Airworthiness Directives; Bell Textron Inc. (Type Certificate Previously Held by Bell Helicopter Textron Inc.) Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for Bell Textron Inc. (Type Certificate previously held by Bell Helicopter Textron Inc.) (Bell), Model 204B, 205A-1, and 212 helicopters. This proposed AD was prompted by reports of corrosion on main rotor hub tension-torsion strap (TT strap) assemblies. This proposed AD would require reducing the life limit of a certain part-numbered TT strap assembly and prohibit installing this TT strap assembly on any helicopter. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to https://www.regulations.gov. Follow the instructions for submitting comments.
• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Bell Textron Inc., P.O. Box 482, Fort Worth, TX 76101; telephone 817-280-3391; fax 817-280-6466; or at https://www.bellcustomer.com. You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

Examining the AD Docket

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0561; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Kuethe Harmon, Safety Management Program Manager, DSCO Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5198; email kuethe.harmon@faa.gov.
SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2020-0561; Product Identifier 2019-SW-019-AD” at the beginning of your comments. The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. The FAA will consider all comments received by the closing date and may amend this NPRM because of those comments.

The FAA will post all comments received, without change, to https://www.regulations.gov, including any personal information you provide. The FAA will also post a report summarizing each substantive verbal contact the FAA receives about this NPRM.

Discussion

The FAA proposes to adopt a new AD for Bell Model 204B, 205A-1, and 212 helicopters with TT strap assembly part-number (P/N) 204-012-112-005 installed. This proposed AD was prompted by three incidents of fatigue cracking in TT strap assembly P/N 206-010-105-3 installed on Model 206 helicopters.

These TT strap assemblies have stainless steel filament windings (wires) encased in a urethane cover, which was manufactured using Caytur 21 (also known as Cature 21) as the urethane-curing accelerator. Caytur 21 contains chlorides, which are retained in the urethane cover after curing and result in premature failure of the urethane cover and
subsequent corrosion and failure of the encased wires of the TT strap assemblies. As a result, Bell changed the curing accelerator in the manufacturing process.

Due to manufacturing process similarities of the urethane cover, TT strap assembly P/N 204-012-112-005, which is installed on Model 204B, 205A-1, and 212 helicopters, is affected by the same unsafe condition and is therefore included in this NPRM.

Accordingly, this proposed AD would require reducing the life limit of the TT strap assembly from 2,400 total hours time-in-service (TIS) to 1,200 total hours TIS or 18 months since initial installation on any helicopter, whichever occurs first, and creating a component history card or equivalent record. This proposed AD would also prohibit installing the affected TT strap assembly on any helicopter.

The proposed actions are intended to prevent the TT strap assembly from remaining in service beyond its fatigue life. This condition, if not addressed, could result in failure of a TT strap, loss of a main rotor blade, and subsequent loss of control of the helicopter.

**Related Service Information**

The FAA reviewed Bell Helicopter Textron Alert Service Bulletin (ASB) No. 204-78-3 for Model 204B helicopters, ASB No. 205-78-2 for Model 205A-1 helicopters, and ASB No. 212-78-4 for Model 212 helicopters, all dated April 19, 1978. This service information specifies replacing TT strap assembly P/N 204-012-112-005 at 1,200 hours TIS but no later than January 1, 1979. For any TT strap assembly P/N 204-012-112-005 that already has accumulated 1,200 hours TIS, this service information specifies replacing it no later than September 1, 1978.
FAA’s Determination

The FAA is proposing this AD because the FAA evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

Within 25 hours TIS, this proposed AD would require determining the total hours TIS and the total months since initial installation on any helicopter of each TT strap assembly P/N 204-012-112-005. If the TT strap assembly has reached or exceeded the new life limit by accumulating 1,200 or more total hours TIS or reaching 18 months since initial installation on any helicopter, whichever occurs first, this proposed AD would require removing the affected TT strap assembly from service before further flight. If the new life limit has not been reached, this proposed AD would require creating a component history card or equivalent record indicating the new life limit and removing the TT strap assembly from service before reaching the new life limit. This proposed AD would also prohibit the installation of TT strap assembly P/N 204-012-112-005 on any helicopter.

Differences Between this Proposed AD and the Service Information

The service information specifies replacing TT strap assemblies with less than 1,200 hours TIS no later than January 1, 1979, and replacing TT strap assemblies with more than 1,200 hours TIS no later than September 1, 1978. This proposed AD would require reducing the life limit of the TT strap assembly to 1,200 total hours TIS or 18 months since initial installation on any helicopter, whichever occurs first, instead. This
proposed AD would also prohibit installing the TT strap assembly on any helicopter after the effective date of this proposed AD.

Costs of Compliance

The FAA estimates that this proposed AD would affect 143 helicopters of U.S. registry. The FAA estimates that operators may incur the following costs in order to comply with this proposed AD. Labor costs are estimated at $85 per work-hour.

Determining the total hours TIS and the total months since initial installation of each TT strap assembly would take about .5 work-hours for an estimated cost of $43 per helicopter.

Replacing each TT strap assembly would take about 10 work-hours and parts would cost about $9,000, for an estimated cost of $9,850 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.

The FAA is 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

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

(1) Is not a “significant regulatory action” under Executive Order 12866,
(2) Will not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):
Bell Textron Inc. (Type Certificate Previously Held by Bell Helicopter Textron Inc.): Docket No. FAA-2020-0561; Product Identifier 2019-SW-019-AD.

(a) Comments Due Date

The FAA must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bell Textron Inc. (Type Certificate previously held by Bell Helicopter Textron Inc.), Model 204B, 205A-1, and 212 helicopters, certificated in any category, with main rotor hub tension-torsion strap (TT strap) assembly part number (P/N) 204-012-112-005 installed.

(d) Subject


(e) Unsafe Condition

This AD was prompted by reports of corrosion detected on TT strap assemblies. The FAA is issuing this AD to reduce the life limit of and subsequently remove affected TT strap assemblies from service. The unsafe condition, if not addressed, could result in failure of the TT strap assembly causing loss of a main rotor blade and subsequent loss of control of the helicopter.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.
(g) **Required Actions**

(1) Within 25 hours time-in-service (TIS), determine the total hours TIS and the total months since initial installation of each TT strap assembly.

   (i) If the TT strap assembly has accumulated 1,200 or more total hours TIS or reached 18 or more months since initial installation on any helicopter, whichever occurs first, before further flight, remove from service the TT strap assembly.

   (ii) If the TT strap assembly has accumulated less than 1,200 total hours TIS and reached less than 18 months since initial installation on any helicopter, create a component history card or equivalent record establishing the new life limit of 1,200 total hours TIS or 18 months since initial installation on any helicopter, whichever occurs first.

(2) After the effective date of this AD, do not install TT strap assembly P/N 204-012-112-005 on any helicopter.

(h) **Special Flight Permit**

   Special flight permits are prohibited.

(i) **Alternative Methods of Compliance (AMOCs)**

   (1) The Manager, DSCO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j)(1). Information may be emailed to: 9-ASW-190-COS@faa.gov.
(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

(1) For more information about this AD, contact Kuethe Harmon, Safety Management Program Manager, DSCO Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5198; email kuethe.harmon@faa.gov.

(2) For service information identified in this AD, contact Bell Textron Inc., P.O. Box 482, Fort Worth, TX 76101; telephone 817-280-3391; fax 817-280-6466; or at https://www.bellcustomer.com. You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

Issued on June 2, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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