

Proposed Rules

Federal Register

Vol. 66, No. 183

Thursday, September 20, 2001

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-CE-77-AD]

RIN 2120-AA64

Airworthiness Directives; Pilatus Aircraft Ltd. Models PC-12 and PC-12/45 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes to supersede Airworthiness Directive (AD) 99-19-32, which applies to certain Pilatus Aircraft Ltd. (Pilatus) Models PC-12 and PC-12/45 airplanes. AD 99-19-32 currently requires you to inspect the flap actuator internal gear system for correct end-play and backlash measurements and accomplish any corrective adjustments, as necessary. Pilatus has identified modifications for the flap system and designed and manufactured a new flap control and warning unit (FCWU) that permits the flap power drive-unit circuit breaker to close during flight. The proposed AD would require you to repetitively inspect all flap actuator internal gear systems to ensure correct end-play and backlash measurements with any necessary corrective adjustments, incorporate certain modifications to the flap system, and install a new design FCWU. The proposed AD would also require you to modify the flap control wiring and install a flap power drive-unit field control panel. The actions specified by the proposed AD are intended to allow the flap power drive-unit circuit breaker to close during flight and prevent current surges in the flap control system. Both conditions have the potential for flap system failure with consequent reduced or loss of control of the airplane.

DATES: The Federal Aviation Administration (FAA) must receive any

comments on this proposed rule on or before October 26, 2001.

ADDRESSES: Submit comments to FAA, Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 2000 CE-77-AD, 901 Locust, Room 506, Kansas City, Missouri 64106. You may view comments at this location between 8 a.m. and 4 p.m., Monday through Friday, except Federal holidays. You may obtain service information that applies to the proposed AD from Pilatus Aircraft Ltd., Customer Liaison Manager, CH-6371 Stans, Switzerland; telephone: +41 41 619 63 19; facsimile: +41 41 619 6224; or from Pilatus Business Aircraft Ltd., Product Support Department, 11755 Airport Way, Broomfield, Colorado 80021; telephone: (303) 465-9099; facsimile: (303) 465-6040. You may also view this information at the Rules Docket at the address above.

FOR FURTHER INFORMATION CONTACT: Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090.

SUPPLEMENTARY INFORMATION:

Comments Invited

How Do I Comment on This Proposed AD?

The FAA invites comments on this proposed rule. You may submit whatever written data, views, or arguments you choose. You need to include the rule's docket number and submit your comments to the address specified under the caption **ADDRESSES**. We will consider all comments received on or before the closing date. We may amend this proposed rule in light of comments received. Factual information that supports your ideas and suggestions is extremely helpful in evaluating the effectiveness of this proposed AD action and determining whether we need to take additional rulemaking action.

Are There Any Specific Portions of This Proposed AD I Should Pay Attention to?

The FAA specifically invites comments on the overall regulatory, economic, environmental, and energy aspects of this proposed rule that might suggest a need to modify the rule. You may view all comments we receive before and after the closing date of the rule in the Rules Docket. We will file a report in the Rules Docket that

summarizes each contact we have with the public that concerns the substantive parts of this proposed AD.

How Can I Be Sure FAA Receives My Comment?

If you want FAA to acknowledge the receipt of your comments, you must include a self-addressed, stamped postcard. On the postcard, write "Comments to Docket No. 2000-CE-77-AD." We will date stamp and mail the postcard back to you.

Discussion

Has FAA Taken Any Action to This Point?

Reports of excessive backlash in the flap actuators of the internal gear system on certain Pilatus Models PC-12 and PC-12/45 airplanes caused FAA to issue AD 99-19-32, Amendment 39-11319 (64 FR 50439, September 17, 1999).

AD 99-19-32 currently requires you to inspect the flap actuator internal gear system for correct end-play and backlash measurements and accomplish any corrective adjustments, as necessary.

What Has Happened Since AD 99-19-32 To Initiate This Action?

The Federal Office for Civil Aviation (FOCA), which is the airworthiness authority for Switzerland, recently notified FAA of the need to change AD 99-19-32. The FOCA reports that Pilatus has identified modifications for the flap system and designed and manufactured a new flap control and warning unit (FCWU) that permits the flap power drive-unit circuit breaker to close during flight.

