

Advisory Circular

Subject: Airworthiness Directives

Date: 3/2/12AC No: 39-7DInitiated by: AFS-300Change:

1. PURPOSE. This advisory circular (AC) provides guidance and information to owners and operators of aircraft concerning their responsibility for complying with Airworthiness Directives (AD) and recording AD compliance in the appropriate maintenance records.

- 2. CANCELLATION. This AC cancels AC 39-7C, ADs, dated November 16, 1995.
- **3. RELATED REGULATIONS.** Title 14 of the Code of Federal Regulations (14 CFR):
 - Part 39, Airworthiness Directives,
 - Part 43, Maintenance, Preventive Maintenance, Rebuilding, and Alteration,
 - Section 43.9, Content, Form, and Disposition of Maintenance, Preventive Maintenance, Rebuilding, and Alteration Records (except inspections performed in accordance with part 91, part 125, § 135.411(a)(1), and § 135.419 of this chapter), and
 - Section 43.11, Content, Form, and Disposition of Records for Inspections Conducted Under Parts 91 and 125 and §§ 135.411(a)(1) and 135.419 of This Chapter;
 - Part 91, General Operating and Flight Rules,
 - Section 91.403, General,
 - Section 91.417, Maintenance Records, and
 - Section 91.419, Transfer of Maintenance Records.

4. RELATED READING MATERIAL (current editions).

- FAA-IR-M-8040.1, Airworthiness Directives Manual, and
- FAA Order 8110.103, Alternative Methods of Compliance (AMOC).

5. BACKGROUND. The authority for the role of the Federal Aviation Administration (FAA) regarding the promotion of safe flight for civil aircraft may be found in Title 49 of the United State Code (49 U.S.C.) § 44701 et. seq. (formerly, Title VI of the Federal Aviation Act of 1958 and related statutes). Pursuant to 49 U.S.C. § 44709(a), the Administrator of the FAA may reinspect and reexamine, at any time, a civil aircraft, aircraft engine, propeller, or appliance. One way the FAA has implemented its authority is through part 39. Pursuant to its authority, the FAA issues ADs when an unsafe condition exists in a product (aircraft, aircraft engine, propeller, or

appliance) and is likely to exist or develop in other products of the same type design. ADs are issued by the FAA to notify aircraft owners and operators of an unsafe condition and to require action(s) to resolve the unsafe condition. ADs prescribe the conditions and limitations, including inspection, repair, or alteration under which the product may continue to be operated. ADs are authorized under part 39 and issued in accordance with the public rulemaking procedures of the Administrative Procedure Act (APA), Title 5 of the United States Code (5 U.S.C.) § 553, and FAA procedures in 14 CFR part 11.

6. PRINCIPAL CHANGES. References to specific 14 CFR parts have been updated and text reworded for clarification throughout this AC.

7. AD CATEGORIES. ADs are published in the Federal Register (FR) as amendments to part 39 when an unsafe condition is found to exist in a product. Depending on the urgency, ADs are issued as follows:

a. Notice of Proposed Rulemaking (NPRM) followed by a Final Rule. This is the most common type of AD. An NPRM is issued whenever safety considerations do not require the immediate imposition of action under an AD. Anyone is invited to comment on the NPRM by submitting written comments. After the comment period closes, the final rule is prepared, taking into account the comments received. Actions proposed in the notice may be changed or withdrawn in light of the comments. When the final rule, resulting from the NPRM, is adopted, it is published in the FR, and is also available electronically to subscribers at the FAA's Regulatory and Guidance Library (RGL) Web site, http://rgl.faa.gov.

b. Final Rule; Request for Comment (FRC) (commonly referred to as an "Immediately Adopted Rule"). This is used in certain cases, when an unsafe condition warrants the immediate adoption of a rule without prior notice. In general, we issue an FRC only when it is impractical to complete the prior notice requirement procedure because the compliance time for the required action is shorter than the time necessary for the public to comment and for the FAA to publish the final rule. Comment dispositions are only published when a comment warrants a change to the FRC, or when a significant issue is raised that might have wide or continuing interest among members of the affected public.

c. Emergency ADs. These ADs are of an urgent nature (e.g., immediate safety of flight) and cannot wait for publication in the FR. When an Emergency AD is issued, the AD applies only to the people who receive "actual notice" by First-Class mail and/or fax to the registered owners of those aircraft. Therefore, a followup AD is published in the FR normally as an FRC. The FR version contains the "good cause" findings required by §§ 553(b)(3)(B) and 553(d) of the APA and makes the AD effective to all persons. Other than very minor corrections (such as obvious typographical errors) and the addition of certifications and analyses required by statute, standard formatting required for FR publication, and material required for incorporation by reference, the version published in the FR is identical to the Emergency AD.

