Transport Canada Transports Canada

TP 7245E

No. CF-2012-01R1 1/2
Issue Date 06 March 2013

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to ***Canadian Aviation Regulation*** **(CAR) 521 Division X**. Pursuant to **CAR 605.84** and the further details of **CAR Standard 625, Appendix H**, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with **CAR 605.84** and the above-referenced **Standard**.

This AD has been issued by the Continuing Airworthiness Division (AARDG), National Aircraft Certification Branch, Transport Canada, Ottawa, telephone 613 952-4357.

Number: **CF-2012-01R1**

Subject: **Beta Warning Horn System Failure**

Effective: **21 March 2013**

Applicability: **DHC-8 aeroplane models 102, 103, 106, 201, 202, 301, 311, 314 and 315, serial number 003 through 672 with Beta Warning Horn (Mod 8/2852) incorporation. Excluding aeroplanes with option CR873CH00003, CR873CH00005, CR873SOO8112 or MS8Q902206.**

Revision: **Supersedes Airworthiness Directive (AD) CF-2012-01 issued on 5 January 2012.**

Compliance: **As indicated below, unless already accomplished.**

Background: This revision is issued to incorporate a terminating action to this AD and to update the background information.

During an on-ground Beta Warning Horn (BWH) system check conducted in the wake of an in-flight Beta range operation incident on a DHC-8 Series 200 aeroplane, it was discovered that the BWH system failed to activate when the Beta mode was triggered.

An investigation by Bombardier had determined that the deformation of the flexible center console cover could cause the BWH system triggering microswitch to malfunction, resulting in dormant failure of the BWH system. To mitigate the safety risk by minimizing the risk exposure period, AD CF-2012-01 was issued on 05 January 2012 to mandate a 50 hours periodic operational test of the BWH system functionality.

To address the root cause of the subject problem, Bombardier has issued Service Bulletin (SB) 8-76-33 that modifies the BWH microswitch installation by replacing the BWH microswitch attachment bracket with a new, more robust bracket that is not affected by deformation of the center console cover. AD CF-2012-01 is therefore revised to mandate compliance with SB 8-76-33 as terminating action for the 50 hours periodic operational test requirement.

Corrective Actions:

1. Within 50 hours air time or 10 days, whichever occurs first, from 16 January 2012 (the effective date of AD CF-2012-01), perform an operational test of the BWH system and complete all the required actions including the operational test findings, in accordance with Bombardier SB A8-31-29 Rev. 'B' dated 22 December 2011, or later revision approved by the Chief, Continuing Airworthiness, Transport Canada.

2. From the date of compliance with Part 1 above, repeat the operational test of the BWH system at intervals not to exceed 50 hours air time, in accordance with Bombardier SB A8-31-29 Rev.' B' dated 22 December 2011, or later revision approved by the Chief, Continuing Airworthiness, Transport Canada.

3. Within 6000 hours air time or 36 months, whichever occurs first, from the effective date of this AD, modify the BWH microswitch installation by replacing the existing BWH microswitch installation bracket with a new bracket, in accordance with Bombardier SB 8-76-33 dated 13 December 2012, or later revision approved by the Chief, Continuing Airworthiness, Transport Canada.

4. Compliance with Part 3 above constitutes the terminating action for the periodic operational test requirements listed in the preceding Parts 1 and 2 of this AD.

Authorization: For the Minister of Transport, Infrastructure and Communities,

ORIGINAL SIGNED BY

Derek Ferguson
Chief, Continuing Airworthiness

Contact: A K Durrani, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail ADs@tc.gc.ca or any Transport Canada Centre.