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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-28690; Directorate Identifier 2006-SW-21-AD; Amendment 39-15289; AD 2007-25-07]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron Canada Limited Model 206A and 206B Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) for Bell Helicopter Textron Canada Limited (BHTC) Model 206A and 206B helicopters, serial numbers (S/N) 0004 through 3906, with two-piece vertical stabilizer (fin) supports (fin supports) installed, that requires inserting a revision into the applicable maintenance manual, verifying the torque on the fin support attachment hardware, inspecting the fin support bracket and fins for paint or gaps, and inspecting the fin support bracket for cracking, and if a crack is found, replacing the two-piece vertical fin support with a one-piece casting support. This amendment is prompted by an accident in which the fin supports failed. The actions specified by this AD are intended to detect improper torque of the fin supports' attachment hardware, gaps between the fin support bracket and the doubler, painted mating surfaces of the fin supports, vertical fin, and vertical fin inserts (fin inserts), and cracking in the fin supports, to prevent the vertical fin from rotating into the tail rotor, separation of the tail rotor, and subsequent loss of control of the helicopter.

DATES: Effective January 14, 2008.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 14, 2008.

ADDRESSES: You may get the service information identified in this AD from 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.

Examining the Docket: You may examine the docket that contains this AD, any comments, and other information on the Internet at <http://www.regulations.gov> or at the Docket Operations office, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Sharon Miles, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5122, fax (817) 222-5961.

SUPPLEMENTARY INFORMATION: A proposal to amend 14 CFR part 39 to include an AD for the specified model helicopters was published in the Federal Register on July 13, 2007 (72 FR 38527). That action proposed to require inserting a revision into the Inspection and Component Overhaul Schedule of the applicable maintenance manual, implementing a recurring inspection at intervals not to exceed 100 hour time-in-service (TIS) or at each annual inspection, whichever occurs first, of the torque on the fin support attachment hardware, and inspecting the fin support for damage. Inspecting for paint on the mating surfaces of the fin support bracket and vertical fin, and inspecting the fin attaching hardware for proper torque and the amount of gap between the fin support bracket and the fin doubler, and inspecting the support bracket for cracking using a 10x or higher power magnifying glass was also proposed. Finally, if a crack is found, replacing the two-piece vertical fin support with a one-piece casting support, P/N 206-033-426-003, was proposed.

Transport Canada, the airworthiness authority for Canada, notified the FAA that an unsafe condition may exist on BHTC Model 206A and 206B helicopters, S/N 004 through 3906, with fin supports, P/N 206-031-417-003 or -007, or 206-031-418-001 or -005, installed. Transport Canada advises that a one-time inspection of the vertical fin mating surfaces is required to ensure an appropriate surface finish is present. In addition, they advise that a recurring torque check of the vertical fin attaching hardware is required to maintain the structural integrity of the joint. They also advise that the initial inspection be performed at the next scheduled 100 hour TIS or annual inspection, but within three (3) months in accordance with BHTC Alert Service Bulletin No. 206-06-107, dated April 26, 2006, or later revisions approved by Transport Canada.

BHTC has issued Alert Service Bulletin No. 206-06-107, dated April 26, 2006, and subsequently issued Revision A of this ASB, dated June 15, 2006, which specifies a series of inspections of the two-piece fin supports, and also introduces a revision to Chapters 5 and 53 of the BHT-206A/B Series Maintenance Manual. The revision to Chapter 5 introduces a recurring vertical fin attaching hardware torque check, and inspecting the fin supports for damage, to be accomplished at the next scheduled 100 hour TIS or annual inspection. The revision to Chapter 53 updates the removal, installation, and inspection of the vertical fin. Transport Canada classified this alert service bulletin as mandatory and issued AD No. CF-2006-12, dated June 5, 2006, to ensure the continued airworthiness of these helicopters in Canada.

These helicopter models are manufactured in Canada and are type certificated for operation in the United States under the provisions of 14 CFR 21.29 and the applicable bilateral agreement. Pursuant to the applicable bilateral agreement, Transport Canada has kept the FAA informed of the situation described above. The FAA has examined the findings of Transport Canada, reviewed all available information, and determined that AD action is necessary for products of these type designs that are certificated for operation in the United States.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposal or the FAA's determination of the cost to the public. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

The FAA estimates that this AD will affect 1,466 helicopters of U.S. registry, and the required actions will take approximately 4 work hours per helicopter to accomplish at an average labor rate of \$80 per work hour. If needed, replacing a fin support will take approximately 30 work hours. Required parts will cost approximately \$3,260 for each fin support. Based on these figures, we estimate the total cost impact of the AD on U.S. operators to be \$3,300,820 for the fleet during the first year, assuming 7 inspections per helicopter are conducted, and assuming that replacing the fin support is required on 3 helicopters.

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 the 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); and
3. 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. See the AD docket to examine the economic evaluation.