8. ELECTRONIC DISTRIBUTION OF ADS.

a. AD Copies. Official copies of any AD are available in the FR at the Web site, http://www.gpoaccess.gov/fr/index.html. The FAA only distributes Emergency ADs by First-Class Mail and/or fax. All other final rule ADs are available by signing up for electronic delivery via the FAA RGL Web site, http://rgl.faa.gov. On this Web site, you will find a link entitled "Subscribe for email delivery of ADs and SAIBs." Subscribers must enter their e-mail address and pick the aircraft/engine/propeller makes and models they want to receive information for. Subscribers will automatically receive all applicable ADs and Special Airworthiness Information Bulletins (SAIB) by e-mail.

b. Appliance AD. A final rule AD related to an appliance is distributed using the electronic delivery described above for the aircraft model(s) selected.

c. NPRMs. The FAA does not electronically distribute NPRMs. To find NPRMs, you must visit the FAA's RGL at the Web site, http://rgl.faa.gov, or the FR Web site listed above.

9. APPLICABILITY OF ADs. Each AD contains an applicability statement specifying the product (aircraft, aircraft engine, propeller, or appliance) to which it applies. Unless stated otherwise (see subparagraph 9b of this AC), ADs only apply to type-certificated (TC) aircraft, including ADs issued for an engine, propeller, and appliance.

a. TC'd Aircraft, Engines, and Propellers. For ADs issued against aircraft, engines, and propellers certified under 14 CFR part 21, the Type Certificate Data Sheet (TCDS) is used to identify the affected product. Limitations may be placed on applicability by specifying the serial number or number series to which the AD is applicable. When there is no reference to serial numbers, all serial numbers are affected. The following are examples of AD applicability statements for TC'd products:

(1) "This AD applies to Hawker Beechcraft Corporation (Type Certificate previously held by Raytheon Aircraft Company) Model 1900, 1900C, and 1900D airplanes, certificated in any category." This statement makes the AD applicable to all airplanes of the model listed, regardless of the type of airworthiness certificate issued to the TC'd aircraft.

(2) "This AD applies to Hawker Beechcraft Corporation (Type Certificate previously held by Raytheon Aircraft Company) Model 1900D airplane, Serial Numbers UE-1 through UE-439, certificated in any category." This statement specifies certain aircraft by serial number within a specific model, regardless of the type of airworthiness certificate issued to the TC'd aircraft.

(3) "This AD applies to Aerotek II, Inc. Models B-1 and B-1A airplanes, certificated in any category except restricted." This statement makes the AD applicable to all TC'd airplanes except those issued a special airworthiness certificate in the restricted category.

(4) "This AD applies to Learjet Inc. (Type Certificate Previously Held by Gates Learjet Corporation) Model 23, 24, 24A, 24B, 24B-A, 24D, 24D-A, 24E, 24F, 25, 25A, 25C, 25D, and 25F airplanes, certificated in any category, modified by Supplemental Type Certificate SA1731SW, SA1669SW, or SA1670SW." This statement makes the AD applicable to all TC'd airplanes listed when altered by the Supplemental Type Certificate (STC) listed, regardless of the type of airworthiness certificate issued to the TC'd aircraft.

