

MEL Guide

Minimum Equipment List

Am I required to have an MEL?

Yes, for a majority of registries and destinations.

Am I going to want an MEL?

Yes, it's easier to use than an MMEL and more widely accepted.

Table of Contents

Introduction	03
MMEL vs MEL	04
What's in an MEL?	05
Requirements Based on Registry	06
Key Reminders	07
Requirements When Traveling	08
How do I use an MEL?	09
MEL Revisions	10
Related MEL Items	11
Things to Keep in Mind	12

Introduction



What is an MEL?

An MEL makes it possible to temporarily operate an aircraft with inoperative equipment or instruments, such as failed communication, navigation, or cabin equipment.

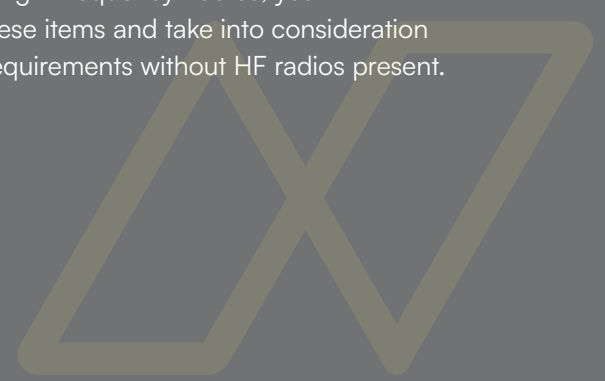


Why do I need it?

Not all equipment failures are significant enough to ground your airplane. Safety has to be balanced with being able to fly your aircraft when you need to. The MEL is the tool that allows operators to maintain an accepted level of safety while still being able to meet operational needs. It provides you with an approved and easy way to determine the conditions under which a flight can be commenced with inoperative equipment.

How does the MEL impact safety?

The MEL is the intersection of manufacturer testing, the regulations applicable to your particular operation, your aircraft configuration, and your departmental procedures. No other document will take all of those into account other than your MEL. This ensures that the procedures and allowances prescribed by your MEL are appropriate for you and not for “operators in general”. For example, if your aircraft is not equipped with High Frequency Radios, your MEL should be updated to omit these items and take into consideration long range communication requirements without HF radios present.



MMEL (Master Minimum Equipment List)

Established by the appropriate authority, it is the document that lists all items which may be inoperative for a particular aircraft type while maintaining an acceptable level of safety. Some of these items may not be applicable to your aircraft or type of operation. Since it's based on an aircraft type, the MMEL will generally contain more items than your MEL as it will include all versions of an aircraft type which could span several decades from its original manufacture. Your crews would have to sort through these additional items and find what applies when deferring a system, which could make the MMEL more difficult to use than an MEL.

MEL (Minimum Equipment List)

Based on the MMEL, an MEL is the list of items and equipment and the conditions under which they may be inoperative, specific to your particular aircraft and operations. The MEL cannot be less restrictive than the MMEL. Tailored to your aircraft and type of operation, the MEL removes unnecessary items and lists the regulations and procedures applicable to your operating part making the MEL much faster and easier to use.



What's in an MEL?



Common Content Requirements for an MEL

The following elements are combined together to make an MEL:

- Cover Page
- Table of Contents
- Log of Revisions
- Definitions
- Preamble
- Control Pages
- MEL Items listed by ATA / JASC Codes
- (M) maintenance and (O) operations procedures
- Applicable regulations for items required by regulation

Requirements for use of an MMEL as an MEL (FAA Part 91 Only)

NOTE:

