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**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2011-0648; Directorate Identifier 2010-NM-276-AD; Amendment 39-16859; AD 2011-23-08]**

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are superseding an existing airworthiness directive (AD) that applies to certain Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. 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:

Seven cases of on-ground hydraulic accumulator screw cap/end cap failure have been experienced on CL-600-2B19 aeroplanes, resulting in the loss of the associated hydraulic system and high-energy impact damage to adjacent systems and structure. \*

\* \*

\* \* \* \* \*

A detailed analysis of the calculated line of trajectory of a failed screw cap/end cap for each of the accumulators has been conducted, resulting in the identification of several areas where systems and/or structural components could potentially be damaged.

Although all of the failures to date have occurred on the ground, an in-flight failure affecting such components could potentially have an adverse effect on the controllability of the aeroplane.

\* \* \* \* \*

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

**DATES:** This AD becomes effective December 22, 2011.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of December 22, 2011.

The Director of the Federal Register approved the incorporation by reference of certain other publications listed in this AD as of November 4, 2010 (75 FR 64636, October 20, 2010).

**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:** Christopher Alfano, 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) 228-7340; 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 June 29, 2011 (76 FR 38065), and proposed to supersede AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010). That NPRM proposed to correct an unsafe condition for the specified products.

Since we issued AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010), we have determined that further rulemaking is necessary. While AD 2010-22-02 did not require the removal of the hydraulic system No. 3 accumulator, or replacement of the hydraulic system No. 1, inboard brake and outboard brake accumulators, as specified in Part IV and Part VII of Canadian Airworthiness Directive CF-2010-24, dated August 3, 2010, this AD requires those actions. Also, for airplanes on which Bombardier Service Bulletin 601R-29-035, dated May 11, 2010, is done, and a reducer having part number MS21916D8-6 installed, this AD requires replacing the reducer with a new reducer. We have coordinated with Transport Canada Civil Aviation (TCCA) on this issue.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We considered the comments received.

### **Request for Restatement of All Compliance Requirements of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)**

Comair, Inc. (the commenter) requested that we revise the NPRM (76 FR 38065, June 29, 2011) to restate all the compliance requirements of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010), and reasoned that it is less confusing and more accurate to completely restate all the compliance requirements of AD 2010-22-02. The commenter expressed that the way the NPRM was written, a copy of AD 2010-22-02 must be on-hand to fully cross reference between AD 2010-22-02 and the NPRM. The commenter stated that as an example, paragraph (h) of the NPRM, in part, states: "Doing the removal of the hydraulic system No. 3 accumulator in paragraph (o) of this AD is an alternative method of compliance with the requirements of this paragraph," but that AD 2010-22-02 actually references paragraph (j) instead of paragraph (o) of the NPRM. The commenter explained that the content of paragraphs (j) and (m) of AD 2010-22-02 is not included in the NPRM.

We agree to clarify. We have restated the requirements of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010), in this final rule. We provided a table in the Change to Existing AD paragraph in the NPRM (76 FR 38065, June 29, 2011) to identify and cross-reference paragraph requirements in AD 2010-22-02 with the corresponding paragraph requirements in this

AD. That table did not identify the paragraphs that did not change from AD 2010-22-02 to the NPRM. The actions specified in paragraph (j) of AD 2010-22-02 are specified in paragraph (o) of this AD. The actions specified in paragraph (m) of AD 2010-22-02 are specified in paragraph (p) of this AD. No changes have been made to this AD in this regard.

### **Request for Clarification of Intent of Paragraph (o) of the NPRM (76 FR 38065, June 29, 2011)**

The commenter requested that action specified in paragraph (o) of the NPRM (76 FR 38065, June 29, 2011) be considered a superseding requirement, instead of an "alternate method of compliance" for the actions specified in paragraph (h) of the NPRM. The commenter did not provide a reason for this request.

