



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-2024-39

Effective Date:

13 December 2024

ATA:

27

Type Certificate:

A-131

Subject:

Flight Controls – Uncommanded and Unarrested Flap Movement

Applicability:

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

Compliance:

Within 60 days from the effective date of this AD, unless already accomplished.

Background:

A model CL-600-2B16 aeroplane experienced an in-flight uncommanded, unarrested flaps movement from 0 to 45 degrees. The uncommanded movement was detected by the flaps control system and annunciated to the crew via a FLAPS FAIL caution message. The crew reduced speed and the aeroplane returned to the departure airport without further incident. The flaps control system should have stopped the flaps at 3 degrees, however, a failed retract relay prevented the system from arresting the uncommanded movement. The aircraft had flown multiple flights with the failed retract relay prior to the event, the failed relay caused the flaps to retract at half speed, but this condition went undetected. The uncommanded and unarrested flap movement, if not corrected, could lead to the loss of control of the aeroplane.

A modification of the flaps control system to reduce the occurrence of uncommanded, unarrested flaps movement is still under investigation. As an interim action, AD CF-2023-07 required repeat operational checks of the inboard and outboard flaps movement and retraction speeds.

This AD requires an Aircraft Flight Manual (AFM) update to provide flight crew with instructions to follow in the event of an uncommanded, unarrested flap movement.

Corrective Actions:

- A. Amend the applicable Transport Canada approved AFM by incorporating the procedures in accordance with Table 1 below:

Table 1 – AFM References

Aeroplane Model (Marketing Designation)	AFM Procedure	AFM Revision
CL-600-1A11 (Challenger 600)	Emergency Procedures, Abnormal Procedures, Supplement 14	Temporary Revision (TR) No. 600/35 dated June 28, 2024, or later revisions approved by Transport Canada (AFM PSP 600)

CL-600-1A11 (Challenger 600)	Emergency Procedures, Abnormal Procedures, Supplement 14	TR No. 600-1/31 dated June 28, 2024, or later revisions approved by Transport Canada (AFM PSP 600-1)
CL-600-2A12 (Challenger 601)	Emergency Procedures, Abnormal Procedures, Supplement 14	TR No. 601/42 dated June 28, 2024, or later revisions approved by Transport Canada (AFM PSP 601-1A)
CL-600-2A12 (Challenger 601)	Emergency Procedures, Abnormal Procedures, Supplement 14	TR No. 601/28 dated June 28, 2024, or later revisions approved by Transport Canada (AFM PSP 601-1A-1)
CL-600-2A12 (Challenger 601)	Emergency Procedures, Abnormal Procedures, Supplement 14	TR No. 601/34 dated June 28, 2024, or later revisions approved by Transport Canada (AFM PSP 601-1B)
CL-600-2A12 (Challenger 601)	Emergency Procedures, Abnormal Procedures, Supplement 14	TR No. 601/27 dated June 28, 2024, or later revisions approved by Transport Canada (AFM PSP 601-1B-1)
CL-600-2B16 (Challenger 601-3A/3R Variants)	Emergency Procedures, Abnormal Procedures, Supplement 14	TR No. 601/39 dated June 28, 2024, or later revisions approved by Transport Canada (AFM PSP 601A-1)
CL-600-2B16 (Challenger 601-3A/3R Variants)	Emergency Procedures, Abnormal Procedures, Supplement 14	TR No. 601/41 dated June 28, 2024, or later revisions approved by Transport Canada (AFM PSP 601A-1-1)
CL-600-2B16 (Challenger 604 Variant)-Challenger 604	Emergency Procedures, Abnormal Procedures, Supplement 8	AFM PSP 604-1, Revision 133, dated June 27, 2024, or later revisions approved by Transport Canada
CL-600-2B16 (Challenger 604 Variant)-Challenger 605	Emergency Procedures, Abnormal Procedures, Supplement 8	AFM PSP 605-1, Revision 71, dated June 27, 2024, or later revisions approved by Transport Canada
CL-600-2B16 (Challenger 604 Variant)-Challenger 650	Emergency Procedures, Abnormal Procedures, Supplement 8	AFM PSP 650-1, Revision 36, dated June 27, 2024, or later revisions approved by Transport Canada

- B. Advise all flight crews of the changes introduced by the approved Transport Canada AFM Revisions listed above and thereafter operate the aeroplane accordingly.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Jenny Young
Chief, Continuing Airworthiness
Issued on 29 November 2024

Contact:

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