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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0070; Directorate Identifier 2011-SW-062-AD; Amendment 39-18114; AD 2015-05-04]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron Canada Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Bell Helicopter Textron Canada (BHTC) Model 407 helicopters. This AD requires inspecting the aft fuselage upper skin (upper skin) for a crack and the upper left longeron assembly (longeron assembly) for a crack, corrosion, or defect. This AD requires replacing or repairing a part or section, depending on the inspection's outcome. This AD was prompted by reports of cracks in the upper left-hand longeron. This AD's actions are intended to prevent failure of the longeron assembly or the upper skin, which could lead to a structural failure and loss of helicopter control.

DATES: This AD is effective April 20, 2015.

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of April 20, 2015.

ADDRESSES: For service information identified in this AD, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; or at <http://www.bellcustomer.com/files/>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137. It is also available on the Internet at <http://www.regulations.gov> by searching and locating Docket No. FAA 2014-0070.

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, the Transport Canada Civil Aviation (TCCA) 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: Sharon Miles, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email sharon.y.miles@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On February 12, 2014, at 79 FR 8358, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to BHTC Model 407 helicopters, with a serial number 53000 through 53900, 53911 through 54061, and 54300, with longeron assembly, part number (P/N) 206-031-314-037, 206-031-314-177, or 206-031-314-219B. The NPRM proposed to require inspecting the upper skin for a crack and longeron assembly for a crack, corrosion, or defect. The NPRM also proposed to require replacing or repairing a part or section, depending on the inspection's outcome. The proposed requirements were intended to prevent failure of the longeron assembly or the upper skin, which could lead to a structural failure and loss of helicopter control.

The NPRM was prompted by Canadian AD No. CF-2011-42, dated November 9, 2011, issued by TCCA, which is the aviation authority for Canada, to correct an unsafe condition for certain BHTC Model 407 helicopters. TCCA advises that longeron assemblies, P/Ns 206-031-314-037, 206-031-314-177, and 206-031-314-219B, installed on helicopters with 1,200 or more hours air time, are prone to cracking. The TCCA AD requires, based on hours air time since new, visually inspecting the aft fuselage upper skin for cracks and replacing the skin if cracked and visually inspecting the longeron assembly for cracks and general condition. If the longeron assembly is serviceable, the TCCA AD requires repeating the inspection of the longeron assembly for cracks and general condition at intervals based on whether external strap doublers are installed. If the longeron assembly is cracked, the TCCA AD requires repairing or replacing it, installing three external strap doublers, and repeating the inspection of the longeron assembly if it was repaired. Installing a new longeron assembly, P/N 206-031-314-237B, and the three external strap doublers constitutes terminating action for the requirements of the TCCA AD.

Comments

After our NPRM (79 FR 8358, February 12, 2014) was published, we received comments from one commenter.

Request

A BHTC representative requested that we change the AD to be consistent with the requirements in the TCCA AD and the Bell service information. The commenter stated that the NPRM's inspection intervals were more restrictive with no additional safety benefit. According to the commenter, the NPRM proposed an inspection interval of 50 hours whenever the strap doublers but not new longeron are installed, while the TCCA AD and service information increased the inspection interval to 150 hours. Also, the commenter stated the NPRM increased the inspection interval to 150 hours when a new longeron is installed with the strap doublers, while the TCCA AD and service information provide this as terminating action.

We disagree. Although they are arranged and worded differently, the actions proposed in the NPRM are the same as those in the TCCA AD and service information. Paragraph (e)(4) of the

Required Actions extends the inspection interval to 150 hours when the strap doublers are installed without the new longeron. Paragraph (e)(3) of the Required Actions states that replacing the longeron assembly with a new longeron assembly and installing three external strap doublers constitutes terminating action to the requirements of the AD. This is consistent with the TCCA AD and the BHTC service information.

FAA's Determination

These helicopters have been approved by the aviation authority of Canada and are approved for operation in the United States. Pursuant to our bilateral agreement with Canada, TCCA, its technical representative, has notified us of the unsafe condition described in the TCCA AD. We are issuing this AD because we evaluated all information provided by TCCA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

Related Service Information Under 1 CFR Part 51

BHTC has issued Alert Service Bulletin 407-11-95, Revision C, dated April 20, 2012 (ASB), to correct an unsafe condition for Model 407 helicopters, serial numbers 53000 through 53900, 53911 through 54061, and 54300, with a flight time of 1200 or more hours, and with a longeron assembly, P/N 206-031-314-037, 206-031-314-177, or 206-031-314-219B. The ASB states that BHTC received reports of longeron assemblies cracking in service. The ASB:

- Specifies a one-time inspection of the aft fuselage top skin and repetitive inspections of the upper left longeron assembly;
- Provides a repair procedure for the longeron assembly;
- Allows for the installation of longeron assembly, P/N 206-031-314-237B, and three external strap doublers as terminating action for the repetitive inspection requirements.