We agree that the wording in paragraph (h) of this final rule should be revised to clarify the intent of paragraph (o) of this AD. We have revised paragraph (h) of this final rule to specify that paragraph (o) of this final rule is terminating action instead of an alternative method of compliance (AMOC) for the requirements of paragraph (h) of this final rule, by replacing "is an alternate method of compliance" with "terminates."

### **Request for Consideration of Other AMOCs**

The commenter requested that we revise the NPRM (76 FR 38065, June 29, 2011) to allow for previous AMOCs, which would, among other actions, allow for the relocation of the No. 3 Accumulator using "SB 601R-29-0 Rev B." The commenter proposed that we do this as a separate paragraph or optional paragraph, or to include this in paragraph (t)(1) of the NPRM.

For the reasons stated by the commenter, we agree to allow for previous approved AMOCs in accordance with AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010) in this final rule. We have revised paragraph (t)(1) of this final rule accordingly.

### **Conclusion**

We reviewed the available data, including the comments 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.

### **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 605 products of U.S. registry.

The actions that are required by AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010), and retained in this AD take about 19 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 \$1,615 per product.

We estimate that it will take about 14 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 \$3,054 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 \$2,567,620, or \$4,244 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 38065, June 29, 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 39-16481 (75 FR 64636, October 20, 2010) and adding the following new AD:



**2011-23-08 Bombardier, Inc.:** Amendment 39-16859. Docket No. FAA-2011-0648; Directorate Identifier 2010-NM-276-AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective December 22, 2011.

**Affected ADs**

(b) This AD supersedes AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010).

**Applicability**

(c) This AD applies to Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category, serial numbers 7003 and subsequent.

**Subject**

(d) Air Transport Association (ATA) of America Code 29 and 32: Hydraulic Power and Landing Gear, respectively.

**Reason**

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

Seven cases of on-ground hydraulic accumulator screw cap/end cap failure have been experienced on CL-600-2B19 aeroplanes, resulting in the loss of the associated hydraulic system and high-energy impact damage to adjacent systems and structure. \*

\* \*

\* \* \* \* \*

A detailed analysis of the calculated line of trajectory of a failed screw cap/end cap for each of the accumulators has been conducted, resulting in the identification of several areas where systems and/or structural components could potentially be damaged. Although all of the failures to date have occurred on the ground, an in-flight failure affecting such components could potentially have an adverse effect on the controllability of the aeroplane.

\* \* \* \* \*

**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 2010-22-02, Amendment 39-16481 (75 FR 64636, OCTOBER 20, 2010), With Revised Service Information:**

**Airplane Flight Manual (AFM) Revision**

(g) Within 30 days after November 4, 2010 (the effective date of AD 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010)), revise the Limitations section, Normal Procedures section, and Abnormal Procedures section of the Canadair Regional Jet AFM, CSP A-012, by incorporating Canadair Regional Jet Temporary Revision (TR) RJ/186-1, dated August 24, 2010, into the applicable section of Canadair Regional Jet AFM, CSP A-012. Thereafter, except as provided by paragraph (t) of this AD, no alternative actions specified in Canadair Regional Jet TR RJ/186-1, dated August 24, 2010, may be approved.

Note 1: The actions required by paragraph (g) of this AD may be done by inserting a copy of Canadair Regional Jet TR RJ/186-1, dated August 24, 2010, into the applicable section of the Canadair Regional Jet AFM, CSP A-012. When this TR has been included in the general revisions of this AFM, the general revisions may be inserted into this AFM, and this TR removed, provided that the relevant information in the general revision is identical to that in Canadair Regional Jet TR RJ/186-1, dated August 24, 2010.

**Deactivation of the Hydraulic System No. 3 Accumulator**

(h) Within 250 flight cycles after November 4, 2010, deactivate the hydraulic system No. 3 accumulator, in accordance with Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009. Doing the removal of the hydraulic system No. 3 accumulator in paragraph (o) of this AD terminates the requirements of this paragraph. The actions in this paragraph apply to all accumulators in hydraulic system No. 3.

