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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0861; Directorate Identifier 2012-NM-074-AD; Amendment 39-17364; AD 2013-04-07]

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 DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes. This AD was prompted by reports of the loss of the fixed frequency system, leading to the loss of power to the left and right buses and all systems serviced by these buses. This AD requires modification of the wiring and changes to existing airworthiness limitations. We are issuing this AD to prevent loss of the fixed frequency system, which could lead to loss of a number of the pilot's and co-pilot's flight instruments, in addition to other avionics systems.

DATES: This AD becomes effective April 9, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of April 9, 2013.

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 August 28, 2012 (77 FR 51946). That NPRM proposed to correct an unsafe condition for the specified products. The Mandatory Continuing Airworthiness Information (MCAI) states:

There have been several reported occurrences of the loss of the 400Hz [hertz] Fixed Frequency System, leading to the loss of power to the Left 115VAC [alternating current] bus, the Right 115VAC bus, the Left 26VAC bus, the Right 26VAC bus and all systems serviced by these four electrical buses. The loss of the 400Hz Fixed Frequency System has been attributed to a failure of one or two static inverters, which resulted in the loss of the remaining inverters. The loss of systems serviced by the four fixed frequency electrical buses creates an unsafe condition due to the loss of a number of the pilot's and co-pilot's flight instruments, in addition to the other avionics systems.

This [Canadian] Airworthiness Directive (AD) mandates the wiring modification to untie the 400Hz inverters and additional Airworthiness Limitation tasks introduced as a result of this modification.

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 comment received.

Request To Add Airplanes to the Applicability

All Nippon Airways (ANA) requested that Bombardier, Inc. Model DHC-8-314 airplanes be added to the applicability of the NPRM (77 FR 51946, August 28, 2012). ANA stated that Bombardier Service Bulletin 8-24-87, dated May 26, 2011, included Model DHC-8-314 airplanes in its effectivity, while Bombardier Service Bulletin 8-24-87, Revision A, dated October 5, 2011, excluded it.

We disagree with ANA's request. Bombardier, Inc. Model DHC-8-314 airplanes are not on the U.S. type certificate data sheet; therefore, no change is necessary. We have not changed this final rule in this regard.

Conclusion

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

Costs of Compliance

We estimate that this AD will affect 94 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 \$85 per work-hour. Based on these figures, we estimate the cost of this AD to the U.S. operators to be \$71,910, or \$765 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 (77 FR 51946, August 28, 2012), 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:



2013-04-07 Bombardier, Inc.: Amendment 39-17364. Docket No. FAA-2012-0861; Directorate Identifier 2012-NM-074-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective April 9, 2013.

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to Bombardier, Inc. Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes, certificated in any category, serial numbers 002 through 672 inclusive.

(2) This AD requires revisions to certain operator maintenance documents to include new actions (e.g., inspections). Compliance with these inspections is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these actions, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (k)(1) of this AD. The request should include a description of changes to the required inspections that will ensure the continued operational safety of the airplane.

(d) Subject

Air Transport Association (ATA) of America Code 24, Electrical Power.

(e) Reason

This AD was prompted by reports of the loss of the fixed frequency system, leading to the loss of power to the left and right buses and all systems serviced by these buses. We are issuing this AD to prevent loss of the fixed frequency system, which could lead to loss of a number of the pilot's and co-pilot's flight instruments, in addition to other avionics systems.

(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) Wiring Modifications

Within 6,000 flight hours or 36 months after the effective date of this AD, whichever occurs first: Incorporate the wiring modifications specified in, and in accordance with, the Accomplishment Instructions of Bombardier Service Bulletin 8-24-87, Revision B, dated April 3, 2012.

(h) Airplane Maintenance Program Revision

Within 30 days after the effective date of this AD: Revise the airplane maintenance program by incorporating Task 2420/13, Operational Check of Relays K4, K5, K6, and K7 (Post Modsum 8Q101917), in the applicable temporary revision specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD. The initial compliance time for Task 2420/13 is within 18,000 flight hours after accomplishing the actions specified in paragraph (g) of this AD, or 30 days after the effective date of this AD, whichever occurs later.

