



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2012-0863; Directorate Identifier 2012-NM-108-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Supplemental notice of proposed rulemaking (NPRM); reopening of comment period.

**SUMMARY:** We are revising an earlier proposed airworthiness directive (AD) for certain The Boeing Company Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes. The NPRM proposed to require installing a new tail strobe light housing and a new disconnect bracket, and changing the wire bundles. The NPRM was prompted by a review of the tail strobe light installation, which revealed that the tail strobe light is not electrically bonded to primary structure of the airplane. This action revises the NPRM by adding, for certain airplanes, an inspection to determine if sealant is applied and corrective actions if necessary. We are proposing this supplemental NPRM (SNPRM) to prevent, in case of a direct lightning strike to the tail strobe light, damage to the operation of other critical airplane systems due to electromagnetic coupling and large transient voltages, and damage to the control mechanisms or surfaces due to a fire, which could result in loss of control of the airplane. Since these actions impose an additional burden over that proposed in the NPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

**DATES:** We must receive comments on this SNPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For 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>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA 98057-3356. For information on the availability of this material at the FAA, call 425-227-1221.

### **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-2012-0863; 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 proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Marie Hogestad, Aerospace Engineer, Systems and Equipment Branch, FAA, ANM-130S, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, Washington 98057-3356; phone: (425) 917-6418; fax: (425) 917-6590; email: [marie.hogestad@faa.gov](mailto:marie.hogestad@faa.gov).

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0863; Directorate Identifier 2012-NM-108-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

**Discussion**

We issued an NPRM to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 737-300, -400, -500, -600, -700, -700C, -800, -900, and -900ER series airplanes. The NPRM published in the Federal Register on September 6, 2012 (77 FR 54848). The NPRM proposed to require installing a new tail strobe light housing and a new disconnect bracket, and changing the wire bundles.

**Actions Since Previous NPRM (77 FR 54848, September 6, 2012) was Issued**

Since we issued the NPRM (77 FR 54848, September 6, 2012), we have reviewed Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013.

We referred to Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011, as the appropriate source of service information for accomplishing certain actions specified in the NPRM.

Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013, adds procedures for airplanes on which the actions specified in Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011, have been done, for a general visual inspection to ensure there is fillet sealant between the disconnect bracket and the receptacle connector D44582J, and on the fasteners, and corrective actions if necessary. The corrective actions include applying sealant. Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013, also does the following:

- Incorporates the data given in Boeing Service Bulletin Information Notice 737-33-1146 IN 01, dated November 11, 2011, which changes Group 1, Configuration 1, to Group 1, and changes Group 1, Configuration 2, to Group 4.

- Improves the tail strobe light installation work instructions (adds an alternate work instruction to remove electrical power, adds an optional work instruction to improve access, adds the process specification for the installation of a blind insert, adds a new work instruction step, and figure, to do the drilling tasks before parts are cleaned for bonding, removes the undefined cleaning method CM 3, and clarifies the required minimum clearance between the disconnect bracket and the adjacent station (STA) 1156 bulkhead chord).

We have revised paragraphs (c) and (g), and added new paragraph (h) to this SNPRM to refer to Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013, and have redesignated subsequent paragraph identifiers accordingly.

## **Comments**

We gave the public the opportunity to comment on the NPRM (77 FR 54848, September 6, 2012). The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Concurrence with the NPRM (77 FR 54848, September 6, 2012)**

Boeing concurred with the NPRM (77 FR 54848, September 6, 2012).

United Airlines (UAL) stated it has no objections to the proposed actions in the NPRM (77 FR 54848, September 6, 2012).

### **Clarification of Effect of Winglet Installation**

Aviation Partners Boeing stated that the installation of winglets per STC ST00830SE ([http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/da95c49000906c7086257be80044d3d9/\\$FILE/ST00830SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/da95c49000906c7086257be80044d3d9/$FILE/ST00830SE.pdf)) does not affect the accomplishment of the manufacturer's service instructions.

We have added new paragraph (c)(3) to this final rule to state that installation of ST00830SE does not affect the ability to accomplish the actions required by this final rule. Therefore, for airplanes on which ST00830SE is installed, a "change in product" AMOC approval request is not necessary to comply with the requirements of 14 CFR 39.17.

### **Request to Include an Additional Action to Remove the Tail Cone and Adjust the Costs Accordingly**

American Airlines (AAL) requested that we revise the NPRM (77 FR 54848, September 6, 2012), to include an additional action to remove the tail cone and also adjust the cost section for this action. AAL explained that due to the small size of the tail cone and additional equipment installed in this area, adequate clearance to install the bracket and associated wiring is problematic without removal of the tail cone. AAL

reasoned that removing the tail cone could increase the labor requirement by up to 50 man-hours.

