

Pilatus PC-12 Series Aeroplanes

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## AIRWORTHINESS DIRECTIVE

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For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

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### AD/PC-12/25 Windshield Heater Operation

12/2000 TX

- Applicability:
1. All Model PC-12 and PC-12/45 aeroplanes from Manufacturers Serial Number (MSN) 201 up to and including MSN 320, which have the new windshields Pilatus Part Number (P/N) 959.81.10.107 LH and 959.81.10.108 RH (PPG P/N NP172121-5 LH and NP172121-6 RH) installed, and
  2. All Model PC-12 and PC-12/45 aeroplanes from MSN 101 up to and including MSN 200, in which the old windshields were replaced with the new Pilatus P/N 959.81.10.107 LH and 959.81.10.108 RH (PPG P/N NP172121-5 LH and NP172121-6 RH) windshields.

*Note 1: The windshields can be identified by the presence of three imbedded temperature sensors on the outboard edge of the windscreen.*

- Requirement:
1. Remove Temporary Revision No 14 and insert Temporary Revision No 21 into the Limitations Section (Section 2) of the PC-12 Pilots Operating Handbook (POH/AFM) to include the following statement:

**“Operation of the DE ICING LH WSHLD and RH WSHLD switch to the LIGHT position is prohibited”**

2. Check if the placard referenced in POH/AFM Temporary Revision No 21 is installed on the DE ICING panel, to the right of the RH WSHLD switch, positioned between the landing gear indicators and the silencer switch. If necessary, install the placard.
3. Modify the windshield de-ice system wires and circuit breakers in accordance with the Accomplishment Instructions of Pilatus Aircraft Ltd PC-12 Service Bulletin (SB) 30-006 dated 22 May 2000.

Incorporation of SB 30-006 constitutes terminating action for Requirements 1 and 2. The POH/AFM Temporary Revision and the placard may be removed after this modification is embodied.

*Note 2: FOCA Switzerland AD HB 2000-393 refers.*

- Compliance: For Requirement 1 - Before 30 October 2000.

For Requirement 2 - Before 30 October 2000.

For Requirement 3 - Within the next 200 hours time in service after the effective date of this Directive or at the next inspection for issue of a Maintenance Release, whichever occurs earlier.

This Airworthiness Directive becomes effective on 16 October 2000.

**Background:** Intermittent tripping of the windshield heater circuit has been experienced during prolonged operation of the windshield heating system in the LIGHT mode on aircraft having the enlarged heated area windshield. The power supply circuit breakers of the LH and RH windshield ice and rain protection system are prone to trip (open) and de-energise the system during flight in very cold outside air temperature (OAT) conditions, if LIGHT position is selected.

If the LIGHT position is selected (which heats the complete windscreen), the electrical load of the LH and RH windshields can become too high at cruise altitudes. This is due to the cold OAT which decreases the electrical resistance of the windshield heater elements. Tripping of the circuit breaker renders the complete windshield heating powerless, which could lead to icing of the windscreen.

This Directive supersedes AD/PC-12/23 which required amendment of the AFM/POH Limitations Section with a Temporary Revision and the installation of a placard on the DE-ICING panel, prohibiting the operation of the windshield heating system in the LIGHT mode.

This Directive requires replacement of the existing POH/AFM Temporary Revision and verification/installation of a placard adjacent to the windshield heating switch, prohibiting operation of the windshield heating system in the LIGHT mode. Furthermore the Directive requires modification of the windshield de-ice system, which removes the restriction on the operation of the windshield heating system in the LIGHT mode.



Eugene Paul Holzapfel  
Delegate of the Civil Aviation Safety Authority

12 October 2000