(1) For Model DHC-8-102, -103, and -106 airplanes: de Havilland Dash 8 Series 100 Temporary Revision AWL-117, dated April 8, 2011, to Section AWL2–Systems Maintenance, of Part 2, Airworthiness Limitations, of the Bombardier Dash 8 Series 100 Maintenance Program Manual, PSM 1-8-7.

(2) For Model DHC-8-201 and -202 airplanes: de Havilland Dash 8 Series 200 Temporary Revision AWL 2-48, dated April 8, 2011, to Section AWL2–Systems Maintenance, of Part 2, Airworthiness Limitations, of the Bombardier Dash 8 Series 200 Maintenance Program Manual, PSM 1-82-7.

(3) For Model DHC-8-301, -311, and -315 airplanes: de Havilland Dash 8 Series 300 Temporary Revision AWL 3-118, dated April 8, 2011, to Section AWL2–Systems Maintenance, of Part 2, Airworthiness Limitations, of the Bombardier Dash 8 Series 300 Maintenance Program Manual, PSM 1-83-7.

(i) No Alternative Actions or Intervals

After accomplishing the revision required by paragraph (h) of this AD, no alternative actions (e.g., inspections) or intervals may be used, unless the actions and intervals are approved as an AMOC in accordance with the procedures specified in paragraph (k)(1) of this AD.

(j) Credit for Previous Actions

This paragraph provides credit for the actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 8-24-87, dated May 26, 2011; or Bombardier Service Bulletin 8-24-87, Revision A, dated October 5, 2011; which are not incorporated by reference in this AD.

(k) 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.

(l) Related Information

Refer to MCAI Canadian Airworthiness Directive CF-2012-09, dated February 15, 2012, and the service information specified in paragraphs (l)(1) through (l)(4) of this AD, for related information.

(1) Bombardier Service Bulletin 8-24-87, Revision B, dated April 3, 2012.

(2) de Havilland Dash 8 Series 100 Temporary Revision AWL-117, dated April 8, 2011, to Section AWL2–Systems Maintenance, of Part 2, Airworthiness Limitations, of the Bombardier Dash 8 Series 100 Maintenance Program Manual, PSM 1-8-7.

(3) de Havilland Dash 8 Series 200 Temporary Revision AWL 2-48, dated April 8, 2011, to Section AWL2–Systems Maintenance, of Part 2, Airworthiness Limitations, of the Bombardier Dash 8 Series 200 Maintenance Program Manual, PSM 1-82-7.

(4) de Havilland Dash 8 Series 300 Temporary Revision AWL 3-118, dated April 8, 2011, to Section AWL2–Systems Maintenance, of Part 2, Airworthiness Limitations, of the Bombardier Dash 8 Series 300 Maintenance Program Manual, PSM 1-83-7.

(m) Material Incorporated by Reference

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

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Bombardier Service Bulletin 8-24-87, Revision B, dated April 3, 2012.

(ii) de Havilland Dash 8 Series 100 Temporary Revision AWL-117, dated April 8, 2011, to Section AWL2–Systems Maintenance, of Part 2, Airworthiness Limitations, of the Bombardier Dash 8 Series 100 Maintenance Program Manual, PSM 1-8-7.

(iii) de Havilland Dash 8 Series 200 Temporary Revision AWL 2-48, dated April 8, 2011, to Section AWL2–Systems Maintenance, of Part 2, Airworthiness Limitations, of the Bombardier Dash 8 Series 200 Maintenance Program Manual, PSM 1-82-7.

(iv) de Havilland Dash 8 Series 300 Temporary Revision AWL 3-118, dated April 8, 2011, to Section AWL2–Systems Maintenance, of Part 2, Airworthiness Limitations, of the Bombardier Dash 8 Series 300 Maintenance Program Manual, PSM 1-83-7.

(3) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; email thd.qseries@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, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this 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/cfr/ibr-locations.html>.

Issued in Renton, Washington, on February 11, 2013.

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