

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0151; Directorate Identifier 2009-NM-205-AD; Amendment 39-16781; AD 2011-17-17]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc. Model DHC-8-400 Series Airplanes

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

ACTION: Final rule.

SUMMARY: We are superseding an existing airworthiness directive (AD) that applies to 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:

Two cases of main landing gear collapse had been reported. Main landing gear collapse may result in unsafe landing of the aircraft.

* * * * *

We are issuing this AD to require actions to correct the unsafe condition on these products.

DATES: This AD becomes effective October 18, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of October 18, 2011.

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: Craig Yates, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7355; 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 March 8, 2011 (76 FR 12629), and proposed to supersede AD 2007-22-09, Amendment 39-15245 (72 FR 61288, October 30, 2007). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Two cases of main landing gear collapse had been reported. Main landing gear collapse may result in unsafe landing of the aircraft.

Revision 1 of this directive amended the time compliance in paragraph C.2 (3 months in addition to 500 hours air time), to add new paragraph C.3 to cater for retract actuator which has accumulated less than 4,000 landings or 2 years since new and to add new paragraphs B.2 and C.4 to require that the respective inspections be repetitively performed until terminating action becomes available.

Revision 2 of this directive amends the detailed visual inspection requirement in paragraph C.3 to include the main landing gear retract actuator, part number 46550-11, and to add new paragraph F to mandate the incorporation of main landing gear retract actuator part number, 46550-13 as the terminating action and to add new paragraph G for the maintenance requirement.

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 received no comments on the NPRM (76 FR 12629, March 8, 2011) or on the determination of the cost to the public.

Change Made to This AD

We have removed paragraph (v)(3)(i)(D) of the NPRM (76 FR 12629, March 8, 2011) from this AD, and reidentified subsequent paragraphs accordingly.

Conclusion

We reviewed the available data, and determined that air safety and the public interest require adopting the AD with the change described previously. We determined that this change 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 about 55 products of U.S. registry.

The actions that are required by AD 2007-22-09, Amendment 39-15245 (72 FR 61288, October 30, 2007), and retained in this AD take about 5 work-hours per product, at an average labor rate of \$85 per work-hour. Based on these figures, the estimated cost of the currently required actions is \$425 per product.

We estimate that it will take about 8 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$27,511 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 \$1,550,505, or \$28,191 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 (76 FR 12629, March 8, 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 removing Amendment 39-15245 (72 FR 61288, October 30, 2007) and adding the following new AD:



2011-17-17 Bombardier, Inc.: Amendment 39-16781. Docket No. FAA-2011-0151; Directorate Identifier 2009-NM-205-AD.

Effective Date

(a) This airworthiness directive (AD) becomes effective October 18, 2011.

Affected ADs

(b) This AD supersedes AD 2007-22-09, Amendment 39-15245 (72 FR 61288, October 30, 2007).

Applicability

(c) This AD applies to Bombardier, Inc. Model DHC-8-400, -401, and -402 airplanes, certificated in any category, having serial numbers (S/Ns) 4001, 4003, 4004, 4006, and 4008 through 4208 inclusive.

Subject

(d) Air Transport Association (ATA) of America Code 32: Landing Gear.

Reason

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

Two cases of main landing gear collapse had been reported. Main landing gear collapse may result in unsafe landing of the aircraft.

* * * * *

Compliance

(f) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

Restatement of Requirements of AD 2007-22-09, Amendment 39-15245 (72 FR 61288, October 30, 2007), With Updated Service Information, Limited Affected Airplanes, and Revised Compliance Times

General Visual Inspection of Main Landing Gear (MLG) System, and Corrective Actions

(g) For airplanes having S/Ns 003, 004, 006, and 008 through 182 inclusive (now referred to as S/Ns 4003, 4004, 4006, and 4008 through 4182 inclusive), before further flight, do a general visual inspection to detect discrepancies of the left- and right-hand MLG system and do all applicable

corrective actions, in accordance with a method approved by the Manager, New York Aircraft Certification Office (ACO), FAA; or Transport Canada Civil Aviation (TCCA) (or its delegated agent).

