



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-1466; Project Identifier MCAI-2024-00205-R; Amendment 39-22752; AD 2024-07-51]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Canada Limited Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Bell Textron Canada Limited Model 429 helicopters. The FAA previously sent this AD as an emergency AD to all known U.S. owners and operators of these helicopters. This AD was prompted by multiple reports of tail rotor (T/R) blade abrasion strip cracks. This AD requires repetitively inspecting and checking the T/R blade abrasion strip on certain T/R blades and, depending on results, replacing or marking the T/R blade. This AD also prohibits installing affected T/R blades on any helicopter. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Emergency AD 2024-07-51, issued on March 29, 2024, which contained the requirements of this amendment, was effective with actual notice.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this 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 [regulations.gov](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.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-1466; 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 final rule, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For Bell material, 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 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. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-1466.

FOR FURTHER INFORMATION CONTACT: Dan McCully, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone (404) 474-5548; email william.mccully@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2024-1466; Project Identifier MCAI-2024-00205-R” at the beginning of your comments. The most helpful comments reference a specific portion of the final

rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Dan McCully, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone (404) 474-5548; email william.mccully@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA issued Emergency AD 2024-07-51, dated March 29, 2024 (the emergency AD), to address an unsafe condition on Bell Textron Canada Limited Model 429 helicopters, serial number 57001 and subsequent, with a T/R blade part number (P/N) 429-016-101-105 having a serial number identified in Table 1 of Bell Alert Service Bulletin 429-24-63, dated March 21, 2024 (ASB 429-24-63) installed. The FAA sent the emergency AD to all known U.S. owners and operators of these helicopters. For affected T/R blades with an abrasion strip with any coating (such as a protective tape or protective

coating), the emergency AD requires accomplishing actions in accordance with a method approved by the FAA, Transport Canada, or Bell Textron Canada Ltd.'s Design Approval Organization. For all other affected T/R blades, the emergency AD requires repetitively cleaning and inspecting, and repetitively checking the T/R blade abrasion strip and, depending on results, replacing, marking, or remarking the T/R blade. The emergency AD also prohibits installing affected T/R blades on any helicopter.

The emergency AD was prompted by Transport Canada Emergency AD CF-2024-11, dated March 22, 2024 (Transport Canada AD CF-2024-11), issued by Transport Canada, which is the aviation authority for Canada, to correct an unsafe condition on certain serial-numbered Bell Textron Canada Limited Model 429 helicopters. Transport Canada states that an investigation revealed a manufacturing defect in certain serial-numbered T/R blades part number 429-016-101-105. Transport Canada further states that a critical step in the fabrication of the abrasion strip was missed, which could result in the presence of stress risers, leading to fatigue cracking. Accordingly, Transport Canada AD CF-2024-11 requires inspecting the T/R blade abrasion strips and, depending on the results, replacing or marking the T/R blade. Thereafter, Transport Canada AD CF-2024-11 requires repetitively checking the T/R blade abrasion strips and, depending on the results, replacing the T/R blade. Lastly, Transport Canada AD CF-2024-11 requires repetitively inspecting the T/R blade abrasion strips and, depending on the results, replacing the T/R blade or reapplying the marking. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine Transport Canada AD CF-2024-11 in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-1466.

Related Material Under 1 CFR Part 51

The FAA reviewed ASB 429-24-63. For certain serial-numbered T/R blades P/N 429-016-101-105, this material specifies procedures for cleaning the T/R blade abrasion strip and, using a bright light, visually inspecting each side of the T/R blade abrasion strip for a chordwise crack. If there is a crack, this material specifies procedures for replacing the T/R blade. If there is not a crack, this material specifies procedures for marking the T/R blade with a paint marker. Following application of the marking, this material

specifies procedures for visually checking each side of the T/R blade abrasion strip for a chordwise crack before each engine start and a longer-term repetitive visual inspection of the T/R blade abrasion strip for a chordwise crack and if necessary, reapplying the marking. If a crack is found as a result of any check or longer-term visual inspection, this material specifies procedures for replacing the T/R blade.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

These helicopters 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 the State of Design Authority, it has notified the FAA of the unsafe condition described in its emergency AD and the material described above. The FAA is issuing this AD after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

AD Requirements

This AD requires accomplishing the actions specified in Transport Canada AD CF-2024-11, except as discussed under "Differences Between this AD and the Transport Canada Emergency AD."

This AD requires a check that the owner/operator (pilot) holding at least a private pilot certificate may perform and must enter compliance with the applicable paragraph of the AD into the helicopter maintenance records in accordance with 14 CFR 43.9(a) and 91.417(a)(2)(v). The pilot may perform this check because it only involves using a flashlight and visually checking affected T/R blade abrasion strips for a crack. This action could be performed equally well by a pilot or a mechanic. This is an exception to the FAA's standard maintenance regulations.

