[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-0249; Directorate Identifier 2014-NM-174-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 supersede Airworthiness Directive (AD) 2012-18-05, which applies to The Boeing Company Model DC-9-10, DC-9-20, DC-9-30, DC-9-40, and DC-9-50 series airplanes; and Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), MD-88, and MD-90-30 airplanes; equipped with a center wing fuel tank and Boeing original equipment manufacturer-installed auxiliary fuel tanks. AD 2012-18-05 currently requires adding design features to detect electrical faults and to detect a pump running in an empty fuel tank. Since we issued AD 2012-18-05, we have determined that it is necessary to clarify the actions for airplanes on which the auxiliary fuel tanks are removed. This proposed AD would allow certain actions as optional methods of compliance. We are proposing this AD to reduce the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

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, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, CA 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; 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-2015-0249.

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-2015-0249; 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: Sérj Harutunian, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5254; fax: 562-627-5210; email: serj.harutunian@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-2015-0249; Directorate Identifier 2014-NM-174-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

On August 6, 2012, we issued AD 2012-18-05, Amendment 39-17181 (77 FR 54793, September 6, 2012), for The Boeing Company Model DC-9-10, DC-9-20, DC-9-30, DC-9-40, and DC-9-50 series airplanes; and Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), MD-88, and MD-90-30 airplanes; equipped with a center wing fuel tank and Boeing original equipment manufacturer-installed auxiliary fuel tanks. AD 2012-18-05 requires adding design features to detect electrical faults and to detect a pump running in an empty fuel tank. AD 2012-18-05 resulted from fuel system reviews conducted by the manufacturer. We

issued AD 2012-18-05 to reduce the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

Actions Since AD 2012-18-05, Amendment 39-17181 (77 FR 54793, September 6, 2012) was Issued

Since we issued AD 2012-18-05, Amendment 39-17181 (77 FR 54793, September 6, 2012), we have determined that it is necessary to clarify the actions for airplanes on which the auxiliary fuel tanks are removed. In addition, The Boeing Company has issued new service information for Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and Model MD-88 airplanes; and Model MD-90-30 airplanes, which provides a method of compliance for the actions required by AD 2012-18-05. Boeing has not yet issued corresponding service information for Boeing Model DC-9-10, DC-9-20, DC-9-30, DC-9-40, and DC-9-50 series airplanes. The applicability of AD 2012-18-05 has not changed in this proposed AD.

Related Service Information under 1 CFR part 51

We reviewed Boeing Service Bulletin MD80-28-228, dated September 27, 2013; and Boeing Service Bulletin MD90-28-013, dated September 27, 2013. The service information describes procedures for installing GFI relays that change fuel pump system wiring, installing a low fuel pressure indication system, and revising the inspection or maintenance program to include new limitations.

We have also reviewed Appendixes B, C, and D of Boeing Special Compliance Item Report MDC-92K9145, Revision M, dated February 5, 2013, which includes Critical Design Configuration Control Limitations (CDCCLs), Airworthiness Limitations Instructions (ALIs), and short-term extensions.

Boeing Service Bulletin MD80-28-228, dated September 27, 2013, specifies prior or concurrent accomplishment of the following concurrent service information.

- Boeing MD-80 Service Bulletin 28-53, Revision 1, dated April 16, 1992, which

describes procedures for installing a low fuel pressure indication system.

- Boeing MD-80 Service Bulletin 28-63, Revision 2, dated April 8, 1992, which describes procedures for installing a low fuel pressure indication inhibit system.

This service information is reasonably available; see ADDRESSES for ways to access this service information.

Clarification of the Requirements for the Design Features

In paragraph (c) of this proposed AD, we have added the text "for airplanes on which auxiliary fuel tanks are removed, the AD action specified for the auxiliary fuel tanks are not required" to clarify that the actions specified in this AD for the auxiliary fuel tanks are not required when the auxiliary fuel tanks are removed, but the AD actions for the center fuel tanks still apply.

Revised Compliance Time

We have determined that it is appropriate to allow additional time to accomplish the design features and requirements specified in this proposed AD. Therefore, we have added a compliance time of "within 42 months after the effective date of this AD" to paragraph (g) of this proposed AD. We have determined that this extension of the compliance time will provide an acceptable level of safety.

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 retain all requirements of AD 2012-18-05, Amendment 39-17181 (77 FR 54793, September 6, 2012). This proposed AD would clarify the actions for airplanes on which the auxiliary fuel tanks are removed, that the actions specified for the auxiliary fuel tanks are not required. This proposed AD would

also provide certain methods of compliance for the actions restated from AD 2012-18-05 (one option is accomplishing the actions specified in the service information described previously, including revising the inspection or maintenance program, as applicable, to include new limitations; the other option is installing a supplemental type certificate (STC)).

