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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2007-0178; Directorate Identifier 2007-SW-20-AD; Amendment 39-15622; AD 2008-16-04]

RIN 2120-AA64

Airworthiness Directives; Bell Helicopter Textron Canada (BHTC) Model 222, 222B, and 222U Helicopters

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for BHTC Model 222, 222B, and 222U helicopters. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The aviation authority of Canada, with which we have a bilateral agreement, states in the MCAI: "It has been determined that the existing rigging procedures for the tail rotor pitch change mechanism have to be changed due to possibility of parts interference." The cumulative effect of individual part tolerances resulting in the total assemblage of those parts being out of tolerance could result in the tail rotor yoke striking another part other than the flapping stop (parts interference) cited in the MCAI. Also, the misalignment of the tail rotor counterweight bellcrank may result in higher tail rotor pedal forces and a higher pilot workload after failure of the No. 1 hydraulic system. Both parts interference and the misaligned counterweight bellcrank create an unsafe condition.

We are issuing this AD to require actions that are intended to address these unsafe conditions.

DATES: This AD becomes effective on September 15, 2008.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of September 15, 2008.

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Operations office, U.S. Department of Transportation, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC between 9 a.m. and 5 p.m. Monday through Friday, except Federal holidays.

You may get the service information identified in this AD from Bell Helicopter Textron, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4, telephone (450) 437-2862 or (800) 363-8023, fax (450) 433-0272.

Examining the AD Docket: The AD docket contains the Notice of Proposed Rulemaking (NPRM), the economic evaluation, any comments received, and other information. The street address and operating hours for the Docket Operations office (telephone (800) 647-5227) are in the ADDRESSES section of this AD. Comments will be available in the AD docket shortly after they are received.

FOR FURTHER INFORMATION CONTACT: Tyrone Millard, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0111, telephone (817) 222-5439, fax (817) 222-5961.

SUPPLEMENTARY INFORMATION:

Discussion

We issued an NPRM to amend 14 CFR part 39 to include an AD that would apply to the following BHTC helicopters:

Model	Serial Number (S/N)
222	47006 through 47089
222B	47131 through 47156
222U	All

That NPRM was published in the Federal Register on November 16, 2007 (72 FR 64542). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states: "It has been determined that the existing rigging procedures for the tail rotor pitch change mechanism have to be changed due to possibility of parts interference." Because the cumulative effect of the tolerances on the various parts may result in the total assemblage outboard of the counterweight bellcrank being out of tolerance, the tail rotor yoke may contact the nut, part number (P/N) 222-012-731-001, before contacting the flapping stop, resulting in less tail rotor travel. Additionally, the manufacturer has indicated that the tail rotor counterweight bellcranks may be misaligned, resulting in higher tail rotor pedal forces and higher pilot workload after failure of the 1 hydraulic system. Both the parts interference and the higher pedal forces constitute unsafe conditions. You may obtain further information by examining the MCAI and any related service information in the AD docket.

Comments

By publishing the NPRM, we gave the public an opportunity to participate in developing this AD. However, we received no comment on the NPRM or on our determination of the cost to the public. Therefore, based on our review and evaluation of the available data, we have determined that air safety and the public interest require adopting the AD as proposed.

Relevant Service Information

Bell Helicopter Textron has issued Alert Service Bulletin (ASB) No. 222-07-104 and ASB No. 222U-07-75, both dated January 9, 2007. The actions described in the MCAI are intended to correct the same unsafe condition as that identified in the service information.

Differences Between This AD and the MCAI AD

We have reviewed the MCAI and related service information and, in general, agree with their substance. However, this AD requires compliance within the next 150 hours time-in-service or at the next annual inspection, whichever occurs first, instead of "at the next 150 hour or annual inspection, but no later than 31 December 2007." In making this change, we do not intend to differ substantively from the information provided in the MCAI. This difference is highlighted in the "Differences Between this AD and the MCAI" section in the AD.

