

[Federal Register: September 2, 2010 (Volume 75, Number 170)]
[Rules and Regulations]
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[DOCID:fr02se10-6]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2009-1110; Directorate Identifier 2009-NM-116-AD; Amendment 39-16421; AD 2010-18-08]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2D15 (Regional Jet Series 705), and CL-600-2D24 (Regional Jet Series 900) Airplanes

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

ACTION: Final rule.

SUMMARY: We are superseding an existing airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

During testing, it was discovered that when the outflow valve (OFV) manual mode connector is not connected, the manual mode motor and altitude limitation are not properly tested. Consequently, a disconnect of the OFV manual mode and/or a related wiring failure could potentially result in a dormant loss of several CPC [cabin pressure control] backup/safety functions, including OFV manual control, altitude limitation, emergency depressurization and smoke clearance. * * *

* * * * *

We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective October 7, 2010.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 7, 2010.

On May 29, 2009 (74 FR 22646, May 14, 2009), the Director of the Federal Register approved the incorporation by reference of certain other publications listed in this AD.

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: Fabio Buttitta, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7303; 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 December 3, 2009 (74 FR 63333), and proposed to supersede AD 2009-10-10, Amendment 39-15906 (74 FR 22646, May 14, 2009). That NPRM proposed to correct an unsafe condition for the specified products. This AD retains the requirements of AD 2009-10-10 and also requires modification (software update) of the cabin pressure control units and cabin pressure control panels.

Comments

We gave the public the opportunity to participate in developing this AD. We considered the comments received.

Request To Allow Installation of a Certain Cabin Pressure Control (CPC) Part Number

After the comment period for the NPRM closed, American Eagle Airlines (AEA) made an ex parte call to the FAA to request that we allow the installation of CPC units having part number (P/N) GG670-98002-9 that were modified in accordance with Bombardier Service Bulletin 670BA-21-030, dated December 22, 2009, as a method of compliance with paragraph (g)(1) of the NPRM. AEA did not provide additional supporting information to substantiate this request.

We agree with the commenter's request. After contacting Transport Canada Civil Aviation (TCCA) for further details, we determined that installation of certain CPC units modified according to Bombardier Service Bulletin 670BA-21-030, dated December 22, 2009, is acceptable for compliance with paragraph (g)(1) of this AD. We have added new paragraph (h) to this AD to provide this method of compliance, and have re-identified subsequent paragraphs accordingly.

Request To Allow Installation of Certain Modified CPCs and Cabin Pressure Control Panels (CPCPs)

AEA also requests allowing certain CPC units and CPCPs that were modified in accordance with certain Liebherr service bulletins (identified in the following table) as a method of compliance with the actions specified in paragraphs (g)(1) and (g)(2) of the NPRM. AEA states that those Liebherr service bulletins were approved as an alternative method of compliance (AMOC) to AD 2009-10-10. AEA also suggests that allowing the use of those certain Liebherr service bulletins would prevent the need for future AMOCs.

Liebherr Service Bulletins

Liebherr Service Bulletin -	Revision -	Dated -
GG670-98001-21-03	Original	March 21, 2006
GG670-98001-21-03	1	November 15, 2007
GG670-98002-21-02	Original	April 21, 2006
GG670-98002-21-02	1	November 15, 2007

We partially agree with the commenter's request. Since these Liebherr service bulletins were referenced as sources of additional guidance in Bombardier Service Bulletin A670BA-21-022, dated August 3, 2006, that was required by AD 2009-10-10, we agree to provide credit for actions done according to those Liebherr service bulletins if the actions were accomplished before the effective date of AD 2009-10-10. We have added paragraph (i) to this AD to provide this credit.

Explanation of Change to Applicability

We have revised the NPRM to identify the legal name of the manufacturer as published in the most recent type certificate data sheet for the affected airplane models.

Explanation of Change to AMOC Paragraph

We have revised paragraph (j)(1) of this AD to give credit for AMOCs approved previously for AD 2009-10-10.

Conclusion

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the changes described previously. We determined that these changes will not increase the economic burden on any operator or increase the scope of the AD.

Differences Between This AD and the MCAI or Service Information

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow our FAA policies. Any such differences are highlighted in a note within the AD.

Explanation of Change to Costs of Compliance

Since issuance of the NPRM, we have increased the labor rate used in the Costs of Compliance from \$80 per work-hour to \$85 per work-hour. The Costs of Compliance information, below, reflects this increase in the specified hourly labor rate.

