

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

[Docket No. 99-NM-34-AD; Amendment 39-11552; AD 2000-02-34]

RIN 2120-AA64

**Airworthiness Directives; Bombardier Model CL-600-2B19 (Regional Jet Series 100) Series Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to all Bombardier Model CL-600-2B19 (Regional Jet Series 100) series airplanes, that requires revising the Airplane Flight Manual to provide the flightcrew with modified procedures and limitations for operating in icing conditions. This amendment is prompted by an accident report indicating that possible accretion of ice on the wings of the airplane, due to the wing anti-ice system not being activated by the flightcrew, could have contributed to the source of the accident. The actions specified by this AD are intended to prevent undetected accretion of ice on the wings, which could result in reduced controllability of the airplane during normal icing conditions.

**DATES:** Effective March 13, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 13, 2000.

**ADDRESSES:** The service information referenced in this AD may be obtained from Bombardier, Inc., Canadair, Aerospace Group, P.O. Box 6087, Station Centre-ville, Montreal, Quebec H3C 3G9, Canada. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket No. 99-NM-34-AD, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Engine and Propeller Directorate, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Rodrigo J. Huete, Test Pilot, Systems and Flight Test Branch, ANE-172, FAA, Engine and Propeller Directorate, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream,

New York 11581; telephone (516) 256-7518; fax (516) 568-2716.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to all Bombardier Model CL-600-2B19 (Regional Jet Series 100) series airplanes was published in the *Federal Register* on July 14, 1999 (64 FR 37913). That action proposed to require revising the Airplane Flight Manual to provide the flightcrew with modified procedures and limitations for operating in icing conditions.

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

**Request To Review Appendix C Icing Envelope**

One commenter states its understanding that the use of 22,000 feet as a limitation to conduct certain procedures is related to the maximum altitude limit of the icing envelope specified in Appendix C of 14 CFR part 25. The commenter requests that the icing envelope of Appendix C be reviewed for its applicability to current flight operations, and, if necessary, expanded to ensure that all aircraft types are properly certificated to operate in icing conditions typically encountered during line operations. The commenter questions the overall suitability of Appendix C for certification of aircraft because it is based upon operational data collected over 50 years ago.

The FAA partially concurs. The FAA is considering redefining the icing cloud envelopes for the global atmospheric icing environment specified in Appendix C. When sufficient worldwide meteorological information and means are available to demonstrate that airplanes are able to safely operate in the redefined icing environment, the FAA may consider action in this regard. However, this AD is not the appropriate context in which to address that issue. Therefore, no change to this final rule is necessary.

**Request To Require Operational Check Prior to Every Flight**

The same commenter recommends that a provision be included in the proposed AD to conduct an operational check of the ice detection system prior to every flight versus prior to the first flight of the day. The commenter states that, if the procedures of the proposed AD are implemented, a greater reliance on the ice detection system will be

necessary. The commenter suggests that this functional check prior to every flight would provide an additional level of safety below 22,000 feet and would provide the flightcrew a positive means to determine whether the system is operating properly and permit them to be more vigilant in the event of a known failure.

The FAA does not concur with the request to add a provision in the AD to conduct an operational check of the ice detection system prior to every flight versus prior to the first flight of the day. The check verifies latent failures that are not detected by the powerup check or on the continuous built-in test equipment (BITE) check. Based on the once-per-day check, the latest reliability and safety analysis establishes that failure of the ice detectors to annunciate icing is an extremely improbable event. Additionally, the AD does not depend on the ice detectors as primary means to activate the anti-ice systems below 22,000 feet mean sea level (MSL); instead it requires activation of the systems whenever icing conditions exist. Consequently, requiring a check of the ice detectors prior to every flight is considered to be redundant. No change to the final rule is necessary in this regard.

**Request Concerning Dispatch Without Ice Detection System**

The same commenter recommends that ice detection systems not be permitted to be deferred or placed on the Minimum Equipment List (MEL) due to increased reliance on ice detection systems.

