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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2008-0521; Directorate Identifier 2008-NM-040-AD; Amendment 39-15854; AD 2009-06-17]

RIN 2120-AA64

Airworthiness Directives; Bombardier Model CL-600-2B19 (Regional Jet Series 100 & 440) 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:

Following in-flight test deployments, several Air-Driven generators (ADGs) failed to come on-line. Investigation revealed that, as a result of a wiring anomaly that had not been detected during ADG manufacture, a short circuit was possible between certain internal wires and their metallic over-braided shields, which could result in the ADG not providing power when deployed. * * *

The unsafe condition is that failure of the ADG could lead to loss of several functions essential for safe flight. We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective April 30, 2009.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of April 30, 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: Fabio Buttitta, Aerospace Engineer, Airframe & Propulsion 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 May 7, 2008 (73 FR 25612). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Following in-flight test deployments, several Air-Driven generators (ADGs) failed to come on-line. Investigation revealed that, as a result of a wiring anomaly that had not been detected during ADG manufacture, a short circuit was possible between certain internal wires and their metallic over-braided shields, which could result in the ADG not providing power when deployed. This directive mandates checking of the ADG and modification of the ADG internal wiring, if required. It also prohibits future installation of unmodified ADGs.

The unsafe condition is that failure of the ADG could lead to loss of several functions essential for safe flight. 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 comments received.

Request To Extend Compliance Time for Inspecting the Identification Plate

Comair requests that we change the compliance time specified in paragraph (f)(1)(ii) of the NPRM to remove the "before further flight" phrase. Comair states that it has already reviewed its maintenance records and found that affected ADGs are installed on its fleet. Since the review was performed before the effective date of the AD, it is not clear when Comair would be required to inspect the ADG identification plate. Comair suggests a compliance time of 12 months after the effective date of the AD.

We agree to change the compliance time. The intent of the AD is to inspect and modify the ADG wiring within 12 months after the effective date of the AD. We have revised the compliance time of paragraph (f)(1)(ii) of this AD accordingly.

Request To Shorten Compliance Time and Restrict Dispatch Conditions

Air Line Pilots Association, International (ALPA), requests that the compliance time be shortened from 12 months to 3 months. ALPA states that although its review 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. In addition, ALPA states there are procedures for deferring an engine-driven or APU generator under certain circumstances, but the ADG is a non-deferrable item. ALPA recommends that, given the potential consequences of a full electrical system failure, particularly in low visibility weather conditions in which these airplanes routinely operate, we shorten the

compliance time to 3 months. ALPA also recommends that no flights be allowed with a non-operating engine-driven or APU generator unless this AD has been complied with.

We do not agree to shorten the compliance time. We have considered the risks (probability of dual engine shutdown due to a common cause and total loss of electrical power, including the emergency battery power) and have determined that a 12-month compliance time is appropriate. The issue of not allowing flights to be dispatched without an operational engine-driven or APU generator would be better addressed in the applicable Master Minimum Equipment List (MMEL). We are considering a revision to the MMEL for that issue. No change to the AD was made in this regard.

Request To Revise Applicability

Air Wisconsin Airlines requests that the applicability section of the AD be revised to apply to the part and serial numbers of the ADG instead of the serial numbers of the airplanes. Air Wisconsin points out that the ADG is a rotatable, serialized component which can be installed on any applicable airplane.

We do not agree to revise the applicability. The serial number range for the airplane addresses airplanes on which the ADG was delivered and airplanes on which the ADG could be installed. Paragraph (f)(1) of this AD addresses airplanes that were delivered with ADGs installed, while paragraph (f)(2) of this AD addresses airplanes that ADGs could be installed on. We have not revised the AD in this regard.

Request To Revise Installation Criteria for Identification Plate

Air Wisconsin requests that we revise a phrase in paragraph (f)(2) of this AD from "no ADG may be installed unless the identification plate of the ADG is identified with the symbol '24-2'" to "no ADG may be installed unless the ADG has been modified in accordance with [Bombardier] SB 601R-24-113." Air Wisconsin considers that what is important is not that the data plate has been marked "24-2", but that the modification in the service bulletin is done. Part 121 operators have approved methods for showing compliance with ADs.

We do not agree to revise the phrase in paragraph (f)(2) of this AD. Not all affected ADGs are installed on airplanes operated by Part 121 operators. Bombardier Service Bulletin 601R-24-113, Revision A, dated August 11, 2005, refers to Hamilton Sundstrand Service Bulletin ERPS10AG-24-2, dated February 19, 2004, as a source of information for accomplishing the Bombardier service bulletin. The Hamilton Sundstrand service bulletin specifies that ADGs modified in accordance with that service bulletin should have "24-2" marked on the identification plates. We have not changed the AD in this regard.

