

[Federal Register Volume 78, Number 23 (Monday, February 4, 2013)]  
[Rules and Regulations]  
[Pages 7647-7650]  
From the Federal Register Online via the Government Printing Office [www.gpo.gov]  
[FR Doc No: 2013-01821]

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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2012-0639; Directorate Identifier 2012-NM-005-AD; Amendment 39-17329; AD 2013-02-08]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Bombardier, Inc. Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. This AD was prompted by a report that the safe life limit and inspection requirements for the horizontal stabilizer trim actuator (HSTA) attachment pins and trunnions were not listed in the Airworthiness Limitations Section of the maintenance program. This AD requires inspecting the trunnions and upper and lower pins for gouges, scratches, and corrosion, and replacing the trunnions if necessary; and adding serial numbers and new part numbers to certain trunnions, and upper and lower pins. This AD also requires revising the maintenance program to incorporate the information specified in certain temporary revisions of the limitations section. We are issuing this AD to detect and correct cracking, gouges, scratches, and corrosion of the HSTA attachment pins and trunnions, which could result in failure of these pins and trunnions and consequent disconnection of the horizontal stabilizer and subsequent loss of controllability of the airplane.

**DATES:** This AD becomes effective March 11, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of March 11, 2013.

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Cesar Gomez, Aerospace Engineer, Airframe and Mechanical Systems Branch, ANE-171, FAA, New York Aircraft Certification Office, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone (516) 228-7318; fax (516) 794-5531.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on June 20, 2012 (77 FR 36948). That NPRM proposed to correct an unsafe condition for the specified products. The Mandatory Continuing Airworthiness Information (MCAI) states:

During a review of the Horizontal Stabilizer Trim Actuator (HSTA) system, it was discovered that the safe life limits and the inspection requirements for the HSTA attachment pins and trunnions were not listed in the Airworthiness Limitations Section of the Instructions for Continued Airworthiness. Also, the HSTA attachment pins and trunnions were not serialized making it impossible to keep accurate records of the life of these parts. Failure of these pins and trunnions will lead to a disconnect of the horizontal stabilizer and subsequent loss of the aeroplane.

This [Canadian] Airworthiness Directive (AD) mandates the serialization of the HSTA attachment pins and trunnions.

The required actions include a detailed inspection of the trunnions and upper and lower pins for gouges, scratches, and corrosion, and replacing if necessary; and adding serial numbers and new part numbers to certain trunnions, and upper and lower pins. The required actions also include revising the maintenance program to incorporate the information specified in certain temporary revisions of the limitations section. 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 considered the comments received.

### **Request To Allow Alternative Method of Identifying Parts**

Air Wisconsin Airlines Corporation (Air Wisconsin) requested that we allow the use of indelible ink and clear coat to mark the identified HSTA. The commenter stated that the tolerances identified in Bombardier Service Bulletin 601R-27-160, dated September 29, 2011, are too strict to hand vibro-peen these individual parts. The commenter also noted that Bombardier, Inc. is working on a revision to that service bulletin to authorize marking all of these parts with indelible ink and clear coat.

We agree that an alternative method of marking the HSTA would be beneficial to operators. Since the issuance of the NPRM (77 FR 36948, June 20, 2012), Bombardier, Inc. has issued Service Bulletin 601R-27-160, Revision A, dated October 3, 2012, which describes an alternative method for marking the HSTA. We have revised paragraphs (g), (h), (i), and (n) of this AD to reference Bombardier Service Bulletin 601R-27-160, Revision A, dated October 3, 2012. We have also added a new paragraph (j) to this AD to allow credit for actions done before the effective date of this AD in accordance with Bombardier Service Bulletin 601R-27-160, dated September 29, 2011. We have re-identified the subsequent paragraphs accordingly.

### **Request To Clarify the Term "Horizontal Stabilizer Trim Actuator (HSTA) Trunnion Support"**

Air Wisconsin requested that we clarify what is meant by "HSTA trunnion support," as referenced in paragraph (j) of the NPRM (77 FR 36948, June 20, 2012) and Bombardier Temporary

Revision 2B-2180, dated August 8, 2011, to Appendix B–Airworthiness Limitations, of Part 2, Airworthiness Requirements, of the Bombardier CL-600-2B19 Maintenance Requirements Manual.