Note 1: For the purposes of this AD, a general visual inspection is: “A visual examination of an interior or exterior area, installation, or assembly to detect obvious damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to ensure visual access to all surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked.”

Note 2: Guidance on doing a general visual inspection to detect discrepancies of the left- and right-hand MLG system can be found in Tasks Z700-03E and Z700-04E of Part 1 (Maintenance Review Board Report) of the Bombardier DHC-8 Series 400 Maintenance Requirements Manual (PSM 1-84-7).

General Visual Inspection of the Jam Nut of the Retract Actuator of the MLG and Corrective Actions

(h) For all airplanes except for the airplane having serial number 4001: Before further flight, do a general visual inspection of the jam nut of the retract actuator of the left- and right-hand MLG to ensure the wire lock is in place and the nut is secured. If the wire lock is not in place or if the jam nut is not secured, before further flight, adjust the retracted length of the rod end, torque the jam nut, install a wire lock, and lubricate the piston, as applicable, in accordance with Bombardier Repair Drawing (RD) 8/4-32-059, Issue 4, dated September 14, 2007; or Issue 7, dated June 26, 2008. As of the effective date of this AD, use only Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008. Doing the revision required by paragraph (r) of this AD terminates the inspection required by this paragraph.

Note 3: Bombardier RD 8/4-32-059, Issue 4, dated September 14, 2007, refers to Goodrich Service Concession Request SCR 086-07, Revision C, dated September 14, 2007 (specifically item 14); and Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008, refers to Goodrich Service Concession Request SCR 086-07, Revision F, dated June 13, 2008 (specifically item 14); as an additional source of service information for adjusting the retracted length of the rod end, torquing the jam nut, installing a wire lock, and lubricating the piston if necessary, as required by paragraph (h) of this AD.

Detailed Inspection of the Retract Actuator of the MLG, With Extended Compliance Time for Paragraph (j) of This AD

(i) For airplanes having S/Ns 003, 004, 006, and 008 through 182 inclusive (now referred to as S/Ns 4003, 4004, 4006, and 4008 through 4182 inclusive) on which the retract actuator of the MLG, part number (P/N) 46550-7 or 46550-9, has accumulated 8,000 or more total landings or has been in-service 4 or more years since new, as of November 14, 2007 (the effective date of AD 2007-22-09, Amendment 39-15245 (72 FR 61288, October 30, 2007)): Before further flight, do a detailed inspection of affected parts for any signs of corrosion or wear, and applicable related investigative and corrective actions, in accordance with Bombardier RD 8/4-32-059, Issue 4, dated September 14, 2007; or Issue 7, dated June 26, 2008. As of the effective date of this AD, use only Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008.

Note 4: For the purposes of this AD, a detailed inspection is: “An intensive examination of a specific item, installation, or assembly to detect damage, failure, or irregularity. Available lighting is normally supplemented with a direct source of good lighting at an intensity deemed appropriate. Inspection aids such as mirror, magnifying lenses, etc., may be necessary. Surface cleaning and elaborate procedures may be required.”

(j) For airplanes having S/Ns 003, 004, 006, and 008 through 182 inclusive (now referred to as S/Ns 4003, 4004, 4006, and 4008 through 4182 inclusive) with a retract actuator of the MLG, P/N 46550-7 or 46550-9, other than those identified in paragraph (i) of this AD: Do a detailed inspection of affected parts for any signs of corrosion or wear, and applicable related investigative and corrective actions, in accordance with Bombardier RD 8/4-32-059, Issue 4, dated September 14, 2007; or Issue 7, dated June 26, 2008; at the later of the times specified in paragraphs (j)(1) and (j)(2) of this AD. As of the effective date of this AD, use only Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008.

(1) Before the accumulation of 4,500 total landings or 27 months since new, whichever occurs first.

