

VOLUME 4 AIRCRAFT EQUIPMENT AND OPERATIONAL AUTHORIZATIONS**CHAPTER 4 CONFIGURATION DEVIATION LIST (CDL) AND MINIMUM EQUIPMENT LIST (MEL)****Section 3 MEL Requirements for 14 CFR Parts 91 Subpart K (Part 91K), 121, 125, 125 LODA, and 135 Operations****4-675 GENERAL.**

A. Purpose. This section establishes the Federal Aviation Administration (FAA) Flight Standards (AFS) requirements for approval and oversight of Title 14 of the Code of Federal Regulations (14 CFR) parts 91 subpart K (part 91K), 121, 125, 129, and 135 MELs and MEL management programs.

NOTE: All regulatory references in this section are found in 14 CFR unless otherwise indicated.

B. Scope. This section applies to all parts 91K, 121, 125, 125 Letter of Deviation Authority Holder (LODA), and 135 operations. Portions of this section related only to MEL revision, format, and content (with the exception of repair categories) also apply to parts 91, 137, and 142 MEL requirements.

1) Limited Applicability to Parts 91, 137, and 142 Operators Using an FAA-Approved MEL. Volume 4, Chapter 4, Section 2 contains the majority of information related to parts 91 (with the exception of part 91K), 137, and 142 operators. However, information contained in this section regarding MEL format, content, and revision may also apply to parts 91, 137, and 142 operators who have been issued a Letter of Authorization (LOA) to use an MEL (D095 for parts 137 and 142, and D195 for part 91).

2) Part 129 Foreign Air Carriers or Foreign Persons. The MEL requirements contained in this section apply only to part 129 operations conducted by a foreign air carrier or foreign person using U.S.-registered aircraft in accordance with § 129.14.

C. Terminology Used in this Section.

1) ATA Coded Sections. The use of the term “ATA coded sections” within this section refers to the Air Transport Association of America (ATA) codes which are standardized for each aircraft system. 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 Joint Aircraft System/Component Code (JASC). For additional information on JASC coding, refer to the Federal Aviation Administration Joint Aircraft System/Component Code Table and Definitions, which is accessible via the following Web site: http://av-info.faa.gov/sdrx/documents/JASC_Code.pdf.

2) Certificate Holding District Office (CHDO). Unless otherwise noted, the acronym “CHDO” will be used to describe the AFS field office with oversight responsibility of

an operator's MEL and MEL management program. The acronym "CHDO" applies to a Certificate Management Office (CMO), Flight Standards District Office (FSDO), International Field Office (IFO) or an International Field Unit (IFU).

3) Item. The use of the word "item" throughout this section refers to both instrument and equipment items as applicable.

4) Operations Specification (OpSpec). Unless otherwise noted, the term operation specification (OpSpec) will be used in this section to describe all MEL authorizing documents located in the Web-based Operations Safety System (WebOPSS). An authorizing document in WebOPSS is either a management specification (MSpec) (part 91K), OpSpec (121, 125, 129, and 135), LOA (part 91 operators and 125 LODA holders), or training specification (TSpec) (part 142 training center operators). This section uses the singular term "OpSpec" for simplicity.

5) Operator. Unless otherwise noted, the term "operator" when used in this section, applies to a program manager conducting part 91K operations; a certificate holder conducting part 121, 125, or 135 operations, an LODA holder conducting part 125 operations, and a foreign air carrier or foreign person conducting operations in accordance with § 129.14. This section uses the singular term "operator" for simplicity.

4-676 ADDITIONAL GUIDANCE.

- Guidance related to CDLs is located in Volume 4, Chapter 4, Section 1.
- Guidance related to MELs for aircraft operated in accordance with parts 91, 137, or 142 is contained in Volume 4, Chapter 4, Section 2.
- Guidance related to the nonessential equipment and furnishings (NEF) program is located in Volume 4, Chapter 4, Section 4.
- Guidance related to the Aircraft Evaluation Group (AEG) and the Master Minimum Equipment List (MMEL) development, approval, and revision process is located in Volume 8, Chapter 2, Section 3.
- Guidance related to OpSpec D095 (except for part 129) is located in Volume 3, Chapter 18, Section 6.
- Guidance related to OpSpec D095 for part 129 foreign air carriers and foreign persons operating U.S.-registered aircraft in accordance with § 129.14 is located in Volume 12, Chapter 2, Section 6.

4-677 CHDO RESPONSIBILITIES. The CHDO has the overall responsibility for approval and continuous oversight of MELs and MEL management programs. Principal inspectors (PI) and aviation safety inspectors (ASI) carry out the CHDO responsibility for oversight.

A. Principal Operations Inspector (POI). The POI is the primary FAA official responsible for the overall process of administering, evaluating, and approving an operator's MEL. It is essential that the POI work with the principal maintenance inspector (PMI), the principal avionics inspector (PAI), and other certificate management personnel such as an ASI-Aircraft Dispatcher (ASI-AD) and cabin safety inspector (CSI), throughout the MEL approval, revision, and oversight processes. When POIs require additional technical information

related to a specific MMEL or MEL item, they will consult the AEG Flight Operations Evaluations Board (FOEB) Chair responsible for the aircraft.

B. PMI and PAI. The PMI, in coordination with the PAI, is primarily responsible for authorizing the MEL management program in OpSpec D095, Minimum Equipment List Authorization (see Volume 3, Chapter 18, Section 6 for more information on D095). It is essential that the PMI work together with the POI, PAI, and other certificate management personnel, such as an ASI-AD or CSI, throughout the MEL management program, approval, revision, and oversight processes. If any of the PIs require additional technical information related to a specific MMEL or MEL item, they should consult the AEG FOEB Chair responsible for the aircraft.

C. ASI. ASIs assigned to the CHDO (including ASI-AD and CSI) conduct surveillance of the operator's MEL management program. Before conducting surveillance, all ASIs must have a good understanding of at least the following:

- 1) The definitions of an MMEL and MEL, and understand the difference between the two documents;
- 2) The requirement for an operator to use the MMEL as the basis on which they develop their aircraft-specific MEL and MEL management program;
- 3) The regulatory requirements for MEL use by an operator;
- 4) The MEL definitions and preamble requirements;
- 5) The requirement for an operator to develop specific MEL procedures to replace the general "Remarks or Exceptions" provided in an MMEL;
- 6) The PI responsibilities for approval of the MEL and MEL management program;
- 7) The information required in columns 1, 2, 3, and 4 of the MEL; and
- 8) An operator's requirement to operate each aircraft under all applicable conditions and limitations contained in their MEL and OpSpec D095.

4-678 INSPECTOR ACTIVITY CODES.

A. Program Tracking and Reporting Subsystem (PTRS) Activity Code. The "PTRS Work Activity Pocket Guide" can be downloaded from the following Web site: https://my.faa.gov/content/dam/myfaa/org/linebusiness/avs/it/portal/efsas/efsas_policy/PTRS_Activity_Guide.pdf.

- 1) **Operations:** 1321, 1322, 1372, 1373, and 1622.
- 2) **Maintenance:** 3312, 3313, 3374, 3418, 3419, 3616, and 3627.
- 3) **Avionics:** 5312, 5313, 5373, 5374, 5418, 5419, 5616, and 5627.

B. Activities Recorded in the Safety Assurance System (SAS) (Parts 121 and 135 Only).**1) Operations:**

a) System/Subsystem Performance (SP) Data Collection Tool (DCT) 3.3 Flight Planning and Monitoring.

b) Element Performance (EP) and Element Design (ED) DCT 3.3.4 MEL/CDL/NEF Procedures.

2) Airworthiness:

a) SP DCT 4.3 Maintenance Operations.

b) EP and ED DCT 4.3.3 MEL/CDL/NEF and Other Deferred Maintenance.

NOTE: Never enter the same data into SAS and PTRS.

4-679 BACKGROUND. No person may take off an aircraft with inoperable items unless there is an MEL for the aircraft. An MEL is an FAA-approved document that is developed by an operator. An operator must base their MEL on the MMEL for the aircraft. In addition to the MEL, an operator must develop and maintain an MEL management program for managing the repair of items listed in the MEL. Both the MEL and the MEL management program require OpSpec authorization.

A. Regulatory Requirements for Parts 91K, 121, 125, and 135 Operations. In accordance with §§ 91.1115, 121.628, 125.201, and 135.179, as applicable, no person may take off an aircraft with inoperable items unless there is an FAA-approved MEL for the aircraft. Operators must:

1) Have authorization in OpSpec D095 to conduct operations using the approved MEL;

2) Provide their flightcrews with direct access to the MEL at all times prior to flight; and

3) Provide MEL access to their flightcrews in printed form, or by other means approved by the Administrator, in their OpSpecs.

