



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-2021-06

Effective Date:

12 March 2021

ATA:

30

Type Certificate:

A-131

Subject:

Ice and Rain Protection – Wing Anti-Ice (WAI) System – Wing Stall Prior to Touchdown due to Wing Leading Edge Icing

Applicability:

Bombardier Inc. aeroplanes:

Model CL-600-1A11, serial numbers 1001 through 1085,

Model CL-600-2A12, serial numbers 3001 through 3066,

Model CL-600-2B16, serial numbers 5001 through 5194, 5301 through 5665, 5701 through 5988 and 6050 through 6153.

Compliance:

Within 30 days from the effective date of this AD, unless already accomplished.

Background:

A CRJ200 aeroplane experienced a wing stall (wing drop/un-commanded roll) during a landing flare. Photographs were immediately taken following the landing which showed that the aeroplane had mixed ice present on the leading edges of the wings. During the descent, the WAI system was OFF since the ice detector did not detect ice. Post-incident functional checks of the ice detectors revealed no faults with the ice detector units onboard the aircraft. After the investigation, it was revealed that the flight crew had followed the Aircraft Flight Manual (AFM) procedures which did not require the WAI system to be selected ON.

Due to similar design characteristics, limitations and procedures, a similar event could occur on the Challenger 600 series aeroplanes.

This AD mandates a revision of the AFM to incorporate a limitation and procedure for the WAI system in order to mitigate the risk of ice accumulation on the wing leading edges.

Corrective Actions:

- A. Amend the applicable Transport Canada Civil Aviation (TCCA) approved AFM by incorporating the limitations and procedure for the WAI system as detailed in the following revisions or later revisions approved by TCCA in accordance with the Table 1 below:

Table 1

Aeroplane Serial Number	AFM No.	AFM Revision
Model CL-600-1A11 (600 variant) serial numbers 1001 through 1085 for non-winglets	PSP 600	AFM Revision 113, dated 16 April 2020
Model CL-600-1A11 (600 variant) serial numbers 1001 through 1085 for winglets	PSP 600-1	AFM Revision 104, dated 16 April 2020
Model CL-600-2A12 (601 variant) serial numbers 3001 through 3066 and 43 100 lb. maximum take-off weight (MTOW)	PSP 601-1A	AFM Revision 128, dated 16 April 2020
Model CL-600-2A12 (601 variant) serial numbers 3001 through 3066 and 44 600 lb./45 100 lb. MTOW	PSP 601-1A-1	AFM Revision 82, dated 16 April 2020
Model CL-600-2A12 (601 variant) serial numbers 3001 through 3066 with -3A engine and 43 100 lb. MTOW	PSP 601-1B	AFM Revision 86, dated 16 April 2020
Model CL-600-2A12 serial numbers 3001 through 3066 with -3A engine and 44 600 lb./45 100 lb. MTOW	PSP 601-1B-1	AFM Revision 84, dated 16 April 2020
Model CL-600-2B16 (601-3A/3R variant) serial numbers 5001 through 5134 and 43 100 lb. MTOW	PSP 601A-1	AFM Revision 106, dated 16 April 2020
Model CL-600-2B16 (601-3A/3R variant) serial numbers 5001 through 5194 and 44 600 lb./45 100 lb. MTOW	PSP 601A-1-1	AFM Revision 95, dated 16 April 2020
Model CL-600-2B16 (604 variant) serial numbers 5301 through 5665	PSP 604-1	AFM Revision 116, dated 18 December 2019
Model CL-600-2B16 (604 variant) serial numbers 5701 through 5988	PSP 605-1	AFM Revision 54, dated 18 December 2019
Model CL-600-2B16 (604 variant) serial numbers 6050 through 6153	PSP 650-1	AFM Revision 19, dated 18 December 2019

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

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 26 February 2021

Contact:

Philip Lynch, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.