

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. 2000-NM-405-AD; Amendment 39-12513; AD 2001-23-14]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Boeing Model 757 Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 757 series airplanes, that requires a review of maintenance records or an inspection to determine the serial numbers of geared rotary actuators (GRA) for the leading edge slats, and replacement of certain actuators with new or reworked actuators. This action is necessary to prevent a fractured spring washer in a GRA, which could lead to a disconnect in the GRA, and result in a slat skew condition and consequent reduced controllability of the airplane. This action is intended to address the identified unsafe condition.

**DATES:** Effective December 31, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of December 31, 2001.

**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:** Barbara Mudrovich, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2983; fax (425) 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 757 series airplanes was published in the Federal Register on May 15, 2001 (66 FR

26819). That action proposed to require an inspection to determine the serial numbers of geared rotary actuators (GRA) for the leading edge slats, and replacement of certain actuators with new or reworked actuators.

## **Comments Received**

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 Proposed Rule**

One commenter supports the proposed rule.

## **Requests To Allow Review of Maintenance Records**

Two commenters request that, in lieu of the inspection of the GRAs in paragraph (a) of the proposed AD, we allow a review of the maintenance records to determine the part number series and serial number for each installed GRA for the leading edge slats. One of the commenters states that if an operator tracks installed parts by serial number, that operator ought to be allowed to use its records to demonstrate compliance.

We concur and have revised paragraph (a) to allow a review of the airplane's maintenance records as an acceptable means of determining the part number series and serial number for each installed GRA for the leading edge slats.

## **Request To Extend Compliance Time**

One commenter requests that the FAA extend the compliance time for the proposed requirements to 36 months for all affected airplanes. The commenter states that the parts manufacturer will be unable to provide an adequate number of parts to allow affected operators to meet the proposed compliance time of 18 months for replacement of GRAs on airplanes without an enhanced slat skew or loss detection system.

We concur to extend the compliance time, but not necessarily for the reason stated by the commenter. We find that the 18-month compliance time for the required actions is necessary only for GRAs on slat number 2 outboard, slat number 9 outboard, slat number 4 inboard, and slat number 7 inboard on Boeing 757-200 series airplanes with line numbers 1 through 803, on which an enhanced slat skew or loss detection system has NOT been installed according to Boeing Service Bulletin 757-27-0126, dated May 11, 2000, or Boeing Production Revision Record 54755. For other slats on those airplanes, we find a 36-month compliance time (which is the compliance time for airplanes on which an enhanced slat skew or loss detection system has been installed) to be adequate. We have revised paragraphs (a)(1), (a)(2), (c)(1), and (c)(2) of this AD accordingly. This change to this AD will limit the number of replacement parts that will be needed within the 18-month compliance time, thus resolving the commenter's concern.

## **Request for Clarification of Parts Affected by This AD**

One commenter requests that we revise paragraph (b) of the proposed AD to clarify that no further action is required by this AD for any subject GRA that has been reworked and marked with "SB27-21" on the modification plate. The same commenter asks that we revise paragraph (c) of the proposed AD to state that further action is required for any subject part number that has NOT been previously reworked and marked with "SB27-21" on the modification plate. The commenter states

that the wording of paragraphs (b) and (c) of the proposed AD suggest that GRAs with a part number series and serial number listed under Section 1.A. of Hamilton Sundstrand Service Bulletins 5006397/755299-27-21 or 5006398/755300-27-21, both dated January 24, 2000, cannot be installed on an airplane whether they have been reworked or not.

Similarly, several other commenters request that we revise paragraph (d), the "Spares" paragraph, of the proposed AD, to allow use of affected GRAs, as long as the GRAs have a modification plate installed. These commenters note that the part number series and serial number of the parts will not be changed when they are reworked, but a modification plate will be installed on the reworked parts.

