FAA
Aviation Safety

EMERGENCY AIRWORTHINESS DIRECTIVE
www.faa.gov/aircraft/safety/alerts/

DATE: August 18, 2023
AD #: 2023-17-51

Emergency Airworthiness Directive (AD) 2023-17-51 is sent to owners and operators of Bell Textron Canada Limited Model 407 helicopters.

Background

This emergency AD was prompted by a report of a disbonded area in a tail rotor (T/R) blade due to missing adhesive between the upper skin and core. Transport Canada, which is the aviation authority for Canada, has issued Transport Canada Emergency AD CF-2023-63, dated August 17, 2023 (Transport Canada AD CF-2023-63), to correct an unsafe condition on certain serial-numbered Bell Textron Canada Limited Model 407 helicopters. Transport Canada AD CF-2023-63 states that an operator identified an abnormal sound in a T/R blade while manually rotating it. A subsequent tap inspection revealed a disbonded area that exceeds allowable limits. According to Transport Canada, an investigation by Bell Textron Canada Limited identified 43 T/R blades that could have missing adhesive between the upper skin and core that was caused during the manufacturing process. Accordingly, Transport Canada AD CF-2023-63 requires determining if an affected T/R blade is installed, a one-time inspection of both sides of each affected T/R blade for skin to core voids and, depending on the results, replacing the T/R blade with a serviceable T/R blade. Transport Canada AD CF-2023-63 also limits the installation of a T/R blade to a serviceable T/R blade as defined therein.

This emergency AD is intended to detect skin to core voids that exceed allowable limits in affected T/R blades. This condition, if not addressed, could result in severe vibration, failure of the T/R blade, and subsequent loss of T/R control.

Related Service Information

The FAA reviewed Transport Canada AD CF-2023-63, which requires determining if an affected T/R blade is installed, inspecting each of those T/R blades and, depending on the results, replacing the T/R blade. Transport Canada AD CF-2023-63 also limits installation of T/R blades to serviceable T/R blades, as defined in Transport Canada AD CF-2023-63.

Other Related Service Information

The FAA also reviewed Bell Alert Service Bulletin 407-23-132, dated August 14, 2023, which identifies affected T/R blade part number 406-016-100-119 serial numbers and specifies procedures for inspecting affected T/R blades for skin to core voids. Depending on the results, this service information specifies procedures for reporting information to Bell Product Support Engineering, returning specified T/R blades to Bell for investigation, and replacing a T/R blade.

FAA's Determination

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in its emergency AD

described above. The FAA is issuing this emergency AD after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Emergency AD Requirements

This emergency AD requires accomplishing the actions specified in Transport Canada AD CF-2023-63, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this emergency AD and except as discussed under "Differences Between this Emergency AD and the Transport Canada Emergency AD."

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, Transport Canada AD CF-2023-63 is incorporated by reference in this FAA emergency AD. This emergency AD, therefore, requires compliance with Transport Canada AD CF-2023-63 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this emergency AD. Using common terms that are the same as the heading of a particular section in Transport Canada AD CF-2023-63 does not mean that operators need comply only with that section. For example, where the emergency AD requirement refers to "all required actions and compliance times," compliance with this emergency AD requirement is not limited to the section titled "Corrective Actions" in Transport Canada AD CF-2023-63.

Differences Between this Emergency AD and the Transport Canada Emergency AD

Transport Canada AD CF-2023-63 applies to certain serial-numbered Bell Textron Canada Limited Model 407 helicopters, whereas this emergency AD applies to all Bell Textron Canada Limited Model 407 helicopters. Transport Canada AD CF-2023-63 does not clearly specify how to inspect affected T/R blades for skin to core voids, whereas this emergency AD requires tap inspecting each affected T/R blade for skin to core voids.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for "good cause," finds that those procedures are "impracticable, unnecessary, or contrary to the public interest." Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this emergency AD to all known U.S. owners and operators of these helicopters. The FAA has found that the risk to the flying public justifies foregoing notice and comment prior to adoption of this rule because each T/R blade is critical to the control of a helicopter. Debonding of a T/R blade could lead to instantaneous failure before detection. Additionally, affected T/R blades are installed on high usage helicopters, which could increase the likeliness of occurrence of a failure. In light of this, the initial action required by this emergency AD must be accomplished within 10 hours time-in-service or 14 days, whichever occurs first. This compliance time is shorter than the time necessary for the public to comment and for publication of the final rule. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forego notice and comment.

