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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2004-18774; Directorate Identifier 2003-NM-212-AD; Amendment 39-14027; AD 2005-07-03]**

**RIN 2120-AA64**

**Airworthiness Directives; McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 Series Airplanes; and Model DC-9-81 (MD-81) and DC-9-82 (MD-82) Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 series airplanes; and Model DC-9-81 (MD-81) and DC-9-82 (MD-82) airplanes. This AD requires repetitive detailed inspections of the upper and lower caps of the rear spar of the left and right wings, and corrective action if necessary. This AD also provides an optional modification that would end the repetitive inspections. This AD is prompted by reports of fatigue cracks in the upper and lower caps of the wing spar. We are issuing this AD to detect and correct fatigue cracking in the upper and lower caps of the rear spar of the left and right wings, which could result in structural failure of the wings.

**DATES:** This AD becomes effective May 4, 2005.

The incorporation by reference of a certain publication listed in the AD is approved by the Director of the Federal Register as of May 4, 2005.

**ADDRESSES:** For service information identified in this AD, contact Boeing Commercial Airplanes, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024).

*Docket:* The AD docket contains the proposed AD, comments, and any final disposition. You can examine the AD docket on the Internet at <http://dms.dot.gov>, or in person at the Docket Management Facility office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Management Facility office (telephone (800) 647-5227) is located on the plaza level of the Nassif Building at the U.S. Department of Transportation, 400 Seventh Street SW, room PL-401, Washington, DC. This docket number is FAA-2004-18774; the directorate identifier for this docket is 2003-NM-212-AD.

**FOR FURTHER INFORMATION CONTACT:** Wahib Mina, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5324; fax (562) 627-5210.

**SUPPLEMENTARY INFORMATION:** The FAA proposed to amend 14 CFR Part 39 with an AD for certain McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 series airplanes; and Model DC-9-81 (MD-81) and DC-9-82 (MD-82) airplanes. That action, published in the Federal Register on August 5, 2004 (69 FR 47388), proposed to require repetitive detailed inspections of the upper and lower caps of the rear spar of the left and right wings, and corrective action if necessary. That action also proposed to provide an optional modification that would end the repetitive inspections.

## **Comments**

We provided the public the opportunity to participate in the development of this AD. We have considered the comments that have been submitted on the proposed AD.

### **Request To Revise Corrective Action**

One commenter requests that we revise the corrective action specified in the proposed AD. The commenter states there is a significant discrepancy between the proposed AD and McDonnell Douglas DC-9 Service Bulletin 57-179, Revision 1, dated December 21, 1994 (referenced as the appropriate source of service information for accomplishing the proposed actions). The commenter notes that the proposed AD will require that if a crack is found on either the upper or lower spar cap, then both the upper and lower spar caps must be either permanently repaired as specified in paragraph (j) of the proposed AD or temporarily repaired as specified in paragraph (k) of the proposed AD. The commenter contends that the intent of the service bulletin is to repair (permanently or temporarily) only the cracked spar caps and then repetitive inspections can continue on spar caps that are not cracked. The commenter provides data that it contends strongly indicate that repair of both spar caps is not necessary if only one of the spar caps is found to be cracked. The commenter also refers to AD 88-01-04, which does not require repair of both spar caps if only one is found to be cracked.

The commenter states that requiring both spar caps to be repaired if either spar cap is found cracked would appear to be a requirement to retrofit all airplanes that have repaired only a single spar cap and therefore may result in grounded airplanes. The commenter also states that repairing both spar caps if only one spar cap is cracked would impose a large and unnecessary burden on operators.

The commenter requests that the final rule require only temporary or permanent repair of the cracked spar cap and continuing inspections of the uncracked spar cap on that spar.

We agree with the commenter to revise the final rule. When only one spar cap is found to be cracked on one spar, the intent of the service bulletin is to repair the cracked spar cap and continue inspections of the uncracked spar cap on that spar. We have revised paragraphs (j) and (k) of the final rule accordingly.

### **Request To Revise the Cost Section**

The same commenter requests that we revise the Cost of Compliance section of the proposed AD. The commenter notes that the proposed AD estimates the cost at \$260 per airplane, per inspection. The commenter states that based on its experience, the average cost to perform the inspections is \$610 per airplane.

