



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0746; Directorate Identifier 2008-SW-35-AD]

RIN 2120-AA64

Airworthiness Directives; MD Helicopters, Inc. (MDHI) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for 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 proposal is 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 proposed actions are intended to prevent failure of a T-T strap, loss of directional control and subsequent loss of control of the helicopter.

DATES: We must receive comments on this proposed AD by [insert date 60 days after date of publication in the FEDERAL REGISTER].

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

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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 proposed AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed 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.

FOR FURTHER INFORMATION CONTACT: John Cecil, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, Airframe Branch, 3960 Paramount

Blvd., Lakewood, California 90712-4137; telephone 562-627-5228, fax 562- 627-5210;
e-mail: john.cecil@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

Discussion

The manufacturer has issued service information that indicates that it and its supplier, Lord Corporation, have determined that certain T-T straps can, over time, absorb moisture that can weaken the T-T strap. It indicates that a T-T strap failure can cause decreased directional control of the helicopter. Accordingly, it specifies, in addition

to the current time-in-service (TIS) retirement life limit, an additional calendar-time retirement life limit for four part-numbered T-T straps and a reduced retirement life of 2,500 hours TIS for T-T strap, part number (P/N) 500N5311-5, if it is installed on a Model 500N or 600N helicopter after it has been installed on a Model MD900 helicopter. The calendar life would start when the package was opened.

This action proposes to adopt these new calendar-life limits for T-T straps, P/N 500N5311-5, P/N 900R3442009-101, P/N 900R3442009-103, and P/N 900R6442009-103, measured from the manufacturer's cure date or the date the package containing the T-T strap was opened exposing it to the environment outside the package. We are also proposing to adopt requirements that a component record card be created and that the T-T straps be marked with the retirement life limit calendar date (expiration date).

For the MDHI Model MD900 helicopters, AD 2006-18-01 (71 FR 51095, August 29, 2006) already contains a revised 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. The requirements of that AD 2006-18-01 would remain in effect.

FAA's Determination

We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

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. All of 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 their service information in the Rotorcraft Log Book.

Proposed AD Requirements

This proposed AD would require, within six months:

- Determining the manufacturer's cure date for T-T strap, P/N 500N5311-5 (installed on MDHI Model 500N and MDHI 600N helicopters), and P/N 500N5311-5, P/N 900R3442009-101, P/N 900R3442009-103, or P/N 900R6442009-103 (installed on MDHI Model MD900 helicopters);
- Creating a component record card for each affected T-T strap and recording the expiration date on the card;
- Revising the Airworthiness Limitations Section of the applicable maintenance manual with the additional or revised retirement life limit for the T-T straps; and
- Before a T-T strap is installed on any Model 500N, 600N, or MD900 helicopter, the T-T strap be marked with the expiration date.

Differences between this Proposed AD and the Service Information

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

- This AD proposes 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 proposes, 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 to send removed parts to the manufacturer, and this proposed AD does not require this action.
- This AD proposes 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 proposed AD would 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 would 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 would cost about \$1,340 per T-T strap. Based on these figures, the total

cost impact of the proposed AD on U.S. operators would be about \$543,180 for the entire fleet, assuming all T-T straps would be marked, and assuming 11 helicopters would need T-T strap 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

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, 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);

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 proposed 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.

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 airworthiness directive (AD):

MD HELICOPTERS, INC. (MDHI): Docket No. FAA-2012-0746; Directorate Identifier 2008-SW-35-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) 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.

(d) 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 (d)(1) or (d)(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) This AD revises 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 (d) 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.

(e) Alternative Methods of Compliance (AMOC).

(1) The Manager, Los Angeles Aircraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: John Cecil, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712-4137; telephone 562-627-5228, fax 562- 627-5210; e-mail:

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.

(f) 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. MD Helicopters, Inc. 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 this service information, 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 information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(g) Subject.

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

Issued in Fort Worth, Texas, on July 10, 2012.

Kim Smith,

Manager, Rotorcraft Directorate,
Aircraft Certification Service.

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