Costs of Compliance

We estimate that this AD will affect about 86 products of U.S. registry. Also, we estimate that it will take 2 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$80 per work-hour. A replacement yoke will cost about \$21,218, assuming the part is no longer under warranty. However, because the service information lists this part as covered under warranty, we have assumed that there will be no charge for this part. Therefore, as we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of the AD on U.S. operators to be \$13,760, or \$160 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 product(s) identified in this rulemaking action.

Regulatory Findings

We 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.

Therefore, I certify this AD:

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 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 AD:



2008-16-04 Bell Helicopter Textron Canada: Amendment 39-15622; Docket No. FAA-2007-0178; Directorate Identifier 2007-SW-20-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective on September 15, 2008.

Other Affected ADs

(b) None.

Applicability

(c) This AD applies to the Model 222, serial numbers (S/N) 47006 through 47089; Model 222B, S/N 47131 through 47156, and Model 222U, all S/N, helicopters, certificated in any category.

Reason

(d) The mandatory continuing airworthiness information (MCAI) states: "It has been determined that the existing rigging procedures for the tail rotor pitch change mechanism have to be changed due to possibility of parts interference." This "possibility of parts interference" occurs because the cumulative effect of the tolerances on the various parts may result in the total assemblage outboard of the counterweight bellcrank being out of tolerance and the tail rotor yoke may contact the nut, part number (P/N) 222-012-731-001, before contacting the flapping stop. Further, the manufacturer has indicated that the tail rotor counterweight bellcranks may be misaligned, resulting in higher tail rotor pedal forces and higher pilot workload after failure of the 1 hydraulic system. Both the parts interference and the higher pedal forces constitute unsafe conditions. This AD requires actions that are intended to address these unsafe conditions.

Actions and Compliance

(e) Within the next 150 hours time-in-service (TIS) or at the next annual inspection, whichever occurs first, unless already done, do the following actions:

(1) Adjust the rigging of the tail rotor pitch change mechanism in accordance with the Accomplishment Instructions, paragraphs 1 and 2, of the applicable Bell Helicopter Textron Alert Service Bulletin (ASB) listed in the following Table 1:

Table 1

Helicopter Model	Applicable ASB No. & Date
222 and 222B	No. 222-07-104, dated January 9, 2007
222U	No. 222U-07-75, dated January 9, 2007

(2) If either at full left pedal position or full right pedal position a gap exists between the tail rotor yoke and the flapping stop, replace the tail rotor yoke with an airworthy tail rotor yoke.

(3) If no gap exists between the tail rotor yoke and the flapping stop at either full left pedal position or full right pedal position, measure the gap between the tail rotor yoke and nut, P/N 222-012-731-001, adjust the tail rotor pitch change mechanism, and adjust the tail rotor pedal forces in accordance with the Accomplishment Instructions, paragraphs 4 through 6, of the applicable ASB listed in Table 1 of this AD.

Differences Between This AD and the MCAI

(f) This AD requires compliance within the next 150 hours TIS or at the next annual inspection, whichever occurs first, instead of "at the next 150 hour or annual inspection but no later than 31 December 2007."

Other Information

(g) Alternative Methods of Compliance (AMOCs): The Manager, Safety Management Group, FAA, ATTN: Tyrone Millard, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Fort Worth, Texas 76193-0111, telephone (817) 222-5439, fax (817) 222-5961 has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19.

Related Information

(h) MCAI Transport Canada Airworthiness Directive No. CF-2007-07, dated April 11, 2007, contains related information.

Air Transport Association of America (ATA) Tracking Code

(i) Air Transport Association of America (ATA) Code JASC 6720: Tail Rotor Control System, Tail Rotor Pitch Change.

Material Incorporated by Reference

(j) You must use the specified portions of Bell Helicopter Textron ASB No. 222-07-104 or No. 222U-07-75, both dated January 9, 2007, to do the actions required.

(1) The Director of the Federal Register approved the incorporation by reference of this service information under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) 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.

(3) You may review copies at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Fort Worth, Texas 76193; 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/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on July 18, 2008.

Mark R. Schilling,

Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. E8-17991 Filed 8-8-08; 8:45 am]