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**DATE: January 26, 2024**

**AD #: 2024-02-55**

Emergency Airworthiness Directive (AD) 2024-02-55 is sent to owners and operators of Bell Textron Canada Limited Model 505 helicopters.

## **Background**

This emergency AD was prompted by reports of cracked vertical stabilizer top end cap assemblies. Transport Canada, which is the aviation authority for Canada, has issued Transport Canada Emergency AD CF-2024-03, dated January 25, 2024 (Transport Canada AD CF-2024-03), to correct an unsafe condition for Bell Textron Canada Limited Model 505 helicopters, serial numbers 65011 and subsequent. Transport Canada AD CF-2024-03 states that there have been multiple occurrences of the vertical stabilizer top end cap assembly being found cracked, with some cases including the departure of the navigation/very high frequency omni-directional range (VOR)/glide slope antenna and tuning weight from the helicopter during flight. Detailed investigation has identified that the stabilizer top end cap assembly was not designed for the full fatigue spectrum. Transport Canada AD CF-2024-03 further states that an investigation determined that if no corrective actions are implemented, there is the potential for the antenna and tuning weight to depart, which could impact and damage the tail rotor, resulting in the loss of directional control of the helicopter. Accordingly, Transport Canada AD CF-2024-03 mandates an initial and recurring inspections of the vertical stabilizer top end cap assembly, and corrective action if a crack is found. Transport Canada AD CF-2024-03 states that the corrective actions are interim actions until a permanent solution can be made available for the fleet.

This emergency AD is intended to detect cracking in the vertical stabilizer top end cap assembly. This condition, if not addressed, could result in the antenna or tuning weight departing from the helicopter and impacting and damaging the tail rotor, resulting in the loss of directional control of the helicopter.

## **Related Service Information**

The FAA reviewed Transport Canada AD CF-2024-03, which requires, within 10 hours air time, accomplishing a one-time detailed visual inspection of the vertical stabilizer top end cap assembly for cracking and accomplishing corrective action if cracking is found. Thereafter at intervals not greater than 25 hours air time following the accomplishment of the 10-hour air time inspection or the corrective action, Transport Canada AD CF-2024-03 requires performing recurring detailed visual inspections of the vertical stabilizer top end cap assembly for cracking.

The FAA also reviewed Bell Alert Service Bulletin 505-24-38, dated January 24, 2024, which specifies procedures for performing a one-time detailed inspection of the top end cap assembly for cracking, provides instructions for replacing a cracked top end cap assembly, and provides

instructions for a performing a recurring detailed inspection of the top end cap assembly.

### **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-2024-03, described previously, except for any differences identified as exceptions in the regulatory text of this 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-2024-03 is incorporated by reference in this FAA emergency AD. This emergency AD, therefore, requires compliance with Transport Canada AD CF-2024-03 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-2024-03 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 sections titled “Compliance” and “Corrective Actions” in Transport Canada AD CF-2024-03.

### **Interim Action**

The FAA considers that this emergency AD is an interim action. If final action is later identified, the FAA might consider further rulemaking then.

### **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 cracking of the vertical stabilizer top end cap assembly could result in loss of the antenna and tuning weight during flight and damage to the tail rotor, which is critical for directional control of the helicopter. As the FAA also has no information pertaining to the quantity of cracked vertical stabilizer top end cap assemblies that may currently exist in the U.S. fleet or how quickly the condition may propagate to failure, the inspections required by this emergency AD must be accomplished within 10 hours time-

in-service (TIS) followed by repetitive actions at intervals not to exceed 25 hours TIS, with corrective action required before further flight. 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.

2024-02-55 **Bell Textron Canada Limited:** Project Identifier MCAI-2024-00069-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 505 helicopters certificated in any category, as identified in Transport Canada Emergency AD CF-2024-003, dated January 25, 2024 (Transport Canada AD CF-2024-003).

#### **(d) Subject**

Joint Aircraft Service Component (JASC) Code: 5532 Vertical stabilizer, plates/skin.

#### **(e) Unsafe Condition**

This emergency AD was prompted by multiple occurrences of the vertical stabilizer top end cap assembly being found cracked, with some cases including the departure of the navigation/very high frequency omni-directional range (VOR)/glide slope antenna and tuning weight from the helicopter during flight. The FAA is issuing this emergency AD to detect cracking on the vertical stabilizer top end cap assembly. The unsafe condition, if not addressed, could result in the antenna or

tuning weight departing from the helicopter and impacting and damaging the tail rotor, resulting in the loss of directional control of the helicopter.

**(f) Compliance**

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

**(g) Requirements**

Except as specified in paragraph (h) of this emergency AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada AD CF-2024-03.

**(h) Exceptions to Transport Canada CF-2024-03**

(1) Where Transport Canada AD CF-2024-03 refers to its effective date, this emergency AD requires using the effective date of this emergency AD.

(2) Where Transport Canada Emergency AD CF-2024-03 refers to “air time,” this emergency AD requires replacing those words with “hours time-in-service.”

**(i) Special Flight Permits**

Special flight permits are prohibited.

**(j) 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 (k)(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.

**(k) 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. You may also view this material 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-2024-03, dated January 25, 2024. 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](http://tc.canada.ca/en/aviation). You may also view this Transport Canada material at the FAA address identified in paragraph (k)(2) of this emergency AD.

Issued on January 26, 2024.

Michael Linegang,  
Acting Director, Compliance & Airworthiness Division,  
Aircraft Certification Service.