

these failure conditions to be less than  $10^{-9}$ , criteria other than those specified in this paragraph may be used for structural substantiation to show continued safe flight and landing.

(d) *Failure indications.* For system failure detection and indication, the following apply:

(1) The system must be checked for failure conditions, not extremely improbable, that degrade the structural capability below the level required by 14 CFR part 29 or that significantly reduce the reliability of the remaining operational portion of the system. As far as reasonably practicable, the flight crew must be made aware of these failures before flight. Certain elements of the control system, such as mechanical and hydraulic components, may use special periodic inspections, and electronic components may use daily checks, in lieu of detection and indication systems to achieve the objective of this requirement. These other means of detecting failures before flight will become part of the certification maintenance requirements (CMRs) and must be limited to components that are not readily detectable by normal detection and indication systems, and where service history shows that inspections will provide an adequate level of safety.

(2) The existence of any failure condition, shown to be not extremely improbable, during flight that could significantly affect the structural capability of the rotorcraft and for which the associated reduction in airworthiness can be minimized by suitable flight limitations, must be signaled to the flight crew. For example, failure conditions that result in a factor of safety between the rotorcraft strength and the loads of Subpart C below 1.25, or flutter and divergence margins below  $1.11 V_{NE}$  (power on and power off), must be signaled to the crew during flight.

(e) *Dispatch with known failure conditions.* If the rotorcraft is to be dispatched in a known system failure condition that affects structural performance, or that affects the reliability of the remaining operational portion of the system to maintain structural performance, then the provisions of these special conditions must be met, including the provisions of paragraph (b) for the dispatched condition and paragraph (c) for subsequent failures. Expected operational limitations may be taken into account in establishing  $P_j$  as the probability of failure occurrence for determining the safety margin in Figure 1 of these special conditions. Flight limitations and expected operational

limitations may be taken into account in establishing  $Q_j$  as the combined probability of being in the dispatched failure condition and the subsequent failure condition for the safety margins in Figure 2 of these special conditions. These limitations must be such that the probability of being in this combined failure state and then subsequently encountering limit load conditions is extremely improbable. No reduction in these safety margins is allowed if the subsequent system failure rate is greater than  $10^{-3}$  per hour.

Issued in Fort Worth, Texas, on November 30, 2012.

**Lance Gant,**

*Manager, Rotorcraft Directorate, Aircraft Certification Service.*

[FR Doc. 2016-29431 Filed 12-7-16; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

**[Docket No. FAA-2016-7267; Directorate Identifier 2016-NM-015-AD; Amendment 39-18723; AD 2016-24-06]**

**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 DHC-8-102, -103, and -106 airplanes, Model DHC-8-200 series airplanes, and Model DHC-8-300 series airplanes. This AD was prompted by several occurrences of loss of airspeed data on both pilot and co-pilot air speed indicators due to the accumulation of ice on the pitot probes caused by inoperative pitot probe heaters. This AD requires replacing the existing circuit breakers in the pitot heater system. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective January 12, 2017.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of January 12, 2017.

**ADDRESSES:** For service information identified in this final rule, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada;

telephone: 416-375-4000; fax: 416-375-4539; email: [thd.qseries@aero.bombardier.com](mailto:thd.qseries@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-2016-7267.

#### **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-2016-7267; 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:**

Assata Dessaline, Aerospace Engineer, Avionics and Services Branch, ANE-172, FAA, New York Aircraft Certification Office (ACO), 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7301; 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 DHC-8-102, -103, and -106 airplanes, Model DHC-8-200 series airplanes, and Model DHC-8-300 series airplanes. The NPRM published in the **Federal Register** on June 28, 2016 (81 FR 41897) (“the NPRM”).

Transport Canada Civil Aviation (TCCA), which is the aviation authority for Canada, has issued Canadian AD CF-2016-04, dated February 1, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Bombardier, Inc. Model DHC-8-102, -103, and -106 airplanes, Model DHC-8-200 series airplanes, and Model DHC-8-300 series airplanes. The MCAI states:

There have been several occurrences of loss of airspeed data on both pilot and co-pilot Airspeed Indicators (ASI) due to the accumulation of ice on the pitot probes. Subsequent investigation revealed that the build up of ice on the pitot probes was due to inoperative pitot probe heaters. When flying in heavy precipitations, the increased heat required by the pitot probe to clear ice build up may result in a current demand in excess of the trip point of the associated circuit breakers (CB). Under this condition, the CB may trip and cut power supply to the heater. If not corrected, the loss of airspeed data may result in the crew not being able to control the aeroplane's airspeed.

This [Canadian] AD is issued to mandate the replacement of the existing CBs with CBs that have higher trip points.

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-2016-7267.

**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. The Airline Pilots Association, International, stated that it supported the NPRM.

**Request To Revise the Cost of Compliance**

Bombardier, Inc. requested that we correct the cost of the pitot heaters.

