



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1228; Directorate Identifier 2011-NM-176-AD; Amendment 39-17022; AD 2012-08-05]

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), 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 the air driven generator (ADG) failing to power essential buses during functional tests, due to the low threshold setting of the circuit protection on the ADG's generator control unit (GCU) preventing the ADG from supplying power to the essential buses. This AD requires installing a new or serviceable ADG GCU. We are issuing this AD to prevent loss of power from the ADG to the essential buses which, in the event of an emergency, could prevent continued safe flight.

DATES: This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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 (ACO), 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 November 8, 2011 (76 FR 69166). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

There have been several occurrences of the air driven generator (ADG) failure to power essential buses during functional tests of the ADG on aeroplane models CL-600-2B16 and CL-600-2B19. The aeroplane models CL-600-2C10, CL-600-2D15, CL-600-2D24, and CL-600-2E25 use the same ADG generator control unit (GCU) as models CL-600-2B16 and CL-600-2B19. However the aeroplane models CL-600-2C10, CL-

600-2D15, CL-600-2D24, and CL-600-2E25 are installed with a different hydraulic pump and do not experience the same failure due to the low threshold setting of the circuit protection.

However, it was found that the same ADG GCU transformer primary winding can break due to thermal fatigue. Broken transformer primary winding can prevent the supply of power from the ADG to the essential buses. In the event of an emergency, failure for the essential buses to remain powered can prevent continued safe flight.

This [TCCA] directive mandates the replacement of the ADG GCU.

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 have considered the comments received.

Request to Shorten the Compliance Time

The Air Line Pilots Association, International (ALPA) requested the compliance time of “10,000 flight hours or 60 months after the effective date of the AD” be reduced, because ALPA believes that the compliance time is too long to comply with the proposed AD (76 FR 69166, November 8, 2011) based on the importance of replacement.

We do not agree to shorten the compliance time. In developing the compliance time, we determined that the compliance time of 10,000 flight hours or 60 months after the effective date of the AD (whichever is first), is appropriate when considering the safety implications, 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 required replacement parts. In addition, our compliance time corresponds with the 10,000-flight-hour or 60-month compliance time of the parallel AD issued by Transport Canada Civil Aviation (TCCA). We have not changed the AD in this regard.

Request to Reference Hamilton Sundstrand's Part Number

Comair, Inc. requested that we revise paragraphs (g) and (h) of the NPRM (76 FR 69166, November 8, 2011) to reference Hamilton Sundstrand's part number, in addition to the Bombardier part numbers for the ADG GCU, because by doing so, Comair believes the proposed AD will make certain all suspect ADG GCUs are removed and replaced and will be congruent with the manufacturer's manual.

We agree with the request to reference the Hamilton Sundstrand part number for the ADG GCU unit that is affected and not higher assembly part numbers. Bombardier Service Bulletin 670BA-24-031, dated May 30, 2011, refers to Hamilton Sundstrand Service Bulletin ERPS10G-24-1, dated February 9, 2011, as an additional source of guidance for modifying and testing the ADG GCU with new printed wiring assemblies and re-identifying the GCU with a new part number. We have updated paragraphs (g) and (h) of this AD to include the Hamilton Sundstrand part number.

Explanation of Change to Costs of Compliance Section

The Costs of Compliance section in this AD has been updated to show a more accurate cost to operators. The work-hours quoted in Bombardier Service Bulletin 670BA-24-031, dated May 30, 2011, include only the labor time required for replacement, while Hamilton Sundstrand Service Bulletin ERPS10G-24-1, dated

February 9, 2011, estimates 4 work-hours for replacement of the printed wiring assemblies from the GCU and functional testing of the ADG. Because it may be necessary to do a non-destructive test (NDT) inspection on some airplanes, we have added an additional work-hour, resulting in a total labor time estimate of 6 work-hours in the Costs of Compliance section of this AD.

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.

Costs of Compliance

Based on the service information, we estimate that this AD affects 402 products of U.S. registry. We also estimate that it takes 6 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts cost \$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 on U.S. operators to be \$205,020, or \$510 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 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 (76 FR 69166, November 8, 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:

2012-08-05 Bombardier, Inc.: Amendment 39-17022. Docket No. FAA-2011-1228; Directorate Identifier 2011-NM-176-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(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 10003 through 10319 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 15260 inclusive.

(3) Bombardier, Inc. Model CL-600-2E25 (Regional Jet Series 1000) airplanes, serial numbers 19001 through 19012 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 power essential buses during functional tests, due to the low threshold setting of the circuit protection on the ADG's generator control unit (GCU) preventing the ADG from supplying power to the essential buses. We are issuing this AD to prevent loss of power

from the ADG to the essential buses which, in the event of an emergency, could prevent continued safe flight.

(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 10,000 flight hours or 60 months after the effective date of this AD, whichever occurs first, remove the ADG GCU, Bombardier part number (P/N) 604-90800-7 (Hamilton Sundstrand P/N 761341A) and install a new or serviceable ADG GCU, Bombardier P/N 604-90800-27 (Hamilton Sundstrand P/N 761341B), in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 670BA-24-031, dated May 30, 2011.

(h) Parts Installation

As of the effective date of this AD, no person may install an ADG GCU, Bombardier P/N 604-90800-7 (Hamilton Sundstrand P/N 761341A) on any airplane.

(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-2011-27, dated July 25, 2011; and Bombardier Service Bulletin 670BA-24-031, dated May 30, 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-24-031, dated May 30, 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; e-mail 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.

Issued in Renton, Washington, on April 6, 2012.

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

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