

# 2009-18-03

## PILATUS AIRCRAFT LTD.

Amendment 39-15999

Docket No. FAA-2009-0622; Directorate Identifier 2009-CE-034-AD

### PREAMBLE

#### Effective Date

(a) This airworthiness directive (AD) becomes effective October 1, 2009.

#### Affected ADs

(b) This AD supersedes AD 2007-19-14, Amendment 39-15205.

#### Applicability

(c) This AD applies to Models PC-6, PC-6-H1, PC-6-H2, PC-6/350, PC-6/350-H1, PC-6/350-H2, PC-6/A, PC-6/A-H1, PC-6/A-H2, PC-6/B-H2, PC-6/B1-H2, PC-6/B2-H2, PC-6/B2-H4, PC-6/C-H2, and PC-6/C1-H2 airplanes, manufacturer serial numbers (MSN) 101 through 999 and MSN 2001 through 2092, certificated in any category.

#### NOTE 1

**These airplanes are also identified as Fairchild Republic Company PC-6 airplanes, Fairchild Industries PC-6 airplanes, Fairchild Heli Porter PC-6 airplanes, or Fairchild-Hiller Corporation PC-6 airplanes.**

#### Subject

(d) Air Transport Association of America (ATA) Code 57: Wings.

#### Reason

(e) The mandatory continuing airworthiness information (MCAI) states:

Findings of corrosion, wear and cracks in the upper wing strut fittings on some PC-6 aircraft have been reported in the past. It is possible that the spherical bearing of the wing strut fittings installed in the underwing can be loose in the fitting or cannot rotate because of corrosion. In this condition, the joint cannot function as designed and fatigue cracks may then develop. Undetected cracks, wear and/or corrosion in this area could cause failure of the upper attachment fitting, leading to failure of the wing structure and subsequent loss of control of the aircraft.

To address this problem, FOCA published AD TM-L Nr. 80.627-6/Index 72-2 and HB-2006-400 and EASA published AD 2007-0114 to require specific inspections and to obtain a fleet status. Since the issuance of AD 2007-0114, the reported data proved that it was necessary to establish and require

repetitive inspections.

EASA published Emergency AD 2007-0241-E to extend the applicability and to require repetitive eddy current and visual inspections of the upper wing strut fitting for evidence of cracks, wear and/or corrosion and examination of the spherical bearing and replacement of cracked fittings. Collected data received in response to Emergency AD 2007-0241-E resulted in the issuance of EASA AD 2007-0241R1 that permitted extending the intervals for the repetitive eddy current and visual inspections from 100 Flight Hours (FH) to 300 FH and from 150 Flight Cycles (FC) to 450 FC, respectively. In addition, oversize bolts were introduced by Pilatus PC-6 Service Bulletin (SB) 57-005 R1 and the fitting replacement procedure was adjusted accordingly.

Based on fatigue test results, EASA AD 2007-0241R2 was issued to extend the repetitive inspection interval to 1 100 FH or 12 calendar months, whichever occurs first, and to delete the related flight cycle intervals and the requirement for the "Mild Corrosion Severity Zone". In addition, some editorial changes have been made for reasons of standardization and readability.

Revision 3 of this AD refers to the latest revision of the PC-6 Aircraft Maintenance Manual (AMM) Chapter 5 limitations which includes the same repetitive inspection intervals and procedures already mandated in the revision 2 of AD 2007-0241. Besides the inspections, the latest revision of the PC-6 AMM contains the replacement procedures for the fittings.

Additionally, it is possible to replace the wing strut fitting with a new designed wing strut fitting. With this optional part replacement, in the repetitive inspection procedure the 1 100 FH interval is deleted so that only calendar defined intervals of inspections remain applicable.

## **Actions and Compliance**

(f) Unless already done, do the following actions:

(1) For airplanes that have not had both wing strut fittings replaced within the last 100 hours time-in-service (TIS) before September 26, 2007 (the effective date of AD 2007-19-14), or have not been inspected using an eddy current inspection method following Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-004, dated April 16, 2007, within the last 100 hours TIS before September 26, 2007 (the effective date of AD 2007-19-14): Before further flight after September 26, 2007 (the effective date of AD 2007-19-14), visually inspect the upper wing strut fittings and examine the spherical bearings following the Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, REV No. 2, dated May 19, 2008.

(2) For all airplanes: Within 25 hours TIS after September 26, 2007 (the effective date of AD 2007-19-14), or within 30 days after September 26, 2007 (the effective date of AD 2007-19-14), whichever occurs first, visually and using eddy current methods, inspect the upper wing strut fittings and examine the spherical bearings following Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, REV No. 2, dated May 19, 2008.

