALVE IN CLOSED POSITION:**

1. Open the door 170AB.
2. Check that the inoperative XBP crossfeed valve (400QS/410QS) is in close position ("C").

NOTE: If not, set the valve to close ("C") using the lever.

3. Disconnect the electrical connector.
4. Close the door 170AB.

NOTE: Place inoperative placard near MDU.

**APPENDIX B. CONTENT OF AN OPERATOR-DEVELOPED MINIMUM EQUIPMENT LIST (MEL)**

**B.1 MEL Approval Under Letter of Authorization (LOA) D195, Minimum Equipment List (MEL).** The MEL approved under LOA D195 consists of only one document: an operator-developed MEL.

**B.2 MEL Content.** This appendix provides detailed content requirements to ensure the operator-developed MEL meets the requirements listed in LOA D195.

- The MEL must contain the operator's name; aircraft serial number(s); registration number(s) (or "Fleet"); aircraft make, model, and series (M/M/S); and the Master Minimum Equipment List (MMEL) revision number on which the MEL is based.
- Operators may copy the MMEL format outline directly into its MEL. An operator may also customize their MEL format, provided the format does not make the MEL in any way less restrictive than the MMEL.
- The MEL must include specific content based on the items installed on the operator's aircraft. The aircraft operator's MEL may omit an MMEL item if the item or configuration is not installed or if the operator elects to not take relief.
- The MEL should incorporate the phraseology used in the MMEL, wherever appropriate, to ensure clarity and standardization.

**B.3 MEL Required Sections.** The operator-developed MEL must contain the following sections:

**B.3.1 Table of Contents.** The table of contents is a list of all sections/chapters in the MEL by title and the corresponding page identification. The format varies due to operator formatting preferences.

**B.3.2 Log of Revisions.** The log of revisions contains the MEL revision identification (typically a number and/or letter) and the date of the MEL revision. At the operator's discretion, it may also contain a list of the revised pages, a block for the initials of the person posting the change, and additional enhancements for use by the operator. The format varies due to operator formatting preferences.

**B.3.3 Definitions.** Definitions of the terms used in MMELs and MELs are found in MMEL Policy Letter (PL)-25, MMEL and MEL Definitions. Operators must include these definitions in their MEL. Not all of the MMEL PL-25 definitions are required to be in an operator's MEL, as some are related to format issues, specific aircraft types, and certain types of operations. Certain portions of a definition may be edited and/or not required, but the intent of the definition must be the same and must not be less restrictive than the MMEL PL-25 definitions. All MMEL PLs are available in the Flight Standards Information Management System (FSIMS) under "Publications," "Active Publications" list, "MMEL & AEG Guidance Documents" at <http://fsims.faa.gov/PICResults.aspx?mode=Publication&doctype=MMEL%20Policy%20Letters>.



- B.3.4** Preamble. The preamble contained in MMEL PL-36, 14 CFR Part [91](#) MEL Approval and Preamble, is applicable to all § [91.213\(a\)](#) MEL approvals under LOA D195. This preamble must be reproduced verbatim in the MEL.
- B.3.5** Control Page (List of Effective Pages). The control page is used for tracking the status of the MEL and includes a record of the revision status or the date of each page of the operator’s MEL. The format may vary due to operator formatting preferences. At a minimum, control pages must contain:
- The operator’s name;
  - A listing of all of the pages in the MEL (individually or the range of applicable pages for a given section/chapter), including the date of all pages and its number or revision number; and
  - The MMEL revision number on which the MEL is based.
- B.3.6** Air Transport Association of America (ATA)/Joint Aircraft System/Component (JASC) Coded System Sections. These sections are organized by aircraft system according to the ATA/JASC coded numbering system and include individual item sequence numbers, items, repair categories, number of items installed, number of items required for dispatch, remarks or exceptions, and Maintenance (M) and Operations (O) procedures. See paragraph B.5 for additional information.
- B.4** **MEL Optional Sections**. The operator-developed MEL may include the optional sections listed below. The operator may also include additional sections containing information relevant to their MEL.
- B.4.1** Cover Page. The cover page format and information may be the same as the MMEL.
- B.4.2** Highlights of Change Page. This page list contains a summary of the changes made by the operator in each revision.
- B.5** **ATA/JASC Coded System Sections**. The operator-developed MEL must be organized using the MMEL ATA/JASC numbering system. The MEL ATA/JASC coded system sections will include a list of individual items in the aircraft, together with requirements for operation when the items are inoperative. Each coded system section will be further broken down into individual item numbers.
- B.5.1** System Numbers. Operators must use the ATA or JASC coded numbering system. The ATA numbering system provides an industrywide standard for numbering aircraft systems and is relevant for all aircraft.
- B.5.2** Individual Item Sequence Numbers and Items. Individual item sequence numbers are the unique identification for each item within an ATA system category. The numbering scheme may be modified to align with the aircraft operator’s specific MEL format and may differ from the MMEL. They are not required to match ATA system item numbers.

