



No.	CF-2010-30R1	1/3
Issue Date	21 September 2010	

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- 2010-30R1

Subject: Cracking of the Nacelle Attachment Fitting(s)

Effective: 28 September 2010

Revision: Supersedes Airworthiness Directive (AD) CF-2010-30, dated 27 August 2010.

Applicability: Bombardier Inc. DHC-8 Aeroplanes, Model 400, 401 and 402, serial numbers 4001 and subsequent.

Compliance: As indicated below, unless already accomplished.

Background: Several reports have been received of cracked nacelle attachment fittings. The preliminary investigation determined the cause to be stress corrosion. Stress corrosion cracking could compromise the structural integrity of the nacelle attachment fitting and could adversely affect the safe landing of the aeroplane.

This directive, in the interim, mandates a detailed visual inspection and conductivity check of each of the four (4) nacelle attachment fittings.

Revision 1 of this directive is issued to update the aircraft serial number (S/N) applicability based on the latest crack findings and also to revise the acceptable conductivity values in Part I. A. In addition, Part II. has been added to provide instructions for newly affected aircraft and aircraft that have replaced nacelle attachment fittings.

Corrective Actions: Part I - Applicable to Aircraft 4001-4304, 4314 and 4315:

A. Detailed Visual Inspection and Conductivity Check of the Nacelle Attachment Fitting Assembly Part Number (P/N) 85414663:

Within 100 hours air time from the effective date of this directive, conduct a Detailed Visual Inspection (DVI) and conductivity check on each of the four (4) nacelle attachment fittings, in accordance with the accomplishment instructions in section 3 of the Bombardier Service Bulletin (SB) 84-54-14 Rev J dated 17 September 2010, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

1. If any nacelle attachment fitting is found cracked, replace the cracked fitting in accordance with the accomplishment instructions in section 3. B. Part A. (3) of the Bombardier SB 84-54-14 Rev J dated 17 September 2010 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, prior to next flight, and proceed to Part II of this directive.

Pursuant to **CAR 202.51** the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address.

To request a change of address, contact the **Civil Aviation Communications Centre (AARC)** at **Place de Ville, Ottawa, Ontario K1A 0N8**, or **1-800-305-2059**, or **www.tc.gc.ca/civilaviation/communications/centre/ address.asp**

2. If the conductivity of any test points on the fitting is found to be less than 38.0% International Annealed Copper Standard (IACS), proceed to Part I. B. of this directive.
3. If the conductivity of any test points on the fitting is found to be 38.0% IACS or greater, but not exceeding 45.0% IACS, proceed to Part I. C. of this directive.
4. If the conductivity of any test points on the fitting is found to be greater than 45.0% IACS, proceed to Part I. B. of this directive.

Incorporation of previous revisions of Bombardier SB 84-54-14, prior to the effective date of this directive, meets the requirements of Part I. A of this directive. For the above aeroplanes that are within 100 hours air time of a repeat inspection interval, or are beyond 300 hours air time from the last DVI, conduct a DVI within 100 hours air time from the effective date of this directive.

B. Conductivity less than 38.0% IACS, or greater than 45.0% IACS:

1. Conduct a daily repeat DVI of the nacelle attachment fitting, until Part I. B. 3. of this directive is completed, in accordance with the accomplishment instructions in section 3 of the Bombardier SB 84-54-14 Rev J dated 17 September 2010 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.
2. If any nacelle attachment fitting is found cracked, replace the cracked fitting in accordance with the accomplishment instructions in section 3. B. Part A. (3) of the Bombardier SB 84-54-14 Rev J dated 17 September 2010 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, prior to next flight, and proceed to Part II of this directive.
3. Replace the nacelle attachment fitting, in accordance with the accomplishment instructions in section 3. B. Part A. (3) of the Bombardier SB 84-54-14 Rev J dated 17 September 2010 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, within 300 hours air time after the initial DVI carried out in Part I. A. of this directive and proceed to Part II of this directive.

C. Conductivity 38.0% IACS or greater, but not exceeding 45.0% IACS:

1. Conduct a DVI of the nacelle attachment fitting in accordance with the accomplishment instructions in section 3 of the Bombardier SB 84-54-14 Rev J dated 17 September 2010 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, at intervals not to exceed 300 hours air time after the initial DVI carried out in Part I. A. of this directive.
2. If any nacelle attachment fitting is found cracked, replace the cracked fitting in accordance with the accomplishment instructions in section 3. B. Part A. (3) of the Bombardier SB 84-54-14 Rev J dated 17 September 2010 or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada, prior to next flight, and proceed to Part II of this directive.

Part II - Applicable to Aircraft S/N 4305-4313, 4316 and subsequent and aircraft that have replaced nacelle attachment fitting(s)

A. Detailed Visual Inspection of new Nacelle Attachment Fitting Assembly Part Number (P/N) 85414663:

Within 1200 hours air time from the date of the newly installed fitting, conduct a DVI of the nacelle attachment fitting, in accordance with the accomplishment instructions