



AIRWORTHINESS DIRECTIVE

This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) with ADs.

Number:

CF-2025-62

Effective Date:

12 December 2025

ATA:

53

Type Certificate:

H-112

Subject:

Fuselage – Tailboom – Elongated Holes and Gaps on Tailcone Assembly

Applicability:

Bell Textron Canada Limited (Bell) model 505 helicopters, serial numbers 65011 and subsequent.

Compliance:

As indicated below, unless already accomplished.

Background:

Bell has identified a manufacturing quality escape affecting certain tailcone assemblies of model 505 helicopters. Specifically, gaps have been found between the frames and skin of the tailcone assembly, and elongated holes have been observed in multiple joints of the tailboom. These discrepancies may lead to the initiation of a crack in a non-inspectable area of the tailboom skin, which can propagate circumferentially and remain undetected until it reaches a critical length. This condition, if not detected and corrected, could result in a tailboom skin fracture, potentially leading to separation of the tailboom from the fuselage and consequent loss of control of the helicopter.

To mitigate this risk, Bell has published Alert Service Bulletin (ASB) 505-24-41 to require initial and repetitive inspections of the tailcone assembly for gaps in addition to initial and recurring inspections for loose, damaged or missing rivets.

Bell has also determined from additional load level survey testing on the tailcone assembly that a reduction of the published life limit is required. Consequently, Bell has revised Chapter 4, Airworthiness Limitations Schedule (ALS) of the Bell 505 Maintenance Planning Information, BHT-505-MPI, to reduce the airworthiness life limit of the tailcone assemblies.

This AD mandates the reduced airworthiness life limit in addition to the requirements of ASB 505-24-41.

Corrective Actions:

For the purpose of this AD, the following definitions apply:

Affected tailcone assembly: a tailcone assembly part number (P/N) SLS-030-600-XYZ, where XYZ represents several different three-digit dash numbers of tailcone assemblies, with affected serial numbers listed in Table 1 of Bell ASB 505-24-41 Revision A, dated 1 July 2025.

Applicable ALS: Bell 505 Maintenance Planning Information, Chapter 4, ALS, Issue 024, dated 10 June 2025, or later revisions of the ALS approved by Transport Canada.

Bell ASB: Bell ASB 505-24-41, Revision A, dated 1 July 2025, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Part I – Reduction of the Airworthiness Life Limit of the Tailcone Assembly

Within 60 days from the effective date of this AD, replace the tailcone assembly before exceeding the airworthiness life limit indicated in Table 1 of the applicable ALS.

Part II – Tailcone Assembly Inspection

- A. Perform a visual inspection of the affected tailcone assembly for gaps in accordance with Part I of the Bell ASB using the following schedule:
 - 1. For a tailcone assembly that has accumulated less than 1725 hours air time as of the effective date of this AD: prior to reaching 1750 hours air time;
 - 2. For a tailcone assembly that has accumulated 1725 hours air time or more as of the effective date of this AD: within 25 hours air time.
- B. If gaps greater than 0.003 inch (0.076mm) are found, perform the following actions:
 - 1. Perform a visual inspection of the tailcone assembly skins for cracks and loose fasteners in accordance with Part I of the Bell ASB. If cracks or loose fasteners are found, contact Bell Product Support Engineering (PSE) for a repair or disposition and rectify before further flight.
 - 2. Thereafter, at intervals not exceeding 50 hours air time, perform a visual inspection of the tailcone assembly skins for cracks and loose fasteners in accordance with Part II of the Bell ASB. If cracks or loose fasteners are found, contact Bell PSE for a repair or disposition and rectify before further flight.
- C. Within 165 hours air time or 6 months, whichever occurs first, from the effective date of this AD and thereafter at intervals not to exceed 330 hours air time, perform a general visual inspection of the affected tailcone assembly for loose, damaged, or missing fasteners in accordance with Part III of the Bell ASB. If fasteners are found loose, damaged or missing, contact Bell PSE for a repair or disposition and rectify before further flight.
- D. This paragraph gives credit for inspections performed in accordance with Part I of Bell ASB 505-24-41 Basic issue, dated 2 October 2024, prior to the effective date of this AD, to satisfy the initial inspection requirements of Part II, Paragraphs A and B of this AD. Repetitive inspections of Part II, Paragraph B.2. shall continue to be performed, if applicable.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 28 November 2025

Contact:

Nafi Dicko-Raynauld, Continuing Airworthiness, Ottawa, telephone 888-663-3639 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.