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ADVISORY CIRCULAR

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

SUBJECT: AIRWORTHINESS DIRECTIVES FOR GENERAL AVIATION AIRCRAFT

1. PURPOSE.

The purposes of this Advisory Circular are to point out areas of misunderstanding regarding:

- a. Aircraft owners and operators' responsibility for complying with Airworthiness Directives.
- b. Maintenance personnel responsibilities with regards to performance of Airworthiness Directives.
- c. Maintenance record entries for AD's required by FAR 91.173(a)(2)(v) and FAR 43.9.

2. REFERENCE.

FAR Part 39, Airworthiness Directives.

3. BACKGROUND.

When an aeronautical product is new, engineers have to rely on past history of similar products or analyses to predict when defects or unsafe conditions will arise when service time is accumulated. As service time is accumulated, various problems can arise that create unsafe conditions and the conditions could exist in other products of the same type design. This happens even though the manufacturers conduct extensive testing under all types of simulated and real conditions. When an unsafe condition is discovered, the owners or operators of the product are notified of the unsafe condition and the correct-

tive action that must be taken, inspections that must be made or conditions and limitations under which the product may be operated.

4. NOTIFICATION.

Airworthiness Directives are Federal Aviation Regulations (FARs). They are published in the Federal Register as amendments to FAR Part 39. In some instances, they are published as a Notice of Proposed Rulemaking and the public is invited to comment on the contents. In other instances they are published as adopted rules. This is done when immediate compliance is necessary to ensure safety of the product concerned. When the comments are received, they are given consideration. If any changes are considered necessary as a result of the review, they are made. After such changes, or if no changes are considered necessary, the AD is again published in the Federal Register as an adopted rule with a compliance date included. It is also possible that after the NPRM is issued, the FAA will find that the AD is unnecessary and withdraw the AD.

When an AD becomes an adopted rule, it is printed and mailed to the registered owner, in the event that the AD applies to an aircraft. If the AD is on an engine, propeller, accessory, or appliance, and it can be determined which aircraft models are affected, the AD is also mailed

to the registered owner. However, there are many times when the specific make and model cannot be determined. The AD is then printed and included in a biweekly summary of all ADs that have been adopted in the preceding two weeks. This biweekly summary is sent to all subscribers to the AD summary which is for sale by (ref. AC 39-6D):

Department of Transportation
Federal Aviation Administration
Aeronautical Center, Attention: AAC-23
P.O. Box 25461
Oklahoma City, Oklahoma 73125

5. EMERGENCY ADs.

There are times when an unsafe condition arises that is of such seriousness as to require immediate corrective action. In these cases, an Emergency AD is processed and notification is made in one of two ways. The first, in the case of nontransport aircraft, when there are numerous aircraft involved, is by an Air Mail letter to each registered owner of the aircraft involved. In the second instance, for transport aircraft, when there are relatively few aircraft involved, notification is made by telegram. Emergency ADs are usually not adopted rules to Part 39; therefore, no AD number (or amendment number) has been assigned. In all cases, however, they will subsequently be processed and published as an adopted rule.

Emergency ADs have relatively short compliance times; in many instances they must be complied with before further flight of the aircraft involved and are effective upon receipt. This creates a problem in the case of leased aircraft, for it is important that the registered owner make the information available to the operators of the aircraft in the most expeditious manner possible because FAA has no other means available to make notification other than to the registered owner. Unless the registered owner makes the information available to the lessee, the lessee may not be aware of a serious condition.

6. COMPLIANCE.

Since the ADs are printed as an amendment to FAR Part 39, and they are published in the

Federal Register, they meet the requirements of the Administrative Procedure, Title 5 U.S.C. 552 et seq., in that they are a Federal Aviation Regulation and must be complied with the same as any other regulation. This means that no person may operate a product to which an AD applies, unless it is operated in accordance with the limitations established in the AD. In this context, the definition of "operate" in FAR Part 1, should be studied. It will be seen that operate not only means the person who uses, but applies to the person who causes the product to be used or authorizes it to be used. In addition, FAR Section 91.163 places the responsibility for the airworthiness of an aircraft upon the owner or operator. If the provisions of the AD have not been complied with, the aircraft cannot be considered to be in airworthy condition.

