

Proposed Rules

Federal Register

Vol. 63, No. 23

Wednesday, February 4, 1998

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 97-CE-30-AD]

RIN 2120-AA64

Airworthiness Directives; AlliedSignal Aerospace KT 76A Air Traffic Control (ATC) Transponders

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes to adopt a new airworthiness directive (AD) that would apply to certain AlliedSignal Aerospace (AlliedSignal) KT 76A ATC transponders that are installed on aircraft. The proposed AD would require incorporating a modification on the affected transponders that consists of replacing two resistor network modules with glass-coated modules. The proposed AD is the result of reports of these ATC transponders transmitting misleading encoding altimeter information to ground-based ATC radar sites and nearby Traffic Alert and Collision Avoidance System (TCAS)-equipped aircraft. The actions specified by the proposed AD are intended to prevent the transmission of misleading encoding altimeter information between affected aircraft caused by the inability of these ATC transponders to coordinate with ground-based ATC radar sites and nearby TCAS-equipped aircraft.

DATES: Comments must be received on or before April 10, 1998.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 97-CE-30-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106. Comments may be inspected at this location between 8 a.m. and 4 p.m., Monday through Friday, holidays excepted.

Service information that applies to the proposed AD may be obtained from AlliedSignal Inc., General Aviation Avionics, 400 N. Rogers Road, Olathe, Kansas 66062-1212. This information also may be examined at the Rules Docket at the address above.

FOR FURTHER INFORMATION CONTACT: Mr. Roger A. Souter, Aerospace Engineer, Wichita Aircraft Certification Office, FAA, 1801 Airport Road, Mid-Continent Airport, Wichita, Kansas 67209; telephone: (316) 946-4134; facsimile: (316) 946-4407.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this notice may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report that summarizes each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this notice must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket No. 97-CE-30-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRMs

Any person may obtain a copy of this NPRM by submitting a request to the FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 97-CE-30-AD, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Discussion

Several customer complaints relating to the altitude reporting accuracy of AlliedSignal KT 76A ATC transponders; part number (P/N) 066-1062-00/10/02; serial numbers 93,000 through 109,999, that are installed on aircraft prompted AlliedSignal to conduct testing of these transponder systems. From this testing, AlliedSignal identified that these ATC transponders are transmitting misleading encoding altimeter information to ground-based ATC radar sites and nearby TCAS-equipped aircraft.

The condition is the result of "silver migration" on the substrate of a resistor network that is connected to the Gilham Altitude outputs of an external encoding altimeter. This creates low impedance paths between adjacent resistors in the network, which causes the transponder unit to incorrectly interpret the output of the encoding altimeter. Blocking diodes that are internal to the AlliedSignal KT 76A ATC transponders prevent this "silver migration" problem from affecting other users of the Gilham outputs.

Relevant Service Information

AlliedSignal has issued Service Bulletin SB KT 76A-7, dated July 1996, which includes procedures for replacing two resistor network modules, RM401 and RM402, with new glass-coated parts. When accomplished, this replacement is referred to as Mod 7.

The FAA's Determination

After examining the circumstances and reviewing all available information related to the incidents described above, including the referenced service information, the FAA has determined that AD action should be taken to prevent the transmission of misleading encoding altimeter information between affected aircraft caused by the inability of these ATC transponders to coordinate with ground-based ATC radar sites and nearby TCAS-equipped aircraft.

Explanation of the Provisions of the Proposed AD

Since an unsafe condition has been identified that is likely to exist or develop in airplanes that have AlliedSignal KT 76A ATC transponders; part number (P/N) 066-1062-00/10/02; serial numbers 93,000 through 109,999, the FAA is proposing AD action. The

proposed AD would require replacing two resistor network modules, RM401 and RM402, with new glass-coated parts. When accomplished, this replacement is referred to as Mod 7. Accomplishment of the proposed replacement would be required in accordance with AlliedSignal Service Bulletin SB KT 76A-7, dated July 1996.

Compliance Time of the Proposed AD

The condition specified by the proposed AD is not caused by actual hours time-in-service (TIS) of the aircraft where the affected ATC transponders are installed. The need for the hardware modification has no correlation to the number of times the equipment is utilized or the age of the equipment. For this reason, the compliance time of the proposed AD is presented in calendar time instead of hours TIS.

Cost Impact

The FAA estimates that 20,000 transponder units could be affected by the proposed AD if all were installed in aircraft of U.S. registry. Approximately 2 workhours would be needed to accomplish the proposed action, at an average labor rate of \$60 an hour. Parts will be provided by AlliedSignal at no cost to the owners/operators of airplanes with the affected transponder units installed. Based on these figures, the total cost impact of the proposed AD on U.S. operators is estimated to be \$2,400,000, or \$120 per airplane.

These figures are based on the presumption that all of the affected transponder units are installed in aircraft and the units do not incorporate Mod 7. AlliedSignal has informed the FAA that parts have been distributed to incorporate Mod 7 on approximately 300 transponder units. Presuming that each set of parts has been installed on an airplane equipped with one of the affected transponder units, the cost impact of the proposed AD would be reduced \$36,000 from \$2,400,000 to \$2,364,000.

Regulatory Impact

The regulations proposed herein would not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this proposal would not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

For the reasons discussed above, I certify that this action (1) is not a

“significant regulatory action” under Executive Order 12866; (2) is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this action has been placed in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding a new airworthiness directive (AD) to read as follows:

AlliedSignal Inc.: Docket No. 97-CE-30-AD.

Applicability: AlliedSignal KT 76A Air Traffic Control (ATC) transponders; part number (P/N) 066-1062-00/10/02; serial numbers 93,000 through 109,999, as installed on, but not limited to the following airplanes (all serial numbers), certificated in any category:

Cessna Aircraft Company: 172, 182, R182, T182, 206, P206, U206, TP206, 210, T210, P210, 310, E310, T310, and 421 series airplanes.

Twin Commander Aircraft Company: 500, 520, 560, 680, 681, 685, 690, 695, and 720 series airplanes.

The New Piper Aircraft Corporation: PA-31, PA-32, and PA-34 series airplanes.

Raytheon Aircraft Company: E33, F33, G33, 35, J35, K35, L35, K35, M35, P35, S35, V35, 36, A26, B36, D55, E55, 56, A56, 58, 58A, 95, B95, D95, and E95 series airplanes.

Mooney Aircraft Corporation: M20 series airplanes.

McDonnell Douglas Helicopter Company: Model 500N rotorcraft.

Note 1: This AD applies to each airplane equipped with a transponder that is identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For

airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (d) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required within the next 6 months after the effective date of this AD, unless already accomplished.

To prevent the transmission of misleading encoding altimeter information between affected aircraft caused by the inability of the affected ATC transponders to coordinate with ground-based air traffic control (ATC) radar sites and nearby Traffic Alert and Collision Avoidance System (TCAS)-equipped aircraft, accomplish the following:

(a) Replace the two resistor network modules, RM401 and RM402, with new glass-coated parts in accordance with the MODIFICATION PROCEDURE section of AlliedSignal Service Bulletin SB KT 76A-7, dated July 1996. When accomplished, this replacement is referred to as Mod 7.

(b) As of the effective date of this AD, no person may install an AlliedSignal KT 76A ATC transponder; part number (P/N) 066-1062-00/10/02; serial numbers 93,000 through 109,999, in an aircraft without first incorporating Mod 7 as specified in paragraph (a) of this AD.

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(d) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Wichita Aircraft Certification Office (ACO), 1801 Airport Road, Room 100, Mid-Continent Airport, Wichita, Kansas 67209. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Wichita ACO.

Note 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Wichita ACO.

(e) All persons affected by this directive may obtain copies of the document referred to herein upon request to AlliedSignal Inc., General Aviation Avionics, 400 N. Rogers Road, Olathe, Kansas 66062-1212; or may examine this document at the FAA, Central Region, Office of the Regional Counsel, Room 1558, 601 E. 12th Street, Kansas City, Missouri 64106.

Issued in Kansas City, Missouri, on January 28, 1998.

Terry L. Chasteen,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 98-2643 Filed 2-3-98; 8:45 am]

BILLING CODE 4910-13-U