



AIRWORTHINESS DIRECTIVE

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-2022-42

Effective Date:

22 August 2022

ATA:

26

Type Certificate:

A-276

Subject:

Fire Protection – Lavatory Smoke Detector – Operational Check of the Lavatory Smoke Detector

Applicability:

MHI RJ Aviation ULC. (MHIRJ) (formerly Bombardier Inc.) model CL-600-2B19, CL-600-2C10, CL-600-2C11, CL-600-2D15, CL-600-2D24 and CL-600-2E25 aeroplanes, all serial numbers.

Compliance:

As indicated below, unless already accomplished.

Background:

Operators have reported frequent flight interruptions and high lavatory smoke detector removal rates due to the frequent testing of the smoke detector self-test switch by the flight crew using unsuitable objects. Operators requested the removal of the test requirement objective from the Flight Crew Operating Manual (FCOM) Chapter 04-06 – Lavatory Check and to instead make it a maintenance task. The daily operational test of the lavatory smoke detector has been replaced by a visual check.

There is a potential dormant failure of the lavatory smoke detector if the self-test switch check is not performed in accordance with the revised Maintenance Requirements Manual (MRM) or if the Maintenance Review Board (MRB) task is escalated beyond the Candidate Certification Maintenance Requirements (CCMR) interval limitation. If these maintenance changes are not implemented, and in combination with a fire in the lavatory, this may lead to a delay in the reaction time to address smoke/fire in the lavatory.

To address this unsafe condition for model CL-600-2B19 aeroplanes, Certification Maintenance Requirements (CMR) Task C26-25-140-01 for the Operational Check of the Lavatory Smoke Detector was introduced by MRM Part 2, Appendix A of CSP A-053.

To address this unsafe condition for model CL-600-2C10, CL-600-2C11, CL-600-2D15, CL-600-2D24 and CL-600-2E25 aeroplanes, the existing CCMR interval limitation for the Operational Check of the Lavatory Smoke Detector was reduced in the MRM Part 2, Appendix A2 of CSP B-053, and the associated MRB Task 261000-204 was revised to include the lavatory smoke detector self-test switch check in Maintenance Task Card Manual (MTCM) 000-26-270-702-A01 and MTCM 000-26-240-702-A01.

This AD mandates the incorporation of the new CMR task and CCMR interval limitations including the changes to the MTCM.

Corrective Actions:

Part I – Applicable to Model CL-600-2B19 Aeroplanes

- A. Within 60 days from the effective date of this AD, incorporate CMR Task C26-25-140-01 for the Operational Check of the Lavatory Smoke Detector in the MRM Part 2, Appendix A of CSP A-053, as introduced by Temporary Revision (TR) 2A-75, dated 28 May 2020.

- B. Within 12 months from the effective date of this AD, perform the initial Operational Check of the Lavatory Smoke Detector in accordance with CMR Task C26-25-140-01 in the MRM Part 2, Appendix A of CSP A-053, as introduced by TR 2A-75, dated 28 May 2020.
- C. Repeat the Operational Check of the Lavatory Smoke Detector, in accordance with the intervals specified in the MRM Part 2, Appendix A of CSP A-053 for the Operational Check of the Lavatory Smoke Detector, CMR Task C26-25-140-01, as introduced by TR 2A-75, dated 28 May 2020.

Compliance with superseding TRs or later revisions of the MRM, approved by Transport Canada, also meets the intent of Part I of this AD.

Part II – Applicable to Model CL-600-2C10, CL-600-2C11, CL-600-2D15, CL-600-2D24 and CL-600-2E25 Aeroplanes

- A. Within 60 days from the effective date of this AD, incorporate the revised CCMR Interval Limitation associated with MRB Task 261000-204 for the Operational Check of the Lavatory Smoke Detector in the MRM Part 2, Appendix A2 of CSP B-053, as introduced by TR ALI-0746, dated 27 April 2021.
- B. Within 60 days from the effective date of this AD, incorporate the revised Maintenance Task Cards 000-26-270-702-A01 and 000-26-240-702-A01 in CSP B-089, as introduced by MTCM Revision 66, dated 25 July 2021.
- C. Within 12 months from the effective date of this AD, perform the Operational Check of the Lavatory Smoke Detector in accordance with Maintenance Task Cards 000-26-270-702-A01 and 000-26-240-702-A01 in MTCM CSP B-089 Revision 66, dated 25 July 2021, or later revisions approved by Transport Canada.
- D. Repeat the Operational Check of the Lavatory Smoke Detector at intervals not to exceed the revised CCMR Interval Limitation associated with MRB Task 261000-204 for the Operational Check of the Lavatory Smoke Detector, as introduced by TR ALI-0746, dated 27 April 2021, or later revisions approved by Transport Canada.

Compliance with superseding TRs or later revisions of the MRM, approved by Transport Canada, also meets the intent of Part II.A. and Part II.D. of this AD.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Philippe Ngassam
Director, National Aircraft Certification
Issued on 8 August 2022

Contact:

Danilo Verrelli, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail TC.AirworthinessDirectives-Consignesdenavigabilite.TC@tc.gc.ca or any Transport Canada Centre.