(3) After doing the inspection specified in paragraph (f)(2) of this AD or replacing the upper wing strut fitting, repetitively do the following inspections:

(i) For all airplanes: at intervals not to exceed every 3 calendar months visually inspect the upper wing strut fittings and examine the spherical bearings following Chapter 57-00-02 of

Pilatus Aircraft Ltd. Pilatus PC-6 Aircraft Maintenance Manual, dated November 30, 2008 (referenced as revision 9 in European Aviation Safety Agency (EASA) AD No.: 2007-0241R3). For airplanes equipped with wing strut fitting part number (P/N) 6102.0041.00, P/N 111.35.06.055, P/N 111.35.06.056, P/N 111.35.06.184, P/N 111.35.06.185, or P/N 111.35.06.186, you may also do these inspections following Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, REV No. 2, dated May 19, 2008.

(ii) For airplanes equipped with wing strut fitting P/N 6102.0041.00, P/N 111.35.06.055, P/N 111.35.06.056, P/N 111.35.06.184, P/N 111.35.06.185, or P/N 111.35.06.186: at intervals not to exceed every 1,100 hours TIS or 12 calendar months, whichever occurs first, visually and using eddy current methods, inspect the upper wing strut fittings and examine the spherical bearings following Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, REV No. 2, dated May 19, 2008, or Chapter 57-00-02 of Pilatus Aircraft Ltd. Pilatus PC-6 Aircraft Maintenance Manual, dated November 30, 2008 (referenced as revision 9 in EASA AD No.: 2007-0241R3).

(iii) For airplanes equipped with wing strut fitting P/N 111.35.06.193, P/N 111.35.06.194, or P/N 111.35.06.195: at intervals not to exceed every 12 calendar months, visually and using eddy current methods, inspect the upper wing strut fittings and examine the spherical bearings following Chapter 57-00-02 of Pilatus Aircraft Ltd. Pilatus PC-6 Aircraft Maintenance Manual, dated November 30, 2008 (referenced as revision 9 in EASA AD No.: 2007-0241R3).

(4) You may also take "unless already done" credit for any inspection specified in paragraphs (f)(1), (f)(2), or (f)(3) of this AD if done before October 1, 2009 (the effective date of this AD) following Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, dated August 30, 2007; or Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, REV No. 1, dated November 19, 2007.

(5) For all airplanes: If during any inspection required by paragraphs (f)(1), (f)(2), or (f)(3) of this AD you find cracks in the upper wing strut fitting or the spherical bearing is not in conformity, before further flight, replace the cracked upper wing strut fitting and/or the nonconforming spherical bearing following Chapter 57-00-02 of Pilatus Aircraft Ltd. Pilatus PC-6 Aircraft Maintenance Manual, dated November 30, 2008 (referenced as revision 9 in EASA AD No.: 2007-0241R3).

(6) For all airplanes: Replacement of one or both upper wing strut fitting(s) does not terminate the repetitive inspection specified in paragraph (f)(3) of this AD.

## FAA AD Differences

### NOTE 2

**This AD differs from the MCAI and/or service information as follows: No differences.**

## Other FAA AD Provisions

(g) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs):

(i) The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR **39.19**. Send information to ATTN: Doug Rudolph, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4059; fax: (816) 329-4090. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(ii) AMOCs approved for AD 2007-19-14 are not approved for this AD.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120-0056.

#### **Related Information**

(h) Refer to MCAI EASA AD No.: 2007-0241R3, dated May 6, 2009; Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, REV No. 2, dated May 19, 2008; Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, REV No. 1, dated November 19, 2007; Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, dated August 30, 2007; Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-004, dated April 16, 2007; and Chapter 57-00-02 of Pilatus Aircraft Ltd. Pilatus PC-6 Aircraft Maintenance Manual, dated November 30, 2008 (referenced as revision 9 in EASA AD No.: 2007-0241R3), for related information.

#### **Material Incorporated by Reference**

(i) You must use Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, REV No. 2, dated May 19, 2008; and Chapter 57-00-02 of Pilatus Aircraft Ltd. Pilatus PC-6 Aircraft Maintenance Manual, dated November 30, 2008 (referenced as revision 9 in EASA AD No.: 2007-0241R3), to do the actions required by this AD, unless the AD specifies otherwise.

(1) The Director of the Federal Register approved the incorporation by reference of Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, REV No. 2, dated May 19, 2008, and Chapter 57-00-02 of Pilatus Aircraft Ltd. Pilatus PC-6 Aircraft Maintenance Manual, dated November 30, 2008 (referenced as revision 9 in EASA AD No.: 2007-0241R3), under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) For service information identified in this AD, contact Pilatus Aircraft Ltd., Customer Liaison Manager, CH 6371 STANS, Switzerland; telephone: + 41 (0)41 619 6580; fax: + 41 (0)41 619 6576; e-mail: fodermatt@pilatus aircraft.com.