B. Regulatory Requirements for Operations In Accordance With §129.14. In accordance with §129.14, no foreign air carrier or foreign person may operate a U.S.-registered aircraft with inoperable items unless there is an MMEL for the aircraft type, and the foreign air carrier or foreign person has an FAA-approved MEL that provides for the operation of the aircraft with certain items inoperable. The foreign air carrier or foreign person must have the authorization in OpSpec D095 to conduct operations using the approved MEL, and must carry the OpSpec aboard the aircraft.

C. OpSpec Requirements. Each D095 MEL authorization for parts 91K, 121, 125, 129, and 135 contains the following basic requirements:

- 1) A listing of authorized aircraft;
- 2) Maximum times between deferral and repair (repair categories). Repair category details are discussed in subparagraph 4-684B;
- 3) An MEL management program for managing the repair of the items listed in the FAA-approved MEL. MEL management program requirements are outlined in paragraph 4-686; and
- 4) Conditions for continuing authorization. Continuing authorization is discussed in paragraph 4-687 of this section.

4-680 MMEL. An MMEL is a master list of aircraft items which may be inoperative under certain operational conditions, while maintaining the airworthiness of the aircraft and providing an Acceptable Level of Safety (ALoS). All MMELs are developed and revised by the FOEB, concurred with by FAA Headquarters (AFS-200, Air Transportation Division; AFS-300, Aircraft Maintenance Division; AFS-800, General Aviation and Commercial Division), and approved by the AEG Manager. An MMEL is the document on which an operator must base its MEL.

A. MMEL Characteristics.

1) **Aircraft Type.** The FOEB develops an MMEL for each aircraft type. MMEL relief for a particular item may be unique to a specific aircraft type. Therefore, MMEL relief for an item for one aircraft type may not be the same as the relief allowed for the same item found in another aircraft type.

2) **Items Contained in an MMEL.** An MMEL may contain the following items:

- a) Those considered as part of the type design;
- b) The minimum required for type certification;
- c) The minimum required by the operating rules; and
- d) Any optional items not evaluated in an inoperative condition during type certification flight test.

3) **Items Required by an Airworthiness Directive (AD) are Prohibited.** An MMEL will not include items an AD requires to be operative, unless the AD specifically allows them.

4) **Variable Number of Items Required for Dispatch.** An MMEL may depict a variable number of items required for dispatch based on various makes and models of the same series aircraft.

5) Multiple Versions of the Same Item. An MMEL may contain multiple versions of particular items (e.g., very high frequency (VHF) communications systems, fire extinguishers) which are installed on different models or series of the aircraft covered by the MMEL.

6) Repair Categories. An MMEL will contain a repair category for each item. Each repair category allows for a certain amount of time until repairs must be accomplished.

7) NEF. An MMEL allows operators to provide relief for inoperative NEF items located throughout the aircraft (see Volume 4, Chapter 4, Section 4 for details on the NEF program).

8) Prohibited Items. An MMEL will not include items of the aircraft required by operating regulations (wings, flaps, rudder, etc.).

B. Single-Engine MMEL. The FOEB has developed a generic single-engine MMEL for single-engine, non-turbine powered airplanes. The generic single-engine MMEL is for single-engine airplanes that have not been issued an MMEL specific to its make, model, and series (M/M/S). When a new MMEL is published for a specific M/M/S single-engine aircraft, the operator's MEL must be revised within the timeframe specified in paragraph 4-693 to conform to the new MMEL.

4-681 MEL—GENERAL. An MEL is an operator specific, FAA-approved list of items that may be inoperative during a flight. An MEL constitutes an approved change in the aircraft type design. MEL development is the responsibility of the operator. Each operator must base their MEL on the MMEL applicable to the aircraft M/M/S. An operator's FAA-approved MEL may be more restrictive than the MMEL, but it must never be less restrictive. An operator's MEL is approved by the appropriate CHDO, through the POI.

A. MEL Characteristics. 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. Each operator must consider their particular aircraft configurations and operational procedures. An MEL must be based on the MMEL for the aircraft and will include the characteristics of an MMEL listed in subparagraph 4-680A.

B. Categories of Items.

1) MMEL Items. An MEL must list all of the MMEL items the operator desires relief for, based on their aircraft configuration and operation.

2) NEF (see Volume 4, Chapter 4, Section 4).

3) Administrative Control Items (ACI). An ACI is an item that is not contained in any MMEL. An operator may include an ACI in their MEL for tracking and informational purposes only. An ACI may not provide any kind of MEL relief. However, an operator may list an ACI in their MEL if conditions and limitations providing relief are contained in another approved document (e.g., Structural Repair Manual (SRM)). Operators desiring MMEL relief for an ACI that is not contained in another approved document must submit a request to the FOEB

(see Volume 8, Chapter 2, Section 3 for the FOEB process). If the FOEB approves the item, it becomes an MMEL item as opposed to an ACI. The following requirements apply to ACIs:

- a) The operator's ability to list an ACI in their MEL is at the sole discretion of the POI;
- b) Each ACI is subject to POI approval;
- c) Each ACI must appear in the MEL systems section under the appropriate ATA number section;
- d) An ACI will not have a repair interval category; and
- e) ACI may not contain remarks except reference to another document such as an SRM.

C. MEL Restrictions. An operator's MEL may not deviate from, or be in any way less restrictive (more restrictive is acceptable) than the following:

- 1) The MMEL from which it was developed;
- 2) The CFRs;
- 3) The operator's OpSpec D095;
- 4) The Airplane Flight Manual (AFM) limitations;
- 5) The manufacturer's recommended maintenance procedures, Supplemental Type Certificate (STC)/instructions for continued airworthiness (ICA); or
- 6) Applicable ADs.

D. MEL Conflicts with ADs. Occasionally, an AD may apply 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 that certain installed items be used or be operable, those affected items must be operable, even if the MEL provides for deferral of repair.

4-682 FLEET MEL. An operator develops a fleet MEL for multiple aircraft of the same make and model. When a fleet MEL is used, aircraft of the same make and model may have differing numbers of specific items installed. PIs may approve an operator to use a fleet MEL to reflect all of the items that are applicable to a specific aircraft fleet type. This is allowable provided the MMEL applies all of the M/M/S aircraft contained in the fleet. For example: the MMEL applies to all model B747-100/200/300 aircraft.

A. Identify Each Model and Configuration Difference. A fleet MEL must identify each aircraft model and configuration difference, when appropriate. The operator does not need to list aircraft identification numbers.

B. 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 may only be accomplished through an STC, an engineering order, or other approved maintenance procedures. An STC for additional installed items must document any applicable MEL relief. Operators with an approved 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 an appropriate revision to the fleet MEL has been approved.

C. OpSpecs and Manuals. The operator's OpSpec D095 and appropriate company manuals, such as the maintenance manual, must list aircraft M/M/S for each fleet MEL approval.

4-683 MEL FORMAT OUTLINE. 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 MMEL format outline contains eight sections. An MEL must always include six of those sections. The eight MEL format sections are as follows, each optional and required section is labeled accordingly:

NOTE: The operator may include additional information sections in addition to the ones listed.

A. Cover Page (optional). The cover page format and information may be the same as the MMEL. If a cover page is used, it is suggested that the MMEL revision on which the MEL is based is included. The operator may include additional information in the control page to provide flexibility and additional approval functions.

B. Table of Contents (required). The table of contents is a list of all of the pages in the MEL by title and the corresponding page identification. The format varies due to operator formatting preferences.

C. Log of Revisions (required). The log of revisions contains the revision identification (usually a number) and the date of the revision. 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.

D. Definitions (required). Not all of the MMEL 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 an MMEL definition may be edited and/or not required, but the intent of the definition must be the same and cannot be less restrictive than the MMEL. Definitions of the terms used in MMELs and MELs are found in MMEL Policy Letter (PL)-025. All MMEL PLs are found within the FAA Flight Standards Information Management System (FSIMS) Web site under active publications – MMEL & AEG Guidance Documents.

E. Preamble (required). The standard MMEL preamble must be reproduced verbatim in each MEL, without modification, using the policy requirements found in FAA MMEL PLs.

NOTE: Operators conducting part 121, 125, 125 LODA, 129, or 135 operations will use the preamble contained in MMEL PL-034.