The previous FCWU does not allow the pilot to close the flap power drive-unit circuit breaker during flight and the FCWU cannot sense when a single actuator becomes worn. This could result in flap panel distortion. The incorporation of these modifications to the flap system and the installation of the new design FCWU, Pilatus part number FCWU 99-3, make the current end-play and backlash measurement procedures incorrect.

Pilatus has also identified quality deficiencies with serial numbers less than 100,001 of Pilatus part number FCWU 99-3.

In addition, the FOCA reports that electrical surges in the flap system can decrease the electrical life of the flap

power drive-unit motor contactor. At the 40-degree flaps position, the flaps-down limit switch (S035) operates before the flap control warning unit can stop the extend command, which causes the flap power drive-unit's Up/Down relay (K32) to change from the extend to the retract position. The current in the

field winding then goes in the opposite direction while a current still flows to the motor. Electrical current to the flap power drive-unit motor and field windings remains when the circuit breaker (CB034) closes and the motor contactor (K31 or K670) stays closed.

Is There Service Information That Applies to This Subject?

Pilatus has issued Service Bulletin No. 27-008, which incorporates the following pages:

Effective pages	Revision level	Date
1, 2, and 11	2	September 13, 2000.
3 through 10 and 12 through 114	1	June 26, 2000.

Pilatus Service Bulletin No. 27-008 includes procedures for the following:

- Installing the new design FCWU (Pilatus part number FCWU 99-3 with a serial number of 100,001 or higher);
- Installing flap position-indication resolvers at the center and inboard flap actuator positions;
- Removing the flap position-indication resolvers from the outboard flap mechanism;
- Modifying the applicable electrical cables and installing new cables as necessary;
- Installing a remote controlled circuit breaker (RCCB) system;
- Accomplishing the rigging procedure to set the four flap positions (0 degrees, 15 degrees, 30 degrees, and 40 degrees full flap);
- Installing a bus link between CB601, CB034, CB035, CB415, and CB416;
- Replacing the P12H4 wire with P12HO wire;
- Changing the wiring for CB652 and CB653 at Frame 16; and
- Changing the FCWU software specification from Rel. 3.10/R 1.14 to Rel. 3.11/R 1.14.

Pilatus has also issued the following:

- Service Bulletin No. 27-012, dated September 13, 2000, which specifies replacing any Pilatus part number PCWU 99-3, serial number of 100,000 or less, with one that has a serial number of 100,001 or higher;
- Pilatus PC-12 Maintenance Manual Temporary Revision No. 27-13, dated April 30, 2000, which includes updated procedures for inspecting the flap actuator internal gear system for correct end-play and backlash measurements with any necessary corrective adjustment; and
- Service Bulletin No. 27-011, Revision No. 1, dated January 26, 2001, which includes procedures for modifying the flap control wiring and

installing a flap power drive-unit field control panel.

What Action Did FOCA Take?

The FOCA classified the service information as mandatory and issued the following in order to ensure the continued airworthiness of these airplanes in Switzerland:

- Swiss AD Number HB 2000-443, dated November 9, 2000;
- Swiss AD Number HB 2000-444, dated November 9, 2000; and
- Swiss AD Number HB 2001-070, dated February 12, 2001.

Was This in Accordance With the Bilateral Airworthiness Agreement?

These airplane models are manufactured in Switzerland and are type certificated for operation in the United States under the provisions of section 21.29 of the Federal Aviation Regulations (14 CFR 21.29) and the applicable bilateral airworthiness agreement.

Pursuant to this bilateral airworthiness agreement, the FOCA has kept FAA informed of the situation described above.

The FAA's Determination and an Explanation of the Provisions of the Proposed AD

What Has FAA Decided?

The FAA has examined the findings of the FOCA; reviewed all available information, including the service information referenced above; and determined that:

- The unsafe condition referenced in this document exists or could develop on other Pilatus PC-12 and PC-12/45 airplanes of the same type design;
- The actions specified in the previously-referenced service information should be accomplished on the affected airplanes; and

—AD action should be taken in order to correct this unsafe condition.

What Would the Proposed AD Require?

The proposed AD would supersede AD 99-19-32 and would require you to accomplish the following in accordance with the previously referenced service information:

- Repetitively inspect the flap actuator internal gear system for correct end-play and backlash measurements with any necessary corrective adjustments;
- Incorporate certain modifications to the flap system and install a new design FCWU with a serial number of 100,001 or higher, or FAA-approved equivalent part number; and
- Modify the flap control wiring and install a flap power drive-unit field control panel.

