

## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2012-0342; Directorate Identifier 2011-SW-028-AD; Amendment 39-17216; AD 2012-21-01]**

**RIN 2120-AA64**

#### **Airworthiness Directives; MD Helicopters, Inc.**

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) to supersede an existing airworthiness directive for MD Helicopters, Inc. (MDHI), Model MD900 helicopters. The existing AD requires a visual inspection, and if necessary, an eddy current inspection of the main rotor lower hub assembly (lower hub) for a crack. If a crack exists, the AD requires replacing the lower hub with an airworthy lower hub before further flight. Because that AD was immediately effective, we declined to require certain long-term actions prior to public comment. This superseding AD will require the same inspections as the existing AD but will also require long-term recurring inspections and replacing the lower hub with an airworthy lower hub. We are issuing this AD to detect a crack in the lower hub and prevent failure of the lower hub and subsequent loss of control of the helicopter.

**DATES:** This AD is effective November 27, 2012.

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of November 27, 2012.

**ADDRESSES:** For service information identified in this AD, contact MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, AZ 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or at <http://www.mdhelicopters.com>. You may review a copy of the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth Texas 76137.

Examining the AD Docket: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S.

Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Eric Schrieber, Aviation Safety Engineer, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone (562) 627-5348; email [eric.schrieber@faa.gov](mailto:eric.schrieber@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On March 29, 2012, at 77 FR 18963, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to MDHI Model MD900 helicopters. That NPRM proposed to supersede an existing AD to require the same inspections as the existing AD but also require recurring inspections and replacing the lower hub with an airworthy lower hub. The proposed requirements were intended to detect a crack in the lower hub and prevent failure of the lower hub and subsequent loss of control of the helicopter.

### **Comments**

We gave the public the opportunity to participate in developing this AD, but we received no comments on the NPRM.

### **FAA's Determination**

We have reviewed the relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

### **Related Service Information**

We reviewed MDHI Service Bulletin SB900-117, dated January 14, 2011 (SB). The SB specifies an initial 100-hour and recurring 300-hour visual and eddy current inspections of the lower hub for a crack and, if a crack exists, replacement of the lower hub with an airworthy lower hub. The SB requires the inspections at the stated intervals or during the next annual inspection, whichever occurs first. The SB also specifies replacing the lower hub within three years.

### **Costs of Compliance**

We estimate that this AD will affect 12 helicopters of U.S. registry.

We estimate the following costs to comply with this AD:

- Visually inspecting the hub. We estimate that will take one work-hour at \$85 an hour, for a total cost per helicopter of \$85 and a total cost of \$1,020 for the fleet.
- Eddy current inspecting the lower hub. We estimate that will take one work-hour at \$85 an hour, for a total cost per helicopter of \$85 and a total cost of \$1,020 for the fleet.
- Replacing the lower hub. We estimate that will take 11 work-hours at \$85 an hour for a total labor cost of \$935, and that parts will cost \$12,480 per hub, for a total cost of \$13,415 per helicopter and a total cost of \$160,980 for the fleet.
- The costs for U.S. operators will total \$163,020, assuming that the lower hubs for the entire fleet get replaced.

## **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 to the extent that it justifies making a regulatory distinction; 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.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

## **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 removing airworthiness directive (AD) 2011-14-05, Amendment 39-16740 (76 FR 41662, July 15, 2011), and adding the following new AD:



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**2012-21-01 MD HELICOPTERS, Inc. (MDHI):** Amendment 39-17216; Docket No. FAA-2012-0342; Directorate Identifier 2011-SW-028-AD.

**(a) Applicability**

This AD applies to MDHI Model MD900 helicopters with main rotor lower hub assembly (lower hub) part number 900R2101008-107, with serial numbers beginning with 5009, certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a crack in the main rotor lower hub assembly (lower hub). This condition could result in failure of the lower hub and subsequent loss of control of the helicopter.

**(c) Other Affected ADs**

This AD supersedes AD 2011-14-05, amendment 39-16740 (76 FR 41662, July 15, 2011).

**(d) Effective Date**

This AD becomes effective November 27, 2012.

**(e) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(f) Required Actions**

(1) Within 100 hours time-in-service (TIS) or during the next annual inspection, whichever occurs first, unless done within the last 200 hours TIS, and thereafter at intervals not to exceed 300 hours TIS or during the next annual inspection, whichever occurs first:

(i) Visually inspect the sides and bottom of the area between the arms for the centering bearing and the areas adjacent to the bushings of the lower hub assembly for a crack. If there is a crack, before further flight, replace the lower hub with an airworthy lower hub.

(ii) If the lower hub is not replaced as a result of the visual inspection required by paragraph (f)(1)(i) of this AD, eddy current inspect the lower hub for a crack by following the Accomplishment Instructions, paragraphs 2.A(2) through 2.A.(10)., of MD Helicopters Inc. Service Bulletin SB900-117, dated January 14, 2011. If there is a crack, before further flight, replace the lower hub with an airworthy hub.

(2) The eddy current inspection required by paragraph (f)(1)(ii) of this AD must be done by a Level II technician with ASNT-TC-1A, CEN EN 4179, MIL-STD-410, NAS410, or equivalent certification in eddy current inspections. The technician must have done an eddy current inspection in the last 12 months.

(3) Within 3 years, replace the lower hub with an airworthy lower hub not included in the Applicability section of this AD. This replacement is terminating action for the requirements of this AD.

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

(1) The Manager, Los Angeles Aircraft Certification Office (LAACO), FAA, may approve AMOCs for this AD. Send your proposal to: Eric Schrieber, Aviation Safety Engineer, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone (562) 627-5348; email [eric.schrieber@faa.gov](mailto:eric.schrieber@faa.gov).

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 2597, Equipment/furnishing system wiring.

**(i) 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) MD Helicopters Inc. Service Bulletin SB900-117, dated January 14, 2011.

(ii) Reserved.

(3) For service information identified in this AD, contact MD Helicopters Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, AZ 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or at <http://www.mdhelicopters.com>.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. For information on the availability of this material at the FAA, call (817) 222-5110.

(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 Fort Worth, Texas, on October 5, 2012.

Kim Smith,  
Manager, Rotorcraft Directorate,  
Aircraft Certification Service.