F. Control Page (required). The control page is used for keeping track of the status of the MEL and includes a record of the revision status or the date of each page of the operator's MEL. It may also be used as a means of conveying FAA approval of the MEL. At a minimum, the control page must contain:

- 1) The operator's name;
- 2) A listing of all of the pages in the MEL (including the date of each page and its number or revision number);
- 3) The MMEL revision number on which the MEL is based; and
- 4) A signature block containing space for signature of the POI (required only if this page is used as a means of conveying FAA approval of the MEL).

G. Highlights of Change Page (optional). This page list contains a summary of the changes made by the operator in each revision.

H. MMEL ATA Coded Sections (required). Each MEL must contain the MMEL ATA coded sections.

4-684 MEL CONTENTS. In addition to the required MEL format items, an operator's MEL must include specific content based on the items installed on the operator's aircraft. An operator's MEL should incorporate the phraseology used in the MMEL, wherever appropriate, to ensure clarity and standardization.

A. MEL ATA Coded Sections. The MEL ATA coded system sections will include a list of individual items in the aircraft, together with requirements for operation when the items are inoperative. Each system sequence will be further broken down into individual item numbers along with repair interval categories.

1) System & Sequence Item Numbers. Operators should use the ATA system sequence numbering system. The ATA numbering system provides an industry-wide standard for numbering aircraft systems and is relevant for all aircraft.

2) Individual Item Numbers.

a) Individual item numbers are not required to match ATA system and sequence item numbers. The operator may use their own numbering system to identify individual items as appropriate.

b) A triple asterisk (***) below the system number in column 1 of an MMEL indicates that 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. Operators will replace the symbol with a system sequence number if the CHDO determines that the item has been installed on one or more of the operator’s aircraft.

c) If an operator does not list a particular MMEL item in its MEL, that item is not subject to MEL relief and must be fully operative at takeoff.

d) 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 may never be less restrictive than the MMEL.

e) Operators will typically list an MEL item exactly as it is shown in the MMEL. Some exceptions may include the following:

1. If an MMEL uses a generic term to describe a particular item an operator may use different terminology to describe the item, provided the operator’s terminology is recognizable and easily identified with the corresponding MMEL item.

2. When an MEL item (e.g., an autopilot or satellite communications system) contains multiple components (e.g., switches or lights). Those components may be listed separately following the item in the MEL. For example, if a particular item has a switch, an operator could list that switch as an item on its MEL. This would allow just the switch to be inoperative. If the switch was not listed on the MEL and it became inoperative, the operator could not defer the switch individually. Instead, the autopilot itself would likely have to be deferred. PIs must ensure that operators do not list inappropriate or duplicate items, or items that are listed individually elsewhere in the MMEL. Additionally, individual components of an MMEL or MEL item may not be listed as NEF.

B. Repair Categories. Each item listed in an MEL (excluding NEF items or ACI) must include a repair category designator as depicted in the MMEL. Repair categories represent the maximum time interval during which an item may be inoperative before repairs are made. When an item becomes inoperative and the operator defers repair based on the MEL, the operator must make repairs within the amount of time specified by the associated repair category designator. The requirement to comply with repair categories is found in the applicable D095. Maximum repair time intervals are represented by repair categories “A”, “B”, “C”, and “D”. Operators may adopt repair intervals that are more restrictive than what is depicted in the MMEL (e.g., an operator could make an MMEL category C item an MEL category B item). Operators may never use a repair category that is less restrictive than the MMEL.

1) Repair Category A. Repair category A items are part of the aircraft type design requirements, or serve critical operational functions. Repair category A items often affect the operational capability of an aircraft or the operator’s ability to comply with operational regulations. Therefore, repair category A items are typically the most restrictive and time limited.

a) **Repair Interval.** The repair time intervals for repair category A items vary by item. The repair time interval will be specified in the “Remarks or Exceptions” column of the

operator's MEL. For time intervals specified in "calendar-days" or "flight days," the day the malfunction was recorded in the aircraft maintenance record/logbook is excluded. This day is known as "The Day of Discovery" and is defined in MMEL PL-025. For all other time intervals (e.g., cycles, hours), repair tracking begins at the point when the malfunction is discovered and recorded.

b) Extension. An operator may not extend a repair category A item. In extremely rare situations only (e.g., aircraft grounded because of volcanic ash and cannot make it to a repair facility within the required time interval), an operator may request an extension of a category A item, from AFS-200 and AFS-300, through the CHDO and the regional Flight Standards division (RFSD). This is allowable provided the item is not a time-limited dispatch item. Time-limited dispatch items are limited by a specific number of engine hours or aircraft cycles, and may never be extended. Additionally, in most cases, AFS-200 and AFS-300 will not approve the extension of a repair category A item due solely to lack of parts availability. The process for obtaining headquarters (HQ) approval to extend a repair category A item is as follows:

1. The operator submits its request to the CHDO, along with supporting documentation to justify an extension of a repair category A item.
2. The PIs will review the request and verify that it does not conflict with any of the following:
 - 14 CFR requirements.
 - Limitations that affect emergency procedures.
 - AFM limitations.
 - AD limitations.
 - Aircraft manufacturer limitations.
 - Time Limited Dispatch Requirements.
3. If the PIs concur with the request, the CHDO will submit the request to the RFSD.
4. The RFSD will review the request and forward it to AFS-200 and AFS-300 only if the RFSD Manager concurs with the request.
5. Upon receiving the request, AFS-200 and AFS-300 will coordinate with any other appropriate FAA HQ policy divisions such as the International Programs and Policy Division (AFS-50), the Flight Technologies and Procedures Division (AFS-400), and the General Aviation and Commercial Division (AFS-800), as appropriate.
6. If AFS-200 and AFS-300 determine an extension is warranted, the Division Managers will grant approval via memo to extend the item.
7. The operator must comply with all of the requirements of the approval prior to extension of the repair category A item.

2) Repair Category B. Repair category B items are part of the aircraft type design requirements or required operational functions. These items often affect the operational capability of an aircraft or the operator's ability to comply with operational regulations.

a) **Repair Interval.** All repair category B items must be repaired (repair interval) within 3 consecutive calendar-days (72 hours, recorded in either universal coordinated time (UTC) or local time) excluding the day the malfunction was recorded in the aircraft maintenance record/logbook (Day of Discovery). For example, if a repair category B item was recorded at 10:00 a.m. on January 26th, the 3-day interval would begin at midnight on January 26th and end at midnight on January 29th.

b) **Extension.** The operator may exercise a single extension to repair category B items in accordance with the D095 Continuing Authorization—Single Extension.

3) Repair Category C. Repair category C items may be part of aircraft type design requirements. A repair category C item does not significantly affect the operational capability of an aircraft or compliance with operational regulations on a particular flight. These items may impose limitations to a flight such as altitude restrictions, minimum or maximum operating temperature, or fuel penalties.

a) **Repair Interval.** Repair category C items must be repaired within 10 consecutive calendar-days (240 hours, recorded in either UTC or local time) excluding the day the malfunction was recorded in the aircraft maintenance record/logbook (Day of Discovery). For example, if a repair category C item was recorded at 10:00 a.m. on January 26th, the 10-day interval would begin at midnight on January 26th and end at midnight on February 5th.

b) **Extension.** The operator may exercise a single extension to repair category C items in accordance with the D095 Continuing Authorization—Single Extension.

4) Repair Category D. Repair category D items are typically considered “excess items” installed at the discretion of the operator. These items may be installed on some models of aircraft and are not required by operating regulations. Excess items have design approval but are not type design requirements and do not typically provide required operational functionality.

a) **Repair Interval.** Repair category D items must be repaired (repair interval) within 120 consecutive calendar-days (2,880 hours), excluding the day the malfunction was recorded in the aircraft maintenance log and/or record (Day of Discovery).

b) **Extension.** Operators may not extend repair category D items. An operator may request an extension of a repair category D item from AFS-200 and AFS-300, through the CHDO and the RFSD. Operators will submit their request to the CHDO along with supporting documentation to justify an extension of a repair category D item (e.g., aging aircraft part unavailability). The CHDO will review the request and follow the same process for requesting extensions to repair category A items. This process is contained in subparagraph 4-684B1)b).

C. 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. This number typically represents the aircraft configuration used to develop the aircraft MMEL.

1) Variable Number Installed. A dash (-) for number installed indicates a variable number (quantity) of the installed item. Use of a (-) is common in fleet MELs where aircraft of the same make and model have differing numbers of specific items. Additionally, operators may use a (-) if it is impractical to show the actual number of the specific items (e.g., light bulbs, light emitting diodes (LED)) installed on the aircraft.