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.

Presentation of the Actual Emergency Airworthiness Directive

The FAA is issuing this emergency airworthiness directive under 49 U.S.C. 106(g), 40113, and 44701 according to the authority delegated to me by the Administrator.

2023-17-51 Bell Textron Canada Limited: Project Identifier MCAI-2023-00980-R.

(a) Effective Date

This emergency airworthiness directive (AD) is effective upon receipt.

(b) Affected ADs

None.

(c) Applicability

This emergency AD applies to Bell Textron Canada Limited Model 407 helicopters, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6410, Tail Rotor Blades.

(e) Unsafe Condition

This emergency AD was prompted by a report of a disbonded area in a tail rotor (T/R) blade due to missing adhesive between the upper skin and core. The FAA is issuing this emergency AD to detect skin to core voids that exceed allowable limits in affected T/R blades. The unsafe condition, if not addressed, could result in severe vibration, failure of the T/R blade, and subsequent loss of T/R control.

(f) Compliance

Comply with this emergency AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraphs (h) and (i) of this emergency AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada Emergency AD CF-2023-63, dated August 17, 2023 (Transport Canada AD CF-2023-63).

(h) Exceptions to Transport Canada AD CF-2023-63

(1) Where Transport Canada AD CF-2023-63 refers to its effective date, this emergency AD requires using the effective date of this emergency AD.

(2) Where Transport Canada AD CF-2023-63 requires compliance in terms of hours air time, this emergency AD requires compliance using hours time-in-service.

(3) Where paragraph A.2. of Transport Canada AD CF-2023-63 requires inspecting an affected T/R blade and the service information referenced in paragraph A.2. of Transport Canada AD CF-2023-63 specifies inspecting an affected T/R blade, this emergency AD requires using a steel tap hammer and tap inspecting each affected T/R blade.

(4) Where the service information referenced in Transport Canada AD CF-2023-63 specifies returning parts to the manufacturer, this emergency AD does not include that requirement.

(i) No Reporting Requirement

Although the service information referenced in Transport Canada AD CF-2023-63 specifies to submit certain information to the manufacturer, this emergency AD does not include that requirement.

(j) Special Flight Permits

A special flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the tap inspection can be performed, provided no passengers are onboard.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this emergency AD, if requested using the procedures found in § 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 International Validation Branch, send it to the attention of the person identified in paragraph (l)(1) of this emergency AD or email to: 9-AVS-AIR-730-AMOC@faa.gov. If mailing information, also submit information by email.

(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.

(l) Additional Information

(1) For more information about this emergency AD, contact Dan McCully, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone (404) 474-5548; email william.mccully@faa.gov.

(2) For Bell service information identified in this emergency AD, contact Bell Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J 1R4, Canada; phone 1-450-437-2862 or 1-800-363-8023; fax 1-450-433-0272; email productsupport@bellflight.com; or at bellflight.com/support/contact-support. You may view this referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(3) The subject of this emergency AD is addressed in Transport Canada Emergency AD CF-2023-63, dated August 17, 2023. For this Transport Canada material, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario, K1A 0N5, CANADA; phone 888-663-3639; email TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca; internet tc.canada.ca/en/aviation. You may find the Transport Canada material on the Transport Canada website at tc.canada.ca/en/aviation. You may also view this Transport Canada material at the FAA address identified in paragraph (l)(2) of this emergency AD.

Issued on August 18, 2023.

Ross Landes, Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,
Aircraft Certification Service.