(2) Within 500 flight hours after November 14, 2007, or within 3 months after the effective date of this AD, whichever occurs first.

Note 5: Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008, refers to Goodrich Service Concession Request SCR 086-07, Revision F, dated June 13, 2008, as an additional source of service information for accomplishing the applicable related investigative and corrective actions required by paragraphs (i) and (j) of this AD.

Actions Done in Accordance With Previous Issues of Service Information

(k) Actions done before November 14, 2007, in accordance with repair drawings specified in Table 1 of this AD, are acceptable for compliance with the corresponding actions specified in paragraphs (h) through (j) of this AD.

Table 1—Previous Repair Drawings

Document	Issue	Date
Bombardier Repair Drawing 8/4-32-059	1	September 12, 2007
Bombardier Repair Drawing 8/4-32-059	2	September 13, 2007
Bombardier Repair Drawing 8/4-32-059	3	September 13, 2007

New Requirements of This AD

General Visual Inspection of the Jam Nut of the Retract Actuator of the MLG, and Corrective Actions

(l) For all airplanes: At the later of the times specified in paragraphs (l)(1) and (l)(2) of this AD, do a general visual inspection of the left- and right-hand MLG retract actuator jam nut to ensure that the wire lock is in place and that the nut is secure, in accordance with a method approved by the Manager, New York ACO, FAA; or TCCA (or its delegated agent). If the wire lock is not in place or the jam nut is not secured, before further flight, re-torque the jam nut and safety lockwire, in accordance with Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008. Repeat the inspection thereafter at intervals not to exceed 250 flight cycles or 30 days, whichever occurs first. Doing the revision required by paragraph (r) of this AD terminates the inspections required by this paragraph.

(1) Within 250 flight cycles or 30 days after accomplishing the inspection required by paragraph (h) of this AD, whichever occurs first.

(2) Within 7 days after the effective date of this AD.

Note 6: Guidance for doing a general visual inspection to detect discrepancies of the left- and right-hand MLG system can be found in Tasks Z700-03E and Z700-04E of Part 1 (Maintenance Review Board Report) of the Bombardier DHC-8 Series 400 Maintenance Requirements Manual (PSM 1-84-7).

Detailed Inspection of the Retract Actuator of the MLG, and Related Investigative and Corrective Actions

(m) For airplanes equipped with a MLG retract actuator having P/N 46550-7 or 46550-9: At the later of the times specified in paragraphs (m)(1) and (m)(2) of this AD, do a detailed inspection of affected parts for any signs of corrosion or wear, and do applicable related investigative and corrective actions, in accordance with Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008. Do all applicable related investigative and corrective actions before further flight. Repeat the inspection thereafter at intervals not to exceed 2,000 flight cycles or 12 months, whichever occurs first.

(1) Within 2,000 flight cycles or within 12 months after accomplishing the inspection required by paragraph (i) or (j) of this AD, whichever occurs first.

(2) Within 30 days after the effective date of this AD.

(n) For airplanes having serial numbers 4001, 4003, 4004, 4006, and 4008 through 4182 inclusive equipped with a MLG retract actuator having P/N 46550-11: At the later of the times specified in paragraphs (n)(1) and (n)(2) of this AD, do a detailed inspection of affected parts for any signs of corrosion or wear, and applicable related investigative and corrective actions, in accordance with Bombardier RD 8/4-32-059, Issue 7, dated June 26, 2008. Do all applicable related investigative and corrective actions before further flight. Repeat the inspection thereafter at intervals not to exceed 2,000 flight cycles or 12 months, whichever occurs first.

(1) Before the accumulation of 4,500 total landings or 27 months since new, whichever occurs first.

(2) Within 500 flight hours or 3 months after the effective date of this AD, whichever occurs first.

