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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2011-1416; Directorate Identifier 2011-NM-156-AD; Amendment 39-17056; AD 2012-10-07]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Bombardier, Inc. Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702); CL-600-2D15 (Regional Jet Series 705); CL-600-2D24 (Regional Jet Series 900); and CL-600-2E25 (Regional Jet Series 1000) airplanes. This AD was prompted by reports of deformation of the pressure regulator on the oxygen cylinder, which was attributed to batches of raw material that did not meet required tensile strength. This AD requires an inspection to determine if certain oxygen pressure regulators are installed, and replacement of oxygen cylinder and regulator assemblies (CRAs) containing pressure regulators that do not meet required material properties. We are issuing this AD to prevent elongation of the pressure regulator neck, which could result in rupture of the oxygen cylinder, and in the case of cabin depressurization, oxygen would not be available when required.

**DATES:** This AD becomes effective June 29, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of June 29, 2012.

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7318; fax (516) 794-5531.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on January 19, 2012 (77 FR 2662). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

During a routine inspection, deformation was found at the neck of the pressure regulator body on the oxygen Cylinder and Regulator Assemblies (CRA) of a BD-700-1A11 aeroplane.

An investigation by the vendor, Avox Systems Inc., revealed that the deformation was attributed to two (2) batches of raw material that did not meet the required tensile strength. This may cause elongation of the pressure regulator neck, which could result in rupture of the oxygen cylinder, and in the case of cabin depressurization, oxygen would not be available when required.

Although there have been no reported failures to date on any CL-600-2C10, CL-600-2D15, CL-600-2D24 or CL-600-2E25 aeroplanes, similar oxygen pressure regulators, Part Number (P/N) 806370-06, could also be installed on the aeroplanes listed in the Applicability section of this [Transport Canada Civil Aviation (TCCA)] directive.

This [TCCA] directive mandates [an inspection for certain serial numbers, and if necessary, replacement of the affected oxygen CRA in accordance with the accomplishment instructions of Bombardier Service Bulletin 670BA-35-011, dated July 5, 2011; and] the replacement of oxygen CRAs containing pressure regulators that do not meet the required material properties.

You may obtain further information by examining the MCAI in the AD docket.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (77 FR 2662, January 19, 2012) or on the determination of the cost to the public.

### **Conclusion**

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed, except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (77 FR 2662, January 19, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 2662, January 19, 2012).

### **Costs of Compliance**

We estimate that this AD will affect 263 products of U.S. registry. We also estimate that it will take about 2 work-hours per product to comply with the basic requirements of this AD. The average

labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$44,710, or \$170 per product.

In addition, we estimate that any necessary follow-on actions would take about 1 work-hour and require parts costing \$0, for a cost of \$85 per product. We have no way of determining the number of products that may need these actions.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM (77 FR 2662, January 19, 2012), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

**PART 39–AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:



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**2012-10-07 Bombardier, Inc.:** Amendment 39-17056. Docket No. FAA-2011-1416; Directorate Identifier 2011-NM-156-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective June 29, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to the airplanes identified in paragraphs (c)(1), (c)(2), and (c)(3) of this AD, certificated in any category.

(1) Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10002 through 10999 inclusive.

(2) Bombardier, Inc. Model CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 through 15990 inclusive.

(3) Bombardier, Inc. Model CL-600-2E25 (Regional Jet Series 1000) airplanes, serial numbers 19001 through 19990 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 35: Oxygen.

**(e) Reason**

This AD was prompted by reports of deformation of the pressure regulator on the oxygen cylinder, which was attributed to batches of raw material that did not meet required tensile strength. We are issuing this AD to prevent elongation of the pressure regulator neck, which could result in rupture of the oxygen cylinder, and in the case of cabin depressurization, oxygen would not be available when required.

**(f) Compliance**

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

**(g) Actions**

Within 1,800 flight hours or 6 months after the effective date of this AD, whichever occurs first: Inspect the serial number of each oxygen pressure regulator, part number (P/N) 806370-06, to determine if the serial number of the regulator is listed in "Table 2: Regulators" of paragraph 1.A.(1) of Bombardier Service Bulletin 670BA-35-011, dated July 5, 2011. If the serial number of the

oxygen pressure regulator, P/N 806370-06, is listed in "Table 2: Regulators" of paragraph 1.A.(1) of Bombardier Service Bulletin 670BA-35-011, dated July 5, 2011: Before further flight, replace the affected oxygen cylinder and regulator assembly (CRA), in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-35-011, dated July 5, 2011.

#### **(h) Parts Installation**

As of the effective date of this AD, no person may install an oxygen pressure regulator, P/N 806370-06, having a serial number listed in "Table 2: Regulators" of paragraph 1.A.(1) of Bombardier Service Bulletin 670BA-35-011, dated July 5, 2011, on any airplane unless the serial number of the CRA and pressure regulator have a suffix "A" beside the serial number.

#### **(i) Other FAA AD Provisions**

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

#### **(j) Related Information**

Refer to MCAI Canadian Airworthiness Directive CF-2011-28, dated July 28, 2011; and Bombardier Service Bulletin 670BA-35-011, dated July 5, 2011; for related information.

#### **(k) Material Incorporated by Reference**

(1) You must use the following service information to do the actions required by this AD, unless the AD specifies otherwise. The Director of the Federal Register approved the incorporation by reference (IBR) of the following service information under 5 U.S.C. 552(a) and 1 CFR part 51:

(i) Bombardier Service Bulletin 670BA-35-011, dated July 5, 2011.

(2) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>.

(3) You may review copies of the service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

(4) You may also review copies of the service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at an NARA facility, call 202-741-6030, or go to [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on May 10, 2012.  
Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.