



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-6897; Directorate Identifier 2015-NM-187-AD; Amendment 39-18853; AD 2017-08-04]**

**RIN 2120-AA64**

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

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

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 2015-03-01, for all Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. AD 2015-03-01 required installing additional attaching hardware on the left and right engine fan cowl access panels and the nacelle attaching structures. This new AD requires weight and balance data to be included in the Weight and Balance Manual for certain modified airplanes. This new AD also requires the weight and balance data to be used in order to calculate the center of gravity for affected airplanes. This AD was prompted by updates to the weight and balance data needed to calculate the center of gravity for affected airplanes. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of March 17, 2015 (80 FR 7298, February 10, 2015).

**ADDRESSES:** For service information identified in this final rule, 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 view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-6897.

#### **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-2016-6897; 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 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 Branch, ANE-171, FAA, New York Aircraft Certification Office (ACO), 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 to supersede AD 2015-03-01, Amendment 39-18097 (80 FR 7298, February 10, 2015) (“AD 2015-03-01”). AD 2015-03-01 applied to all Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. The NPRM published in the Federal Register on June 8, 2016 (81 FR 36813). The NPRM was prompted by updates to the weight and balance data needed to calculate the center of gravity for affected airplanes. The NPRM proposed to continue to require installing additional attaching hardware on the left and right engine fan cowl access panels and the nacelle attaching structures. The NPRM also proposed to require weight and balance data to be included in the Weight and Balance Manual and applicable logbooks for certain modified airplanes. We are issuing this AD to prevent damage to the fuselage and flight control surfaces from dislodged engine fan cowl access panels, and prevent incorrect weight and balance calculations. Incorrect weight and balance calculations may shift the center of gravity

beyond approved design parameters and affect in-flight control, which could endanger passengers and crew.

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian Airworthiness Directive CF-2014-20R1, dated August 12, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Bombardier, Inc. Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes. The MCAI states:

There have been a number of engine fan cowl panel dislodgement incidents reported on the Bombardier CL-600-2B19 aeroplane fleet. The dislodged panels may cause damage to the fuselage and flight control surfaces of the aeroplane. Also, the debris from a dislodged panel may result in runway contamination and has the potential of causing injury on the ground.

Although the majority of the subject panel dislodgements were reported on the first or second flight after an engine maintenance task was performed that required removal and reinstallation of the subject panels, the frequency of the dislodgements indicates that the existing attachment design is prone to human (maintenance) error.

In order to mitigate the potential safety hazard of the subject panel dislodgement, Bombardier had issued Service Bulletin (SB) 601R-71-034 to install additional fasteners for the attachment of the engine fan cowl panels to the nacelle’s structure. Compliance of the above SB was mandated by the original issue of [Canadian] AD CF-2014-20 dated 9 July 2014 [which corresponded to FAA AD 2015-03-01].

Bombardier has now revised the SB 601R-71-034 (to Revision C) requiring weight and balance data to be included in the Weight and Balance manual for aeroplanes modified per the subject SB. This revised [Canadian] AD is issued to mandate compliance with SB 601R-71-034, Rev C.

Required actions also include the retained actions of modifying the engine fan cowl access panel. 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-2016-6897.

### **Comments**

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

### **Request to Refer to Revised Service Information**

Air Wisconsin Airlines requested that we revise the NPRM to refer to Bombardier Service Bulletin 601R-71-034, Revision D, dated October 7, 2016. Air Wisconsin also asked that we add Bombardier Service Bulletin CF34-NAC-71-042, Revision C, dated September 4, 2016. Air Wisconsin stated that the hardware kits are identified in this service information.

We partially agree with the commenter's request. No additional work is required by Bombardier Service Bulletin 601R-71-034, Revision D, dated October 7, 2016; it merely adds notes for clarification and contains minor editorial changes. Since Bombardier Service Bulletin CF34-NAC-71-042, Revision C, dated September 4, 2016, is a secondary source of service information, it is not referenced in this AD.

We have revised the Related Service Information under 1 CFR part 51 section of the preamble and paragraphs (g) and (h) of this AD to refer to Bombardier Service Bulletin 601R-71-034, Revision D, dated October 7, 2016.

We have also redesignated paragraph (i) of the proposed AD as paragraph (i)(1) of this AD, and added credit for actions required by paragraph (g) of this AD if

accomplished prior to the effective date of this AD using Bombardier Service Bulletin 601R-71-034, Revision C, dated May 8, 2015.

We have also added paragraph (i)(2) to this AD to provide credit for actions required by paragraph (h) of this AD if accomplished prior to the effective date of this AD using Bombardier Service Bulletin 601R-71-034, Revision C, dated May 8, 2015.

