



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-2322; Project Identifier MCAI-2024-00065-Q; Amendment 39-23002; AD 2025-07-01]

RIN 2120-AA64

Airworthiness Directives; THOMMEN AIRCRAFT EQUIPMENT AG Digital Air Data Computers

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain THOMMEN AIRCRAFT EQUIPMENT AG (THOMMEN) AC32 Digital Air Data Computers. This AD results from occurrences of AC32 Digital Air Data Computers (ADCs) that stop functioning below certain temperatures. This AD requires replacing an affected AC32 Digital ADC with a serviceable part. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No.FAA-2024-2322; 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 final rule, the

mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

- For THOMMEN AIRCRAFT EQUIPMENT material identified in this AD, contact THOMMEN AIRCRAFT EQUIPMENT AG, Hofackerstrasse 48, 4132 Muttenz, Switzerland; phone: +41 (0) 61 965 22 22; email: sales@thommen.aero; website: thommen.aero.

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at regulations.gov under Docket No. FAA-2024-2322.

FOR FURTHER INFORMATION CONTACT: William Reisenauer, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7301; email: 9-AVS-AIR-BACO-COS@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain THOMMEN AC32 Digital Air Data Computers. The NPRM published in the *Federal Register* on September 30, 2024 (89 FR 79480). The NPRM was prompted by AD 2024-0024, dated January 24, 2024, issued by the European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union (EASA AD 2024-0024) (also referred to as the MCAI). The MCAI states that there have been occurrences of certain AC32 Digital ADCs that stopped functioning at temperatures below -20 degrees Celsius. The error is

detectable and there is no transmission of erroneous data. The problem is caused by the power module and the affected units have been identified. This condition, if not addressed, could result in insufficient navigational data provided to the flight crew, resulting in reduced control of the aircraft. The MCAI requires removing from service each affected part and specifies that only serviceable parts as defined in the MCAI may be installed.

In the NPRM, the FAA proposed to require replacing an affected AC32 Digital ADC with a serviceable part. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-2322.

Discussion of Final Airworthiness Directive

Comments

The FAA received one comment from an individual commenter and one comment from Bristow VTOL dba Era Helicopters. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Revise the Applicability to Include Additional Helicopter Models

An individual commenter stated that Columbia Helicopters, Inc. Model 107-II helicopters and Kawasaki Model 107-II helicopters also have configurations with the subject ADC installed. The FAA infers that the commenter requested that the applicability of the proposed AD be revised to include these additional helicopter models.

Bristow VTOL dba Era Helicopters acknowledged that the proposed AD in paragraph "(c)(2) Applicability" mentions that "Table 1 to paragraph (c)(2)" does not limit the models identified in "Table 1 to paragraph (c)(2)" as being the only models that could have an affected serial number and affected part installed. However, the commenter stated that, while four Model AW189 helicopters are operating in the United States, only

one helicopter serial number was identified as having an affected AC32 Digital ADC serial number and part number. The commenter confirmed that affected AC32 Digital ADC serial numbers and part numbers are not installed on any Model AW139 helicopter operating in the United States. Due to this information, the commenter requested that the FAA include Model AW189 helicopters in “Table 1 to paragraph (c)(2).”

Although, as stated in paragraph (c)(2) of the Applicability section of this AD, the aircraft models specified in Table 1 are not an exhaustive list of affected models, the FAA agrees with the commenters’ requests. The FAA revised “Table 1 to paragraph (c)(2)” of this AD to include Columbia Helicopters, Inc. Model 107-II helicopters, Kawasaki Heavy Industries, Limited Model KV107-II helicopters, and Leonardo S.p.a. Model AW189 helicopters.

Conclusion

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 referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for any changes described previously, this AD is adopted as proposed in the NPRM. None of the changes increase the economic burden on any operator.

Material Incorporated by Reference under 1 CFR Part 51

The FAA reviewed THOMMEN AIRCRAFT EQUIPMENT Service Bulletin SB AC32/07, Revision 1.0, dated August 31, 2023 (THOMMEN SB AC32/07, Revision 1.0). This material specifies procedures for determining if an aircraft is equipped with an affected AC32 Digital ADC listed in Appendix A, determining if the actions specified in

THOMMEN SB AC32/07, Revision 1.0, were already accomplished, and replacing any affected THOMMEN AC32 Digital ADC.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 401 AC32 Digital ADCs that are installed on aircraft worldwide. The FAA has no way of determining how many of these ADCs are installed on aircraft of U.S. registry.

The FAA estimates the following costs to comply with this AD. These costs assume all 401 AC32 Digital ADCs are installed on aircraft of U.S. registry. The FAA expects a portion of the affected population to exist outside of the U.S. and the estimated costs to be lower.

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Replace affected AC32 Digital ADC	12 work-hours x \$85 per hour = \$1,020	\$4,477	\$5,497	\$2,204,297

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected operators.

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

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 that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, 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.

