

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2010-0032; Directorate Identifier 2009-NM-213-AD]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Corporation Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F 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 Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F airplanes. This proposed AD would require a one-time installation of electrical bonding jumpers for the fill valve controllers of fuel tanks. This proposed AD results from fuel system reviews conducted by the manufacturer. We are proposing this AD to prevent point-of-contact arcing or filament heating damage in the fuel tanks, which could result in fuel tank explosions and consequent loss of the airplane.

DATES: We must receive comments on this proposed AD by March 25, 2010.

ADDRESSES: You may send comments 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 proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, California 90846-0001; telephone 206-544-5000, extension 2; fax 206-766-5683; e-mail dse.boecom@boeing.com; 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, Washington. For information on the availability of this material at the FAA, call 425-227-1221 or 425-227-1152.

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 (telephone 800-647-5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT:

Philip Kush, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5263; fax (562) 627-5210.

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-2010-0032; Directorate Identifier 2009-NM-213-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

The FAA has examined the underlying safety issues involved in fuel tank explosions on several large transport airplanes, including the adequacy of existing regulations, the service history of airplanes subject to those regulations, and existing maintenance practices for fuel tank systems. As a result of those findings, we issued a regulation titled "Transport Airplane Fuel Tank System Design

Review, Flammability Reduction and Maintenance and Inspection Requirements" (66 FR 23086, May 7, 2001). In addition to new airworthiness standards for transport airplanes and new maintenance requirements, this rule included Special Federal Aviation Regulation No. 88 ("SFAR 88," Amendment 21-78, and subsequent Amendments 21-82 and 21-83).

Among other actions, SFAR 88 requires certain type design (*i.e.*, type certificate (TC) and supplemental type certificate (STC)) holders to substantiate that their fuel tank systems can prevent ignition sources in the fuel tanks. This requirement applies to type design holders for large turbine-powered transport airplanes and for subsequent modifications to those airplanes. It requires them to perform design reviews and to develop design changes and maintenance procedures if their designs do not meet the new fuel tank safety standards. As explained in the preamble to the rule, we intended to adopt airworthiness directives to mandate any changes found necessary to address unsafe conditions identified as a result of these reviews.

In evaluating these design reviews, we have established four criteria intended to define the unsafe conditions associated with fuel tank systems that require corrective actions. The percentage of operating time during which fuel tanks are exposed to flammable conditions is one of these criteria. The other three criteria address the failure types under evaluation: single failures, single failures in combination with a latent condition(s), and in-service failure experience. For all four criteria, the evaluations included consideration of previous actions taken that may mitigate the need for further action.

We have determined that the actions identified in this AD are necessary 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.

Fuel system reviews conducted by the manufacturer revealed that fill valve controller installations had inadequate electrical bonding. This could allow point-of-contact arcing or filament heating damage in the fuel tanks. Installing electrical bonding jumpers from the fill valve controllers to airplane structure will provide a grounding path in the event of a fault current occurrence in the fill valve controller. If not corrected, a high current occurrence could result in a potential source of ignition and consequent fire or explosion.

Relevant Service Information

We have reviewed Boeing Service Bulletins DC10-28-249, Revision 1, dated November 6, 2008; and MD11-28-135, Revision 1, dated November 6, 2008. The service bulletins describe procedures for a one-time installation of electrical bonding jumpers for the fill valve controllers of the fuel tanks. Depending on the airplane configuration, the fuel tanks include left wing outboard leading edge; right wing inboard leading edge; right wing

outboard leading edge; center wing lower auxiliary fuel tank; center wing upper auxiliary fuel tank; tail tank horizontal stabilizer front spar; wing fuel tanks 1, 2, and 3; upper and lower auxiliary fuel tank; aft auxiliary fuel tank; and forward and aft body tanks.

FAA’s Determination and Requirements of This Proposed AD

We are proposing this AD because we evaluated all relevant information and determined the unsafe condition

described previously is likely to exist or develop in other products of the same type design. This proposed AD would require accomplishing the actions specified in the service information described previously.

Costs of Compliance

We estimate that this proposed AD would affect 267 airplanes of U.S. registry. The following table provides the estimated costs for U.S. operators to comply with this proposed AD.

TABLE—ESTIMATED COSTS

Action	Work hours	Average labor rate per hour	Parts	Cost per product	Number of U.S.-registered airplanes	Fleet cost
Installation	8 to 24 ¹	\$85	\$1,459 to \$3,805 ¹	\$2,139 to \$5,845 ¹	267	\$571,113 to \$1,560,615 ¹

¹ Depending on airplane group or model.

