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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0171; Directorate Identifier 2014-NM-038-AD; Amendment 39-17812; AD 2014-06-08]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Airplanes

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

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc. Model DHC-8 airplanes. This AD requires repetitive functional checks of the nose and main landing gear, and corrective actions if necessary. This AD also provides optional terminating action for the repetitive functional checks. This AD was prompted by a report that the emergency downlock indication system (EDIS) had given a false landing gear down-and-locked indication. We are issuing this AD to detect and correct a false down-and-locked landing gear indication, which, on landing, could result in possible collapse of the landing gear.

DATES: This AD becomes effective April 14, 2014.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of April 14, 2014.

We must receive comments on this AD by May 12, 2014.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0171; 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 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. Comments will be available in the AD docket shortly after receipt.

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, NY 11590; telephone (516) 228-7318; fax: (516) 794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, issued Canadian Airworthiness Directive CF-2014-11, dated February 13, 2014 (the Mandatory Continuing Airworthiness Information, referred to after this as "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

During an in-service event where the landing gear control panel indicated an unsafe nose landing gear, the flight crew observed that all three green lights were illuminated on the emergency downlock indication system. The nose landing gear was not down and locked, and collapsed during landing.

Investigation found ambient light and wiring shorts can lead to incorrect illumination of the green lights on the emergency downlock indication system.

This [TCCA] AD mandates the functional check of the nose and main landing gear alternate indication phototransistors and the modification of the emergency downlock indication system.

The unsafe condition is a false down-and-locked landing gear indication, which, on landing, could result in possible collapse of the landing gear. This AD provides the modification as optional terminating action for the repetitive functional checks of the alternate indication phototransistors of the nose and main landing gear. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0171.

Relevant Service Information

Bombardier has issued the following service bulletins.

- Bombardier Service Bulletin 8-32-173, Revision A, dated December 17, 2012.
- Bombardier Service Bulletin 8-32-176, Revision A, dated February 22, 2013.

- Bombardier Service Bulletin 8-32-177, dated October 9, 2013.
- Bombardier Service Bulletin 8-33-56, Revision A, dated February 22, 2013.

The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of the same type design.

Difference Between This AD and the MCAI or Service Information

Canadian Airworthiness Directive CF-2014-11, dated February 13, 2014, requires modification of the EDIS. We have determined that this EDIS modification would eliminate the need for the functional checks of the alternate indication phototransistors of the nose and main landing gear required by this AD. Therefore, this final rule provides for the modification as an optional terminating action for the functional checks. However, we are considering further rulemaking to require the modification on all affected airplanes.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because ambient light and wiring shorts can lead to incorrect illumination of the green lights on the EDIS. This condition could lead to the landing gear not being down and locked, and consequent landing gear collapse during landing. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2014-0171; Directorate Identifier 2014-NM-038-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

Costs of Compliance

We estimate that this AD affects 85 airplanes of U.S. registry.

We also estimate that it will take about 3 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 on U.S. operators to be \$21,675, or \$255 per product, per inspection cycle.

We estimate that it would take up to 40 work-hours per product to do the optional terminating action provided in this AD. Parts would cost up to \$19,436.00 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be up to \$1,941,060, or \$22,836 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this AD.

According to the manufacturer, all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

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.

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):



2014-06-08 Bombardier, Inc.: Amendment 39-17812. Docket No. FAA-2014-0171; Directorate Identifier 2014-NM-038-AD.

(a) Effective Date

This AD becomes effective April 14, 2014.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Bombardier, Inc. Model DHC-8-101, -102, -103, -106, -201, -202, -301, -311, and -315 airplanes, certificated in any category, serial numbers 003 through 672 inclusive.

(d) Subject

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

(e) Reason

This AD was prompted by a report that the emergency downlock indication system had given a false landing gear down-and-locked indication. We are issuing this AD to detect and correct a false down-and-locked landing gear indication, which, on landing, could result in possible collapse of the landing gear.

(f) Compliance

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

(g) Functional Check

Within 600 flight hours or 100 days, whichever occurs first after the effective date of this AD: Perform a functional check of the alternate indication phototransistors of the nose and main landing gear; and do all applicable corrective actions; in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-32-173, Revision A, dated December 17, 2012. Do all applicable corrective actions before further flight. Repeat the functional check thereafter at intervals not to exceed 600 flight hours or 100 days, whichever occurs first, until accomplishment of the applicable actions specified in paragraph (h) of this AD.

(h) Optional Terminating Action

Accomplishment of the applicable actions specified in paragraphs (h)(1) through (h)(3) of this AD terminates the requirements of paragraph (g) of this AD.

(1) For airplanes configured as described in Modsum 8/1519: Incorporate Modsum 8Q101968, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-33-56, Revision A, dated February 22, 2013.

(2) For airplanes configured as described in Modsum 8/0235, 8/0461, and 8/0534: Incorporate Modsum 8Q101955, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-32-176, Revision A, dated February 22, 2013.

(3) For airplanes not configured as described in Modsum 8/0534: Incorporate Modsum 8Q101969, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-32-177, dated October 9, 2013.

(i) Credit for Previous Actions

(1) 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 8-32-173, dated October 28, 2011, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for actions required by paragraph (h)(1) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 8-33-56, dated February 11, 2013, which is not incorporated by reference in this AD.

(3) This paragraph provides credit for actions required by paragraph (h)(2) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 8-32-176, dated February 11, 2013, which is not incorporated by reference in 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, 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) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they were approved by the State of Design Authority (or its delegated agent, or the DAH with a State of Design Authority's design organization approval, as applicable). You are required to ensure the product is airworthy before it is returned to service.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2014-11, dated February 13, 2014, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0171.

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

(I) 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.

(i) Bombardier Service Bulletin 8-32-173, Revision A, dated December 17, 2012.

(ii) Bombardier Service Bulletin 8-32-176, Revision A, dated February 22, 2013.

(iii) Bombardier Service Bulletin 8-32-177, dated October 9, 2013.

(iv) Bombardier Service Bulletin 8-33-56, Revision A, dated February 22, 2013.

(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 March 19, 2014.

Ross Landes,
Acting Manager, Transport Airplane Directorate,
Aircraft Certification Service.