

[Federal Register Volume 79, Number 208 (Tuesday, October 28, 2014)]  
[Rules and Regulations]  
[Pages 64084-64086]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2014-25019]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2014-0451; Directorate Identifier 2013-NM-122-AD; Amendment 39-17996; AD 2014-21-04]**

**RIN 2120-AA64**

#### **Airworthiness Directives; the Boeing Company Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for all The Boeing Company 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 AD was prompted by reports of cracks emanating from the aft-most barrel nut holes of the left and right upper rear spar caps of the horizontal stabilizer. This AD requires repetitive high frequency eddy current (ETHF) inspections for cracks in the areas around the two aft-most barrel nut holes of the upper rear spar caps, and corrective actions if necessary; and repetitive ETHF inspections for cracks in the areas around the two aft-most barrel nut holes of any repaired or replaced upper rear spar cap, and corrective actions if necessary. We are issuing this AD to detect and correct cracks in the horizontal stabilizer, which could propagate until an upper rear spar cap severs, and result in failure of the horizontal stabilizer upper center or aft skin panel and adversely affect the structural integrity of the airplane.

**DATES:** This AD is effective December 2, 2014.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of December 2, 2014.

**ADDRESSES:** 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.

## **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-2014-0451; 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 AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** George Garrido, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5357; fax: 562-627-5210; email: [george.garrido@faa.gov](mailto:george.garrido@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all The Boeing Company 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. The NPRM published in the Federal Register on July 18, 2014 (79 FR 41946). The NPRM was prompted by reports of cracks emanating from the aft-most barrel nut holes of the left and right upper rear spar caps of the horizontal stabilizer. The NPRM proposed to require repetitive ETHF inspections for cracks in the areas around the two aft-most barrel nut holes of the upper rear spar caps, and corrective actions if necessary; and repetitive ETHF inspections for cracks in the areas around the two aft-most barrel nut holes of any repaired or replaced upper rear spar cap, and corrective actions if necessary. We are issuing this AD to detect and correct cracks in the horizontal stabilizer, which could propagate until an upper rear spar cap severs, and result in failure of the horizontal stabilizer upper center or aft skin panel and adversely affect the structural integrity of the airplane.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We have considered the comment received. Boeing supported the NPRM (79 FR 41946, July 18, 2014).

### **Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD as proposed, except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (79 FR 41946, July 18, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 41946, July 18, 2014).

### **Costs of Compliance**

We estimate that this AD affects 668 airplanes of U.S. registry.  
We estimate the following costs to comply with this AD:

### Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	5 work-hours × \$85 per hour = \$425 per inspection cycle	\$0	\$425 per inspection cycle	\$283,900 per inspection cycle.

We estimate the following costs to do any necessary repairs and replacements that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these repairs and replacements:

### On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Repair	Up to 394 work-hours × \$85 per hour = \$33,490	Up to \$32,440	Up to \$65,930.
Replacement	Up to 394 work-hours × \$85 per hour = \$33,490	Up to \$60,222	Up to \$93,712.

### 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

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),
- (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.

## **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):



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**2014-21-04 The Boeing Company:** Amendment 39-17996 ; Docket No. FAA-2014-0451;  
Directorate Identifier 2013-NM-122-AD.

**(a) Effective Date**

This AD is effective December 2, 2014.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to all the Boeing Company 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; certificated in any category.

**(d) Subject**

Air Transport Association (ATA) Code 55, Stabilizers.

**(e) Unsafe Condition**

This AD was prompted by reports of cracks emanating from the aft-most barrel nut holes of the left and right upper rear spar caps of the horizontal stabilizer. We are issuing this AD to detect and correct cracks in the horizontal stabilizer, which could propagate until an upper rear spar cap severs, and result in failure of the horizontal stabilizer upper center or aft skin panel and adversely affect the structural integrity of the airplane.

**(f) Compliance**

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

**(g) Inspection**

At the applicable compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin MD80-55A070, Revision 1, dated December 17, 2013; except as provided by paragraph (i) of this AD: Do a high frequency eddy current inspection (ETHF) for cracks in the areas around the two aft-most barrel nut holes of the left and right upper rear spar caps, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A070, Revision 1, dated December 17, 2013. Thereafter, repeat the ETHF inspection at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin MD80-55A070, Revision 1, dated December 17, 2013; except as provided by paragraph (i) of this AD. If any cracking is found during any inspection, before further flight, do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A070, Revision 1, dated December 17, 2013.

## **(h) Post-Repair/Replacement Actions**

For airplanes on which a splice repair or replacement was done, as specified in Boeing Alert Service Bulletin MD80-55A070: At the applicable compliance time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin MD80-55A070, Revision 1, dated December 17, 2013, do a ETHF inspection for cracks at the two aft-most barrel nut holes of any repaired or replaced upper rear spar cap, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A070, Revision 1, dated December 17, 2013. Thereafter, repeat the ETHF inspection at the applicable time specified in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin MD80-55A070, Revision 1, dated December 17, 2013. If any cracking is found during any inspection, before further flight, do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin MD80-55A070, Revision 1, dated December 17, 2013.

## **(i) Exception to the Service Information Specifications**

Where Boeing Alert Service Bulletin MD80-55A070, Revision 1, dated December 17, 2013, specifies a compliance time "after the original issue date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

## **(j) Credit for Previous Actions**

This paragraph provides credit for the actions specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Boeing Alert Service Bulletin MD80-55A070, dated May 22, 2013, which is not incorporated by reference in this AD.

## **(k) 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 (l)(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 14 CFR 25.571, Amendment 45, and the approval must specifically refer to this AD.

## **(l) Related Information**

(1) For more information about this AD, contact George Garrido, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5357; fax: 562-627-5210; email: george.garrido@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3) and (m)(4) of this AD.

**(m) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Alert Service Bulletin MD80-55A070, Revision 1, dated December 17, 2013.

(ii) Reserved.

(3) For Boeing 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>.

(4) You may view this 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.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on October 13, 2014.

Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.