

# Advisory Circular

Subject: Development and Use of an Operator's MEL, NEF Program, and CDL for Operations Under 14 CFR Parts 91K, 121, 125, and 135 Date: DRAFT Initiated by: AFS-200

AC No: 120-MEL Change:

This advisory circular (AC) provides information for operator development and use of a minimum equipment list (MEL), MEL management program, nonessential equipment and furnishings (NEF) program, and Configuration Deviation List (CDL). This AC applies to all operators subject to Title 14 of the Code of Federal Regulations (14 CFR) parts <u>91</u> subpart <u>K</u> (part 91K), <u>121</u>, <u>125</u>, and <u>135</u>. The use of an MEL should only be authorized through the issuance of Operations Specification (OpSpec) or Management Specification (MSpec) D095, Minimum Equipment List (MEL) Authorization, as appropriate. This AC does not address operations conducted under part 91, § <u>91.213</u> with inoperative instruments or equipment without an MEL.

This AC describes an acceptable means, but not the only means, for an operator to develop and use their MEL, NEF, and CDL in accordance with regulatory requirements and Federal Aviation Administration (FAA) policy.

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# CONTENTS

Paragraph Page			
Chapter 1. Introduction			
1.1 Purpose of This Advisory Circular (AC)1-1			
1.2 Audience			
1.3 Where You Can Find This AC1-1			
1.4 Background1-1			
1.5 Nonessential Equipment and Furnishings (NEF) Program			
1.6 Configuration Deviation List (CDL)1-2			
1.7 Terminology1-2			
1.8 Regulatory Requirements1-9			
1.9 OpSpec/MSpec D095 Requirements1-9			
1.10 Foreign Air Carriers and Foreign Operators of U.SRegistered Aircraft Engaged in Common Carriage (Part 129)			
1.11 AC Feedback Form			
Chapter 2. Minimum Equipment List (MEL)—General			
2.1 General			
2.2 Categories of MEL Items			
2.3 Limitations of MEL Deferrals			
2.4 Required Sections			
2.5 Optional Sections			
Chapter 3. Minimum Equipment List (MEL)—Content			
3.1 MEL Contents			
3.2 Air Transport Association of America (ATA) or Joint Aircraft System/Component (JASC) Coded Sections			
3.3 Repair Categories			
3.4 Number of Items Installed			
3.5 Number Required for Dispatch			
3.6 Remarks or Exceptions			
3.7 MEL Remarks and Exceptions Defined			
3.8 MEL Proviso Stipulations Will Be Specific			
3.9 (M) and (O) Procedures			
3.10 Provisos			

3.11	Notes
3.12	2 Definitions
3.13	3 References
3.14	Specific 14 CFR Requirements
Chapter	4. MEL Relief for Items Installed After Type Certification4-1
4.1	General4-1
4.2	Operator NEF Items or Administrative Control Items (ACI)4-1
4.3	MMEL Items and MEL Items4-1
4.4	MMEL PL 109
4.5	STC
4.6	Adding Relief for Items Installed After Type Certification
4.7	Items Needed for Evaluation of Design Changes
Chapter	5. MEL Management Program Requirements
5.1	General5-1
5.2	MEL Management Program
5.3	Continuing Authorization—Single Extension
5.4	Additional Extensions
Chapter	6. Conducting Operations Utilizing MEL Relief
6.1	General6-1
6.2	Operational Requirements
6.3	Part 121 Dispatch or Flight Release Requirements
6.4	Multiple Inoperative Items or System Components
6.5	Availability of the MEL to Operator Personnel
Chapter	7. MEL Creation and Formatting
7.1	General7-1
7.2	MEL Format Outline
7.3	Prohibited Items
7.4	MEL Restrictions
7.5	Fleet MELs

Chapter 8	8. FAA Review and Initial Approval of an Operator's MEL8-	-1
8.1	General8-	-1
8.2	Preliminary8-	-1
8.3	Submission8-	-1
8.4	Review and Findings of an Operator's MEL Submission8-	-2
8.5	MEL Management Program Review8-	.3
8.6	Correction of Deficiencies8-	.4
8.7	Approval and Issuance of OpSpec/MSpec D0958-	4
Chapter 9	9. MEL Revisions	.1
9.1	General9-	-1
9.2	FAA-Initiated Revisions9-	-1
	Figure 9-1. Example of Global Change Header Box9-	.3
9.3	Operator-Initiated Revisions9-	.3
Chapter 1	0. Nonessential Equipment and Furnishings (NEF) Program	·1
10.1	Background	1
10.2	General	-1
10.3	Deferral Authority	·2
10.4	NEF Program Development	.2
10.5	Required NEF Program Contents	.3
	Figure 10-1 Required NEF MEL Proviso for an FAA-Approved NEF Program10-	.4
10.6	NEF Program Approval10-	.4
10.7	NEF Program Revisions10-	.5
10.8	Criteria for Selection of NEF Items10-	.5
	Figure 10-2. NEF Item Selection Criteria Elements Flowchart	.7
Chapter 1	1. Configuration Deviation List (CDL)11-	-1
11.1	Purpose of the CDL	-1
11.2	Development	-1
11.3	Operator Use of the CDL11-	-1
11.4	Operator's Manual11-	·2
11.5	CDL Item Recording and Notifications	-2

# **CHAPTER 1. INTRODUCTION**

- **1.1 Purpose of This Advisory Circular (AC).** This AC provides clarity on minimum equipment list (MEL), nonessential equipment and furnishings (NEF) program, Configuration Deviation List (CDL), and certain Federal Aviation Administration (FAA) requirements regarding the operation of aircraft with inoperative instruments and equipment. This AC describes an acceptable means, but not the only means, for an operator to develop and use their MEL, NEF program, and CDL in accordance with regulatory requirements and FAA policy.
- **1.1.1** <u>Effects of Guidance</u>. This guidance is not legally binding in its own right and will not be relied upon by the FAA as a separate basis for affirmative enforcement action or other administrative penalty. Conformity with the guidance is voluntary only; and nonconformity will not affect rights and obligations under existing statutes and regulations.
  - **1.2** Audience. This AC applies to all operators under Title 14 of the Code of Federal Regulations (14 CFR) parts <u>91</u> subpart <u>K</u> (part 91K), <u>121</u>, <u>125</u>, and <u>135</u>.
  - **1.3 Where You Can Find This AC.** You can find this AC on the FAA's website at <u>https://www.faa.gov/regulations\_policies/advisory\_circulars</u> and the Dynamic Regulatory System (DRS) at <u>https://drs.faa.gov</u>.
  - **1.4 Background.** The airworthiness certification of an aircraft is conditioned on the aircraft conforming to its type certificate (TC) and being in a condition for safe operation. While items installed in an aircraft have to be operative for the aircraft to meet TC requirements, an approved MEL allows an operator to operate the aircraft with certain inoperative items for a limited, defined period. An approved MEL, as authorized by the operations specification (OpSpec)/management specification (MSpec), constitutes an approved change to the type design without requiring recertification.
- 1.4.1 Under part 91, § <u>91.7</u>, an operator cannot operate an aircraft unless it is in an airworthy condition. As noted above, to be airworthy, the aircraft must comply with the TC and be in a condition for safe operation. An inoperative instrument or equipment present on the aircraft would result in a violation of § 91.7, unless the inoperative item or equipment is listed on the operator's approved MEL, in accordance with § <u>91.213</u>. As such, compliance with all applicable criteria of an MEL is necessary when taking advantage of the relief an MEL provides; in the absence of such compliance, the FAA would not consider the aircraft as airworthy.
- **1.4.2** The FAA developed the concept of the MEL after recognizing that, under certain circumstances, a flight or series of flights might occur safely with certain inoperable instruments and equipment. In certain specific situations, an Acceptable Level of Safety (ALoS) can be met because not all of an aircraft's installed instruments and equipment are necessary for every type of operation. For example, a flight that is not being conducted in icing conditions would not require operable airframe deicing or anti-icing

equipment. Similarly, an aircraft that will not operate at night may receive relief from the requirement to have an operable landing light.

- **1.4.3** All items related to the airworthiness of the aircraft that are not included in an approved MEL are required to be operative in accordance with the aircraft's TC. An MEL does not include obviously required items, such as wings, rudders, flaps, engines, landing gear, etc.
- **1.4.4** The MEL requirements and related processes are independent from an aircraft's operating requirements and an MEL cannot authorize a deviation from operating rules. An aircraft is not airworthy when any item that is not included in the MEL is inoperative.
- **1.4.5** The MEL is not intended to enable the continued operation of the aircraft with inoperative items for an indefinite period of time. The basic purpose of the MEL is to allow limited operations of aircraft with inoperative equipment within the framework of a well-defined program. This program should be proactively managed by the operator and should ensure that repairs are made as soon as practicable to avoid further operational impact.
- **1.4.6** An MEL is developed by the operator for their particular operation (parts 91K, 121, 125, and/or 135). An MEL is typically developed from a Master Minimum Equipment List (MMEL) for the aircraft type. The operator uses the MMEL as the baseline to develop the MEL and the operational and maintenance procedures and lists the items installed in the operator's aircraft. The MEL is submitted to the responsible FAA's Safety Assurance office for approval.
  - **1.5** Nonessential Equipment and Furnishings (NEF) Program. An operator's MEL program may also include an NEF) program that allows relief for nonessential items. An NEF program allows operators to use the authority granted by virtue of their OpSpec/management specification (MSpec) to provide relief for nonessential items located throughout the aircraft. See Chapter <u>10</u> for additional information on an NEF program.
  - **1.6** Configuration Deviation List (CDL). A CDL is a list of externally exposed aircraft parts that may be missing for flight. A CDL allows continued operation with missing externally exposed nonstructural parts by defining restrictions, limitations, or performance penalties, while the aircraft remains airworthy. See Chapter <u>11</u> for additional information on the CDL.

# 1.7 Terminology.

1.7.1 <u>Air Transport Association of America (ATA)</u>. The use of the term "ATA coded sections" refers to the ATA codes, which were first published in 1956 as a standardized numbering system for aircraft systems. ATA changed its name to "Airlines for America" (A4A) in 2011, but the acronym "ATA" is still used for coded aircraft systems. The acronyms "ATA" and "A4A" are interchangeable.

- **1.7.2** <u>Administrative Control Item (ACI)</u>. An ACI is an item that is not contained in the MMEL, but that may be included in the operator's MEL for tracking and informational purposes only. As an example, ACI may be used to track Extended Operations (ETOPS) accomplishment of required auxiliary power unit (APU) cold-soak, or in-flight verification starts. See Chapter <u>2</u> for additional information on ACI.
- **1.7.3** <u>Aircraft Evaluation Division (AED)</u>. The inspectors in AED serve as technical subject matter experts for operational and engineering activities of the FAA's Flight Standards Service (FS). These inspectors coordinate and assist with aircraft certification and continued airworthiness programs and serve as a liaison with the responsible Aircraft Certification Service office during the initial certification of an aircraft and throughout the service life of the aircraft.
- 1.7.4 <u>Airplane Flight Manual (AFM)/Rotorcraft Flight Manual (RFM)</u>. An AFM/RFM is an FAA-approved document that contains information (e.g., operating limitations, operating procedures, performance information, etc.) necessary to operate the aircraft (aircraft or rotorcraft, as appropriate) at the level of safety established by the aircraft's certification basis. It is approved by the responsible Aircraft Certification Service office during type certification. The approved flight manual for the specific aircraft is listed on the applicable Type Certificate Data Sheet (TCDS). The approved flight manual is the governing document for operational limitations and performance parameters for an aircraft. The term "approved flight manual" can apply to an AFM/RFM (or Pilot's Operating Handbook (POH)). The FAA requires an approved flight manual for aircraft type certification. For example, refer to 14 CFR part 21, § 21.5; part 23, § 23.2620; part 25, § 25.1581; and part 27, § 27.1581. The applicable document (AFM, RFM, or POH) should be indicated in the aircraft operator's MEL when applicable.
- **1.7.5** <u>Configuration Deviation List (CDL)</u>. 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.
- **1.7.6** <u>Considered Inoperative</u>. The phrase "Considered Inoperative," as used in the "Remarks or Exceptions" column, means an item must be treated for dispatch, taxi with intent for flight, and flight purposes as though it were inoperative. The item must not be used or operated until the original deferred item is repaired. Additional actions include documenting the item on the dispatch release (if applicable); placarding; complying with all remarks or exceptions, including any Maintenance (M) and Operations (O) procedures; considering applicable notes; and observing the repair category.
- **1.7.7** <u>Dash (-)</u>. A dash indicates a variable number (quantity) of items may be installed or required for dispatch.
- **1.7.8** <u>Day of Discovery</u>. This is the calendar-day an item malfunction was recorded in the aircraft maintenance record or logbook and is excluded from the interval established by the assigned repair category.