We partially agree with AAL's request, since Boeing has revised the service information to add an optional work instruction step to remove and keep the tail cone if necessary. We have revised paragraph (g) of this SNPRM to refer to Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013.

We disagree with the request to revise the Cost of Compliance section of this SNPRM. Removing the tail cone is optional and we have no way of determining how many operators will choose to do that action. The economic analysis of this SNPRM is limited only to the cost of actions proposed to be required and is based on the costs provided in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013. No change has been made to this SNPRM in this regard.

#### **Request for Use of Shield Splice in Lieu of Solder Sleeve**

AAL requested that we revise the NPRM (77 FR 54848, September 6, 2012), to allow for use of the shield splice contained in splice kit D-150-0168 in lieu of solder sleeve BACS13CT3C. AAL explained that Figure 8, Flag Notes 3 and 9, of Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011, provides instructions to install a solder sleeve (BACS13CT3C) and splice kit (D-150-0168), respectively. AAL reasoned that splice kit D-150-0168 contains all of the required parts to properly splice the specified BMS 13-48 Type 12 wire, and that splice kit D-150-0168 is a much cleaner installation, maintains continuity of the existing shield, and is approved as a standard practice in Boeing Standard Wiring Practices Manual (SWPM) D6-54446, Section 20-30-12.

We agree to allow for use of the shield splice contained in splice kit D-150-0168 in lieu of solder sleeve BACS13CT3C. Figure 8, Flag Note 3, of Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011, specifies to add

shielded ground wires. Solder sleeve BACS13CT3C supplied in the wire kit comes with a built-in ground-wire for an easier installation. Splice kit D-150-0168 does not have a ground wire. Therefore, if operators still want to supply the ground wires, Boeing SWPM 20-10-15, referenced in Figure 8, Flag Note 3, of Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011, has the wire type information for the ground wires. We have added this exception to new paragraph (g)(1) of this SNPRM and added a note to paragraph (g)(1) of this SNPRM to include a reference to the SWPM.

#### **Clarification of Typographical Error in the Service Information**

The second sentence of note (c) of Figure 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013, contains a typographical error and should instead read, “Maintain a minimum of 1.7 diameter fastener edge margin on the disconnect bracket and the stiffener.” We have included the correct information in new paragraph (g)(2) of this SNPRM.

#### **Removal of Concurrent Requirements**

Paragraph (h) of the NPRM (77 FR 54848, September 6, 2012) proposed to require concurrent installation of wingtips and tail strobe lights. However, the service information identified in paragraph (h) of the NPRM is conditional service information and is not required by this SNPRM.

#### **FAA’s Determination**

We are proposing this SNPRM because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of these same type designs. Certain changes described above expand the scope of the NPRM (77 FR 54848, September 6, 2012). As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

## Proposed Requirements of this SNPRM

This SNPRM would require, for certain airplanes, installing a new tail strobe light housing and a new disconnect bracket, and changing the wire bundles. This SNPRM would also require, for certain other airplanes, an inspection to determine if sealant is applied, and corrective actions if necessary.

## Costs of Compliance

We estimate that this proposed AD affects 1,433 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Installation for Model 737-300, -400, and -500 series airplanes, as identified in Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012 (396 U.S. registered airplanes)	Up to 32 work-hours X \$85 per hour = Up to \$2,720	Up to \$14,886	Up to \$17,606	Up to \$6,971,976
Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 1, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013 (465 U.S. registered airplanes)	Up to 21 work-hours X \$85 per hour = Up to \$1,785	Up to \$4,422	Up to \$6,207	Up to \$2,886,255
Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 2, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013 (83 U.S. registered airplanes)	Up to 21 work-hours X \$85 per hour = Up to \$1,785	Up to \$2,496	Up to \$4,281	Up to \$355,323

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 3, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013 (25 U.S. registered airplanes)	Up to 20 work-hours X \$85 per hour = Up to \$1,700	Up to \$4,478	Up to \$6,178	Up to \$154,450
Installation for Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, Group 4, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013 (464 U.S. registered airplanes)	Up to 21 work-hours X \$85 per hour = Up to \$1,785	Up to \$4,423	Up to \$6,208	Up to \$2,880,512
Inspection for Model 737-600, -700, -700C, -800, -900 and -900ER series airplanes, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013 (up to 1,037 U.S. registered airplanes)	Up to 2 work-hours X \$85 per hour = Up to \$170	\$0	Up to \$170	Up to \$176,290

We estimate the following cost to apply sealant, based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need this sealant application:

**On-condition costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
Sealant Application	1 work-hour X \$85 per hour = \$85	Negligible	\$85

The parts cost to apply sealant between the disconnect bracket and the receptacle connector D44582J, and on the fasteners is not included in the estimate. It is considered

“Parts & Materials Supplied by the Operator,” which is referenced in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013.