(o) For airplanes having serial numbers 4001, 4003, 4004, 4006, and 4008 through 4182 inclusive equipped with a MLG retract actuator having P/N 46550-7, P/N 46550-9, or P/N 46550-11, and that have accumulated 7,500 total flight cycles or more as of the effective date of this AD, or that have more than 48 months since new: Within 500 flight cycles or 3 months after the effective date of this AD, whichever occurs first, replace the affected retract actuator with a new design retract actuator having P/N 46550-13, in accordance with Bombardier Service Bulletin 84-32-55, Revision A, dated March 10, 2008 (Bombardier Modsum 4-901603). Doing the replacement specified in this paragraph terminates the requirements of paragraphs (i), (j), (m), and (n) of this AD.

(p) For airplanes having serial numbers 4001, 4003, 4004, 4006, and 4008 through 4182 inclusive equipped with MLG retract actuators having P/N 46550-7, P/N 46550-9, or P/N 46550-11, that have accumulated less than 7,500 total flight cycles as of the effective date of this AD and that have 48 months or less since new: Prior to the accumulation of 8,000 total flight cycles, or within 51 months since new, whichever occurs first, replace the affected retract actuator with a new design retract actuator having P/N 46550-13, in accordance with Bombardier Service Bulletin 84-32-55, Revision A, dated March 10, 2008 (Bombardier Modsum 4-901603). Doing the replacement specified in this paragraph terminates the requirements of paragraphs (i), (j), (m), and (n) of this AD.

(q) Replacing the affected retract actuator with a new design retract actuator having P/N 46550-15, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 84-32-60, Revision A, dated September 29, 2008 (Bombardier Modsum 4-901610), is also acceptable for compliance with the requirements of paragraphs (o) and (p) of this AD.

Revision of the Maintenance Program

(r) For all airplanes: Within 30 days after the effective date of this AD, revise the maintenance program by incorporating Task 320100-211 (repetitive detailed inspections of the retraction actuator rod end jam nut, gland nut, and actuator attachment pins for condition, the security of installation, and corrosion) and Task 320100-212 (repetitive restorations of the retraction actuator for complete overhaul), as specified in Bombardier Temporary Revision (TR) MRB-35, dated November 18, 2008, to the Bombardier Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7). Doing this revision terminates the requirements of paragraphs (h) and (l) of this AD. The initial compliance times for doing Task 320100-211 and Task 320100-212 are specified in paragraphs (r)(1) and (r)(2) of this AD. After doing this revision, no alternative inspections, restorations, or intervals may be used, unless the inspections, restorations, or intervals are approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (v)(1) of this AD.

(1) For Task 320100-211 in Bombardier TR MRB-35, dated November 18, 2008, to the Bombardier Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7): The compliance time for the initial inspection is within 600 flight hours after the effective date of this AD.

(2) For Task 320100-212 in Bombardier TR MRB-35, dated November 18, 2008, to the Bombardier Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7): The compliance time for the initial restoration is the later of the times of paragraphs (r)(2)(i) and (r)(2)(ii) of this AD.

(i) Prior to the accumulation of 25,000 total flight cycles, or within 12 years since the date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness, whichever occurs first.

(ii) Within 500 flight cycles after the effective date of this AD.

Note 7: The actions required by paragraph (r) of this AD may be done by inserting copies of Bombardier TR MRB-35, dated November 18, 2008, into the Bombardier Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7). When this TR has been included in general revisions of the PSM, the general revisions may be inserted in the PSM, provided the relevant information in the general revision is identical to that in Bombardier TR MRB-35, dated November 18, 2008.

Credit for Actions Accomplished in Accordance With Previous Service Information

(s) Doing a general visual inspection of the jam nut of the retract actuator of the left- and right-hand MLG; and doing a detailed inspection of affected parts for any signs of corrosion or wear, and applicable related investigative and corrective actions; is also acceptable for compliance with the corresponding requirements of paragraphs (h), (i), (j), (l), (m), and (n) of this AD, if done before the effective date of this AD in accordance with Bombardier Repair Drawing 8/4-32-059, Issue 5, dated September 20, 2007; or Bombardier Repair Drawing 8/4-32-059, Issue 6, dated January 31, 2008.

