



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-2023-07

Effective Date:

24 February 2023

ATA:

27

Type Certificate:

A-131

Subject:

Flight Controls – Uncommanded Flap Extension

Applicability:

Bombardier Inc. model CL-600-1A11, CL-600-2A12 and CL-600-2B16 aeroplanes, all serial numbers.

Compliance:

As indicated below, unless already accomplished.

Background:

A model CL-600-2B16 aeroplane experienced an uncommanded flap extension from 0 to 45 degrees accompanied by a FLAPS FAIL caution message during climb. The aeroplane returned to the departure airport without further incident. Investigations found that the flap control system failed to arrest the uncommanded movement due to a failed retract relay. The failed retract relay also caused the flap control system to operate at half speed and this was undetected during previous flights. This condition, if not corrected, could lead to the loss of control of the aeroplane.

The root cause of the uncommanded flap extension remains under investigation. As an interim mitigation, this AD requires the initial and repeat operational tests of the flap control system to verify the functionality of the retract relays.

Corrective Actions:

Part I – Initial Operational Test of the Inboard and Outboard Flaps

Within 100 hours air time or 15 months, whichever occurs first, from the effective date of this AD, perform the initial operational test of the inboard and outboard flaps in accordance with Section 2.B. of the Accomplishment Instructions of the applicable Bombardier service bulletin (SB) identified in Table 1 below.

Table 1 – SB References

| Aeroplane Model (Marketing Designation) | Aeroplane Serial Number | Applicable SB |
|---|---|---|
| CL-600-1A11 (Challenger 600) | 1004 through 1085 | 600-0780, Basic Issue, dated 29 December 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada |
| CL-600-2A12 (Challenger 601) and CL-600-2B16 (Challenger 601) | 3001 through 3066 and 5001 through 5194 | 601-1112, Basic Issue, dated 29 December 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada |
| CL-600-2B16 (Challenger 604) | 5301 through 5665 | 604-27-040, Basic Issue, dated 29 December 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada |
| CL-600-2B16 (Challenger 605) | 5701 through 5988 | 605-27-011, Basic Issue, dated 29 December 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada |
| CL-600-2B16 (Challenger 650) | 6050 through 6999 | 650-27-004, Basic Issue, dated 29 December 2022, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada |

Part II – Repeat Operational Test of the Inboard and Outboard Flaps

- A. Applicable to models CL-600-1A11 (all serial numbers), CL-600-2A12 (all serial numbers), and CL-600-2B16 serial numbers 5001 through 5194.

Following the initial test, repeat the operational test of the inboard and outboard flaps at the repeat intervals specified in Section 1.D. and in accordance with Section 2.B of the Accomplishment Instructions of the applicable SB identified in Table 1 above.

- B. Applicable to models CL-600-2B16 serial numbers 5301 through 5665, CL-600-2B16 serial numbers 5701 through 5988, and CL-600-2B16 serial numbers 6050 through 6999.

Following the initial test, repeat the operational test of the inboard and outboard flaps at intervals of 400 hours air time in accordance with Section 2.B. of the Accomplishment Instructions of the applicable SB identified in Table 1 above.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 10 February 2023

Contact:

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