We agree to clarify the definition of HSTA trunnion support. The HSTA trunnion support includes the upper and lower attachments of the HSTA to the airframe mounting structure. No change has been made to the AD in this regard.

### **Request To Make Documents Available to Public**

Air Wisconsin requested that the documents "Aerospace Standard 478" and "ATA Report 51-93-01 'Structural Maintenance Program Guidelines for Continuing Airworthiness' " be made available to the public. The commenter stated that these documents are referenced in Bombardier Service Bulletin 601R-27-160, dated September 29, 2011.

We disagree with the request to make these documents available to the public. At the final rule stage, we post on [www.regulations.gov](http://www.regulations.gov) only the service information that is approved for incorporation by reference in the final rule by the Office of the Federal Register. Since Aerospace Standard 478 is not a document that is incorporated by reference, we do not make it available on that Web site. However, if the document is not currently in an operator's possession, it can be obtained from the airplane manufacturer at the address specified in paragraph (n)(2) of this AD. We have added an option to paragraph (i) of this AD to allow operators to do the actions using a method approved by the FAA. ATA Report 51-93-01 "Structural Maintenance Program Guidelines for Continuing Airworthiness" is not necessary to accomplish the AD actions. It is not necessary for compliance with the AD, and is cited as reference material only.

### **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 and minor editorial changes. We have determined that these changes:

- Are consistent with the intent that was proposed in the NPRM (77 FR 36948, June 20, 2012) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (77 FR 36948, June 20, 2012).

### **Costs of Compliance**

We estimate that this AD will affect 586 products of U.S. registry. We also estimate that it will take about 20 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 \$162 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 \$1,091,132, or \$1,862 per product.

In addition, we estimate that any necessary follow-on actions would take about 20 work-hours and require parts costing \$4,391, for a cost of \$6,091 per product. We have no way of determining the number of products that may need these actions.

### **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.

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 (77 FR 36948, June 20, 2012), the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new AD:



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**2013-02-08 Bombardier, Inc.:** Amendment 39-17329. Docket No. FAA-2012-0639; Directorate Identifier 2012-NM-005-AD.

**(a) Effective Date**

This airworthiness directive (AD) becomes effective March 11, 2013.

**(b) Affected ADs**

None.

**(c) Applicability**

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

(2) This AD requires revisions to certain operator maintenance documents to include new actions (e.g., inspections) and/or Critical Design Configuration Control Limitations (CDCCLs). Compliance with these actions and/or CDCCLs is required by 14 CFR 91.403(c). For airplanes that have been previously modified, altered, or repaired in the areas addressed by this AD, the operator may not be able to accomplish the actions described in the revisions. In this situation, to comply with 14 CFR 91.403(c), the operator must request approval for an alternative method of compliance according to paragraph (m)(1) of this AD. The request should include a description of changes to the required actions that will ensure the continued operational safety of the airplane.

**(d) Subject**

Air Transport Association (ATA) of America Code 27: Flight controls.

**(e) Reason**

This AD was prompted by a report that the safe life limit and inspection requirements for the horizontal stabilizer trim actuator (HSTA) attachment pins and trunnions were not listed in the Airworthiness Limitations Section of the maintenance program. We are issuing this AD to detect and correct cracking, gouges, scratches, and corrosion of the HSTA attachment pins and trunnions, which could result in failure of these pins and trunnions and consequent disconnection of the horizontal stabilizer and subsequent loss of controllability of the airplane.

**(f) Compliance**

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

### **(g) Inspection**

At the earliest of the times specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD: Do a detailed inspection of the trunnions, upper pins, and lower pins identified in table 1 to paragraphs (g) and (h) of this AD, for gouges, scratches, and corrosion, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-27-160, Revision A, dated October 3, 2012.

(1) Within 5,000 flight hours after the effective date of this AD.

(2) Within 60 months after the effective date of this AD.

