Rules and Regulations

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120–AA64

Airworthiness Directives; Bell Helicopter Textron, Inc. (Bell) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are superseding four airworthiness directives related to the main rotor yoke (yoke) on the Bell Model 204B, 205A, 205A–1, 205B, and 212 helicopters, to retain certain inspections and certain life limits, to require an increased inspection frequency for certain yokes, and to expand these inspections and retirement lives to other yokes. This airworthiness directive is prompted by past reports of cracks in the yoke, another recent report of a cracked yoke, and the decision that other yokes, approved based on identicality, need to be subject to the same inspection requirements and retirement lives to other yokes. This airworthiness directive is prompted by past reports of cracks in the yoke, another recent report of a cracked yoke, and the decision that other yokes, approved based on identicality, need to be subject to the same inspection requirements and retirement lives to other yokes. The actions are intended to detect a crack in a yoke to prevent failure of the yoke, and subsequent loss of control of the helicopter.

DATES: This AD is effective February 27, 2013.

ADDRESSES: For service information identified in this AD, contact Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, TX 76101, telephone (817) 280–3391, fax (817) 280–6466, or at http://www.bellcustomer.com/files/.

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.

Exchanging the AD Docket

You may exchange 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, 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:

Michael Kohner, Aviation Safety Engineer, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222–5170; email 7-avs-asw-170@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On November 2, 2011, at 76 FR 67628, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to Bell Model 204B, 205A, 205A–1, 205B, and 212 helicopters, with a yoke, part number (P/N) AAL–4011–102 (all dash numbers), ASI–4011–102 (all dash numbers), or 204–011–102 (all dash numbers), installed, certificated in any category. That NPRM proposed to supersede four previously-issued ADs for the Bell Model 204, 205, and 212 series helicopters: AD 79–20–05, Amendments 39–3572 (44 FR 55556, September 27, 1979), 39–3626 (44 FR 70123, December 6, 1979), and 39–3662 (45 FR 6922, January 31, 1980); AD 81–19–01, Amendment 39–4207 (46 FR 45595, September 14, 1981); AD 81–19–02, Amendment 39–4208 (46 FR 45595, September 14, 1981); and AD 93–05–01, Amendment 39–8507 (58 FR 13700, March 15, 1993). Those ADs required inspecting certain yokes installed on these helicopters, established retirement life limits for these yokes, and required operators to log additional hours against the retirement life of the yokes for Model 212 helicopters conducting more than four external load lifts per hour.

Since the issuance of those ADs, certain yokes manufactured under a parts manufacturer approval (PMA) were identified as being susceptible to the same cracking as the Bell manufactured yokes. The NPRM proposed retaining the requirements of the existing ADs while expanding the applicability to include yokes produced under a PMA whose design approval was based on identicality with the affected Bell yoke. The NPRM also proposed giving operators credit for the accumulated operating time on certain yokes covered by the superseded ADs.

The proposed requirements of this AD were intended to prevent cracking of a yoke, failure of the yoke, and subsequent loss of control of the helicopter.

Comments

We gave the public the opportunity to participate in developing this AD, but we did not receive any comments on the NPRM (76 FR 67628, November 2, 2011).
NPRM and will not increase the economic burden on any operator nor increase the scope of the AD.

Costs of Compliance

We estimate that this AD will affect 15 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. Reviewing the helicopter records and determining the total factored hours TIS will require about 3 work hours at an average labor rate of $85 per hour, for a total cost of $255 per helicopter and a total cost to the U.S. operator fleet of $3,825. Removing the yoke from the helicopter and performing a visual inspection and MPI will require about 35 work hours at an average labor rate of $85 per work hour, for a total cost of $2,975 per helicopter and a total cost to the U.S. operator fleet of $44,625 per inspection cycle.

To replace a yoke will require about 32 work hours at an average labor rate of $85 per hour for labor costs of $2,720 per helicopter, and required parts will cost $40,157 for a total cost per helicopter of $42,877 and a total cost to the U.S. operator fleet of $643,155.

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

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

§ 39.13 [Amended]

(a) Applicability

This AD applies to Model 204B, 205A, 205A–1, 205B, and 212 helicopters, with a main rotor yoke (yoke), part number (P/N) AAI–4011–102 (all dash numbers), ASI–4011–102 (all dash numbers), or 204–011–102 (all dash numbers), installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in a yoke. This condition could result in failure of a yoke, and subsequent loss of control of the helicopter.