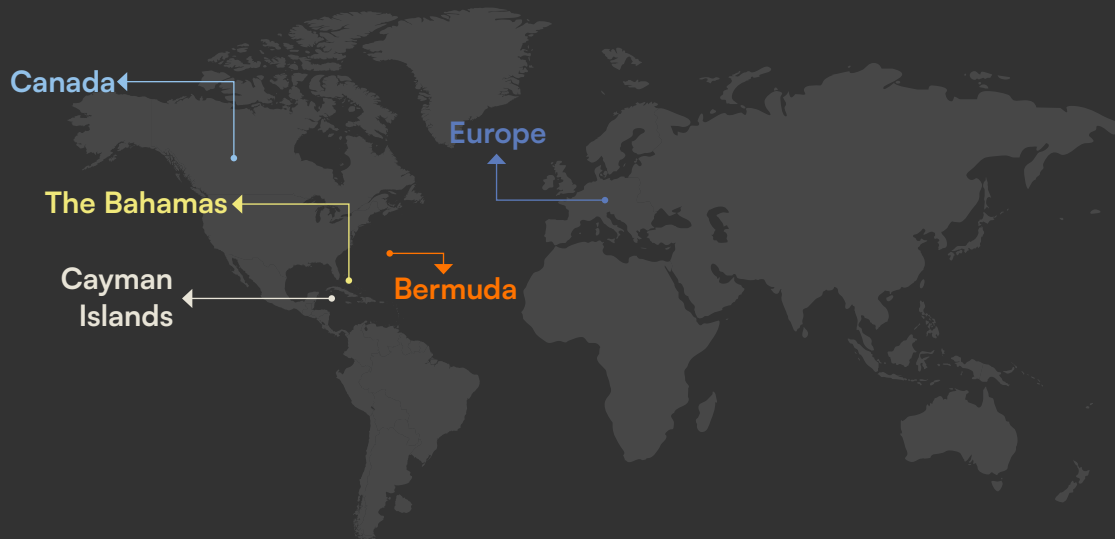
The FAA has released a draft AC that removes authorization for use of the MMEL as an MEL. We encourage you to obtain a D195 LOA for a customized MEL to ensure uninterrupted operations.

The FAA allows Part 91 operators to utilize the MMEL, combined with other documentation, as an MEL for their aircraft. While this documentation includes elements similar to the MEL, it is not customized to your aircraft or operations making it much more difficult to use. It is also not recommended if an operator will be flying outside of the contiguous United States as international authorities may not accept use of the MMEL as an MEL.

The following documents must be carried onboard the aircraft to use the MMEL as an MEL:

- D095 LOA
- MMEL
- Policy Letter PL-036 (MEL Preamble)
- Policy Letter PL-025 (MEL Definitions)
- Any other applicable Policy Letters
- Procedures Document with applicable (M) and (O) procedures
- Document listing applicable regulations for any MMEL items that contain the statement “as required be 14 CFR” or equivalent

Requirements Based on Registry



Canada

- **Part VI:**
May not take off with inoperative instruments / equipment unless you have an MEL
- **Part VII:**
Must have an MEL

Bahamas

- **CAR OPS 2A.405(a), Corporate Operators, Turbojet & Large Airplanes:**
Must have an MEL

OTARs / Bermuda / Cayman

- **Part 91 / General Aviation:**
May not take off with inoperative instruments / equipment unless you have an MEL (with a few exceptions)
- **OTAR 125.615(a):**
Must have an MEL if there is an MMEL

Europe / EASA

- **Part NCC:**
ORO.MLR.105 and NCC.IDE.A.105.
Must have an MEL
- **Part ORO:**
ORO.MLR.105
Must have an MEL

This also applies to NCC operators, not just the EASA commercial and third country carriers

FAA

- **Part 91:**
Very restricted without an MEL in the event of inoperative instrument/equipment, subject to 91.213
 - **D095:** use of MMEL as an MEL (not recommended for international operations)
 - **D195:** MEL for all operations
- **Part 125 and Part 135:**
May not take off with inoperative instruments / equipment unless you have an MEL
 - **D095:** MEL

Key Reminders



Doing thousands of MELs we know the trends and common pitfalls. Based on everything we have seen over the last year, here are some key reminders to keep in mind.

References to Other Manuals

Basically, all registries allow you to reference other manuals in your MEL, but these references must specify a particular procedure or location within that manual and must be available to the individual conducting the procedure at the time. It is recommended to point to a procedure name or number as those are the least likely to change. Section and, especially, page number references can change often, quickly making your MEL out of date.

Alternatively, you can copy a procedure from another manual into your MEL. In this case where the full procedure is provided, for most registries, you do not need to include the manual reference in addition to the procedure. Please note that if you decide to copy a procedure from another manual, the procedure in your MEL must be updated when it is updated in its original document.

