



# AIRWORTHINESS DIRECTIVE

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*This Airworthiness Directive (AD) is issued pursuant to Canadian Aviation Regulation (CAR) 521.427. No person shall conduct a take-off or permit a take-off to be conducted in an aircraft that is in their legal custody and control, unless the requirements of CAR 605.84 pertaining to ADs are met. Standard 625 - Aircraft Equipment and Maintenance Standards Appendix H provides information concerning alternative means of compliance (AMOC) with ADs.*

**Number:**

CF-2021-32

**Effective Date:**

1 October 2021

**ATA:**

35

**Type Certificate:**

A-276

**Subject:**

Oxygen – Third Crew Member Oxygen Mask – Introduction of Chafing Protection for Flex Hose and Rerouting of Electrical Harness

**Applicability:**

MHI RJ Aviation ULC. (formerly Bombardier Inc.) model CL-600-2B19 aeroplanes, all serial numbers.

**Compliance:**

Within 4000 hours air time or 24 months, whichever occurs first, from the effective date of this AD, unless already accomplished.

**Background:**

An operator reported an oxygen-fed ground fire event in March 2020. The root cause remains undetermined, but evidence suggests that electrical arcing from a faulty third crew member (observer) oxygen mask surround light wire, carrying 115 volts of alternating current (VAC), ignited a concentration of oxygen. The cause of the oxygen leak is unknown. An investigation conducted by MHI RJ Aviation ULC. (MHIRJ) on aircraft in the field concluded that the oxygen supply hose connecting to the rear of the observer oxygen mask box assembly could be subject to chafing damage.

This AD is issued to prevent the possibility of damage to the observer's oxygen mask supply hoses and any potential for an oxygen-fed fire in the vicinity of the observer's oxygen mask storage compartment.

**Corrective Actions:**

Inspect and correct, if required, the observer's oxygen mask stowage box and storage compartment, the observer's mask oxygen hose connections, hose routing and the associated electrical harness; reroute the electrical harness and apply protective sealant in accordance with Section 2.B. of the Accomplishment Instructions of MHIRJ Service Bulletin 601R-35-022, Initial Issue, dated 1 June 2021, or later revisions approved by the Chief, Continuing Airworthiness, Transport Canada.

**Authorization:**

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr  
Chief, Continuing Airworthiness  
Issued on 17 September 2021

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