- **1.7.9** <u>Deactivated (or Secured)</u>. When the MEL refers to an item as "deactivated" or "secured," or both, the specified item must be put into an acceptable condition for safe flight. An acceptable method of deactivating or securing may be recommended by the manufacturer or established by the aircraft operator.
- **1.7.10** <u>Deferral</u>. A deferral is the term used to describe the authorization for an operator to delay repair and continue operating with a required item inoperative, under the authority of its FAA-approved MEL. Authority to defer repair of an inoperative item is subject to specific conditions and limitations, as described in the associated proviso.
- **1.7.11** <u>Deleted</u>. "Deleted" in the "Remarks or Exceptions" column indicates the item was previously listed, but is no longer addressed by the MMEL.
- **1.7.12** <u>Excess Items</u>. Excess items are items that have been installed in a quantity greater than that required by 14 CFR.
- 1.7.13 Extended Operations (ETOPS). ETOPS is an airplane flight operation other than an all-cargo operation in an airplane with more than two engines, during which a portion of the flight is conducted beyond a time threshold identified in part 121 or 135, determined using an approved one-engine-inoperative cruise speed under standard atmospheric conditions in still air. To obtain ETOPS approval, the specific airplane/engine combination must be certificated to transport category standards, and be approved for ETOPS. Refer to part 121, § 121.162; part 135 appendix G; and § 25.3.
- **1.7.14** <u>Flight-Day</u>. A flight-day is a 24-hour period (from midnight to midnight) either in Coordinated Universal Time (UTC) or local time, as established by the aircraft operator, during which at least one flight is initiated for the affected aircraft.
- **1.7.15** <u>Flight Standards Service (FS)</u>. FS is the FAA office that promotes safe air transportation by setting the standards for certification and oversight of airmen, air operators, air agencies, and designees. FS promotes safety of flight of civil aircraft and air commerce by, amongst others:
  - Accomplishing certification, inspection, surveillance, investigation, and enforcement;
  - Setting regulations and standards; and
  - Managing the system for registration of civil aircraft and certification of airmen.
- **1.7.16** <u>Dynamic Regulatory System (DRS)</u>. The DRS is an FAA website that contains regulatory, policy, and guidance information. The DRS can be accessed through the FAA home page or at the following link: <u>https://drs.faa.gov</u>.
- 1.7.17 <u>Flight Operations Evaluation Board (FOEB)</u>. An FOEB is a group 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 during initial aircraft certification. FOEBs are also responsible for developing MMEL revisions.

- **1.7.18** <u>Global Change (GC)</u>. A GC is newly developed or changed relief for an item, usually applicable to numerous MMELs (hence "global") to allow operators to obtain MEL relief prior to the release of a revised MMEL. Incorporation of a GC into an operator's MEL is optional, until the GC is incorporated in the aircraft's MMEL. GCs may be used to provide immediate relief for items required by a new regulatory requirement, policy change, or new technology.
- **1.7.19** <u>Inoperative</u>. For purposes of this AC and consistent with MMEL Policy Letter (PL) 25, Revision 21, "inoperative" refers to the malfunction of an item to the extent that it does not accomplish its intended purpose or is not consistently functioning normally within its approved operating limit(s) or tolerance(s), or both.
- **1.7.20** <u>Item</u>. An item is an instrument, equipment, system, component, message, or function that is installed on or exhibited by the aircraft.
- **1.7.21** <u>ATA iSpec 2200</u>. This comprises a suite of data specifications and data modules for the digital representation and exchange of technical data. The iSpec 2200 system and component nomenclature incorporates the previous ATA 100 and 2100 specs, but with improved structure and content of aircraft system and component nomenclature to minimize the cost and effort expended by operators and manufacturers in managing inventory.
- 1.7.22 Joint Aircraft System/Component (JASC) Code. The JASC code is a modified version of the ATA code developed by the FAA to address the need for an international standardization of aircraft system codes. It uses a four-digit format along with an abbreviated code title. For additional information, refer to the FAA Joint Aircraft System/Component Code Table and Definitions at <a href="https://av-info.faa.gov/sdrx/documents/JASC\_Code.pdf">https://av-info.faa.gov/sdrx/documents/JASC\_Code.pdf</a>. (Also refer to iSpec 2200.)
- **1.7.23** <u>Maintenance (M) Procedure</u>. An (M) procedure that is accomplished in order to defer an inoperative item. (M) procedures must be performed by a qualified person designated by the operator. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the aircraft operator. Appropriate procedures are required to be produced as a part of the aircraft operator's manual or MEL. See (M) and (O) procedures in Chapter <u>3</u>, paragraph <u>3.9</u>.

# 1.7.24 Master Minimum Equipment List (MMEL).

1.7.24.1 An MMEL is a type-specific master list of aircraft items that may be inoperative under certain conditions while maintaining the airworthiness of the aircraft and an ALoS. All MMELs are developed and revised by the FOEB, and concurred with by FAA Safety Standards divisions (the Air Transportation Division, the Aircraft Maintenance Division, and the General Aviation and Commercial Division) and approved by the AED manager. An MMEL is the document on which an operator bases its MEL. All MMELs are within the FAA DRS website.

- 1.7.24.2 The United States may enter a Bilateral Aviation Safety Agreement (BASA) with a foreign government when there is a need for technical cooperation with the foreign government's Civil Aviation Authority (CAA), and if the foreign authority's civil aviation safety oversight is substantially comparable to the FAA's. BASAs are carried out through associated implementation procedures. Refer to country-specific BASAs for MMEL considerations relating to foreign type-certificated aircraft validated under Implementation Procedures for Airworthiness (IPA). The BASAs and associated IPAs may be found at <a href="https://www.faa.gov/aircraft/air\_cert/international/bilateral\_agreements/">https://www.faa.gov/aircraft/air\_cert/international/bilateral\_agreements/</a>.
- **1.7.25** <u>MMEL Policy Letters (PL)</u>. PLs clarify FAA MMEL policy regarding specific kinds of equipment that may be deferred. While developing its MEL, an operator may need to refer to one or more aircraft or equipment-specific PLs with a GC designation, as these PLs may provide additional relief for items until the MMEL is revised. PLs are available under the "AEG Guidance Documents, MMELs and Electronic Flight Bag" tab on the DRS.
- **1.7.26** <u>Make/Model/Series (M/M/S)</u>. M/M/S is a common abbreviation used when referring to a manufacturer's particular model or type and series of given aircraft.
- **1.7.27** <u>Management Specification (MSpec)</u>. An MSpec is an authorization issued to part 91K operators by the FAA Administrator via a Letter of Authorization (LOA). An MSpec is equivalent to the OpSpec issued to part 121 or 135 operators.

**Note:** For the purposes of this AC, the term "OpSpec/MSpec" is used. (See "Operations Specification (OpSpec)" below.)

- **1.7.28** <u>Moved</u>. "Moved" in the "Remarks or Exceptions" column indicates the item was moved to a different chapter in the MMEL or an FAA-approved document.
- **1.7.29** Nonessential Equipment and Furnishings (NEF). NEFs are those items installed on the aircraft as part of the original 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 rules or operational rules. They are those 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 instrument and equipment items already identified in the MEL or CDL of the applicable aircraft. They do not include instrument and equipment items that are functionally required to meet the certification rule or for compliance with any operational rule. See Chapter <u>10</u> for additional information on an NEF program.
- 1.7.30 <u>Note(s)</u>. Notes provide additional information for crewmember or maintenance consideration. Notes are used to identify applicable material which is 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 amended, deleted, or added to the MEL by the aircraft operator, as appropriate. Notes are not a part of the provisos.

- **1.7.31** <u>Number Installed</u>. This column indicates the number (quantity) of items normally installed in the aircraft. This number represents the aircraft configuration(s) considered in developing an MMEL. Should the number be a variable or impractical to exactly determine (e.g., optional equipment, fleet configuration differences, cockpit lighting items, cabin lighting items, cargo restraint components, flight data recorder (FDR) recording parameters), a number is not required and the dash "-" symbol is used instead. The operator's MEL should use a number whenever possible.
- **1.7.32** <u>Number Required for Dispatch</u>. This column indicates the minimum number (quantity) of items required for operation, providing the conditions specified in the "Remarks or Exceptions" column are met. Where the MMEL shows a variable number "-" required for dispatch, the aircraft operator's 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 "-" where the number required is based on the conditions of flight, such as adequate cockpit lighting or when operations are conducted under more than one set of operating rules.
- **1.7.33** <u>Operations (O) Procedure</u>. This symbol indicates a requirement for a specific operations procedure that must be accomplished in planning for or operating 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. The satisfactory accomplishment of all procedures, regardless of who performs them, is the responsibility of the aircraft operator. Appropriate procedures are required to be produced as a part of the aircraft operator's manual or MEL.
- **1.7.34** <u>Operator</u>. This AC uses the singular term "operator" for simplicity. Unless otherwise noted, the term "operator" when used in this AC applies to a program manager conducting part 91K operations or a certificate holder conducting operations under part 121, 125, or 135, as applicable.
- 1.7.35 Operations Specification (OpSpec). An OpSpec is a document issued under 14 CFR part <u>119</u> to parts 121, 125, and 135 operators that contains the authorizations, limitations, and certain procedures under which each kind of operation, if applicable, is to be conducted; and certain other procedures under which each class and size of aircraft is to be operated.
- **1.7.36** <u>Principal Inspector (PI)</u>. PIs are FAA personnel, within the operator's responsible Flight Standards office, who are assigned primary responsibility for oversight of an operator's safety of operations. PIs specialize in the three general areas of aircraft operations according to their qualifications: Avionics (PAI), Maintenance (PMI), and Operations (POI). PIs have FAA administrative authority to evaluate and approve an operator's manuals, including the MEL.
- **1.7.37** <u>Proviso</u>. A proviso is used to stipulate conditions or limitations that must be complied with for operation with the listed item inoperative.

- **1.7.38** <u>Remarks or Exceptions</u>. The "Remarks or Exceptions" column in the MEL includes the Maintenance (M) and Operations (O) indicators, a statement either prohibiting or permitting operation with a specific number of items inoperative, provisos, and appropriate notes.
- **1.7.39** <u>Responsible Aircraft Certification Service Office</u>. The Aircraft Certification Service office performs aircraft certification duties and administers most type certification and continuous airworthiness program activities.
- **1.7.40** <u>Responsible Flight Standards Office</u>. The Flight Standards office with oversight responsibility of an operator's MEL and MEL management program. The term applies to a Certificate Management Office (CMO), Flight Standards District Office (FSDO), or an International Field Office (IFO).
- **1.7.41** <u>Safety Assurance</u>. Safety assurance is one of the four components of the Safety Management System (SMS), whereby an operator develops and maintains processes to monitor the safety performance of the organization.
- 1.7.42 <u>Safety Management System (SMS)</u>. SMS is the formal, top-down, organization-wide approach to managing safety risk and assuring the effectiveness of safety risk controls. It includes systematic procedures, practices, and policies for the management of safety risk. An SMS program is required for part 121 operators in accordance with 14 CFR part <u>5</u>. Other operators may choose to implement SMS voluntarily.
- **1.7.43** <u>Safety Risk Management (SRM)</u>. SRM is a formal process of controlling safety risk by identifying hazards and analyzing and controlling risk. SRM is one of the four components of SMS, the others being safety policy, safety assurance, and safety promotion. SRM requires an accurate description of the application of the system, or subsystem, risk management principles, and processes.
- **1.7.44** Supplemental Type Certificate (STC). An STC is issued by the FAA to a person who applies for a major change to a type design when the proposed change does not require an application for a new TC under § 21.19. The STC, which incorporates by reference the related TC, approves not only the modification, but also how that modification affects the original design.
- **1.7.45** <u>Takeoff</u>. For the purposes of MEL relief, takeoff is considered to be the point at which the pilot physically begins to apply power to initiate the takeoff from the runway or takeoff surface.
- **1.7.46** <u>Triple Asterisk (\*\*\*)</u>. The triple asterisk in the "Item" column indicates an item that may have been installed on some but not all aircraft covered by an MMEL. This item may be included in the aircraft operator's MEL after the approving office has determined the item has been or will be imminently installed on one or more of the aircraft operator's aircraft. This symbol, however, should not be carried forward into the aircraft operator's MEL. It should be noted that neither this policy nor the use of this symbol provides authority to install or remove an item from an aircraft.