**Removal of the Hydraulic System No. 2 Accumulator**

(i) Within 500 flight cycles after November 4, 2010, remove the hydraulic system No. 2 accumulator, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-29-032, Revision A, dated January 26, 2010. The actions in this paragraph apply to all accumulators in hydraulic system No. 2.

**Initial and Repetitive Ultrasonic Inspections of Hydraulic System No. 1, Inboard Brake and Outboard Brake Accumulators**

(j) For hydraulic system No. 1, inboard brake and outboard brake accumulators having P/N 601R75138-1 (08-60163-001 or 08-60163-002): At the applicable compliance times specified in paragraph (l) of this AD, do the inspections required by paragraphs (j)(1) and (j)(2) of this AD. Repeat the inspections for each accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002) thereafter at intervals not to exceed 500 flight cycles until the replacement specified in this paragraph is done or the replacement specified in paragraph (p) of this AD is done. If any crack is found, before further flight, replace the accumulator with a new accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002) and having the letter "T" after the serial number on the identification plate, in accordance with the Accomplishment Instructions of the applicable service bulletin identified in table 1 or table 2 of this AD.

(1) Do an ultrasonic inspection for cracks on each accumulator, in accordance with Part B of the Accomplishment Instructions of the applicable service bulletin identified in table 1 of this AD.

**Table 1–Bombardier Service Information for Accumulator Inspection**

<b>Accumulator</b>	<b>Document</b>	<b>Revision</b>	<b>Date</b>
Hydraulic System No. 1	Bombardier Alert Service Bulletin A601R-29-029, including Appendix A, dated October 18, 2007	B	May 11, 2010
Inboard and Outboard Brake	Bombardier Alert Service Bulletin A601R-32-103, including Appendix A, Revision A, dated October 18, 2007	D	May 11, 2010

(2) Do an ultrasonic inspection for cracks on the screw cap, in accordance with the Accomplishment Instructions of the applicable service bulletin identified in table 2 of this AD.

**Table 2–Bombardier Service Information for Screw Cap Inspection**

<b>Accumulator</b>	<b>Document</b>	<b>Revision</b>	<b>Date</b>
Hydraulic System No. 1	Bombardier Service Bulletin 601R-29-033, including Appendix A, dated May 5, 2009	A	May 11, 2010
Inboard and Outboard Brake	Bombardier Service Bulletin 601R-32-106, including Appendix A	A	May 11, 2010

(k) For hydraulic system No. 1 inboard brake, and outboard brake accumulators having P/N 601R75138-1 (08-60163-001 or 08-60163-002): Do the inspections specified in paragraph (j) of this AD at the applicable time in paragraph (k)(1), (k)(2), and (k)(3) of this AD.

(1) For any accumulator not having the letter "T" after the serial number on the identification plate and with more than 4,500 flight cycles on the accumulator as of November 4, 2010: Inspect within 500 flight cycles after November 4, 2010.

(2) For any accumulator not having the letter "T" after the serial number on the identification plate and with 4,500 flight cycles or less on the accumulator as of November 4, 2010: Inspect prior to the accumulation of 5,000 flight cycles on the accumulator.

(3) If it is not possible to determine the flight cycles accumulated for any accumulator not having the letter "T" after the serial number on the identification plate: Inspect within 500 flight cycles after November 4, 2010.

Note 2: For any accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002) and the letter "T" after the serial number on the identification plate, or if the accumulator P/N is not listed in paragraph (j) of this AD, the inspection specified in paragraph (j) of this AD is not required.

### **Credit for Actions Accomplished in Accordance With Previous Service Information**

(l) Deactivating the hydraulic system No. 3 accumulator before November 4, 2010, in accordance with Part A of the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-29-031, dated December 23, 2008, is acceptable for compliance with the requirements of paragraph (h) of this AD.

