



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-2020-24

Effective Date:

24 July 2020

ATA:

34

Type Certificate:

A-131

Subject:

Navigation - Inertial Reference System (IRS) / Flight Management System (FMS) - Wrong Magnetic Heading Displayed due to Outdated Magnetic Variation (MagVar) Tables

Applicability:

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

Compliance:

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

Background:

Outdated MagVar tables inside navigation systems can affect their performance and result in the presentation of misleading magnetic heading references on the Primary Flight Displays (PFDs) and Multi-Function Displays (MFDs) positioning the aeroplane outside of the terrain and obstacle protection provided by instrument flight procedures and flight route designs. Certain aeroplanes have navigation units with MagVar tables that are obsolete, which can lead to significantly inaccurate heading, course and bearing calculations.

This AD mandates the applicable Airplane Flight Manuals (AFMs) update to the FMS and IRS limitations to address the above-mentioned unsafe condition.

Corrective Actions:

- A. Amend the applicable Transport Canada Civil Aviation (TCCA) approved Challenger 604 and 605 AFMs by incorporating the revision to Chapter 02 – Limitations – Navigation Systems Limitations – Flight Management System (FMS) and Inertial Reference Systems (IRS), as listed in the Table 1 below:

Table 1

Aeroplane model	AFM No.	Aeroplane serial number	AFM Revision
CL-600-2B16 (604 Variant)	PSP 604-1	5301 through 5665	Revision 116 dated 18 December 2019, or later revisions of this limitation approved by TCCA.
CL-600-2B16 (604 Variant)	PSP 605-1	5701 through 5988	Revision 54 dated 18 December 2019, or later revisions of this limitation approved by TCCA.

- B. Following incorporation of the above-mentioned AFM revisions, advise all flight crews of the changes introduced by these revisions.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Philip Tang
Acting Chief, Continuing Airworthiness
Issued on 10 July 2020

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.