2) Items Listed on the MMEL but Not Installed on the Aircraft. An operator's MEL does not have to list items that are included in the MMEL, but not installed on the operator's aircraft. For number continuity in an MEL, operators can consider the following options:

a) An operator may simply omit the item from the MEL altogether and renumber the individual items within an ATA category as necessary to provide continuity.

NOTE: Individual item numbers in an MMEL are not necessarily ATA code numbers, but are simply sequential item numbers within an ATA category.

b) The operator may 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.

D. Number Required for Dispatch. The "Number Required for Dispatch" column of an MEL reflects the minimum number (quantity) of items required, 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:

1) 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 for dispatch;

2) The "Number Required for Dispatch" is followed by a (-) in the MMEL;

3) Where the MMEL shows a dash (-) required for dispatch, the MEL may reflect the actual number required for dispatch. Fleet configuration differences and the dispatch requirements must be specified in the "Remarks or Exceptions" section; and

4) The number required for dispatch in the MEL is not less restrictive than the MMEL.

E. Remarks or Exceptions. The "Remarks or Exceptions" column includes the maintenance (M) and operations (O) indicators, a statement either prohibiting or permitting operation with a specific number of items inoperative and provisos appropriate notes. An MMEL contains general "Remarks or Exceptions" for items that are required by 14 CFR or a particular type of operation and/or which require specific procedures when the item becomes inoperative. MMEL "Remarks or Exceptions" are intentionally general to accommodate a variety of operators and operating rules. In an MEL, "Remarks or Exceptions" may not be general. Each operator must expand the MMEL general "Remarks or Exceptions" to include specific 14 CFR

requirements and procedures for operating when items are inoperable. Paragraph 4-685 contains details on the requirements for MEL “Remarks or Exceptions.”

F. (M) and (O) Procedures. The presence of (M) and (O) symbols in the MEL indicates a specific (M) or (O) procedure is required to be accomplished.

NOTE: Manufacturers may produce manuals of recommended procedures for inoperative items. The FOEB normally considers these procedures when developing the MMEL. When a manufacturer recommended procedure exists, the operator may use it as published, or develop equivalent procedures for their MEL.

1) (M) Procedures. The (M) symbol indicates a specific maintenance procedure that must be accomplished prior to operation when the item becomes inoperative. (M) procedures should be accomplished by the appropriately qualified maintenance personnel. Depending on the complexity of the procedures, an operator may authorize other personnel (e.g., a flightcrew member) with the appropriate qualifications to perform (M) procedures. Only appropriately qualified maintenance personnel may conduct procedures requiring specialized knowledge or skill, or requiring the use of tools or test equipment.

a) The operator is responsible to ensure all (M) procedures are accomplished in accordance with the MEL, regardless of who performs them.

b) The (M) procedures must either be fully depicted in the operator’s MEL or contained in another operator manual provided that specific reference to the manual containing the procedures is referenced in the MEL.

c) Any MEL procedure that is contained in a manual other than the MEL is subject to FAA approval and is part of the operator’s MEL management program.

NOTE: See subparagraph 4-685B for more information on the MEL referencing separate documents.

2) (O) Procedures. The (O) symbol indicates a specific operations procedure which must be accomplished during planning and/or operating when the item is inoperative. These procedures may be required for flight planning purposes, or they may require action by the flightcrew. Additionally, MEL items that affect the aircraft Weight and Balance (W&B) and cargo loading may require procedures for additional personnel such as those involved with aircraft load control.

a) The operator is responsible to ensure all (O) procedures are accomplished with accuracy in accordance with the requirements of the MEL.

b) (O) procedures must be fully depicted in the MEL or contained in another operator manual provided that specific reference to that manual containing the procedures is referenced in the MEL.

c) Any MEL procedure that is contained in a manual other than the MEL is subject to FAA approval and is part of the operator’s MEL management program.

NOTE: See subparagraph 4-685B for more information on the MEL referencing separate documents.

3) Operator Developed (M) and (O) Procedures. When operators are required to develop (M) or (O) procedures based on MMEL general “Remarks or Exceptions”, or if an operator elects to expand beyond what is required by a specific MMEL (M) or (O) procedure, the following conditions apply:

- a) The (M) and (O) procedures are not in any way less restrictive than what is required by the (M) and (O) procedures contained in the MMEL.
- b) The (M) and (O) procedures are appropriate for the type of operation to which they apply. This is particularly important if an operator seeks the help of a contract entity to develop the procedures.
- c) The (M) and (O) procedures can be easily followed by the appropriate personnel.

G. Provisos. Provisos are conditions or limitations that must be complied with for operation with the item inoperative. A proviso limits the conditions under which items may be inoperative. Provisos are indicated in an MEL and, if more than one applies, are listed by a number or a lowercase letter. For example, a proviso may allow an item to be inoperative provided the airplane is not operated in Extended Operations (ETOPS). Or, a proviso may require that an airplane only be operated under visual flight rules (VFR) when a particular item is inoperative.

H. Notes. MMEL notes provide additional information to the operator to assist with regulatory compliance.

- 1) An MMEL note may contain a suggestion to aid with compliance such as, “The operator’s alternate procedures should include reviewing windshear avoidance and windshear recovery procedures.”
- 2) An MMEL note may be more specific such as: “Flight level (FL) 310 or below must be maintained if normal operating pack fails.”
- 3) Notes do not relieve the operator of the responsibility for compliance with all applicable requirements.
- 4) 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.

I. Definitions. MMEL and MEL definitions are contained in MMEL PL-025. Operators must include these definitions in their MEL. An operator may omit MMEL definitions that do not apply to their operation. Operators may tailor definitions, as appropriate, based on their make/model of aircraft, type of installed items, and specific operation. However, the intent of the definition must be the same and cannot be less restrictive than the MMEL PL-025 definitions.

J. The Phrase “As Required by 14 CFR” or Any Similar Statement is Prohibited in an MEL. This phrase (or similar ones) may appear in the MMEL general “Remarks or Exceptions”. Operators may never carry this phrase over to an MEL.

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

1) Where this statement or similar such statements are included in the MMEL, the operator must replace the statement with specific regulatory references or conditions under which an item may be inoperative.

2) When listing specific regulatory references, the operator must include clarification of the specific regulatory requirement.

3) The operator must research regulatory requirements in detail in order to develop the appropriate MEL language, conditions, and limitations. MMEL PL-025, Appendix A, contains a list of regulatory references according to ATA section. This list is not all-inclusive. However, operators may find this list helpful in identifying the appropriate regulation when developing their MEL specific “Remarks or Exceptions”. See paragraph 4-685 for detailed information on MEL “Remarks or Exceptions” requirements.

4-685 MEL “REMARKS OR EXCEPTIONS” REQUIREMENTS. Each MEL must contain detailed procedures and 14 CFR compliance requirements based on the general “Remarks or Exceptions” contained in the MMEL.

A. Must be Defined. In an MEL, the operator must expand on MMEL general “Remarks or Exceptions” and include specific procedures in accordance with the requirements of the operating rules (e.g., parts 91K, 121, 135) under which the operator conducts their operation. The procedures must address what is required when a particular item is inoperative. The following phrases are examples of MMEL general “Remarks or Exceptions” that may not be included in an MEL. POIs may not approve an MEL that contains these phrases:

- 1) “May be inoperative provided procedures do not require its use.”
- 2) “May be inoperative or missing if alternate procedures are established and used.”
- 3) “May be inoperative unless required by 14 CFR” or “As required by 14 CFR.”

B. Must Be Specific. An operator’s MEL “Remarks or Exceptions” must contain specific procedures, requirements, and conditions that apply when a particular item is inoperative. PIs must ensure that each MEL “Remarks or Exceptions” contains enough information to adequately and safely address operations with the item inoperative.

1) **Operator Specific Procedures.** An MEL must contain operator specific procedures that are required to be followed when an item is inoperative.