(m) Removing the hydraulic system No. 2 accumulator in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-29-032, dated November 12, 2009, before November 4, 2010, is acceptable for compliance with the requirements of paragraph (i) of this AD.

(n) An ultrasonic inspection for cracks done before November 4, 2010, in accordance with Part B of the Accomplishment Instructions of the applicable service bulletin identified in table 3 of this AD, or the Accomplishment Instructions of the applicable service bulletin identified in table 4 of this AD,

is acceptable for compliance with the corresponding ultrasonic inspection required by paragraph (j) of this AD.

**Table 3–Bombardier Credit Service Information for Accumulator Inspection**

<b>Document</b>	<b>Revision</b>	<b>Date</b>
Bombardier Alert Service Bulletin A601R-29-029	- - -	October 18, 2007
Bombardier Alert Service Bulletin A601R-29-029	A	November 12, 2009
Bombardier Alert Service Bulletin A601R-32-103	- - -	November 21, 2006
Bombardier Alert Service Bulletin A601R-32-103	A	March 7, 2007
Bombardier Alert Service Bulletin A601R-32-103	B	October 18, 2007
Bombardier Alert Service Bulletin A601R-32-103	C	February 26, 2009

**Table 4–Bombardier Credit Service Information For Screw Cap Inspection**

<b>Document</b>	<b>Date</b>
Bombardier Service Bulletin 601R-29-033	May 5, 2009
Bombardier Service Bulletin 601R-32-106	May 5, 2009

**New Requirements of This AD**

**Removal of the Hydraulic System No. 3 Accumulator**

(o) Within 1,000 flight cycles after the effective date of this AD, remove the hydraulic system No. 3 accumulator, in accordance with Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009. Doing the action in this paragraph terminates the requirements of paragraph (h) of this AD.

**Replacement of the Hydraulic System No. 1, Inboard Brake and Outboard Brake Accumulators**

(p) Within 4,000 flight cycles or 24 months after the effective date of this AD, whichever occurs first, replace any hydraulic system No. 1, inboard brake or outboard brake accumulator having P/N 601R75138-1 (08-60163-001 or 08-60163-002), with a new accumulator having P/N 601R75139-1 (11093-4), in accordance with the Accomplishment Instructions of the applicable service bulletin identified in table 5 of this AD. Doing the action in this paragraph terminates the requirement for the inspections in paragraph (j) of this AD for that accumulator. As of the effective date of this AD, use only Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010; or Bombardier Service Bulletin 601R-32-107, Revision B, dated December 8, 2010; as applicable.

**Table 5–Bombardier Service Information for Accumulator Replacement**

<b>Accumulator</b>	<b>Document</b>	<b>Revision</b>	<b>Date</b>
Hydraulic System No. 1	Bombardier Service Bulletin 601R-29-035	- - -	May 11, 2010
Hydraulic System No. 1	Bombardier Service Bulletin 601R-29-035	A	December 8, 2010

Inboard and Outboard Brake	Bombardier Service Bulletin 601R-32-107	A	June 17, 2010
Inboard and Outboard Brake	Bombardier Service Bulletin 601R-32-107	B	December 8, 2010

**Action for Airplanes on Which Bombardier Service Bulletin 601R-29-035, Dated May 11, 2010, Is Done and Reducer Having P/N MS21916D8-6 Is Installed**

(q) For airplanes on which Bombardier Service Bulletin 601R-29-035, dated May 11, 2010, is done, and reducer having P/N MS21916D8-6 is installed: Within 1,200 flight cycles or 8 months after the effective date of this AD, replace the reducer of the hydraulic system No. 1 with a new reducer in accordance with Part B of Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010.

**Credit for Actions Accomplished in Accordance With Previous Service Information**

(r) Removing the hydraulic system No. 3 accumulator in accordance with Part B of the Accomplishment Instructions of Bombardier Alert Service Bulletin A601R-29-031, dated December 23, 2008, before November 4, 2010, is acceptable for compliance with the requirements of paragraph (o) of this AD.