7. COMPLIANCE DATES.

a. *One Time Compliances*: There are various compliance dates used in preparing ADs due to the differences in the nature of the unsafe condition. Some ADs must be complied with before further flight due to the seriousness of the unsafe condition and the expected frequency of occurrences in other like make and models. There are others that are not required to be complied with until some specified time in the future, when it has been determined that immediate action is not necessary. This is not meant to minimize the seriousness of the unsafe condition, but rather to provide a reasonable time for compliance.

All AD compliances are not specified in periods of time. Some compliance frequencies are listed by number of cycles, landings, or other specified types of operations. These compliances are necessary since calendar time or time in service alone does not increase the unsafe condition. As an example, an unsafe condition on a landing gear would become more critical due to takeoffs and landings rather than time in service or calendar time.

b. *Repetitive Compliances*: Not all ADs are written with a one-time compliance. Many have recurring or repetitive compliances due to the nature of the unsafe condition. In these cases, the importance of the maintenance records (FAR 91.173) cannot be overemphasized. This will be

further discussed in Item 9 below. The message in this section is to ascertain if an AD must be complied with again at a future date and somehow establish a schedule for its accomplishment. It is the owner or operator's responsibility to see that ADs are complied with (see Par. 8, Responsibility for Compliance) and while arrangements can be made with others, the owner or operator is still the responsible party.

8. RESPONSIBILITY FOR COMPLIANCE.

The basic responsibility for seeing that ADs are complied with rests with the owner or operator. (Ref. FAR 91.163.) Many owner/operators are not fully aware of this and feel that the maintenance personnel should see that the ADs are complied with. It is true that maintenance personnel must ensure that AD notes that are due are complied with when performing the 100 hour, annual or progressive inspections. However, all AD notes may not be due for compliance at this time and may have compliance dates that call for compliance at a later date. In addition, the aircraft may be undergoing an inspection under FAR Section 91.217 and in this case the maintenance personnel are only required to comply with ADs that are related to that portion of the aircraft undergoing inspection. This is true due to the nature of the inspection program not encompassing a complete aircraft inspection at one time. Therefore, it is incumbent upon the owner/operator to ensure that ADs are complied with when due. Again, the importance of maintenance records can be seen. (See Par. 9.)

Once the owner/operator has fulfilled his responsibility by causing the aircraft to be taken into maintenance for compliance with an AD, the performance and recording of the work itself is the responsibility of the maintenance agency involved. However, when the aircraft is approved for return to service, the owner/operator is once more responsible to see that appropriate entries are made in the maintenance records.

9. MAINTENANCE RECORDS (FAR 91.173 and FAR 43.9).

One of the most important items to be considered by the owner/operator is the maintenance

records. He is required by regulation to include in them the current status of applicable ADs which will include the method of compliance. This is important because frequently, there is more than one way of complying with an AD. The records also act as your receipt for work accomplished. All too frequently, owner/operators have had ADs complied with a second time because they failed to have the records completed by maintenance personnel.

Another important part that maintenance records can play is to establish when repetitive inspections will be due. A well-established set of records will not only schedule when repetitive ADs are due, but can schedule one time ADs that are due at some future date.

One aspect of maintenance records that has given problems in the past is when engines, propellers, or accessories are sent to FAA Certified Repair Stations for major repairs, including compliance with an AD. Repair stations should be aware that the wording of the maintenance release in Appendix B of FAR 43 does not fully meet the requirement of 43.9 for recording compliance with AD notes. They should furnish a description record as provided in the recording requirements for documenting compliance with Airworthiness Directives. It is then incumbent upon the owner to include this in his maintenance records to comply with FAR 91.173(a) (2)(v), which requires the current status of applicable Airworthiness Directives, including the method of compliance.

10. RESTRICTED CATEGORY AIRCRAFT.

In the past, considerable confusion has existed as to whether ADs applied to Restricted Category aircraft. This has come about, in part, due to the policy in the old Civil Aeronautics Manual 8, Section 8.20-1(b)(2), which stated that ADs did not have to be complied with on Restricted Category aircraft.

To preclude further questions as to whether or not an AD applies to all products of the same type design, future ADs that do not limit their applicability will apply to all models set forth in the AD regardless of category.

CAM 8.20-1(b)(2) is no longer policy. When an AD is encountered which is not clear as to applicability, the specific question or problem

should be referred to the local Flight Standards District Office for a determination of applicability.



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