2) Reference to Another FAA-Approved or FAA-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. For example, a “Remarks or Exceptions” containing (O) procedures could reference the section and paragraph of the Flight Operations Manual (FOM) or AFM that contains the specific procedure required to comply with the MEL. For “Remarks or Exceptions” containing (M) procedures, an operator could include language that instructs maintenance personnel to perform a particular task or check in accordance with a specific chapter, section, task, or paragraph of the Aircraft Maintenance Manual (AMM) (see figures 4-48 and 4-49 for examples). MEL “Remarks or Exceptions” listing manual references that contain MEL procedures is an acceptable alternative to listing the actual procedures themselves, provided the following conditions are met:

- a) Manual references and procedures must be current to the latest revision.
- b) Referenced manual procedures become FAA-approved MEL procedures. Any time an operator includes a reference to a manual containing an MEL procedure as opposed to including the actual procedure in the MEL itself, the specific chapter, section, and/or task in the manual containing the procedure, as referenced in the MEL, is subject to FAA review and ultimately becomes the approved procedure to meet the requirements of the MEL. This approval applies only to the procedure(s) being referenced and does not constitute approval of the manual containing the procedure(s).
- c) Any changes to MEL procedures must be FAA-approved. Each operator must have procedures in their MEL management program for submitting all changes to FAA-approved MEL procedures to the FAA for approval. The FAA-review and approval of all changes is to ensure that the procedure(s) continue to meet the intent of the MEL.
- d) Any manual or document containing MEL procedures must be listed in the MEL. If an operator desires to list manual references in its FAA-approved MEL in lieu of including the MEL procedures in their entirety, then the operator must list every manual or document in the “Remarks or Exceptions” column that includes the procedures necessary to comply with the MEL requirements.

3) Specific 14 CFR Requirements. MEL items based on MMEL items that may be inoperative unless required by 14 CFR must contain details related to the appropriate regulatory requirements. For example, an MMEL general “Remarks or Exceptions” for distance measuring equipment (DME) says “As required by 14 CFR”. An appropriate MEL “Remarks or Exceptions” should say “May be inoperative provided flight remains below FL 240”. Any time regulatory requirements or applicability are in question, PIs must thoroughly review the regulations in question to affirm applicability and the MEL’s compliance with the regulatory requirements.

NOTE: The following figures, 4-42 through 4-49, are examples demonstrating the differences between an MMEL general “Remarks or Exceptions” versus a specific MEL “Remarks or Exceptions”. These are examples only and are not intended to be used or depicted as actual MMEL or MEL “Remarks or Exceptions” provisos.

Figure 4-42. MMEL General “Remarks or Exceptions”

SYSTEM & SEQUENCE NUMBERS			1.	REPAIR CATEGORY	
ITEM				2.	NUMBER INSTALLED
				3.	NUMBER REQUIRED FOR DISPATCH
				4.	REMARKS OR EXCEPTIONS
34 NAVIGATION					
-43-1	Weather Radar System	C	2	0	(O) May be inoperative provided: a) Weather radar is not required by 14 CFR, and b) Reactive windshear alert (GPWS Mode 7) operates normally.

Figure 4-43. MEL Specific “Remarks or Exceptions”

SYSTEM & SEQUENCE NUMBERS			1.	REPAIR CATEGORY	
ITEM				2.	NUMBER INSTALLED
				3.	NUMBER REQUIRED FOR DISPATCH
				4.	REMARKS OR EXCEPTIONS
34 NAVIGATION					
-43-1	Weather Radar System	C	2	0	(M) (O) May be inoperative provided: a) Flight is not dispatched under IFR or night VFR conditions when current weather reports indicate that thunderstorms, or other potentially hazardous weather conditions that can be detected with airborne weather radar, may reasonably be expected along the route to be flown, and b) Reactive windshear alert (GPWS Mode 7) operates normally.

Figure 4-44. MMEL General “Remarks or Exceptions”

SYSTEM & SEQUENCE NUMBERS			1.	REPAIR CATEGORY	
ITEM				2.	NUMBER INSTALLED
				3.	NUMBER REQUIRED FOR DISPATCH
				4.	REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
-43-01	Flight Deck To Ground Interphone System	B	1	0	(O) May be inoperative provided alternate procedures are established and used.

Figure 4-45. MEL Specific “Remarks or Exceptions”

SYSTEM & SEQUENCE NUMBERS			1.	REPAIR CATEGORY	
ITEM				2.	NUMBER INSTALLED
				3.	NUMBER REQUIRED FOR DISPATCH
				4.	REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
-43-01	Flight Deck To Ground Interphone System	B	1	0	(O) May be inoperative provided the following procedures are followed: a) Verify to ground crew personnel before main cabin door is closed that ECAM message NW STRG DISC is displayed. b) Use company hand signals as required (see Ramp Operations Manual Chapter 1 for a complete list of company hand signals).

Figure 4-46. MMEL General “Remarks or Exceptions”, “As Required by 14 CFR”

SYSTEM & SEQUENCE NUMBERS			1.	REPAIR CATEGORY	
ITEM				2.	NUMBER INSTALLED
				3.	NUMBER REQUIRED FOR DISPATCH
				4.	REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
-73-1	Ozone Converters Passenger	C	2	0	As required by 14 CFR.

Figure 4-47. MEL Specific “Remarks or Exceptions” With 14 CFR References

SYSTEM & SEQUENCE NUMBERS			1.	REPAIR CATEGORY	
ITEM				2.	NUMBER INSTALLED
				3.	NUMBER REQUIRED FOR DISPATCH
				4.	REMARKS OR EXCEPTIONS
21 AIR CONDITIONING					
-73-1	Ozone Converters Passenger	C	2	0	(O) One or both may be inoperative provided the aircraft is not operated above FL 320. 14 CFR REFERENCE: 14 CFR §121.578, Cabin Ozone Concentration.

Figure 4-48. MEL Specific “Remarks or Exceptions”, Manual Reference used for (O) Procedure

SYSTEM & SEQUENCE NUMBERS			1.	REPAIR CATEGORY	
ITEM				2.	NUMBER INSTALLED
				3.	NUMBER REQUIRED FOR DISPATCH
				4.	REMARKS OR EXCEPTIONS
23 COMMUNICATIONS					
-43-01	Flight Deck To Ground Interphone System	B	1	0	(O) May be inoperative provided the procedures contained in GOM Chapter 3, Section 2, are followed.

Figure 4-49. MEL Specific “Remarks or Exceptions”, Manual Reference used for (M) Procedure

SYSTEM & SEQUENCE NUMBERS			1.	REPAIR CATEGORY	
ITEM				2.	NUMBER INSTALLED
				3.	NUMBER REQUIRED FOR DISPATCH
				4.	REMARKS OR EXCEPTIONS
26 FIRE PROTECTION					
-43-01	APU Fire Extinguisher Discharge Discs	C	2	0	(M) Discs may be missing provided bottle integrity is verified by weighing the bottle once each flight day (Ref. AMM 26-22-11).

4-686 MEL MANAGEMENT PROGRAM REQUIREMENTS. Each operator must develop and maintain a comprehensive program for managing the repair of items listed in the FAA-approved MEL. An MEL management program is required by OpSpec D095, which the FAA issues to authorize an operator to use an MEL. Each operator must describe their MEL management program in a document or manual (e.g., Maintenance Program or Maintenance Manual).

A. OpSpec D095 Requirements. Each MEL management program must include the following:

1) Method of Tracking. Each MEL management program must have a method for tracking the date and, when appropriate, the time an item was deferred and subsequently repaired. The tracking method must include a supervisory review of:

- a) The number of deferred items per aircraft; and
- b) Each deferred item to determine:
 - 1. The reason for any delay in repair;
 - 2. The length of delay; and
 - 3. The estimated date the item will be repaired.

2) A Plan for Repair. Each MEL management program must contain a plan for bringing together parts, tools, maintenance personnel, and aircraft at a specific time and appropriate facility for repair.

3) A Plan for Review. Each MEL management program must include a plan for the review of items deferred because of the unavailability of parts to ensure that a valid back order exists with a firm delivery date.

4) Duties and Responsibilities. Each MEL management program must include a description of specific duties and responsibilities, by job title, of personnel who manage the program.

5) Procedures for Controlling Extensions. Each MEL management program must have procedures for controlling extensions to specific maximum repair intervals (if permitted), to include the limit of the extension and the procedures to be used for authorizing continuing authorization-single extensions.

B. Additional Requirements. In addition to the requirements of OpSpec D095, each MEL management program must contain procedures that:

1) Address item failure that occurs after an aircraft leaves the gate or ramp area, but prior to takeoff; and

2) Address how changes and revisions to procedures found in manuals, and referenced in the MEL, are identified, tracked, and communicated to the POI and PMI for review and re-approval.

C. Time Allowance for Foreign Air Carriers and Foreign Persons Operating U.S.-Registered Aircraft (§ 129.14). Each foreign air carrier and foreign person operating a U.S.-registered aircraft in accordance with § 129.14 has 6 months from the date of application for an FAA-approved MEL, to develop and submit their MEL management program. The FAA will not issue OpSpec D095 to authorize the foreign air carrier or foreign person to use an MEL unless the FAA determines that the MEL management program is satisfactory.