The FAA does not concur. The current Canadair CL-65 Regional Jet Master Minimum Equipment List (MMEL, Revision 4, dated November 27, 1996) is considered appropriate and is consistent with the AD. The MMEL allows one of the two ice detectors to be inoperative provided the wing and engine cowl anti-ice systems are ON when the static air temperature (SAT) on the ground is 10 degrees Celsius or less and visible moisture in any form is present; and the wing and engine cowl anti-ice systems are ON when total air temperature (TAT) in flight is 10 degrees Celsius or less and visible moisture in any form is present. The MMEL also allows both ice detectors to be inoperative provided the aircraft is not operated in known or forecast icing conditions; and repairs are made within one flight day. No change to the final rule is necessary in this regard.

**Conclusion**

After careful review of the available data, including the comments noted

above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

### Cost Impact

The FAA estimates that 133 Model Bombardier Model CL-600-2B19 series airplanes of U.S. registry will be affected by this AD, that it will take approximately 1 work hour per airplane to accomplish the required actions, and that the average labor rate is \$60 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be \$7,980, or \$60 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

### Regulatory Impact

The regulations proposed herein would 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. Therefore, it is determined that this proposal would not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under 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. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption **ADDRESSES**.

### List of Subjects in 14 CFR Part 39

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

### Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding the following new airworthiness directive:

**2000-02-34 Bombardier, Inc.** (Formerly Canadair): Amendment 39-11552. Docket 99-NM-34-AD.

**Applicability:** All Model CL-600-2B19 (Regional Jet Series 100) series airplanes, certificated in any category.

**Compliance:** Required as indicated, unless accomplished previously. To prevent undetected accretion of ice on the wings, which could result in reduced controllability of the airplane during normal icing conditions, accomplish the following:

#### AFM Revision

(a) Within 10 days after the effective date of this AD: Revise the FAA-approved Canadair Regional Jet Airplane Flight Manual (AFM) by inserting a copy of the pages specified in paragraphs (a)(1), (a)(2), and (a)(3) of this AD into the AFM.

(1) Revise the Limitations Section to include pages 2 and 3 of Canadair Regional Jet Temporary Revision (TR) RJ/61-2, dated October 30, 1998.

(2) Revise the Emergency Procedures Section to include pages 4 through 6 inclusive of Canadair Regional Jet TR RJ/61-2, dated October 30, 1998.

(3) Revise the Normal Procedures Section to include pages 7 through 27 inclusive of Canadair Regional Jet TR RJ/61-2, dated October 30, 1998.

#### Alternative Methods of Compliance

(b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, New York Aircraft Certification Office (ACO), FAA, Engine and Propeller Directorate. Operators shall submit their requests through an appropriate FAA Principal Operations Inspector, who may add comments and then send it to the Manager, New York ACO.

**Note 1:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the New York ACO.

#### Special Flight Permits

(c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(d) The AFM revision shall be done in accordance with Canadair Airplane Flight Manual Temporary Revision RJ/61-2, dated October 30, 1998. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be

obtained from Bombardier, Inc., Canadair, Aerospace Group, P.O. Box 6087, Station A, Montreal, Quebec H3C 3G9, Canada. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(e) This amendment becomes effective on March 13, 2000.

Issued in Renton, Washington, on January 28, 2000.

**Donald L. Riggins,**

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

[FR Doc. 00-2412 Filed 2-4-00; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 99-NM-41-AD; Amendment 39-11555; AD 2000-02-37]

RIN 2120-AA64

### Airworthiness Directives; Boeing Model 747 Series Airplanes

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to certain Boeing Model 747 series airplanes, that requires a one-time inspection to determine whether latch pins on the lower lobe and main deck side cargo doors are installed backward, and corrective actions, if necessary. This amendment also requires eventual modification of the latch pin fittings on certain cargo doors. This amendment is prompted by reports that latch pins have been found installed backward on the cargo doors of several airplanes. The actions specified by this AD are intended to prevent improper latching of latch pins and the mating latch cam on the cargo door, which could result in damage to the structure of the cargo door and doorway cutout and consequent opening of the cargo door during flight.

**DATES:** Effective March 13, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 13, 2000.

**ADDRESSES:** The service information referenced in this AD may be obtained from Boeing Commercial Airplane Group, P.O. Box 3707, Seattle, Washington 98124-2207. This information may be examined at the