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), and
3. 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.

You can find our regulatory evaluation and the estimated costs of compliance in the AD Docket.

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 AD:

McDonnell Douglas Corporation: Docket No. FAA-2010-0032; Directorate Identifier 2009-NM-213-AD.

Comments Due Date

(a) We must receive comments by March 25, 2010.

Affected ADs

(b) None.

Applicability

(c) This AD applies to McDonnell Douglas Corporation Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD-10-10F, MD-10-30F, MD-11, and MD-11F airplanes; certificated in any category.

Subject

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

Unsafe Condition

(e) This AD results from fuel system reviews conducted by the manufacturer which revealed that fill valve controller installations had inadequate electrical bonding. The Federal Aviation Administration is issuing this AD to prevent point-of-contact arcing or filament heating damage in the fuel tanks which could result in fuel tank explosions and consequent loss of the airplane.

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Installation

(g) Within 60 months after the effective date of this AD, install electrical bonding jumpers for the fill valve controllers of the fuel tanks, in accordance with the Accomplishment Instructions of Boeing Service Bulletin DC10-28-249, Revision 1, dated November 6, 2008 (for Model DC-10-10, DC-10-10F, DC-10-15, DC-10-30, DC-10-30F (KC-10A and KDC-10), DC-10-40, DC-10-40F, MD10-10F, MD-10-30F airplanes); or MD11-28-135, Revision 1, dated November 6, 2008 (for Model MD-11 and MD-11F airplanes).

Alternative Methods of Compliance (AMOCs)

(h)(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. Send information to ATTN: Philip Kush, Aerospace Engineer, Propulsion Branch, ANM-140L, FAA, Los Angeles ACO, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5263; fax (562) 627-5210.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD.

Issued in Renton, Washington, on January 28, 2010.

Ali Bahrami,

Manager, Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2010-2687 Filed 2-5-10; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-1213; Directorate Identifier 2009-NM-097-AD]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Corporation Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 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 McDonnell Douglas Corporation Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 airplanes. This proposed AD would require repetitive inspections for cracking of the lower rear spar caps of the wings, and related investigative and corrective actions if necessary. This AD would also require repetitive inspections of certain repaired areas. This proposed AD results from reports of cracking of the wing rear spar lower cap at the outboard flap and inboard drive hinge at station Xrs=164.000; the cracking is due to material fatigue from normal flap operating loads. We are proposing this AD to detect and correct such fatigue cracking, which could result in fuel leaks, damage to the wing skin or other structure, and consequent reduced structural integrity of the wing.

DATES: We must receive comments on this proposed AD by March 25, 2010.

ADDRESSES: You may send comments by any of the following methods:

- **Federal eRulemaking Portal:** Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

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Examining the AD Docket

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FOR FURTHER INFORMATION CONTACT: Roger Durbin, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5233; fax (562) 627-5210.

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-2009-1213; Directorate Identifier 2009-NM-097-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 an inspection for fuel leaks that revealed cracking of the wing rear spar lower cap at the outboard flap and inboard drive hinge at station Xrs=164.000. The manufacturer determined that the cracks are the result of material fatigue from normal flap operating loads. Inspecting this area for cracks will prevent crack migration and ensure repairs are done before further damage occurs. Such fatigue cracking, if not detected and corrected in a timely manner, could result in fuel leaks, damage to the wing skin or other structure, and consequent reduced structural integrity of the wing.

Relevant Service Information

We have reviewed Boeing Alert Service Bulletin MD80-57A242, dated May 8, 2009. For Group 1, Configuration 2, and Group 2 airplanes: The service bulletin describes procedures for repetitive eddy current testing high frequency (ETHF) inspections for cracking of the lower rear spar caps of the wings, and related investigative and corrective actions if necessary. The related investigative action is an ETHF inspection for cracking of the upper rear spar cap of the wings. The corrective actions include doing a temporary repair of the lower rear spar cap, doing a temporary repair of the upper and lower rear spar cap, and contacting Boeing for repair instructions and doing the repair. The service bulletin also describes procedures for repetitive ETHF inspections of any temporary repair, and corrective actions if necessary. The service bulletin specifies that no action is necessary for Group 1, Configuration 1, airplanes.

The recommended compliance time for the initial inspection of the lower rear spar caps of the wings is before the accumulation of 30,000 total flight cycles or within 3,360 flight cycles after the issue date on the service bulletin, whichever occurs later. The recommended repetitive inspection interval is 2,650 flight cycles for airplanes on which no cracking is found. The recommended compliance