Bombardier, Inc. stated that we provided the cost of left-hand pitot heater (\$1,194), but not the right-hand pitot heater. Bombardier Inc. stated that the cost of the right-hand pitot heater is \$1,155.

We agree with the commenter's request for the reasons provided. We have revised this AD accordingly.

**Request To Revise the Requirements in the NPRM**

Bombardier, Inc. requested that we omit the phrase "in production" in the first sentence of paragraph (h) of the proposed AD. Bombardier, Inc. stated that ModSum IS8Q3000004 was incorporated in service.

We agree with the commenter for the reason stated above. We have revised this AD accordingly.

**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**

We reviewed Bombardier Service Bulletin 8-30-39, dated November 11, 2015, and Bombardier Service Bulletin 8-30-40, dated November 11, 2015. The service information describes procedures for replacing the existing circuit breakers in both the left and right sides of the pitot heater system with circuit breakers that have higher trip points. These documents are distinct since they apply to different sides of the airplane. 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 83 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
Replacement (Left-hand pitot) .....	20 work-hours × \$85 per hour = \$1,700 .....	\$1,194	\$2,894	\$240,202
Replacement (Right-hand pitot) .....	20 work-hours × \$85 per hour = \$1,700 .....	1,155	2,855	236,965

**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 adding the following new airworthiness directive (AD):

**2016-24-06 Bombardier, Inc.:** Amendment 39-18723; Docket No. FAA-2016-7267; Directorate Identifier 2016-NM-015-AD.

**(a) Effective Date**

This AD is effective January 12, 2017.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Bombardier, Inc. Model DHC-8-102, -103, -106, -201, -202, -301, -311, and -315 airplanes, certificated in any category, serial numbers 003 through 672 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 30, Ice and rain protection.

**(e) Reason**

This AD was prompted by several occurrences of loss of airspeed data on both pilot and co-pilot air speed indicators due to the accumulation of ice on the pitot probes. An investigation revealed that the accumulation of ice was due to inoperative pitot probe heaters. We are issuing this AD to prevent circuit breakers from tripping and cutting power supply to the pitot probe heater, which could cause loss of airspeed data and result in the flight crew not being able to control the airspeed of the airplane.

**(f) Compliance**

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

**(g) Replacement**

Except as provided by paragraph (h) of this AD, within 5,000 flight hours or 60 months after the effective date of this AD, whichever occurs first: Replace the existing circuit breakers in both the left and right side of the pitot heater system with circuit breakers that have higher trip points, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 8-30-39, dated November 11, 2015 (for the right side), and Bombardier Service Bulletin 8-30-40, dated November 11, 2015 (for the left side).

**(h) Airplanes That Meet the Requirements of Paragraph (g) of This AD**

For airplanes on which Bombardier ModSum IS8Q3000004 has been incorporated, no action is required by paragraph (g) of this AD.

**(i) 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 New York 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. 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) *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, 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.

**(j) Related Information**

Refer to Mandatory Continuing Airworthiness Information (MCAI) Canadian AD CF-2016-04, dated February 1, 2016, 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-2016-7267.

**(k) 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 8-30-39, dated November 11, 2015.

(ii) Bombardier Service Bulletin 8-30-40, dated November 11, 2015.

(3) For service information identified in this AD, contact Bombardier, Inc., Q-Series Technical Help Desk, 123 Garratt Boulevard, Toronto, Ontario M3K 1Y5, Canada; telephone: 416-375-4000; fax: 416-375-4539; email: [thd.qseries@aero.bombardier.com](mailto:thd.qseries@aero.bombardier.com); Internet: <http://www.bombardier.com>.

(4) 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.

(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 November 16, 2016.

**Phil Forde,**

*Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 2016-28602 Filed 12-7-16; 8:45 am]

**BILLING CODE 4910-13-P**

**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2016-9120; Directorate Identifier 2016-CE-024-AD; Amendment 39-18738; AD 2016-25-12]

RIN 2120-AA64

**Airworthiness Directives; M7 Aerospace LLC**

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all M7 Aerospace LLC Models SA226-AT, SA226-T, SA226-T(B), SA226-TC, SA227-AC (C-26A), SA227-AT, SA227-BC (C-26A), SA227-CC, SA227-DC (C-26B), and SA227-TT airplanes. This AD was prompted by corrosion and stress corrosion cracking of the pitch trim actuator upper attach fittings of the horizontal stabilizer front spar. This AD requires repetitive inspections with replacement of fittings as necessary. We are issuing this AD to correct the unsafe condition on these products.

**DATES:** This AD is effective January 12, 2017.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of January 12, 2017.

**ADDRESSES:** For service information identified in this final rule, contact M7 Aerospace LLC, 10823 NE Entrance Road, San Antonio, Texas 78216; phone: (210) 824-9421; fax: (210) 804-7766; Internet: <http://www.elbitsystems-us.com>; email: [MetroTech@M7Aerospace.com](mailto:M7Aerospace.com). You may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call 816-329-4148. It is also available on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9120.

**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-2016-9120; 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