

Pilatus PC-12 Series Aeroplanes

AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/PC-12/13 and issues the following 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.

**AD/PC-12/13
Amdt 1**

Flap System

1/2001 DM

Applicability: All PC-12 and PC-12/45 aircraft.

Requirement: 1. Inspect flap actuators to check axial end-play and backlash of each flap actuator in accordance with the Pilatus PC12 Maintenance Manual, Temporary Revision (TR) 27-13, dated 30 April 2000.

If the acceptance criteria specified in TR 27-13 cannot be met, replace defective actuators before further flight.

Compliance with a later revision of the Pilatus PC12 Maintenance Manual approved by FOCA satisfies this Directive.

Note 1: Switzerland FOCA AD's HB 98-460 and HB 2000-443 refer.

2. Modify the flap system in accordance with Pilatus PC-12 Service Bulletin (SB) 27-008, Revision 2, dated 13 September 2000.

Note 2: Switzerland FOCA AD HB 2000-443 refers.

3. Amend the PC-12 Pilot's Operating Handbook (POH) with POH/AFM Temporary Revision No. 15 - MODIFIED FLAP SYSTEM - dated 3 April 2000.

4. **For aircraft incorporating SB 27-008 as of the effective date of this Directive,** inspect the Flap Control and Warning Unit (FCWU) to determine its serial number and remove from service any FCWU, Part No. FCWU99-3 with serial number 100,000 or less in accordance with Pilatus PC-12 Service Bulletin (SB) 27-012, dated 13 September 2000. From the effective date of this Amendment, no such FCWU may be installed on any model Pilatus PC-12 aircraft.

Note 3: Switzerland FOCA AD HB 2000-444 refers

Compliance: 1. **(a) Pre - SB 27-008 Configuration Flap System:**

Within 65 landings following the last backlash inspection per the original issue of this Directive and, thereafter, at periods specified in Pilatus PC12 Maintenance Manual, Temporary Revision 04-05, dated 30 April 2000.

(b) Post - SB 27-008 Configuration Flap System:

Concurrent with the incorporation of SB 27-008 and thereafter at the intervals specified in the Pilatus PC12 Maintenance Manual, Chapter 05-10-20, Time Limited Inspection Requirements.

2. Unless previously accomplished either during production or by retrofit action, within the next 600 hours time in service after the effective date of this Directive but no later than 30 June 2001, whichever occurs first.
3. Concurrent with Requirement 2 of this Directive.
4. No later than 31 December 2000.

This Amendment becomes effective on 29 November 2000.

Background: Several flap actuators have been found with excessive backlash in the internal gear system. Excessive backlash may lead to rapid premature wear of the gear and in extreme cases to loss of actuator output. Internal failure of the worm gear could allow an actuator to turn freely. Detection of all potential failure modes by the flap control computer can not be assured.

This amendment mandates a modification that improves the flap system and extends the repetitive inspection interval for the flap actuator backlash check. The amendment also requires certain FCWU's to be removed from service.

The original issue of this Airworthiness Directive became effective on 9 December 1998.



Eugene Paul Holzapfel
Delegate of the Civil Aviation Safety Authority

22 November 2000