We do not agree to revise the Costs of Compliance section of the final rule. The cost impact figures discussed in AD rulemaking actions represent only the time necessary to perform the specific actions actually required by the AD. These figures typically do not include incidental costs, such as

the time required to gain access and close up, planning time, or time necessitated by other administrative actions. Thus, the cost estimate in the final rule is only for the cost of the inspection. In addition, the cost estimate is based on the manufacturer's data provided in the service bulletin. We have not changed the final rule in this regard.

## **Conclusion**

We have carefully reviewed the available data, including the comments that have been submitted, and determined that air safety and the public interest require adopting the AD with the changes described previously. We have determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

## **Clarification of Actions in Paragraph (n)**

We have revised the wording in paragraph (n) of the final rule to clarify that for the applicable airplanes the actions specified in paragraph (n) are required only if the actions specified in paragraph (m) are being accomplished.

## **Costs of Compliance**

There are about 1,163 airplanes worldwide of the affected design. This AD will affect about 583 airplanes of U.S. registry. The inspection will take about 4 work hours per airplane, at an average labor rate of \$65 per work hour. Based on these figures, the estimated cost of the AD for U.S. operators is \$151,580, or \$260 per airplane, per inspection cycle.

## **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 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); 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD. See the ADDRESSES section for a location to examine the regulatory evaluation.

## **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):

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "www.faa.gov"*

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The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

**2005-07-03 McDonnell Douglas:** Amendment 39-14027. Docket No. FAA-2004-18774; Directorate Identifier 2003-NM-212-AD.

## Effective Date

- (a) This AD becomes effective May 4, 2005.

## Affected ADs

- (b) None.

## Applicability

- (c) This AD applies to the models listed in Table 1 of this AD, certificated in any category; as listed in McDonnell Douglas DC-9 Service Bulletin 57-179, Revision 1, dated December 21, 1994.

**TABLE 1.—APPLICABLE MODELS**

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Model DC-9-11, DC-9-12, DC-9-13, DC-9-14, DC-9-15, and DC-9-15F, airplanes
Model DC-9-21 airplanes
Model DC-9-31, DC-9-32, DC-9-32, (VC-9C), DC-9-32F, DC-9-33F, DC-9-34, and DC-9-34F, DC-9-32F (C-9A, C-9B) airplanes
Model DC-9-41 airplanes
Model DC-9-51 airplanes
Model DC-9-81 (MD-81), and DC-9-82 (MD-82) airplanes

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## Unsafe Condition

- (d) This AD was prompted by reports of fatigue cracks in the upper and lower caps of the wing spar. We are issuing this AD to detect and correct fatigue cracking in the upper and lower caps of the rear spar of the left and right wings, which could result in structural failure of the wings.

## Compliance

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

## **Service Bulletin Reference**

(f) Unless otherwise stated, the term "service bulletin", as used in this Ad, means McDonnell Douglas DC-9 Service Bulletin 57-179, Revision 1, dated December 21, 1994.

## **Inspection of the Upper and Lower Caps of the Rear Spar**

(g) At the time specified in paragraph (g)(1) or (g)(2) of this Ad, as applicable, do a detailed inspection of the upper and lower caps of the rear spar of the left and right wings at station Xrs = 267.000 for cracks in accordance with the Accomplishment Instructions of the service bulletin.

(1) For Group 1 airplanes identified in paragraph 1.A.(1) of the service bulletin: Inspect prior to the accumulation of 50,000 total landings, or within 3,000 landings after the effective date of this AD, whichever occurs later.

(2) For Group 2 airplanes identified in paragraph 1.A.(1) of the service bulletin: Inspect prior to the accumulation of 20,000 total landings, or within 3,000 landings after the effective date of this AD, whichever occurs later.

**Note 1:** For the purposes of this AD, a detailed inspection is "An intensive visual examination of a specific structural area, system, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at intensity deemed appropriate by the inspector. Inspection aids such as mirror, magnifying lenses, etc., may be used. Surface cleaning and elaborate access procedures may be required."

## **No Crack Detected: Repetitive Inspections**

(h) If no crack is detected during any detailed inspection required by paragraph (g) of this AD, repeat the inspection thereafter at intervals not to exceed 3,000 landings until the crack preventative modification specified in paragraph (m) of this AD is done.

## **Any Crack Detected: Corrective Actions**

(i) If any crack is detected during any detailed inspection required by paragraph (g) of this AD, before further flight, do the actions specified in paragraph (j) of this AD, except as provided by paragraph (k) of this AD.

## **Permanent Repair Modification**

(j) If required by paragraph (i) of this AD, do the permanent repair modification for any cracked rear spar cap; and at the times specified in paragraph (j)(1) or (j)(2) of this AD, as applicable, do the detailed inspection specified in paragraph (g) of this AD. Do the actions in accordance with the Accomplishment Instructions of the service bulletin.