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.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding a new airworthiness directive to read as follows:



2007-25-07 Bell Helicopter Textron Canada Limited: Amendment 39-15289. Docket No. FAA-2007-28690; Directorate Identifier 2006-SW-21-AD.

Applicability: Model 206A and 206B helicopters, serial numbers 0004 through 3906, with two-piece vertical stabilizer (fin) supports (fin supports), part number (P/N) 206-031-417-003 or -007, or P/N 206-031-418-001 or -005, installed, certificated in any category.

Compliance: Required at the next scheduled 100 hour time-in-service (TIS) inspection or annual inspection, but no later than 90 days after the effective date of this AD, unless accomplished previously, and thereafter at intervals not to exceed 100 hours TIS or at each annual inspection, whichever occurs first.

To detect improper torque of the fin supports' attachment hardware, gaps between the fin support bracket and the doubler, painted mating surfaces of the fin support bracket, vertical fin, and vertical fin inserts (fin inserts), and cracks in the fin supports, to prevent the vertical fin from rotating into the tail rotor, separation of the tail rotor, and subsequent loss of control of the helicopter, accomplish the following:

(a) Insert Revision 4 of BHT-206A/B-SERIES-MM into the appropriate section of the maintenance manual.

(b) Determine the type and part number of the installed vertical fin by referring to the listing in step 2., Table 1, of the Accomplishment Instructions of Bell Helicopter Textron Alert Service Bulletin No. 206-06-107, Revision A, dated June 15, 2006 (ASB).

(c) For Type 1 and Type 3 vertical fins, inspect the vertical fin and fin support bracket for paint, and the vertical fin attaching hardware for proper torque, in accordance with steps 5. and 6. of the Accomplishment Instructions of the ASB.

(d) For Type 2 vertical fins, inspect the vertical fin and fin support bracket for paint, the vertical fin attaching hardware for proper torque, and the amount of gap between the vertical fin support bracket and the vertical fin doubler in accordance with steps 5., 6., and 7. of the Accomplishment Instructions of the ASB.

(e) If the inspections required by paragraphs (c) and (d) of this AD indicate that the torque and gap are within limits, and there is no paint present, visually inspect the vertical fin support bracket in the area of the vertical fin attaching hardware for a crack using a 10x or higher power magnifying glass.

(1) If no crack is found, re-torque the vertical fin attaching hardware to between 75 and 95 in. lbs. (8.47 to 10.75 Nm).

(2) If a crack is found, replace the two-piece vertical fin support bracket with a one-piece vertical fin casting support, P/N 206-033-426-003.

(f) Based on your finding in paragraphs (c) and (d) of this AD, if either the torque or gap is out of limits, or paint is present:

- (1) Remove the vertical fin.
- (2) Remove all the primer and paint coatings in the areas indicated in Figure I of the ASB.
- (3) Florescent penetrant inspect (FPI) the vertical fin support.
- (4) If a crack is found, replace the two-piece vertical fin support with a one-piece vertical fin casting support, P/N 206-033-426-003.
- (5) If no crack is found, apply two coats of Polyamide Epoxy Primer on bare metal surfaces.

(g) For Type 2 vertical fins only:

- (1) If incorrect washers (spacers) or no washers are installed, visually inspect the 4 vertical fin potted inserts as depicted in the vertical fin detail in Figure I of the ASB for any damage using a 10x or higher power magnifying glass.
- (2) If any of the 4 vertical fin potted inserts is damaged with no other damage to the surrounding areas, remove and replace the damaged potted insert with an airworthy potted insert.
- (3) After assuring that all 4 installed vertical fin potted inserts are undamaged, install the correct washers in accordance with step 9.d. of the Accomplishment Instructions of the ASB.

(h) This AD revises the helicopter maintenance manual by adding an inspection of the torque on the vertical fin attaching hardware, and inspections of the vertical fin and vertical fin support, to the 100-hour TIS and annual scheduled inspections.

(i) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Regulations and Policy Group, FAA, ATTN: Sharon Miles, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group, Fort Worth, Texas 76193-0111, telephone (817) 222-5122, fax (817) 222-5961, for information about previously approved alternative methods of compliance.

(j) The determination of the type and part number of the vertical fin, the inspections, and installing the correct washers, if necessary, shall be done in accordance with the specified portions of Bell Helicopter Textron Alert Service Bulletin No. 206-06-107, Revision A, dated June 15, 2006. The Director of the Federal Register approved this incorporation by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from 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. Copies may be inspected at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas or 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/code_of_federal_regulations/ibr_locations.html.

(k) This amendment becomes effective on January 14, 2008.

Note: The subject of this AD is addressed in Transport Canada (Canada) AD No. CF-2006-12, dated June 5, 2006.

Issued in Fort Worth, Texas, on November 27, 2007.

Mark R. Schilling,
Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.
[FR Doc. E7-23601 Filed 12-7-07; 8:45 am]