- **1.7.47** <u>Vertical Bar (Change Bar)</u>. A vertical bar indicates a change, addition, or deletion of content in the adjacent row of text for the current revision of that page only.
  - **1.8 Regulatory Requirements.** Regulatory requirements for parts 91K, 121, 125, and 135 operations, in accordance with §§ <u>91.1115</u>, <u>121.628</u>, <u>125.201</u>, and <u>135.179</u>, as applicable, indicate that no person may take off an aircraft with inoperable items unless there is an FAA-approved MEL for the aircraft and the operator fulfills certain other requirements. For example, operators must:
    - 1. Have authorization in OpSpec/MSpec D095, Minimum Equipment List (MEL) Authorization, to conduct operations using their approved MEL.
    - 2. Provide the flightcrews with direct access, at all times prior to flight, to all of the information contained in the approved MEL through printed or other means approved by the Administrator in the OpSpec or MSpec.
  - **1.9 OpSpec/MSpec D095 Requirements.** An operator may request a D095 MEL authorization by submitting to the FAA a comprehensive MEL management program that addresses the management and repair of instruments and equipment listed in their FAA-approved MEL. The documents or manuals in the operator's document system include a description of the program. For more information on the MEL management program, see Chapter <u>5</u>. A D095 MEL authorization contains the following:
    - A listing of authorized aircraft;
    - A description of the maximum times between deferral and repair (repair categories);
    - An MEL management program for managing the repair of the items listed in the FAA-approved MEL; and
    - Conditions for continuing authorization-single extension.
  - **1.10** Foreign Air Carriers and Foreign Operators of U.S.-Registered Aircraft Engaged in Common Carriage (14 CFR Part 129). Refer to AC <u>129-4</u>, Maintenance Programs for U.S.-Registered Aircraft Operated Under 14 CFR Part 129, for information regarding their MELs.
  - **1.11** 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)—GENERAL

- 2.1 General. An MEL allows an operator to continue to operate an aircraft with certain inoperative items or to reposition such aircraft to a place where repairs can be made. The MEL is intended to permit operation with inoperative items of equipment for a period of time until repairs can be accomplished. It is important that repairs be accomplished at the earliest opportunity. An operator uses the Master Minimum Equipment List (MMEL) applicable to an aircraft make/model/series (M/M/S) to develop its own MEL. An FAA-approved MEL may be more restrictive than the MMEL, but never less restrictive. An operator's MEL is approved by the Principal Operations Inspector (POI) at the operator's FAA Safety Assurance office. All changes to the MEL must be approved by the FAA prior to taking effect.
- **2.2** Categories of MEL Items. Three categories of items may be contained in an operator's MEL: items specified in the MMEL, NEF items, and administrative control items (ACI).
- **2.2.1** <u>MMEL Items</u>. The MEL lists all of the MMEL items for which the operator desires relief, based on the operator's specific aircraft configuration and type of operation.
- **2.2.2** <u>NEF Program</u>. The operator's NEF program may be included in the MEL or a subset of the MEL, and consists of a list of NEF items; the process for evaluating each item in accordance with NEF requirements, reporting procedures, and repair or replacement policy and procedures. The NEF program may be appended to the MEL or it may exist separately within the operator's manual system.
- 2.2.3 <u>Administrative Control Items (ACI)</u>. An ACI is listed by the aircraft operator in the MEL for tracking and informational purposes. As an example, ACI may be used to track Extended Operations (ETOPS) accomplishment of required auxiliary power unit (APU) cold-soak, or in-flight verification starts. An ACI may be added to an aircraft operator's MEL by approval of the POI, provided no relief is granted, or provided conditions and limitations are contained in an approved document (e.g., Structural Repair Manual (SRM) or Airworthiness Directive (AD)). If relief other than that granted by an approved document is sought for an ACI, a request must be submitted to the Administrator. If the request results in review and approval by the Flight Operations Evaluation Board (FOEB), the item becomes an MMEL item rather than an ACI. Furthermore, with regards to ACIs:
  - The listing of an ACI in its MEL is subject to POI approval.
  - ACIs should either be listed in the MEL systems section under the appropriate Air Transport Association of America (ATA) number section or be listed in a separate chapter reserved for ACIs.
  - An ACI can list all of the conditions and limitations included in the operator's approved or accepted manual, or could include a reference to all such manuals.
  - **2.3 Limitations of MEL Deferrals.** An operator's MEL may not be less restrictive than the MMEL, the applicable requirements in 14 CFR, the operator's operations specifications

(OpSpecs)/management specifications (MSpecs), or the Airplane Flight Manual (AFM)/Rotorcraft Flight Manual (RFM) limitations and emergency procedures.

- **2.4 Required Sections.** The MMEL format outline contains eight sections, six of which should be in the operator's MEL:
- **2.4.1** <u>Table of Contents</u>. The table of contents includes a list of all of the pages in the MEL, sorted by title and the corresponding page identification. The format may vary based on the operator's formatting preferences.
- **2.4.2** <u>Log of Revisions</u>. 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 may vary based on the operator's formatting preferences.
- **2.4.3** <u>Definitions</u>. A list of definitions of terms used in MMELs and MELs are found in MMEL Policy Letter (PL) 25. An operator does not need to include all of the MMEL definitions in the MEL because some are related to format issues, specific aircraft types, and types of operations. Certain portions of an MMEL definition may be edited or need not be included; however, if revised, the definitions may not be less restrictive than the MMEL.
- **2.4.4** <u>Preamble</u>. The standard MMEL preamble should be reproduced verbatim in each MEL, should not be modified, and should comply with the policy requirements included in FAA MMEL PLs. Operators conducting part <u>91K</u>, <u>121</u>, <u>125</u>, or <u>135</u> operations should use the preamble included in MMEL PL 34.
- **2.4.5** <u>Control Page</u>. The control page is meant for tracking the status of the MEL to ensure currency and applicability to a specific aircraft. It includes a revision record, which lists 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 will contain:
  - The operator's name;
  - A listing of all pages in the MEL (including the date of each page's revision);
  - The MMEL revision number on which the MEL is based; and
  - Evidence of FAA approval (required only if this page is used as a means of conveying FAA approval of the MEL).
- **2.4.6** <u>MMEL ATA or Joint Aircraft System/Component (JASC) Coded Sections</u>. Each MEL contains the MMEL ATA or JASC coded sections, as appropriate to the operator's and aircraft manufacturer's nomenclature.

# 2.5 Optional Sections.

**2.5.1** <u>Cover Page.</u> The cover page format and information may be the same as the MMEL. If a cover page is used, the operator should include the MMEL revision on which the MEL is

based. The operator may also include additional information in the control page at the operator's discretion.

**2.5.2** <u>Highlights of Change Page.</u> This page summarizes the changes made by the operator in each revision.

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

## CHAPTER 3. MINIMUM EQUIPMENT LIST (MEL)—CONTENT

- **3.1 MEL Contents.** In addition to the required MEL format items, an operator's MEL includes specific content based on the items installed on the operator's aircraft. Except for those instances specified by policy, an operator's MEL incorporates the phraseology used in the MMEL to ensure clarity and standardization.
- **3.2** Air Transport Association of America (ATA) or Joint Aircraft System/Component (JASC) Coded Sections. The use of the term "coded sections" refers to either the JASC Code Table or the ATA Specification 100 code. The MEL ATA/JASC coded system sections 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.
- **3.2.1** <u>System and Sequence Item Numbers</u>. Operators use the ATA or JASC system sequence numbering system. The numbering system provides an industry-wide standard for numbering aircraft systems and is relevant for all aircraft.

#### 3.2.2 Individual Item Numbers.

- 1. Individual item numbers are not required to match ATA/JASC system and sequence item numbers. An operator may use its own numbering system to identify individual items within a given ATA/JASC code group, as appropriate.
- 2. A triple asterisk (\*\*\*) below the system number in column 1 of a Master Minimum Equipment List (MMEL) indicates that an item has been installed on some models of a particular aircraft make/model/series (M/M/S). Operators omit the symbol and use a system sequence number when the item is installed on one or more of the operator's aircraft.
- 3. An MMEL item that is not listed in an operator's MEL is not subject to MEL relief.
- 4. An operator's MEL limitations, conditions, and restrictions may never be less restrictive than the MMEL. However, an operator may add limitations or increase restrictions for a particular item if they are more restrictive that those required by the MMEL.
- 5. Operators typically list an MEL item exactly as it is 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.
- 6. If an MEL item contains multiple components, the operator may choose to list the components separately following the item in the MEL.
- 7. Operators may not list duplicate items or items that are listed individually elsewhere in the MMEL.
- 8. Individual components of an MMEL or MEL item may not be listed as NEF.

- **3.3 Repair Categories.** Each item listed in an MEL (excluding NEF items or administrative control items (ACI)) should include a repair category designator as depicted in the MMEL. Repair categories represent the maximum time interval during which an item may be inoperative. When an item becomes inoperative and the operator defers repair, the aircraft may not be operated beyond the specified period until repairs are made. The requirement to comply with repair categories are included in the operator's OpSpec/MSpec D095, Minimum Equipment List (MEL) Authorization. Maximum repair time intervals are delineated by repair categories "A," "B," "C," and "D." Operators may adopt repair intervals that are more restrictive than the MMEL, but may not use a repair category that is less restrictive than the MMEL. Unless exercising an extension as listed in Chapter 5, operators using an MEL should ensure that repairs of deferred inoperative items are accomplished prior to expiration of the repair intervals established by the following letter designators:
- **3.3.1** <u>Repair Category A</u>. This category item must be repaired within the interval specified in the "Remarks or Exceptions" column of the aircraft operator's MEL. For repair intervals specified in consecutive calendar-days or flight-days, the day of discovery is excluded. For all other time intervals (e.g., flights, flight legs, cycles, hours), the repair interval begins at the point when the item is deferred in accordance with the aircraft operator's MEL.
- **3.3.2** <u>Repair Category B</u>. This category item must be repaired within 3 consecutive calendar-days (72 hours), excluding the day of discovery. For example, if it were recorded at 10 a.m. on January 26, the 3-day interval would begin on January 27, and end at 23:59:59 on January 29.
- **3.3.3** <u>Repair Category C</u>. This category item must be repaired within 10 consecutive calendar-days (240 hours), excluding the day of discovery. For example, if it were recorded at 10 a.m. on January 26, the 10-day interval would begin on January 27 and end at 23:59:59 on February 5.
- **3.3.4** <u>Repair Category D</u>. This category item must be repaired within 120 consecutive calendar-days (2,880 hours), excluding the day of discovery.
  - **3.4** Number of Items Installed. The "Number Installed" column of an MEL lists the quantity of the specified item installed on the aircraft. This number typically represents the aircraft configuration used to develop the aircraft MMEL.
- **3.4.1** <u>Variable Number Installed</u>. A dash (-) for number installed indicates a variable number of the installed item. Use of a "-" is common in fleet MELs where aircraft of the same make and model (M/M) 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.
- **3.4.2** <u>Items Listed on the MMEL But Not Installed on the Aircraft</u>. An operator's MEL does not have to list items included in the MMEL but not installed on the operator's aircraft. For number continuity in an MEL, operators may choose to:

- DATE
  - 1. Omit the item from the MEL altogether and renumber the individual items within an ATA category as necessary to provide continuity. Individual item numbers in an MMEL are not necessarily ATA/JASC code numbers but could be sequential item numbers within an ATA/JASC category; or
  - 2. List the item in the MEL and 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" would be noted under "Remarks or Exceptions." In this case, the repair category designators are omitted.
  - **3.5** Number Required for Dispatch. The "Number Required for Dispatch" column of an MEL reflects the minimum number of items required, provided the conditions specified in the "Remarks or Exceptions" are met. The number of items required for dispatch may differ from what is required in the MMEL under the following conditions:
    - The item is listed in the MMEL as optional, is not installed on the operator's aircraft, or is installed on the operator's aircraft but is not required in all operations. In this case, a zero (0) may be shown as the number required for dispatch.
    - The "Number Required for Dispatch" is followed by a "-" in the MMEL.
    - Where the MMEL shows a dash "-" required for dispatch, the MEL should reflect the actual number required for dispatch. Fleet configuration differences and the dispatch requirements will be specified in the "Remarks or Exceptions" section.
    - The number required for dispatch in the MEL cannot be less restrictive than the MMEL.
  - 3.6 Remarks or Exceptions. The "Remarks or Exceptions" column includes the Maintenance (M) and Operations (O) indicators, a statement permitting operation with a specific number of inoperative items and their associated provisos. An MMEL contains general "Remarks or Exceptions" for items that are required by 14 CFR for a particular type of operation, or for items that require specific procedures when inoperative. "Remarks or Exceptions" in the MMEL are intentionally general to accommodate a variety of operators and operating rules, but may not be general in the "Remarks or Exceptions" column of an operator's MEL. Each operator's MEL will expand the MMEL general "Remarks or Exceptions" to include specific 14 CFR requirements and procedures for operating with the inoperative item(s). The operator's MEL will contain detailed procedures and 14 CFR compliance requirements based on the general "Remarks or Exceptions" contained in the MMEL. Listing the 14 CFR regulation (e.g., § 121.643) in the operator's MEL is optional. MEL "Remarks or Exceptions" that list references to other manuals containing MEL procedures within the operator's manual system is an acceptable alternative. This column may be blank or may include a statement permitting operation with a specific number of items inoperative. The statement may include a proviso for such operation and appropriate notes. If the MMEL column is blank, the aircraft operator's MEL may, at the operator's discretion, incorporate the text, "May be inoperative." The MMEL column may show a specific number that may be inoperative or it may state "any in excess" of a number.

- **3.7 MEL Remarks and Exceptions Defined.** The operator's MEL will expand on MMEL general "Remarks or Exceptions" and will include specific procedures to enable compliance with applicable operating requirements. The procedures will cover, in sufficient detail, what is required when a particular item is inoperative. General phrases in provisos may not be included in an MEL. The FAA will not approve an MEL that includes provisos with general statements such as:
  - "May be inoperative provided procedures do not require its use."
  - "May be inoperative or missing if alternate procedures are established and used."
  - "May be inoperative unless required by 14 CFR" or "As required by 14 CFR."
- **3.8 MEL Proviso Stipulations Will Be Specific.** An operator's MEL will contain specific procedures, requirements, and conditions that apply when a particular item is inoperative. The operator is responsible for ensuring that the MEL contains enough information to adequately and safely address operations with the item inoperative. The information will be assessed with the FAA as part of the approval process.
- **3.9** (M) and (O) Procedures. The presence of (M) and (O) indicators in the MEL indicates that a specific procedure is required to be accomplished.
- **3.9.1** (M) Procedures. The (M) symbol indicates a maintenance procedure that is accomplished prior to operation. (M) procedures are usually accomplished by qualified maintenance personnel in accordance with 14 CFR part <u>43</u> or other maintenance-related regulations as applicable. Some (M) procedures, however, may not necessarily be a covered maintenance action under these regulations. Depending on the type and complexity of the procedures, an operator may authorize other personnel (e.g., a flightcrew member) to perform (M) procedures, but only appropriately qualified maintenance personnel may conduct procedures requiring specialized knowledge, skill, or the use of tools or test equipment.
  - 1. The operator is responsible for ensuring that all (M) procedures are accomplished in accordance with the operator's MEL program and applicable maintenance regulations.
  - 2. As part of the review and approval process, the FAA may ask the operator to include additional instructions within the provisos to ensure that deferral procedures will continue to provide an Acceptable Level of Safety (ALoS).
  - 3. The (M) procedures may be fully depicted in the operator's MEL or in another manual. If a procedure is contained in another manual, the MEL should provide specific reference to that manual. MEL (M) procedures are subject to FAA review and validation to ensure they are adequate for the relief sought.

**Note:** Manufacturers may produce manuals of recommended procedures for inoperative items. The Flight Operations Evaluation Board (FOEB) normally considers these procedures when developing the MMEL. When a manufacturer-recommended procedure exists and has been determined to be

acceptable by the FOEB during development of the MMEL, the operator may use it as published or develop equivalent procedures for its MEL.

- **3.9.2** (O) Procedures. The (O) indicator stipulates an operations procedure intended to be followed for planning purposes or for operating with a deferred item. These procedures may be required for flight planning purposes and are normally accomplished by the flightcrew; however, other personnel may be qualified and authorized to perform certain functions. Additionally, procedures may have to be developed for MEL items that affect the aircraft weight and balance, dispatch, or passenger/cargo loading (e.g., procedures for additional personnel such as those involved with aircraft load control).
  - 1. The (O) procedures may be fully depicted in the operator's MEL or in another manual. If a procedure is contained in another manual, the MEL should provide specific reference to that manual. MEL (O) procedures are subject to FAA review and validation to ensure they are adequate for the relief sought.
  - 2. During the MEL review and approval process, the operator may have to include additional instructions in its provisos to ensure that deferral procedures provide an ALoS.
  - 3. The operator is responsible for accomplishing all (O) procedures in accordance with its MEL program.
- **3.9.3** <u>Operator Developed (M) and (O) Procedures</u>. Operators should develop procedures that appropriately address the type of operation conducted. The procedures can be more restrictive than the MMEL but can never be less restrictive than the MMEL.
- **3.10 Provisos.** Provisos are terms, conditions, or limitations that the operator must comply with to operate an aircraft with an inoperative item. Provisos are indicated in an MEL and, if more than one proviso applies to a given item, are listed by a number or a lowercase letter. For example, a proviso may allow an item to be inoperative provided the aircraft is not operated in Extended Operations (ETOPS); or a proviso may require that an aircraft only be operated under visual flight rules (VFR) when a particular item is inoperative. In the operator's MEL, the phrase "As Required by 14 CFR," or any similar statements from the MMEL, will be replaced with the specific regulatory references or conditions under which an item may be inoperative.
- **3.11** Notes. Notes provide additional information for crewmember or maintenance consideration. Notes are used to identify applicable material, which is 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 amended, deleted, or added to the MEL by the aircraft operator, as appropriate. Notes are not a part of the provisos.
- **3.12 Definitions.** MMEL Policy Letter (PL) 25 provides a list of definitions for use in MMELs and MELs. For MELs, certain MMEL definitions may be edited or may be omitted if the element is not used in the operator's MEL. MEL definitions will be tailored, as appropriate, including content and format, dependent upon the aircraft

operator's M/M 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.

- **3.13 References.** The operator should research regulatory requirements in detail to develop the appropriate deferral limitations and conditions. Clarification of specific regulatory requirements will be included in each related proviso. Appendix A of MMEL PL 25 contains a list of regulatory references by ATA section. Operators may use MMEL PL 25 to identify the appropriate terminology to use in their MEL. An operator may include a reference to their FAA-approved or FAA-accepted manual that contains the procedure(s) required to address a particular MEL item. The MEL may only reference FAA-approved or FAA-accepted manuals. The following conditions apply when referencing other manuals:
  - 1. Manual reference(s) will 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.
  - 2. Manual references will direct the reader to use the most current revision of the subject manual. Actual revision level/date of the manual is not required to be listed in the MEL.
  - 3. The operator's MEL management program will include procedures for notifying the FAA when references within the MEL have changed. All changes to procedures in the MEL require an MEL revision and FAA approval.
  - 4. The proviso or specific instruction and manual reference in the MEL is considered the means of compliance for MEL purposes and is approved by the FAA. Each procedure referenced is either FAA-approved or FAA-accepted, depending on the status of the manual referenced. For example, for "Remarks or Exceptions" which contain procedures, an operator could include a proviso or specific instruction to secure or isolate an item in accordance with a specific chapter, section, task, or paragraph of the referenced manual. The instructions and the reference to the manual is the means of compliance.

**Note:** Any change to any procedure listed in an MEL (in the event that an operator lists procedures in the MEL instead of providing references to other approved or accepted manuals) will be evaluated and approved as part of the MEL revision. References in the MEL to maintenance procedures contained in an approved or accepted manual may contain language such as "Deactivate and lock start valve in the closed position according to current version of AMM 80-12-14-201A." Such language will be approved as part of the original submission of the MEL and will remain approved as long as the reference is valid. An operator may make changes to the referenced AMM procedure without subsequent MEL approval. The FAA does not need to reapprove an MEL as a result of a change in a procedure in a referenced manual.

**3.14** Specific 14 CFR Requirements. MEL deferrals based on MMEL items that may be inoperative "unless required" by 14 CFR will contain specific details of the relevant regulatory requirements. For example, an MMEL general "Remarks or Exceptions" for

distance measuring equipment (DME) states "As required by 14 CFR." An acceptable MEL "Remarks or Exceptions" would be "May be inoperative provided flight remains below FL 240."

## CHAPTER 4. MEL RELIEF FOR ITEMS INSTALLED AFTER TYPE CERTIFICATION

- **4.1 General**. The aircraft design approval holder (DAH) 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 be accomplished only through a Supplemental Type Certificate (STC), an Engineering Order (EO), a Field Approval, or other FAA-approved methods (as appropriate).
- **4.2 Operator NEF Items or Administrative Control Items (ACI).** Items listed on an operator's NEF program and ACIs are excluded from the requirements for evaluation, as listed in this chapter.
- **4.3 MMEL Items and MEL Items.** For an item to be listed in an operator's MEL, it should first be listed in the MMEL, as the MMEL is the basis for an operator's MEL. (The only exception to this policy would be MEL relief added through an MMEL policy letter (PL) with a Global Change (GC) designation or an Aircraft Evaluation Division (AED) approval letter, as these are considered addendums to the MMEL.)
- **4.3.1** <u>Example of This Concept</u>. If an operator is wanting to add an item to its MEL, such as a flight management system (FMS) or an autopilot, that item should first appear in the applicable aircraft's MMEL as "FMS" or "Autopilot."
- **4.3.2** <u>Items Not Listed in an MMEL</u>. An operator may petition the AED to add items to the applicable aircraft's MMEL through the Flight Operations Evaluation Board (FOEB) process. This may be accomplished through the operator's responsible Flight Standards office or directly to the responsible AED office. An operator should be prepared to provide the information needed by the FOEB for this evaluation. See the list of needed items found in paragraph <u>4.7</u>.
  - **4.4 MMEL PL 109.** MMEL PL 109 contains policy specific to MEL relief for items installed by STC and other design changes.
  - **4.5** STCs. A design change to a TC is often done with an STC. Ideally, MMEL/MEL relief can be evaluated during the certification of the STC when this is requested by the STC applicant.
- **4.5.1** Evaluation of MEL Relief During STC Certification. To obtain MMEL/MEL relief, the STC applicant involved in the certification of an STC should submit a request for relief in accordance with the FOEB MMEL Agenda Coordination Process (refer to FAA Order 8900.1, Volume 8, Chapter 2, Section 3, Flight Operations Evaluation Board, and AC <u>21-40</u>, Guide for Obtaining a Supplemental Type Certificate). This submission should be made early in the certification process to allow MMEL/MEL evaluation concurrent with the certification process. Requests for relief subsequent to the completion of the certification process can delay the availability of MMEL/MEL relief for an item.

