

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9111; Directorate Identifier 2016-NM-132-AD; Amendment 39-18802; AD 2017-04-07]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 757 airplanes. This AD was prompted by reports of single and multiple uncommanded spoiler panel extensions during flight when there was a hydraulic system failure. This AD requires replacing certain spoiler power control units (PCUs) with new or changed PCUs. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective March 28, 2017.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 28, 2017.

ADDRESSES: For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9111.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9111; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation,

Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Myra Kuck, Aerospace Engineer, Cabin Safety/Mechanical & Environmental Systems Branch, ANM-150L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5316; fax: 562-627-5210; email: myra.j.kuck@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 757 airplanes. The NPRM published in the Federal Register on September 22, 2016 (81 FR 65307) (“the NPRM”). The NPRM was prompted by reports of single and multiple uncommanded spoiler panel extensions during flight. The condition known as “spoiler panel float” occurred when there was a hydraulic system pressure loss. When the flaps were extended beyond 20 degrees the spoiler panel float became severe enough to adversely impact airplane control. The NPRM proposed to require replacing certain spoiler PCUs with new or changed PCUs. We are issuing this AD to prevent an uncommanded extension of multiple spoiler panels on one wing, in the event of a hydraulic system failure, which could result in the loss of control of the airplane.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Support for the NPRM

United Airlines expressed support for the NPRM.

Request To Revise Applicability

MOOG Commercial Aircraft Group (MOOG) requested that we revise the applicability to include Boeing Model 757-200SF airplanes. MOOG stated that these airplanes are operated by some cargo operators.

We do not agree with MOOG's request. The designation “Model 757-200SF” is used for marketing purposes, but is not included on the Model 757 type certificate data sheet. Therefore, we have not included this reference in the applicability of this AD. We have not revised this AD in this regard.

Request To Revise Compliance Time

The Air Line Pilots Association, International (ALPA) requested that we revise the compliance time from 51 months to 36 months.

We do not agree with ALPA's request. ALPA did not submit any supporting data to justify its request. We have determined that the compliance time of 51 months is appropriate based upon failure probabilities, risk assessments, replacement rates, and part availability. We have not revised this AD in this regard.

Request To Revise Unsafe Condition Statement and Paragraph (e) of the Proposed AD

Boeing requested that we revise the NPRM to clarify the unsafe condition. The NPRM stated that the AD would prevent an “uncommanded extension of spoiler panels.” Boeing stated that an “uncommanded extension of multiple spoiler panels on one wing” more accurately describes the unsafe condition. Boeing explained that there is sufficient lateral control authority available to overcome an uncommanded extension of a single spoiler panel on one wing, or coincident uncommanded extension of a spoiler panel on each wing.

We agree with Boeing's request and rationale. We have revised the Discussion section of this final rule and paragraph (e) of this AD accordingly.

MOOG requested that we revise paragraph (e) of the proposed AD to emphasize the need to accomplish the service information in order to prevent the unsafe condition.

We find that clarification is necessary. As stated in paragraph (g) of this AD, the spoiler PCUs must be replaced in accordance with the specified service information to address the unsafe condition. Service information that is incorporated by reference in an AD becomes part of the AD, and the applicable requirements must be accomplished as stated in the AD. Paragraph (e) of this AD is intended to specify the unsafe condition; details about accomplishing the service information are not included in this paragraph. We have not revised this AD in this regard.

Request To Add Detail to the SUMMARY Section

MOOG requested that to add clarity, we revise the SUMMARY section by adding most of the details found in Boeing's request (See “Request to Clarify Spoiler Panel Float” of this final rule.).

We agree that the additional details in Boeing's comment provide a better understanding of the unsafe condition. We have added that information to the Discussion section, as discussed in our response to Boeing's comment. We have not added this information to the SUMMARY section of this final rule since it is not the appropriate location for such details.

Request To Clarify Spoiler Panel Float

Boeing requested that we revise the Discussion section of the NPRM to clarify that “spoiler panel float” occurred when there was a hydraulic system pressure loss, and that when the flaps were extended beyond 20 degrees, the spoiler panel float became severe enough to adversely impact airplane control. Boeing explained that spoiler float will occur at all flap detents in the presence of a failed hydraulic system and a compromised spoiler actuator. Boeing explained that the magnitude of the spoiler float angle at the flap detents of 20 degrees and below is relatively modest and results in a rolling moment that is well within the airplane's capabilities to offset. Boeing stated that when a flap detent greater than 20 degrees is selected, the magnitude of the spoiler float angle increases dramatically, and the float angle becomes large enough to reduce the margin of airplane control authority.