(3) Before the accumulation of 40,000 total flight cycles, or within 60 days after the effective date of this AD, whichever occurs later.

**Table 1 to Paragraphs (g) and (h) of This AD—Affected Parts**

<b>Part name</b>	<b>Part No.</b>
Upper Pin	600-92384-5
Upper Pin	600-92384-7
Upper Pin	601R92310-1
Lower Pin	600-92383-5
Lower Pin	600-92383-7
Lower Pin	601R92309-1
Trunnion	601R92386-1

### **(h) Replacement**

If, during any inspection required by paragraph (g) of this AD, any gouges, scratches, or corrosion are found: Before further flight, replace the affected part with a part other than one identified in table 1 to paragraphs (g) and (h) of this AD, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-27-160, Revision A, dated October 3, 2012.

### **(i) Re-Identification**

If, during any inspection required by paragraph (g) of this AD, no gouges, scratches or corrosion are found: Before further flight, add serial numbers and new part numbers to the trunnions, upper pins, and lower pins, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-27-160, Revision A, dated October 3, 2012; or using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA.

### **(j) Credit for Previous Actions**

This paragraph provides credit for the actions specified in paragraphs (g), (h), and (i) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 601R-27-160, dated September 29, 2011 (which is not incorporated by reference by this AD).

### **(k) Revise Maintenance Program**

Within 30 days after the effective date of this AD, revise the maintenance program to incorporate the information specified in Bombardier Temporary Revisions 2B-2180, dated August 8, 2011; and

2B-2186, dated August 8, 2011; to Appendix B–Airworthiness Limitations, of Part 2, Airworthiness Requirements, of the Bombardier CL-600-2B19 Maintenance Requirements Manual (MRM). The compliance time for doing the initial replacement for the HSTA trunnion support and attaching hardware is before the accumulation of 80,000 landings or within 60 days after the effective date of this AD, whichever occurs later. The compliance time for doing the initial inspection of the upper and lower installation pins of the horizontal stabilizer pitch trim actuator is before the accumulation of 40,000 landings or within 60 days after the effective date of this AD, whichever occurs later.

**(l) No Alternative Actions or Intervals**

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

**(m) 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, ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, New York 11590; telephone 516-228-7300; fax 516-794-5531. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

**(n) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2011-45, dated December 19, 2011, and the service information specified in paragraphs (n)(1)(i), (n)(1)(ii), and (n)(1)(iii) of this AD, for related information.

(i) Bombardier Service Bulletin 601R-27-160, Revision A, dated October 3, 2012.

(ii) Bombardier Temporary Revision 2B-2180, dated August 8, 2011, to Appendix B–Airworthiness Limitations, of Part 2, Airworthiness Requirements, of the Bombardier CL-600-2B19 Maintenance Requirements Manual.

(iii) Bombardier Temporary Revision 2B-2186, dated August 8, 2011, to Appendix B–Airworthiness Limitations, of Part 2, Airworthiness Requirements, of the Bombardier CL-600-2B19 Maintenance Requirements Manual.

(2) For service information identified in this AD, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-5000; fax 514-855-7401; email [thd.crj@aero.bombardier.com](mailto:thd.crj@aero.bombardier.com); Internet <http://www.bombardier.com>. You may review copies of the referenced 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.

**(o) 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 the AD specifies otherwise.

(i) Bombardier Service Bulletin 601R-27-160, Revision A, dated October 3, 2012.

(ii) Bombardier Temporary Revision 2B-2180, dated August 8, 2011, to Appendix B–Airworthiness Limitations, of Part 2, Airworthiness Requirements, of the Bombardier CL-600-2B19 Maintenance Requirements Manual.

(iii) Bombardier Temporary Revision 2B-2186, dated August 8, 2011, to Appendix B–Airworthiness Limitations, of Part 2, Airworthiness Requirements, of the Bombardier CL-600-2B19 Maintenance Requirements Manual.

(3) 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>.

(4) 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.

(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 January 16, 2013.

Michael Kaszycki,  
Acting Manager, Transport Airplane Directorate,  
Aircraft Certification Service.