When you have the option of duplicating a procedure from another manual or including just the manual reference, we recommend using the manual reference. This way if the procedure is updated you don't have to worry that the version in your MEL is out of date.

Getting to Know Your Equipment

The MELs not only cover well known equipment but also more obscure equipment or subsystems that most people never have to think about during their normal operations. Knowing what equipment is installed on the aircraft in the context of an MEL can be tricky and frustrating for operators.

With an MEL, accuracy is key. An inaccurate quantity of an installed system or mistake on whether a Service Bulletin is installed or not may limit your deferral options, which may cause flight delays or cancellations.

If you are going it alone with your MEL development, our best advice would be to seek out a maintenance technician or a technical expert from the Original Equipment Manufacturer (OEM) to help you understand if the items listed in the MEL are installed on your aircraft and method of installation (e.g., at the factory when the aircraft was manufactured, via Service Bulletin / Aircraft Service Change (SB / ASC), Supplemental Type Certificate (STC), Modification, etc.).

If you are using a vendor, they should be able to help guide you in determining where and what to look for to check installed equipment. At AviationManuals, we provide customers who are looking for additional guidance with a specialized MEL Questionnaire Supplement that gives descriptions of the MEL equipment items and suggestions on where they are most likely to be found in the aircraft documentation. We also provide email and phone support on specific questions.

Requirements When Traveling

MEL

International Travel

ICAO Annex 6, Pt II, which governs operations of General Aviation aircraft, requires the development of an MEL approved by the State of Registry for any aircraft for which an MMEL exists.

Many countries do not specifically require aircraft to have an MEL; however, they do make the restriction that without an MEL, and in the event of inoperative instruments or equipment, an airplane cannot be dispatched. Thus, without an MEL you cannot operate your aircraft with an inoperative item.

Countries Participating in the SAFA (Safety Assessment of Foreign Aircraft) Program and MELs

Operators may be subject to a SAFA Ramp Inspection in any country participating in the program. These include EU and non-EU countries such as Canada, Singapore, UAE, China, Bermuda, etc.

The absence of an MEL is categorized as a finding during a SAFA / SACA ramp inspection. In fact, EASA's Inspection Instructions on the Categorisation of Ramp Inspection (SAFA / SACA) Findings specifically includes a pre-described finding of "MMEL instead of MEL" and such use may be reported to the aircraft registries' authority.

(<https://www.easa.europa.eu/en/domains/air-operations/rampinspection-programmes-safa-saca>)

How do I use an MEL?



STEP 01 When you have identified a defect before the aircraft has begun its takeoff roll, the MEL and other applicable manuals (e.g., FOM, GMM, NEF, CDL, etc.) are the first “go-to” references.

STEP 02 Items are organized by system, so crews should find the applicable item listed in the MEL. (NOTE: more than one item may need to be referenced)

- If the item is found, follow all listed provisos, (M) and/or (O) procedures, placarding instructions, and company procedures.
- If the item is not listed, check your NEF Program. If the item is also not listed in the NEF, then deferral relief may not exist for that item. The aircraft is then not permitted to take off with the system inoperative.

STEP 03 Make appropriate notations on the aircraft discrepancy log and other applicable company forms.

STEP 04 Ensure that the item is repaired or replaced within the prescribed time interval.



MEL Revisions



Operator Initiated

May be the result of addition or removal of equipment, change in operations, policies, procedures, etc.

