



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0856; Directorate Identifier 2012-NM-093-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes; Model 767-200, -300, -300F, and -400ER series airplanes; and Model 777-200, -200LR, -300, and -300ER series airplanes. This proposed AD was prompted by reports of burned Boeing Material Specification (BMS) 8-39 urethane foam, and a report from the airplane manufacturer that airplanes were assembled with seals throughout various areas of the airplane (including flight deck and cargo compartments) made of BMS 8-39 urethane foam, a material with fire-retardant properties that deteriorate with age. This proposed AD would require replacing seals made of BMS 8-39 urethane foam in certain areas of the airplane. We are proposing this AD to prevent the failure of urethane seals to maintain sufficient Halon concentrations in the cargo compartments to extinguish or contain fire or smoke, and to prevent penetration of fire or smoke in areas of the airplane that are difficult to access for fire and smoke detection or suppression.

DATES: We must receive comments on this proposed AD 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: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed 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 review copies of the 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.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; 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: Eric M. Brown, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6476; fax: 425-917-6590; e-mail: Eric.M.Brown@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2012-0856; Directorate Identifier 2012-NM-093-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 have received reports of burned BMS 8-39 urethane foam insulation on two Model 767-200 series airplanes. The airplane manufacturer has also notified us that certain Model 747, 767, and 777 airplanes were assembled with seals throughout various areas of the airplane (including flight deck and cargo compartments) made of BMS 8-39 urethane foam. The fire retardants in BMS 8-39 urethane foam are mixed into, but are not chemically connected with, the remaining components of the foam. The fire-retardant properties of BMS 8-39 urethane foam deteriorate with age (5 to 10 years). This, along with dust, dirt, and other carbon particulate contamination of the urethane foam, adds an

available fuel source for a potential fire. Once ignited, the deteriorated foam emits noxious smoke, does not self-extinguish, and drips droplets of liquefied urethane, which can further propagate a fire. Deteriorated BMS 8-39 urethane foam seals in a cargo compartment also compromise the Halon retention and smoke/fire-blocking capabilities of the cargo compartment. These conditions, if not corrected, could result in failure of urethane seals to maintain sufficient Halon concentrations in the cargo compartments to extinguish or contain fire or smoke, and could result in penetration of fire or smoke in areas of the airplane that are difficult to access for fire and smoke detection or suppression.

Other Relevant Rulemaking

We issued the following ADs to require reworking certain air distribution ducts in the environmental control system (ECS) wrapped with BMS 8-39 or Aeronautical Materials Specifications (AMS) 3570 urethane foam insulation. These ADs resulted from reports from the airplane manufacturer that airplanes were assembled with duct assemblies in the ECS wrapped with BMS 8-39 urethane foam insulation, a material with fire-retardant properties that deteriorate with age, and reports of duct assemblies in the ECS with burned BMS 8-39 urethane foam insulation. We issued these ADs to prevent a potential electrical arc from igniting the BMS 8-39 urethane foam insulation on the duct assemblies of the ECS, which could propagate a small fire and lead to a larger fire that might spread throughout the airplane through the ECS.

- AD 2008-02-16, Amendment 39-15346 (73 FR 4061, January 24, 2008), applicable to certain Model 767-200 and 767-300 series airplanes.
- AD 2010-14-01, Amendment 39-16344 (75 FR 38007, July 1, 2010), applicable to certain Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200C, 747-200F, 747-300, 747-400, 747-400F, 747SR, and 747SP series airplanes.

- AD 2012-02-09, Amendment 39-16932 (77 FR 5996, February 7, 2012), for certain Model 737-100, -200, -200C, and -300 series airplanes.

Relevant Service Information

We reviewed the following Boeing service bulletins:

- For Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes: Boeing Special Attention Service Bulletin 747-25-3381, Revision 1, dated May 17, 2012. This service bulletin describes procedures for replacing BMS 8-39 urethane foam seals with either BMS 8-371 insulation foam or BMS 1-68 silicone foam rubber seals. (The required actions depend on requirements for use and location of the BMS 8-39 urethane foam in the airplane.) Procedures for the replacement include, for some airplanes, doing a general visual inspection of the airplane sidewalls for air baffles, and of the BMS 8-39 urethane foam for penetrations (e.g., wire penetrations). The replacement is to be done in the following areas of the airplane (depending on airplane configuration):

- Main deck system tube/wire foam seals (left/right sidewalls)
- Main deck foam air seal (left/right sidewalls)
- Main deck air baffle foam (left/right sidewalls)
- Main deck ceiling panel foam strip
- Forward and aft cargo system tube/wire foam seal
- Flight deck overhead electrical equipment panel/structure and overhead drip-shield foam
- E1/E2 rack wire integration unit cover assemblies

- For Model 767-200, -300, -300F, and -400ER series airplanes: Boeing Special Attention Service Bulletin 767-25-0381, dated August 19, 2010. This service bulletin describes procedures for doing a general visual inspection for BMS 8-39 urethane foam for certain airplanes, covering the BMS 8-39 foam with cargo liner joint

sealing tape in certain areas, replacing certain BMS 8-39 foam pads with Nomex felt in certain areas, and replacing BMS 8-39 urethane foam seals with either BMS 8-371 insulation foam or BMS 1-68 silicone foam rubber seals. (The required actions depend on requirements for use and location of the BMS 8-39 urethane foam in the airplane.) The actions are to be done in the following areas of the airplane (depending on airplane configuration):

- Forward and aft cargo compartments
- Flight deck
- Crown area (foam pad to be replaced with Nomex felt)
- Over wing escape hatch (corner seals)

- For Model 777-200, -200LR, -300, and -300ER series airplanes: Boeing Special Attention Service Bulletin 777-25-0362, dated August 19, 2010. This service bulletin describes procedures for replacing BMS 8-39 urethane foam seals with BMS 1-68 silicone foam rubber seals in the forward and aft cargo compartments of the airplane.

