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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2011-0992; Directorate Identifier 2011-NM-126-AD; Amendment 39-16968; AD 2012-04-12]**

**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-600-2B16 (CL-604 Variant) airplanes. This AD was prompted by reports of the air-driven generator (ADG) failing to provide power during operational/function checks due to wires in the ADG power feeder cables being damaged. The damage was due to galvanic corrosion and inadequate silver-plating. This AD requires replacing ADG power feeder cables. We are issuing this AD to prevent galvanic corrosion on ADG power feeder cables, which could result in damage to the cable and consequently the cable may not be able to provide emergency electrical power to the airplane.

**DATES:** This AD becomes effective April 10, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of April 10, 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:** Assata Dessaline, Aerospace Engineer, Avionics and Flight Test Branch, ANE-172, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7301; 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 September 23, 2011 (76 FR 59067). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Three (3) events have occurred where the Air-Driven Generator (ADG) failed to provide power on CL-600-2B19 (CRJ) aeroplanes during their regularly scheduled operational/functional checks. An investigation revealed that in all cases, the silver-plated copper wires within the ADG power feeder cables were damaged due to galvanic corrosion. It was subsequently determined that the silver-plating is inadequate for this application.

In the event of damage to the power feeder cable wires, the ADG may not be able to provide emergency electrical power to the aeroplane.

Although there have been no reported failures to date on any CL-600-2B16 (604 Variant) aeroplanes, a sampling program carried out on these aeroplanes showed signs of microscopic galvanic corrosion on the ADG power feeder cable wires.

This [Transport Canada] directive is issued to correct this potentially unsafe condition by mandating the replacement of all ADG power feeder cables \* \* \* with an ADG power feeder cable that contains tin-plated copper wires.

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 considered the comment received.

### **Request To Revise Applicability**

Bombardier Aerospace (Bombardier) commented that the aircraft applicability needs to be revised to remove two of the three model designations (Model CL-601-3A and -3R) specified in the NPRM (76 FR 59067, September 23, 2011), because only airplanes of the Model CL-604 Variant are affected by the proposed actions of the NPRM.

We agree to revise the applicability of this AD as requested. The airplane serial numbers specified in Transport Canada Civil Aviation (TCCA) Airworthiness Directive CF-2011-08, dated April 28, 2011 (cited in the NPRM (76 FR 59067, September 23, 2011) as the Canadian mandatory continuing airworthiness information (MCAI)), and Bombardier Service Bulletin 604-24-024, dated January 31, 2011 (cited as the appropriate service information for accomplishing the actions proposed by the NPRM) are all of the Model CL-604 Variant. We have changed the affected airplanes specified in the applicability in the Summary and in paragraph (c) of this AD accordingly.

### **Conclusion**

We reviewed the available data, including the comment received, and determined that air safety and the public interest require adopting the AD with the change described previously. We determined

that this change will not increase the economic burden on any operator or increase the scope of the AD.

## **Costs of Compliance**

We estimate that this AD will affect about 72 products of U.S. registry. We also estimate that it will take about 24 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$1,897 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 \$283,464, or \$3,937 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 proposed regulation:

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 (76 FR 59067, September 23, 2011), 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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**2012-04-12 Bombardier, Inc.:** Amendment 39-16968. Docket No. FAA-2011-0992; Directorate Identifier 2011-NM-126-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective April 10, 2012.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc. Model CL-600-2B16 (CL -604 Variant) airplanes, certificated in any category, serial numbers 5301, 5302, 5305 through 5318 inclusive, 5320 through 5328 inclusive, 5331 through 5349 inclusive, 5351 through 5367 inclusive, 5369 through 5408 inclusive, 5410, 5412 through 5426 inclusive, 5428 through 5438 inclusive, 5440 through 5489 inclusive, 5491 through 5498 inclusive, 5500 through 5517 inclusive, 5519 through 5522 inclusive, and 5524 through 5665 inclusive.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by reports of the air-driven generator (ADG) failing to provide power during operational/function checks due to wires in the ADG power feeder cables being damaged. The damage was due to galvanic corrosion and inadequate silver-plating. We are issuing this AD to prevent galvanic corrosion on ADG power feeder cables, which could result in damage to the cable and consequently the cable may not be able to provide emergency electrical power to the airplane.

**(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 72 months after the effective date of this AD, replace the ADG power feeder cable, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 604-24-024, dated January 31, 2011.

## **(h) 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.

## **(i) Related Information**

Refer to MCAI Transport Canada Civil Aviation (TCCA) Airworthiness Directive CF-2011-08, dated April 28, 2011; and Bombardier Service Bulletin 604-24-024, dated January 31, 2011; for related information.

## **(j) 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) under 5 U.S.C. 552(a) and 1 CFR part 51 of the following service information.

(i) Bombardier Service Bulletin 604-24-024, dated January 31, 2011, approved for IBR April 10, 2012.

(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, 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 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 February 22, 2012.

Ali Bahrami,  
Manager, Transport Airplane Directorate,  
Aircraft Certification Service.