(c) Affected ADs


(d) Effective Date

This AD becomes effective February 27, 2013.

(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 helicopters with yoke, P/N AAI–4011–102 (all dash numbers) and ASI–4011–102 (all dash numbers), installed, within 100 hours time-in-service (TIS):

(i) Create a component history card or equivalent record for each yoke.

(ii) Determine the model for each helicopter on which the yoke has been installed from the time the yoke had zero hours TIS.

(iii) In accordance with the rate per hour categories shown in Table 1 to paragraph (f) of this AD, categorize the accumulated “Factored Hours TIS” on each yoke by determining the types of operation AND the rate per hour of external load lifts for each hour TIS accumulated on each yoke. One external load lift occurs each time the helicopter picks up an external load and drops it off. For determining the proper rate per hour category for external load operations, any external load lift in which the helicopter achieves a vertical altitude difference of greater than 200 feet indicated altitude between the pickup and drop-off point counts as two external load lifts.

2012–17–08 Bell Helicopter Textron, Inc. (Bell); Amendment 39–17171; Docket No. FAA–2011–1188; Directorate Identifier 2008–SW–46–AD.
(iv) By reference to Table 1 to paragraph (f) of this AD, enter the “Unfactored Hours TIS” for each category as determined by paragraph (f)(1)(iii) of this AD. Calculate the “Factored Hours TIS” by multiplying the “Unfactored Hours TIS” by the “Hours TIS Factor.” Determine the accumulated “Total Factored Hours TIS” on each yoke by adding the factored hours TIS for each type of operation and helicopter model. Tracking the Total Factored Hours TIS is only for establishing a retirement life and not for tracking inspection intervals.

(v) Record the accumulated Total Factored Hours TIS on the component history card or equivalent record for each yoke.

(vi) Continue to factor the hours TIS for each yoke by following paragraph (f)(1)(iii) through (f)(1)(iv) of this AD, and record the additional factored hours TIS on the component history card or equivalent record.

(2) For helicopters with yoke, P/N 204–011–102 (all dash numbers), installed, before further flight:

(i) For hours TIS accumulated before the effective date of this AD, calculate and record the Total Factored Hours TIS as follows:

(A) For the Model 212 helicopters, 1 hour TIS in which passenger or internal cargo was carried equals 1 factored hour TIS; 1 hour TIS where more than 4 external load lifts occurred equals 5 factored hours TIS.

(B) For the Model 204 and 205 series helicopters, 1 hour TIS equals 1 factored hour TIS.

(ii) For hours TIS accumulated after the effective date of this AD, calculate and record the factored hours TIS on the yoke in accordance with the requirements of paragraphs (f)(1)(i) through (f)(1)(vi) of this AD.

(3) Revise the Airworthiness Limitations section of the applicable maintenance manuals or the Instructions for Continued Airworthiness (ICAs) by establishing a new retirement life of 3,600 Total Factored Hours TIS for each yoke, P/N AAI–4011–102 (all dash numbers), ASI–4011–102 (all dash numbers), or 204–011–102 (all dash numbers), by making pen and ink changes or inserting a copy of this AD into the Airworthiness Limitations section of the maintenance manual or ICAs.

(4) Record a life limit of 3,600 Total Factored Hours TIS for each yoke, P/N AAI–4011–102 (all dash numbers), ASI–4011–102 (all dash numbers), or 204–011–102 (all dash numbers), on the component history card or equivalent record.

(5) Within 100 hours TIS or 600 hours TIS since the last magnetic particle inspection (MPI) of the yoke, whichever occurs later, and thereafter at intervals not to exceed 600 hours TIS, for any yoke installed on any Model 205B or 212 helicopter:

(i) Remove the yoke from the main rotor hub assembly (hub). Using a 5-power or higher magnifying glass, visually inspect each pillow block bushing hole, spindle radius, and center section web for any corrosion or mechanical damage.

(ii) Perform an MPI of each yoke for a crack.

(6) Within 100 hours TIS or 2,400 hours TIS since the last MPI of the yoke, whichever occurs later, and thereafter at intervals not to exceed 2,400 hours TIS, for any yoke installed on any Model 204B, 205A, or 205A–1 helicopter:

(i) Remove the yoke from the hub. Using a 5-power or higher magnifying glass, visually inspect each pillow block bushing hole, spindle radius, and center section web for any corrosion or mechanical damage.