(t) Replacing the affected retract actuator with a new design retract actuator having P/N 46550-13 is also acceptable for compliance with the requirements of paragraphs (o) and (p) of this AD, if done before the effective date of this AD in accordance with Bombardier Service Bulletin 84-32-55, dated January 14, 2008 (Modsum 4-901603).

No Reporting

(u) While Canadian Airworthiness Directive CF-2007-20R2, dated February 6, 2009, has a reporting action, this AD does not require reporting.

FAA AD Differences

Note 8: This AD differs from the MCAI and/or service information as follows: Although the MCAI or service information tells you to submit information to the manufacturer, paragraph (u) of this AD specifies that such submittal is not required.

Other FAA AD Provisions

(v) 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. AMOCs approved previously in accordance with AD 2007-22-09, Amendment 39-15245 (72 FR 61288, October 30, 2007), are approved as AMOCs for the corresponding provisions of paragraph (i) and (j) of 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.

(3) Special Flight Permits: Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the airplane can be inspected (if the operator elects to do so), provided that the procedures and limitations in paragraphs (v)(3)(i) and (v)(3)(ii) of this AD are adhered to.

(i) Flight Crew Limitations and Procedures:

(A) Ferry flight with gear extended and pinned;

(B) Landing to be conducted at a minimum descent rate;

(C) Minimize braking on landing;

(D) Only essential crew on board; and

(E) Flight in known or forecast icing condition is prohibited.

(ii) Maintenance Procedures:

(A) Do the general visual inspection required by paragraph (h) of this AD;

(B) Do the general visual inspections of the stabilizer stay and the hinge points of the MLG for general condition and security, in accordance with Bombardier Q400 All Operator Message 236A, dated September 11, 2007;

(C) If no discrepancy is detected during the inspections required by paragraph (v)(3)(ii)(A) and (v)(3)(ii)(B) of this AD, before further flight, insert the ground lock pins and a wire lock of the MLG in place.

(D) Ensure the nose landing gear ground lock is engaged.

Related Information

(w) Refer to MCAI Canadian Airworthiness Directive CF-2007-20R2, dated February 6, 2009; Bombardier Service Bulletin 84-32-55, Revision A, dated March 10, 2008; Bombardier Service Bulletin 84-32-60, Revision A, dated September 29, 2008; Bombardier Repair Drawing 8/4-32-059, Issue 7, dated June 26, 2008; Bombardier TR MRB-35, dated November 18, 2008, to the Bombardier

Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7); and Bombardier Q400 All Operator Message 236A, dated September 11, 2007; for related information.

Material Incorporated by Reference

(x) You must use the service information contained in Table 2 of this AD to do the actions required by this AD, as applicable, unless the AD specifies otherwise. If accomplished, you must use Bombardier Q400 All Operator Message 236A, dated September 11, 2007, to do the actions specified in paragraph (v)(3)(ii)(B) of this AD. The document number and date of the Bombardier Q400 all operator message are identified only on the first page of that document.

Table 2—Material Incorporated by Reference for Required Actions

Document	Revision/Issue	Date
Bombardier Service Bulletin 84-32-55	A	March 10, 2008
Bombardier Service Bulletin 84-32-60	A	September 29, 2008
Bombardier Repair Drawing 8/4-32-059	Issue 7	June 26, 2008
Bombardier Temporary Revision MRB-35 to the Bombardier Q400 Dash 8 Maintenance Requirements Manual (PSM 1-84-7)		November 18, 2008

(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., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone 416-375-4000; fax 416-375-4539; e-mail thd.qseries@aero.bombardier.com; Internet <http://www.bombardier.com>. (The document number of Bombardier Repair Drawing 8/4-32-059 is identified as 8/4-32-0059 in the technical publications database on <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 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 August 11, 2011.

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