- A triple asterisk (\*\*\*) below the system number in column 1 of an MMEL indicates an item which is not required by regulation has been installed on some models of a particular aircraft M/M/S. An operator may not carry the “\*\*\*” symbol over to the MEL.
- An operator is not required to list all MMEL items in its MEL; however, if a particular item is not in the operator’s MEL then the item must be fully operative at takeoff.
- Operators may add limitations and restrictions to a particular item beyond what is required by the MMEL. An operator’s MEL limitations, conditions, and restrictions must never be less restrictive than the MMEL.
- Operators will typically list an MEL item exactly as it is shown in the MMEL. If an MMEL uses a generic term to describe a particular item, an operator may use different terminology, provided the operator’s terminology is recognizable and easily identified with the corresponding MMEL item.
- When an MEL item contains multiple components, those components may be listed separately following the item in the MEL.
- Operators must not list inappropriate or duplicate items, or items listed individually elsewhere in the MMEL.
- Individual components of an MMEL or MEL item may not be listed as NEF.

**B.5.3** Repair Categories. The repair category intervals indicated by the letters A, B, C, and D in column 1 of the MMEL are not applicable to an operator-developed MEL, but operators must comply with any provisos defining a repair interval (flights, flight legs, cycles, hours, days, etc.). At an operator’s discretion, repair category interval letters (A, B, C, D) may be omitted from the MEL. If an operator chooses to include repair categories in their MEL, they may comply with the repair category intervals as a best practice, but they are not mandatory. Per § [91.405\(c\)](#), each owner or operator of an aircraft shall have any inoperative instrument or item of equipment, permitted to be inoperative by § 91.213(d)(2) repaired, replaced, removed, or inspected at the next required inspection.

**B.5.4** Number of Items Installed (Number Installed). The “Number Installed” column of an MEL lists the number (quantity) of the specified item installed on the aircraft.

**B.5.4.1** **Variable Number Installed**. A dash (-) for number installed indicates a variable number (quantity) of the installed item. Use of a dash (-) is common in fleet MELs where aircraft of the same M/M/S have differing numbers of specific items. A dash (-) is also used for MEL items that provide relief for fault messages (e.g., Crew Alert System (CAS), engine indicating and crew alerting system (EICAS), electronic centralized aircraft monitoring (ECAM)). Additionally, operators may use a dash (-) if it is impractical to show the actual number of the specific items (includes but not limited to light bulbs, light-emitting diodes (LED), cabin storage compartments, and cargo lining panels) installed on the aircraft.

**B.5.4.2 Items Listed on the MMEL but Not Installed on the Aircraft.** An operator’s MEL does not have to list MMEL items not installed on the operator’s aircraft. For number continuity in an MEL, operators may choose to:

- Simply omit the item from the MEL altogether. The option to either renumber the subsequent individual items or maintain the original MMEL sequence numbering is at the operator’s discretion.
- List the item in the MEL and then show the “Number Installed” as zero (0). In this case, the “Number Required for Dispatch” would also be zero (0), and the remark “Not Installed” should be noted under “Remarks or Exceptions.” Additionally, in this case, the repair category designators should be omitted.

