



No.	CF-2011-03R2	1/2
Issue Date	27 February 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-2011-03R2

**Subject:** Security Concerns with the Chemical Oxygen Generators Installed in the Lavatories

**Effective:** 11 March 2013

**Revision:** Supersedes Airworthiness Directive CF-2011-03R1, dated 15 January 2013

**Applicability:** This AD applies to all transport category aeroplanes in passenger-carrying operations in Canadian Airspace as specified below:

- A. Aeroplanes that are in compliance with the requirements of AD CF-2011-03;
- B. Aeroplanes equipped with any Chemical Oxygen Generator installed in any lavatory and are operating under *Canadian Aviation Regulations (CAR) 705*.

As the state of design for aeroplanes that are originally certified in Canada, this AD is also applicable to all Bombardier Inc. aeroplanes in commercial passenger carrying operations.

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

**Background:** It was brought to the regulators attention that security concerns may arise on aeroplanes equipped with the chemical oxygen generators installed in the lavatories. The chemical oxygen generator can be manipulated in such a way to create a hazardous condition in the aeroplanes.

To support this AD, an exemption has been issued to remove any potential conflicts by operators with the requirements of CAR 605.06(a).

Revision 1 of this AD was issued to restore supplemental oxygen system to the lavatory.

Revision 2 of this AD is issued to restate the requirements to disable the current design of the chemical oxygen system installed in the lavatories until a new design is approved and implemented.

**Corrective Actions:** Part I

Within 21 days after the original effective date of this AD (16 February 2011), all transport category aeroplanes that operate in Canadian Airspace under CAR 705, and have chemical oxygen generators installed in the lavatories must accomplish the following:

- A. Disable or remove the chemical oxygen generator in all lavatories on board the aeroplane.

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](http://www.tc.gc.ca/civilaviation/communications/centre/address.asp)



1. If the chemical oxygen generators are removed, close the mask dispenser doors and placard them inoperative;
2. If the operator elects to disable the chemical oxygen generators, activate the chemical oxygen generators at the time when there are no passengers on board. After verifying that the oxygen supply is expended, proceed to either paragraph A.2.a or A.2.b. as follows:
  - a. Remove the oxygen mask(s), close the mask dispenser doors and placard them inoperative; or,
  - b. Re-stow the oxygen mask(s), close the mask dispenser doors and placard them inoperative. The re-stowed masks must be removed from the dispenser within 45 days from the effective date of this AD.
- B. After completing paragraph A above, but before further flight, modify the aeroplane dispatch release procedures to notify the flight and cabin crew that the oxygen supply in the lavatories is inoperative.

Part I of this AD is not required following accomplishment of Part II of this AD.

#### **Part II**

Within 37 months from the effective date of this AD, install a supplemental oxygen system in each lavatory for all transport category aeroplanes as follows:

- A. Design and installation of each supplemental oxygen system must be approved by Transport Canada.
- B. If compliance with the above specified installation is achieved using a chemical oxygen generator (COG), the newly installed system must meet the following criteria:
  1. The installation must be resistant to tampering; or,
  2. Modification may be with a combination of resistance to tampering and active tamper-evident features; or,
  3. Installed in a location or manner whereby any attempt to access the COG would be immediately obvious.

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

*ORIGINAL SIGNED BY*

Derek Ferguson  
Chief, Continuing Airworthiness

**Contact:** Gordanko Jeremic, Continuing Airworthiness, Ottawa, telephone 613-952-4357, facsimile 613-996-9178 or e-mail [ADs@tc.gc.ca](mailto:ADs@tc.gc.ca) or any Transport Canada Centre.