DATE 7/10/79

ADVISORY CIRCULAR



DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
Washington, D.C.

FAR GUIDANCE MATERIAL

Subject: AIRWORTHINESS DIRECTIVES FOR GENERAL AVIATION AIRCRAFT

- 1. PURPOSE. This advisory circular (AC) will provide guidance and information to owners and operators of general aviation aircraft concerning their responsibility for complying with airworthiness directives (AD's) and recording AD compliance in the appropriate maintenance records.
- 2. <u>CANCELLATION</u>. AC 43-5, Airworthiness Directives for General Aviation Aircraft, dated 8/13/74 is canceled.
- 3. RELATED FAR SECTIONS. Federal Aviation Regulations (FAR) Part 39; FAR Part 43, Sections 43.9 and 43.11; FAR Part 91, Sections 91.163, 91.165, and 91.173.
- 4. BACKGROUND. Title VI of the Federal Aviation Act of 1958, as amended by Section 6 of the Department of Transportation Act, defines the Federal Aviation Administration's (FAA) duty regarding the promotion of safety of flight for civil aircraft. One of the safety functions charged to the FAA is to require correction of unsafe conditions disclosed in any product (aircraft, aircraft engine, propellers, or appliances) after type certification or other approval and when that condition is likely to exist or develop in other products of the same type design. The medium used by the FAA to provide notice to aircraft owners, operators, and other interested persons and to require correction of the unsafe condition is the AD which prescribes the conditions and limitations including inspections under which the product may continue to be operated.
- 5. AD CATEGORIES. AD's are Federal Aviation Regulations and are published in the Federal Register as amendments to FAR Part 39. Depending on the seriousness of the unsafe condition, AD's are published in one of the following categories:

Initiated by: AFS-830

AC 39-7 7/10/79

a. Notice of Proposed Rulemaking (NPRM). An NPRM is issued when there is no emergency affecting air safety. Interested persons are invited to comment on the NPRM by submitting such written data, views, or arguments as they may desire. The comment period is usually for 60 days and proposals contained in the notice may be changed or withdrawn in light of comments received. When an NPRM is adopted as a final rule, it is published in the Federal Register and then printed and distributed by first class mail to the registered owners of the make and model affected.

- b. Immediate Adopted Rule. This is an AD of an urgent nature where prompt action is essential. It is issued without prior notice (NPRM) and is often referred to as an "immediate adopted rule." This type of AD is made effective less than 30 days after publication in the Federal Register and is distributed by first class mail to the registered owners of the make and model affected.
- c. Emergency AD. This type of AD is issued when immediate action is required to correct an unsafe condition. Emergency AD's are distributed to the registered owners of the make and model affected either by telegram or priority mail and are effective upon receipt. An emergency AD is published in the Federal Register as soon as possible after its initial distribution.
- 6. AD'S ISSUED TO PRODUCTS INSTALLED ON AIRCRAFT. On occasion, AD's are issued which apply to engines, propellers, and appliances installed on various makes and models of aircraft. When the product can be identified as being installed on a specific make and model aircraft, AD distribution will be made to the registered owner. However, there are many times when a determination cannot be made and direct distribution to the registered owner is impossible. For this reason, aircraft owners and operators are urged to subscribe to the Airworthiness Directives Summary which contains all valid AD's previously published and a biweekly supplemental service. The summary is divided into two volumes. Volume I includes directives applicable to small aircraft (12,500 pounds or less maximum certificated takeoff weight). Volume II includes directives applicable to large aircraft (over 12,500 Subscription service will consist of the summary and automatic biweekly updates for a 2-year period. The Summary of Airworthiness Directives is sold and distributed for the Superintendent of Documents by the FAA in Oklahoma City. Volumes I and Volume II can be purchased separately. AC 39-6F, Summary of Airworthiness Directives, provides ordering information and subscription prices on these publications. A copy of AC 39-6F may be obtained by writing to the U.S. Department of Transportation, Publications Section, M-443.1, Washington, D.C. 20590.
- 7. APPLICABILITY OF AD'S. Each AD has an applicability statement specifying the product (aircraft, aircraft engine, propellers, or appliances) and, if applicable, the aircraft category to which it applies. AD's that are not specifically limited will apply to all models set forth in the applicability statement regardless of category. Some aircraft owners and operators are of

7/10/79 · AC 39- 7

the opinion that AD's are not applicable to aircraft certificated in certain categories such as experimental or restricted. This is not true; if an AD does not specifically exempt a category, then the AD will apply to that category. The type certificate and airworthiness certification categories are used to identify the product affected. The following are examples of AD applicability statements:

