[Federal Register Volume 83, Number 98 (Monday, May 21, 2018)]
[Rules and Regulations]
[Pages 23351-23355]
From the Federal Register Online via the Government Publishing Office [www.gpo.gov]
[FR Doc No: 2018-09732]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0907; Product Identifier 2017-NM-069-AD; Amendment 39-19274; AD 2018-09-17]

RIN 2120-AA64

Airworthiness Directives; Bombardier, Inc., Airplanes

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Bombardier, Inc., Model CL-600-1A11 (CL-600), CL-600-2A12 (CL-601 Variant), and CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. This AD was prompted by reports of fractured rudder pedal tubes on the pilot-side rudder bar assembly. This AD requires repetitive inspections of the rudder pedal tubes for cracking and corrective actions if necessary. Replacement of both pilot-side rudder bar assemblies terminates the inspections. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective June 25, 2018.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of June 25, 2018.

ADDRESSES: For service information identified in this final rule, contact Bombardier, Inc., 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email ac.yul@aero.bombardier.com; internet http://www.bombardier.com. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0907.

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-2017-0907; or in person at the Docket Management Facility between 9

a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7329; fax 516-794-5531.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Bombardier, Inc., Model CL-600-1A11 (CL-600), CL-600-2A12 (CL-601 Variant), and CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. The NPRM published in the Federal Register on October 19, 2017 (82 FR 48668) ("the NPRM"). The NPRM was prompted by reports of fractured rudder pedal tubes on the pilot-side rudder bar assembly. The NPRM proposed to require repetitive inspections of the rudder pedal tubes for cracking and corrective actions if necessary. Replacement of both pilot-side rudder bar assemblies terminates the inspections. We are issuing this AD to address cracking of the pilot-side rudder pedal tubes. Loss of pilot rudder pedal input during flight could result in reduced yaw controllability of the airplane. Loss of pilot rudder pedal input during takeoff or landing could lead to a runway excursion.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2017-09, dated February 22, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for certain Bombardier, Inc., Model CL-600-1A11 (CL-600), CL-600-2A12 (CL-601 Variant), and CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes. The MCAI states:

> There have been two in-service reports of fractured rudder pedal tubes installed on the pilot-side rudder bar assembly on CL-600-2B19 aeroplanes. Laboratory examination of the fractured rudder pedal tubes found that in both cases, the fatigue cracks initiated at the aft taper pin holes where the connecting rod fitting is attached. Fatigue testing of the rudder pedal tubes confirmed that the fatigue cracking is due to loads induced during parking brake application. Therefore, only the rudder pedal tubes on the pilot's side are vulnerable to fatigue cracking as the parking brake is primarily applied by the pilot.
>
> Loss of pilot rudder pedal input during flight would result in reduced yaw controllability of the aeroplane. Loss of pilot rudder pedal input during takeoff or landing may lead to a runway excursion.
>
> This [Canadian] AD mandates initial and repetitive [detailed visual or eddy current] inspections [for cracking] of both pilot-side rudder pedal tubes, part number (P/N) 600-90204-3 until the terminating action in Part III of this [Canadian] AD is accomplished [i.e., replacement of both pilot-side rudder bar assemblies].

Corrective actions include replacement of both pilot-side rudder bar assemblies and repair. You may examine the MCAI in the AD docket on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0907.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Requests To Correct Errors in Certain Service Information Citations

Bombardier and NetJets both requested that typographical errors in certain service bulletin citations be corrected. Bombardier stated that in the NPRM, Bombardier "Service Bulletin 605-27-008" should be cited as Bombardier "Service Bulletin 650-27-008." NetJets stated that Bombardier "Service Bulletin 605-27-002" should be cited as Bombardier "Service Bulletin 650-27-002."

We partially agree with the commenters' requests. We agree with NetJets' request to correct the typographical error in the preamble and paragraph (g)(6) of this AD by removing the incorrect citation and including the correct citation, which is Bombardier Service Bulletin 650-27-002, dated June 30, 2016, including Appendix A, Revision 01, dated March 31, 2016.

We do not agree with Bombardier's request because a typographical error does not exist in our citation of Bombardier Service Bulletin 605-27-008, dated March 31, 2016, including Appendix A, Revision 01, dated March 31, 2016. We contacted the commenter, and the company representative agreed that there is not a typographical error. Therefore, no change was made to this AD in this regard.