(1) For Group 1 airplanes identified in paragraph 1.A.(1) of the service bulletin: Within 53,000 landings after accomplishing the permanent repair modification, do the detailed inspection. Repeat the detailed inspection thereafter at intervals not to exceed 3,000 landings until the crack preventative modification specified in paragraph (m) of this AD is done.

(2) For Group 2 airplanes identified in paragraph 1.A.(1) of the service bulletin: Within 33,000 landings after accomplishing the permanent repair modification, do the detailed inspection. Repeat the detailed inspection thereafter at intervals not to exceed 3,000 landings until the crack preventative modification specified in paragraph (m) of this AD is done.

## Optional Temporary Repair Modification for Certain Cracking

(k) In lieu of the actions specified in paragraph (j) of this AD, for any crack that does not exceed the limits specified in the Accomplishment Instructions of the service bulletin: Before further flight, do the temporary repair modification for any cracked rear spar cap; and at the times specified in paragraphs (k)(1) and (k)(2) of this AD, do the detailed inspections specified in paragraphs (k)(1) and (k)(2) of this AD. Do the actions in accordance with the Accomplishment Instructions of the service bulletin.

(1) Within 1,500 landings after accomplishing the temporary repair modification, do a detailed inspection of the temporary repair for any new crack or crack progression and repeat the inspection thereafter at intervals not to exceed 1,500 landings until the permanent repair modification specified in paragraph (j) of this AD is done.

(2) Within 3,000 landings after accomplishing the temporary repair modification, do detailed, eddy current, and ultrasonic inspections of the temporary repair for any new crack or crack progression and repeat the inspections thereafter at intervals not to exceed 3,000 landings until the permanent repair modification specified in paragraph (j) of this AD is done.

(l) If any crack progression or new crack is detected during any inspection required by paragraph (k)(1) or (k)(2) of this AD, before further flight, repair per a method approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA. For a repair method to be approved by the Manager, Los Angeles ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

## Optional Terminating Crack Preventative Modification

(m) Except as provided by paragraph (n) of this AD, accomplishment of the crack preventative modification in accordance with the applicable service bulletin listed in Table 2 of this AD ends the repetitive inspections required by this AD. If the applicable service bulletin specifies to contact the manufacturer for specific modification information: Repair per a method approved by the Manager, Los Angeles ACO, FAA. For a repair method to be approved by the Manager, Los Angeles ACO, as required by this paragraph, the Manager's approval letter must specifically refer to this AD.

**TABLE 2.—SERVICE BULLETINS FOR CRACK PREVENTATIVE MODIFICATION**

<b>For airplane model—</b>	<b>Use McDonnell Douglas service bulletin—</b>
Model DC-9-10, -20, -30, -40, and -50 series airplanes; and Model DC-9-81 (MD-81) and DC-9-82 (MD-82) airplanes.	DC-9 Service Bulletin 57-160, dated December 7, 1987.
Model DC-9-81 (MD-81), DC-9-82 (MD-82), and DC-9-83 (MD-83) airplanes.	MD-80 Service Bulletin 57-177, Revision 1, dated June 12, 1989.
Model DC-9-82 (MD-82) airplanes	MD-80 Service Bulletin 57-178, Revision 1, dated June 12, 1990.

(n) For airplanes on which the temporary repair modification specified in paragraph (k) of this AD has been done: If accomplishing the crack preventative modification specified in paragraph (m) of this AD, before or concurrently with the crack preventative modification, do the permanent repair modification specified in paragraph (j) of this AD.

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

(o) The Manager, Los Angeles ACO, FAA, has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

## **Material Incorporated by Reference**

(p) You must use McDonnell Douglas DC-9 Service Bulletin 57-179, Revision 1, dated December 21, 1994, including McDonnell Douglas Service Sketch 3268D, approved February 20, 1984, to perform the actions that are required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approves the incorporation by reference of this document in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. For copies of the service information, contact Boeing Commercial Airplanes, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1-L5A (D800-0024). For information on the availability of this material at the National Archives and Records Administration (NARA), call (202) 741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html). You may view the AD docket at the Docket Management Facility, U.S. Department of Transportation, 400 Seventh Street SW., room PL-401, Nassif Building, Washington, DC.

Issued in Renton, Washington, on March 21, 2005.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 05-6109 Filed 3-29-05; 8:45 am]

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