- **4.5.2** <u>MEL Relief After STC Certification</u>. STCs issued without concurrent AED evaluation may be granted relief by request from the operator to the FAA. STCs already listed by STC number in the applicable aircraft MMEL, or in an AED approval letter, may be added to the operator's MEL through the normal revision process without further evaluation. However, a principal inspector (PI) may coordinate with the AED during this process, as needed.
  - **4.6** Adding Relief for Items Installed After Type Certification. Using the normal revision process found in Chapter <u>9</u> of this AC, an operator may add relief for items to its MEL through any of the following solutions:
- **4.6.1** <u>MMEL Specifically Lists the Relief</u>. Where the MMEL lists the specific STC number (e.g., ST00733SE) or identifies the specific design change nomenclature (other than STCs), an operator may add the relief to its MEL.
- **4.6.2** <u>Design Change Approval Letters</u>. Upon evaluation and approval of a design change, the AED will submit an approval letter directly to the FAA's DRS. Operators may access these approval letters at <u>https://drs.faa.gov/</u> under "AEG Guidance Documents, MMELs and Electronic Flight Bag," "STC Relief Approval Letters." The approval letter will contain the allowed relief, including conditions and provisos, along with remarks or exceptions. Approval letters will be dated and have revision numbers. Operators may amend their MEL(s) with the relief for the STC(s) in accordance with the AED approval letter. Paper copies of the AED approval letter are also acceptable in lieu of the FSIMS database.
- **4.6.3** <u>MEL Relief Through MMEL PL With GC Designation</u>. Operators may add relief into their MEL(s) for an STC through an MMEL PL with a current GC designation. However, upon AED evaluation of the item (if an evaluation is conducted), operators may have to amend or remove previously approved relief in their MEL(s). See Chapter 9 for additional information on GC.
- **4.6.4** <u>Responsible Flight Standards Office's Evaluation of the Relief</u>. If the proposed relief is not covered by one of the three solutions immediately above, the item may be evaluated by the responsible Flight Standards office. To add MEL relief using this method, the following points should be considered:
  - 1. The basic item needs to be found in the applicable aircraft's MMEL (e.g., FMS, autopilot, passenger seat). If not, the AED must complete the evaluation.
  - 2. The operator's Safety Management System (SMS) (as applicable) reveals that the proposed relief does not present a hazard to the operator's use of the relief.
  - 3. The PIs conducting the evaluation may consult with the STC holder, AED, Original Equipment Manufacturer (OEM), and other stakeholders during their evaluation of the operator's proposal.

- 4. If the item was previously evaluated by the AED and relief was not granted, the item is not eligible for evaluation by the responsible Flight Standards office.
- 5. If the PI believes a hazard exists with the operator's proposal, the item is not eligible for relief.
- **4.7 Items Needed for Evaluation of Design Changes.** Each proposed MEL item should have accompanying supporting justification before it will be considered. The information needed by the FAA allows a thorough evaluation of the risk associated with operating the aircraft with the item inoperative. The FAA may reject an item proposal if the justification information is inadequate. At a minimum, the following information should accompany all item proposals:
  - 1. The title and number of the proposed MMEL item;
  - 2. A brief description of the system and its intended functions;
  - 3. A summary of the proposed MMEL relief;
  - 4. A brief description of intent;
  - 5. The effect of dispatching a flight with this inoperative item;
  - 6. The operating rule(s) that requires the item to be operative, as applicable;
  - 7. The transfer of function when the item is inoperative;
  - 8. The next most critical failure;
  - 9. The effect on increased flightcrew workloads (including risk mitigations);
  - 10. The certification requirements for the item;
  - 11. Any conflicts with Airplane Flight Manual (AFM) limitations, procedures, or Airworthiness Directives (AD);
  - 12. If the item affects or is required to accomplish an emergency procedure;
  - 13. The effect on aircraft capability in an emergency;
  - 14. Maintenance (M) and Operations (O) procedures required for the proposed dispatch condition;
  - 15. Any information that adds support to the proposal (e.g., wiring diagrams, schematic drawings, or STC documents); and
  - 16. Any other information requested by the FAA before or during the evaluation.

## **CHAPTER 5. MEL MANAGEMENT PROGRAM REQUIREMENTS**

- **5.1 General.** Each operator will develop and maintain a comprehensive program for managing the repair of items listed in the FAA-approved MEL. An operator's MEL management program is required by Operations Specification (OpSpec)/Management Specification (MSpec) D095, Minimum Equipment List (MEL) Authorization, issued by the FAA to authorize an operator to use an MEL.
- **5.2 MEL Management Program.** The MEL management program should include at least the following:
- **5.2.1** A method for tracking the date and, when required, the time an item was deferred and subsequently repaired. This should include a supervisory review of:
  - 1. The number of deferred items per aircraft;
  - 2. Each deferred item to determine the reason for any delay in repair;
  - 3. Length of delay; and
  - 4. The estimated date the item will be repaired.
- **5.2.2** A plan for managing the materials, personnel, facilities, and aircraft to ensure timely corrective action.
- **5.2.3** Processes to ensure parts availability.
- **5.2.4** A description of specific duties and responsibilities, by job title, of the personnel who manage the MEL program.
- **5.2.5** Procedures for controlling an extension to specified repair intervals as permitted by the operator's OpSpec/MSpec to include the limit of the extension and the procedures for authorizing an extension.
  - **5.3** Continuing Authorization—Single Extension. For operations conducted under part <u>91K</u>, <u>121</u>, <u>125</u>, or <u>135</u>, OpSpec/MSpec D095 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.
    - OpSpec/MSpec D095 requires each operator's MEL management program to contain procedures for controlling extensions to item repair intervals. Procedures for the method by which the operator approves a continuing authorization-single extension will be included.
    - Under OpSpec/MSpec D095, an operator is not authorized to use a continuing authorization-single extension for repair category A or D items.
    - Under OpSpec/MSpec D095, the operator should notify its responsible Flight Standards office within 24 hours of approving a continuing authorization-single extension.

**Note:** The FAA may deny the use of the continuing authorization-single extension privilege if abuse is evident.

**5.4** Additional Extensions. After the operator has exercised its one-time extension of a repair category B and C item, approval for additional extensions can only be obtained by submitting a request to the responsible Flight Standards office. An extension to a repair interval may not exceed the time of the 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 three consecutive calendar-days. In rare cases, some additional extensions may be authorized by coordination with Safety Standards divisions. Operators may request extensions to category A and D items by contacting their responsible Flight Standards office.

# **CHAPTER 6. CONDUCTING OPERATIONS UTILIZING MEL RELIEF**

- **6.1** General. Parts <u>91K</u>, <u>121</u>, <u>125</u>, and <u>135</u> operators' flightcrew, operational control, and maintenance personnel need to clearly understand the regulatory requirements associated with conducting operations in accordance with their FAA-approved MEL.
- **6.1.1** <u>Applicability</u>. MEL item relief may be applied to an MEL item newly identified as inoperative up until takeoff. 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 means the point at which power is applied to initiate the takeoff from the runway or takeoff surface.
- **6.1.2** <u>Operator Regulatory Responsibility</u>. Operators must comply with all applicable FAA requirements.
- **6.1.3** <u>Item Failures During Push-Back, Taxi, After Gate or Ramp Departure, Prior to Takeoff</u>. The MEL does not allow a flight to continue "as dispatched," as any discrepancy discovered before takeoff must be addressed by repair or deferral. The MEL allows a discrepancy to be addressed by deferral for a specified period. The aircraft should be redispatched with the item of equipment inoperative, and a revised dispatch release issued showing the deferred item. An operator's MEL management program should include the policies and procedures required to ensure an aircraft does not take off with inoperative items until the MEL deferral process has been completed. If the MEL procedures for a specific item require a mechanic's inspection, takeoff would be prohibited until the required inspection is completed.</u>
- **6.1.4** <u>Item Failures After Takeoff</u>. MEL relief does not apply for item failures occurring after takeoff. After takeoff, flightcrews should handle item failures in accordance with the Airplane Flight Manual (AFM)/Rotorcraft Flight Manual (RFM) and the operator's approved procedures and checklists. However, any item failure that occurs after takeoff must be addressed before the subsequent takeoff.

# 6.2 Operational Requirements.

- 6.2.1 <u>Airworthiness</u>. Section <u>91.7</u> prohibits operation of an aircraft that is not airworthy. Sections <u>121.605</u> and <u>125.355</u> prohibit any person from dispatching or releasing an aircraft unless it is airworthy, and § <u>135.143</u> prohibits operating an aircraft unless the aircraft and required instruments and equipment have been approved and are in an operable condition. In all cases, the operator, the pilot in command (PIC), the aircraft dispatcher (part 121 domestic and flag), or person authorized to exercise operational control by the operator (part 121 supplemental) are all responsible for ensuring the aircraft is dispatched/released and operated in an airworthy condition.
- **6.2.2** <u>Fulfillment of Regulatory Responsibility</u>. Each operator should provide a process for persons authorized to exercise operational control (PIC, dispatcher, flight follower, Director of Operations (DO), Operations Control Specialist, or person authorized by the DO, as applicable) to fulfill their regulatory responsibility to ensure an aircraft is not dispatched or released unless it is airworthy.

- **6.2.3** Operations With Inoperative Instruments. Under the provisions of §§ 91.1115, 121.628, 125.201, and 135.179, operations with inoperative instruments or equipment may be conducted with an FAA-approved MEL and MEL management program. This may be accomplished through a maintenance control organization that is responsible for verifying airworthiness and providing MEL information to the person authorized to exercise operational control before the aircraft is entered into service.
  - **6.3 Part 121 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 should be included on the dispatch or flight release, and the flight planned to account for any limitations, such as system, flight restrictions, or performance limitations imposed by the deferral stipulations of the 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) 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 Operations (ETOPS) limitations.
    - 16. Lighting restrictions.
    - 17. Oxygen system limitations.
    - 18. Information system limitations.
    - 19. Auxiliary power limitations.
- 6.3.1 <u>Item Failures that Occur After the Issuance of a Dispatch or Flight Release–Parts 91K,</u> <u>121, 125, and 135</u>. Operators should have policies and procedures in place for the dispatcher, person authorized to exercise operational control, and the PIC to amend the dispatch or flight release when an MEL item is deferred after the dispatch or flight

release has been issued. Those procedures should include procedures to update the flight plan to include limitations that are imposed by an MEL.

- 6.3.2 <u>Item Failures That Occur After an Aircraft Departs the Gate or Ramp Area, During</u> <u>Push-Back, Taxi, or Prior to Takeoff</u>. Each operator's MEL management program must include procedures for the PIC to communicate with the person authorized to exercise operational control and the maintenance organization to determine which of the following actions is required:
  - **6.3.2.1 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, performance, weight and balance, or fuel limitations, the aircraft must return to the gate or ramp area for repairs.
  - **6.3.2.2** Return to Accomplish Maintenance (M) and Operations (O) Procedures. PICs, dispatchers, or persons authorized to exercise operational control may determine that an inoperative item may be deferred and the appropriate (M) or (O) procedures accomplished in accordance with the operator's approved MEL and MEL management program.
  - **6.3.2.3** Flightcrew Accomplishment of Certain MEL Procedures. An operator may develop, and the FAA may approve, procedures that permit flightcrew members to accomplish MEL deferrals in coordination with the operator's dispatch and maintenance organization, without returning to the gate or ramp area. These procedures will be part of the operator's MEL management program to ensure all applicable procedures are accomplished by appropriately qualified personnel and that all conditions and limitations associated with an MEL item are satisfied.
    - 1. Coordination between flightcrew and the maintenance organization may not involve directed troubleshooting or other forms of system fault diagnosis beyond what is specifically approved in the operator's MEL management program procedures.
    - 2. Only qualified maintenance personnel may perform troubleshooting or fault diagnosis necessary to determine suitable MEL relief, unless otherwise approved.
    - 3. Any time an MEL item results in operational limitations such as those affecting aircraft performance and altitude capabilities or weight or fuel restrictions, the dispatcher or person authorized to exercise operational control will recalculate a new flight plan and issue a new or amended dispatch or flight release.
  - 6.4 Multiple Inoperative Items or System Components. Because an inoperative component in one system can affect the operation, or limit the inoperability of a component in another system, operator's personnel should be aware of the impact that

multiple item failures and deferrals can have on the safety of flight. This includes the consideration of possible additional item failures while an aircraft is en route.

