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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-1064; Directorate Identifier 2011-NM-075-AD; Amendment 39-16984; AD 2012-06-03]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Model BD-100-1A10 (Challenger 300) Airplanes

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Bombardier, Inc. Model BD-100-1A10 (Challenger 300) airplanes. This AD was prompted by reports that the horizontal stabilizer trim actuator (HSTA) no-back and the number 1 motor brake assembly (MBA) can both fail dormant. This AD requires revising the airplane maintenance schedule to include new functional tests of the HSTA no-back and HSTA brake system. We are issuing this AD to prevent dormant failure of the HSTA no-back and the number 1 MBA, which along with additional component failure could result in an uncontrollable horizontal stabilizer surface runaway without the ability to retrim, and consequent loss of the airplane.

DATES: This AD becomes effective May 10, 2012.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of May 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: Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7318; 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 October 11, 2011 (76 FR 62669), and proposed to correct an unsafe condition for the specified products. The MCAI states:

It was discovered that the Horizontal Stabilizer Trim Actuator (HSTA) No Back and the Number 1 Motor Brake Assembly (MBA) can both fail dormant. A failure of the HSTA No Back and the Brake System along with additional component failure could result in an uncontrollable horizontal stabilizer surface runaway without the ability to retrim. This condition, if not corrected, could lead to the loss of the aeroplane.

As a result, new Airworthiness Limitation Tasks, consisting of a functional test of the HSTA No Back and a functional test of the HSTA Brake System, have been introduced to ensure that a dormant failure of either component is detected and corrected.

This [TCCA] directive mandates the revision of the approved maintenance schedule to include these new tasks, including phase-in schedules.

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 single comment received.

Request To Revise Number of U.S.-Registered Airplanes

The commenter, Matthew B. Mitchell, stated that the number of U.S.-registered Model BD-100-1A10 airplanes exceeds the 76 airplanes shown in the Costs of Compliance section of this AD, and should be 238 airplanes, to agree with Aircraft Geometric Height Measurement Element (AGHME) figures.

We agree to revise the number of U.S.-registered airplanes used to determine the cost estimate in this AD. We have confirmed with Bombardier, Inc., that 217 Model BD-100-1A10 airplanes are registered in the U.S. We have changed the figures in the "Costs of Compliance" section of this AD accordingly.

Additional Changes Made to This AD

We have redesignated Note 1 of the NPRM (76 FR 62669, October 11, 2011) as paragraph (c)(2) of this AD, paragraph (c) of the NPRM as paragraph (c)(1) of this AD, and Note 2 of the NPRM as Note 1 to paragraphs (g) and (h) of this AD. We have also relocated Note 1 of this AD to follow paragraph (g) of this AD.

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 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

We estimate that this AD will affect 217 products of U.S. registry. We also estimate that it will take about 1 work-hour 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 \$18,445, or \$85 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 62669, October 11, 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:



2012-06-03 Bombardier, Inc.: Amendment 39-16984. Docket No. FAA-2011-1064; Directorate Identifier 2011-NM-075-AD.

(a) Effective Date

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

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to all Bombardier, Inc. Model BD-100-1A10 (Challenger 300) airplanes, certificated in any category.

(2) This AD requires revisions to certain operator maintenance documents to include new inspections. Compliance with these tasks is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by these inspections, the operator may not be able to accomplish the inspections 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 (j) 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 55: Stabilizers.

(e) Reason

This AD was prompted by reports that the horizontal stabilizer trim actuator (HSTA) no-back and the number 1 motor brake assembly (MBA) can both fail dormant. We are issuing this AD to prevent dormant failure of the HSTA no-back and the number 1 MBA, which along with additional component failure could result in an uncontrollable horizontal stabilizer surface runaway without the ability to retrim, and consequent loss of 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) Add Task 27-40-00-107 to the Maintenance Program

Within 30 days after the effective date of this AD: Revise the maintenance program by incorporating Task 27-40-00-107, "Functional Test of the Horizontal Stabilizer Trim Actuator (HSTA) No Back," in accordance with Bombardier Temporary Revision 5-2-59, dated November 25,

2010, to Section 5-10-40, of Part 2, of the Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks Manual. For this task, the initial compliance time starts at the applicable time specified in paragraph (g)(1) or (g)(2) of this AD.

Note 1 to paragraphs (g) and (h) of this AD: The maintenance program revision required by paragraphs (g) and (h) of this AD may be done by inserting a copy of Bombardier Temporary Revision 5-2-59, dated November 25, 2010, into Section 5-10-40, of Part 2, of the Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks Manual. When this Temporary Revision has been included in the general revisions of Section 5-10-40, of Part 2, of the Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks Manual, the general revisions may be inserted in Section 5-10-40, of Part 2, of the Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks Manual, provided that the relevant information in the general revision is identical to that in Bombardier Temporary Revision 5-2-59, dated November 25, 2010, to Section 5-10-40, of Part 2, of the Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks Manual.

(1) For HSTAs with 2,600 or fewer total flight hours on the HSTA as of the effective date of this AD: Prior to the accumulation of 3,000 total flight hours on the HSTA.

(2) For HSTAs with more than 2,600 total flight hours on the HSTA as of the effective date of this AD: Within 400 flight hours or 6 months after the effective date of this AD, whichever occurs first.

(h) Add Task 27-41-05-105 to the Maintenance Program

Within 30 days after the effective date of this AD, whichever occurs later: Revise the maintenance program by incorporating Task 27-41-05-105, "Functional Test of the Horizontal Stabilizer Trim Actuator (HSTA) Brake System," in accordance with Bombardier Temporary Revision 5-2-59, dated November 25, 2010, to Section 5-10-40, of Part 2, of the Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks Manual. For this task, the initial compliance time starts at the applicable time specified in paragraph (h)(1) or (h)(2) of this AD.

(1) For airplanes with 400 or fewer total flight hours as of the effective date of this AD: Prior to the accumulation of 800 total flight hours.

(2) For airplanes with more than 400 total flight hours as of the effective date of this AD: Within 400 flight hours or 12 months after the effective date of this AD, whichever occurs first.

(i) No Alternative Actions or Intervals

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

(j) 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.

(k) Related Information

Refer to MCAI Canadian Airworthiness Directive CF-2011-05, dated March 24, 2011; and Bombardier Temporary Revision 5-2-59, dated November 25, 2010, to Section 5-10-40, of Part 2, of the Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks Manual; for related information.

(l) 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 Temporary Revision 5-2-59, dated November 25, 2010, to Section 5-10-40, of Part 2, of the Bombardier Challenger 300 BD-100 Time Limits/Maintenance Checks Manual.

(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; 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 March 9, 2012.

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