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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0574; Directorate Identifier 2008-SW-22-AD; Amendment 39-17766; AD 2014-04-07]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron Canada (Bell) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding Airworthiness Directive (AD) 2003-05-03 for Bell Model 407 helicopters. AD 2003-05-03 required preflight checking and repetitively inspecting for a crack in certain tailbooms that have been redesigned, replacing the tailboom if there is a crack, modifying and re-identifying certain tailbooms, installing an improved horizontal stabilizer assembly, and assigning a 5,000 hour time-in-service (TIS) limit. This new AD retains the requirements of AD 2003-05-03 and requires additional inspection requirements. This AD was prompted by additional reports of cracked tailboom skins. The actions in this AD are intended to prevent separation of the tailboom and subsequent loss of control of the helicopter.

DATES: This AD is effective July 28, 2014.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of July 28, 2014.

The Director of the Federal Register approved the incorporation by reference of certain other publications listed in this AD as of April 17, 2003 (68 FR 11967, March 13, 2003).

ADDRESSES: For service information identified in this AD, contact Bell Helicopter Textron Canada, 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 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> in Docket No. FAA-2013-0574 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 foreign authority's AD, any incorporated-by-reference information, the economic evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document 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: Sharon Miles, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222-5110, fax (817) 222-5961, email sharon.y.miles@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2003-05-03 (68 FR 11967, March 13, 2003). AD 2003-05-03 applied to Bell Model 407 helicopters. The NPRM published in the Federal Register on July 12, 2013 (78 FR 41877). The NPRM proposed to retain the actions of AD 2003-05-03 requiring preflight checks and repetitive inspections for a crack in certain tailbooms that have been redesigned, replacing the tailboom if there is a crack, modifying and re-identifying certain tailbooms, installing an improved horizontal stabilizer assembly, and assigning a 5,000 hour TIS limit. The NPRM also proposed to require additional inspection requirements.

The NPRM was prompted by Canadian AD No. CF-2008-04, dated January 11, 2008 (AD CF-2008-04), issued by Transport Canada Civil Aviation (TCAA), which is the aviation authority for Canada, to correct an unsafe condition for Bell Model 407 helicopters. TCAA advises that there have been several reports of cracks to the tailboom skin on the left side in the area of the horizontal stabilizer. AD CF-2008-04 mandates new inspection requirements based on the manufacturer's service information discussed in the "Related Service Information" section under SUPPLEMENTARY INFORMATION in the preamble of this final rule.

Comments

We gave the public the opportunity to participate in developing this AD, but we did not receive any comments on the NPRM (78 FR 41877, July 12, 2013).

FAA's Determination

The helicopter has been approved by the aviation authority of Canada and is approved for operation in the United States. Pursuant to our bilateral agreement with Canada, TCAA, its technical representative, has notified us of the unsafe condition described in the TCAA AD. We are issuing this AD because we evaluated all information provided by TCAA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of the same type design and that air safety and the public interest require adopting the AD requirements as proposed except we are removing one of the figures in this AD to meet current publication requirements. This change is consistent with the intent of the proposals in the NPRM (78 FR 41877, July 12, 2013), and will not increase the economic burden on any operator nor increase the scope of this AD.

Differences Between This AD and the TCAA AD

This AD does not require you to contact the manufacturer. This AD does not state that replacing the affected tailboom with tailboom, part number (P/N) 407-030-801-201, -203, -205, or later numbers constitutes terminating action because installing other part-numbered tailbooms than those

listed in the applicability of this AD may also result in terminating action for the requirements of this AD.

Related Service Information

We reviewed Bell Technical Bulletin (TB) No. 407-01-33, dated August 29, 2001; Bell Alert Service Bulletin (ASB) No. 407-99-26, Revision B, dated June 14, 2001, and Revision C, dated February 28, 2002; Bell ASB No. 407-07-80, dated August 27, 2007; and Bell ASB No. 407-01-48, Revision C, dated August 27, 2007.

