DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-0822; Directorate Identifier 2014-NM-210-AD; Amendment 39-18248; AD 2015-17-15]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, Model CL-600-2D24 (Regional Jet Series 900) airplanes, and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. This AD was prompted by results of a design review indicating that the burst pressure of the flexible hose, used to vent oxygen from the high-pressure relief valve of the oxygen cylinder overboard, was lower than the opening pressure of the high-pressure relief valve, which could cause the flexible hose to burst before it can vent the excess oxygen overboard. This AD requires replacing the oxygen hose assembly with a new, improved assembly. We are issuing this AD to prevent the accumulation of oxygen in an enclosed space, which could result in an uncontrolled oxygen-fed fire if an ignition source is nearby.

DATES: This AD becomes effective October 2, 2015.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of October 2, 2015.

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2015-0822 or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

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; Internet http://www.bombardier.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also

FOR FURTHER INFORMATION CONTACT: Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, NY 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 by adding an AD that would apply to certain Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, Model CL-600-2D24 (Regional Jet Series 900) airplanes, and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. The NPRM published in the Federal Register on April 13, 2015 (80 FR 19574).

Transport Canada Civil Aviation (TCCA), which is the airworthiness authority for Canada, has issued Canadian Airworthiness Directive CF-2014-37, dated October 17, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for certain Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, Model CL-600-2D15 (Regional Jet Series 705) airplanes, Model CL-600-2D24 (Regional Jet Series 900) airplanes, and Model CL-600-2E25 (Regional Jet Series 1000) airplanes. The MCAI states:

Design review found that the burst pressure of the flexible hose, used to vent oxygen from the high-pressure relief valve of the oxygen cylinder overboard, is lower than the opening pressure of the high-pressure relief valve. This could cause the flexible hose to burst before it is able to vent the excess oxygen overboard. If an ignition source is present, the accumulation of oxygen in an enclosed space may result in an uncontrolled oxygen-fed fire.

This [Canadian] AD mandates the replacement of the oxygen hose assembly with a new design oxygen hose assembly.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2015-0822-0004.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (80 FR 19574, April 13, 2015) and the FAA's response to each comment.

Request To Change the Compliance Time

Mesa Airlines and Envoy Air Inc. asked that the compliance time specified in paragraph (g) of the proposed AD (80 FR 19574, April 13, 2015) be changed.

Mesa Airlines stated that the current compliance time would immediately ground 78 airplanes on the effective date of the AD, and with increased demand for replacement parts it would be difficult to recover. Mesa Airlines asked that we change the compliance time to "Within 6,000 flight hours, or within 44 months after the effective date of this AD, whichever occurs first." Mesa Airlines added that this would allow for scheduling with heavy maintenance inspection and parts procurement.
Envoy Air Inc. stated that a large number of affected airplanes have flown more than 5,800 total flight hours. Envoy Air Inc. noted that the proposed compliance time "before the accumulation of 5,800 total flight hours" would mean that most of the affected airplanes would be required to comply with this AD prior to the effective date to remain in compliance. Envoy Air Inc. asked that we change the compliance time to "Within 5,800 flight hours or 44 months, whichever occurs first, from the effective date of the AD." Envoy Air Inc. stated that this would more clearly communicate the desired compliance time for this AD.

We partially agree with the requests. We have changed the compliance time in paragraph (g) of this AD to "Within 5,800 flight hours or 44 months after the effective date of this AD, whichever occurs first." This change matches the compliance time listed in the MCAI, and will allow operators to remain in compliance.

We do not agree that the compliance time should be extended to "Within 6,000 flight hours, or within 44 months after the effective date of this AD, whichever occurs first." After considering all the available information, we have determined that the compliance time represents an appropriate interval of time in which the required actions can be performed in a timely manner within the affected fleet, while still maintaining an adequate level of safety. In developing an appropriate compliance time, we considered the safety implications, parts availability, and normal maintenance schedules for timely accomplishment of the replacement. However, if additional data are presented that would justify a longer compliance time, we may consider further rulemaking on this issue. We have not changed the AD in this regard.

**Conclusion**

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the change described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (80 FR 19574, April 13, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 19574, April 13, 2015).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

**Related Service Information Under 1 CFR Part 51**

Bombardier has issued Service Bulletin 670BA-35-013, Revision B, dated May 20, 2015, including Appendix A, dated May 21, 2013. The service information describes procedures for replacing the oxygen hose assembly with a new, improved assembly. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

**Costs of Compliance**

We estimate that this AD affects 400 airplanes of U.S. registry. We also estimate that it takes about 10 work-hours per product to comply with the basic requirements of this AD. Required parts will cost about $0 per product. The average labor rate is $85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be $340,000, or $850 per airplane.

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.
Authority for This Rulemaking


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.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2015-0822; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, 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.

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 airworthiness directive (AD):

(a) Effective Date

This AD becomes effective October 2, 2015.

(b) Affected ADs

None.

(c) Applicability

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

1. Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10002 through 10336 inclusive.
2. Bombardier, Inc. Model CL-600-2D15 (Regional Jet Series 705), and Model CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15001 through 15297 inclusive.

(d) Subject

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

(e) Reason

This AD was prompted by results of a design review indicating that the burst pressure of the flexible hose, used to vent oxygen from the high-pressure relief valve of the oxygen cylinder overboard, was lower than the opening pressure of the high-pressure relief valve, which could cause the flexible hose to burst before it can vent the excess oxygen overboard. We are issuing this AD to prevent the accumulation of oxygen in an enclosed space, which could result in an uncontrolled oxygen-fed fire if an ignition source is nearby.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Replacement

Within 5,800 flight hours or 44 months after the effective date of this AD, whichever occurs first: Replace all oxygen hose assemblies having part number (P/N) S6946-01 with new, improved assemblies having P/N BA670-44025-001, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-35-013, Revision B, dated May 20, 2015, including Appendix

(h) Credit for Previous Actions

This paragraph provides credit for the replacement specified in paragraph (g) of this AD, if that action was performed before the effective date of this AD using Bombardier Service Bulletin 670BA-35-013, dated May 21, 2013; or Bombardier Service Bulletin 670BA-35-013, Revision A, dated September 23, 2013; which are not incorporated by reference in this AD.

(i) Parts Installation Prohibition

As of the effective date of this AD, no person may install an oxygen hose assembly, P/N S6946-01, on any airplane.

(j) 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. Send information to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 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. Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(k) Related Information

1. Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2014-37, dated October 17, 2014, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov/#/documentDetail;D=FAA-2015-0822-0004.

2. Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (l)(3) and (l)(4) of this AD.

(l) Material Incorporated by Reference

1. The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

2. You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(ii) Reserved.

(3) 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; Internet http://www.bombardier.com.

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

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Renton, Washington, on August 17, 2015.

Kevin Hull,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.