(5) "This AD applies to Lycoming Engines Models AEIO-360-A1A and IO-360-A1A." This statement makes the AD applicable to the engine models listed that are installed on TC'd aircraft.

b. Non-TC'd Aircraft and Products Installed Thereon. Non-TC'd aircraft (e.g., amateur-built aircraft, experimental exhibition) are aircraft for which the FAA has not issued a TC under part 21. The AD applicability statement will identify if the AD applies to non-TC'd aircraft or engines, propellers, and appliances installed thereon. The following are examples of applicability statements for ADs related to non-TC'd aircraft:

(1) "This AD applies to Honeywell International Inc. Auxiliary Power Unit (APU) models GTCP36-150(R) and GTCP36-150(RR). These APUs are installed on, but not limited to, Fokker Services B.V. Model F.28 Mark 0100 and F.28 Mark 0070 airplanes, and Mustang Aeronautics, Inc. Model Mustang II experimental airplanes. This AD applies to any aircraft with the listed APU models installed." This statement makes the AD applicable to the listed auxiliary power unit (APU) models installed on TC'd aircraft, as well as non-TC'd aircraft.

(2) "This AD applies to Lycoming Engines Models AEIO-360-A1A and IO-360-A1A. This AD applies to any aircraft with the listed engine models installed." This statement makes the AD applicable to the listed engine models installed on TC'd and non-TC'd aircraft.

c. Changed Products. An AD applies to each product identified in the applicability statement, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of the AD. For products that have been modified, altered, or repaired so that performance of the requirements of the AD is affected, the owner/operator must use the alternative methods of compliance (AMOC) provision of the AD (see paragraph 12) to request approval from the FAA. This approval may address either no action if the current configuration eliminates the unsafe condition, or different actions necessary to address the unsafe condition described in the AD. In no case does the presence of any alteration, modification, or repair remove any product from the applicability of this AD.

10. AD COMPLIANCE. ADs are regulations issued under part 39. Therefore, no person may operate a product to which an AD applies, except in accordance with the requirements of that AD. Owners and operators should understand that to "operate" not only means piloting the aircraft, but also causing or authorizing the product to be used for the purpose of air navigation, with or without the right of legal control as owner, lessee, or otherwise. Compliance with Emergency ADs can be a problem for operators of leased aircraft because they may not be aware of the AD and safety may be jeopardized.

11. COMPLIANCE TIME OR DATE.

a. Specified Compliance Time. The belief that AD compliance is only required at the time of a required inspection (e.g., at a 100-hour or annual inspection) is not correct. The required compliance time is specified in each AD, and no person may operate the affected product after expiration of that stated compliance time without an AMOC approval for a change in compliance time.

b. Requirements. Compliance requirements specified in ADs are established for safety reasons and may be stated in various ways. Some ADs are of such a serious, time-critical nature that they require compliance before further flight (e.g., to prevent uncommanded engine shutdown with the inability to restart the engine; the compliance statement may be written as "Prior to further flight, inspect...."). Other ADs express compliance time in terms of a specific number of hours in operation (e.g., "Within the next 50 hours time-in-service after the effective date of this AD, visually inspect...."). Compliance times may also be expressed in operational terms (e.g., "Within the next 10 landings after the effective date of this AD...."). For turbine engines, compliance times are often expressed in terms of cycles. A cycle normally consists of an engine start, takeoff, operation, landing, and engine shutdown.

c. Expression of Time. When a direct relationship between airworthiness and calendar-time is identified, compliance time may be expressed as a calendar date. For example, if the compliance time is specified as "Within 12 months after the effective date of this AD..." with an effective date of July 15, 1995, the deadline for compliance is July 15, 1996.

d. Special Flight Permits. In some instances, you may need to fly an aircraft to a repair facility to do the work required by an AD. Unless the AD states otherwise, you may apply to the FAA for a special flight permit following the procedures in part 21, § 21.199.

12. AMOCs.

a. AMOC Definition. An AD contains the required method for resolving an unsafe condition. An AMOC is a different way, other than the one specified in an AD, to address the unsafe condition on an aircraft, aircraft engine, propeller, or appliance. The term AMOC is used to define a FAA-approved AMOC to the specific requirements of an AD, including a change in the required time to accomplish the AD. An AMOC must ensure the unsafe condition is resolved by providing an acceptable level of safety.

b. Submitting an AMOC Request. In accordance with part 39, § 39.19, AMOC requesters should send their AMOC proposal to their principal inspector (PI). The PI may add comments and must forward a copy of the AMOC proposal to the manager of the FAA office identified in the AD. The requester may, at the same time they send it to their PI, send a copy of the proposal to the manager of the office identified in the AD. If the requester doesn't have a PI (such as a design approval holder (DAH)), we advise them to send the proposal directly to the manager of the FAA office identified in the AD.

c. FAA Approval. Any AMOC must provide an acceptable level of safety and be substantiated and approved by the Aircraft Certification Office (ACO) before it may be used.