Bell issued TB No. 407-01-33 for certain serial-numbered Bell Model 407 helicopters to improve the installation of the horizontal stabilizer by specifying an inspection for and correction of any gaps between the horizontal stabilizer attachment supports and the stabilizer surface. Bell issued ASB No. 407-99-26, Revision B, to specify an inspection and a preflight check of the left-hand side of the tailboom skin and fasteners at the horizontal stabilizer attachment area for Bell Model 407 helicopters with certain part-numbered tailbooms. Bell later revised ASB No. 407-99-26 to Revision C to remove one part-numbered tailboom from the applicability of the ASB.

In ASB No. 407-07-80, Bell states it has received additional reports of cracked tailboom skins, P/N 407-030-801-157, affecting tailboom assemblies, P/N 407-530-014-101 and -103 (modified per AD 2003-05-03 (68 FR 11967, March 13, 2003), reference ASB No. 407-01-48, Revision B, dated April 25, 2002), and original production tailboom assembly, P/N 407-030-801-107. Each report indicated a crack above the left side upper stabilizer attachment support at Station 98.89. Further investigation conducted by Bell revealed other areas of the tailbooms require additional attention. Thus, ASB No. 407-07-080 contains procedures for preparing the tailboom for repetitive inspection, preflight checking the tailboom, and repetitively inspecting the tailboom. Bell specifies that replacing the affected tailboom assembly, P/N 407-530-014-101, -103 or 407-030-801-107, with tailboom assembly, P/N 407-030-801-201, -203, -205, or later dash numbers is terminating action for Bell ASB No. 407-07-80.

In ASB No. 407-01-48, Bell states that since issuing Revision C of ASB No. 407-99-26, it received additional reports of cracks in the upper skins, which originated from holes where the fasteners are installed at the forward and aft section of the left upper stabilizer support, P/N 407-023-800-117. ASB No. 407-01-48 contains procedures for inspecting the tailboom on the left side where the fasteners are installed, installing an improved horizontal stabilizer assembly, re-identifying the tailboom, and assigning a 5,000-hour TIS life limit to the tailboom.

Costs of Compliance

We estimate that this AD will affect about 464 helicopters of U.S. registry. We estimate that operators will incur the following costs in order to comply with this AD. We estimate the time for conducting pilot checks is minimal and thus we are assuming there is no cost. It will take about .5 work-hour to perform the annotations in the helicopter records, 1.5 work hours to prepare the inspection area and do the magnification inspection, and 2.5 work hours to do the repetitive 100-hour TIS inspections at an average labor rate of \$85 per work-hour. Based on these figures, we estimate the cost of the AD on U.S. operators will be \$1,445 per helicopter and \$670,480 for the U.S. operator fleet to do the checks and inspections, based on 6 repetitive inspections the first year. The previous AD affected 284 helicopters, and we estimated 3.5 work hours to do the initial inspection, 1.5 work hours to do the recurring inspections, and 18 work hours to do the modification at an average labor rate of \$60 per work hour. Required parts were estimated at \$1,244 per helicopter. Based on these figures, the total cost of the AD on U.S. operators was estimated to be \$3,254 per helicopter or \$924,136, based on 8 repetitive inspections per year.

According to Bell, the cost of a new tailboom is \$82,850. Per Bell ASB No. 407-07-80, the costs to replace the tailboom may be covered under warranty, thereby reducing the cost impact on affected

individuals. We do not control warranty coverage by Bell. We have included all costs in our cost estimate.

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 have determined that 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.

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) 2003-05-03 (68 FR 11967, March 13, 2003) and by adding the following new AD:



2014-04-07 Bell Helicopter Textron Canada: Amendment 39-17766; Docket No. FAA-2013-0574; Directorate Identifier 2008-SW-22-AD.

(a) Applicability

This AD applies to Model 407 helicopters, serial numbers 53000 through 53475, with tailboom, part number (P/N) 407-030-801-101, -105, or -107, or 407-530-014-101 or -103, installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as cracks in the tailboom skin on the left side in the area of horizontal stabilizer, which could result in separation of the tailboom and subsequent loss of control of the helicopter.