We agree that some clarification of parts affected by this AD is necessary. We have confirmed with the parts supplier that, when the parts are reworked, the part number series and serial number are not necessarily changed, but the dash number for the service bulletin associated with the rework is stamped on the modification plate, which is installed on the part to the left of the data plate. In this case, the modification plate will be stamped with "-21," if the part has been reworked per Hamilton Sundstrand Service Bulletins 5006397/755299-27-21 or 5006398/755300-27-21. Based on this information and the requests of the commenters, we have made the following changes to this final rule:

- Paragraph (b) of this AD states that no further action is required by this AD if no GRA has a part number series and serial number listed under Section 1.A. of the Hamilton Sundstrand service bulletins, or if GRAs with a part number series and serial number listed under Section 1.A. of the referenced service bulletins have been reworked previously and the modification plates are marked with "-21."
- Paragraph (c) of this AD identifies parts subject to the actions in that paragraph as any GRA with a part number series and serial number listed under Section 1.A. of the referenced service bulletins that does not have a modification plate marked with "-21."
- Paragraph (d) of this AD states that no one may install a GRA that has a part number series and serial number listed under Section 1.A. of Hamilton Sundstrand Service Bulletins 5006397/755299-27-21 or 5006398/755300-27-21, on any airplane, unless the part has been reworked and the modification plate has been marked with "-21."

### **Request To Revise Language in Preamble**

One commenter requests that the FAA revise the section in the preamble of the proposed rule titled "Explanation of Applicability." The commenter asks that we clarify that paragraph (d) of the proposed AD prohibits installation of NON-REWORKED affected parts after the effective date of this AD.

We concur with the intent of the commenter's request. However, the section to which the commenter refers is not restated in this final rule, so no change is necessary in this regard.

### **Request To Revise Cost Impact Information**

One commenter states that it projects that a total of 90 work hours will be necessary to accomplish the proposed requirements, including 20 work hours for the inspection, and 40 hours for replacement of the GRAs. The commenter also provides a summary of its costs associated with the proposed rule, based on actual direct costs associated with replacing all GRAs. Its estimates include time for testing and inspection of the installation of GRAs.

The FAA does not concur that any change to the proposed rule is necessary in this regard. As stated in the proposed rule, the cost impact information in AD rulemaking actions typically includes only the "direct" costs of the specific actions required by that AD. The number of work hours necessary to accomplish the required actions, specified in the cost impact information as 20 work

hours for the inspection, and 30 work hours for replacement of the GRAs, if necessary, was provided to the FAA by the manufacturer based on the best data available to date. The FAA recognizes that, in accomplishing the requirements of any AD, operators may incur "incidental" costs in addition to the "direct" costs. The cost analysis in AD rulemaking actions, however, typically does not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions. Because incidental costs may vary significantly from operator to operator, they are almost impossible to calculate.

### **Explanation of Change to Proposed Rule**

The applicability statement of the proposed AD included "Model 757 series airplanes with a date of manufacture that is on or before the effective date of this AD." However, since the issuance of the proposed AD, we have determined that such an applicability may not ensure that a part subject to this AD is not installed in the future as a replacement part on airplanes manufactured after the effective date of this AD. Therefore, the applicability statement in this final rule has been revised to "All Model 757 series airplanes." Because all Model 757 airplanes that are currently operating were included in the applicability of the proposed AD, we find that this change will not impose an additional burden on any operator and does not necessitate providing an additional opportunity for public comment.

### **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 with the changes previously described. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

### **Cost Impact**

There are approximately 950 Model 757 series airplanes of the affected design in the worldwide fleet. The FAA estimates that 606 airplanes of U.S. registry will be affected by this AD, that it will take approximately 20 work hours per airplane to accomplish the required inspection, and that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$727,200, or \$1,200 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. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as the time required to gain access and close up, planning time, or time necessitated by other administrative actions.

Should an operator be required to accomplish the replacement of all GRAs on an airplane, it will take approximately 30 work hours per airplane (1.5 work hours per actuator), at an average labor rate of \$60 per work hour. Required parts may be provided by the parts manufacturer at no cost to the operator. Based on these figures, the cost impact of the replacement is estimated to be up to \$1,800 per airplane.

### **Regulatory Impact**

The regulations adopted herein will not have a substantial direct effect 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, it is determined that this final rule does not have federalism implications under Executive Order 13132.

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.

### **Sec. 39.13 [Amended]**

2. Section 39.13 is amended by adding the following new airworthiness directive:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "av-info.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2001-23-14 Boeing:** Amendment 39-12513. Docket 2000-NM-405-AD.

*Applicability:* All Model 757 series airplanes, certificated in any category.