This proposed AD specifies to revise certain operator maintenance documents to include new actions (e.g., inspections) and CDCCLs. Compliance with these actions and CDCCLs is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this proposed AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (l) of this proposed AD. The request should include a description of changes to the required actions and CDCCLs that will ensure the continued operational safety of the airplane.

Costs of Compliance

We estimate that this proposed AD affects 809 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
Installing design features for airplanes with center wing and auxiliary tanks (263 airplanes), using a method approved by the FAA [retained actions from AD 2012-18-05, Amendment 39-17181 (77 FR 54793, September 6, 2012)]	50 work-hours X $85 per hour = $4,250	$35,000	$39,250	$10,322,750
Installing design features for airplanes with center wing tank (546 airplanes), using a method approved by the FAA [retained actions from AD 2012-18-05, Amendment 39-17181 (77 FR 54793, September 6, 2012)]	35 work-hours X $85 per hour = $2,975	$17,000	$19,975	$10,906,350

Estimated costs: New optional actions for installing design features

Action	Labor cost	Parts cost	Cost per product
For airplanes with center wing and auxiliary tanks, using service information specified in paragraph (h) of this proposed AD (including revising the maintenance/inspection program)	250 work-hours X $85 per hour = $21,250	$69,000	$90,250
For airplanes with center wing tank, using service information specified in paragraph (h) of this proposed AD (including revising the maintenance/inspection program)	110 work-hours X $85 = 9,350	$30,000	$39,350
Installing STC specified in paragraph (i) of this proposed AD	35 work-hours X $85 per hour = $2,975	$17,000	$19,975

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 have 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 that the 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 removing Airworthiness Directive (AD) 2012-18-05, Amendment 39-17181 (77 FR 54793, September 6, 2012), and adding the following new AD:

The Boeing Company: Docket No. FAA-2015-0249; Directorate Identifier 2014 NM-174-AD.

(a) Comments Due Date

The FAA must receive comments on this AD action by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2012-18-05, Amendment 39-17181 (77 FR 54793, September 6, 2012).

(c) Applicability

This AD applies to The Boeing Company airplanes identified in paragraphs (c)(1) through (c)(8) of this AD, certificated in any category, and equipped with center wing fuel tanks and Boeing original equipment manufacturer-installed auxiliary fuel tanks. For airplanes on which the auxiliary fuel tanks have been removed, the actions specified for the auxiliary fuel tanks are not required.

(1) Model DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, and DC-9-15F airplanes.

(2) Model DC-9-21 airplanes.

(3) Model DC-9-31, DC-9-32, DC-9-32 (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, DC-9-34F, and DC-9-32F (C-9A, C 9B) airplanes.

(4) Model DC-9-41 airplanes.

(5) Model DC-9-51 airplanes.

(6) Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), and DC-9-87 (MD-87) airplanes.

(7) Model MD-88 airplanes.

(8) Model MD-90-30 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Unsafe Condition

This AD was prompted by fuel system reviews conducted by the manufacturer. We are issuing this AD to reduce the potential of ignition sources inside fuel tanks, which, in combination with flammable fuel vapors, could result in fuel tank explosions and consequent loss of the airplane.

(f) Compliance

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

(g) Retained Criteria for Operation

This paragraph restates the actions required by paragraph (g) of AD 2012-18-05, Amendment 39-17181 (77 FR 54793, September 6, 2012), with a new compliance time. Except as provided by paragraphs (h) and (i) of this AD: As of 42 months after the effective date of this AD, no person may operate any airplane affected by this AD unless an amended type certificate or supplemental type certificate that incorporates the design features and requirements described in paragraphs (g)(1) and (g)(2) of this AD has been

approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA, and those design features are installed on the airplane.

(1) Each electrically powered fuel pump installed in the center wing tank or auxiliary fuel tank must have a protective device installed to detect electrical faults that can cause arcing and burn through the fuel pump housing. The same device must shut off the pump by automatically removing electrical power from the pump when such faults are detected. When a fuel pump is shut off as the result of detection of an electrical fault, the device must stay latched off until the fault is cleared through maintenance action and verified that the pump and the electrical power feed are safe for operation.

(2) Additional design features must be installed to detect when any center wing tank or auxiliary fuel tank pump is running in an empty fuel tank. The prospective pump shutoff system must shut off each pump no later than 60 seconds after the fuel tank is emptied. The pump shutoff system design must preclude undetected running of a fuel pump in an empty tank, after the pump was commanded off manually or automatically.

(h) New: Optional Methods of Compliance

For Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and Model MD-88 airplanes; and Model MD-90-30 airplanes: In lieu of doing the requirements of paragraph (g) of this AD, do the applicable actions specified in paragraphs (h)(1), (h)(2), and (h)(3) of this AD.

