



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-2023-01

Effective Date:

18 January 2023

ATA:

27

Type Certificate:

A-131

Subject:

Flight Controls – Ground Spoilers – Deployment In Air

Applicability:

Bombardier Inc. model CL-600-2B16 (604 variant) aeroplanes, serial numbers 5301 through 5665, 5701 through 5988 and 6050 through 6174.

Compliance:

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

Background:

Bombardier investigated an in-service aircraft event during which ground spoilers deployed in air while the aeroplane was on approach to landing.

Bombardier's investigation of the event found that a combination of system faults and procedural actions resulted in this condition.

After take-off, the WOW (weight on wheels) INPUT Caution message had posted on the engine indication and crew alerting system (EICAS). The WOW INPUT message persisted throughout the flight even after the flight crew executed the WOW INPUT QRH (Quick Reference Handbook) procedure. During this time, the GND SPLRS (ground spoilers) NOT ARMED message also posted, and consequently, the flight crew manually armed the ground spoilers as required by the procedure for that message.

The investigation revealed that a fault had occurred in the proximity sensor electronic unit (PSEU), which erroneously indicated ON GROUND while the aircraft was in the air.

This AD mandates a revision to the Airplane Flight Manual (AFM) to incorporate additional instructions in the Ground Spoilers Unsafe and Weight-on-Wheels Input Fault Abnormal Procedures in order to prevent the ground spoilers deploying in air.

Corrective Actions:

- A. Amend the Transport Canada approved AFM as detailed in Table 1 below or later revisions of these procedures approved by Transport Canada.

Table 1

Aeroplane Serial Number	AFM No	AFM Revision
Model CL-600-2B16 (604 variant) Serial numbers 5301 through 5665	PSP 604-1	AFM Revision 125, dated 14 March 2022
Model CL-600-2B16 (604 variant) Serial numbers 5701 through 5988	PSP 605-1	AFM Revision 63, dated 14 March 2022
Model CL-600-2B16 (604 variant) Serial numbers 6050 through 6174	PSP 650-1	AFM Revision 28, dated 14 March 2022

- 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 4 January 2023

Contact:

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