(3) You may review copies of the service information incorporated by reference for this AD at the

FAA, Central Region, Office of the Regional Counsel, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the Central Region, call (816) 329-3768.

(4) You may also review copies of the service information incorporated by reference for this AD at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to:

[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

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

Issued in Kansas City, Missouri, on August 18, 2009.

**Scott A. Horn**, *Acting Manager, Small Airplane Directorate, Aircraft Certification Service.*

[Federal Register: August 27, 2009 (Volume 74, Number 165)]  
[Rules and Regulations]  
[Page 43636-43638]  
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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2009-0622; Directorate Identifier 2009-CE-034-AD; Amendment 39-15999; AD 2009-18-03]**

**RIN 2120-AA64**

**Airworthiness Directives; Pilatus Aircraft Ltd. Models PC-6, PC-6-H1, PC-6-H2, PC-6/350, PC-6/350-H1, PC-6/350-H2, PC-6/A, PC-6/A-H1, PC-6/A-H2, PC-6/B-H2, PC-6/B1-H2, PC-6/B2-H2, PC-6/B2-H4, PC-6/C-H2, and PC-6/C1-H2 Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

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**SUMMARY:** We are superseding an existing airworthiness directive (AD) for the products listed above. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

Findings of corrosion, wear and cracks in the upper wing strut fittings on some PC-6 aircraft have been reported in the past. It is possible that the spherical bearing of the wing strut fittings installed in the underwing can be loose in the fitting or cannot rotate because of corrosion. In this condition, the joint cannot function as designed and fatigue cracks may then develop. Undetected cracks, wear and/or corrosion in this area could cause failure of the upper attachment fitting, leading to failure of the wing structure and subsequent loss of control of the aircraft.

We are issuing this AD to require actions to correct the unsafe condition on these products.

**DATES:** This AD becomes effective October 1, 2009.

On October 1, 2009, the Director of the Federal Register approved the incorporation by reference of Pilatus Aircraft Ltd. Pilatus PC-6 Service Bulletin No. 57-005, REV No. 2, dated May 19, 2008, and Chapter 57-00-02 of Pilatus Aircraft Ltd. Pilatus PC-6 Aircraft Maintenance Manual, dated November 30, 2008 (referenced as revision 9 in European Aviation Safety Agency (EASA) AD No.: 2007-0241R3), listed in this AD.

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov> or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

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

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the Federal Register on July 8, 2009 (74 FR 32471), and proposed to supersede AD 2007-19-14, Amendment 39-15205 (72 FR 53920, September 21, 2007). That NPRM proposed to correct an unsafe condition for the specified products. The MCAI states:

Findings of corrosion, wear and cracks in the upper wing strut fittings on some PC-6 aircraft have been reported in the past. It is possible that the spherical bearing of the wing strut fittings installed in the underwing can be loose in the fitting or cannot rotate because of corrosion. In this condition, the joint cannot function as designed and fatigue cracks may then develop. Undetected cracks, wear and/or corrosion in this area could cause failure of the upper attachment fitting, leading to failure of the wing structure and subsequent loss of control of the aircraft.

To address this problem, FOCA published AD TM-L Nr. 80.627-6/Index 72-2 and HB-2006-400 and EASA published AD 2007-0114 to require specific inspections and to obtain a fleet status. Since the issuance of AD 2007-0114, the reported data proved that it was necessary to establish and require repetitive inspections.

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the inspections, the latest revision of the PC-6 AMM contains the replacement procedures for the fittings.

Additionally, it is possible to replace the wing strut fitting with a new designed wing strut fitting. With this optional part replacement, in the repetitive inspection procedure the 1 100 FH interval is deleted so that only calendar defined intervals of inspections remain applicable.

## **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

## **Conclusion**

We reviewed the available data and determined that air safety and the public interest require adopting the AD as proposed.

## **Differences Between This AD and the MCAI or Service Information**

We have reviewed the MCAI and related service information and, in general, agree with their substance. But we might have found it necessary to use different words from those in the MCAI to ensure the AD is clear for U.S. operators and is enforceable. In making these changes, we do not intend to differ substantively from the information provided in the MCAI and related service information.

We might also have required different actions in this AD from those in the MCAI in order to follow FAA policies. Any such differences are highlighted in a note within the AD.

## **Costs of Compliance**

We estimate that this AD will affect 50 products of U.S. registry. We also estimate that it will take about 7 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$80 per work-hour.

Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$28,000, or \$560 per product.

In addition, we estimate that any necessary follow-on actions would take about 30 work-hours and require parts costing \$5,000, for a cost of \$7,400 per product. We have no way of determining the number of products that may need these actions.

## **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will 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.

For the reasons discussed above, I certify this AD:

- (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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD Docket.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by removing Amendment 39-15205 (72 FR 53920, September 21, 2007) and adding the following new AD: