

Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [62 FR 12739 NO. 52 03/18/97]

Docket No. 96-NM-67-AD; Amendment 39-9966; AD **97-06-09**

RIN 2120-AA64

Airworthiness Directives; Boeing Model 737-300, -400, and -500 Series Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

ACTION: Final rule

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 737-300, -400, and -500 series airplanes. This AD requires replacing certain aileron/rudder trim control modules with an improved module that contains an improved rudder trim switch that precludes the problems of sticking associated with the existing switch. This amendment is prompted by reports of sticking conditions in the rudder trim switch. The actions specified by this AD are intended to prevent such sticking, which could result in uncommanded movement of the rudder and consequent deviation of the airplane from its set course.

DATES: Effective April 21, 1997.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 21, 1997.

ADDRESSES: The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Hania Younis, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington; telephone (206) 227-2764; fax (206) 227-1181.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Boeing Model 737-300, -400, and -500 series airplanes was published in the Federal Register on October 3, 1996 (61 FR 51624). That action proposed to require replacing the aileron/rudder trim control module P8-43 with an improved module that precludes the problems associated with sticking that were identified in the existing module.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Support for the Proposal

Two commenters support the proposed AD.

Request to Clarify Description of Replacement Module

One commenter requests that the FAA's description of the replacement module be revised to make it more specific. This commenter points out that the Summary and Discussion sections of the preamble to the notice described the replacement module as a "new model that contains an improved rudder trim switch to reduce internal friction." However, the commenter states that the new module incorporates a switch that is of an entirely different design and, therefore, accomplishes more than just reduce friction. The new switch is much simpler in design and is, therefore, more reliable; the simpler design also eliminates multiple causes of sticking that have been identified in the existing switch. The commenter suggests that the description of the new module include this information.

The FAA concurs that the commenter's description is more specific. The FAA has revised the descriptive language in the appropriate portions of this preamble to the final rule to include the commenter's suggested wording.

Request to Clarify Description of Unsafe Condition

This same commenter requests that the FAA's description of the unsafe condition, which appeared in the Discussion section of the preamble to the notice, be revised. The commenter

points to a sentence in that section that stated, "If the trim switch sticks, it may be prevented from returning to the center position." The commenter states that this sentence would be more accurate if stated as "If the trim switch sticks, it may be prevented from returning to the center position when the switch knob is released."

The FAA does not concur. The FAA does acknowledge that the majority of incidents prompting this AD action have involved switches that did not return to the center position when the switch knob was released. However, according to the manufacturer, it is possible that rudder pedals would be required to control rudder movement; i.e., it is possible that even returning the switch to the center position manually may not be effective. Therefore, the commenter's proposed wording would not be accurate for all possible failure scenarios.

Request to Change Proposed Actions Altogether

One commenter, a non-U.S. operator, requests that the proposal be revised by eliminating the proposed actions altogether because they will "only generate additional maintenance costs without affecting safety positively." Instead, the commenter suggests that the FAA propose requiring (1) a clearance check between the rudder trim knob and the control panel, and (2) restrictions on food and beverages in the cockpit. This commenter maintains that the main cause of rudder trim runaways is due to interference between the rudder trim knob and the control panel, and, in most cases, this interference is the result of dirt (i.e., dust and food) collecting beneath the knob and contaminating the switches. In light of this, the commenter considers that requiring a gap check and a cleaning task would be a better course of action.

The FAA does not concur. While a gap check and cleaning task would be effective in removing contamination once it occurs, the newly designed module required by this AD will prevent contamination of the switch. Therefore, it eliminates the potential for the circumstances prompting the unsafe condition from developing, and does not impose additional restrictions or cleaning requirements.

Conclusion

After careful review of the available data, including the comments noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Cost Impact

There are approximately 1,159 Boeing Model 737-300, -400, and -500 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 537 airplanes of U.S. registry will be affected by this AD, that it will take approximately 3 work hours per airplane to accomplish

the required actions, and that the average labor rate is \$60 per work hour. Required parts will cost approximately \$1,063 per airplane. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$667,491, or \$1,243 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

The regulations adopted herein will 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 final rule does 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) 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 final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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 the following new airworthiness directive:

Regulatory Information

97-06-09 BOEING: Amendment 39-9966. Docket 96-NM-67-AD.

Applicability: Model 737-300, -400, and -500 series airplanes; as listed in Boeing Alert Service Bulletin 737-27A1198, dated June 6, 1996; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise 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 (b) 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 as indicated, unless accomplished previously.

To prevent sticking conditions in the rudder trim switch, which could result in uncommanded movement of the rudder and consequent deviation of the airplane from its set course, accomplish the following:

(a) Within 2 years after the effective date of this AD, replace the aileron/rudder trim control module P8-43 having part number (P/N) 69-73703-5 or 69-73703-6 with a new aileron/rudder trim control module having P/N 69-73703-8, in accordance with Boeing Alert Service Bulletin 737- 27A1198, dated June 6, 1996.

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Seattle Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Seattle ACO.

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

(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) The replacement shall be done in accordance with Boeing Alert Service Bulletin 737-27A1198, dated June 6, 1996. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(e) This amendment becomes effective on April 21, 1997.

Footer Information

Comments