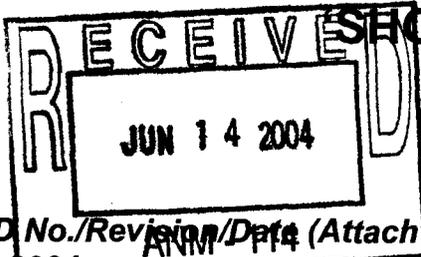


295152

FAA-04-18993-3

Revised October 1, 1999

Aircraft Certification Service



SHORT' WORKSHEET

2004-NM-125-AD

DOCKET NUMBER:
TECH WRITER:

FCAA AD No./Revision/Date (Attach 1 copy): Transport Canada AD CF-2004-04 R2 dated April 26, 2004.

Manufacturer Service Information/Revision/Date (Attach 2 clean copies):

1. Bombardier Alert Service Bulletin, A670BA-28-025, Revision A, dated December 15, 2003.
2. Bombardier AFM Temporary Revision TR RJ 700/52-2 for CL-600-2C10
3. Bombardier AFM Temporary Revision TR RJ 900/10-1 for CL-600-2D24

PROPOSED CORRESPONDING ACTION:

- | | |
|--|--|
| <input type="checkbox"/> Emergency AD | <i>Is this action one of the following?</i> |
| <input checked="" type="checkbox"/> Immediately Adopted AD | <input checked="" type="checkbox"/> Supersedure of AD (Docket No. 2004-NM-41-AD) |
| <input type="checkbox"/> Notice of Proposed Rulemaking | <input type="checkbox"/> Revision of AD |
| <input type="checkbox"/> Final rule after NPRM
<i>(If FRAN, complete Attachment A.)</i> | <input type="checkbox"/> Supplemental NPRM (Docket No. _____)
<i>(If any of the above is checked, complete Attachment B.)</i> |
| <input type="checkbox"/> Other (NFR, DFR) | |

For each AD item numbered below, provide draft text and/or FCAA AD or SB references. WHERE POSSIBLE, answer items using markup of FCAA AD or SB, & mark with the AD item number.

1. Model, Applicability, # Airplanes (both U.S. & worldwide) - Refer to FCAA AD or SB; state any differences for the U.S. AD:

Bombardier CL-600-2C10 Regional Jet (CRJ-700), Bombardier CL-600-2D24 Regional Jet (CRJ-900)
Number of US aircraft: 108
Number of worldwide aircraft: 210.

Serial Numbers:
Model CL-600-2C10, CRJ-700, 10003 and subsequent.
Model CL-600-2D24, CRJ-900, 15001 and subsequent.

Transport Canada AD CF-2004-04, Bombardier Service Bulletin A670BA-28-025, Revision A dated December 15, 2003.

AD Summary and Discussion Sections:

2. What has the FCAA/mfgr told the FAA? "The FCAA advises that ..."
Describe background/events that prompted the AD in 1-2 sentences. Refer to FCAA AD or SB 'Reason.'

The FCAA advises that eight reports have been received of a longitudinal crack in the primary fuel ejector, which resulted in leakage of fuel into the center fuel tank.

3a. What is the unsafe condition AND its cause? "These actions are intended to prevent..."
Describe unsafe condition and its cause in 2-3 sentences (non-technical terms). Refer to FCAA AD or SB 'Reason.'

It is possible for the casting of the primary ejector to be defective and cause the primary ejector to crack. This can cause an increase in the fuel quantity in the center tank.

**3b. What is the end-level effect on the airplane?
result in..."**

"...which could

Provide a 1-sentence description; use non-technical terms.

If not detected and corrected, cracking of a primary fuel ejector could lead to a requirement to shut down an engine during flight.

4. (Yes or No) Is the corrective action required in this AD considered to be interim action?

Yes.

**5. (Yes or No) Is this action considered 'sensitive, or is it related to a Safety Recommendation?
(If yes, state why sensitive, and/or provide copy of FAA/NSTB Safety Recommendation.)**

No.