Request To Change the Order of Certain Service Information in the Related Service Information Under 1 CFR Part 51 Paragraph

During a phone conversation between Bombardier and the FAA that occurred during the NPRM comment period, Bombardier requested that the order of certain service information in "Related Service Information under 1 CFR part 51" be rearranged. Specifically, the commenter requested that Service Bulletin 605-27-008, dated March 31, 2016, including Appendix A, Revision 01, dated March 31, 2016, be listed above Service Bulletin 650-27-002, dated June 30, 2016, including Appendix A, Revision 01, dated March 31, 2016. The commenter stated that chronologically Bombardier issued Service Bulletin 605-27-008, dated March 31, 2016, including Appendix A, Revision 01, dated March 31, 2016, before issuing Service Bulletin 650-27-002, dated June 30, 2016, including Appendix A, Revision 01, dated March 31, 2016.

We agree to clarify. While we recognize the benefit of listing service information in chronological order based on publication dates, we are required by the Office of Federal Register (OFR) to list service information within the incorporated by reference (IBR) paragraph of the AD regulatory text (i.e. paragraph (n) of this AD) according to the document name. For consistency, the IBR material is listed in the same alphanumerical sequence within the 1 CFR part 51 paragraph of the AD preamble text. In this case, as stated previously, we have changed a certain citation, and that change places the service information in the alphanumeric order shown within this AD, which also addresses the commenter's request.

Conclusion

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

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

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

Related Service Information Under 1 CFR Part 51

Bombardier has issued the following service information. The service information describes procedures for repetitive inspections of the rudder pedal tubes for cracking, replacement of both pilot-side rudder bar assemblies, and repair. These documents are distinct since they apply to different airplane models.

- Service Bulletin 600-0770, including Appendix A, both Revision 01, both dated March 31, 2016.
- Service Bulletin 601-0643, including Appendix A, both Revision 01, both dated March 31, 2016.
- Service Bulletin 604-27-037, including Appendix A, Revision 01, both dated March 31, 2016.
- Service Bulletin 605-27-008, including Appendix A, Revision 01, both dated March 31, 2016.
- Service Bulletin 650-27-002, dated June 30, 2016, including Appendix A, Revision 01, dated March 31, 2016.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

We estimate that this AD affects 141 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections	10 work-hours × $85 per hour = $850 per inspection cycle	$0	$850 per inspection cycle	$119,850 per inspection cycle.

.We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of airplanes that might need these replacements:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Replacement	2 work-hours × $85 per hour = $170	$8,564	$8,734

We have received no definitive data that will enable us to provide cost estimates for any on-condition repairs specified in this AD. We have no way of determining the number of aircraft that might need this repair.

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

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):

2018-09-17 Bombardier, Inc.: Amendment 39-19274; Docket No. FAA-2017-0907; Product Identifier 2017-NM-069-AD.

(a) Effective Date

This AD is effective June 25, 2018.

(b) Affected ADs

None.

(c) Applicability

This AD applies to the Bombardier, Inc., airplanes identified in paragraphs (c)(1) through (c)(3) of this AD, certificated in any category.

(1) Model CL-600-1A11 (CL-600) airplanes, serial numbers (S/Ns) 1004 through 1085 inclusive.

(2) Model CL-600-2A12 (CL-601 Variant) airplanes, S/Ns 3001 through 3066 inclusive.

(3) Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, S/Ns 5001 through 5194 inclusive, S/Ns 5301 through 5665 inclusive, S/Ns 5701 through 5988 inclusive, and S/Ns 6050 through 6099 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight Controls.

(e) Reason

This AD was prompted by reports of fractured rudder pedal tubes on the pilot-side rudder bar assembly. We are issuing this AD to address cracking of the pilot-side rudder pedal tubes. Loss of pilot rudder pedal input during flight could result in reduced yaw controllability of the airplane. Loss of pilot rudder pedal input during takeoff or landing could lead to a runway excursion.

(f) Compliance

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

(g) Repetitive Inspections and Part Marking

At the applicable time specified in figure 1 to paragraph (g) of this AD, do a detailed or eddy current inspection of both pilot-side rudder pedal tubes for cracking, in accordance with Part A of the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1) through (g)(6) of this AD. If no cracking is found, before further flight, mark the part in accordance with Part A of the Accomplishment Instructions of the applicable service information identified in

paragraphs (g)(1) through (g)(6) of this AD. Repeat the detailed or eddy current inspection thereafter at intervals not to exceed 600 flight cycles if a detailed inspection was performed, or 1,000 flight cycles if an eddy current inspection was performed. Repeat the inspection until the terminating action specified in paragraph (i) of this AD is accomplished.