#### **Clarification of Alternative Methods of Compliance (AMOCs) Paragraph**

We have revised paragraph (j)(1)(ii) of this AD to clarify that Global AMOC 15-36, dated August 28, 2015, is approved for the corresponding provisions of paragraph (g) of this AD.

#### **Conclusion**

We reviewed the available data, including the comment 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 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.

#### **Related Service Information under 1 CFR part 51**

Bombardier, Inc. has issued Service Bulletin 601R-71-034, Revision B, dated August 1, 2014; and Service Bulletin 601R-71-034, Revision D, dated October 7, 2016. The service information provides procedures for modifying the engine fan cowl access panels and the nacelle attaching structures. These documents are distinct because Service

Bulletin 601R-71-034, Revision D, dated October 7, 2016, also includes weight and balance information. 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 497 airplanes of U.S. registry.

The actions required by AD 2015-03-01 and retained in this AD take about 8 work-hours per product, at an average labor rate of \$85 per work-hour. Required parts cost about \$5,458 per product. Based on these figures, the estimated cost of the actions that are required by AD 2015-03-01 is \$6,138 per product.

We also estimate that it will take about 1 work-hour per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$42,245, or \$85 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 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 removing Airworthiness Directive (AD) 2015-03-01, Amendment 39-18097 (80 FR 7298, February 10, 2015) and adding the following new AD:

**2017-08-04 Bombardier, Inc.:** Amendment 39-18853; Docket No. FAA-2016-6897; Directorate Identifier 2015-NM-187-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

This AD replaces AD 2015-03-01, Amendment 39-18097 (80 FR 7298, February 10, 2015) (“AD 2015-03-01”).

#### **(c) Applicability**

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

#### **(d) Subject**

Air Transport Association (ATA) of America Code 71, Powerplant.

**(e) Reason**

This AD was prompted by dislodged engine fan cowl access panels. We are issuing this AD to prevent damage to the fuselage and flight control surfaces from dislodged engine fan cowl panels, and prevent incorrect weight and balance calculations. Incorrect weight and balance calculations may shift the center of gravity beyond approved design parameters and affect in-flight control, which could endanger passengers and crew.

**(f) Compliance**

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

**(g) Retained Fastener Installation, with Revised Service Information**

This paragraph restates the requirements of paragraph (g) of AD 2015-03-01, with revised service information. Within 6,000 flight hours after March 17, 2015 (the effective date of AD 2015-03-01): Install attaching hardware on the left and right engine fan cowl access panels and the nacelle attaching structures, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 601R-71-034, Revision B, dated August 1, 2014; or Bombardier Service Bulletin, 601R-71-034, Revision D, dated October 7, 2016. As of the effective date of this AD, only Bombardier Service Bulletin, 601R-71-034, Revision D, dated October 7, 2016, may be used.

**(h) Inserting Weight and Balance Data**

Within 6,000 flight hours after the effective date of this AD, revise the applicable Weight and Balance Manual to include the weight and balance data specified in Bombardier Service Bulletin, 601R-71-034, Revision D, dated October 7, 2016.

**(i) Credit for Previous Actions**

(1) This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 601R-71-034, dated March 31, 2014; Bombardier Service Bulletin 601R-71-034, Revision A, dated April 28, 2014; or Bombardier Service Bulletin 601R-71-034, Revision C, dated May 8, 2015.

(2) This paragraph provides credit for actions required by paragraph (h) of this AD, if those actions were performed before the effective date of this AD using Bombardier Service Bulletin 601R-71-034, Revision C, dated May 8, 2015.

**(j) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, New York Aircraft Certification Office (ACO), ANE-170, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the ACO, send it to ATTN: Program Manager, Continuing Operational Safety, FAA, New York ACO, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; fax 516-794-5531.

(i) 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.

(ii) Global AMOC 15-36, dated August 28, 2015, is approved as an AMOC for the corresponding provisions of paragraph (g) of this AD.

**(2) Contacting the Manufacturer:** As of the effective date of this AD, 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, ANE-170, 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.

**(k) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian Airworthiness Directive CF-2014-20R1, dated August 12, 2015. 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-2016-6897.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (1)(5) and (1)(6) of this AD.

**(l) 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.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Bombardier Service Bulletin 601R-71-034, Revision D, dated October 7, 2016.

(ii) Reserved.

(4) The following service information was approved for IBR on March 17, 2015 (80 FR 7298, February 10, 2015).

(i) Bombardier Service Bulletin 601R-71-034, Revision B, dated August 1, 2014.

(ii) Reserved.

(5) 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>.

(6) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:  
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on March 31, 2017.

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