According to the manufacturer, all of the costs of this proposed 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 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**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,

(2) Is not a “significant rule” under the 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.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

**The Boeing Company:** Docket No. FAA-2012-0863; Directorate Identifier 2012-NM-108-AD.

#### **(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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

None.

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

This AD applies to The Boeing Company airplanes, certificated in any category, as identified in paragraphs (c)(1) and (c)(2) of this AD.

(1) Model 737-300, -400, and -500 series airplanes, as identified in Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012.

(2) Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, as identified in Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013.

(3) Installation of Supplemental Type Certificate (STC) ST00830SE [[http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgstc.nsf/0/da95c49000906c7086257be80044d3d9/\\$FILE/ST00830SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/da95c49000906c7086257be80044d3d9/$FILE/ST00830SE.pdf)] does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST00830SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

**(d) Subject**

Air Transport Association (ATA) of America Code 33, Lights.

**(e) Unsafe Condition**

This AD was prompted by a review of the tail strobe light installation, which revealed that the tail strobe light is not electrically bonded to primary structure of the airplane. We are issuing this AD to prevent, in case of a direct lightning strike to the tail strobe light, damage to the operation of other critical airplane systems due to electromagnetic coupling and large transient voltages, and damage to the control mechanisms or surfaces due to a fire, which could result in loss of control of the airplane.

**(f) Compliance**

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

**(g) Tail Strobe Light Installation for Model 737-600, -700, -700C, -800, -900, and -900ER Series Airplanes**

For Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes on which the actions specified in Boeing Special Attention Service Bulletin 737-33-1146,

dated November 2, 2011, have not been done before the effective date of this AD: Within 72 months after the effective date of this AD, install a new tail strobe light housing, install a new disconnect bracket, and change the wire bundles, in accordance with Part 1 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013, except as required by paragraphs (g)(1) and (g)(2) of this AD.

(1) Where Figure 8, Flag Note 3, of Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013, refers to solder sleeve BACS13CT3C, the shield splice contained in splice kit D-150-0168 may be used in lieu of solder sleeve (BACS13CT3C), provided a ground wire is used.

Note 1 to paragraph (g)(1) of this AD: Guidance for wire-type information for the ground wires may be found in Boeing Standard Wiring Practices Manual (SWPM) D6-54446, Section 20-10-15.

(2) Where the second sentence of note (c) of Figure 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-33-1146, Revision 1, dated July 9, 2013, specifies to “Maintain a minimum of 1.7 Dimensions fastener edge margin on the disconnect bracket and the stiffener,” instead “Maintain a minimum of 1.7 diameter fastener edge margin on the disconnect bracket and the stiffener.”

**(h) Sealant Installation for Model 737-600, -700, -700C, -800, -900, and -900ER Series Airplanes**

For Model 737-600, -700, -700C, -800, -900, and -900ER series airplanes, on which the actions specified in Boeing Special Attention Service Bulletin 737-33-1146, dated November 2, 2011, have been done before the effective date of this AD: Within 72 months after the effective date of this AD, do a general visual inspection to ensure there is fillet sealant between the disconnect bracket and the receptacle connector D44582J, and on the fasteners, and do all applicable corrective actions, in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin

737-33-1146, Revision 1, dated July 9, 2013. Do all applicable corrective actions before further flight.

**(i) Tail Strobe Light Installation for Model 737-300, -400, and -500 Series Airplanes**

For Model 737-300, -400, and -500 series airplanes: Within 72 months after the effective date of this AD, install a new tail strobe light housing, install a new disconnect bracket, and change the wire bundles, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-33-1149, dated April 13, 2012.

**(j) 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 (k) of this AD. Information may be emailed to: [9-ANM-Seattle-ACO-AMOC-Requests@faa.gov](mailto: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.

**(k) Related Information**

(1) For more information about this AD, contact Marie Hogestad, Aerospace Engineer, Systems and Equipment Branch, FAA, ANM-130S, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6418; fax: (425) 917-6590; email: [marie.hogestad@faa.gov](mailto:marie.hogestad@faa.gov).

(2) For 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>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA 98057-3356. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on February 28, 2014.

Jeffrey E. Duven,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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