4-687 CONTINUING AUTHORIZATION-SINGLE EXTENSION. OpSpec D095 for parts 91K, 121, 125, 125 LODA, 129, and 135 authorizes an operator to use a continuing authorization-single extension to approve a single, one-time extension to the repair interval for repair category B and C items, as specified in the FAA-approved MEL.

A. Procedures for Controlling Extensions. OpSpec D095 requires each operator's MEL management program to contain procedures for controlling extensions to item repair intervals. Procedures must include the limitations of each extension and the method by which the operator approves a continuing authorization-single extension.

B. Operator Extensions to Repair Category A and D Items are Not Authorized. An operator is not authorized to use a continuing authorization-single extension for repair category A or D items.

C. Repair Category B and C Items Only. OpSpec D095 allows the operator to approve a one-time continuing authorization-single extension of repair category B or C items only.

D. Operator Notification to CHDO Within 24 Hours. The operator must notify the CHDO within 24 hours of approving a continuing authorization-single extension.

E. Additional Extensions. Only the PIs can approve additional extensions of repair category B and C items after the operator has exercised the one-time continuing authorization-single extension privilege.

1) PIs will consider requests for an additional extension on a case-by-case basis only.

2) If a PI elects to approve an additional extension, the additional extension time period begins at the end of the current extension time period.

3) The maximum length of time a PI may approve for an additional extension may not exceed the original repair category time interval (e.g., repair category B is 3 days; repair category C is 10 days).

4) Any additional extensions beyond the initial PI-approved extension must be evaluated by the POI, PMI, PAI, and any other appropriate ASI (e.g., ASI-AD or CSI),

depending on the item. All additional extensions must be approved in writing by both the POI and PMI or POI and PAI, as appropriate.

5) If an operator requests any additional extension beyond the joint POI and PMI/PAI written extension approval, it must be evaluated and ultimately approved by the RFSD.

F. Operator-Approved Extensions May Only be Equivalent to a Single Repair Interval. Each extension to a repair interval may not exceed the time of original repair interval. For example: a repair category B item with a repair interval of 3 consecutive calendar-days may only be extended up to an additional 3 consecutive calendar-days. A repair category C item with a 10 consecutive calendar-day repair interval may only be extended by another 10 consecutive calendar-days.

G. The CHDO May Suspend or Withdraw the Operator's Authority to Use the Continuing Authorization-Single Extension Privilege. An operator must not abuse the continuing authorization-single extension privilege, or use it indiscriminately because of maintenance program and/or MEL management program shortcomings. If the CHDO determines that the operator is abusing the use of the continuing authorization-single extension privilege, the CHDO may suspend or withdraw the operator's authority to exercise this privilege. Suspension or withdrawal of this privilege will be accomplished through nonstandard text in OpSpec D095. All nonstandard OpSpec text requires approval from the appropriate FAA HQ policy division. The following conditions apply:

- 1) There must be documented evidence of the abuse.
- 2) The CHDO must follow the requirements contained in § 119.51 for amending an operator's OpSpecs.
- 3) The CHDO must follow the instructions contained in Volume 3, Chapter 18, Section 2, paragraphs 3-712 and 3-713, for obtaining HQ approval to issue nonstandard text into an OpSpec. For the purposes of removing authority in D095, the appropriate HQ policy divisions are AFS-200 and AFS-300.

H. Additional Part 129 Requirements. Foreign air carriers and foreign persons conducting operations in accordance with § 129.14 must carry a copy of the MEL extension approval on board each applicable U.S.-registered aircraft.

4-688 CONDUCTING OPERATIONS WITH INOPERABLE ITEMS—ALL OPERATIONS. It is critical that PIs, ASIs, operators, flightcrew, and operational control and maintenance personnel clearly understand the regulatory requirements associated with conducting operations with inoperative items.

A. Applicability of MEL. MEL relief may be applied to an MEL item newly identified as inoperative up until the point an aircraft is 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.

B. Item Failures after Gate or Ramp Departure, During Push-Back, Taxi, and Prior to Takeoff—General. PIs must ensure that the operator’s MEL management program contains the policy and procedures required to:

- 1) Address item failures that occur after an aircraft leaves the gate or ramp area, during pushback, taxi, and prior to takeoff. If the MEL procedures for that item require a mechanic’s inspection, takeoff would be prohibited until the required inspection is completed.
- 2) Ensure an aircraft does not take off with inoperable items until the MEL deferral process has been completed.

C. Item Failures after Takeoff—General. MEL relief does not apply for item failures occurring after takeoff. After takeoff, flightcrews will handle item failures in accordance with the Aircraft Flight Manual (AFM), and the operator’s approved procedures and checklists. However, any item failure that occurs while a flight is en route must be addressed prior to the next time the aircraft departs.

4-689 OPERATIONAL REQUIREMENTS—PART 121 OPERATIONS.

A. Verification of Aircraft Airworthiness. Section 121.605 prohibits any person from dispatching or releasing an aircraft unless it is Airworthy. In this case the operator, the pilot in command (PIC), the aircraft dispatcher (domestic and flag), or person authorized to exercise operational control by the operator (supplemental) are all responsible for ensuring the aircraft is dispatched or released in an Airworthy condition. Each operator must provide a method for aircraft dispatchers and other persons authorized to exercise operational control to fulfill their regulatory responsibility to ensure an aircraft is not dispatched or released unless it is Airworthy. This is often accomplished through the use of a maintenance control organization that is responsible for verifying airworthiness and providing MEL information to the dispatcher or person authorized to exercise operational control before the aircraft is entered into service and prior to departure.

B. Information to PICs, Dispatchers, and Operational Control Personnel. Each operator must have policies and procedures that ensure all applicable MEL information is made available to the PIC, the aircraft dispatcher, and authorized operational control personnel prior to the aircraft’s gate or ramp departure, push-back, or taxi from parking.

C. Dispatch or Flight Release Requirements. In part 121 operations, both a dispatch and a flight release specify the conditions for origination or continuation of a particular flight. For this reason, the MEL information must be included on the dispatch or flight release. The operational flight plan must account for any operational limitations, such as aircraft or flight restrictions, imposed by the conditions or limitations of an MEL. Examples of operational limitations include, but are not limited to:

- 1) Altitude restrictions.
- 2) Cabin pressure limitations.
- 3) Temperature limitations.

- 4) Performance capabilities.
- 5) Weight restrictions.
- 6) Fuel penalties and limitations.
- 7) Navigational limitations.
- 8) Communication limitations.
- 9) Weather restrictions (including ice and rain limitations).
- 10) Cargo loading (including locks and nets) and/or cargo heating limitations.
- 11) Flight control limitations.
- 12) Landing gear restrictions, including breaking and steering.
- 13) Auto flight capabilities.
- 14) Electrical power limitations.
- 15) Extended Range (ER) limitations (when applicable).
- 16) Extended Operations (ETOPS) limitations.
- 17) Lighting restrictions.
- 18) Oxygen system limitations.
- 19) Information system limitations.
- 20) Auxiliary power limitations.

D. Item Failures that Occur After the Issuance of a Dispatch or Flight Release. POIs must ensure that an operator has policies and procedures in place that require the dispatcher, person authorized to exercise operational control, and/or the PIC, to amend the dispatch or flight release when an MEL item is applied after a dispatch or flight release has been issued. The procedures must include requirements to update the flight plan whenever operational limitations are imposed by an MEL.

E. Item Failures that Occur After an Aircraft Departs the Gate or Ramp Area, During Push-Back, Taxi, or Prior to Takeoff. POIs must ensure that each operator's MEL management program includes procedures for the PIC to communicate with the aircraft dispatcher or person authorized to exercise operational control (supplemental operations) and the maintenance organization to review the situation and determine which of the following actions is required:

1) Return for Repairs. If an inoperative item is not included in the MEL, or the inoperative item could affect the safety of flight due to circumstances such as weather and hazards en route, performance, W&B, or fuel limitations, the aircraft must return to the gate or ramp area for repairs.

2) Return to Accomplish (M) and (O) Procedures. PICs, dispatchers, or persons authorized to exercise operational control may determine that an inoperative item may be deferred and the appropriate (M) and/or (O) procedures accomplished in accordance with the operator's approved MEL and MEL management program.

