



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

**[Docket No. FAA-2023-1040; Project Identifier MCAI-2022-01512-T; Amendment
39-22558; AD 2023-19-08]**

RIN 2120-AA64

**Airworthiness Directives; MHI RJ Aviation ULC (Type Certificate Previously Held
by Bombardier, Inc.) Airplanes**

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all MHI RJ Aviation ULC Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2C11 (Regional Jet Series 550), CL-600-2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900), and CL-600-2E25 (Regional Jet Series 1000) airplanes. This AD was prompted by a manufacturing quality escape concerning the installation of the Halon metering device on certain cargo fire extinguisher containers. This AD requires the inspection of cargo fire extinguisher container serial numbers and the replacement of the affected containers. This AD would also limit the installation of affected parts. The FAA is 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].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1040; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For service information identified in this final rule, contact MHI RJ Aviation Group, Customer Response Center, 3655 Ave. des Grandes-Tourelles, Suite 110, Boisbriand, Québec J7H 0E2 Canada; North America toll-free telephone 833-990-7272 or direct-dial telephone 450-990-7272; fax 514-855-8501; email thd.crj@mhirj.com; website mhirj.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety 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 at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1040.

FOR FURTHER INFORMATION CONTACT: Gabriel Kim, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; email: 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all MHI RJ Aviation ULC Model CL-600-2C10 (Regional Jet Series 700, 701 & 702), CL-600-2C11 (Regional Jet Series 550), CL-600-

2D15 (Regional Jet Series 705), CL-600-2D24 (Regional Jet Series 900), and CL-600-2E25 (Regional Jet Series 1000) airplanes. The NPRM published in the *Federal Register* on May 12, 2023 (88 FR 30685). The NPRM was prompted by AD CF-2022-66, dated December 8, 2022, issued by Transport Canada, which is the aviation authority for Canada (referred to after this as the MCAI). The MCAI states that during assembly of the Halon metering device, the discharge head was not fully seated on cargo fire extinguisher containers having certain serial numbers. The threads in the discharge neck were not re-tapped after the discharge disc was welded resulting in an undersized thread, which prevented the Halon metering device from being fully seated. This will result in an increased Halon mass flow rate through the metering device during discharge, which could reduce the duration of the Halon flow.

In the NPRM, the FAA proposed to require the inspection of cargo fire extinguisher container serial numbers and the replacement of the affected containers, and to limit the installation of affected parts. The FAA is issuing this AD to address an increased Halon mass flow rate through the metering device during discharge, which could reduce the duration of the Halon flow. The unsafe condition, if not addressed, when combined with a cargo fire, could lead to a reduction in the fire extinguishing and suppression capabilities of the fire protection system.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1040.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from the Air Line Pilots Association, International (ALPA), who supported the NPRM without change.

The FAA received an additional comment from MHI RJ Aviation ULC. The following presents the comment received on the NPRM and the FAA's response.

Request for Latest Service Bulletin Revision

MHI RJ Aviation ULC stated paragraphs (g), (h), and (k)(2)(i) of the proposed AD refer to MHIRJ Service Bulletin 670BA-26-014, dated July 28, 2022. The commenter explained that the current revision is at Revision A, dated December 23, 2022, and has been accepted by Transport Canada Continuing Airworthiness. The commenter requested that a credit statement for the initial issue be added to the proposed AD.

The commenter added that paragraph (h) of the proposed AD is referring to Collins Service Bulletin Fire Extinguisher-26-A, dated April 4, 2022. The commenter explained that the current revision is at Revision 1, dated June 16, 2022. The commenter noted that since the latest revision of the Collins service bulletin is also referenced in MHIRJ Service Bulletin 670BA-26-014, Revision A, dated December 23, 2022, Collins Service Bulletin Fire Extinguisher-26-A, Revision 1, dated June 16, 2022, should be referenced in paragraph (h) of the proposed AD.

The FAA partially agrees with the request. The FAA agrees that MHIRJ Service Bulletin 670BA-26-014, Revision A, dated December 23, 2022, as the above-mentioned commentor noted, is the current revision and should be referenced in this AD. The FAA has revised paragraphs (g), (h), and (k)(2)(i) of this AD to add the latest service information revision as an acceptable method of compliance. Accordingly, the FAA disagrees that a credit paragraph is necessary.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this

AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information under 1 CFR Part 51

The FAA reviewed MHIRJ Service Bulletin 670BA-26-014, dated July 28, 2022, and Revision A, dated December 23, 2022. This service information specifies procedures for an inspection for the serial numbers of the high rate of discharge (HRD) and low rate of discharge (LRD) cargo fire extinguisher containers and the replacement of affected cargo fire extinguisher containers. These documents are distinct because MHIRJ Service Bulletin 670BA-26-014, Revision A, dated December 23, 2022, added an alternative method to find the serial numbers.

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

The FAA estimates that this AD will affect 597 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 1 work-hour X \$85 per hour = \$85	\$0	Up to \$85	Up to \$50,745

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
3 work-hours X \$85 per hour = \$255	\$0	\$255

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

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.