This service information is reasonably available; see ADDRESSES for ways to access this service information.

Costs of Compliance

We estimate that this AD affects 584 helicopters of U.S. Registry and that labor costs average \$85 an hour. Based on these estimates, we estimate the following costs:

- A one-time visual inspection of the aft fuselage upper skin requires 1 work-hour and no parts for a total cost of \$85 per helicopter, \$49,640 for the U.S. fleet.
- A visual inspection of the longeron and replacing the aft fuselage upper skin requires 3 work hours for a labor cost of \$255 per helicopter. Parts cost \$723 for total cost of \$978 per helicopter.
- Repairing the longeron if needed and installing the doublers requires 16 work hours for a labor cost of \$1,360. Parts cost \$3,928 for a total cost of \$5,288 per helicopter.
- Replacing the longeron with P/N 206-031-314-237B combined with the installation of the three external strap doublers require 24 work hours for a labor cost of \$2,040. Parts cost \$13,560 for a total cost of \$15,600 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 helicopters 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):



2015-05-04 Bell Helicopter Textron Canada Helicopters: Amendment 39-18114; Docket No. FAA-2014-0070; Directorate Identifier 2011-SW-062-AD.

(a) Applicability

This AD applies to Bell Helicopter Textron Canada (BHTC) Model 407 helicopters, with a serial number 53000 through 53900, 53911 through 54061, and 54300, with an upper left longeron assembly (longeron assembly), part number (P/N) 206-031-314-037, 206-031-314-177, or 206-031-314-219B, installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in the aft fuselage upper skin or a crack, corrosion, or defect in the longeron assembly. This condition could cause structural failure and consequently, loss of helicopter control.

(c) Effective Date

This AD becomes effective April 20, 2015.

(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

Within 50 hours time-in-service (TIS), or prior to reaching 1,250 hours TIS since new, whichever occurs later, visually inspect the helicopter's aft fuselage upper skin (upper skin) for a crack using a 10X or higher power magnifying glass.

(1) If there is a crack in the upper skin, before further flight, remove the skin and inspect the longeron assembly, paying attention to the upper flange, for a crack, corrosion, or other damage using a 10X or higher power magnifying glass.

(i) If there are no cracks, corrosion, or other damage in the longeron assembly, before further flight, replace the upper skin with an airworthy upper skin. Repeat the inspection of the longeron assembly at intervals not to exceed 50 hours TIS.

(ii) If there is a crack, corrosion, or other damage in the longeron assembly, before further flight:

(A) Repair the longeron assembly or replace it with an airworthy longeron assembly, part number (P/N) 206-031-314-237B, and reinstall the upper skin or replace it with an airworthy upper skin.

(B) Install three external strap doublers in accordance with Part III, paragraphs 5 through 10 of Bell Helicopter Alert Service Bulletin 407-11-95, Revision C, dated April 20, 2012 (ASB).

(C) Repeat the inspection of the longeron assembly at intervals not to exceed 50 hours TIS.

(2) If there is no crack in the upper skin, within 10 hours TIS, visually inspect the longeron assembly using a 10X or higher power magnifying glass for a crack, corrosion, or other damage.

(i) If there is a crack, corrosion, or other damage in the longeron assembly, before further flight:
(A) Repair the longeron assembly or replace it with an airworthy longeron assembly, P/N 206-031-314-237B.

(B) Install three external strap doublers in accordance with Part III, paragraphs 5 through 10 of the ASB.

(C) Repeat the inspection of the upper skin and longeron assembly at intervals not to exceed 50 hours TIS.

(ii) If there are no cracks, corrosion, or other damage in the longeron assembly, repeat the inspection of the upper skin and longeron assembly at intervals not to exceed 50 hours TIS.

(3) Replacing the longeron assembly with longeron assembly, P/N 206-031-314-237B, and installing three external strap doublers constitutes terminating action for this AD.

(4) If there is no crack in the upper skin and there is no crack, corrosion, or other damage in the longeron assembly, you may install three external strap doublers in accordance with Part III, paragraphs 5 through 10 of the ASB. This option extends the recurring 50 hours TIS inspection interval to 150 hours TIS.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Sharon Miles, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5110; email sharon.y.miles@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

The subject of this AD is addressed in Transport Canada Civil Aviation (TCCA) AD No. CF-2011-42, dated November 9, 2011. You may view the TCCA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2014-0070.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 5313, Fuselage Main, Longeron/Stringer.

(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) Bell Helicopter Alert Service Bulletin 407-11-95, Revision C, dated April 20, 2012.

(ii) Reserved.

(3) For BHTC service information identified in this AD, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4; telephone (450) 437-2862 or (800) 363-8023; fax (450) 433-0272; or at <http://www.bellcustomer.com/files/>.

(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 March 3, 2015.
Bruce E. Cain,
Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.