- a. "Applies to Robin RA-15-150 airplanes certificated in all categories." This statement incorporates all airplanes of the model listed without regard to type or airworthiness certification and would include standard, restricted, limited, and experimental categories.
- b. "Applies to Robin RA-15-150 airplanes certificated in all categories except restricted." This statement incorporates all airplanes of the model listed except those certificated in the restricted category.
- c. "Applies to Robin RA-15-150 airplanes certificated in all categories except experimental." This statement incorporates all airplanes of the model listed except those certificated in the experimental category.
- 8. AD COMPLIANCE. AD's are amendments to FAR Part 39 and meet the requirements of the rulemaking portion of the Administrative Procedure Act, Title 5, U.S.C. Section 553, and should 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 requirements of the AD. It should be understood that to "operate" applies not only to the person who uses the product, such as the pilot, but also to the person who causes or authorizes the product to be used, such as the owner or lessee. Compliance with emergency AD's could be a problem in the case of leased aircraft. The FAA has no other means available to make notification, other than to the registered owner. For this reason, it is important that the owner make the information available to the operators of the aircraft in the most expeditious manner possible. Unless the registered owner makes the information available to the lessee, the lessee may not be aware of a serious condition.
- 9. COMPLIANCE TIME OR DATE. Compliance requirements specified in AD's are established from a safety standpoint and can be stated in numerous ways depending upon the urgency of the unsafe condition or the type of product to which the AD applies. Some AD's are of such a serious nature they may require compliance before further flight. Other AD's may express compliance time in terms of a specific number of hours of operation such as "compliance required within the next 50 hours time in service after the effective date of this AD." Other compliance times may be expressed in terms of landings such as, "within the next 10 landings after the effective date of this AD." In the case of turbine engines, compliance may be expressed in terms of cycles and a cycle would generally consist of an engine start, takeoff operation, landing, and engine shutdown. When a direct relationship between airworthiness and calendar time is identified, a calendar date may be the limiting factor for

AC 39-7 7/10/79

compliance. It should also be noted that due to the nature of the unsafe condition, not all AD's have a one-time compliance and repetitive inspections at periodic intervals after initial compliance may be required.

- 10. ADJUSTMENTS IN COMPLIANCE REQUIREMENTS. Compliance times specified in AD's are established from a safety standpoint and, as stated, may require repetitive inspections. In some instances, owners or operators are able to substantiate longer inspection intervals on the basis of accumulated service experience with their particular maintenance practices. In order to provide flexibility under these conditions, a statement may be included in the AD to permit reasonable adjustments in the intervals specified to allow compliance at an established inspection period of the owner or operator. If such adjustment authority is stated in an AD, then the owners or operators should submit substantiating data through an FAA airworthiness or engineering inspector for consideration of adjustments to their inspection intervals, if they so desire.
- 11. EQUIVALENT MEANS OF COMPLIANCE. Most AD's will indicate the acceptability of equivalent means of compliance as it cannot be assumed that only one specific repair, modification, or inspection method is acceptable to correct an unsafe condition. Even though an equivalent means of compliance may be unknown when an AD is issued, this does not preclude the possibility of an equivalent means of compliance subsequently being developed and substantiated. This provision is not only desirable for the owner or operator, but also for the FAA as it will eliminate subsequent AD revisions as different equivalents are developed. Equivalent means of compliance must be "FAA approved" by either an FAA Flight Standards airworthiness or engineering inspector. Sometimes only a particular official, such as the Chief, Engineering and Manufacturing Branch, may approve equivalents and this will be stated in the AD.
- 12. RESPONSIBILITY FOR AD COMPLIANCE AND RECORDING. FAR Section 43.9 requires maintenance record entries to be made by the maintenance entity (mechanic/repair station) which performs the work and by the person who approves a return to service. FAR Section 43.11(a) requires the person approving or disapproving an aircraft, airframe, aircraft engine, propeller, or appliance for return to service after any annual, 100-hour, or progressive inspection to make maintenance record entries. FAR Section 43.11(b) requires the person performing an annual inspection to provide the owner or operator with a list of discrepancies, including noncompliance with AD's. The list and the entries should aid the owners and operators in meeting their responsibilities regarding AD compliance and recording. According to FAR Section 91.163, the owner or operator is primarily responsible for having AD's complied with. FAR Section 91.165 states that the owner or operator is responsible for ensuring that the appropriate entries are made in the aircraft and maintenance records indicating that the aircraft has been released to service and Section 91.173 details the maintenance recordkeeping requirements of the owners and operators. FAR Section 91.173(a)(2) requires each

7/10/79 AC 39-7

registered owner or operator to keep records of the current status of applicable AD's including, for each, the method of compliance, the AD Number, and the amendment date. If the AD involves recurring action, the time and, if applicable, the date when the next action is required must be recorded.

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