



EMERGENCY 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) to ADs.

Number:

CF-2019-16

Effective Date:

8 May 2019

ATA:

67

Type Certificate:

H-107

Subject:

Flight Control System – Yaw Trim Runaway

Applicability:

Bell Helicopter Textron Canada Limited (BHTCL) model 429 helicopters, serial numbers 57001 and subsequent.

Compliance:

As of the effective date of this AD, unless already accomplished.

Background:

There have been three occurrences where pilots reported unexpected forces or uncommanded inputs to the directional (yaw) control system. Each of these occurrences took place during ground operations.

BHTCL investigation has revealed that a yaw trim runaway can occur while the automatic pedal trim function is operating.

The current version of the rotorcraft flight manual (RFM) is not adequate to reduce the risk of a trim runaway and ensure that control of the helicopter is maintained. In addition, the RFM does not contain specific procedures for responding to a trim runaway.

BHTCL has published a revision to the RFM that is intended to ensure that control of the helicopter is maintained in all phases of operation. BHTCL also issued Alert Service Bulletin (ASB) 429-19-46 on April 30, 2019 to notify the affected operators of the RFM revision and the background for the changes.

The revision to the RFM includes changes to Section 2 – Normal Procedures, Section 3 – Emergency Procedures and Section 4 – Performance. These changes are intended to:

- Reduce the risk of a trim runaway
- Provide specific procedures for responding to a trim runaway to ensure that control of the helicopter is maintained

The specific changes in RFM Revision 14, that are associated with this hazard, are summarized in the following table:

RFM Section/Item	Summary of Change
2-4. INTERIOR AND PRESTART CHECK Item 25.	Added Item 25. This action reduces risk of trim runaway occurring during start sequence.
2-5 ENGINE START CAUTION preceding item 1.	Added CAUTION. This reduces risk of uncommanded control movement and provides instructions for re-setting force trim detent.
2-8. TAKEOFF CAUTION preceding item 1.	Added CAUTION. This reduces risk of uncommanded control movement and provides instructions for re-setting force trim detent.
3-9 AUTOMATIC FLIGHT CONTROL SYSTEM Item 3-9-D	Added item 3-9-D. This emergency procedure assists flight crew to recognize trim runaway condition and provides instructions for responding.
4-2. POWER ASSURANCE CHECK CAUTION preceding instructions for performing power assurance check.	Added CAUTION. This reduces risk of uncommanded control movement and provides instructions for re-setting force trim detent.

Corrective Actions:

- A. Amend the RFM BHT-429-FM-1 by incorporating revision 14, dated April 18, 2019.
- B. Following incorporation of the above mentioned revision, advise all flight crews of the changes detailed in the RFM Revision.

The use of later revisions of BHT-429-FM-1 approved by Transport Canada also meets the requirements of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 6 May 2019

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