



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:

CF-2016-20R1

Effective Date:

17 February 2017

ATA:

25

Type Certificate:

A-131

Subject:

Equipment/Furnishings - Electrical Short of Bonding Jumper causing Burnt Water Supply Line and Smoke in Cabin

Revision:

Supersedes AD CF-2016-20, issued 27 June 2016.

Applicability:

Bombardier Inc.:

Model CL-600-2C10 aeroplanes, serial numbers 10001 thru 10344,
Model CL-600-2D15 and CL-600-2D24 aeroplanes, serial numbers 15001 thru 15382,
Model CL-600-2E25 aeroplanes, serial numbers 19001 thru 19044.

Compliance:

As indicated below, unless already accomplished.

Background:

A CRJ900 aeroplane reported a smoke in cabin event due to a non-sustaining electrical fire. The source of smoke was traced to a burnt heated water supply line behind the #2 Galley. The surrounding insulation was also found burnt.

The root cause of this electrical fire was an electrical short between an un-insulated bonding jumper and a terminal block carrying 115 volts AC. The circuit resistance was high enough and the circuit breakers that protect the wiring did not trip open.

Electrical short of a bonding jumper may result in in-flight smoke or fire events as well as failure of avionics equipment due to possible water spray or leakage from a damaged water supply line. The likelihood of this happening is increased by the removal and installation of the galley or lavatory during maintenance, allowing the bonding jumper to become wedged under the terminal block.

The original version of this AD was issued to mandate the installation of a protective sleeve on the bonding jumper for specific part numbers of Galley 1, Galley 2, Galley 4, Forward Lavatory and Aft Lavatory.

Revision 1 of this AD is issued to mandate Bombardier Service Bulletin (SB) 670BA-25-101 Revision B dated 12 January 2017. This revision removes applicability to specific part numbers and instead applies it to all galleys and lavatories, regardless of part number.

Corrective Actions:

Part I - For aeroplanes which have not complied with the original issue of this AD:

Within 6600 hours air time or 36 months, whichever occurs first, from 27 June 2016 the effective date of the original issue of this AD, install protective sleeve on the bonding jumpers, in accordance with Part A through Part E, as applicable, of the Accomplishment Instructions in Bombardier SB 670BA-25-101, Revision B, dated 12 January 2017, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Part II - For aeroplanes which have already complied with the original issue of this AD:

Within 6600 hours air time or 36 months, whichever occurs first, from the effective date of this AD, inspect and if required, install a protective sleeve on the bonding jumpers in accordance with part F of the Accomplishment Instructions of Bombardier SB 670BA-25-101, Revision B, dated 12 January 2017, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 3 February 2017

Contact:

A K Durrani, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.