(1) For Model CL-600-1A11 (CL-600) airplanes, S/Ns 1004 through 1085 inclusive: Bombardier Service Bulletin 600-0770, including Appendix A, both Revision 01, both dated March 31, 2016.

(2) For Model CL-600-2A12 (CL-601 Variant) airplanes, S/Ns 3001 through 3066 inclusive: Bombardier Service Bulletin 601-0643, including Appendix A, both Revision 01, both dated March 31, 2016.

(3) For Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, S/Ns 5001 through 5194 inclusive: Bombardier Service Bulletin 601-0643, including Appendix A, both Revision 01, both dated March 31, 2016.

(4) For Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, S/Ns 5301 through 5665 inclusive: Bombardier Service Bulletin 604-27-037, including Appendix A, Revision 01, both dated March 31, 2016.

(5) For Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, S/Ns 5701 through 5988 inclusive: Bombardier Service Bulletin 605-27-008, including Appendix A, Revision 01, both dated March 31, 2016.

(6) For Model CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants) airplanes, S/Ns 6050 through 6099 inclusive: Bombardier Service Bulletin 650-27-002, dated June 30, 2016, including Appendix A, Revision 01, dated March 31, 2016.

Figure 1 to Paragraph (g) of this AD – *Compliance Times*

Airplanes	Compliance Time
Airplanes with fewer than 8,250 total flight cycles as of the effective date of this AD	Prior to the accumulation of 9,000 total flight cycles
Airplanes with 8,250 total flight cycles or more but fewer than 16,625 total flight cycles as of the effective date of this AD	Within 24 months or 750 flight cycles, whichever occurs first, after the effective date of this AD
Airplanes with 16,625 total flight cycles or more as of the effective date of this AD	Within 12 months or 375 flight cycles, whichever occurs first, after the effective date of this AD

(h) Corrective Actions

(1) If any cracking is found around the aft tapered holes during any inspection required by paragraph (g) of this AD, before further flight, replace both pilot-side rudder bar assemblies, in accordance with Part B of the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1) through (g)(6) of this AD.

(2) If any other damage (e.g., corrosion) is found, during any inspection required by paragraph (g) of this AD, before further flight, repair using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Bombardier, Inc.'s TCCA Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(i) Optional Terminating Action

Replacement of both pilot-side rudder bar assemblies in accordance with Part B of the Accomplishment Instructions of the applicable service information identified in paragraphs (g)(1) through (g)(6) of this AD terminates the inspections required by paragraph (g) of this AD.

(j) Replacement–No Terminating Action

Replacement of both pilot-side rudder bar assemblies using Part B of the Accomplishment Instructions of Bombardier Service Bulletin 600-0770, dated August 31, 2015; or Bombardier Service Bulletin 601-0643, dated August 31, 2015; is not a terminating action for the inspections required by paragraph (g) of this AD.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, New York ACO Branch, 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 manager of the certification office, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO Branch, 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.

(2) Contacting the Manufacturer: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or TCCA; or Bombardier, Inc.'s TCCA DAO. If approved by the DAO, the approval must include the DAO-authorized signature.

(l) Special Flight Permits

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed if any cracking is found during any inspection required by paragraph (g) of this AD.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2017-09, dated February 22, 2017, for related information. This MCAI may be found in the AD docket on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0907.

(2) For more information about this AD, contact Aziz Ahmed, Aerospace Engineer, Airframe and Mechanical Systems Section, FAA, New York ACO Branch, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7329; fax 516-794-5531.

(n) 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 600-0770, including Appendix A, both Revision 01, both dated March 31, 2016.

(ii) Bombardier Service Bulletin 601-0643, including Appendix A, both Revision 01, both dated March 31, 2016.

(iii) Bombardier Service Bulletin 604-27-037, including Appendix A, Revision 01, both dated March 31, 2016.

(iv) Bombardier Service Bulletin 605-27-008, including Appendix A, Revision 01, both dated March 31, 2016.

(v) Bombardier Service Bulletin 650-27-002, dated June 30, 2016, including Appendix A, Revision 01, dated March 31, 2016.

(3) For service information identified in this AD, contact Bombardier, Inc., 400 Côte Vertu Road West, Dorval, Québec H4S 1Y9, Canada; Widebody Customer Response Center North America toll-free telephone 1-866-538-1247 or direct-dial telephone 1-514-855-2999; fax 514-855-7401; email ac.yul@aero.bombardier.com; internet http://www.bombardier.com.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(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 Des Moines, Washington, on April 27, 2018.

Michael Kaszycki,

Acting Director, System Oversight Division,

Aircraft Certification Service.