**6.5** Availability of the MEL to Operator Personnel. Parts 91K, 121, 125, and 135 require that flightcrews have direct access to the MEL at all times prior to takeoff. Indirect methods of providing access such as telephone, radio, or data link are not acceptable. The method of providing access is part of the operator's MEL management program.

# **CHAPTER 7. MEL CREATION AND FORMATTING**

- **7.1 General.** When constructing an MEL, each operator should consider their particular aircraft configurations and operational procedures. An MEL is based on the MMEL for the aircraft and should include the characteristics of an MMEL. In addition to the required MEL format items, an operator's MEL should 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.
- 7.2 MEL Format Outline. Operators may copy the MMEL format outline directly into their 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 should always include six of those sections. The operator may include additional information sections in addition to the ones listed in Chapter <u>2</u>. The following policy describes the operator's MEL format:
- 7.2.1 <u>Vertical Bar (Change Bar)</u>. All change bars applicable to the previous revision of the MEL are to be removed prior to release of the next revision. This applies to all pages, including those not affected by the new revision.
- **7.2.2** <u>Subsystem Titles</u>. Identify subsystem titles in column one with 1), 2), etc. For example (bullets are used in this example, but are not required):
  - 28-xx Fuel Quantity Indicating System
    - o 1) Main Tank
    - o 2) Center Tank
- 7.2.3 <u>For Items That Must be Operative for All Conditions</u>. Delete or do not include any items that must be operative for all conditions.
- 7.2.4 <u>When a Relief Item is Deleted or Moved</u>. When a relief item is deleted or moved, the item name and sequence number will be retained in the MMEL, with an appropriate notation in the "Remarks or Exceptions" column. Include the revision number of the deleted or moved relief item. For example:
  - Relief is deleted entirely: "Deleted, Revision X."
  - Relief is combined with relief at another location: "Relief combined with ATA 31-XX, [Relief Title], Revision X."
  - Relief is moved to another Air Transport Association of America (ATA) chapter: "Relief moved to ATA 31-XX, Revision X."
  - Relief is moved to another FAA-approved document: "Relief moved to [Document Name], Revision X."

- 7.2.5 <u>Number Installed/Number Required for Dispatch</u>. In the "Number Installed" or "Number Required for Dispatch" columns, use a number whenever possible; otherwise, use a "-s" with proper qualification.
- 7.2.6 <u>One Proviso Formatting</u>. When only one proviso condition exists, arrange it into the statement of relief.
- 7.2.7 <u>Control or Switch Position</u>. Where a control or switch position is specified, indicated by label, or special emphasis is required, use all caps instead of underlining (e.g., "ON-OFF" or "OPEN-CLOSED.") Use of the word "position" in reference to "ON-OFF" or "OPEN-CLOSED" is often redundant and need not be included.
- **7.2.8** <u>Reference to Another Item Listed in the MEL</u>. Where a proviso refers to another item listed in the MEL, typically to require that item be operative, the item will always be referred to using the exact same title as listed. The relief item number will generally not be used to reference an item.
- 7.2.9 <u>Limiting Altitudes</u>. Whenever possible, all limiting altitudes stated should include the words "or below" (e.g., "10,000 feet MSL or below," "FL 310 or below").
- **7.2.10** <u>Specific Word Usage</u>. The word "operative" should be used instead of "operable." Delete the word "the" wherever possible.
- 7.2.11 <u>Provisos</u>. Use letter and parenthesis (e.g., a), b), etc.) to identify proviso conditions. Delete the word "or" when it is located between proviso conditions. Each set of needed proviso conditions should be repeated as required to eliminate the use of "or." Use a comma after all proviso conditions and prior to the last one use ", and." Use a period after last proviso condition. For example:
  - First condition,
  - Second condition, and
  - Last condition.
- **7.2.12** <u>Note(s)</u>. Each note applies only to the relief proviso it immediately follows and is located in the "Remarks or Exceptions" column, using all caps for the word "NOTE." Note(s) should be repeated, as necessary, following each applicable proviso. If there is only one note, do not number it. If there is more than one note, number each (e.g., "NOTE 1:", "NOTE 2:").
  - **7.3 Prohibited Items.** An MEL will not include items of the aircraft required by operating regulations (e.g., wings, flaps, rudder, etc.), nor will it include instruments and equipment required for specific operations under 14 CFR.
  - 7.4 MEL Restrictions. An operator's MEL may not be less restrictive in any way (more restrictive is acceptable) than the following:

- The MMEL from which it was developed;
- Title 14 CFR;
- The operator's Operations Specification (OpSpec)/Management Specification (MSpec) D095, Minimum Equipment List (MEL) Authorization;
- The Airplane Flight Manual (AFM)/Rotorcraft Flight Manual (RFM) limitations and emergency procedures;
- The Supplemental Type Certificate (STC)/instructions for continued airworthiness (ICA) (as applicable); or
- Applicable Airworthiness Directives (AD).

**Note:** 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. Refer to 14 CFR part <u>39</u>, §§ <u>39.3</u> and <u>39.19</u>. 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.

- **7.5** Fleet MELs. An operator may develop a fleet MEL for multiple aircraft of the same make and model (M/M). When a fleet MEL is used, aircraft of the same M/M may have differing numbers of specific items installed. PIs may approve an operator's use of 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 to all of the make, model, and series (M/M/S) aircraft contained in the fleet. For example, the MMEL applies to all model B747-100/200/300 aircraft.
- **7.5.1** <u>Identify Each Model and Configuration Difference</u>. A fleet MEL should identify each aircraft model and configuration difference, when appropriate. The operator does not need to list aircraft identification numbers.
- 7.5.2 <u>Modifications Within a Fleet</u>. 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-acceptable methods, techniques, and practices, including the use of FAA-approved technical data if the installation or item removal is a major alteration. 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.
- **7.5.3** <u>OpSpecs/MSpecs and Manuals</u>. The operator's OpSpec/MSpec D095 and appropriate company manuals, such as the maintenance manual, should list aircraft M/M/S for each fleet MEL approval.

#### CHAPTER 8. FAA REVIEW AND INITIAL APPROVAL OF AN OPERATOR'S MEL

- **8.1 General.** When an operator submits an MEL to the responsible Flight Standards office for approval, the Principal Operations Inspector (POI) will coordinate with the Principal Avionics Inspector (PAI), Principal Maintenance Inspector (PMI), and inspectors in other specialties as necessary during the approval process. The process of developing and obtaining FAA approval of an MEL can be viewed as a five-phase process: preliminary, submission, MEL review, MEL management program review, and approval and issuance of Operations Specification (OpSpec)/Management Specification (MSpec) D095, Minimum Equipment List (MEL) Authorization.
- **8.2 Preliminary.** In the preliminary phase, the operator will consult with the principal inspectors (PI) regarding the requirements for initially developing an MEL. The PIs will discuss the operator's type and scope of operations and advise the operator on how to find the current Master Minimum Equipment Lists (MMEL) for their fleet(s).
- **8.3** Submission. Upon developing a draft of their proposed MEL, the operator will submit the MEL and associated documents to the FAA for review. The submitted material should be in a format that allows review and comment that is acceptable to the responsible Flight Standards office. Additionally, an MEL should be in a format that provides the FS office with the ability for thorough review and comment. The submission should include, at a minimum:
  - 1. The proposed MEL.
  - 2. The current equipment list for each aircraft make/model/series (M/M/S) that will be included in the MEL.
  - 3. The MEL management program and its procedures, as required by OpSpec/MSpec D095.
  - 4. MEL-related portions of the operator's training program for flight and ground personnel and any associated guidance material.
- **8.3.1** Any manual(s) or document(s) that are referenced in the MEL and MEL management program, including:
  - a. Instructions for managing the repair of items listed in the MEL.
  - b. Policies and procedures for flightcrews to report mechanical irregularities.
  - c. Procedures for:
    - Approving the aircraft for return to service (part  $\underline{43}$ , §§  $\underline{43.9}$  and  $\underline{43.11}$ ); or
    - Preparing the aircraft airworthiness release or the appropriate entry (§§ <u>91.1443</u>, <u>121.709</u>, <u>125.411</u>, or <u>135.443</u>).
  - d. Procedures for maintenance, preventive maintenance, and alterations.

- e. Procedures for verification of aircraft airworthiness.
- f. Inspection program requirements and procedures for required inspection personnel.

### 8.4 Review and Findings of an Operator's MEL Submission.

- **8.4.1** <u>Initial Review</u>. The PIs will conduct an initial review of the operator's submittal to verify its completeness and will verify that submittal is detailed enough to permit a thorough evaluation. They will contact the operator if the proposed MEL package is incomplete or otherwise unacceptable.
- **8.4.2** <u>Comprehensive Review</u>. If the initial review is acceptable, the PIs will then conduct a comprehensive review. This review will normally be completed within 90 days from the initial review.
  - **8.4.2.1** During the comprehensive review process, the MMEL is used as the primary reference document; however, the review will include verification that the MEL does not conflict with the applicable regulations of 14 CFR, the Airplane Flight Manual (AFM)/Rotorcraft Flight Manual (RFM), and the operator's OpSpecs/MSpecs. Items that are not eligible for deferral, and therefore cannot be listed in the MEL, include:
    - Type Certificate Data Sheet (TCDS) items.
    - Any items required by the rules under which the aircraft is type certificated and which are essential for safe operations under all operating conditions.
    - Instruments and equipment required for specific operations under the applicable operating rule(s)
    - Any items required by Airworthiness Directives (AD).
  - **8.4.2.2** The reviewers will verify, amongst other things, that:
    - 1. The MEL format contains the required sections and content, as listed in Chapters 2 and 3.
    - 2. The table of contents and pages are numbered according to the applicable Air Transport Association of America (ATA) or Joint Aircraft System/Component (JASC) numbering system.
    - 3. The prescribed MEL preamble is used without modification (refer to MMEL PL-34).
    - 4. The MEL contains all installed items listed in the MMEL for which relief is requested.
    - 5. The MEL repair categories are not less restrictive than the MMEL.

- 6. The "Number Required" section agrees with the number installed, according to the current equipment list and is not less restrictive then the MMEL.
- 7. The operator's program includes a revision process to ensure that the MEL is revised when there are changes in the MMEL, including process instructions and a method for maintaining a current List of Effective Pages (LEP) of the MEL.
- 8. All abbreviations and symbols used in the MEL are defined.
- 9. The MEL "Remarks or Exceptions" column includes specific procedures in accordance with the requirements of the operating rules (e.g., parts 91K, 121, 135, etc.) under which the operator conducts its operation. The procedures should address what is required when a particular item is inoperative, any fleet configuration differences, and that the dispatch requirements are specified in sufficient detail. "Remarks or Exceptions" may not be general.
- 10. The operator's (M) and (O) procedures are fully developed.
- **8.5** MEL Management Program Review. The review of the operator's submission will also verify that the operator's MEL management program meets the requirements of OpSpec/MSpec D095 and the requirements of FAA Order 8900.1, Volume 4, Chapter 4, Configuration Deviation List (CDL) and Minimum Equipment List (MEL). The MEL management program should at least include:
  - 1. A list of personnel responsible for MEL management.
  - 2. A list of personnel authorized to defer maintenance in accordance with the MEL.
  - 3. A description of specific duties and responsibilities, by job title, of the personnel who manage the MEL management program.
  - 4. A description of training requirements for conducting MEL procedures.
  - 5. Procedures for granting deferral authority.
  - 6. Procedures for controlling an extension to specified repair intervals, as permitted by OpSpec/MSpec D095, to include the limit of the extension and the procedures to be used for authorizing an extension.
  - 7. Instructions for the placarding of inoperative and removed items, including sample placards, as they would appear in service.
  - 8. A plan for bringing together parts, maintenance personnel, and aircraft at a specific time and place for repair.
  - 9. A review of items deferred because of the unavailability of parts to ensure that a valid back order exists with a firm delivery date.
  - 10. A method that provides for tracking the date and, when appropriate, the time an item was deferred and subsequently repaired. The method should include a supervisory review of:

- The number of deferred items per aircraft; and
- Each deferred item to determine the reason for any delay in repair, length of delay, and the estimated date the item will be repaired.
- 11. Procedures for control of MEL deferred maintenance items, including:
  - Item procurement and distribution for the corrective action(s) associated with deferred items.
  - Scheduling of corrective action(s), describing when and where maintenance is performed.
  - Coordination between the operator's maintenance, flight operations, and dispatch/operational control organizations regarding MEL conditions and limitations and any operational restrictions.
  - Reporting and recording of the deferred MEL item and the subsequent repair or replacement of the item.
- **8.6** Correction of Deficiencies. The operator will correct any deficiencies before the MEL and the MEL management program approval.
- **8.7** Approval and Issuance of OpSpec/MSpec D095. When the review verifies that the MEL complies with all applicable requirements, the POI will sign the MEL LEPs or the control page(s) as applicable, indicating MEL approval. Authorization to use the approved MEL is granted through the issuance of OpSpec/MSpec D095. If the operator has not been previously authorized to operate with an MEL, the PMI will issue OpSpec/MSpec D095. The responsible Flight Standards office will maintain a copy of each current MEL, provided to the FAA by the operator.