3) Flightcrew Accomplishment of Certain MEL Procedures. POIs may approve procedures that permit flightcrew members to accomplish certain MEL deferrals in coordination with the operator's dispatch and maintenance organization, without returning to the gate or ramp area. These procedures must be part of the operator's FAA-approved MEL management program.

a) POIs must coordinate with the PMI and PAI to approve such procedures.

b) POIs must not approve these types of procedures unless they contain enough detail to ensure that all of the applicable (M) and/or (O) procedures are accomplished by appropriately qualified personnel. Additionally, the operator's procedures must ensure that all conditions and limitations associated with an MEL item are satisfied.

c) Coordination between flightcrews and the maintenance organization must not involve directed troubleshooting or other forms of system fault diagnosis beyond what is specifically approved in the operator's MEL management program procedures.

d) Unless otherwise approved, troubleshooting or fault diagnosis necessary to determine suitable MEL relief must be performed by qualified maintenance personnel.

e) Any time an MEL item results in operational limitations such as those affecting aircraft performance and altitude capabilities, and those imposing weight or fuel restrictions, the dispatcher or person authorized to exercise operational control must recalculate (compute) a new flight plan as necessary and issue a new or amended dispatch or flight release.

4-690 MULTIPLE INOPERATIVE ITEMS AND/OR SYSTEM COMPONENTS. The FOEB Chair is responsible to identify the interrelationship between aircraft systems and components in the MMEL. An inoperative component in a particular system can affect the operation, or limit the inoperability of a component in another system (e.g., inoperative components of a wheel braking system limiting the inoperability of the thrust reverser system). In addition to understanding the interrelationships between items as depicted in an MMEL, each operator must be aware of the impact multiple item failures and deferrals can have on the safety of flight. Multiple item failures can significantly impact operational limitations and flightcrew workload. This includes the consideration of possible additional item failures while an aircraft is en route.

4-691 AVAILABILITY OF MEL TO FLIGHTCREWS.

A. Parts 91K, 121, 125, and 135 Operations. Parts 91K, 121, 125, and 135 require flightcrews to have direct access to the MEL at all times prior to flight. This applies to the MEL in its entirety, which must be directly accessible up until the point the aircraft takes off. An operator may provide the MEL in hard copy format (printed) or via another method approved by the Administrator (e.g., electronically). Other methods of providing access may not include telephone, radio, or data link, which are indirect in nature and make direct access to the entire MEL virtually impossible. Any method of providing flightcrew access to an MEL, other than printed form, requires approval as part of the operator's FAA-approved MEL management program. Electronic access to an MEL may also require approval in OpSpec A061, Use of Electronic Flight Bag.

B. Part 129 Operations. Part 129 does not specifically require the flightcrews of foreign air carriers and foreign persons conducting operations in accordance with § 129.14, to have direct access to the MEL. However, § 129.14 does require OpSpec authorization to use an MEL. OpSpec D095 for part 129 requires an MEL management program. PIs of foreign air carriers and persons operating U.S.-registered aircraft must ensure that each MEL management program contains a method of providing flightcrews with direct access to the MEL at all times prior to flight.

4-692 APPROVE AN MEL. When an operator submits an MEL to the CHDO for approval, the POI will coordinate with the PMI and the PAI during the entire approval process. Additionally, if an ASI-AD and CSI are assigned to the CHDO, the POI will also coordinate with these individuals during the MEL approval process. When considering an MEL for approval, PIs should review the general process for approval outlined in Volume 3, Chapter 1, Section 1. This section supplements that overall process.

A. Preliminary Phase. In the preliminary phase, the operator will consult with the POI regarding the requirements for either initially developing an MEL or for revising an existing MEL. POIs should determine the scope of the task, based on the operator's experience with MELs. POIs should adapt the discussion to fit the operator's needs and experience, and provide advice and guidance to them as necessary. During the preliminary phase, PIs will inform the operator of at least the following:

1) Responsibility of the Operator. PIs must clearly explain to the operator that MEL development is solely the operator's responsibility;

2) Where to Find the Appropriate MMEL. PIs will provide the operator information on where to find the appropriate MMEL within FSIMS;

3) The Requirements of This Section. Inform the operator of all of the MEL requirements found in this section, as applicable; and

4) What the Operator is Required to Submit. Inform the operator that they must submit the following documents to the CHDO for consideration of the MEL approval:

a) The proposed MEL or MEL revision. The operator must submit the MEL in a format and method that is acceptable to the Administrator. The CHDO will inform the operator of what method is acceptable (e.g., compact disc (CD), paper copy, digital/electronic file). A CHDO may not accept an MEL in a format that is not readily accessible to the appropriate CHDO personnel. Additionally, an MEL must be in a format that provides the CHDO with the ability for thorough review and comment;

b) The current item list for each M/M/S aircraft that will be included in the MEL;

c) The MEL management program and its procedures as required by OpSpec D095;

d) All applicable manual sections referenced in the proposed MEL and MEL management program;

e) MEL training program for flight and ground personnel and any associated guidance material;

f) The manual(s) that contain the following:

1. Instructions for managing the repair of items listed in the MEL;
2. Policies and procedures for PICs to report mechanical irregularities;
3. Procedures for preparation of the aircraft airworthiness release or maintenance log. The only exception is part 91K program aircraft that are not maintained on a Continuous Airworthiness Maintenance Program (CAMP);
4. Procedures for maintenance, preventive maintenance, and alterations;
5. Procedures for verification of aircraft airworthiness; and
6. Inspection program requirements and procedures for required inspection personnel.

B. CHDO Review Phase. The POI will first conduct an initial review of the operator's submittal to verify its completeness. POIs will verify that submittal contains all of the required elements, is specific to the operator, and is detailed enough to permit a thorough evaluation.

1) Incomplete—Unacceptable. The POI will contact the operator if the proposed MEL package is incomplete or unacceptable. If mutually acceptable correction(s) cannot be immediately agreed upon, the POI will return the entire package and provide an explanation of the deficiencies.

2) Complete—Acceptable. If the POI determines upon initial review that the package is complete and acceptable overall, the POI will work with the PMI, PAI, and other CHDO personnel, as appropriate, to begin a comprehensive review.

3) Comprehensive Review—General. PIs will complete the comprehensive review within 90 days. The POI should advise the operator that the MEL approval process could exceed the 90-day time period if the CHDO discovers numerous deficiencies.

4) MEL Review. During the comprehensive review process, PIs must use the MMEL as the primary reference document. PIs may coordinate with the appropriate AEG for technical guidance as required. During the review, the CHDO will verify the following:

- a) The MEL does not conflict with:
 - 1. 14 CFR;
 - 2. AFM emergency procedures and limitations; or
 - 3. The operator's OpSpecs.
- b) The following items are not listed in the MEL:
 - 1. Type certificate data sheet items (TCDS);
 - 2. Any items required by the rules under which the aircraft is type-certificated (TC); and
 - 3. Items required by ADs.
- c) The MEL format contains the required sections and their content (see paragraphs 4-683 and 4-684);
- d) The table of contents and pages are numbered according to the applicable ATA numbering system (see subparagraph 4-684A);
- e) The standard MEL preamble is used in its entirety, without modification (see MMEL PL-34 and subparagraph 4-683E);
- f) The MEL contains all installed items listed in the MMEL for which relief is requested;
- g) The MEL repair categories are not less restrictive than the MMEL (see subparagraph 4-684C);
- h) The "Number Required" section agrees with the number actually installed, according to the current airplane equipment list, and is not less restrictive than the MMEL;
- i) A revision system exists to guarantee that changes to the MMEL will be reflected in the MEL. The system must include instructions for the use of the revision system and a current list of effective pages (see subparagraph 4-683C);
- j) All abbreviations and symbols used in the MEL are defined;

k) The MEL “Remarks or Exceptions” meet all of the requirements of paragraph 4-685; and

l) The operator’s (M) and (O) procedures are fully developed and meet the requirements of subparagraph 4-684F. POIs may consult with the appropriate FOEB Chair, as necessary, concerning specific (M) and (O) procedures. When the FOEB Chair determines that additional engineering support is necessary, the Chair will contact the appropriate FAA Aircraft Certification Office (ACO) and provide the information to the POI.