6. AD Differences or Exceptions to Policy (if needed): "This AD differs from the FCAA AD..."

Check if: Flight with Cracks (exception to policy)___; No Flight with Cracks___; Mandate Term Action ___;

Not Mandating Term Action (exception to policy)___; Contact Mgr, FAA___; Compliance time ___; Mandate AFM Action___; Contact Mgr or FCAA___

Describe any other differences between service bulletin (or exceptions to policy) and this proposed FAA AD.

None

AD Cost Impact Section:

7a. Work hours for corrective action(s) required: (List hours or reference SB 'Manpower').

14 hours, Reference: Manpower section of service bulletin.

7b. Parts Cost, if any: (List costs or reference SB 'Material - Cost and Availability').

None.

AD Body Section:

For EACH corrective action, mark up FCAA AD or SB, if usable -OR- fill out Corrective Action Table below.

8a: Action # 1

What is the corrective action? Determine the number of hours flight time on each of the two primary fuel feed ejectors, P/N T99A38-603, installed in each aircraft and replace any main fuel feed ejectors that exceed 4500 hours flight time.

**What is its compliance time?
(Add grace period if not available)** Three days for the determination of hours on the primary fuel feed ejectors, and prior to further flight for the replacement of ejectors with more than 4500 hours flight time.

What is repetitive interval? None

8b: Action # 2

What is the corrective action? Replace the high-time primary fuel feed ejectors, P/N T99A38-603, in accordance with the following schedule:

What is its compliance time? (Add grace period if not available)

1. For primary fuel feed ejectors that have accumulated in excess of 2750 hours flight time upon the effective date of this AD, replace within the next 750 hours flight time or before the ejectors accumulate 4500 hours flight time, whichever occurs first.
2. For primary fuel feed ejectors that have accumulated 2750 hours or less flight time upon the effective date of this AD, replace the ejectors before they accumulate 3500 hours flight time.

What is repetitive interval? None

8c: Action # 3

What is the corrective action? Amend all copies of the Aircraft Flight Manual (AFM) by incorporating the following applicable Temporary Revision (TR):

- (1) TR RJ 700/52-2 for CL-600-2C10
- (2) TR RJ 900/10-1 for CL-600-2D24

Brief all flight crew on the Limitations - Power Plant requirement to monitor center tank fuel quantity throughout flight and on the revisions to the Abnormal Procedures – Fuel System.

What is its compliance time? (Add grace period if not available) Within 14 days of the effective date of the AD. *Already req'd by existing AD; carry over*

What is repetitive interval? None

8d: Action # 4

What is the corrective action? Within 14 days of the effective date of this AD, for aircraft on which one or both of the primary ejectors P/N T99-A38-603 exceeds 3500 hours flight time, implement Action #6 to operate with the center fuel tank empty.

NOTE 1: Performing Action # 4 does not alleviate the requirement of Action # 3 to monitor the center fuel tank quantity throughout the flight.

What is its compliance time? (Add grace period if not available) Within 14 days of the effective date of the AD.

What is repetitive interval? N/A

8e: Action # 5

What is the corrective action? Within 14 days of the effective date of this AD, for aircraft on which one or both of the primary ejectors P/N T99-A38-603 exceeds 2000 hours flight time, implement a leak check between the wing tanks and the center tank as described below or implement Action #6 to operate with the center fuel tank

empty. Check is to be accomplished once per day, and should be performed overnight prior to the first flight of the day.

NOTE 1: Performing either the leak check detailed in Action # 5 or operating with the center fuel tank empty as detailed in Action #6 below eliminates the requirement to perform the "Before Flight Boost Pump" leak check specified in AFM TR 700/52-2 for the CL-600-2C10 and in AFM TR RJ 900/10-1 for the CL-600-2D24.

NOTE 2: Performing either Action # 5 or Action # 6 does not alleviate the requirement of Action # 3 to monitor the center fuel tank quantity throughout the flight.

For the daily check, the fuel quantity in the center tank must be 4,000 lbs or less. Carry out the primary fuel ejector check each day as follows:

(a) With both engines operating at ground idle or taxi thrust, open both L&R XFER SOV circuit breakers, 1N9 & 2P8, and monitor the center tank fuel quantity for five minutes.

