



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2025-1727; Project Identifier MCAI-2024-00750-R]

RIN 2120-AA64

Airworthiness Directives; Bell Textron Canada Limited 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 certain Bell Textron Canada Limited (Bell) Model 427 helicopters. This proposed AD was prompted by a report of a cracked transmission oil check valve (check valve). This proposed AD would require inspecting and measuring certain check valves and, depending on the results, repetitively inspecting and removing the check valve from service if it has leaks or is cracked. This proposed AD would also prohibit installing the affected check valves 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 NPRM 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-2025-1727; 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, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For Transport Canada material identified in this proposed AD, 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; website: 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 view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Parkway, 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-2025-1727.

FOR FURTHER INFORMATION CONTACT: Michael Yeshiambel, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (316) 946-4133; email: michael.m.yeshiambel@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 using a method listed under ADDRESSES. Include “Docket No. FAA-2025-1727; Project Identifier MCAI-2024-00750-R” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, 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 proposal 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 NPRM.

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 NPRM 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 NPRM, 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 NPRM. Submissions containing CBI should be sent to Michael Yeshiambel, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410,

Westbury, NY 11590. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

Transport Canada, which is the aviation authority for Canada, has issued Transport Canada AD CF-2024-42, dated December 13, 2024 (Transport Canada AD CF-2024-42) (also referred to as the MCAI), to correct an unsafe condition on Bell Model 427 helicopters, serial numbers 56001 through 56084, 58001 and 58002. The MCAI states that there has been a report of a cracked check valve, part number (P/N) 209-062-520-001, manufactured in 2009 by Circor Aerospace (Circle Seal), and that the crack was caused by applying an incorrect torque value to the threaded fitting at the inlet end of the check valve during assembly. Additionally, the MCAI states that this condition may be indicated by an enlarged outside diameter measurement at the inlet end of the check valve housing where the threaded fitting is installed, or by the presence of a leak, and that this check valve is used in the transmission lubrication system of the helicopter. The MCAI further states that the degradation or loss of lubrication, if not detected, could lead to failure of the transmission and consequent loss of control of the helicopter.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2025-1727.

Material Incorporated by Reference Under 1 CFR Part 51

The FAA reviewed Transport Canada AD CF-2024-42, which specifies procedures for, within 25 hours air time or 30 days, whichever occurs first, measuring the outside diameter of the affected part housing at the center and at the inlet end where the threaded fitting is installed. If the dimension measured at the inlet end is not greater than 0.003 inch (0.0762 mm) compared to the measurement at the center, Transport Canada AD CF-2024-42 specifies no further action, and if the dimension is greater than 0.003 inch (0.0762 mm) compared to the measurement at the center, Transport Canada AD CF-

2024-42 specifies a repetitive 25-hour air time or 30-day, whichever occurs first, visual inspection of the check valve for general condition and oil leaks and the inlet end for cracks. If a crack or leak is found, Transport Canada AD CF-2024-42 specifies replacing the valve with a new valve before further flight; replacing the affected check valve within 600 hours air time or 12 months, whichever occurs first, is then specified and constitutes a terminating action for the repetitive inspections. Finally, Transport Canada AD CF-2024-42 prohibits installing the affected check valve on any helicopter.

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 products have been approved by the civil 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, that authority has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in the material already described, except for any differences identified as exceptions in the regulatory text of this AD. See “Differences Between This Proposed AD and the MCAI” for a discussion of the general differences included in this proposed 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, the FAA proposes to incorporate Transport Canada AD CF-2024-42 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with Transport Canada AD CF-2024-42 in its entirety through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD.

Differences Between This Proposed AD and the MCAI

The MCAI uses the term new, while this proposed AD uses the term new (zero hours time-in-service).

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 14 helicopters of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Perform measurements.	0.50 work-hour x \$85 per hour = \$42.50	\$85	\$127.50	\$1,785

The FAA estimates the following costs to do any necessary additional inspections or replacements that would be required based on the results of the measurement. The agency has no data to determine the number of helicopters that might need these additional actions:

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
Perform repetitive inspections.	1 work-hour x \$85 per hour = \$85	\$0	\$85
Replace the check valve.	1 work-hour x \$85 per hour = \$85	\$796	\$881

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) Would not affect intrastate aviation in Alaska, and
- (3) Would 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:

Bell Textron Canada Limited Helicopters: Docket No. FAA-2025-1727; Project Identifier MCAI-2024-00750-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) 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 Canada Limited Model 427 helicopters, serial numbers 56001 through 56084 inclusive, 58001, and 58002, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code: 6300, Main Rotor Drive System.

(e) Unsafe Condition

This AD was prompted by a report of a cracked transmission oil check valve (check valve). The FAA is issuing this AD to detect and address cracked or leaking check valves. The unsafe condition, if not addressed, could result in the degradation or loss of

lubrication to the transmission, failure of the transmission, and consequent loss of control of the helicopter.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada AD CF-2024-42, dated December 13, 2024 (Transport Canada AD CF-2024-42).

(h) Exceptions to Transport Canada AD CF-2024-42

(1) Where Transport Canada AD CF-2024-42 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where Transport Canada AD CF-2024-42 refers to air time, this AD requires using hours time-in-service.

(3) Where Parts I and II of Transport Canada AD CF-2024-42 state “new,” this AD requires replacing each instance of that text with “new (zero hours time-in-service)”.

(i) 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 (j) of this AD and email to: AMOC@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) Additional Information

For more information about this AD, contact Michael Yeshiambel, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (316) 946-4133; email: michael.m.yeshiambel@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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 the AD specifies otherwise.

(i) Transport Canada AD CF-2024-42, dated December 13, 2024.

(ii) [Reserved]

(3) For Transport Canada material identified in this AD, 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; website: tc.canada.ca/en/aviation. You may find the Transport Canada material on the Transport Canada website at tc.canada.ca/en/aviation.

(4) You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Parkway, 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.

Issued on August 1, 2025.

Steven W. Thompson,
Acting Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.
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