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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0625; Directorate Identifier 2008-NM-069-AD; Amendment 39-15789; AD 2009-01-10]

RIN 2120-AA64

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

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

ACTION: Final rule.

SUMMARY: We are adopting a new 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 a pre-delivery flight of a CL-600-2C10 aircraft, the AC essential bus did not come on-line following deployment of the Air Driven Generator (ADG). Following investigation, it was determined that a specific batch of contactors in the ADG Power Center (ADGPC) is susceptible to failure due to low contact pressure. * * *

The unsafe condition is a malfunction of the emergency AC generation and control system that supplies emergency AC power to essential flight instruments, including the flap and slat system, pitch trim system, and hydraulic pump 3B. Loss of essential flight instruments could prevent continued safe flight and landing of the airplane. We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective February 27, 2009.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of February 27, 2009.

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: Wing Chan, Aerospace Engineer, Systems and Flight Test Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7311; 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 June 9, 2008 (73 FR 32493). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

> During a pre-delivery flight of a CL-600-2C10 aircraft, the AC essential bus did not come on-line following deployment of the Air Driven Generator (ADG). Following investigation, it was determined that a specific batch of contactors in the ADG Power Center (ADGPC) is susceptible to failure due to low contact pressure. This directive mandates inspection of the ADGPC and replacement of any contactors in the suspect batch. It also prohibits future installation of ADGPCs and contactors that have not been inspected per this directive.

The unsafe condition is a malfunction of the emergency AC generation and control system that supplies emergency AC power to essential flight instruments, including the flap and slat system, pitch trim system, and hydraulic pump 3B. Loss of essential flight instruments could prevent continued safe flight and landing of the airplane. You may obtain further information by examining the MCAI in the AD docket.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received from a single commenter.

Request To Reduce Compliance Time

The Air Line Pilots Association (ALPA) supports the intent of the NPRM, but recommends that the compliance time allowed for the proposed actions be shortened from 24 months to 3 months. ALPA states that although its review of available fleet data did not reveal any incidents of full electrical failures in Bombardier airplanes, the ADG is the only remaining source of electrical power sustaining the batteries and flight-critical electrical systems if all other generators fail or are unavailable. ALPA adds that, under certain circumstances, there are procedures for deferring activation of an engine-driven or auxiliary power unit (APU) generator; however, the ADG is a non-deferrable item. ALPA notes that, given the potential consequences of a full electrical system failure, particularly in the low visibility weather conditions in which these airplanes routinely operate, the compliance time should be reduced.

We do not agree to reduce the compliance time specified in paragraph (f)(1) of this AD. In developing the compliance time for this AD action, we considered not only the safety implications of the identified unsafe condition, but the average utilization rate of the affected fleet, the practical aspects of an orderly inspection of the fleet during regular maintenance periods, and the availability

of replacement parts. In addition, we also considered the manufacturer's recommendation for an appropriate compliance time. After considering all the available information, we determined that performing the actions within 5,000 flight hours or 24 months, whichever occurs first, 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. We have made no change to the AD in this regard.

Request To Limit Special Flight Permit

ALPA also recommends that no flights be allowed with a non-operating engine-driven or APU generator unless the AD has been complied with.

We do not agree to limit flights as ALPA recommends. In the event of failure of an ADG and one engine driven generator (EDG), the airplane can be powered by one EDG and the APU generator. If both the ADG and APU generator fail, the airplane AC buses can be powered by both EDGs. Based on these factors, we have determined that such a limitation is not necessary. We have not changed the AD in this regard.

Conclusion

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD as proposed.

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.

Costs of Compliance

We estimate that this AD will affect 306 products of U.S. registry. We also estimate that it will take about 9 work-hours per product to comply with the basic requirements of this AD. The average labor rate is $80 per work-hour. Required parts will cost about $0 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 parts. 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 $220,320, or $720 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 adding the following new AD:

2009-01-10 Bombardier, Inc. (Formerly Canadair): Amendment 39-15789. Docket No. FAA-2008-0625; Directorate Identifier 2008-NM-069-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective February 27, 2009.

Affected ADs

(b) None.

