

maintenance (removal always will), it must be accomplished by certificated maintenance personnel and recorded in accordance with 14 CFR part 43.

For example, if the position lights (installed equipment) were discovered to be inoperative prior to a daytime flight, the pilot would follow the requirements of 14 CFR, part 91, section 91.213(d).

The deactivation may be a process as simple as the pilot positioning a circuit breaker to the OFF position or as complex as rendering instruments or equipment totally inoperable. Complex maintenance tasks require a certificated and appropriately rated maintenance person to perform the deactivation. In all cases, the item or equipment must be placarded INOPERATIVE.

All small rotorcraft, non-turbine powered airplanes, gliders, or lighter-than-air aircraft operated under 14 CFR part 91 are eligible to use the maintenance deferral provisions of 14 CFR, part 91, section 91.213(d). However, once an operator requests an MEL, and a Letter of Authorization (LOA) is issued by the FAA, then the use of the MEL becomes mandatory for that aircraft. All maintenance deferrals must be accomplished in accordance with the terms and conditions of the MEL and the operator-generated procedures document.

The use of an MEL for an aircraft operated under 14 CFR part 91 also allows for the deferral of inoperative items or equipment. The primary guidance becomes the FAA-approved MEL issued to that specific operator and N-numbered aircraft.

The FAA has developed master minimum equipment lists (MMELs) for aircraft in current use. Upon written request by an operator, the local FSDO may issue the appropriate make and model MMEL, along with an LOA, and the preamble. The operator then develops operations and maintenance (O&M) procedures from the MMEL. This MMEL with O&M procedures now becomes the operator's MEL. The MEL, LOA, preamble, and procedures document developed by the operator must be on board the aircraft during each operation. The FAA considers an approved MEL to be a supplemental type certificate (STC) issued to an aircraft by serial number and registration number. It, therefore, becomes the authority to operate that aircraft in a condition other than originally type certificated.

With an approved MEL, if the position lights were discovered inoperative prior to a daytime flight, the pilot would make an entry in the maintenance record or discrepancy record provided for that purpose. The item would then either be repaired or deferred in accordance with the MEL. Upon

confirming that daytime flight with inoperative position lights is acceptable in accordance with the provisions of the MEL, the pilot would leave the position lights switch OFF, open the circuit breaker (or whatever action is called for in the procedures document), and placard the position light switch as INOPERATIVE.

There are exceptions to the use of the MEL for deferral. For example, should a component fail that is not listed in the MEL as deferrable (the tachometer, flaps, or stall warning device, for example), then repairs are required to be performed prior to departure. If maintenance or parts are not readily available at that location, a special flight permit can be obtained from the nearest FSDO. This permit allows the aircraft to be flown to another location for maintenance. This allows an aircraft that may not currently meet applicable airworthiness requirements, but is capable of safe flight, to be operated under the restrictive special terms and conditions attached to the special flight permit.

Deferral of maintenance is not to be taken lightly, and due consideration should be given to the effect an inoperative component may have on the operation of an aircraft, particularly if other items are inoperative. Further information regarding MELs and operations with inoperative equipment can be found in AC 91-67, Minimum Equipment Requirements for General Aviation Operations Under FAR Part 91.

Preventive Maintenance

Preventive maintenance is regarded as simple or minor preservation operations and the replacement of small standard parts, not involving complex assembly operations. Allowed items of preventative maintenance are listed and limited to the items of 14 CFR part 43, appendix A(c).

Maintenance Entries

All pilots who perform preventive maintenance must make an entry in the maintenance record of the aircraft. The entry must include the following information:

1. A description of the work, such as "changed oil (Shell Aero-50) at 2,345 hours"
2. The date of completion of the work performed
3. The pilot's name, signature, certificate number, and type of certificate held

Examples of Preventive Maintenance

The following examples of preventive maintenance are taken from 14 CFR, part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration, which should be consulted for a more in-depth look at the preventive maintenance a pilot can perform on an aircraft. Remember, preventive maintenance