

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Part 39

[Docket No. 99-CE-54-AD; Amendment 39-11433; AD 99-24-09]

RIN 2120-AA64

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

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) that applies to certain Pilatus Aircraft Ltd. (Pilatus) Models PC-12 and PC-12/45 airplanes. This AD requires modifying the flap inboard attachment fittings through the installation of a reinforcement angle bracket on the inside of the center web of both flap inner attachment fittings. This AD is the result of mandatory continuing airworthiness information (MCAI) issued by the airworthiness authority for Switzerland. The actions specified by this AD are intended to prevent the potential of the inboard flap attachment fittings buckling while operating at full flaps with full power into a head-on wind gust, which could result in loss of control of the airplane.

**DATES:** Effective January 14, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of January 14, 2000.

**ADDRESSES:** Service information that applies to this AD may be obtained from Pilatus Aircraft Ltd., Customer Liaison Manager, CH-6371 Stans, Switzerland; telephone: +41 41 619 63 19; facsimile: +41 41 610 33 51. This information may also be examined at the Federal Aviation Administration (FAA), Central Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-CE-54-AD, 901 Locust, Room 506, Kansas City, Missouri 64106; or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Mr. Roman T. Gabrys, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4141; facsimile: (816) 329-4090.

**SUPPLEMENTARY INFORMATION:**

**Events Leading to the Issuance of This AD**

A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that would apply to certain Pilatus Models PC-12 and PC-12/45 airplanes was published in the **Federal Register** as a notice of proposed rulemaking (NPRM) on August 13, 1999 (64 FR 44137). The NPRM proposed to require modifying the flap inboard attachment fittings through the installation of a reinforcement angle bracket on the inside of the center web of both flap inner attachment fittings. Accomplishment of the proposed action as specified in the NPRM would be required in accordance with Pilatus Service Bulletin No. 57-004, dated June 11, 1999.

The NPRM was the result of mandatory continuing airworthiness information (MCAI) issued by the airworthiness authority for Switzerland.

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposed rule or the FAA's determination of the cost to the public.

**The FAA's Determination**

After careful review of all available information related to the subject presented above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed except for minor editorial corrections. The FAA has determined that these minor corrections will not change the meaning of the AD and will not add any additional burden upon the public than was already proposed.

**Cost Impact**

The FAA estimates that 77 airplanes in the U.S. registry will be affected by this AD, that it will take approximately 5 workhours per airplane to accomplish this action, and that the average labor rate is approximately \$60 an hour. Parts will be provided by the manufacturer at no cost to the owners/operators of the affected airplanes. Based on these figures, the total cost impact of this AD on U.S. operators is estimated to be \$23,100, or \$300 per airplane.

**Regulatory Impact**

This rule does not have Federalism implications as defined in Executive Order No. 13132. This means it does not have substantial direct effects 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. The FAA has not consulted with state authorities prior to publication of this rule.

For the reasons discussed above, I certify that this 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) 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 final evaluation prepared for this action is contained 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, Incorporation by reference, Safety.

**Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends 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. Section 39.13 is amended by adding a new airworthiness directive (AD) to read as follows:

**99-24-09 Pilatus Aircraft Ltd.:** Amendment 39-11433; Docket No. 99-CE-54-AD.

**Applicability:** Models PC-12 and PC-12/45 airplanes, manufacturer serial number (MSN) 101 through MSN 300, certificated in any category.

**Note 1:** This AD applies to each airplane identified in the preceding applicability provision, 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 (d) 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 the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

**Compliance:** Required as indicated in the body of this AD, unless already accomplished.

To prevent the potential for the inboard flap attachment fittings buckling while operating at full flaps with full power into a head-on wind gust, which could result in loss of control of the airplane, accomplish the following:

(a) Within the next 100 hours time-in-service (TIS) after the effective date of this AD, modify the flap inboard attachment fittings by installing a reinforcement angle bracket on the inside of the center web of both flap inner attachment fittings (Modification Kit Number 500.50.12.199). Accomplish this modification in accordance with the Accomplishment Instructions section of Pilatus Service Bulletin No. 57-004, dated June 11, 1999.