Cost Impact

How Many Airplanes Would the Proposed AD Impact?

We estimate that the proposed AD affects 135 airplanes in the U.S. registry.

What Would Be the Cost Impact of the Proposed AD on Owners/Operators of the Affected Airplanes?

We estimate the following costs to accomplish the proposed initial inspection of the flap actuator internal gear system for end-play and backlash measurements. We have no way of determining the number of corrective adjustments each owner/operator of the affected airplanes would need to accomplish, the nature of such adjustments, or the number of repetitive inspections each owner/operator would incur. Therefore, the cost estimate only takes into account the cost of the proposed initial inspection:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
6 workhours X \$60 per hour = \$360	Not applicable	\$360	\$48,600

We estimate the following costs to incorporate certain modifications to the flap system and install a new design

FCWU with a serial number of 100,001 or higher:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
70 workhours X \$60 per hour = \$4,200	Pilatus will provide parts at no cost to the owner/operator.	\$4,200	\$567,000

We estimate the following costs to modify the flap control wiring and

install a flap power drive-unit field control panel:

Labor cost	Parts cost	Total cost per airplane	Total cost on U.S. operators
5 workhours X \$60 per hour = \$300	Pilatus will provide parts at no cost to the owner/operator.	\$300	\$40,500

Regulatory Impact

Would This Proposed AD Impact Various Entities?

The regulations proposed herein would not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this proposed rule would not have federalism implications under Executive Order 13132.

Would This Proposed AD Involve a Significant Rule or Regulatory Action?

For the reasons discussed above, I certify that this proposed action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A copy of the draft regulatory evaluation prepared for this

action has been placed in the Rules Docket. A copy of it may be obtained by contacting the Rules Docket at the location provided under the caption ADDRESSES.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. FAA amends § 39.13 by removing Airworthiness Directive (AD) 99-19-32, Amendment 39-11319 (64 FR 50439, September 17, 1999), and adding a new AD to read as follows:

Pilatus Aircraft Ltd.: Docket No. 2000-CE-77-AD; Supersedes AD 99-19-32, Amendment 39-11319.

(a) *What airplanes are affected by this AD?* This AD affects Models PC-12 and PC-12/45 airplanes, all serial numbers, that are certificated in any category. Carefully check paragraphs (d)(1) through (d)(6) of this AD for the specific actions that apply to each airplane. All airplanes will be affected by multiple actions specified in these paragraphs.

(b) *Who must comply with this AD?* Anyone who wishes to operate any of the above airplanes must comply with this AD.

(c) *What problem does this AD address?* The actions specified by the AD are intended to allow the flap power drive-unit circuit breaker to close during flight and prevent current surges in the flap control system. If the pilot cannot close the circuit breaker during flight, the flight control and warning unit (FCWU) would not sense a worn actuator. Current surges in the flap control system could decrease the electrical life of the flap power drive-unit motor contactor. Both conditions have the potential for flap system failure with consequent reduced or loss of control of the airplane.

(d) *What actions must I accomplish to address this problem?* To address this problem, you must accomplish the following:

Actions	Compliance	Procedures
(1) For airplanes that incorporate a manufacturer serial number (MSN) in the range of 101 through 320, accomplish the following: (i) Do the modifications and installations to the flap system, as specified in the service information. (ii) Install a new design flap control and warning unit (FCWU) (Pilatus part number FCWU 99-3) with a serial number of 100,001 or higher, or FAA-approved equivalent part number.	Within the next 50 hours time-in-service (TIS) after the effective date of this AD, unless already accomplished.	In accordance with the Accomplishment Instructions section of Pilatus Service Bulletin No. 27-008, pages 1, 2, and 11 at the Revision 2 level, dated September 13, 2000; and pages 3 through 10 and 12 through 114 at the Revision 1 level, dated June 26, 2000. Pilatus Service Bulletin 27-012, dated September 13, 2000, also relates to this subject.