# **CHAPTER 9. MEL REVISIONS**

- **9.1** General. Either the FAA or the operator may initiate revisions to an MEL. All MEL revisions require approval from the Principal Operations Inspector (POI).
- **9.2** FAA-Initiated Revisions. An operator's MEL can be revised due to FAA actions, revision to the Master Minimum Equipment List (MMEL), a Global Change (GC) in an MMEL policy letter (PL), or a request from the operator's responsible Flight Standards office. There are two types of MMEL revisions: nonmandatory/interim and mandatory/standard.
- 9.2.1 <u>Non-Mandatory/Interim MMEL Revision</u>.
  - **9.2.1.1** Applicability. A nonmandatory/interim MMEL revision is optional and an operator has discretion on revising or not revising its MEL in light of the non-mandatory/interim MMEL revision.
  - **9.2.1.2** Numbering. A nonmandatory/interim MMEL revision is identified by the current standard revision number plus a lowercase letter. For example, a non-mandatory/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).

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

- **9.2.2** <u>Mandatory/Standard MMEL Revision</u>. A mandatory/standard MMEL revision is compulsory and includes changes that are applicable to all operators using an approved MEL for a specific aircraft make and model (M/M). All operators should amend their MELs by following these standards:
  - **9.2.2.1 Applicability.** If a mandatory/standard MMEL revision is not applicable to an operator, the operator will document the inapplicability in a form that is acceptable to the POI. The operator will then reissue the MEL control page and will indicate that the MEL is in compliance with the required MMEL revision.
  - **9.2.2.2** Numbering. A mandatory/standard MMEL revision is numbered with the next successive change to the basic MMEL revision number. For example, the next mandatory/standard revision following non-mandatory/interim Revisions 6a or 6b is Revision 7.
  - **9.2.2.3** Submission and Review Time Table. Operators should incorporate MMEL changes into their MEL and submit them for review and approval within 90 days of the MMEL revision date. 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 its MEL to remove the relief. If at any time an

operator does not take active steps to revise its MEL, the POI may initiate the process to remove the MEL operations specification (OpSpec)/management specification (MSpec) authorization in accordance with applicable regulations. Principal inspectors (PI) will complete the MEL review and approval process within 90 days of receiving the MEL revision from the operator.

- **9.2.2.4 Restrictive Categories or Provisos.** If an MMEL revision results in a more restrictive repair category or 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 repair category and proviso under which the item was initially deferred until such time as the item is repaired and the MEL item is closed. 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 reinitiate 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.
- **9.2.3** <u>MMEL PL GC</u>. 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. Operator incorporation of a GC is optional.
  - **9.2.3.1** Applicability. GCs are applicable to all or a large number of MMELs and will describe its applicability (inclusion or exclusion) when it does not apply to all aircraft types. GCs may be used to provide immediate relief for items required by a new regulatory requirement, FAA policy change, or new technology.
  - **9.2.3.2** Numbering. 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".
  - **9.2.3.3** Frequency of Publication and Life Span. GCs will not typically occur in great number or regularity and their application and use is normally limited. Most GCs have an expiration date and the relief granted by the GC may only be exercised in an operator's MEL before the GC expires. It is expected that the applicable aircraft's MMEL will be amended with the relief contained in the MMEL PL GC before the expiration of the GC designation. GCs may be extended by the FAA's initiative or upon request by the Flight Operations Evaluation Board (FOEB) Chair. The Air Transportation Division is the approving authority for all GC extension requests. Although a GC designation may expire, the PL itself is still applicable until amended or archived.
  - **9.2.3.4 Review and Approval.** 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.

**9.2.3.5** Header Box. A GC will contain a header box that will explain its applicability. 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 9-1 below for an example of a GC header box.

# Figure 9-1. Example of Global Change 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 9/13/2022.

- **9.2.4** <u>Revisions Initiated by a Flight Standards Service (FS) Office</u>. The operator's responsible Flight Standards office may require the operator to initiate an MEL revision for reasons such as the issuance of an Airworthiness Directive (AD), discovery of deficiencies in the operator's MEL (including Maintenance (M) and Operations (O) procedures) or when the operator modifies their fleet. The operator's responsible Flight Standards office will inform the operator in writing of the need to revise their MEL, including the reason(s) for the required revisions. The operator is allowed 90 days to complete the revision process. The responsible Fight Standards office may specify a lesser period if the PIs determine that safety of flight could be affected.</u>
  - **9.3 Operator-Initiated Revisions.** An operator-initiated MEL revision may not be less restrictive than the MMEL. An operator may revise their MEL for a number of reasons such as aircraft modifications, installation of additional equipment, changes in types of operation, or changes in maintenance or operational procedures. Operators may also revise their MEL due to suggestions or findings from their safety programs, such as Safety Management System (SMS) or Aviation Safety Action Program (ASAP).
- **9.3.1** <u>Major Aircraft Modifications</u>. An operator may need to initiate an MEL revision due to major aircraft modifications, such as a Supplemental Type Certificate (STC), a major alteration (FAA Form <u>337</u>, Major Repair and Alteration (Airframe, Powerplant, Propeller, or Appliance)), or a modification to the type certificate (TC). (See Chapter <u>4</u> for design changes to a TC.)
- **9.3.2** 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. 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, through their PI or directly through the Aircraft Evaluation Division (AED) (refer to FAA Order 8900.1 for information regarding the FOEB and the MMEL revision process).

DATE

- **9.3.3** <u>Changes in Operational Complexity</u>. An operator may need to revise their MEL due to changes in operational complexity, such as adding a type of operations (e.g., passenger carrying operations) or additional OpSpec/MSpec authority (e.g., Extended Operations (ETOPS) or Category (CAT) II/II landing minimums).
- **9.3.4** <u>Changes in (M) and (O) Procedures</u>. (M) and (O) procedures may need to be revised due to changes in operational complexity, a change by the Original Equipment Manufacturer (OEM) in recommended procedures, or as the result of analysis of data acquired through the operator's SMS program (the Safety Assurance Process) or from voluntary programs such as ASAP data.

### CHAPTER 10. NONESSENTIAL EQUIPMENT AND FURNISHINGS (NEF) PROGRAM

- 10.1 Background. The NEF program originated from an earlier form called Passenger Convenience Items (PCI) program. Passenger convenience items were items related to passenger convenience, comfort, or entertainment located in the passenger compartment, galley, and lavatory areas. The PCI program did 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 Air Transport Association of America (ATA) code 25 in all MMELs with the acronym NEF. An NEF program allows operators to use the deferral authority granted by virtue of their operations specification (OpSpec)/management specification (MSpec) to provide deferral relief for nonessential items located throughout the aircraft.
- **10.2** General. An operator may develop an NEF program to meet its individual needs and may submit it to the FAA for approval. The NEF program resides within an operator's MEL management program. The NEF program encompasses a list of NEF items located in the operator's MEL, a process for evaluating an item in accordance with NEF requirements, reporting procedures, and policies and procedures for repair or replacement. Operators may choose to use the recommended method of evaluation shown in Figure <u>10-2</u>, NEF Item Selection Criteria Elements Flowchart, or they may use an alternative, yet equivalent, method that is acceptable to the FAA. If the supporting policies and procedures are insufficient or systemically problematic, the FAA may remove the NEF authority from the approved MEL and reapprove the MEL without it.

### **10.2.1** <u>NEF Items</u>. NEF items are:

- Items installed on the aircraft that have no effect on the safe operation of the aircraft.
- Items installed as part of the original type certificate (TC), Supplemental Type Certificate (STC), Engineering Order (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 or blocking requirements to be considered before approval as an NEF item.

#### **10.2.2** <u>Non-NEF Items</u>. NEF items are not:

- Instrument and equipment already identified in the 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 sidewalls, 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 PL-25 for more information regarding ACIs.)

- **10.3 Deferral Authority.** The deferral authority granted by the operator's OpSpec or MSpec is the basis for developing an operator-specific NEF program.
  - 1. Although the NEF program is included in Air Transport Association of America (ATA) chapter 25, it may address items that fall under other ATA chapters.
  - 2. The operator's NEF process may not provide for deferral of items within serviceable limits identified in the manufacturer's maintenance manual, Structural Repair Manual, Airworthiness Directives (AD), or operator's maintenance program (e.g., CAMP, General Maintenance Manual (GMM), etc.).
  - 3. NEF items are deferred under the operator's approved NEF program, not under the authority of an Airframe and Powerplant (A&P) certificate.
  - 4. The NEF program for a part <u>91K</u>, <u>121</u>, <u>125</u>, or <u>135</u> operator is part of, and resides within, the operator's MEL management program.
- **10.4 NEF Program Development.** Each operator implements, maintains, and revises its NEF program. The NEF program provides for the ability to defer NEF items whose failure would otherwise result in a non-airworthy status until repair (or replacement) of an item not affecting safety of flight. The responsible FAA principal inspector (PI) monitors the operator's NEF program and handling of NEF items. Failure to comply with the FAA-approved NEF program may result in the removal of the NEF program authorization.

- **10.5** Required NEF Program Contents. The operator will design its NEF program to fit its scope and depth of operation, including at a minimum the following ten processes and procedures:
- 10.5.1 <u>Method of Tracking NEF Items</u>. A list or other equivalent method of tracking NEF items may be used. Although an operator does not need to develop and maintain a list, nor include the specific NEF items inside the MEL, a list reduces both the FAA and operator's time spent analyzing recurring deferrals of the same item. Operators who choose not to develop an NEF list will be required to treat each NEF deferral as a newly discovered NEF item, as outlined in their individual NEF program.
  - **10.5.1.1** If a List is Not Used. FAA safety inspectors will work with those operators who choose not to develop a NEF list to determine a mutually acceptable timeframe in which each newly identified and deferred NEF item will be reported for review.
  - **10.5.1.2** If a List is Used. If the operator develops a list, the Principal Operations Inspector (POI) (or aviation safety inspector (ASI) with MEL oversight responsibility) will review all subsequent additions/revisions.
    - 1. The NEF list should be comprehensive but may be listed in general terms with the concurrence of the POI or ASI with oversight responsibility. For example, cosmetic trim-strips may be listed rather than identifying each strip individually on the NEF list.
    - 2. Either in paper or electronic format, the applicable portions of the list (if applicable) 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 NEF program.
    - 3. Parts 91K, 121, 125, and 135 operators should work with POIs to determine a mutually acceptable timeframe in which the newly identified and deferred NEF items will be reported for review.
- **10.5.2** <u>Identifying Deferrals</u>. Procedures and processes for identifying NEF items that may be deferred.
- **10.5.3** <u>Tracking Deferrals</u>. Procedures for tracking program deferrals.
- **10.5.4** <u>Reporting Deferrals</u>. Procedures for the reporting of deferrals, as required, to the POI (parts 91K, 121, 125, and 135).

**Note:** NEF lists and processes may reside together or separately in the location and manner selected by the operator and acceptable to the POI/ASI.

- **10.5.5** <u>Documentation Procedures</u>. Documentation procedures for inoperative, damaged, or missing NEF items.
- **10.5.6** (M) and (O) Procedures. Appropriate (M) and (O) procedures.

