Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 20-126

Issued: 28 August 2020

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.
All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:
PILATUS AIRCRAFT Ltd

Type/Model designation(s):
PC-24 aeroplanes

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Number(s): EASA.A.594

Foreign AD: Not applicable

Supersedure: None

ATA 42 – Integrated Modular Avionics – Utility Management System – Software Update

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Manufacturer(s):
Pilatus Aircraft Ltd

Applicability:
PC-24 aeroplanes, all manufacturer serial numbers (MSN).

Definitions:
For the purpose of this AD, the following definitions apply:

The SB: Pilatus Aircraft PC-24 Service Bulletin (SB) 42-010.

Affected part: Utility Management System (UMS) having a software (SW) version Build 7 standard or earlier SW version installed.

Groups: Group 1 aeroplanes are those that have an affected part installed. Group 2 aeroplanes are those that do not have an affected part installed. An aeroplane having MSN 170 or higher is Group 2, provided no affected part has been installed on that aeroplane since first flight.

Reason:

An occurrence was reported where, during climb phase, a PC-24 aeroplane suffered a dual Ethernet communication channel failure on a dual-channel data concentration and processing unit. This triggered opening of electronic circuit breakers, which resulted in the degradation of environmental control system functionalities, the deployment of all passenger oxygen masks and the autopilot entering in emergency descent mode. Various crew alerting system messages were shown. The functionality of other systems, e.g. flaps, fuel indication and the ice protection system were significantly degraded.

This condition, if not corrected, could reduce the safety margins of the aeroplane and lead to increased pilot workload, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, Pilatus developed UMS SW to Build 7.3 standard and issued the SB to provide installation instructions.

For the reason described above, this AD requires an update of the UMS SW, and prohibits (re-)installation of affected parts.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

SW Update:

(1) For Group 1 aeroplanes: Within 30 days after the effective date of this AD, install the UMS SW Build 7.3 standard in accordance with the instructions of the SB.

Parts Installation:

(2) Do not install an affected part on any aeroplane, as required by paragraph (2.1) or (2.2) of this AD, as applicable.

(2.1) For Group 1 aeroplanes: After UMS SW update as required by paragraph (1) of this AD.

(2.2) For Group 2 aeroplanes: From the effective date of this AD.

Ref. Publications:

Pilatus Aircraft PC-24 SB 42-010 original issue dated 21 January 2020.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

Remarks:

1. This Proposed AD will be closed for consultation on 11 September 2020.

2. Enquiries regarding this PAD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred

on a product, part or appliance not affected by this PAD, can be reported to the EU aviation safety reporting system. This may include reporting on the same or similar components, other than those covered by the design to which this PAD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.

4. For any question concerning the technical content of the requirements in this PAD, please contact: Pilatus Aircraft Ltd, Customer Support General Aviation, CH-6371 Stans, Switzerland Telephone: +41 848 24 7 365, E-mail: techsupport.ch@pilatus-aircraft.com, Website: www.pilatus-aircraft.com.