[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-1404; Project Identifier MCAI-2022-01044-A]

RIN 2120-AA64

Airworthiness Directives; Pilatus Aircraft Ltd. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to adopt a new airworthiness directive (AD) for certain Pilatus Aircraft Ltd. (Pilatus) Model PC-12/47E airplanes. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI identifies the unsafe condition as corrosion of the actuator attachment lug areas underneath the anti-rotation pads of the main landing gear (MLG) and nose landing gear (NLG). This proposed AD would require replacing certain MLG and NLG electro-mechanical actuators. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this NPRM by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to regulations.gov. Follow the instructions for submitting comments.

• Fax: (202) 493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2022-1404; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the MCAI, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Doug Rudolph, Aviation Safety Engineer, FAA, General Aviation & Rotorcraft Section, International Validation Branch, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4059; email: doug.rudolph@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include "Docket No. FAA-2022-1404; Project Identifier MCAI-2022-01044-A" at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal

information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as "PROPIN." The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Doug Rudolph, Aviation Safety Engineer, FAA, General Aviation & Rotorcraft Section, International Validation Branch, 901 Locust, Room 301, Kansas City, MO 64106. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2022-0158, dated August 4, 2022 (referred to after this as "the MCAI"), to correct an unsafe condition on certain serial-numbered Pilatus Model PC-12/47E airplanes.

The MCAI was prompted by occurrences of corrosion on the MLG and NLG actuator attachment lugs, underneath the anti-rotation pads of Pilatus Model PC-12/47E airplanes. The MCAI states that investigations revealed that extending or retracting the affected landing gear results in fretting between the anti-rotation pads and the actuator attachment lugs. This decreases the effectivity of surface protection, allows corrosion to

develop on the attachment lug areas underneath the anti-rotation pads, and leads to cracking and failure of the attachment lugs.

This condition, if not addressed, could result in loss of functionality of the MLG and NLG, which could result in damage to the airplane and injury to the occupants. The MCAI requires inspecting, and if required, replacing affected MLG and NLG electro-mechanical actuators with serviceable actuators and prohibits the installation of an affected actuator unless it has been reworked to become a serviceable actuator.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2022-1404.

FAA's Determination

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information described above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

Proposed AD Requirements in this NPRM

This proposed AD would require replacing affected MLG and NLG actuators with serviceable actuators (either improved part number actuators or reworked (inspection and modification) actuators) and prohibits the installation of an affected actuator unless it has been reworked (inspection and modification) to become a serviceable actuator.

Differences Between this Proposed AD and the MCAI

The MCAI bases the compliance time for the replacement of affected MLG and NLG electro-mechanical actuators on the corrosion environment of the airplane. FAA regulations do not require operators to track operations in different environmental

conditions and thus there is no way to determine whether an airplane is in the category of moderate to severe or mild corrosion environment. Therefore, this proposed AD would establish the compliance time for the replacement as within 3 months after the effective date of the final rule, regardless of the airplane's operating environment.

The MCAI and the proposed AD affect the same serial-numbered Model PC-12/47E airplanes, but the MCAI limits the requirement for replacement to certain serial-numbered PC-12/47E airplanes with an affected electro-mechanical landing gear installed and prohibits installation of the affected landing gear on all airplanes in the applicability. Pilatus has notified the FAA that all the airplanes in the applicability should be part of the proposed replacement requirements and installation prohibition. EASA is considering a revision to the MCAI based on this information. Because of this, the proposed AD would require the replacement on all serial-numbered Model PC-12/47E airplanes in the applicability of the proposed AD.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 440 airplanes of U.S. registry.