**B.5.5 Number Required for Dispatch.** The “Number Required for Dispatch” column of an MEL reflects the minimum number (quantity) of items required for flight, provided the conditions specified in the “Remarks or Exceptions” are met. The number of items required for dispatch in an MEL may differ from what is required in the MMEL under the following conditions:

- The item is listed in the MMEL as optional and is not installed on the aircraft. In this case, a zero (0) may be shown as the number required but also requires the “Number Installed” to be shown as zero (0), and the remark “Not Installed” should be noted under “Remarks or Exceptions.”

**Note:** An operator’s MEL does not have to list MMEL items not installed on the operator’s aircraft.

- The “Number Required for Dispatch” is followed by a dash (-) in the MMEL. Where the MMEL shows a variable number (-) required for dispatch, the MEL may reflect the actual number required for dispatch or an alternate means of configuration control approved by the Administrator. An aircraft operator’s MEL may contain a dash (-) where the number required is based on the conditions of flight, such as adequate cockpit lighting. Fleet configuration differences (where applicable) and the dispatch requirements must be specified in the “Remarks or Exceptions” section.
- The number required for dispatch in the MEL is not less restrictive than the MMEL.

**B.5.6 Remarks or Exceptions.** The “Remarks or Exceptions” column includes provisos, notes, “as required by 14 CFR” requirements and/or limitations, and (M) and (O) symbols. Some MMEL “Remarks or Exceptions” are intentionally general to accommodate a variety of operators and operating rules. An MEL must expand upon these general MMEL “Remarks or Exceptions,” as required to adequately and safely address an operator’s particular operations and operating rules. See the examples in paragraph [B.6](#) below.

**B.5.6.1 Provisos.** Provisos are conditions or limitations that must be complied with for operation with the listed item inoperative. The term indicates by association that an item may be deferred, “provided that” certain conditions are met. If more than one proviso applies, they should be listed separately by number or lowercase letter. For example, a proviso may allow an item to be inoperative provided the airplane is not operated in Extended Operations (ETOPS); and another proviso requiring the aircraft only be operated under visual flight rules (VFR) when that same item is inoperative. In most instances, MEL provisos will be written verbatim to the MMEL, but there are cases where it is acceptable to deviate from the MMEL; however, the operator MEL must never be less restrictive than the MMEL or the relevant 14 CFR requirement. For example, deleting “established and” from the phrase “alternate procedures are established and used” would not be considered less restrictive since the inclusion of the procedure in the MEL meets the requirement to “establish” the procedure.

**B.5.6.2 Notes.** Notes provide additional information for crewmember or maintenance consideration. Notes are used to identify applicable material intended to assist with compliance, but do not relieve the aircraft operator of the responsibility for compliance with all applicable requirements. Additional notes may be added to the aircraft operator’s MEL, as appropriate. Some notes in the MMEL may not be appropriate in an aircraft operator’s MEL and may be amended or deleted. Notes are not a part of the proviso. Where more than one note is included, they will be numbered accordingly (e.g., NOTE 1, NOTE 2). Notes should be repeated, as necessary, following each applicable proviso.

- Notes may contain a suggestion to aid with compliance such as: “The operator’s alternate procedures should include reviewing wind shear avoidance and wind shear recovery procedures.”
- Notes may be more specific such as: “Flight level (FL) 310 or below must be maintained if normal operating pack fails,” or, “When FCMC 2 is inoperative, fuel quantity indication can have dashes on the two last digits.”
- As appropriate, the operator should include the MMEL note in the MEL or base its (M) and (O) procedures on the information contained in the note.
- The information within a note must remain within the scope of the definition of “notes” found in MMEL PL-25.

**B.5.6.3 As Required by 14 CFR.** The MEL must address all items listed in the MMEL containing the statement “as required by 14 CFR,” or any similar statement, based on the items installed on the operator’s aircraft for which the operator desires MEL relief. The MEL will: (1) list the specific 14 CFR part and section (e.g., 14 CFR part 91, § [91.209](#)) and carry the 14 CFR on board the aircraft; (2) state the content of the applicable 14 CFR part and section verbatim; or (3) specify the operational requirements and/or limitations to

conduct the flight in accordance with the appropriate 14 CFR. The phrase “as required by 14 CFR,” or any similar statement, is prohibited in an MEL. MMEL PL-25 contains a list of regulatory references according to ATA section. This list is not all-inclusive.

