[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2024-2012; Project Identifier MCAI-2023-01208-T; Amendment 39-22936; AD 2025-02-03]**

**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-600-2B19 (Regional Jet Series 100 & 440) airplanes. This AD was prompted by the discovery of ten ultrasonic inspections associated with airworthiness limitations (AWL) tasks and structural deviation inspection requirements (SDIR) tasks potentially not detecting cracks. This AD requires repetitive ultrasonic inspections of certain structural areas for cracking, and prohibits use of the previous revisions of certain procedures and mandates the use of the revised procedures when performing the inspections required by the associated AWL and SDIR tasks, as specified in a Transport Canada AD, which is incorporated by reference (IBR). This AD also requires repair of cracking. 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 under Docket No. FAA-2024-2012; 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 Transport Canada material identified in this AD, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; telephone 888-663-3639; email TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca. You may find this material on the Transport Canada website at tc.canada.ca/en/aviation.

• You may view this material 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 under Docket No. FAA-2024-2012.

**FOR FURTHER INFORMATION CONTACT:** Yaser Osman, 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-600-2B19 (Regional Jet Series 100 & 440) airplanes. The NPRM published in the *Federal Register* on August 8, 2024 (89 FR 64837). The NPRM was prompted by AD CF-2023-74, dated November 21, 2023 (Transport Canada AD CF-2023-74) (also referred to as the MCAI), issued by Transport Canada, which is the aviation authority for Canada. The MCAI states MHI RJ Aviation ULC discovered that ten ultrasound (i.e., ultrasonic) inspection procedures in Part 4 of the non-destructive testing manual (NDTM), which is associated with AWL tasks and SDIR tasks, could potentially not detect cracks. The MCAI stated this is due to differences in sound attenuation between airplane structures assembled with faying surface sealant and the calibration reference standards used to calibrate the ultrasonic testing probes that were assembled without faying surface sealant.

In the NPRM, the FAA proposed to require repetitive ultrasonic inspections of certain structural areas for cracking, and repair of cracking. The FAA also proposed to prohibit use of the previous revisions of certain procedures and mandate the use of the revised procedures when performing the inspections required by the associated AWL and SDIR tasks. The FAA is issuing this AD to address undetected cracks in certain structural areas. The unsafe condition, if not addressed, could result in structural failure of the airplane.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2024-2012.

## Discussion of Final Airworthiness Directive

### Comments

The FAA received a comment from Air Wisconsin Airlines. The following presents the comment received on the NPRM and the FAA's response to that comment.

### Request for Clarification of Upper or Lower Web Repairs

Air Wisconsin Airlines requested a clarification for AWL NDTM part 4 procedure 601R-51-53-61-345, temporary revision (TR) 51-028, per the MCAI. Air Wisconsin Airlines asked whether the proposed inspection would be required only for the repaired portion of the upper web, or for the lower web as well, if only a partial repair of the upper web was accomplished per repair engineering order (REO) 601R-53-61-345.

The FAA provides the following clarification. This AD applies only to an existing repair location. Therefore, if only the upper web has a generic repair engineering order (GREO) per AWL 601R-53-61-345, the inspection task 51-53-61-345 is used to inspect the upper web. The lower web is inspected according to the intervals and inspection methods specified in the applicable maintenance repair manual (MRM), Part 2. The FAA has clarified this issue in paragraph (h)(5) of this AD.

### 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 comment 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.

**Material Incorporated by Reference under 1 CFR Part 51**

Transport Canada AD CF-2023-74 specifies procedures for repetitive ultrasonic inspections of certain structural areas for cracking. The structural areas include, but are not limited to, certain lateral beam web and lower cap flanges, engine support beam cap angles, engine support beams, webs, and doublers. Transport Canada AD CF-2023-74 also prohibits the use of the previous revisions of certain ultrasonic inspection procedures specified in Part 4 of the NDTM and mandates the use of revised procedures when performing the inspections required by the associated AWL and SDIR tasks.

This material 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 would affect 395 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 |
|---|---|---|---|
| 5 work-hours X $85 per hour = $425 | $0 | $425 | $167,875 |

The FAA has received no definitive data on which to base the cost estimates for the repairs specified in this AD.

**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:

**2025-02-03 MHI RJ Aviation ULC (Type Certificate Previously Held by Bombardier, Inc.):** Amendment 39-22936; Docket No. FAA-2024-2012; Project Identifier MCAI-2023-01208-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.) Model CL-600-2B19 (Regional Jet Series 100 & 440) airplanes, certificated in any category.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by the discovery of ten ultrasonic inspections associated with airworthiness limitations (AWL) tasks and structural deviation inspection requirements (SDIR) potentially not detecting cracks. The FAA is issuing this AD to address undetected cracks in certain structural areas. The unsafe condition, if not addressed, could result in structural failure of the airplane.

**(f) Compliance**

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

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, Transport Canada AD CF-2023-74, dated November 21, 2023 (Transport Canada AD CF-2023-74).

**(h) Exceptions to Transport Canada AD CF-2023-74**

(1) Where Transport Canada AD CF-2023-74 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where paragraph A. of Transport Canada AD CF-2023-74 specifies to perform AWL tasks and SDIR tasks, for this AD, the initial compliance time for the tasks is at the time specified in paragraph A. of Transport Canada AD CF-2023-74 or within 30 days after the effective date of this AD, whichever occurs later.

(3) Where paragraph B. of Transport Canada AD CF-2023-74 refers to phase-in compliance times in Table 1 of Transport Canada AD CF-2023-74, this AD requires using the applicable phase-in time identified in Table 1 of Transport Canada AD CF-2023-74, or within 30 days after the effective date of this AD, whichever occurs later.

(4) If, during any inspection required by paragraph (g) of this AD, any cracking is found, repair before further flight 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.

(5) If generic repair engineering order (GREO) 601R-53-61-345 has been performed only on the upper web or lower web, then the inspection specified in non-destructive testing manual (NDTM) part 4 procedure 51-53-61-345 (as specified in Transport Canada AD CF-2023-74) is applicable only to the repaired location (where a doubler is installed).

**(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 the address identified in paragraph (j) of this AD. Information may be emailed to: AMOC@faa.gov. 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**

For more information about this AD, contact Yaser Osman, 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 (IBR) of the material listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this material as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Transport Canada AD CF-2023-74, dated November 21, 2023.

(ii) [Reserved]

(3) For Transport Canada AD CF-2023-74, contact Transport Canada, Transport Canada National Aircraft Certification, 159 Cleopatra Drive, Nepean, Ontario K1A 0N5, Canada; telephone 888-663-3639; email TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca. You may find this Transport Canada AD on the Transport Canada website at tc.canada.ca/en/aviation.

(4) You may view this material 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 material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on January 16, 2025.

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