(1) For Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and Model MD-88 airplanes: Do the applicable actions specified in paragraphs (h)(1)(i), (h)(1)(ii), and (h)(1)(iii) of this AD.

(i) For all airplanes identified in paragraph (h)(1) of this AD: Within the compliance time specified in paragraph (g) of this AD, install ground fault interrupter (GFI) relays, in accordance with the Accomplishment Instructions of Boeing Service Bulletin MD80-28-228, dated September 27, 2013.

(ii) For airplanes identified in Boeing MD-80 Service Bulletin 28-53, Revision 1, dated April 16, 1992: Prior to or concurrently with accomplishing the action specified in paragraph (h)(1)(i) of this AD, install a low fuel pressure indication system, in accordance with the Accomplishment Instructions of Boeing MD-80 Service Bulletin 28-53, Revision 1, dated April 16, 1992.

(iii) For airplanes identified in Boeing MD-80 Service Bulletin 28-63, Revision 2, dated April 8, 1992: Prior to or concurrently with accomplishing the action specified in paragraph (h)(1)(i) of this AD, install a low fuel pressure indication inhibition system, in accordance with the Accomplishment Instructions of Boeing MD-80 Service Bulletin 28-63, Revision 2, dated April 8, 1992.

(2) For Model MD-90-30 airplanes: Within the compliance time specified in paragraph (g) of this AD, install brackets and mod block rails, and install GFI relays, in accordance with the Accomplishment Instructions of Boeing Service Bulletin MD90-28-013, dated September 27, 2013.

(3) For all airplanes: Within 30 days after accomplishing the actions required by paragraph (h)(1) or (h)(2) of this AD or within 30 days after the effective date of this AD, whichever occurs later, revise the maintenance or inspection program, as applicable, to incorporate the Critical Design Configuration Control Limitations (CDCCLs), Airworthiness Limitations Instructions (ALIs), and short-term extensions specified in Appendixes B, C, and D of Boeing Special Compliance Item Report MDC-92K9145, Revision M, dated February 5, 2013. The initial compliance time for accomplishing the actions specified in the ALIs is at the later of the times in paragraphs (h)(3)(i) and (h)(3)(ii) of this AD. Doing the revision of the maintenance or inspection program, as applicable, required by this paragraph terminates the requirements in paragraphs (g) and (h) of AD 2008-11-15, Amendment 39-15538 (73 FR 30746, May 29, 2008).

(i) At the applicable time specified in in Appendix C of Boeing Special Compliance Item Report MDC-92K9145, Revision M, dated February 5, 2013, except as provided by Appendix D, of Boeing Special Compliance Item Report MDC-92K9145, Revision M, dated February 5, 2013.

(ii) Within 30 days after accomplishing the actions required by paragraph (h)(1) or (h)(2) of this AD, or within 30 days after the effective date of this AD, whichever occurs later.

(i) New: Optional Universal Fault Interrupter (UFI) Installation

In lieu of doing the requirements of paragraph (g) of this AD, within the compliance time specified in paragraph (g) of this AD install a TDG Aerospace Inc. UFI using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

Note 1 to paragraph (i) of this AD: TDG Aerospace STC ST02502LA ([http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/4d132827a425d7de86257cd3004dfc02/$FILE/ST02502LA.pdf)] provides additional guidance for installing the TDG UFI.

(j) No Alternative Actions, Intervals, and CDCCLs

After the maintenance or inspection program, as applicable, has been revised as required by paragraph (h)(3) of this AD, no alternative actions (e.g., inspections), intervals, or CDCCLs may be used unless the actions, intervals, or CDCCLs are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (l) of this AD

(k) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraphs (h)(1)(ii) and (h)(1)(iii) of this AD, if those actions were performed before the effective date of this AD

using any of the service information specified in paragraph (k)(1), (k)(2), or (k)(3) of this AD.

(1) Boeing MD-80 Service Bulletin 28-53, dated April 8, 1991.

(2) Boeing MD-80 Service Bulletin 28-63, dated, June 14, 1991.

(3) Boeing MD-80 Service Bulletin 28-63, Revision 1, dated July 19, 1991.

(l) 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 (m)(1) 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 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. 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.

(4) AMOCs approved for AD 2012-18-05, Amendment 39-17181 (77 FR 54793, September 6, 2012), are approved as AMOCs for the corresponding provisions of this AD.

(m) Related Information

(1) For more information about this AD, contact Sérj Harutunian, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5254; fax: 562-627-5210; email: serj.harutunian@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, CA 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; 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.

Issued in Renton, Washington, on February 11, 2015.

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

[FR Doc. 2015-06745 Filed: 3/25/2015 08:45 am; Publication Date: 3/26/2015]