MMEL Initiated

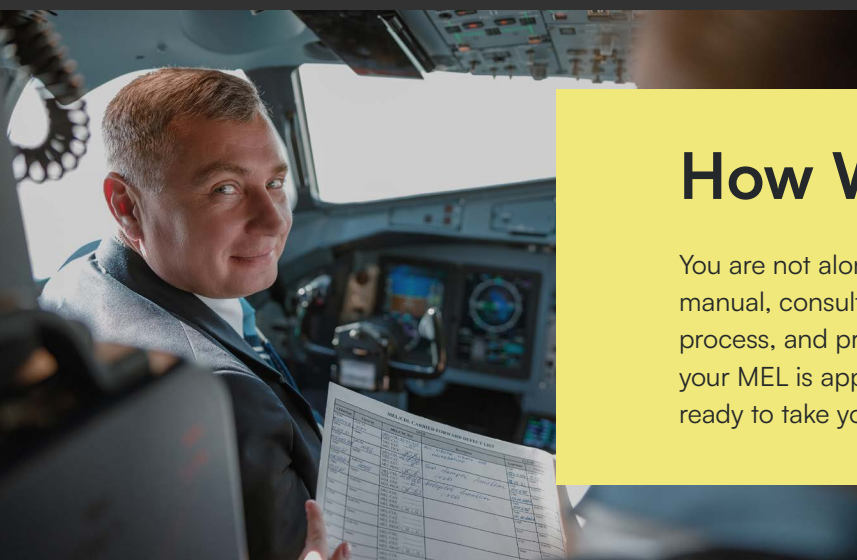
When MMELs are revised, operators generally have a specified amount of time to update their MELs (commonly between 30-90 days, depending on state of registry)

In most cases any changes or revisions to the MEL must be submitted to the applicable aviation authority for renewed approval.

Required revisions vs. optional revisions (FAA Only)

MMEL updates that change number (e.g., Revision 3 to Revision 4) are considered required changes and must be incorporated into an operator's MEL.

MMEL updates that append a letter to the revision number (e.g., Revision 3 to Revision 3a) are optional; however, operators are encouraged to review the update as lettered revisions often contain additional deferral options.



How We Can Help

You are not alone when it comes to MELs! We can prepare your manual, consult with you as you go through the FAA submission process, and provide you with ongoing support. We support you until your MEL is approved. Guaranteed. Our dedicated team of experts is ready to take your call and provide you with the assistance you need.



NEF (Nonessential Equipment and Furnishings)

The Nonessential Equipment and Furnishings Program is part of the MEL, although it may be kept as a separate document. It outlines the steps the operators may use to determine if an item can be deemed as nonessential and therefore deferred. Some NEF documents may include a list of items that have already been determined to be nonessential, such as entertainment items, cabin trims, and the conditions under which they may be allowed to be deemed inoperative. Items listed in the MEL or MMEL may not be included in the NEF.

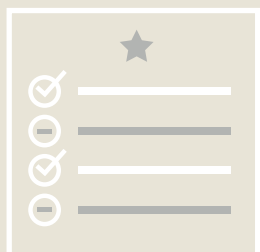
NOTE:

If operators have an MEL they will want to have an NEF. If an operator does not have an NEF program and a nonessential item not listed in the MEL becomes inoperative, it must be fixed prior to operating the aircraft.



Adding Items to an NEF

The NEF is the only section where you may be able to add deferral items not included on the MEL. Most aviation authorities will outline a specific procedure the operator must go through before adding a piece of equipment to ensure the item is not a safety of flight issue and does not appear on other documents, such as the CDL, which may require it to be operable.



CDL (Configuration Deviation List)

The Configuration Deviation List is developed by the aircraft manufacturer and approved by the applicable aviation authority during the airworthiness certification process. It is a listing of external parts that are allowed to be missing, under certain circumstances, while the aircraft can remain in airworthy condition. In the event an item is missing, the CDL may require you to use alternate flight procedures or apply performance penalties, in order to continue operating the aircraft. You can generally find the CDL in the Aircraft Flight Manual or Dispatch Deviation Guide.

Things to Keep in Mind

MEL

Keep in Mind

01

If you change equipment on your aircraft (comply with a Service Bulletin or STC, add or remove equipment, or other modifications), check your MEL and the aircraft's MMEL to see if anything needs to be updated.

02

It is important to have an NEF Program. While an MEL covers a lot of equipment, it does not touch on the "non-essential" equipment (things like cup holders, magazine holders, etc.). To legally fly with these non-essential items inoperative, you need an NEF Program.

03

While it is a bit of work to set up an MEL at the start, it will save you a lot of time down the road. You no longer have to sift through 3 or 4 documents to dispatch your aircraft as the information is all included in the MEL.





 **nimbl**
Smart Aviation

Tel +1.240.546.4030
gonimbl.com

700 King Farm Boulevard, Suite 610 Rockville, MD 20850 USA