The FAA estimates that the costs of one of the two actions below would be required to comply with this proposed AD:

Estimated costs

Action	**Labor Cost**	**Parts Cost**	**Cost per product**	**Cost on U.S. operators**
*Rework (inspection and modification)	5 work-hours x $85 per hour = $425	$1,245 (if needed)	$1,670 (for rework of all three actuators)	$734,800
*Replacement	3 work-hours x $85 per hour = $255	$4,750 (Actuator P/N 959.56.01.852, nose landing gear) and $11,100	$16,105 (for replacement of all three actuators)	$7,086,200

		(for 2 actuators - Actuator P/N 659.56.01.853, main landing gear)		

* Only the rework (inspection and modification) or the replacement would be required by this proposed AD. Both actions would not be required.

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.

The FAA is 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

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD 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.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 adding the following new airworthiness directive:

Pilatus Aircraft Ltd.: Docket No. FAA-2022-1404; Project Identifier MCAI-2022-01044-A.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Pilatus Aircraft Ltd. Model PC-12/47E airplanes, serial number (S/N) 1300 and S/Ns 1451 and higher, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 3211, Main Landing Gear Attach Section; and JASC Code 3221, Nose/Tail Landing Gear Attach Section.

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI identifies the unsafe condition as corrosion leading to cracks on the actuator attachment lug areas underneath the anti-rotation pads of the main landing gear (MLG) and nose landing gear (NLG). The FAA is issuing this AD to address this condition. The unsafe condition, if not addressed, could result in loss of functionality of the MLG and NLG, which could result in damage to the airplane and injury to the occupants.

(f) Definitions

For the purposes of this AD, the following definitions apply:

(1) Affected parts are defined as MLG electro-mechanical actuators having part number (P/N) 959.56.01.823 or P/N 959.56.01.845 and NLG electro-mechanical actuators having P/N 959.56.01.824 or P/N 959.56.01.844.

(2) Serviceable parts are defined as one of the following:

(i) MLG electro-mechanical actuators having P/N 959.56.01.823 or P/N 959.56.01.845 and NLG electro-mechanical actuators having P/N 959.56.01.824 or P/N 959.56.01.844 that have been reworked (inspection and modification) in accordance with the instructions in Pilatus PC-12 Service Bulletin No. 32-030, dated June 27, 2022; and Tamagawa Seiki Co., Ltd., Service Bulletin No. SB21-0001, dated March 31, 2022; or

(ii) MLG electro-mechanical actuators having P/N 959.56.01.853 and NLG electro-mechanical actuators having P/N 959.56.01.852.

(g) Compliance

Comply with this AD within the compliance times specified, unless already done.

(h) Actions

(1) Within 3 months after the effective date of this AD, replace each affected part as defined in paragraph (f)(1) of this AD with a serviceable part as defined in either paragraph (f)(2)(i) or (ii) of this AD.

(2) As of the effective date of this AD, do not install an affected part as defined in paragraph (f)(1) of this AD on any airplane unless it has been reworked (inspection and modification) and made a serviceable part as defined in paragraph (f)(2)(i) of this AD.

(i) Alternative Methods of Compliance (AMOCs)

The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in § 39.19. In accordance with § 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, mail it to the address identified in paragraph (j)(2) of this AD or email to: 9-AVS-AIR-730-AMOC@faa.gov. If mailing information, also submit information by email.

(j) Additional Information

(1) Refer to European Union Aviation Safety Agency (EASA) AD 2022-0158, dated August 4, 2022, for related information. This EASA AD may be found in the AD docket at regulations.gov under Docket No. FAA-2022-1404.

(2) For more information about this AD, contact Doug Rudolph, Aviation Safety Engineer, General Aviation & Rotorcraft Section, FAA, General Aviation & Rotorcraft Section, International Validation Branch, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4059; email: doug.rudolph@faa.gov.

(3) For Pilatus and Tamagawa Seiki Co., Ltd. service information that is not incorporated by reference in this AD, contact Pilatus Aircraft Limited, Customer Support

General Aviation, CH-6371 Stans, Switzerland; phone: +41 848 24 7 365; email: techsupport.ch@pilatus-aircraft.com; website: pilatus-aircraft.com.

(k) Material Incorporated by Reference

None.

Issued on October 25, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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