DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-1050; Directorate Identifier 2014-NM-123-AD; Amendment 39-18241; AD 2015-17-08]

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-8-400 series airplanes. This AD was prompted by an in-service report of an uncommanded and unannunciated nose wheel steering during airplane pushback from the gate. This AD requires installing new cable assemblies with a pull-down resistor. We are issuing this AD to prevent an uncommanded nose wheel steering during takeoff or landing in the event of an open circuit in the steering system, and possible consequent runway excursion.

DATES: This AD becomes effective September 29, 2015.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of September 29, 2015.

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2014-1050 or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

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. You may view this referenced 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. It is also available on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2014-1050.
FOR FURTHER INFORMATION CONTACT: Assata Dessaline, Aerospace Engineer, Avionics and Services Branch, ANE-172, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 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 by adding an AD that would apply to certain Bombardier, Inc. Model DHC-8-400 series airplanes. The NPRM published in the Federal Register on January 23, 2015 (80 FR 3504).

The Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2013-38, dated November 28, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for certain Bombardier, Inc. Model DHC-8-400, -401, and -402 series airplanes. The MCAI states:

There has been one in-service report of an un-commanded and un-annunciated nose wheel steering during aeroplane push-back from the gate. The investigation revealed that a design deficiency exists within the steering control unit (SCU) where an open circuit may not be adequately detected and annunciating to the flight crew. A sustained open circuit could result in an un-commanded and un-annunciated nose wheel steering input.

Un-commanded nose wheel steering during takeoff or landing may lead to a runway excursion.

This [Canadian] AD mandates the installation of new cable assemblies, with a pull-down resistor, to ensure that the nose wheel steering system reverts to fail-safe free castor mode in the event of an open circuit in the steering system.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2014-1050-0002.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the NPRM (80 FR 3504, January 23, 2015) and the FAA's response to each comment.

Request To Remove Certain Service Information Procedures

Horizon Air requested that we amend paragraph (g) of the proposed AD (80 FR 3504, January 23, 2015) to exclude Part A, "Job Set-up," and Part C "Close Out," sections of the Accomplishment Instructions in Bombardier Service Bulletin 84-32-122, Revision A, dated August 28, 2013 Horizon Air stated that Part A, "Job Set-up," and Part C, "Close Out," do not directly correct the unsafe condition. Horizon Air explained that requiring operators to perform the actions in these sections in a specific manner restricts the operator's ability to perform other maintenance in conjunction with performing the corrective action.

We agree with the commenter's request to exclude the "Job Set-up" and "Close Out" sections of the Accomplishment Instructions of Bombardier Service Bulletin 84-32-122, Revision A, dated August 28, 2013. We have revised paragraph (g) of this AD to require accomplishment of only

Conclusion

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this AD with the change described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (80 FR 3504, January 23, 2015) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 3504, January 23, 2015).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Related Service Information Under 1 CFR Part 51

Bombardier, Inc. has issued Service Bulletin 84-32-122, Revision A, dated October 4, 2013. This service information describes procedures for incorporating Bombardier Modification Summary (Modsum) 4-126585 to install new cable assemblies with a pull-down resistor to the pilot hand control and rudder pedal potentiometer of the nose wheel steering control unit. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

Costs of Compliance

We estimate that this AD affects 81 airplanes of U.S. registry.

We also estimate that it will take about 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 will cost about $2,541 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be $247,131, or $3,051 per product.

Authority for This Rulemaking


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.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2014-1050; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, 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.

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 airworthiness directive (AD):

(a) Effective Date

This AD becomes effective September 29, 2015.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 series airplanes, certificated in any category, serial numbers 4001 through 4448 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing gear.

(e) Reason

This AD was prompted by an in-service report of an uncommanded and unannunciated nose wheel steering during airplane pushback from the gate. We are issuing this AD to prevent an uncommanded nose wheel steering during takeoff or landing in the event of an open circuit in the steering system, and possible consequent runway excursion.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Incorporate Bombardier Modification Summary (Modsum) 4-126585

Within 2,000 flight cycles or 12 months after the effective date of this AD, whichever occurs first: Incorporate Bombardier Modsum 4-126585 to install new cable assemblies, with a pull-down resistor, in accordance with paragraph B., "Procedure," of the Accomplishment Instructions of Bombardier Service Bulletin 84-32-122, Revision A, dated October 4, 2013.

(h) Credit for Previous Actions

This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 84-32-122, dated August 28, 2013. This service information is not incorporated by reference in this AD.
(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 New York ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 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) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO, ANE-170, FAA; or the Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s, TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2013-38, dated November 28, 2013, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2014-1050.

(2) Service information identified in this AD that is not incorporated by reference may be obtained at the addresses specified in paragraphs (k)(3) and (k)(4) of this AD.

(k) 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 this AD specifies otherwise.


(ii) Reserved.

(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 view this 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 August 10, 2015.
Michael Kaszycki,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.