



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) to ADs.

Number:

CF-2014-19R1

Effective Date:

14 March 2016

ATA:

78

Type Certificate:

A-131

Subject:

Engine Exhaust - Engine Thrust Reverser Actuator Attachment Structure Failure

Revision:

Supersedes AD CF-2014-19, dated 20 June 2014.

Applicability:

Bombardier Inc. model CL-600-1A11 aeroplanes, serial numbers 1004 to 1085.

Compliance:

As indicated below, unless already accomplished.

Background:

There have been two reported incidents of partial deployment of an engine thrust reverser in-flight, caused by a failure of the translating sleeve at the thrust reverser actuator attachment points. Inspection of the same area on some other thrust reversers revealed cracks emanating from the holes under the nut plates.

In both incidents, the affected aeroplane landed safely without any noticeable controllability issues, however structural failure of thrust reverser actuator attachment points resulting in thrust reverser deployment or dislodgment in flight is a safety hazard warranting an immediate mitigating action.

To help in mitigating any immediate safety hazard, Bombardier Inc. has revised the Aircraft Flight Manual (AFM) through Temporary Revisions (TR) 600/29, 600/30, 600-1/24 and 600-1/26, to prohibit the thrust reverser operation on affected aeroplanes. Additionally, as an interim corrective action, Bombardier Inc. has issued alert service bulletin (ASB) A600-0769 requiring an inspection and/or a mechanical lock out of the thrust reverser to prevent it from moving out of forward thrust mode.

Original Emergency AD CF-2014-19 was issued 20 June 2014 to mandate the incorporation of above mentioned revised AFM procedures and compliance with ASB A600-0769. This AD is now being revised to include the terminating action in accordance with Part C of the ASB A600-0769 Rev 02 dated 22 February 2016.

Corrective Actions:

Part 1 - AFM Revision

Within 24 hours as of 20 June 2014, the effective date of the original issue of this AD, amend the AFM for the affected CL-600-1A11 aeroplanes by incorporating the procedural changes introduced through TR 600/30, 600-1/26 dated 14 June 2014 and TR 600/29, 600-1/24 dated 20 June 2014, as applicable or later revisions of these procedures as approved by Transport Canada.

Part 2 - Inspection for Cracks and Interim Modification

Within 25 flight cycles or 90 days, whichever occurs first, as of 20 June 2014, the effective date of the original issue of this AD, comply with Part 2 paragraph A or Part 2 paragraph B of this AD.

A- Inspection

Inspect both engine thrust reversers on the affected aeroplanes and perform repeat inspections every 100 flight cycles, in accordance with the Part A instructions of ASB A600-0769 dated 19 June 2014 or later revision approved by the Chief, Continuing Airworthiness, Transport Canada. If any crack is found, comply with Part2 paragraph B or Part 3 below prior to next flight.

B - Interim Modification Of of Thrust Reverser

Modify the thrust reversers on both engines of the affected aeroplanes in accordance with Part B of ASB A600-0769 dated 19 June 2014 or later revision approved by the Chief, Continuing Airworthiness, Transport Canada.

Compliance with Part 2 paragraph B of this AD constitutes the terminating action for the above Part 2 paragraph A requirements of this AD.

Part 3 – Terminating Action

Within 24 months from the compliance with Part 2 paragraph B or within 48 months from compliance with Part 2 paragraph A of this AD, repair / modify the affected thrust reversers in accordance with Accomplishment Instructions Part C of ASB A600-0769 Rev 02 dated 22 February 2016 or later revision approved by the Chief, Continuing Airworthiness, Transport Canada.

Part 3 of this AD can be incorporated without incorporating Part 2 paragraph A or Part 2 paragraph B.

Compliance with Part 3 of this AD constitutes the terminating action for the above Part 2 paragraphs A and B requirements.

Authorization:

For the Minister of Transport,

ORIGINAL SIGNED BY

Rémy Knoerr
Chief, Continuing Airworthiness
Issued on 11 March 2016

Contact:

A.K. Durrani, Continuing Airworthiness, Ottawa, telephone 888-663-3639, facsimile 613-996-9178 or e-mail AD-CN@tc.gc.ca or any Transport Canada Centre.