Actions	Compliance	Procedures
(2) If you accomplished the modifications required by paragraph (d)(1) of this AD in accordance with Pilatus Service Bulletin 27-008, all pages at the Revision 1 level, dated June 26, 2000, you only have to install a new design FCWU (Pilatus part number FCWU 99-3) with a serial number of 100,001 or higher, or FAA-approved equivalent part number.	Within the next 50 hours TIS after the effective date of this AD, unless already accomplished.	In accordance with the Accomplishment Instructions section of Pilatus Service Bulletin No. 27-008, pages 1, 2, and 11 at the Revision 2 level, dated September 13, 2000; and pages 3 through 10 and 12 through 114 at the Revision 1 level, dated June 26, 2000. Pilatus Service Bulletin 27-012, dated September 13, 2000, also relates to this subject.
(3) For airplanes that incorporate an MSN in the range of 321 through 331, 333, 335, 336, 338 through 341, 343, or 345, install a new design FCWU (Pilatus part number FCWU 99-3) with a serial number of 100,001 or higher, or FAA-approved equivalent part number.	Within the next 50 hours TIS after the effective date of this AD, unless already accomplished.	In accordance with the Accomplishment Instructions section of Pilatus Service Bulletin No. 27-008, pages 1, 2, and 11 at the Revision 2 level, dated September 13, 2000; and pages 3 through 10 and 12 through 114 at the Revision 1 level, dated June 26, 2000. Pilatus Service Bulletin 27-012, dated September 13, 2000, also relates to this subject.
(4) For airplanes that incorporate an MSN in the range of 101 through 400, modify the flap control wiring and install a flap power drive-unit field control panel.	Within the next 50 hours TIS after the effective date of this AD.	In accordance with the Accomplishment Instructions section of Pilatus Service Bulletin No. 27-011, Revision No. 1, dated January 26, 2001.
(5) For all MSN airplanes, inspect the flap actuator internal gear system for correct end-play and backlash measurements and make any necessary corrective adjustments.	Inspect initially within the next 50 hours TIS after the effective date of this AD and thereafter at intervals not to exceed 100 hours TIS. Accomplish corrective adjustments prior to further flight after the inspection where deficiencies are detected.	In accordance with the instruction in Pilatus PC-12 Maintenance Manual Temporary Revision No. 27-13, dated April 30, 2000.
(6) For all MSN airplanes, do not install any Pilatus part number FCWU 99-3 that has a serial number of 100,000 or less.	As of the effective date of this AD	Not Applicable.

Note 1: The FAA recommends that you incorporate the most up-to-date Pilatus reports and revisions pertaining to this subject into the Pilatus PC-12 Pilot's Operating Handbook. The most up-to-date documents as of the issue date of this AD are Temporary Revision No. 15, Report No. 01973-001, Issued: April 3, 2000, Sections 3 and 7; and Temporary Revision No. 32, Report No. 01973-001, Issued: January 8, 2001, Sections 2 and 3.

(e) *Can I comply with this AD in any other way?* You may use an alternative method of compliance or adjust the compliance time if:

- (1) Your alternative method of compliance provides an equivalent level of safety; and
- (2) The Manager, Small Airplane Directorate, approves your alternative. Submit your request through an FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Small Airplane Directorate.

Note 2: This AD applies to each airplane identified in paragraph (a) of this AD, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if you have not

eliminated the unsafe condition, specific actions you propose to address it.

(f) *Where can I get information about any already-approved alternative methods of compliance?* Contact Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; facsimile: (816) 329-4090.

(g) *What if I need to fly the airplane to another location to comply with this AD?* The FAA can issue a special flight permit under sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate your airplane to a location where you can accomplish the requirements of this AD.

(h) *How do I get copies of the documents referenced in this AD?* You may obtain copies of the documents referenced in this AD from Pilatus Aircraft Ltd., Customer Liaison Manager, CH-6371 Stans, Switzerland; or from Pilatus Business Aircraft Ltd., Product Support Department, 11755 Airport Way, Broomfield, Colorado 80021. You may examine these documents at FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri 64106.

(i) *Does this amendment affect any other regulation?* This amendment supersedes AD 99-19-32, Amendment 39-11319.

Note 3: The subject of this AD is addressed in Swiss AD Number HB 2000-443, dated November 9, 2000; Swiss AD Number HB 2000-444, dated November 9, 2000; and

Swiss AD Number HB 2001-070, dated February 12, 2001.

Issued in Kansas City, Missouri, on September 10, 2001.
Michael K. Dahl,
Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 01-23412 Filed 9-19-01; 8:45 am]
BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NM-324-AD]

RIN 2120-AA64

Airworthiness Directives; McDonnell Douglas Model DC-9-10, -20, -30, -40, and -50 Series Airplanes, and C-9 Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: This document proposes the adoption of a new airworthiness directive (AD) that is applicable to