



No.	CF-2000-32R2	1/2
Issue Date	11 February 2002	

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.

Number: CF-2000-32R2

Subject: Bell 430 - Electrical System Ground Faults

Effective: 28 February 2002

Revision: Supersedes Airworthiness Directive CF-2000-32R1 issued 28 May 2001.

Applicability: Bell Helicopter Textron Canada (BHTC) Model 430 helicopters, serial numbers 49069 and prior.

Compliance: When indicated, unless already accomplished.

Background: It has been determined that the Bell Model 430 electrical system has a potential for single fault, multiple system failures and, therefore, does not comply with regulatory requirements for an aircraft certified either for Instrument Flight Rules (IFR) or for Category A design. Some ground faults could result in the affected generator not being disconnected, with large currents being shunted through the short circuit. If this situation develops, the pilot may be unable to disconnect the generator. If the pilot then engages the "BUS INTCON", the ground fault will result in failure of both generators, and the aircraft battery will power the emergency buses only. The shunting of large currents through the short circuit may result in an electrical fire. Although Category A system redundancy requirements are not met, aircraft performance is not affected and the use of Category A take-off and landing performance data, procedures and limitations, and IFR flight, are considered safe.

Revised flight manual emergency procedures related to the electrical system were mandated by the original issue of this directive. This revision mandates Bell Alert Service Bulletin 430-01-19 as terminating action and therefore makes the Bell 430 design compliant with the IFR and Category A aircraft certification regulations.

This revision is issued to extend the compliance date to 31 December 2002.

Corrective Actions:

- A. If Alert Service Bulletin 430-01-19 has not been incorporated, before further flight:
1. Insert BHT-430-FM-1, Revision 12 in the Rotorcraft Flight Manual.
 2. Insert BHT-430-FM-1, Temporary Revision titled "Temporary Revision for Electrical System Distribution Changes" dated 22 September 2000 in the Rotorcraft Flight Manual for all aircraft which have incorporated Bell Alert Service Bulletin 430-99-10. Insert this Temporary Revision immediately following the insertion of BHT-430-FM-1, Revision 12.
 3. Make the following changes to the Rotorcraft Flight Manual Limitations section:

(a) Delete "Category A" in the basis statement, section 1.2; and

(b) Add the following note after section 1.3:

“NOTE: The rotorcraft does not meet Category A design standards, however, the use of Category A Limitations, Procedures and Performance is valid.”

4. Insert a copy of this directive in the Rotorcraft Flight Manual.
 5. Brief all pilots on the contents of this directive.
- B. No later than 31 December 2002:
1. Incorporate Alert Service Bulletin 430-01-19 dated 22 February 2001 or later revisions approved by the Director, Aircraft Certification, Transport Canada.
 2. Remove changes made to the Rotorcraft Flight Manual Limitations section incorporated by paragraphs A.3 (a) and (b) above.
 3. Remove the copy of the original issue of this directive from the Rotorcraft Flight Manual.
- C. Accomplishment of the requirements of part B of this directive constitutes terminating action for this directive.

Authorization: For Minister of Transport



B. Goyaniuk
Chief, Continuing Airworthiness

Contact: Mr. Bogdan Gajewski, Continuing Airworthiness, Ottawa, telephone (613) 952-4450, facsimile (613) 996-9178 or e-mail gajewsb@tc.gc.ca or any Transport Canada Centre.