



Transport
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No. CF-81-29R2

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-81-29R2 EMERGENCY LOCATOR TRANSMITTERS

Applies to all Canadian registered aircraft equipped with emergency locator transmitters (ELTs) containing, or which have at any time contained, lithium sulphur dioxide batteries.

Compliance is required on 28 October 1994, the effective date of Airworthiness Directive (AD) CF-81-29R1.

There have been instances of explosive failures of lithium sulphur dioxide batteries installed in ELTs, and a further incident involving the venting of noxious gas into the cabin area of an occupied aircraft.

Subsequently, it was determined that there was a high potential for sulphurous acid corrosion to occur within an ELT which, at any time, contained lithium sulphur dioxide batteries. Such corrosion might occur even after the lithium sulphur dioxide batteries had been removed and replaced by another battery type. As a consequence, this directive was originally issued to require removal of all lithium batteries from ELTs and an annual inspection for sulphurous corrosion for any ELTs that had at any time contained lithium batteries.

AD CF-81-29R1 was issued to cover all ELTs that are presently eligible for installation on Canadian registered aircraft and to provide relief to the annual inspection required by the original issue of this directive. Additionally, it was subsequently recognized that when this AD was originally issued, lithium batteries were mainly of one type, namely sulphur dioxide (LiSO₂), whereas new technology type lithium batteries (e.g. LiMnO₂) can be installed in ELTs without causing any hazards, provided that those batteries are properly approved for airborne usage.

To preclude the hazards associated with explosion or venting of lithium sulphur dioxide cells installed in ELTs and to ensure that any ELTs, which are installed to meet the requirements of ANO II, No. 17, are serviceable, accomplish the following:

1. Remove any ELT that contains lithium sulphur dioxide batteries and replace with an eligible serviceable ELT.

Note: Eligible ELTs are listed in the current edition of the Industry Canada Radio Equipment List (PSP-100). Eligible ELT batteries are listed in the current edition of Airworthiness Notice No. B014.

2. ELTs that have at any time contained lithium sulphur dioxide batteries may be installed on the aircraft, provided that these ELTs are:

- (a) Fitted with a non-lithium sulphur dioxide battery pack approved by the ELT manufacturer; and
- (b) Inspected before installation, and annually thereafter, for sulphurous corrosion. Any ELT found corroded shall be removed from service.

The above inspection requirement may be discontinued for an ELT which is found to be free of sulphurous corrosion on at least three (3) consecutive annual inspections.

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

This revision supersedes Airworthiness Directive CF-81-29R1 issued 30 August 1994.

This directive becomes effective 10 April 1995.

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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