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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2012-0746; Directorate Identifier 2008-SW-035-AD; Amendment 39-17337; AD 2013-03-03]**

**RIN 2120-AA64**

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

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for MD Helicopters, Inc. (MDHI) Model 500N, 600N and MD900 helicopters to require determining the cure date for each NOTAR fan blade tension-torsion strap (T-T strap), establishing a calendar-time retirement life for certain T-T straps, reducing the retirement life of certain T-T straps, marking each T-T strap with the expiration date, creating a component record card for each T-T strap, and revising the airworthiness limitations section of the maintenance manual to reflect the changes to the retirement life. This AD was prompted by a report from the T-T strap manufacturer that, over a period of time, moisture may reduce the strength of a T-T strap. The actions are intended to prevent failure of a T-T strap, loss of directional control and subsequent loss of control of the helicopter.

**DATES:** This AD is effective March 15, 2013.

**ADDRESSES:** For service information identified in this AD, contact MD Helicopters, Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, Arizona 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or on the web 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:** John Cecil, Aviation Safety Engineer, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627-5228; email john.cecil@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

On July 19, 2012, at 77 FR 42459, 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 500N and 600N helicopters with a NOTAR fan blade T-T strap part number (P/N) 500N5311-5 and MDHI Model MD900 helicopters with a T-T strap, P/N 500N5311-5, P/N 900R3442009-101, P/N 900R3442009-103, or P/N 900R6442009-103. That NPRM proposed to require determining the cure date for each T-T strap, establishing a calendar-time retirement life for certain T-T straps, reducing the retirement life of certain T-T straps, marking each T-T strap with the expiration date, creating a component record card for each T-T strap, and revising the airworthiness limitations section of the maintenance manual to reflect the changes to the retirement life. This AD was prompted by information from the T-T strap manufacturer indicating that, over time, the T-T straps can absorb moisture, which can weaken the T-T strap and cause it to fail. The proposed requirements were intended to prevent failure of a T-T strap, loss of directional control 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 (77 FR 42459, July 19, 2012).

### **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 have reviewed one MDHI service bulletin, which contains two service bulletin numbers, SB500N-029R3, applicable to MDHI Model 500N helicopters; and SB600N-046R3, applicable to MDHI Model 600N helicopters, dated July 9, 2008. We have also reviewed MDHI SB900-107R1, dated March 14, 2008, applicable to MDHI Model MD900 helicopters. The service bulletins describe procedures for establishing a retirement life for each affected T-T strap by determining the manufacturer's cure date and marking the T-T strap with an expiration date; creating a component record card for each affected T-T strap; replacing T-T straps that have been in service beyond their revised life limit; and recording compliance with the service information in the Rotorcraft Log Book.

### **Differences Between This AD and the Service Information**

This AD differs from the previously described service bulletins as follows:

- This AD contains requirements for T-T straps that are installed or will be installed on the affected helicopters, but does not address a part that is in storage.

- For a T-T strap with five or more calendar years from the manufacturer's cure date, this AD requires, before further flight, replacing the T-T strap with an airworthy T-T strap. The service bulletins specify the T-T strap to be replaced within six, 12, or 24 months, depending on the manufacturing cure date.
- The service bulletins specify sending removed parts to the manufacturer. This AD does not require such action.
- This AD requires reducing the life limit for any T-T strap, P/N 500N5311-5, to 2500 hours TIS if the T-T strap has been installed on a MDHI Model MD900 helicopter.

## **Costs of Compliance**

We estimate that this AD will affect 111 helicopters of U.S. Registry, including 73 helicopters in the combined MDHI Model 500N and MDHI Model 600N fleet, and 38 MDHI Model MD900 helicopters. Determining the manufacturer's cure date, the expiration date, marking an expiration date on the T-T strap, creating the component record card, revising the applicable airworthiness limitations section of the maintenance manual, and re-installing the T-T strap will take about 40 work-hours per helicopter for Model 500N and Model 600N helicopters, and 32 work-hours per helicopter for Model MD900 helicopters, at an average labor rate of \$85 per work-hour. Required parts will cost about \$1,340 per T-T strap. Based on these figures, the total cost impact of the AD on U.S. operators will be about \$543,180 for the entire fleet, assuming all T-T straps will be marked, and assuming 11 helicopters will need T-T straps replaced (13 T-T straps per helicopter).