(s) Replacing any hydraulic system No. 1, inboard brake, or outboard brake accumulator before November 4, 2010, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-32-107, dated May 11, 2010; or Bombardier Service Bulletin 601R-32-107, Revision A, dated June 17, 2010; is acceptable for compliance with the corresponding requirements of paragraph (p) of this AD.

**FAA AD Differences**

Note 3: This AD differs from the MCAI and/or service information as follows: (1) The actions specified in Canadian Airworthiness Directive CF-2010-24, dated August 3, 2010, apply only to Tactair accumulators. The actions required by paragraphs (h), (i), and (o) of this AD apply to all accumulators in the positions specified in paragraphs (h), (i), and (o) of this AD.

(2) While Canadian Airworthiness Directive CF-2010-24, dated August 3, 2010, does not require replacement of the reducer of the hydraulic system No. 1 with a new reducer, paragraph (q) of this AD does.

**Other FAA AD Provisions**

(t) 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. Send information 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 2010-22-02, Amendment 39-16481 (75 FR 64636, October 20, 2010), are approved as AMOCs for the corresponding provisions 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.

### **Related Information**

(u) Refer to MCAI Canadian Airworthiness Directive CF-2010-24, dated August 3, 2010; Canadair Regional Jet Temporary Revision RJ/186-1, dated August 24, 2010, to the Canadair Regional Jet Airplane Flight Manual, CSP A-012; Bombardier Alert Service Bulletin A601R-29-029, Revision B, dated May 11, 2010, including Appendix A, dated October 18, 2007; Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009; Bombardier Alert Service Bulletin A601R-32-103, Revision D, dated May 11, 2010, including Appendix A, Revision A, dated October 18, 2007; Bombardier Service Bulletin 601R-29-032, Revision A, dated January 26, 2010; Bombardier Service Bulletin 601R-29-033, Revision A, dated May 11, 2010, including Appendix A, dated May 5, 2009; Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010; Bombardier Service Bulletin 601R-32-106, Revision A, including Appendix A, dated May 11, 2010; and Bombardier Service Bulletin 601R-32-107, Revision B, dated December 8, 2010; for related information.

### **Material Incorporated by Reference**

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

(1) Canadair Regional Jet Temporary Revision RJ/186-1, dated August 24, 2010, to the Canadair Regional Jet Airplane Flight Manual, CSP A-012 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010));

(2) Bombardier Alert Service Bulletin A601R-29-029, Revision B, dated May 11, 2010, including Appendix A, dated October 18, 2007 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010))\*;

(3) Bombardier Alert Service Bulletin A601R-29-031, Revision A, dated March 26, 2009 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010));

(4) Bombardier Alert Service Bulletin A601R-32-103, Revision D, dated May 11, 2010, including Appendix A, Revision A, dated October 18, 2007 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010))\*;

(5) Bombardier Service Bulletin 601R-29-032, Revision A, dated January 26, 2010 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010));

(6) Bombardier Service Bulletin 601R-29-033, Revision A, dated May 11, 2010, including Appendix A, dated May 5, 2009 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010))\*;

(7) Bombardier Service Bulletin 601R-29-035, Revision A, dated December 8, 2010 (approved for incorporation by reference on December 22, 2011);

(8) Bombardier Service Bulletin 601R-32-106, Revision A, including Appendix A, dated May 11, 2010 (previously approved for incorporation by reference on November 4, 2010 (75 FR 64636, October 20, 2010))\*; and

(9) Bombardier Service Bulletin 601R-32-107, Revision B, dated December 8, 2010 (approved for incorporation by reference on December 22, 2011).

Note 4: \* In Appendix A to these documents, the document number is shown only on page A1 of these appendices.

(10) 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](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>.

(11) 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.

(12) 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](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

Issued in Renton, Washington, on October 20, 2011.

Kalene C. Yanamura,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.