



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-3987; Directorate Identifier 2015-NM-066-AD; Amendment 39-18544; AD 2016-11-17]**

**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 787-8 airplanes. This AD was prompted by a report of wire chafing caused by a left wing spoiler actuator wire not having enough separation from a certain bracket when the spoiler is in the deployed position. This AD requires measuring the separation between a certain electro-mechanical actuator wire of the left wing, spoiler 4, and the support bracket of the flap variable camber trim unit; and related investigative and corrective actions if necessary. We are issuing this AD to detect and correct wire chafing. Such chafing could result in an electrical short and potential fire in a flammable fluid leakage zone and possible loss of several functions essential for safe flight.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; 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-2015-3987.

### **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-2015-3987; 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:** Sean J. Schauer, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6479; fax: 425-917-6590; email: [sean.schauer@faa.gov](mailto:sean.schauer@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 787-8 airplanes. The NPRM published in the Federal Register on October 19, 2015 (80 FR 63132) (“the

NPRM”). The NPRM was prompted by a report of insufficient clearance and wire chafing between the wiring to the number 4 spoiler electro-mechanical actuator and a bracket of the flap variable camber trim unit with the spoiler fully deployed. The NPRM proposed to require measuring the separation between a certain electro-mechanical actuator wire of the left wing, spoiler 4, and the support bracket of the flap variable camber trim unit, and related investigative and corrective actions if necessary. We are issuing this AD to detect and correct wire chafing. Such chafing could result in an electrical short and potential fire in a flammable fluid leakage zone and possible loss of several functions essential for safe flight.

### **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 stated that it agrees with the NPRM, has completed the actions specified in Boeing Alert Service Bulletin B787-81205-SB270024-00, Issue 001, dated September 24, 2014, and has no technical findings/issues to report.

We acknowledge United Airlines’ comment.

An anonymous commenter stated that it is in the airplane manufacturer's best interest to address the faulty wire as soon as possible as this safety issue may have an impact on profits because of the impact to the company's image.

We agree with the commenter in so much as the identified unsafe condition needs to be addressed on the affected airplanes. No change to this final rule was requested.

### **Request to Clarify the Issue that Prompted the NPRM**

Boeing requested that we revise the Discussion section of the NPRM to clarify that the safety issue was prompted by a report of wire chafing caused by insufficient

clearance between the wiring to the number 4 spoiler electro-mechanical actuator and a bracket of the flap variable camber trim unit with the spoiler fully deployed.

We agree with Boeing's statement regarding the action that prompted this AD. We have revised the Discussion section of this final rule accordingly.

### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD as proposed, except for 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.

### **Related Service Information under 1 CFR part 51**

We reviewed Boeing Alert Service Bulletin B787-81205-SB270024-00, Issue 001, dated September 24, 2014. The service information describes procedures for accomplishing the following actions.

- Measuring the separation between the electro-mechanical actuator wire W801182 of the left wing, spoiler 4, and the support bracket of the flap variable camber trim unit.
- Related investigative actions and corrective actions such as doing a general visual inspection for chafing of the electro-mechanical actuator wire W801182 of the left wing, spoiler 4; adjusting the electro-mechanical actuator wire W801182 of the left wing, spoiler 4; and replacing the electro-mechanical actuator wire W801182 of the left wing, spoiler 4.

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 12 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

**Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Measurement	6 work-hours X \$85 per hour = \$510	\$510	\$6,120

We estimate the following costs to do any necessary replacements that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need this replacement:

**On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Related investigative and corrective actions	2 work-hours X \$85 per hour = \$170	\$24	\$194

According to the manufacturer, all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all the available costs in our cost estimate.

**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):

**2016-11-17 The Boeing Company:** Amendment 39-18544 ; Docket No. FAA-2015-3987; Directorate Identifier 2015-NM-066-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to certain The Boeing Company Model 787-8 airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin B787-81205-SB270024-00, Issue 001, dated September 24, 2014.

#### **(d) Subject**

Air Transport Association (ATA) of America Code 24, Electrical power.

#### **(e) Unsafe Condition**

This AD was prompted by a report of wire chafing caused by a left wing spoiler actuator wire not having enough separation from a certain bracket when the spoiler is in the deployed position. We are issuing this AD to detect and correct wire chafing; such chafing could result in an electrical short and potential fire in a flammable fluid leakage zone and possible loss of several functions essential for safe flight.

**(f) Compliance**

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

**(g) Wire Separation Measurement, Related Investigative Actions, and Corrective Actions**

Within 24 months after the effective date of this AD: Measure the separation between the electro-mechanical actuator wire W801182 of the left wing, spoiler 4, and the support bracket of the flap variable camber trim unit, and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin B787-81205-SB270024-00, Issue 001, dated September 24, 2014. Do all applicable related investigative and corrective actions before further flight.

**(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle 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-Seattle-ACO-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 required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must

meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(i) Related Information**

For more information about this AD, contact Sean J. Schauer, Aerospace Engineer, Systems and Equipment Branch, ANM-130S, FAA, Seattle ACO, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6479; fax: 425-917-6590; email: sean.schauer@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 B787-81205-SB270024-00, Issue 001, dated September 24, 2014.

(ii) Reserved.

(3) For Boeing service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>.

(4) You may view this 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 May 20, 2016.

Victor Wicklund,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.  
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