## **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 adding the following new airworthiness directive (AD):



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**2013-03-03 MD Helicopters, Inc. (MDHI):** Amendment 39-17337; Docket No. FAA-2012-0746; Directorate Identifier 2008-SW-035-AD.

**(a) Applicability**

MDHI Model 500N and 600N helicopters, with a NOTAR fan blade tension-torsion strap (T-T strap), part number (P/N) 500N5311-5; and MDHI Model MD900 helicopters, with a T-T strap, P/N 500N5311-5, P/N 900R3442009-101, P/N 900R3442009-103, or P/N 900R6442009-103; certificated in any category.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a decrease, over time, in the strength of a T-T strap caused by moisture. This condition could result in failure of a T-T strap, loss of directional control, and subsequent loss of control of the helicopter.

**(c) Effective Date**

This AD becomes effective March 15, 2013.

**(d) 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.

**(e) Required Actions**

(1) Within six months, determine the manufacturer's cure date of each of the 13 T-T straps.

(i) For a T-T strap with five or more calendar years from the manufacturer's cure date, before further flight, replace the T-T strap with an airworthy T-T strap.

(ii) For a T-T strap with less than five calendar years from the manufacturer's cure date, mark the expiration date on the T-T strap face in permanent ink.

(2) Thereafter, before installing a T-T strap, mark the expiration date on the T-T strap using permanent ink. The expiration date is five years from the date the T-T strap package was opened, or if that date was not recorded, five years from the manufacturer's cure date.

(3) On or before the date you comply with paragraph (e)(1) or (e)(2) of this AD, create a component record card for each T-T strap and record on the card the manufacturer's cure date or the date that the T-T strap package was opened, if that date was recorded previously, and the T-T strap expiration date.

(4) Revise the Airworthiness Limitations section of the maintenance manual by establishing:

(i) A calendar life limit for the T-T straps, P/N 500N5311-5, 900R3442009-101, 900R3442009-103, and 900R6442009-103 of five years from the date the T-T strap package was opened, or if that date was not recorded, five years from the manufacturer's cure date.

(ii) A 2,500 hour time-in-service (TIS) life limit for any T-T straps, P/N 500N5311-5, installed on a Model 500N or Model 600N helicopter that was previously installed on a Model MD900 helicopter.

Note to paragraph (e) of this AD: For the MDHI Model MD900 helicopters, AD 2006-18-01 (71 FR 51095, August 29, 2006) contains additional TIS life limits for T-T straps, P/N 900R3442009-103 and P/N 900R6442009-103 and additional inspection requirements for all four affected T-T straps, P/N 500N5311-5, P/N 900R3442009-101, P/N 900R3442009-103, and P/N 900R6442009-103.

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

(1) The Manager, Los Angeles Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: John Cecil, Aviation Safety Engineer, Los Angeles Aircraft Certification Office, Transport Airplane Directorate, FAA, 3960 Paramount Blvd., Lakewood, California 90712; telephone (562) 627-5228; email john.cecil@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.

**(g) Additional Information**

MDHI has issued one service bulletin with two numbers, SB500N-029R3 for the Model 500N helicopters, and SB600N-046R3 for the Model 600N helicopters, dated July 9, 2008. MDHI has also issued SB900-107R1, dated March 14, 2008, for the Model MD900 helicopters. These service bulletins, which are not incorporated by reference, contain information related to the subject of this AD. For service information identified in this AD, contact MD Helicopters, Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, Arizona 85215-9734, telephone 1-800-388-3378, fax 480-346-6813, or on the web at <http://www.mdhelicopters.com>. You may review a copy of this service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6410, Tail rotor blades.

Issued in Fort Worth, Texas, on January 29, 2013.

Lance T. Gant,  
Acting Directorate Manager, Rotorcraft Directorate,  
Aircraft Certification Service.