(b) As of the effective date of this AD, no person may install on any of the affected airplanes, flap inboard attachment fittings that do not have Modification Kit Number 500.50.12.199 incorporated.

(c) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

(d) An alternative method of compliance or adjustment of the compliance time that provides an equivalent level of safety may be approved by the Manager, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106. The request shall be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Small Airplane Directorate.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Small Airplane Directorate.

(e) The modification required by this AD shall be done in accordance with Pilatus Service Bulletin No. 57-004, dated June 11, 1999. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Pilatus Aircraft Ltd., Customer Liaison Manager, CH-6371 Stans, Switzerland. Copies may be inspected at the FAA, Central Region, Office of the Regional Counsel, 901 Locust, Room 506, Kansas City, Missouri, or at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC.

(f) This amendment becomes effective on January 14, 2000.

Issued in Kansas City, Missouri, on November 15, 1999.

**Marvin R. Nuss,**

*Acting Manager, Small Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 99-30520 Filed 11-24-99; 8:45 am]

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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 99-NE-52-AD; Amendment 39-11438; AD 99-24-14]

RIN 2120-AA64

#### Airworthiness Directives; General Electric Company CF6-80E1A2 Series Turbofan Engines

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) that is applicable to General Electric Company (GE) CF6-80E1A2 series turbofan engines. This action requires removing from service stage 2 high pressure turbine (HPT) disks and impeller spacers prior to exceeding new, lower cyclic life limits and imposes a drawdown program for those parts that currently exceed, or will exceed, the new lower limits. This amendment is prompted by the results of a refined low cycle fatigue (LCF) analysis. The actions specified in this AD are intended to prevent LCF cracking and failure of stage 2 HPT disks and impeller spacers, which could result in an uncontained engine failure and damage to the aircraft.

**DATES:** Effective December 13, 1999.

Comments for inclusion in the Rules Docket must be received on or before January 25, 2000.

**ADDRESSES:** Submit comments to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-52-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line.

The service information referenced in this AD may be obtained from General Electric Company via Lockheed Martin Technology Services, 10525 Chester Road, Suite C, Cincinnati, OH 45215; telephone (513) 672-8400, fax (513) 672-8422. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

**FOR FURTHER INFORMATION CONTACT:** John E. Golinski, Aerospace Engineer, Engine Certification Office, FAA, Engine and

Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7135, fax (781) 238-7199.

**SUPPLEMENTARY INFORMATION:** The Federal Aviation Administration (FAA) received results of a refined low cycle fatigue (LCF) analysis for stage 2 high pressure turbine (HPT) disks and impeller spacers installed on General Electric Company (GE) CF6-80E1A2 series turbofan engines. GE has advised the FAA that the retirement lives of the CF6-80E1A2 HPT stage 2 disk and impeller spacer identified in Chapter 5 of the Engine Manual need to be reduced. Updated stress analysis showed the operating stresses to be higher than originally predicted, resulting in lower calculated cyclic retirement lives for these components. The lower calculated cyclic lives are below the current retirement lives found in Chapter 5 of the Engine Manual. There have been no reports to date of LCF cracking or distress on these components attributed to parts exceeding the new reduced Chapter 5 retirement lives. The LCF analysis completed as part of a CF6-80E1 derivative model certification program showed significantly different retirement lives for the two engine models with similar components. GE initiated an investigation and assessment of the LCF analysis to understand the disparity and determined the updated and refined analysis resulted in a more complete understanding of the operating stresses for certain critical features for these components. This condition, if not corrected, could result in LCF cracking and failure of stage 2 HPT disks and impeller spacers, which could result in an uncontained engine failure and damage to the aircraft.

#### Service Information

GE CF6-80E1A2 SB 72-0169, dated July 22, 1999, that describes the new, lower life cyclic life limits and a drawdown plan for both the stage 2 HPT disks and impeller spacers.

#### Difference Between AD and SB

The SB, unlike this AD, includes a drawdown plan for impeller spacers.

A recent reassessment of the need for a drawdown program for the impeller spacer occurred when a high cycle engine with the affected stage 2 HPT disk and impeller spacer had recently been removed from service due to high vibration. The assessment shows a drawdown program was not required for the impeller spacer.