The FAA is 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

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) Will not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

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

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:

2023-19-08 MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.): Amendment 39-22558; Docket No. FAA-2023-1040; Project Identifier MCAI-2022-01512-T.

(a) Effective Date

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

(b) Affected ADs

None.

(c) Applicability

This AD applies to all MHI RJ Aviation ULC (type certificate previously held by Bombardier Inc.) airplanes, certificated in any category, identified in paragraphs (c)(1) through (5) of this AD.

(1) Model CL-600-2C10 (Regional Jet Series 700, 701 & 702) airplanes.

(2) Model CL-600-2C11 (Regional Jet Series 550) airplanes.

(3) Model CL-600-2D15 (Regional Jet Series 705) airplanes.

(4) Model CL-600-2D24 (Regional Jet Series 900) airplanes.

(5) Model CL-600-2E25 (Regional Jet Series 1000) airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 26, Fire Protection.

(e) Unsafe Condition

This AD was prompted by a manufacturing quality escape concerning the installation of the Halon metering device on certain cargo fire extinguisher containers. The FAA is issuing this AD to address an increased Halon mass flow rate through the metering device during discharge, which could reduce the duration of the Halon flow. The unsafe condition, if not addressed, when combined with a cargo fire, could lead to a reduction in the fire extinguishing and suppression capabilities of the fire protection system.

(f) Compliance

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

(g) Inspection and Replacement

Within 1,000 flight hours or 6 months, whichever occurs first from the effective date of this AD, inspect the serial numbers of the high rate of discharge (HRD) and low rate of discharge (LRD) cargo fire extinguisher containers in accordance with Section 2.B. of the Accomplishment Instructions of MHIRJ Service Bulletin 670BA-26-014, dated July 28, 2022, or Revision A, dated December 23, 2022. A review of airplane maintenance or equipment records is acceptable in lieu of this inspection if the serial number of the HRD and LRD cargo fire extinguisher containers can be conclusively determined from that review.

(1) If neither of the HRD or the LRD container serial numbers is listed in Section 2.B. of the Accomplishment Instructions of MHIRJ Service Bulletin 670BA-26-014, dated July 28, 2022, or Revision A, dated December 23, 2022, no further work is required by this paragraph.

(2) If the serial numbers of both the HRD and LRD containers are listed in Section 2.B. of the Accomplishment Instructions of MHIRJ Service Bulletin 670BA-26-014, dated July 28, 2022, or Revision A, dated December 23, 2022: Within 4,500 flight hours from the effective date of this AD, replace the HRD and LRD cargo fire extinguisher containers in accordance with Section 2.B. of the Accomplishment Instructions of the MHIRJ Service Bulletin 670BA-26-014, dated July 28, 2022, or Revision A, dated December 23, 2022.

(3) If the serial number of either the HRD or the LRD container, but not both, is listed in Section 2.B. of the Accomplishment Instructions of MHIRJ Service Bulletin 670BA-26-014, July 28, 2022, or Revision A, dated December 23, 2022: Within 8,800 flight hours from the effective date of this AD, replace the affected HRD or LRD cargo fire extinguisher container in accordance with Section 2.B. of the Accomplishment Instructions of MHIRJ Service Bulletin 670BA-26-014, dated July 28, 2022, or Revision A, dated December 23, 2022.

(h) Parts Installation Limitation

As of the effective date of this AD, it is prohibited to install an HRD or LRD cargo fire extinguisher container with a serial number listed in Section 2.B. of the Accomplishment Instructions of MHIRJ Service Bulletin 670BA-26-014, dated July 28, 2022, or Revision A, dated December 23, 2022, unless the cargo fire extinguisher container is ink-stamped with a circled “G” adjacent to the nameplate, signifying the incorporation of Collins Service Bulletin Fire Extinguisher-26-A, dated April 4, 2022, or Revision 1, dated June 16, 2022.

(i) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation 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 responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the International Validation Branch, mail it to ATTN: Program Manager, Continuing Operational Safety, at the address identified in paragraph (j)(2) of this AD or email to: 9-AVS-AIR-730-AMOC@faa.gov. If mailing information, also submit information by email. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or Transport Canada or MHI RJ Aviation ULC's Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(j) Additional Information

(1) Refer to Transport Canada AD CF-2022-66, dated December 8, 2022, for related information. This Transport Canada AD may be found in the AD docket at regulations.gov under Docket No. FAA-2023-1040.

(2) For more information about this AD, contact Gabriel Kim, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone: 516-228-7300; email: 9-avs-nyaco-cos@faa.gov.

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference 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) MHIRJ Service Bulletin 670BA-26-014, dated July 28, 2022.

(ii) MHIRJ Service Bulletin 670BA-26-014, Revision A, dated December 23, 2022.

(3) For service information identified in this AD, contact MHI RJ Aviation Group, Customer Response Center, 3655 Ave. des Grandes-Tourelles, Suite 110, Boisbriand, Québec J7H 0E2 Canada; North America toll-free telephone 833-990-7272 or direct-dial telephone 450-990-7272; fax 514-855-8501; email thd.crj@mhirj.com; website mhirj.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety 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, email fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on September 22, 2023.

Victor Wicklund, Deputy Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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