**Note:** The term “14 CFR” has replaced Federal Aviation Regulation (FAR) as the current reference to Federal regulations pertaining to aviation. Many MMELs and MELs still contain the acronym for FAR and should be updated to “14 CFR” as they are revised.

**B.5.6.4 (M) and (O) Symbols and Procedures.** The presence of either (M) or (O) symbols in the MMEL “Remarks or Exceptions” column indicate specific (M) or (O) procedures are required to be accomplished prior to operation with the listed item inoperative. The MEL must contain (M) and (O) procedures corresponding to the (M) and (O) provisos listed in the MMEL for all installed equipment for which the operator desires MEL relief. The MEL (M) and (O) procedures:

- Must meet the intent of the (M) and (O) provisos in the MMEL.
- Must never be less restrictive than the (M) and (O) provisos in the MMEL.
- May be either manufacturer’s (M) and (O) procedures or operator-developed (M) and (O) procedures.
- May be developed from the manufacturer’s (M) and (O) procedures or the guidance provided in the manufacturer’s Aircraft Flight Manual (AFM) and/or Aircraft Maintenance Manual (AMM), manufacturer’s recommendations, engineering specifications, and other appropriate sources. Operators are not required to copy manufacturer’s recommended (M) and (O) procedures verbatim in their MEL. When a manufacturer recommended procedure exists, the operator may use it as published, or develop equivalent procedures for their procedures document.
- Must comply with all 14 CFR requirements and must not deviate from the AFM limitations, emergency procedures, or Airworthiness Directives (AD), all of which take precedence over the MEL.
- Must specify suitable conditions and limitations in the form of placards, maintenance procedures, crew operating procedures, and other restrictions, which must be accomplished by the operator to ensure an Acceptable Level of Safety (ALoS) is maintained.
- May be presented in a variety of formats and locations at the discretion of the operator. For example, they may be placed in separate columns, below the MEL table or included in an appendix to the MEL. They may be included in the “Remarks or Exceptions” column, but should be clearly distinct from the (M) and (O) provisos.

**B.5.6.5 Reference to an FAA-Approved or Accepted Manual.** An operator may include a reference to the appropriate FAA-approved or FAA-accepted manual that contains the procedure(s) required to address a particular MEL item. Only FAA-approved or FAA-accepted manuals may be referenced in the MEL. The following requirements apply when referencing these manuals:

- Manual reference(s) must be preceded by either a proviso(s) or specific instruction(s) defining the action required.
- A single proviso or specific instruction may have more than one manual reference associated with it.
- Manual references must direct the use of the current revision for that manual, including specific chapter, section, task, or paragraph references. Actual revision level/date of the manual is not required in the MEL.
- The proviso or specific instruction and manual reference in the MEL is considered the means of compliance for MEL purposes and is FAA-approved. The actual procedure referenced is either FAA-approved or accepted depending on the status of the manual referenced.

**B.6 Example Proviso, “As Required by 14 CFR,” and (M) and (O) Procedures.**

Figures B-1(a) through B-4(b) demonstrate the differences between general information contained in the MMEL “Remarks or Exceptions” column and specific operator-developed MEL information. These are examples only and are not intended to be used or depicted as actual MMEL or MEL procedures.

**B.6.1 Example Provisos.** When an MMEL contains general remarks such as “May be inoperative provided procedures do not require its use” or “May be inoperative or missing if alternate procedures are established and used,” the operator should be specific in the MEL.

