

## *What is an MEL?*



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**W**e all know on occasion, US Airways utilizes the provisions of the FAA approved Minimum Equipment List (MEL) to dispatch aircraft with inoperative items. We, as pilots, have the final responsibility to accept or decline an aircraft released under the provisions of an approved MEL. Usually, having one item on MEL does not present a problem to a flight. However, when there are multiple MELs we must consider many more factors before flight.

ALPA is very involved in the MEL process. We have specially trained technical representatives for each aircraft type. These “tech reps” attend the meetings with the FAA and industry to determine what the Master Minimum Equipment List for a particular airplane will be. I am the ALPA technical representative for the B-737. By having seen the inter workings of this process I hope to shed a little light on an easily misunderstood subject.

The first part of any MEL is the preamble. While this is somewhat dry reading, it is important. In the preamble, it states, “MEL conditions and limitations, do not relieve the operator from determining that the aircraft is in a condition for safe operation with items of equipment inoperative.” It also states, “Operators are responsible for exercising the necessary operational control to ensure that an acceptable

level of safety is maintained. When operating with multiple inoperative items, the interrelationship between those items and the effect on aircraft operations and crew workload will be considered.”

This is the FAA’s way of saying that you cannot operate with a lesser standard of safety if there is an inoperative component. If it is determined that operations would be unsafe, the MEL cannot be used. Additionally, consideration must be given to multiple inoperative components and their cumulative effect on the operation. Take particular note of the requirement for multiple MELs.

In the meetings that determine if an item will be allowed on the MEL, the FAA rules are such that it will not be considered with any other existing MEL. Each item is considered by itself. This sounds logical but does allow accumulation of MELs. Some items on the MEL require certain other components to be operative. As an example, the B-737 MEL allows rudder steering to be inoperative, but only if the tiller steering is operating. However, an example of cumulative problems is that the antiskid system may be on the MEL and, in addition, so can one thrust reverser. Both are important deceleration devices. In the example of a thrust reverser and anti skid being on MEL, the provisions of the MEL preamble require that very

careful consideration be given to the interrelation of these items.

The Captain of the flight has the final authority about any MEL. It is clear in the Federal Aviation Regulations that the Pilot in Command is fully responsible and has full authority about any item that affects airworthiness. The Captain should involve the Dispatcher and Maintenance in any decision concerning the interrelation and cumulative effects of multiple MELs. If Dispatch, Maintenance, or the Captain believes that there is any degradation in safety, then the item under consideration for the MEL must be repaired. The MEL cannot be used.

Our company uses the MEL in a conservative manner. Other companies push the MEL to the maximum. In one meeting an airline put forward a request to MEL the Captain's attitude indicator. As you would expect, the ALPA technical representative (it was a B-737 so I was the tech rep) took a strong position against this. This unnamed airline went on to say that they could not understand why I would take exception. Only after they were reminded of the several configurations of the electrical system that removes power to the First Officer attitude indicator did they withdraw the proposal. The FAA told me later that they would not have granted the request. Some companies will ask for everything on the airplane to be available to the MEL.

One of the most interesting discussion points during an MEL meeting is when an airline says, "Well, if the Captain doesn't like this MEL he or she can turn it down." The FAA usually accepts this logic. On several items, the FAA has stated that the MEL committee does not know all of the operational conditions. So they leave the decision up to the Captain and Dispatcher as to whether the MEL is safe for the specific day. The thinking is that there are some days when an MEL is acceptable and some days when it is not. An example is the antiskid system. It may be placed on the MEL with no degradation in safety on a nice summer day with a long landing runway. However, an ice covered minimum length runway is not acceptable. The MEL document does not list any runway or weather conditions for the antiskid. The Captain and Dispatcher are expected to determine suitability of an MEL item.

There is an important distinction between the maintenance airworthiness release and the acceptance by the Dispatcher and the Captain. The maintenance perspective is that if there is

an MEL that fits the conditions found on the airplane, it can be dispatched. All flight crew members should remember that "legal" to maintenance does *not* take in to account operational considerations. The Dispatcher and the Captain have the training and the experience to look at the operational needs for the flight.

Operational requirements stated in the provisions (sometimes noted by an "O" in the MEL verbiage) of the MEL are up to the flight crew. In addition, any follow-up (FR) items must be entered into the logbook. An explanation of FR procedures can be found in the front of the MEL book.

The MEL is an important document. It allows flight with certain inoperative components. The reliability of our flight operations is much better because of the MEL. Nevertheless, anytime there is an inoperative item on an airplane the flight crew should be extra cautious. If there is a question about the suitability of the MEL for the conditions then a discussion with Dispatch is required. If the Captain still has a question about the appropriateness of the MEL item, then s/he should require repair of the inoperative component. Just because it is "legal" does not mean a Captain has to fly the airplane.



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