- **10.5.7** <u>Follow-Up Maintenance</u>. Procedures for follow-up maintenance, repair, and replacement.
- **10.5.8** <u>Repair Intervals</u>. 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.
- **10.5.9** <u>Section 43.13 Compliance</u>. Any portions of an NEF program that reference maintenance or a maintenance procedure must comply with acceptable practices as set forth in § 43.13.
- 10.5.10 <u>NEF Proviso</u>. The following proviso to an NEF program (see Figure 10-1 below) is included in MEL ATA chapter 25 for approved NEF programs under parts 91K, 121, 125, and 135. The reference proviso should be copied verbatim. The aircraft operator's manual containing the NEF program will contain specific processes and procedures as indicated in the proviso.

System & Sequence Numbers 25 Equipment / Furnishings	Repair Interval	Number Installed	Number Required For Dispatch	Remarks or Exceptions
Nonessential Equipment and Furnishings (NEF)	-	-	0	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. <b>NOTE:</b> Exterior lavatory door ash trays are not considered NEF items.

Figure 10-1. Required NEF MEL Proviso for an FAA-Approved NEF Program

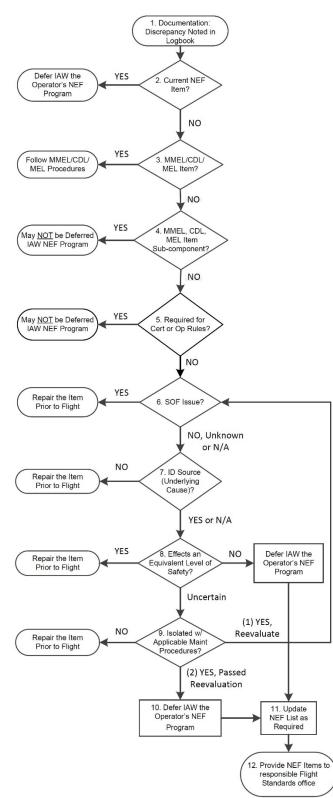
- **10.6 NEF Program Approval.** Parts 91K, 121, 125, and 135 operators submit their NEF program to the responsible Flight Standards office with oversight responsibility for approval. Once approved, a reference proviso to the program is to be incorporated into the MEL ATA chapter 25 (see Figure 10-1).
- **10.6.1** An operator may develop and submit a list of items desired to be included on the NEF list. FAA concurrence is required for approval of the operator's program.
- **10.6.2** The NEF list does not have to be part of the standard MEL and may be kept in a form and manner agreed upon by the operator and the FAA.

- **10.7 NEF Program Revisions.** All additions and revisions to an FAA-approved NEF program are reviewed by POIs.
- **10.8** Criteria for Selection of NEF Items. NEF items are not safety of flight items and are not evaluated by the FAA through the normal Aircraft Evaluation Division (AED) review process. NEF items may require the concurrence of FAA maintenance and operations inspectors. An operator will follow its FAA-approved NEF program procedures in order to list an item as being deferrable under the NEF program. When reviewing items for inclusion in an operator's NEF program, FAA inspectors will ask the following questions:
  - 1. Is the item required for the operational rules in which the aircraft is operated?
  - 2. Is the item required to be functional by the applicable certification requirements?
  - 3. Does the item create the potential for fire/smoke or other hazardous condition?
  - 4. Could the item have an adverse effect on other required systems or components?
  - 5. Does the item's condition potentially affect the safety of passengers, crew, or service personnel?
  - 6. Could the item have a negative impact on emergency or abnormal procedures?
  - 7. Does the item create an additional workload for the crew at critical times of flight or flight preparation?
  - 8. Do crewmembers need to evaluate the deferred NEF item on a flight-by-flight basis?

**Note:** See Figure 10-2 for a flowchart that includes the following elements in sequence. The flowchart is provided as a guide for developing an NEF deferral process. The process may be modified to facilitate inclusion in an operator's overall MEL deferral program with the intent of the elements outlined in the flowchart below being addressed.

- **10.8.1** Documentation. For an inoperative, damaged, or missing item to be considered for inclusion in an NEF program, the discrepancy will be documented in the aircraft logbook (or other approved location) per the operator's discrepancy reporting system. This action is completed by the flightcrew, company maintenance personnel, or personnel authorized and approved to perform such functions as outlined in the operator's maintenance program.
- **10.8.2** <u>Current NEF Items</u>. If the inoperative, damaged, or missing item is already on the NEF deferral list (if used), the established procedures for NEF deferral of the item will be followed.
- **10.8.3** <u>MMEL, CDL, or MEL Items</u>. An MMEL, CDL, or MEL item may not be deferred in accordance with the operator's NEF program. The operator must follow the deferral procedures for inoperative, damaged, or missing items listed in the MMEL, MEL, or CDL, as per § <u>91.213(a)(5)</u>.

- **10.8.4** <u>Subcomponents of MMEL, CDL, or MEL Items</u>. If the inoperative, damaged, or missing item is a subcomponent of a system identified in the MMEL/MEL/CDL, where no previous relief was authorized, the subcomponent may not be deferred in accordance with the operator's NEF program.
- **10.8.5** <u>Required by Certification or Operational Rules</u>. 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.
- **10.8.6** <u>Safety of Flight Issues</u>. If it is evident from a maintenance or operational perspective that an item could have an adverse effect on safety of flight; or if there is a safety of flight issue with an inoperative, damaged, or missing item, that item may not be deferred.
- **10.8.7** 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 item can be identified. If the source or root cause cannot be identified or isolated, that item may not be deferred in accordance with the operator's NEF program. If the item has no impact on the safety of flight, that item may be deferred in accordance with the operator is NEF program. If the operator's NEF program. If the item can be isolated and reevaluated using applicable maintenance procedures and a determination made that there is no safety of flight concern, it may be deferred in accordance with the operator's NEF program.
- **10.8.8** Defer in Accordance with the Operator's NEF Program.
- 10.8.9 Update the NEF List, as Required.
- 10.8.10 Provide the NEF Items to the Responsible Flight Standards Office.





### CHAPTER 11. CONFIGURATION DEVIATION LIST (CDL)

- **11.1 Purpose of the CDL.** The CDL is a list of externally exposed nonstructural aircraft parts that may be missing, and is tailored for each model aircraft. The CDL evolved over several years from what was commonly known as a "missing parts list," which was a list of nonstructural external parts of an aircraft that were found missing after flight. The missing parts list is known today as the CDL. A CDL allows continued operation with missing externally exposed nonstructural parts by defining restrictions, limitations, or performance penalties, while the aircraft remains airworthy.
- **11.2 Development.** The aircraft manufacturer develops a CDL 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. The responsible Aircraft Certification Service office has final approval of all FAA-approved CDLs and all requests for revisions to an FAA-approved CDL.
- 11.2.1 Which Aircraft Has a CDL. A CDL is developed for most U.S.-built transport category part 25 aircraft and many part 23 aircraft by aircraft manufacturers during the initial certification process. However, they are not a required element for aircraft certification. The manufacturer makes the decision to develop or not to develop a CDL. If deemed necessary, the aircraft manufacturer develops a proposed CDL and coordinates submission with the responsible Aircraft Certification Service office and the Aircraft Evaluation Division (AED). The responsible Aircraft Certification Service office and data collection necessary to approve proposed CDL items. Approval of a CDL is by the responsible Aircraft Certification Service office of the collection necessary to approve proposed CDL items. Approval of a CDL is by the responsible Aircraft Certification Service office and Division (AED). The responsible Aircraft CDL items. Approval of a CDL is by the responsible Aircraft Certification Service office office and the Aircraft Certification Service office and by the responsible Aircraft Certification Service office and Division (DDA) program.
- **11.2.2** <u>U.S.-Manufactured Aircraft</u>. For U.S.-manufactured aircraft, an FAA-approved CDL is either:
  - Incorporated into the limitations section of the Airplane Flight Manual (AFM);
  - Published as an appendix to the AFM; or
  - Published as a supplement to the AFM.
- **11.2.3** <u>Aircraft Manufactured Outside the United States.</u> The CDL may be a standalone document that is part of the Structural Repair Manual (SRM) or other manufacturer's document.

### **11.3** Operator Use of the CDL.

**11.3.1** <u>FAA-Approved CDL</u>. An operator may use a CDL and incorporate it into its manual system. However, the manufacturer's CDL is already approved by the responsible Aircraft Certification Service office and therefore, will not be approved or accepted by the responsible Flight Standards office. It should not appear on the List of Effective Pages (LEP) of an operator's MEL or any other documents showing approval or

acceptance by the responsible Flight Standards office. The manufacturer's CDL may be attached to the operator's MEL, but should be treated as a separate and "standalone" document.

- **11.3.1.1** The manuals used by flightcrew members, maintenance personnel, and dispatch personnel should include instructions governing CDL use. An operator may increase fuel and performance penalties or add additional limitations and restrictions beyond what is already required in the FAA-approved CDL. These additional penalties, limitations, and restrictions may be listed in the operator's manual system and should be submitted to the responsible Flight Standards office for approval or acceptance. Such additions should be delineated as "operator-specific" requirements and under no circumstances be less restrictive than the FAA-approved CDL.
- **11.3.1.2** If an operator desires an amendment to the manufacturer's CDL, such requests may be coordinated with the responsible Aircraft Certification Service office through the responsible Flight Standards office, directly with the responsible Aircraft Certification Service office, or directly with the aircraft manufacturer.
- **11.3.2** <u>Operator-Specific CDL</u>. An operator may also choose to create an operator-specific CDL for use in its operation, using the FAA-approved CDL's data. Operators creating their own operator-specific CDL clearly must not confuse this CDL with the official FAA-approved CDL or make it less restrictive than the FAA-approved CDL. Operator-specific CDLs will be accepted by the responsible Flight Standards office and be incorporated into an operator's manual system.
  - **11.4 Operator's Manual.** Operators should consider having policies and procedures in their manual system regarding use of the CDL, such as:
    - A description of how the CDL is applied and utilized in their operation.
    - Instructions on where to access current FAA-approved CDLs for specific model aircraft and future revisions.
    - Methods for the proper application of fuel and performance penalties, procedures, or restrictions and limitations while conducting flight operations utilizing the CDL.
    - A page control system to show that the operator-specific CDL is current and complete (if one has been developed by the operator).
    - A page control system associated with the manufacturer's CDL that is approved by the responsible Aircraft Certification Service office.
    - The policies and procedures may be combined within the operator's approved MEL management program procedures.
  - **11.5 CDL Item Recording and Notifications.** Operators should establish a standard procedure for advising flightcrews, aircraft dispatchers, and maintenance personnel of an aircraft's status with current CDL and MEL issues along with the conditions and limitations that apply.

- **11.5.1** <u>Reporting of Found CDL Items</u>. If a CDL item(s) is discovered missing by:
  - **11.5.1.1** Maintenance Person Positioned at the Aircraft. If a CDL item is discovered missing by maintenance personnel, that person notifies the flightcrew and the maintenance organization (e.g., Maintenance Control).
  - **11.5.1.2** Flightcrew. If a CDL item is discovered missing by the flightcrew, the flightcrew notifies the maintenance organization and appropriate flight operations personnel.

**Note:** The maintenance organization or flightcrew notifies flight operations personnel (e.g., dispatch, flight following, or other persons authorized to exercise operational control) in accordance with the aircraft operator's approved MEL or CDL procedures.

- **11.5.2** Logging and Notification Requirements. Each missing CDL item is entered into the aircraft maintenance logbook and listed on a placard, which is then affixed in the cockpit in clear view of the flightcrew, per the AFM. Principal Operations Inspectors (POI) may allow operators to use their MEL procedures for addressing an aircraft's CDL status and limitations. Such procedures will conform to the AFM CDL placarding requirements.
- **11.5.3** <u>Fuel and Performance</u>. Fuel and performance penalties, limitations, and restrictions associated with each CDL item are calculated and entered in the appropriate flight documentation (e.g., dispatch, flight release, or flight plan). If flight documentation has been issued prior to the application of the CDL item, the operator will ensure that fuel and performance planning are recalculated in accordance with the CDL item, if applicable. Operators conducting part <u>121</u> operations should issue a new or amended dispatch or flight release to include these penalties.