**Note 1:** This AD applies to each airplane 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 (e) 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 a fractured spring washer in a geared rotary actuator (GRA) for the leading edge slats, which could lead to a disconnect in the GRA, and result in a slat skew condition and consequent reduced controllability of the airplane, accomplish the following:

## Inspection To Determine Serial Numbers

(a) At the applicable compliance time specified in paragraph (a)(1) or (a)(2) of this AD, to determine the part number series and serial number for each GRA for the leading edge slats, review the maintenance records for the airplane, or inspect the 20 GRAs for the leading edge slats according to Boeing Alert Service Bulletin 757-27A0133 (for Model 757-200, 757-200CB, and 757-200PF series airplanes), or 757-27A0134 (for Model 757-300 series airplanes), both dated October 11, 2000; as applicable.

(1) For slat number 2 outboard, slat number 9 outboard, slat number 4 inboard, and slat number 7 inboard on Boeing 757-200 series airplanes with line numbers (L/N) 1 through 803, on which an enhanced slat skew or loss detection system has NOT been installed according to Boeing Service Bulletin 757-27-0126, dated May 11, 2000, or Boeing Production Revision Record 54755: Do the review or inspection within 18 months after the effective date of this AD.

(2) For slats other than those in the locations identified in paragraph (a)(1) of this AD, on the airplanes identified in paragraph (a)(1) of this AD, AND for all slats on airplanes other than those identified in paragraph (a)(1) of this AD: Do the review or inspection within 36 months after the effective date of this AD.

## **If No Subject GRA Is Installed--No Further Action**

(b) If no GRA has a part number series and serial number listed under Section 1.A. of Hamilton Sundstrand Service Bulletins 5006397/755299-27-21 or 5006398/755300-27-21, both dated January 24, 2000; or if GRAs with a part number series and serial number listed in the referenced service bulletins have been reworked previously and the modification plates are marked with "-21": No further action is required by this AD.

## **If Any Subject GRAs Are Installed--Corrective Actions**

(c) For any GRA with a part number series and serial number listed under Section 1.A. of Hamilton Sundstrand Service Bulletins 5006397/755299-27-21 or 5006398/755300-27-21, both dated January 24, 2000, that does not have a modification plate marked with "-21": At the applicable compliance time specified in paragraph (c)(1) or (c)(2) of this AD, replace the subject GRA with a new or reworked GRA, according to Boeing Alert Service Bulletin 757-27A0133 (for Model 757-200, 757-200CB, and 757-200PF series airplanes), or 757-27A0134 (for Model 757-300 series airplanes), both dated October 11, 2000; as applicable.

(1) For slat number 2 outboard, slat number 9 outboard, slat number 4 inboard, and slat number 7 inboard on Boeing Model 757-200 series airplanes with L/N 1 through 803, on which an enhanced slat skew or loss detection system has NOT been installed according to Boeing Service Bulletin 757-27-0126, dated May 11, 2000, or Boeing Production Revision Record 54755: Replace any subject GRA within 18 months after the effective date of this AD.

(2) For slats other than those in the positions identified in paragraph (c)(1) of this AD, on the airplanes identified in paragraph (c)(1) of this AD, AND for all slats on airplanes other than those identified in paragraph (c)(1) of this AD: Replace any subject GRA within 36 months after the effective date of this AD.

## **Spares**

(d) After the effective date of this AD, no one may install a GRA that has a part number series and serial number listed under Section 1.A. of Hamilton Sundstrand Service Bulletins 5006397/755299-27-21 or 5006398/755300-27-21, both dated January 24, 2000, on any airplane, unless the part has been reworked and the modification plate has been marked with "-21."

## **Alternative Methods of Compliance**

(e) 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. 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.

## **Special Flight Permits**

(f) 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.

## **Incorporation by Reference**

(g) The actions shall be done in accordance with Boeing Alert Service Bulletin 757-27A0133, dated October 11, 2000; or Boeing Alert Service Bulletin 757-27A0134, dated October 11, 2000; as applicable. 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.

## **Effective Date**

(h) This amendment becomes effective on December 31, 2001.

Issued in Renton, Washington, on November 15, 2001.

**Kalene C. Yanamura,**

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 01-29186 Filed 11-23-01; 8:45 am]

**BILLING CODE 4910-13-U**