- If there are no operator procedures that rely on the item listed in the MMEL, then the MEL may simply state “Procedures do not require its use; may be inoperative,” or similar statement.
- If there are operator procedures that rely on the item listed in the MMEL, then the MEL remark should state the conditions or limitations which apply to operations with that equipment inoperative. For example, “May be inoperative provided overwater operations are not conducted,” or, “May be inoperative provided long-range communications procedures do not require its use.”
- If there are operator procedures that rely on the item listed in the MMEL, but there is alternate equipment which could be used, then the MEL remark should note use of that equipment (and thus, must be operative). For example, “HDG HOLD Mode. May be inoperative provided HDG SEL or LNAV autopilot/flight director mode(s) is operative.”
- There may be cases where the dispatch decision needs to be made by the pilot based on conditions at the departure or destination airport, or along the route of flight. These

conditions could result from Notice to Airmen (NOTAM) information or ground-based equipment outages. These situations would only be known to the pilot when preparing for specific flights; therefore, a more general proviso would be appropriate. For example, “May be inoperative provided departure, en route, or arrival/approach procedures do not require its use.”

- Where the MMEL contains an unconditional statement, such as “May be inoperative or missing,” the MEL may leave the statement unmodified, or even omit the statement if the operator’s procedures or operations do not require the item’s use.

### B.6.2 Example “As Required by 14 CFR” Statements.

**Figure B-1(a). Example MMEL General “As Required by 14 CFR” Statement**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b> XXX1. REPAIR CATEGORY XXX2. NO. INSTALLED XXX3. NO. REQUIRED FOR DISPATCH XXX4. REMARKS OR EXCEPTIONS				
<b>34. NAVIGATION</b>						
Sequence No.	Item	1	2	3	4	Change Bar
33-07	Landing Light	C	-	0	As required by 14 CFR	

**Figure B-1(b). Example MEL Specific “As Required by 14 CFR” Regulatory Reference**

(The operator must carry the 14 CFR part and section on board the aircraft.)

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b> XXX1. REPAIR CATEGORY XXX2. NO. INSTALLED XXX3. NO. REQUIRED FOR DISPATCH XXX4. REMARKS OR EXCEPTIONS				
<b>34. NAVIGATION</b>						
Sequence No.	Item	1	2	3	4	Change Bar
33-07	Landing Light		-	0	<b>14 CFR Reference:</b> 14 CFR 91.205(c)(4) and 91.205(d)(1).	

**Figure B-1(c). Example MEL Specific “As Required by 14 CFR” Regulation**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b>				
		XXX1. REPAIR CATEGORY XXX2. NO. INSTALLED XXX3. NO. REQUIRED FOR DISPATCH XXX4. REMARKS OR EXCEPTIONS				
<b>34. NAVIGATION</b>						
Sequence No.	Item	1	2	3	4	Change Bar
33-07	Landing Light		-	0	<b>14 CFR 91.205(c)</b> For VFR flight at night, the following instruments and equipment are required: <b>(4)</b> If the aircraft is operated for hire, one electric landing light. <b>14 CFR 91.205(d)</b> For IFR flight, the following instruments and equipment are required: <b>(1)</b> Instruments and equipment specified in paragraph (b) of this section, and, for night flight, instruments and equipment specified in paragraph (c) of this section.	

**Figure B-1(d). Example MEL Specific “As Required by 14 CFR” Requirement/Limitation**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b>				
		XXX1. REPAIR CATEGORY XXX2. NO. INSTALLED XXX3. NO. REQUIRED FOR DISPATCH XXX4. REMARKS OR EXCEPTIONS				
<b>34. NAVIGATION</b>						
Sequence No.	Item	1	2	3	4	Change Bar
33-07	Landing Light		-	0	The landing light must be operative for night flight operations if the aircraft is being operated for hire.	

**Note:** Illustrated in the examples above, the MEL will: (1) list the specific 14 CFR part and section and carry the 14 CFR on board the aircraft; (2) state the content of the applicable 14 CFR part and section verbatim; or (3) specify the operational requirements and/or limitations to conduct the flight in accordance with the appropriate 14 CFR.



**B.6.3** Example (M) and (O) Symbols and Procedures.**Figure B-2(a). Example 1 MMEL General Maintenance (M) and Operations (O) Symbols and Provisos**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b> 1. REPAIR CATEGORY 2. NO. INSTALLED 3. NO. REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
<b>78. Engine Exhaust</b>						
Sequence No.	Item	1	2	3	4	Change Bar
-30-01	Thrust Reverser	C	2	0	(M)(O) May be inoperative provided: a) Affected thrust reverser is locked in the forward thrust position, and b) Appropriate performance penalties are applied.	