We agree with Boeing's request because it provides additional details that clarify the unsafe condition. We have revised this final rule accordingly.

Request for Warranty Coverage

Thomson Airways stated that MOOG should be providing full industry support and warranty to correct its design fault. Thomson Airways stated that this spoiler PCU upgrade is increasing the ownership costs on an already aging fleet through poor design on behalf of MOOG.

The FAA does not control warranty coverage. Manufacturers are responsible to determine appropriate industry warranty coverage. Therefore, we have not revised this AD in this regard.

Request for Clarification of Parts Installation

FedEx Express (FedEx) requested that we clarify whether a pre-service-bulletin part may be installed in positions 2, 4, 9, 10, and 11 after the effective date of the AD, but before the 51-month compliance date, provided the pre-service-bulletin part is removed and replaced with a post-service bulletin part before the 51-month compliance time.

We agree that it is necessary to provide clarification. An operator may install a pre-service-bulletin part before the 51-month compliance time specified in this AD. As stated in paragraph (g) of this AD, the spoiler PCUs must be replaced at the specified positions with a new or changed PCU within 51 months after the effective date of this AD. However, after an operator complies with paragraph (g) of this AD, only new or changed PCUs may be installed (even if compliance is accomplished before the 51-month compliance time) at the locations identified in paragraph (g) of this AD. No change to this AD is needed in this regard.

Effect of Winglets on Accomplishment of the Proposed Actions

Aviation Partners Boeing (APB) stated that the installation of winglets per Supplemental Type Certificate (STC) ST01518SE does not affect the accomplishment of the manufacturer's service instructions.

We agree with APB that STC ST01518SE does not affect the accomplishment of the manufacturer's service instructions. Therefore, the installation of STC ST01518SE does not affect the ability to accomplish the actions required by this AD. We have not changed this AD in this regard.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information Under 1 CFR Part 51

We reviewed Boeing Alert Service Bulletin 757-27A0154, dated July 22, 2016. The service information describes procedures for replacing certain spoiler PCUs with new or changed PCUs. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 573 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replacement of six PCUs	8 work-hours × \$85 per hour = \$680	\$32,652	\$33,332	\$19,099,236

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD 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.

For the reasons discussed above, I certify that this AD:

- (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),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) 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.

List of Subjects in 14 CFR Part 39

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

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):



FAA
Aviation Safety

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

2017-04-07 The Boeing Company: Amendment 39-18802; Docket No. FAA-2016-9111; Directorate Identifier 2016-NM-132-AD.

(a) Effective Date

This AD is effective March 28, 2017.

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 757-200, -200PF, -200CB, and -300 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 757-27A0154, dated July 22, 2016.

(d) Subject

Air Transport Association (ATA) of America Code 27; Flight controls.

(e) Unsafe Condition

This AD was prompted by reports of single and multiple uncommanded spoiler panel extensions during flight when there was a hydraulic system failure. We are issuing this AD to prevent an uncommanded extension of multiple spoiler panels on one wing, in the event of a hydraulic system failure, which could result in the loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Replacement

Within 51 months after the effective date of this AD: Replace each spoiler power control unit (PCU) with a new or changed PCU at spoiler positions 2, 3, and 4 on the left wing, and spoiler positions 9, 10, and 11 on the right wing, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 757-27A0154, dated July 22, 2016.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO,

send it to the attention of the person identified in paragraph (i) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (h)(4)(i) and (h)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. If a step or substep is labeled "RC Exempt," then the RC requirement is removed from that step or substep. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(i) Related Information

For more information about this AD, contact Myra Kuck, Aerospace Engineer, Cabin Safety/Mechanical & Environmental Systems branch, ANM-150L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, California 90712-4137; phone: 562-627-5316; fax: 562-627-5210; email: myra.j.kuck@faa.gov.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Service Bulletin 757-27A0154, dated July 22, 2016.

(ii) Reserved.

(3) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&DS), 2600 Westminister Blvd., MC 110-SK57, Seal Beach, CA 90740-5600; telephone 562-797-1717; Internet <https://www.myboeingfleet.com>.

(4) You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on January 23, 2017.
Dionne Palermo,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.