(ii) Perform an MPI of each yoke for a crack.

(7) Before further flight, replace each yoke with an airworthy yoke if:

(i) The yoke has 3,600 or more Total Factored Hours TIS; or

(ii) The Total Factored Hours TIS for the yoke is unknown and cannot be determined; or

(iii) The yoke has any corrosion or mechanical damage that exceeds any of the maximum repair damage limits; or

(iv) The yoke has a crack.

(g) Special Flight Permits

Special flight permits may only be issued under 14 CFR 21.197 and 21.199 for the purpose of operating the helicopter to a location where the MPI requirements of paragraphs (f)(5) or (f)(6) of this AD can be performed.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Rotorcraft Certification Office, FAA, may approve AMOCs for this AD. Send your proposal to: Michael Kohner, Aviation Safety Engineer, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222–5170; email avs-asw-170@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.

(i) Additional Information

Bell Alert Service Bulletin Nos. 204–92–36, 205–92–51, and 212–92–80, all dated October 23, 1992, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, TX 76101, telephone (817) 280–3391, fax (817) 280–6466, or at http://www.bellcustomer.com/files/. You may review a copy of this service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

(j) Subject

Joint Aircraft Service Component (JASC) Code: 6220: Main Rotor Head.
UDH OPPORTUNITIES:

ADDRESSES:

DATES:

SUMMARY:

ACTION:

AGENCY:

14 CFR Part 39


RIN 2120–AA64

Airworthiness Directives; Bell Helicopter Textron Canada Limited (Bell) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for Bell Model 206L, 206L–1, 206L–3, and 206L–4 helicopters. This AD requires inspecting certain hydraulic servo actuator assemblies (servo) for a loose nut, shaft, and clevis assembly, modifying or replacing the servo as necessary, and reidentifying the servo. This AD is prompted by an investigation after an accident and the determination that there was a loose connection due to improper lock washer installation. These actions are intended to detect loose or misaligned parts of the servo to prevent failure of the servo and subsequent loss of control of the helicopter.

DATES: This AD becomes effective February 7, 2013.

The Director of the Federal Register approved the incorporation by reference of a certain document February 7, 2013. We must receive comments on this AD by March 25, 2013.

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 AD, the economic evaluation 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 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.

FOR FURTHER INFORMATION CONTACT: Matt Wilbanks, Aviation Safety Engineer, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222–5110; email matt.wilbanks@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, 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 resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, 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 them 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 rulemaking during the comment period.

We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

Discussion

Transport Canada Civil Aviation (TCCA) has issued AD No. CF–2011–19R1, Revision 1, dated December 7, 2011, to correct an unsafe condition for the Bell Model 206L, 206L–1, 206L–3 helicopters, serial numbers (S/N), and Model 206L–4 helicopters, S/Ns 52001 through 52430, with servo, part number (P/N) 206–076–062–103, installed. TCCA advises that a “quality escape” by a supplier occurred, and a number of Bell servos may have a loose nut, shaft, and clevis assembly. According to TCCA, the loose connection is due to improper lock washer installation. TCCA advises that this discrepancy is not traceable or identifiable except by inspection and that a “disconnect” of the affected components may lead to loss of control of the helicopter. TCAA states Revision 1 of its AD retains the mandated inspections and corrective action in the original issue of its AD but expands the applicability to include all serial-numbered servos.

FAA’s Determination

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 bilateral agreement, TCCA has kept the FAA informed of the situation described above. We are issuing this AD because we evaluated all information provided by TCCA and determined the unsafe condition is likely to exist or develop on other helicopters of these same type designs.

Related Service Information

Bell has issued Alert Service Bulletin (ASB) No. 206L–11–169, Revision B, dated August 29, 2011 (ASB), which specifies, before next flight, unless previously accomplished, a one-time inspection for loose or misaligned parts of the servos, P/N 206–076–062–103, installed on Bell Model 206L, 206L–1, and 206L–3 helicopters, all S/Ns, and Model 206L–4 helicopters, S/Ns 52001 through 52430. TCCA classified this ASB as mandatory and issued AD No. CF–2011–19R1 to ensure the continued airworthiness of these helicopters.

Differences Between This AD and the TCAA AD

The TCCA AD requires you to return the parts removed from service to the manufacturer. This AD does not.

AD Requirements

This AD requires for each servo, before further flight, retracting the boot