Clarification

We have revised paragraphs (f)(1)(i) and (f)(1)(ii)(A) of this AD from "by this AD." to "by this paragraph." to clarify that if the criteria in those paragraphs are met, no further actions are required by those paragraphs. The requirements of paragraph (f)(2) of this AD would still be in effect.

We have removed reference to Hamilton Sundstrand Service Bulletin ERPS10AG-24-2, dated February 19, 2004, from paragraph (f)(2) of this AD. Instead, we have added Note 1 of this AD to include this information.

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.

Costs of Compliance

We estimate that this AD will affect 686 products of U.S. registry. We also estimate that it will take about 5 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 \$274,400 or \$400 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:



2009-06-17 Bombardier, Inc. (Formerly Canadair): Amendment 39-15854. Docket No. FAA-2008-0521; Directorate Identifier 2008-NM-040-AD.

Effective Date

- (a) This airworthiness directive (AD) becomes effective April 30, 2009.

Affected ADs

- (b) None.

Applicability

(c) This AD applies to Bombardier Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes; certificated in any category; having serial numbers (SNs) 7305 through 7990, and 8000 and subsequent.

Subject

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

Reason

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

Following in-flight test deployments, several Air-Driven generators (ADGs) failed to come on-line. Investigation revealed that, as a result of a wiring anomaly that had not been detected during ADG manufacture, a short circuit was possible between certain internal wires and their metallic over-braided shields, which could result in the ADG not providing power when deployed. This directive mandates checking of the ADG and modification of the ADG internal wiring, if required. It also prohibits future installation of unmodified ADGs.

The unsafe condition is that failure of the ADG could lead to loss of several functions essential for safe flight.

Actions and Compliance

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

(1) For airplanes having serial number (SN) 7305 through 7990 and 8000 through 8083: Within 12 months after the effective date of this AD, inspect the SN of the installed ADG. A review of airplane maintenance records is acceptable in lieu of this inspection if the serial number of the ADG can be conclusively determined from that review.

(i) If the serial number is not listed in paragraph 1.A of Bombardier Service Bulletin 601R-24-113, Revision A, dated August 11, 2005, no further action is required by this paragraph.

(ii) If the serial number is listed in paragraph 1.A of Bombardier Service Bulletin 601R-24-113, Revision A, dated August 11, 2005, within 12 months after the effective date of this AD, inspect the ADG identification plate and, as applicable, do the actions of paragraph (f)(1)(ii)(A) or (f)(1)(ii)(B) of this AD.

(A) If the identification plate is marked with the symbol "24-2," no further action is required by this paragraph.

(B) If the identification plate is not marked with the symbol "24-2," modify the ADG wiring in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-24-113, Revision A, dated August 11, 2005.

(2) For airplanes having SN 7305 through 7990, and 8000 and subsequent: As of the effective date of this AD, no ADG as described in Table 1 of this AD may be installed on any airplane, unless the identification plate of the ADG is identified with the symbol "24-2."

Note 1: Bombardier Service Bulletin 601R-24-113, Revision A, dated August 11, 2005, refers to Hamilton Sundstrand Service Bulletin ERPS10AG-24-2, dated February 19, 2004, for further information on identifying the symbol "24-2."

Table 1 – ADG Identification

ADG Part Number -	Having ADG Serial Number -
604-90800-1 (761339C), 604-90800-17 (761339D), or 604-90800-19 (761339E)	0101 through 0132, 0134 through 0167, 0169 through 0358, 0360 through 0438, 0440 through 0456, 0458 through 0467, 0469, 0471 through 0590, 0592 through 0597, 0599 through 0745, 0747 through 1005, or 1400 through 1439

(3) Actions done before the effective date of this AD according to Bombardier Service Bulletin 601R-24-113, dated April 22, 2004, are considered acceptable for compliance with the corresponding actions specified in this AD, provided the ADG has not been replaced since those actions were done.

FAA AD Differences

Note 2: This AD differs from the MCAI and/or service information as follows: No differences.

Other FAA AD Provisions

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

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York Aircraft Certification Office, 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: Fabio Buttitta, Aerospace Engineer, Airframe & Propulsion 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. 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

(h) Refer to MCAI Canadian Airworthiness Directive CF-2008-09, dated February 5, 2008; and Bombardier Service Bulletin 601R-24-113, Revision A, dated August 11, 2005; for related information.

Material Incorporated by Reference

(i) You must use Bombardier Service Bulletin 601R-24-113, Revision A, dated August 11, 2005, 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, Quebec 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 or 425-227-1152.

(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 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 March 6, 2009.

Linda Navarro,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.