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) to ADs.

Number:	**Effective Date:**
CF-2013-15R2	1 February 2017
ATA:	**Type Certificate:**
61	A-142

Subject:

Propellers – In-flight Operation of Propeller in Beta Range

Revision:

Supersedes AD CF-2013-15R1, issued 3 December 2013.

Applicability:

Bombardier Inc. model DHC-8-102, -103, -106, -201, -202, -301, -311, -314, -315 aeroplanes, serial numbers 003 through 672.

Excluding aeroplanes with Customer Request (CR) 873CH00011 (Service Bulletin 8-76-24) incorporated.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been a number of reported incidents where the flight crews have operated the propellers in Ground Beta range during flight on DHC-8-100/200/300 aeroplanes. In flight Beta range operation of the propeller can and has resulted in over-speeding of the propeller(s). This condition, not only can cause the associated engine to fail, but the high drag resulting from the over-speeding propeller can adversely affect the controllability of the aeroplane.

Notwithstanding the fact that affected models of DHC-8 aeroplanes are equipped with Beta warning (horn) system as mandated by Transport Canada AD CF-99-18, to alert the flight crew of impending Ground Beta range operation during flight, the existing system design does not prevent propeller operation in Beta range during flight.

In order to prevent the operation of propellers in Ground Beta range during flight on the affected aeroplanes, Bombardier Inc. has issued Service Bulletin (SB) 8-76-35 to install new electrical circuits (Beta Lockout System) that are designed to prevent the propellers from entering the Beta range of operation during flight. The AD CF-2013-15 was issued on 5 June 2013 to mandate the incorporation of SB 8-76-35 to install a Beta Lockout System on all affected aeroplanes and was revised on 3 December 2013 to correct an error in the applicability section of the AD.

Revision 2 of this AD is issued to facilitate operation of AD CF-2013-15 compliant aeroplanes with inoperative BETA Lock out system in accordance with Master Minimum Equipment List (MMEL) provisions.

Corrective Actions:

Within 6000 hours air time or 3 years, whichever occurs first, from 3 December 2013 the effective date of AD CF-2013-15R1, install a Beta Lockout System in accordance with Bombardier Inc. SB 8-76-35 Rev. A dated 11 September 2013, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Compliance with the original issue of SB 8-76-35 dated 15 May 2013, prior to the effective date of this AD, meets the requirements of this revised AD.

In the event of a malfunction of the Beta Lock-out system required by this AD, the aeroplane may be operated in accordance with the TCCA approved MMEL provisions.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 20 January 2017

Contact:

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