(c) Affected ADs

This AD supersedes AD 2003-05-03, Amendment 39-13079 (68 FR 11967, March 13, 2003).

(d) Effective Date

This AD becomes effective July 28, 2014.

(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) For tailboom, P/Ns 407-030-801-101 and -105:

(i) Unmodified per Bell Alert Service Bulletin (ASB) 407-01-48, Revision C, dated August 27, 2007 (ASB 407-01-48):

(A) Before the first flight of each day, visually check the tailboom for a crack, as depicted in Figure 1 to Paragraph (f)(1)(i)(A) of this AD.

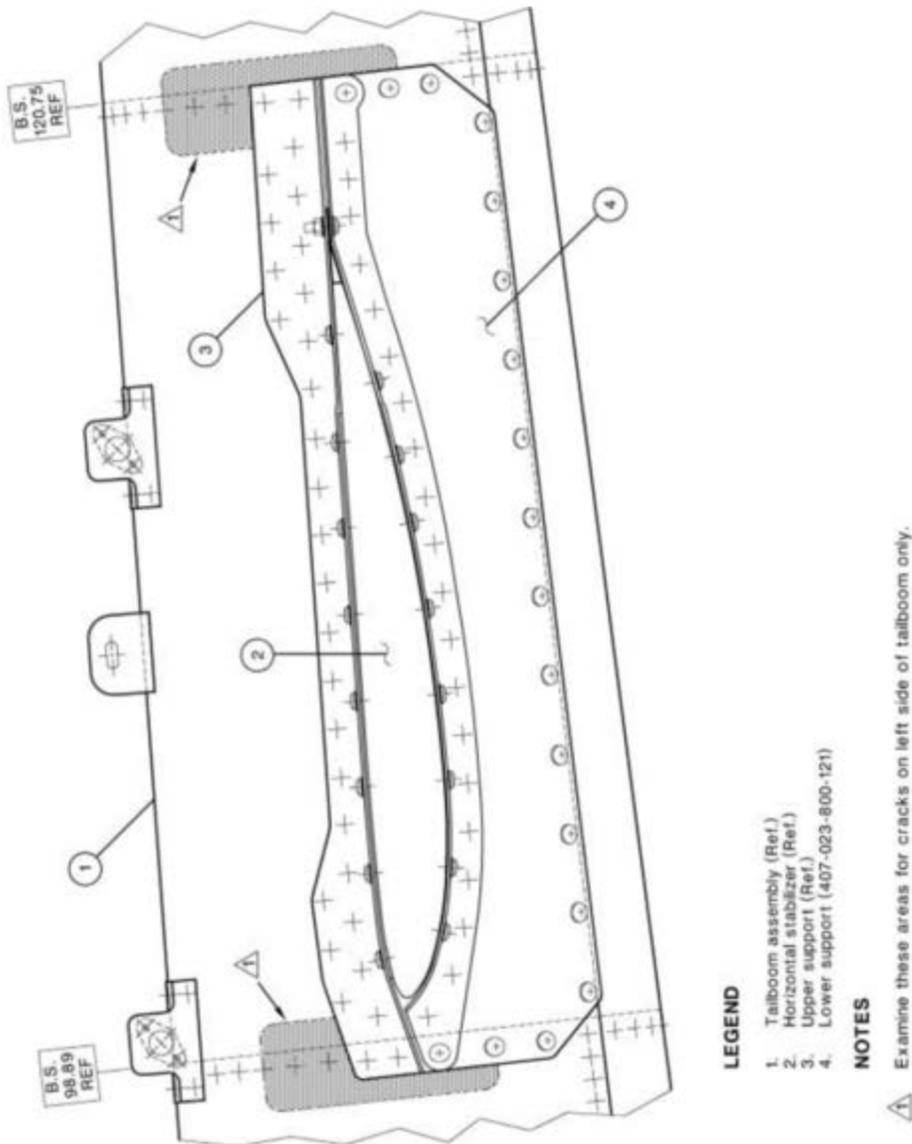


Figure 1 to Paragraph (f)(1)(i)(A)

(B) For a tailboom with 600 or more hours time-in-service (TIS), within 25 hours TIS and thereafter at intervals not to exceed 50 hours TIS, visually inspect the tailboom for a crack using a 10X or higher magnifying glass by following the Accomplishment Instructions, Part II, of Bell ASB 407-99-26, Revision C, dated February 28, 2002, except this AD does not require you to contact Bell.

