

INFORMATION LETTER

505-25-42

8 January 2025

TO: All owners and operators of Model 505 helicopters

SUBJECT: ALTERNATE MEANS OF COMPLIANCE (AMOC) TO AIRWORTHINESS DIRECTIVE CF-2024-03, DISTRIBUTION OF.

Bell released Alert Service Bulletin (ASB) 505-24-38 requiring an initial inspection and recurring 25 flight hour inspections of the vertical stabilizer top end cap assembly SLS-030-701-125. Transport Canada Continuing Airworthiness published Emergency Airworthiness Directive (AD) <u>CF-2024-03</u>. The ASB required inspection of specific part numbers, whereas the AD applies the inspection requirements to all Model 505 serial numbers 65011 and subsequent.

Bell has been working on a terminating action to the recurring inspection requirements of the ASB. This will be introduced via a revision to the ASB and introduction of retrofit kit SLS-704-701-001. Bell has begun delivering this new design on production aircraft. Bell requested a Global Alternative Method of Compliance (AMOC) to provide relief for modified aircraft from having to inspect the vertical stabilizer top end cap assembly as the part numbers have changed.

The retrofit kit includes top end cap assembly SLS-704-701-101 to allow modification of the fielded fleet, while the new production design will incorporate top end cap assembly SLS-030-701-149. The only difference between these two parts is that the retrofit kit assembly has only one pilot hole, for ease of rework and installation.

This Information Letter is being released to achieve complete distribution of the attached AMOC to the owners/operators currently registered on the Bell technical publications distribution list.

For any questions regarding this letter, please contact:

Bell Product Support Engineering
Tel: 1-450-437-2862 / 1-800-363-8023 / productsupport@bellflight.com

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December 24, 2024

Mr. Mike Deer Manager, Airworthiness Bell Textron Canada Ltd. 12,800 rue de l'Avenir Mirabel, Québec J7J 1R4

Attention: Mr. Mike Deer, Manager, Airworthiness

Subject: Request from Bell Textron Canada Limited (BTCL) for Alternate Means of

Compliance (AMOC) to TCCA Airworthiness Directive (AD) CF-2024-03 for Bell 505 Model Helicopters Serial Numbers mentioned below, AMOC

No. AARDG-2024/A51

References: 1. AMOC Request with TCCA AD CF-2024-03 for Specific Bell 505

Helicopters production fitted with Machined Top End Cap

2. Email from Bell Textron Canada Limited, dated 17 December 2024

(RDIMS # 20736730)

3. BTCL Analysis Form, Document SLS-SN24-01 entitled 'Vertical Fin Top

Cap Improvement' dated 24 January 2024

BTCL submitted a request (Ref.1) to Transport Canada (TCCA) for an Alternative Means of Compliance with TCCA Airworthiness Directive CF-2024-03 to allow exemption from the existing initial and repetitive inspections in CF-2024-03 for Bell Model 505 helicopters that have been modified in production with a new machined top end cap. BTCL developed a terminating action and retrofit kit to change the top end cap on the Bell 505 model helicopter to a new machined design. This new design was developed to prevent cracking of the structure, and the possibility of the top end cap and tuning weight from departing the helicopter. It was shown to have an infinite fatigue life for the new end cap and the skin attachment (Ref.3).

The new machined top end cap has been installed on helicopters within the BTCL production system prior to delivery through,

- 1. A retrofit kit, part number (PN) SLS-704-701-001 by installing the new machined top end cap PN SLS-704-701-101 on previously built vertical stabilizer assemblies, or
- 2. A new vertical stabilizer assembly PN SLS-120-033-015, which has the new machined top end cap PN SLS-030-701-149.



Table 1 below provides a detailed listing of Bell 505 helicopter serial numbers (SN) for the production implementation approaches described above.

Table 1 – Bell 505 Serial Number listing with machined top end cap installed in production

BTCL Assembly PN	Bell Model 505 Serial Numbers
Retrofit kit PN SLS-704-701-001	65491, 65508, 65546, 65547, 65556,
	65557, 65560, 65561, 65569, 65581,
	65583, 65586, 65588, 65591, 65620,
	65623, 65626
	& 65629
New vertical stabilizer assembly PN SLS-	65499, 65506, 65513, 65558, 65577,
120-033-015	65589, 65590, 65592, 65595, 65596,
	65598, 65600, 65601, 65602, 65604 to
	65610, 65612, 65613, 65615, 65617,
	65618, 65619, 65621, 65622, 65624,
	65625, 65627, 65628, 65630 and
	subsequent

TCCA AD CF-2024-03 corrective actions require an initial and repetitive detailed visual inspections of the vertical stabilizer top end cap assembly at intervals not greater than 25 hours air time, with a replacement of the top end cap should any cracks be found.

Pursuant to CAR Part VI, Subpart 5, Division III, Section 605.84 (4), TCCA has reviewed the proposal and hereby approves the AMOC No. AARDG-2024/A51 with TCCA AD CF-2024-03 for Bell 505 Model helicopters with the serial numbers found in table 1 above, for an exemption from the initial and repetitive detailed visual inspections required in CF-2024-03, subject to the following condition:

- 1. Top End Cap Assembly, PN SLS-030-701-125 may no longer be installed on the Bell 505 Serial Numbers listed in Table 1 above,
- 2. All requirements of TCCA AD CF-2024-03 that are not specifically referenced above remain applicable and must be complied with accordingly.

Should you have any comments or questions regarding the content of this letter, please contact Mr. Grant Walker by telephone at (343) 542-1704, by facsimile at (613) 996-9178, or by email at grant.walker@tc.gc.ca.

Yours truly,

Matthew Weeks
A/Chief, Continuing Airworthiness
National Aircraft Certification