13. RESPONSIBILITY FOR AD COMPLIANCE AND RECORDATION. The owner or operator of an aircraft is primarily responsible for maintaining that aircraft in an Airworthy condition, including compliance with ADs.

a. Means of Accomplishment. This responsibility may be met by ensuring that properly certificated and appropriately rated maintenance person(s) accomplish the requirements of the AD and properly record this action in the appropriate maintenance records. This action must be

accomplished within the compliance time specified in the AD or the aircraft may not be operated.

b. Other Inspections. Maintenance persons may also have direct responsibility for AD compliance, aside from the times when AD compliance is the specific work contracted by the owner or operator. When a 100-hour, annual, progressive, or any other inspection required under 14 CFR part 91, 121, 125, or 135 is accomplished, § 43.15(a) requires the person performing the inspection to determine that all applicable airworthiness requirements are met, including compliance with ADs.

c. Progressive Inspections. Maintenance persons should note that even though an inspection of the complete aircraft is not made, if the inspection conducted is a progressive inspection, determination of AD compliance is required for those portions of the aircraft inspected.

d. Continuous Inspection Programs. For aircraft being inspected in accordance with a continuous inspection program (§ 91.409), the person performing the inspection must ensure that an AD is complied with only when the portion of the inspection program being handled by that person involves an area covered by a particular AD. The program may require a determination of AD compliance for the entire aircraft by a general statement, compliance with ADs applicable only to portions of the aircraft being inspected, or it may not require compliance at all. This does not mean AD compliance is not required at the compliance time or date specified in the AD. It only means that the owner or operator has elected to handle AD compliance apart from the inspection program. The owner or operator remains fully responsible for AD compliance.

e. Required Entries into Records. The person accomplishing the AD is required by § 43.9 to record AD compliance. The entry must include those items specified in § 43.9(a)(1) through (a)(4). The owner or operator is required by § 91.405 to ensure that maintenance personnel make appropriate entries and, by § 91.417, to maintain those records. Owners and operators should note that there is a difference between the records required to be kept by the owner under § 91.417 and those that § 43.9 requires maintenance personnel to make. In either case, the owner or operator is responsible for maintaining proper records.

14. RECURRING/PERIODIC ADs. Some ADs require repetitive or periodic inspection. In order to provide for flexibility in administering such ADs, an AD may provide for adjustment of the inspection interval to coincide with inspections required by part 91, or other regulations. The conditions and approval requirements under which adjustments may be allowed are stated in the AD. Any other modification or adjustment of the compliance time of the AD must be requested through the AMOC process as described in paragraph 13.

15. DETERMINING REVISION DATES.

a. Revision Date. The revision date required by 91.417(a)(2)(v) is the effective date of the latest amendment to the AD and may be found in paragraph (a) of the body of each AD. For example, "This airworthiness directive (AD) is effective April 12, 2005."

b. Emergency ADs. Similarly, the revision date for an Emergency AD is the date it was issued. For example, "Emergency airworthiness directive (AD) 2006-17-51, issued

August 15, 2006, is effective immediately upon receipt." Each emergency AD is followed by an FRC version published in the FR that will reflect the amendment number of the regulation, including effective date. For example, "This AD is effective September 18, 2006, to all persons except those persons to whom it was made immediately effective by Emergency AD 2006-17-51, issued on August 15, 2006, which contained the requirements of this amendment."

16. SUMMARY.

a. Owner/Operator Responsibility. The registered owner or operator of an aircraft is responsible for compliance with ADs for the airframe, engine, propeller, and appliance as stated in the applicability statement of the AD for all aircraft it owns or operates.

b. Maintenance Personnel Responsibility. Maintenance personnel are responsible for determining that all applicable airworthiness requirements are met when they accomplish an inspection in accordance with part 43.

ORIGNAL SIGNED by /s/ Raymond Towles for

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