(ii) Within 600 hours TIS, but not later than 30 days:

(A) Modify and re-identify each tailboom, P/N 407-030-801-101 as 407-530-014-101, and P/N 407-030-801-105 as 407-530-014-103, by following the Accomplishment Instructions, Parts I and III, of ASB 407-01-48.

(B) Install improved horizontal stabilizer assembly, P/N 407-023-800-ALL, by following Bell Technical Bulletin No. 407-01-33, dated August 29, 2001, except this AD does not require you to contact Bell.

(2) For tailboom, P/Ns 407-530-014-101 and -103, and P/N 407-030-801-107:

(i) Before further flight after the tailboom is modified and re-identified, revise the Airworthiness Limitations section of the maintenance manual by establishing a retirement life of 5,000 hours TIS. Create a component history card or equivalent record and assign a life limit of 5,000 hours TIS by following the Accomplishment Instructions, Part IV, of ASB 407-01-48.

(ii) Within 25 hours TIS or 30 days, whichever occurs first, prepare the tailboom for daily visual checks and recurring inspections and inspect the tailboom for a crack by following the Accomplishment Instructions, Part II, Steps 1.a) through 1.f), of Bell ASB 407-07-80, dated August 27, 2007 (ASB 407-07-80).

(iii) Thereafter, before the first flight of each day, clean the area on the tailboom where paint has been removed at the upper and lower attachment support areas of the horizontal stabilizer and visually check that area of the tailboom for a crack.

(iv) Within 100 hours TIS and thereafter at intervals not to exceed 100 hours TIS, using a 10X or higher power magnifying glass, inspect each tailboom for a loose rivet, a crack, skin corrosion, or any other damage, by following the Accomplishment Instructions, Part IV, Steps 1 through 6, of ASB 407-07-80, except this AD does not require you to contact Bell. If there is corrosion within an allowable tolerance, repair each area of corrosion.

(3) If there is a crack, before further flight, replace the tailboom.

(4) If there is no crack, make sure both of the inspection area surfaces are dry and protect each reworked area with a thin coat of clear coating.

(5) The actions required by paragraphs (f)(1)(i)(A) and (f)(2)(iii) of this AD may be performed by the owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with this AD in accordance with 14 CFR 43.9 (a)(1) through (4) and 91.417(a)(2)(v). This record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

(g) 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.

(h) Additional Information

(1) Bell Alert Service Bulletin No. 407-99-26, Revision B, dated June 14, 2001, which is not incorporated by reference, contains additional information about the subject of this AD. For this service information, contact Bell Helicopter Textron Canada, 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 service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(2) The subject of this AD is addressed in Transport Canada Civil Aviation (TCCA) AD No. CF-2008-04, dated January 11, 2008. You may view the TCCA AD on the Internet at <http://www.regulations.gov> in Docket No. FAA-2013-0574.

(i) Subject

Joint Aircraft Service Component (JASC) Code is 5300: Rotorcraft Tail Boom, and 5302: Middle Section.

(j) 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.

(3) The following service information was approved for IBR on July 28, 2014.

(i) Bell Helicopter Textron Alert Service Bulletin (ASB) No. 407-01-48, Revision C, dated August 27, 2007.

(ii) Bell Helicopter Textron ASB No. 407-07-80, dated August 27, 2007.

(4) The following service information was approved for IBR on April 17, 2003 (68 FR 11967, March 13, 2003).

(i) Bell Helicopter Textron ASB No. 407-99-26, Revision C, dated February 28, 2002.

(ii) Bell Helicopter Textron Technical Bulletin No. 407-01-33, dated August 29, 2001.

(5) For Bell service information identified in this AD, contact Bell Helicopter Textron Canada, 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/>.

(6) 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.

(7) 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 May 21, 2014.

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