Applicability

(c) This AD applies to Bombardier Model CL-600-2C10 (Regional Jet Series 700, 701, & 702) airplanes, serial numbers 10004 and subsequent; Model CL-600-2D15 (Regional Jet Series 705) airplanes and Model CL-600-2D24 (Regional Jet Series 900) airplanes, serial numbers 15002 and subsequent; certificated in any category.

Subject

(d) Air Transport Association (ATA) of America Code 24: Electrical power.

Reason

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

> "During a pre-delivery flight of a CL-600-2C10 aircraft, the AC essential bus did not come on-line following deployment of the Air Driven Generator (ADG). Following investigation, it was determined that a specific batch of contactors in the ADG Power Center (ADGPC) is susceptible to failure due to low contact pressure. This directive mandates inspection of the ADGPC and replacement of any contactors in the suspect batch. It also prohibits future installation of ADGPCs and contactors that have not been inspected per this directive."

The unsafe condition is malfunction of the emergency AC generation and control system that supplies emergency AC power to essential flight instruments, including the flap and slat system, pitch trim system, and hydraulic pump 3B. Loss of essential flight instruments could prevent continued safe flight and landing of the airplane.

Actions and Compliance

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

(1) For Model CL-600-2C10 airplanes having serial numbers 10004 through 10265, and Model CL-600-2D15 and CL-600-2D24 airplanes having serial numbers 15002 through 15162: Within 5,000 flight hours or 24 months after the effective date of this AD, whichever occurs first, inspect for the serial number of the installed ADGPC and, as applicable, for the serial numbers of installed

contactors K117, K147 and K153, in accordance with Part A of the Accomplishment Instructions of Bombardier Service Bulletin 670BA-24-021, Revision A, dated December 11, 2006. If the serial number of the ADGPC is in the range 134 through 250, and any installed contactor has a serial number in the range 411 through 777, before further flight, replace the affected contactor in accordance with Part B of Bombardier Service Bulletin 670BA-24-021, Revision A, dated December 11, 2006.

(2) Previous inspection of the ADGPC, and replacement of contactors, before the effective date of this AD, in accordance with Bombardier Service Bulletin 670BA-24-021, dated May 30, 2005, meets the requirements of paragraphs (f)(1) of this AD if the ADGPC has not been replaced since accomplishment of Bombardier Service Bulletin 670BA-24-021, Revision A, dated December 11, 2006.

(3) A review of the aircraft maintenance records to determine the ADGPC and contactor serial numbers also meets the inspection requirements of paragraph (f)(1) of this AD.

Parts Installation

(g) As of the effective date of this AD: No replacement/spare ADGPC having part number 781GA01Y00, with a serial number in the range 134 through 250, is permitted to be installed on any aircraft, unless the ADGPC has been modified according to paragraph (f)(1) of this AD.

(h) As of the effective date of this AD: No replacement/spare ADGPC contactor having part number 995CA01Y00, with a serial number in the range 411 through 777, is permitted to be installed on any aircraft, unless the ADGPC contactor is identified with two labels, as specified in Zodiac ECE Service Bulletin 995CA01Y-24-001, dated May 3, 2005.

FAA AD Differences

Note 1: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

(i) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office (ACO), 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: Wing Chan, Aerospace Engineer, Systems and Flight Test Branch, ANE-172, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7311; fax (516) 794-5531. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(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, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

Related Information

(j) Refer to MCAI Canadian Airworthiness Directive CF-2008-14, dated February 19, 2008; Bombardier Service Bulletin 670BA-24-021, Revision A, dated December 11, 2006; and Zodiac ECE Service Bulletin 995CA01Y-24-001, dated May 3, 2005; for related information.

Material Incorporated by Reference

(k) You must use Bombardier Service Bulletin 670BA-24-021, Revision A, dated December 11, 2006; and Zodiac ECE Service Bulletin 995CA01Y-24-001, dated May 3, 2005; as applicable; to do the actions required by this AD, unless the AD specifies otherwise.

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

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

(3) You may review copies of the service information that is incorporated by reference 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 or 425-227-1152.

(4) You may also review copies of the service information 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 December 18, 2008.
Stephen P. Boyd,
Assistant Manager, Transport Airplane Directorate,
Aircraft Certification Service.