Costs of Compliance

We estimate that this AD will affect about 353 products of U.S. registry.

The actions that are required by AD 2009-10-10 and retained in this AD take about 2 work-hours per product, at an average labor rate of \$85 per work hour. Based on these figures, the estimated cost of the currently required actions is \$170 per product.

We estimate that it will take about 3 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$43,000 per product. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these costs. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$15,269,015, or \$43,255 per product.

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 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); and
3. 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, 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 removing Amendment 39-15906 (74 FR 22646, May 14, 2009) and adding the following new AD:



2010-18-08 Bombardier, Inc: Amendment 39-16421. Docket No. FAA-2009-1110; Directorate Identifier 2009-NM-116-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective October 7, 2010.

Affected ADs

- (b) This AD supersedes AD 2009-10-10, Amendment 39-15906.

Applicability

(c) This AD applies to Bombardier, Inc. Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, certificated in any category, serial numbers 10003 through 10260 inclusive; and Model CL-600-2D15 (Regional Jet Series 705) and CL-600-2D24 (Regional Jet Series 900) airplanes, certificated in any category, serial numbers 15001 through 15095 inclusive.

Subject

- (d) Air Transport Association (ATA) of America Code 21: Air Conditioning.

Reason

- (e) The mandatory continuing airworthiness information (MCAI) states:

During testing, it was discovered that when the outflow valve (OFV) manual mode connector is not connected, the manual mode motor and altitude limitation are not properly tested. Consequently, a disconnect of the OFV manual mode and/or a related wiring failure could potentially result in a dormant loss of several CPC [cabin pressure control] backup/safety functions, including OFV manual control, altitude limitation, emergency depressurization and smoke clearance. This deficiency is applicable to CPC units, Part Number (P/N) GG670-98002-3 and -5, and CPCP [cabin pressure control panel], Part Number GG670-98001-5, -7 and -9.

This [Canadian] directive mandates an interim repetitive check of the OFV manual mode motor and altitude limitation functions, followed by modification (software update) of the CPC units and the CPCP.

The corrective action for findings of improper OFV manual mode motor and altitude limitation functions is replacing the valve with a new or serviceable valve.

Restatement of Requirements of AD 2009-10-10

Actions and Compliance

(f) Unless already done, do the following actions. Within 450 flight hours after May 29, 2009 (the effective date of AD 2009-10-10), inspect the OFV for proper operation of the manual mode motor and altitude limitation functions, in accordance with Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin A670BA-21-022, dated August 3, 2006 ("the service bulletin"). If the OFV manual mode motor or altitude limitation functions do not operate properly, before further flight, do the actions specified in paragraphs (f)(1) and (f)(2) of this AD. Repeat the inspection thereafter at intervals not to exceed 450 flight hours. Accomplishing the actions specified in paragraph (g) of this AD terminates the requirements of this paragraph.

(1) Make sure that the electrical connectors, MPE23P1 and MPE23P2, are connected to the OFV.

(2) Repeat the inspection of the OFV for proper operation of the manual mode motor and altitude limitation functions, in accordance with Part A of the service bulletin. If the OFV manual mode motor or altitude limitation functions do not operate properly, before further flight, replace the OFV with a new or serviceable valve in accordance with Tasks 21-32-01-000-801 and 21-32-01-400-801 of the Bombardier CRJ Regional Jet Series Aircraft Maintenance Manual, CSP B-001, Part 2, Volume 1, Revision 28, dated January 20, 2009, and do the inspection of the OFV specified in paragraph (f) of this AD.

New Requirements of This AD

Actions and Compliance

(g) Unless already done, do the following actions.

(1) Prior to accomplishing the actions specified in paragraph (g)(2) of this AD: Install modified or new CPC units, P/N GG670-98002-7, in accordance with Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin A670BA-21-022, dated August 3, 2006.

(2) Within 4,500 flight hours after the effective date of this AD: Install modified or new CPCPs, P/N GG670-98001-11, in accordance with Part C of the Accomplishment Instructions of Bombardier Alert Service Bulletin A670BA-21-022, dated August 3, 2006. Doing the actions required by paragraph (g)(2) of this AD terminates the requirements of paragraph (f) of this AD.

