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No. CF-97-11R2

AIRWORTHINESS DIRECTIVE

The following airworthiness directive (AD) may be applicable to an aircraft which our records indicate is registered in your name. ADs are issued pursuant to Canadian Aviation Regulation (CAR) 593. Pursuant to CAR 605.84 and the further details of CAR Standard 625, Appendix H, the continuing airworthiness of a Canadian registered aircraft is contingent upon compliance with all applicable ADs. Failure to comply with the requirements of an AD may invalidate the flight authorization of the aircraft. Alternative means of compliance shall be applied for in accordance with CAR 605.84 and the above- referenced Standard.

This AD has been issued by the Continuing Airworthiness Division (AARDG), Aircraft Certification Branch, Transport Canada, Ottawa, telephone (613) 952-4357.

CF-97-11R2 CANADAIR

Applies to Canadair Model CL-600-2B19 "Regional Jet" aircraft, serial numbers 7003 through 7185.

Compliance is required as indicated, unless already accomplished.

Investigation of pressurization problems on a Canadair Regional Jet revealed that a fatigue crack, approximately 14 inches (35 cm) in length, had propagated in the pressure bulkhead frame at the forward end of the fuselage wing box cutout. Inspection of an additional ten aircraft revealed cracking in the same location on seven.

To preclude the failure of the pressure bulkhead frame, accomplish the following:

A. Initially within 10 hours flight time or at the next available opportunity after the effective date of this directive, whichever is earlier, perform a detailed visual inspection of fuselage frame FS409+128 bulkhead web (P/N 601R32208-123) from the corner radius at WL 49.00, LBL 6.00 and RBL 6.00, and angles (P/Ns 601R32208-79 and -81).

1. Aircraft visually determined to be crack free may only be returned to service provided that:

(a) Aircraft with less than 1000 hours total flight time shall be reinspected prior to accumulating 1000 hours total flight time; and

(b) Aircraft with 1000 or more hours total flight time shall be reinspected at intervals not exceeding 100 hours flight time.

2. Aircraft visually determined to have cracks may only be returned to service provided that:

(a) No more than one crack exists at each corner; and

(b) Angles (P/Ns 601R32208-79 and -81) on the aft side of the web are visually confirmed to be crack free; and

(c) No crack extends under the angles (P/Ns 601R32208-79 and -81) on the aft side of the web; and

(d) The aircraft shall be reinspected at intervals not exceeding 100 hours flight time.

3. Aircraft visually determined to have cracks extending under, but not beyond, the angles (P/Ns 601R32208-79 and -81) on the aft side of the web may only be returned to service provided that:

A high frequency eddy current inspection shall be performed, and repeated at intervals not exceeding 50 hours flight time, on the forward face of fuselage frame FS409+128 bulkhead web (P/N 601R32208-123), along the upper edge of the horizontal angle (P/N 601R32208-73), in accordance with Appendix 1 of Canadair Alert Service Bulletin A601R-53-045 Rev. B dated 27 June 1997, or later revisions approved by the Director, Aircraft Certification, Transport Canada, Ottawa; and

(b) Cracks do not extend above the upper flange of the horizontal angle (P/N 601R32208-73) on the forward face of this fuselage frame bulkhead web; and

(c) There are no cracks visually detected in the angle (P/N 601R32208-73).

B. Aircraft that have cracks in excess of those specified in parts A.2 and A.3 above, require an approved repair prior to further flight.

Approved repair schemes are detailed in paragraph 2 "Accomplishment Instructions" of Canadair Service Bulletin (SB) SB 601R-53-046 dated 27 June 1997 or later revisions approved by the Director, Aircraft Certification, Transport Canada, Ottawa and in Canadair document REO 601R-53-31-019 (NC through Rev. C).

Aircraft may be modified prior to the detection of cracks by complying with Paragraph 2, "Accomplishment Instructions" of Canadair SB 601R-53-047 dated 18 July 1997 or later revisions approved by the Director, Aircraft Certification, Transport Canada, Ottawa.

Incorporation of an approved repair or modification as detailed in paragraphs C and D above, provides terminating action to the inspection requirements of paragraph A of this directive. The bulkhead inspection requirements for repaired and modified aircraft are detailed in CSP A-53, Canadair Model CL-600-2B19 Maintenance Requirements Manual, Part 2, "Airworthiness Requirements."

Report findings of all cracks to Bombardier Regional Aircraft Division (BRAD) Action Centre, telephone (514) 855-8500.

Alternative means of compliance with the requirements of this directive may only be used if approved by the Director, Aircraft Certification, Transport Canada, Ottawa. Any application should be made to the appropriate Transport Canada Centre.

This revision supersedes Airworthiness Directive CF-97-11R1 issued 27 June 1997.

This directive retains the CF-97-11R1 effectivity date of 28 June 1997.

This revision has been issued to amend the applicability to specific aircraft serial numbers; to include information on approved repair schemes and an approved modification; and to specify that the bulkhead inspection requirements for repaired and modified aircraft are detailed in the CL-600-2B19 Maintenance Requirements Manual.

Pursuant to CAR 202.51 the registered owner of a Canadian aircraft shall, within seven days, notify the Minister in writing of any change of his or her name or address. To request a change of address, contact the Civil Aviation Communications Centre (AARC) at Place de Ville, Ottawa, Ontario K1A 0N8, or 1-800-305-2059, or <http://www.tc.gc.ca/civilaviation/communications/centre/address.asp>.

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