FAA's Determination

We are proposing this AD 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.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

We estimate that this proposed AD affects 694 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
Replacement for Model 747 airplanes, depending on airplane configuration (165 airplanes)	Up to 432 work-hours X \$85 per hour = \$36,720	Up to \$6,162	Up to \$42,882	Up to \$7,075,530
Replacement for Model 767 airplanes, depending on airplane configuration (399 airplanes)	Up to 72 work-hours X \$85 per hour = \$6,120	Up to \$3,967	Up to \$10,087	Up to \$4,024,713
Replacement for Model 777 airplanes (130 airplanes)	16 work-hours X \$85 per hour = \$1,360	\$1,038	\$2,398	\$311,740

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-2012-0856; Directorate Identifier 2012-NM-093-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, identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD.

(1) Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes, as identified in Boeing Special Attention Service Bulletin 747-25-3381, Revision 1, dated May 17, 2012.

(2) Model 767-200, -300, -300F, and -400ER series airplanes, as identified in Boeing Special Attention Service Bulletin 767-25-0381, dated August 19, 2010.

(3) Model 777-200, -200LR, -300, and -300ER series airplanes, as identified in Boeing Special Attention Service Bulletin 777-25-0362, dated August 19, 2010.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 25, Equipment/furnishings.

(e) Unsafe Condition

This AD was prompted by reports of burned Boeing Material Specification (BMS) 8-39 urethane foam, and a report from the airplane manufacturer that airplanes were assembled with seals throughout various areas of the airplane (including flight deck and cargo compartments) made of BMS 8-39 urethane foam, a material with fire-retardant properties that deteriorate with age. We are issuing this AD to prevent the

failure of urethane seals to maintain sufficient Halon concentrations in the cargo compartments to extinguish or contain fire or smoke, and to prevent penetration of fire or smoke in areas of the airplane that are difficult to access for fire and smoke detection or suppression.

(f) Compliance

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

(g) BMS 8-39 Urethane Foam Seal Replacements

Within 72 months after the effective date of this AD, do the actions specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD, as applicable.

(1) For Model 747-100, 747-100B, 747-100B SUD, 747-200B, 747-200F, 747-300, 747-400, 747-400D, 747-400F, 747SR, and 747SP series airplanes: Replace the BMS 8-39 urethane foam seals (including doing a general visual inspection of the airplane sidewalls for air baffles, and of the BMS 8-39 urethane foam for penetrations (e.g., wire penetrations)) with BMS 8-371 insulation foam or BMS 1-68 silicone foam rubber seals, as applicable, in accordance with the Accomplishment Instructions and Appendix A, as applicable, of Boeing Special Attention Service Bulletin 747-25-3381, Revision 1, dated May 17, 2012.

(2) For Model 767-200, -300, -300F, and -400ER series airplanes: Perform a general visual inspection for the presence of BMS 8-39 urethane foam, cover the BMS 8-39 foam with cargo liner joint sealing tape in certain areas, replace certain BMS 8-39 foam pads with Nomex felt in certain areas, and replace BMS 8-39 urethane foam seals with BMS 8-371 insulation foam or BMS 1-68 silicone foam rubber seals, as applicable, in accordance with the Accomplishment Instructions and Appendix A, as applicable, of Boeing Special Attention Service Bulletin 767-25-0381, dated August 19, 2010.

(3) For Model 777-200, -200LR, -300, and -300ER series airplanes: Replace BMS 8-39 urethane foam seals with BMS 1-68 silicone foam rubber seals in the forward and aft cargo compartments of the airplane, in accordance with the Accomplishment Instructions of Boeing Special Attention Service Bulletin 777-25-0362, dated August 19, 2010.

(h) Credit for Previous Actions

For Groups 4 and 5 airplanes, as identified in Boeing Special Attention Service Bulletin 747-25-3381, Revision 1, dated May 17, 2012: This paragraph provides credit for the actions required by paragraph (g)(1) of this AD, if those actions were done before the effective date of this AD using Boeing Special Attention Service Bulletin 747-25-3381, dated August 19, 2010.

(i) Parts Installation Prohibition

As of the effective date of this AD, no person may install a BMS 8-39 urethane foam seal on any airplane.

(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 the Related Information section of this AD. Information may be e-mailed 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.

(k) Related Information

(1) For more information about this AD, contact Eric M. Brown, Aerospace Engineer, Cabin Safety and Environmental Systems Branch, ANM-150S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6476; fax: 425-917-6590; e-mail: Eric.M.Brown@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 review copies of the 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. Issued in Renton, Washington, on August 9, 2012.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2012-20473 Filed 08/20/2012 at 8:45 am; Publication Date: 08/21/2012]