(h) Installing CPC units, P/N GG670-98002-9, in accordance with Bombardier Service Bulletin 670BA-21-030, dated December 22, 2009, is acceptable for compliance with the corresponding requirements of paragraph (g)(1) of this AD.

(i) Actions done before May 29, 2009, in accordance with a Liebherr service bulletin identified in Table 1 of this AD, are acceptable for compliance with the corresponding requirements of paragraph (g)(1) or (g)(2) of this AD.

Table 1- Liebherr Service Bulletins

Liebherr Service Bulletin -	Revision -	Dated -
GG670-98001-21-03	Original	March 21, 2006
GG670-98001-21-03	1	November 15, 2007
GG670-98002-21-02	Original	April 21, 2006
GG670-98002-21-02	1	November 15, 2007

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: The MCAI and Bombardier Alert Service Bulletin A670BA-21-022, dated August 3, 2006, do not describe corrective actions for findings of improper OFV manual mode motor and altitude limitation functions. This AD requires the actions in paragraphs (f)(1) and (f)(2) of this AD, which include replacing the valve if the OFV manual mode motor or altitude limitation functions do not operate properly.

Other FAA AD Provisions

(j) 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, New York 11590; telephone (516) 228-7300; fax (516) 794-5531. Before using any approved AMOC on any airplane to which the AMOC applies, notify your principal maintenance inspector (PMI) or principal avionics inspector (PAI), as appropriate, or lacking a principal inspector, your local Flight Standards District Office. The AMOC approval letter must specifically reference this AD. AMOCs approved previously in accordance with AD 2009-10-10 are approved as AMOCs for the corresponding provisions of 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.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(k) Refer to MCAI Canadian Airworthiness Directive CF-2009-08R1, dated April 13, 2010; and the service information identified in Table 2 of this AD; for related information.

Table 2 – Related service information

Bombardier Service Information	Revision Level	Date
Bombardier Alert Service Bulletin A670BA-21-022	Original	August 3, 2006
Bombardier Service Bulletin 670BA-21-030	Original	December 22, 2009
Task 21-32-01-000-801 of the Bombardier CRJ Regional Jet Series Aircraft Maintenance Manual, CSP B-001, Part 2, Volume 1	28	January 20, 2009
Task 21-32-01-400-801, of the Bombardier CRJ Regional Jet Series Aircraft Maintenance Manual, CSP B-001, Part 2, Volume 1	28	January 20, 2009

Material Incorporated by Reference

(1) You must use the applicable service information identified in Table 3 of this AD, to do the actions required by this AD, unless the AD specifies otherwise. If accomplished, you must use Bombardier Service Bulletin 670BA-21-030, dated December 22, 2009, to do the optional actions specified by this AD, unless the AD specifies otherwise.

Table 3 – Required material incorporated by reference

Bombardier Service Information	Revision Level	Date
Bombardier Alert Service Bulletin A670BA-21-022	Original	August 3, 2006
Task 21-32-01-000-801 of the Bombardier CRJ Regional Jet Series Aircraft Maintenance Manual, CSP B-001, Part 2, Volume 1	28	January 20, 2009
Task 21-32-01-400-801, of the Bombardier CRJ Regional Jet Series Aircraft Maintenance Manual, CSP B-001, Part 2, Volume 1	28	January 20, 2009

(1) The Director of the Federal Register approved the incorporation by reference of Bombardier Service Bulletin 670BA-21-030, dated December 22, 2009, under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) The Director of the Federal Register previously approved the incorporation by reference of the service information contained in Table 4 of this AD on May 29, 2009 (74 FR 22646, May 14, 2009).

Table 4 – Material previously incorporated by reference

Bombardier Service Information	Revision Level	Date
Bombardier Alert Service Bulletin A670BA-21-022	Original	August 3, 2006
Task 21-32-01-000-801 of the Bombardier CRJ Regional Jet Series Aircraft Maintenance Manual, CSP B-001, Part 2, Volume 1	28	January 20, 2009
Task 21-32-01-400-801, of the Bombardier CRJ Regional Jet Series Aircraft Maintenance Manual, CSP B-001, Part 2, Volume 1	28	January 20, 2009

(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; e-mail thd.crj@aero.bombardier.com; Internet <http://www.bombardier.com>.

(4) 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.

(5) 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 NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

Issued in Renton, Washington, on August 13, 2010.
Ali Bahrami,
Manager, Transport Airplane Directorate,
Aircraft Certification Service.