Differences Between this AD and the Transport Canada Emergency AD

Regarding the initial inspection for a chordwise crack, this AD distinguishes requirements if there is or is not any coating (such as a protective tape or protective coating) over the T/R blade abrasion strip, whereas Transport Canada AD CF-2024-11

does not. This AD requires reporting certain information if any T/R blade abrasion strip has a crack, whereas Transport Canada AD CF-2024-11 does not. Transport Canada AD CF-2024-11 allows the installation of an affected T/R blade so long as it passes the inspection and is marked as required within, whereas this AD prohibits installing an affected T/R blade on any helicopter.

Interim Action

The FAA considers this AD 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 required the immediate adoption of Emergency AD 2024-07-51, issued on March 29, 2024, to all known U.S. owners and operators of these helicopters. The FAA found that the risk to the flying public justified waiving notice and comment prior to adoption of this rule because the affected components are part of an assembly that is critical to the control of a helicopter. Multiple T/R abrasion strip cracks have been reported, and investigation revealed that a manufacturing defect exists in some of the abrasion strips, which may lead to fatigue cracking and catastrophic T/R blade failure, which in turn can cause the destruction of the T/R gearbox and loss of directional control. At this time, the growth rate of the fatigue cracking has not been determined. For these reasons, the initial actions required by this AD must be accomplished within three days or prior to the second flight after the effective date of this AD, whichever occurs first. Thereafter, other actions required by this AD must be accomplished before the second and each subsequent flight. These conditions still exist, therefore, 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.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 145 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Actions required for a T/R blade abrasion strip with any coating could vary. The FAA has no data to determine the costs to accomplish these actions or the number of helicopters that may be affected by this requirement.

Cleaning and inspecting a T/R blade abrasion strip takes approximately 0.5 work-hour for an estimated cost of up to \$170 per helicopter (there are up to 4 affected T/R blades per helicopter) and \$24,650 for the U.S. fleet, per inspection cycle. Checking a T/R blade abrasion strip takes approximately 0.25 work-hour for an estimated cost of up to \$85 per helicopter and \$12,325 for the U.S. fleet, per check cycle. Marking a T/R blade takes approximately 0.25 work-hour with a nominal parts cost for an estimated cost of up to \$85 per helicopter and \$12,325 for the U.S. fleet for the initial application and per reapplication.

If required, replacing a T/R blade takes approximately 6 work-hours and parts cost approximately \$53,802 for an estimated cost of \$54,312 per T/R blade. Reporting information takes approximately 1 work-hour for an estimated cost of \$85 per T/R blade.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection

of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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

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, I certify that this AD:

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

List of Subjects in 14 CFR Part 39

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

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 airworthiness directive:

2024-07-51 Bell Textron Canada Limited: Amendment 39-22752; Docket No. FAA-2024-1466; Project Identifier MCAI-2024-00205-R.

(a) Effective Date

The FAA issued Emergency Airworthiness Directive (AD) 2024-07-51 on March 29, 2024, directly to affected owners and operators. As a result of such actual notice, the emergency AD was effective for those owners and operators on the date it was provided. This AD contains the same requirements as the emergency AD and, for those who did not receive actual notice, is effective on [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bell Textron Canada Limited Model 429 helicopters, serial number 57001 and subsequent, certificated in any category, with a tail rotor (T/R) blade part number 429-016-101-105 having a serial number identified in Table 1 of Bell Alert Service Bulletin 429-24-63, dated March 21, 2024 (ASB 429-24-63), installed.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by multiple reports of T/R blade abrasion strip cracks. The FAA is issuing this AD to detect a cracked T/R blade abrasion strip. The unsafe condition, if not addressed, could result in severe imbalance, T/R blade failure, loss of the T/R gearbox, loss of directional control, 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) For each T/R blade identified in paragraph (c) of this AD, within three days or prior to the second flight after the effective date of this AD, whichever occurs first, accomplish the actions required by paragraph (g)(1)(i) or (ii) of this AD, as applicable.

(i) If there is any coating (such as a protective tape or protective coating) over the

T/R blade abrasion strip, accomplish further actions in accordance with a method approved by the International Validation Branch, FAA; or Transport Canada; or Bell Textron Canada Ltd.'s Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(ii) If there is no coating over the T/R blade abrasion strip, clean the abrasion strip by following the Accomplishment Instructions, part I, paragraph 3, of ASB 429-24-63. Using a flashlight, visually inspect both sides of the T/R blade abrasion strip for a chordwise crack in the area shown in Figure 1 of ASB 429-24-63. Figure 2 of ASB 429-24-63 shows an example of a T/R blade abrasion strip crack.

