



# AIRWORTHINESS DIRECTIVE

*This Airworthiness Directive (AD) is issued pursuant to Civil 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) to ADs.*

**Number:**

CF-2019-09

**Effective Date:**

21 March 2019

**ATA:**

34

**Type Certificate:**

A-234

**Subject:**

Avionic System – Airplane Flight Manual Navigation System Limitations – Prohibit Editing CLIMB TO Altitudes and Use of Temperature Compensation on Flight Management System (FMS)

**Applicability:**

Bombardier Inc. model BD-100-1A10 aeroplanes, serial numbers 20002 and subsequent, equipped with FMS-5000 software version 4.X.

Note: FMS-5000 with software version 4.X is not part of the Type Certificate configuration but may have been installed via Transport Canada Civil Aviation (TCCA) Supplemental Type Certificate (STC) SA11-14 or Federal Aviation Administration (FAA) STC ST01611WI-D.

**Compliance:**

As indicated below, unless already accomplished.

**Background:**

If the crew edits a CLIMB TO altitude in a departure or a missed approach procedure, either manually or by activating the Temperature Compensation, the FMS will remove the database's turn direction (if any) on the following leg. The FMS will command the aircraft to turn in the wrong direction after sequencing the CLIMB TO leg if the shortest turn direction is different from the required turn direction onto the next leg. This may lead to an increase of crew workload and possible Air Traffic Control airspace violation.

This AD mandates the introduction of a Navigation System Limitation to the Airplane Flight Manual (AFM) or AFM Supplement to address the above mentioned unsafe condition.

**Corrective Actions:**

- A. Within 30 days from the effective date of this AD, amend the applicable AFM Supplement by incorporating the Navigation System Limitation to prohibit the editing of the CLIMB TO altitudes and the use of the Temperature Compensation on the FMS:

Aeroplane Model	AFM Procedure	AFM Revision
BD-100-1A10 With TCCA STC SA11-14 or FAA STC ST01611WI-D	Section - 2 Limitations - Flight Management System (FMS)	Rockwell Collins AFM Supplement RCA-0297, Revision C or later FAA approved revisions.

- B. Within 30 days from the effective date of this AD, advise all flight crews of the changes introduced by the AFM Revisions listed above.

**Authorization:**

For the Minister of Transport,

*ORIGINAL SIGNED BY*

Remy Knoerr  
Chief, Continuing Airworthiness  
Issued on 7 March 2019

**Contact:**

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