**Figure B-2(b). Example 1 MEL Specific Maintenance (M) and Operations (O) Symbols, Provisos, and Procedures**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b> 1. REPAIR CATEGORY 2. NO. INSTALLED 3. NO. REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
<b>78. Engine Exhaust</b>						
Sequence No.	Item	1	2	3	4	Change Bar
-30-01	Thrust Reverser		2	0	(M)(O) May be inoperative provided: a) Affected thrust reverser is locked in the forward thrust position, and b) Appropriate performance penalties are applied.	

**Maintenance (M) Procedures**

Lock affected thrust reverser in the forward thrust position in accordance with AMM 78-30-12.

**Operations (O) Procedures**

Refer to AFM Performance Section, Thrust Reverser inoperative for applicable takeoff and landing penalties.

**Note:** AMM 78-30-12 and AFM in the above example are FAA-approved or FAA-accepted manuals.

**Figure B-3(a). Example 2 MMEL General Maintenance (M) and Operations (O) Symbols and Provisos**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b> 1. REPAIR CATEGORY 2. NO. INSTALLED 3. NO. REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
<b>28. FUEL</b>						
Sequence No.	Item	1	2	3	4	Change Bar
28-21-25	XBP Crossfeed Valve	A	2	0	(M) One or more may be inoperative in closed position provided: a) All Booster Pumps are operative, b) Affected XBP Crossfeed Valve is secured in closed position, and c) Repairs are made within 3 consecutive calendar-days.	

**Figure B-3(b). Example 2 MEL Specific Maintenance (M) and Operations (O) Symbols, Provisos, and Procedures**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b> 1. REPAIR CATEGORY 2. NO. INSTALLED 3. NO. REQUIRED FOR DISPATCH				
<b>28. FUEL</b>						
Sequence No.	Item	1	2	3	4	Change Bar
28-21-25	XBP Crossfeed Valve	A	2	0	(M) One or more may be inoperative in closed position provided: a) All Booster Pumps are operative, b) Affected XBP Crossfeed Valve is secured in closed position, and c) Repairs are made within 3 consecutive calendar-days.	

**Maintenance (M) Procedure**

CROSSFEED VALVE IN CLOSED POSITION:

1. Open the door 170AB.
2. Check that the inoperative XBP crossfeed valve (400QS/410QS) is in close position (“C”).

**NOTE: If not, set the valve to close (“C”) using the**

3. Disconnect the electrical connector.
4. Close the door 170AB.

**NOTE: Place inoperative placard near MDU**

**Figure B-4(a). Example 3 MMEL General Maintenance (M) and Operations (O) Symbols and Provisos**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b> 1. REPAIR CATEGORY 2. NO. INSTALLED 3. NO. REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
<b>23. COMMUNICATIONS</b>						
Sequence No.	Item	1	2	3	4	Change Bar
-43-01	Flight Deck to Ground Interphone System	B	1	0	(O) May be inoperative provided alternative procedures are established and used.	

**Figure B-4(b). Example 3 MEL Specific Maintenance (M) and Operations (O) Symbols, Provisos, and Procedures**

AIRCRAFT: (insert aircraft make and model)		<b>TABLE KEY</b> 1. REPAIR CATEGORY 2. NO. INSTALLED 3. NO. REQUIRED FOR DISPATCH 4. REMARKS OR EXCEPTIONS				
<b>23. COMMUNICATIONS</b>						
Sequence No.	Item	1	2	3	4	Change Bar
-43-01	Flight Deck to Ground Interphone System		1	0	(O) May be inoperative provided alternative ground communications procedures are used.	

**Operations (O) Procedure**

(O) May be inoperative provided:

1. Verify to ground crew personnel before main cabin door is closed that ECAM message NW STRG DISC is displayed.
2. Use company hand signals as required. Refer to Ramp Operations Manual, Chapter 1, for a complete list of company hand signals.

**Note 1:** The Ramp Operations Manual in the above example is an FAA-approved or FAA-accepted manual.

**Note 2:** The proviso in the above MEL example was changed from the MMEL proviso because alternative procedures "are established."