NOTE: If center tank contains fuel when performing this test, the following EICAS caution message may be displayed: L XFER SOV and/or R XFER SOV.

(b) If a fuel quantity increase of more than 150 lbs (68 kg) is detected in the center fuel tank, before further flight, turn the aircraft over to maintenance for investigation of a fuel leak. If no fuel quantity increase is detected or the increase is less than 150 lbs (68 kg), close circuit breakers and continue operations.

(c) If a fuel quantity increase of more than 150 lbs (68 kg) is detected in the center fuel tank, before further flight, carry out a general visual inspection of the center fuel tank in accordance with the procedures in Part B of Alert Service Bulletin (ASB) 670BA-28-025, dated 12 December 2003, or ASB 670BA-28-025, Revision A, dated 15 December.

(d) Correct any fuel leaks before further flight.

What is its compliance time? Within 14 days of the effective date of the AD.

(Add grace period if not available)

What is repetitive interval? Once per day, prior to first flight of the day.

8f: Action # 6

What is the corrective action? For the center fuel tank empty procedure, the quantity of fuel in the center tank is checked during pre-flight and post-flight operations and monitored during the flight. Carry out the procedure as follows:

(a) Dispatch aircraft with less than 300 lbs (136.1 kg) of fuel in center fuel tank and both L&R XFER SOV circuit breakers, 1N9 & 2P8, open and collared. The center fuel tank quantity shall be considered unusable fuel.

NOTE 1: If center tank contains fuel when dispatching in this condition, the following EICAS caution message may be displayed: L XFER SOV and/or R XFER SOV. Scrolling away message is recommended.

NOTE 2: If center fuel tank quantity is greater than 300 lbs (136.1 kg), and no leak is suspected, un-collar and close the SOV circuit breakers, 1N9 and 2P8 to transfer the fuel in the center tank to the wings. Open and re-collar the circuit breakers, 1N9 and 2P8, prior to dispatch. Alternately, turn the aircraft over to maintenance for draining of the tank.

(b) Prior to flight, if a fuel quantity increase of more than 150 lbs (68 kg) is detected in the center fuel tank, turn the aircraft over to maintenance for investigation of a fuel leak.

(c) During flight, if an abnormal increase in the center fuel tank quantity is detected or the center fuel tank quantity exceeds 600 lbs (272.2 kg), implement the Abnormal Procedures in appropriate AFM TR - RJ 700/61-1 or RJ 900/31-1. Upon landing, investigate fuel leak as detailed below.

(d) If required under (b), or (c), carry out a general visual inspection of the center fuel tank in accordance with the procedures in Part B of ASB 670BA-28-025, dated 12 December 2003, or ASB 670BA-28-025, Revision A, dated 15 December 2003 or later revisions approved by Chief, Continuing Airworthiness, Transport Canada. Correct any fuel leaks before further flight.

Brief all flight crew on the procedure in use for the leak check and insert a copy of this directive into each copy of the AFM.

What is its compliance time? Within 14 days of the effective date of the AD.
(Add grace period if not available)

What is repetitive interval? Every flight.

8g: Action # 7

What is the corrective action? For aircraft that exhibit a leak into the center tank as determined by the criteria in the service bulletins referenced in Action #4, #5 or #6 above, perform a detailed visual inspection of the ejectors and of the fuel system components as detailed in the above reference service bulletins. Replace cracked or damaged components before further flight.

What is its compliance time? Before further flight.
(Add grace period if not available)

What is repetitive interval? When leak is suspected.

9. (Yes or No) Should corrective action(s) required in this AD to be applied to spares as well?

N/A.

10. Should a ferry flight permit be: Permitted Permitted with limitations* Prohibited
*List limitations.

11. Check the category that best describes the cause of the unsafe condition addressed by this AD:

Design Problem Unapproved Parts Operational
 Maintenance Quality Control Problem** Other (specify):

**Reporting Reqt Needed? _____

12. (Yes or No) Was the lead airline process used in developing the requirements of this action?

No.