(A) As a result of the actions required by paragraph (g)(1)(ii) of this AD, if there is any chordwise crack, before further flight, remove the T/R blade from service and replace it with an airworthy T/R blade.

(B) As a result of the actions required by paragraph (g)(1)(ii) of this AD, if there is not a crack, before further flight, mark an "X" on the T/R blade with a paint marker as shown in Figure 1 of ASB 429-24-63, except do not use the color blue, orange, red, or green. The letter "X" must have a minimum height of 3 inches.

(2) For each T/R blade marked with an "X," accomplish the actions required by paragraph (g)(2)(i) and (ii) of this AD.

(i) Before the second flight after accomplishing the actions required by paragraph (g)(1)(ii)(B) of this AD, and thereafter before each subsequent flight, using a flashlight, visually check both sides of each abrasion strip for a chordwise crack. A chordwise crack runs from the direction of the leading edge to the trailing edge. A chordwise crack may be a straight or hairline crack. The owner/operator (pilot) holding at least a private pilot certificate may perform this check and must enter compliance with this paragraph of the AD into the helicopter maintenance records in accordance with 14 CFR 43.9(a) and 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.439.

(ii) As a result of the actions required by paragraph (g)(2)(i) of this AD, if there is any chordwise crack, before further flight, remove the T/R blade from service and replace it with an airworthy T/R blade.

(3) For each T/R blade marked with an “X,” within 25 hours time-in-service after accomplishing the actions required by paragraph (g)(1)(ii)(B) of this AD and thereafter within intervals not to exceed 25 hours time-in-service, clean each abrasion strip by following the Accomplishment Instructions, part III, paragraph 2, of ASB 429-24-63. Using a flashlight, visually inspect each side of the T/R blade abrasion strip for a chordwise crack in the area shown in Figure 1 of ASB 429-24-63. Figure 2 of ASB 429-24-63 shows an example of a T/R blade abrasion strip crack. The actions required by this paragraph do not terminate the actions required by paragraph (g)(2)(i) of this AD.

(i) As a result of the actions required by the introductory text of paragraph (g)(3) of this AD, if there is any chordwise crack, before further flight, remove the T/R blade from service and replace it with an airworthy T/R blade.

(ii) As a result of the actions required by the introductory text of paragraph (g)(3) of this AD, if there is not a crack and the “X” marking is deteriorated or not clearly visible, before further flight, reapply the “X” marking on the T/R blade with a paint marker as shown in Figure 1 of ASB 429-24-63, except do not use the color blue, orange, red, or green. The letter “X” must have a minimum height of 3 inches.

(4) If there is any chordwise crack as a result of any action required by paragraph (g)(1)(ii), (g)(2)(i), or (g)(3) of this AD, within 7 days after completing the action, report the information in Appendix 1 to this AD by email to OperationalSafety@faa.gov.

(5) As of the effective date of this AD, do not install a T/R blade that is identified in paragraph (c) of this AD on any helicopter.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation 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 International Validation Branch, send it to the attention of the person identified in paragraph (i) of this 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.

(i) Additional Information

For more information about this 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.

(j) Material Incorporated by Reference

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

(2) You must use this material as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bell Alert Service Bulletin 429-24-63, dated March 21, 2024.

(ii) [Reserved]

(3) For Bell material, 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.

(4) You may 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.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Appendix 1 to AD 2024-07-51

Report the following information for each cracked tail rotor blade abrasion strip by email to: OperationalSafety@faa.gov.

In the subject line of the email, include the text “AD 2024-07-51”.

- (1) Date of inspection or check that revealed a chordwise crack:
- (2) Total hours time-in-service on the tail rotor blade(s) with a cracked abrasion strip:
- (3) Date of previous inspection or check and total hours time-in-service on the tail rotor blade(s) at the date of previous inspection or check:
- (4) Helicopter serial number:
- (5) Helicopter N-number:
- (6) Tail rotor blade serial number(s):

- (7) Indicate if each chordwise crack is on one or both sides of the tail rotor blade. Provide the following information for each chordwise crack: Measurement of the location of each chordwise crack as measured from the tail rotor blade tip and measurement of the length of each chordwise crack as measured from the tail rotor blade leading edge.

- (8) Describe in detail any information and findings, including any previous maintenance or modification of the cracked area, and, if possible, provide photos.

Issued on May 20, 2024.

James D. Foltz,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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