5) MEL Management Program Review. PIs will review the MEL management program to ensure it meets the requirements of OpSpec D095 and paragraph 4-686. Additionally, PIs will verify the operator’s MEL management program includes the following:

- a) A list of personnel responsible for MEL management;
- b) A list of personnel authorized to defer maintenance in accordance with the MEL;
- c) A description of personnel training requirements for conducting MEL procedures;
- d) Procedures for authorizing personnel to defer maintenance on the MEL;
- e) Instructions for the placarding of inoperative/removed items, and samples of placards; and
- f) Procedures for control of MEL deferred maintenance items, including:
 - 1. Item procurement and distribution for the corrective action(s) associated with deferred items;
 - 2. Scheduling of corrective action(s), describing when and where maintenance will be performed;
 - 3. Coordination between the operator’s maintenance, flight operations, and dispatch/operational control organizations regarding MEL conditions and limitations and any operational restrictions they impose; and
 - 4. Reporting and recording of the deferred MEL item and the subsequent repair or replacement of the item.

C. CHDO Findings. When the PIs and appropriate ASIs complete the comprehensive review, the CHDO will consolidate the findings for discussion with the operator.

1) Addressing Deficiencies. The CHDO will provide the operator with the consolidated findings discovered by the PIs and ASIs. This can be accomplished by any one of the PIs or the appropriate CHDO management personnel.

2) The Operator's Corrective Action. The operator must correct any deficiencies identified by the CHDO prior to PI approval of the MEL and the MEL management program. Once the operator completes the necessary corrective actions, PIs will review all of the corrections to determine their adequacy. Additionally, PIs will review the MEL management program to verify that corrective actions have been incorporated as appropriate.

D. Approve the MEL and Issue OpSpec D095. When the MEL fully complies with all applicable requirements, the POI will sign the MEL list of effective pages or the control page(s), indicating MEL approval. This does not complete the approval process, however. Each operator must have authorization to use their approved MEL. This is accomplished through the issuance of OpSpec D095. If the operator has not previously been authorized to operate under an MEL, the PMI will issue OpSpec D095 to the operator which authorizes them to use their MEL. The D095 authorization date must be on or after the date of MEL approval.

E. CHDO Retention of MEL. The CHDO will maintain a copy of each current MEL approved by the CHDO.

4-693 MEL REVISIONS. MEL revisions may be initiated by either the FAA or the operator. All MEL revisions require approval from the POI. The POI or the POI's designee will maintain currency information on all approved MELs and MEL revisions for which they have oversight responsibility.

A. FAA Initiated Revision.

1) Nonmandatory/Interim MMEL Revision. A nonmandatory/interim MMEL revision means that revision to an operator's MEL is optional but not required. If the relief granted by the nonmandatory/interim MMEL revision is applicable to an operator's aircraft operations, then it is advisable that 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 that 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.

a) 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).

b) The operator's MEL revision number does not have to match the MMEL revision number. Operators may use their own revision numbering system.

c) If the MMEL revision results in a change to the system or sequence item number, the operator does not need to modify or close an open MEL item that was deferred under the previous system or sequence number. The operator may continue to operate the aircraft under the existing open MEL item number until the original repair category interval is reached.

2) Mandatory/Standard MMEL Revision. A mandatory/standard MMEL revision includes changes that are applicable to all operators using an approved MEL for a specific aircraft type.

a) 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 revisions 6a, 6b, or 6c is revision 7. The next mandatory/standard revision following revision 7 is revision 8.

b) If a mandatory/standard MMEL revision is not applicable to an operator, it is up to the operator to advise the POI, and document the inapplicability of the mandatory/standard MMEL revision in a means that is acceptable to the POI. If the POI accepts the operator's documentation, the operator must still, at a minimum, reissue the MEL control page to indicate that the MEL is in compliance with the required MMEL revision.

c) Operators must incorporate MMEL changes that are more restrictive into their MEL and submit them for review and approval within 90 days of the MMEL revision date. POIs have some latitude if an operator shows proof of extenuating circumstances. If the POI agrees that extenuating circumstances warrant, the POI may authorize the operator an additional 90 days to incorporate the revision. In the case where relief for an item is removed from an MMEL, there may be a more restrictive time requirement for an operator to revise their MEL to remove the relief. In this case the POI does not have the latitude to extend the period of time in which the operator must revise their MEL. If at any time an operator does not take active steps to revise their MEL, the POI may initiate the process to remove the MEL OpSpec authorization in accordance with 14 CFR § 119.51.

d) PIs will complete the MEL review and approval process within 90 days of receiving the MEL revision from the operator. If the operator's MEL revision contains deficiencies, the POI must inform the operator as soon as practicable so the operator can make the necessary corrections.

e) If an MMEL revision results in a more restrictive repair category or proviso, the operator does not have to close and re-initiate an existing open MEL item affected by the revision. Existing MEL items may remain open in accordance with the original repair category and/or proviso under which the item was initially deferred, until such time as the item is repaired and the MEL item is closed.

f) If an MMEL revision results in a change to the system or sequence item number, the operator does not have to close an open MEL item and re-initiate it under its new number. Instead, the item may continue to be tracked under its original item number until the repair category interval is reached.

g) When necessary, POIs will consult with the AEG to determine a reasonable target date for the operator to incorporate and publish an MEL change. An example of a reason for this would be the time lag between an MMEL revision and the publication of the airframe manufacturers' recommended (M) and (O) procedures.

3) Revisions as a Result of a Global Change (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 all or a large number of 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 or HQ policy change. GCs will not typically occur in great number or regularity and their application and use will typically be limited.

a) 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”.

b) A GC will contain a header box which will explain its applicability (e.g., to what types of aircraft, operators, and/or operations). The header box will also contain requirement(s) on how to apply the sample proviso(s) of the GC to an operator’s MEL. See Figure 4-50 for an example of a GC header box.

c) The POI has the authority to approve the operator’s MEL revision on the basis that the GC is an approved addendum to the existing MMEL.

d) GCs may be extended by FAA HQ’s initiative or upon request by FOEB Chair. AFS-200 and AFS-300 are the approving authorities for all GC extension requests.

Figure 4-50. Example of GC Header Box

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, through the Operator’s assigned Principal Operations Inspector (POI). This GC expires 09/13/2015.

4) Revisions Initiated by the CHDO. The CHDO 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.

a) The CHDO will inform the operator of the need to revise their MEL in writing and provide the reasons why the revision must be accomplished.

b) The CHDO will allow the operator 90 days to complete the revision process. If the CHDO determines that safety of flight could be affected, they may specify a lesser period of time. In extreme cases, the CHDO may inform the operator of the CHDO’s intent to amend or remove OpSpec D095 in accordance with § 119.51 (see also Volume 3, Chapter 18, Section 8 for information regarding the amendment of an operator’s OpSpecs).

c) At any time, if the operator declines to make the required change, the CHDO should initiate an amendment of the OpSpecs in accordance with § 119.51 to rescind the authority for the MEL. In such a case, the procedures contained in Volume 3, Chapter 18, Section 8 should be followed.

B. Operator-Initiated MEL Revisions. An operator may revise their MEL for a number of reasons. An operator-initiated MEL revision may not be, in any way, less restrictive than the MMEL.

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, Major Repair and Alteration) or a modification to the TC. See subparagraph 4-693C for information on STC MEL relief.

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. If an operator desires relief for an item that is not included in the MMEL, the operator may request an MMEL revision from the FOEB Chair. Operators must submit requests for MMEL revisions to their PIs (see Volume 8, Chapter 2, Section 3 for information regarding the FOEB and the MMEL revision process).

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., adding passenger carrying operations) or additional OpSpec authority (e.g., ETOPS or Category (CAT) II/II landing minimums). PIs must ensure an operator updates their MEL to adequately reflect changes in operational complexity.

4) Changes in (M) and (O) Procedures. An operator may need to revise their MEL for the purpose of adding or revising (M) and (O) procedures based on operational complexity.

C. STC MEL Relief. Relief for inoperative items installed by an STC, besides what is provided in AFM supplements, will be granted in accordance with the FOEB process. This requires coordination and approval by the FOEB Chair (see Volume 8, Chapter 2, Section 3).

1) Relief for inoperative STC-installed items must be included in the MMEL before inclusion in the aircraft operator's MEL.

2) An STC for additional installed equipment must document any applicable MEL relief. The STC applicant or aircraft operator involved in the certification of an STC should submit a request for MMEL relief in accordance with the FOEB MMEL Agenda Coordination Process (see Volume 8, Chapter 2, Section 3). This submission should be made early in the certification process to allow MMEL evaluation concurrent with the certification process.

D. CHDO Review of MEL Revision. PIs are not required to review the entire MEL when reviewing a revision. At a minimum, PIs must review all of the pages affected by the

change. PIs may elect to review the entire MEL anytime they feel it is necessary. PIs will inform the operator of the minimum amount of information required for review of the proposed revision.

RESERVED. Paragraphs 4-694 through 4-699.