List of Subjects in 14 CFR Part 39

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

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 adding the following new airworthiness directive:

2025-07-01 THOMMEN AIRCRAFT EQUIPMENT AG: Amendment 39-23002;

Docket No. FAA-2024-2322; Project Identifier MCAI-2024-00065-Q.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to THOMMEN AIRCRAFT EQUIPMENT AG (THOMMEN) AC32 Digital Air Data Computers (ADCs) having an affected part as defined in paragraph (f)(1) of this AD.

(2) This appliance is installed on, but not limited to, the following aircraft models specified in table 1 to paragraph (c)(2) of this AD, certificated in any category.

Table 1 to paragraph (c)(2) – Applicable Aircraft Models

Type certificate holder	Aircraft model
Airbus Defense and Space S.A. (type certificate previously held by Construcciones Aeronauticas, S.A.)	CN-235, CN-235-100, CN-235-200, and CN-235-300
Airbus Helicopters	AS332C, AS332C1, AS332L, AS332L1, AS3323L2
Airbus Helicopters Deutschland GmbH (AHD)	EC635T2+
Bell Textron Inc.	212, 412, and 412EP
Bombardier Inc.	CL-600-1A11 (600)
Columbia Helicopters Inc.	107-II, 234
General Atomics Aerotek Systems GmbH (type certificate formerly held by DORNIER LUFTFAHRT Inc.)	228-100, 228-101, 228-200, 228-201, 228-202, and 228-212
Gulfstream Aerospace LP	Westwind Astra 1124 (serial numbers 004-0410)
International Air Response	C-130A

Type certificate holder	Aircraft model
Kawasaki Heavy Industries, Limited	KV107-II
Leonardo S.p.a.	A109, A10A, A109A II, A109C, A109K2, A109S, 1099SP, AW139, and AW189
Textron Aviation Inc.	200, 300, 500, 501, 550, and 551
Viking Air Limited	CL-215-6B11 (CL-215T Variant)

(3) This appliance is approved for installation and could be installed on various aircraft modified by Supplemental Type Certificate (STC) No. SR09595RC or ST01523WI.

(d) Subject

Joint Aircraft System Component (JASC) Code 3417, Air Data Computer.

(e) Unsafe Condition

This AD was prompted by occurrences of AC32 Digital ADCs that stopped functioning due to the power module failing at temperatures below -20 degrees Celsius. The unsafe condition, if not addressed, could result in insufficient navigational data provided to the flight crew, resulting in reduced control of the aircraft.

(f) Definitions

For the purpose of this AD the definitions in paragraphs (f)(1) through (4) of this AD apply:

(1) Affected part: THOMMEN AC32 Digital ADCs, part numbers (P/N) AC32.10.21.10.XX, AC32.10.21.11.XX, AC32.11.21.10.XX, and AC32.11.21.11.XX (where XX represents any alpha/numerical sequence), and having a serial number (S/N) listed in Appendix A of THOMMEN AIRCRAFT EQUIPMENT Service Bulletin SB AC32/07, Revision 1.0, dated August 31, 2023 (THOMMEN SB AC32/07 Revision 1.0).

(2) Serviceable part: Any AC32.(X) Digital ADC that is not an affected part; or an affected part where the power module has been replaced by THOMMEN, in accordance with the instructions of THOMMEN SB AC32/07 Revision 1.0.

(3) Group 1 aircraft: Have an affected part installed.

(4) Group 2 aircraft: Do not have an affected part installed but are eligible for AC32.(X) Digital ADC installation.

(g) Compliance

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

(h) Required Actions

For Group 1 aircraft: Within 12 months after the effective date of this AD, remove each affected part from service and replace it with a serviceable part in accordance with paragraph 3.A. of the Accomplishment Instructions in THOMMEN SB AC32/07 Revision 1.0, except where this material specifies to send the removed affected part to the manufacturer, this AD does not require that action.

(i) Parts Installation Prohibition

For Group 1 and 2 aircraft: As of the effective date of this AD, do not install an affected part on any aircraft.

(j) Special Flight Permits

A one-time special flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 in order to fly to a maintenance base to perform the required action in this AD, provided a flight profile above -15 degrees Celsius (5 degrees Fahrenheit) is maintained.

(k) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (l) of this AD and email to: AMOC@faa.gov. Before using any approved

AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(l) Additional Information

For more information about this AD, contact William Reisenauer, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7301; email: 9-AVS-AIR-BACO-COS@faa.gov.

(m) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the material listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this material as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) THOMMEN AIRCRAFT EQUIPMENT Service Bulletin SB AC32/07, Revision 1.0, dated August 31, 2023.

(ii) [Reserved]

(3) For THOMMEN AIRCRAFT EQUIPMENT material in this AD, contact THOMMEN AIRCRAFT EQUIPMENT AG, Hofackerstrasse 48, 4132 Muttenz, Switzerland; phone: +41 (0) 61 965 22 22; email: sales@thommen.aero; website: thommen.aero.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA,

visit www.archives.gov/federal-register/cfr/ibr-locations or email

fr.inspection@nara.gov.

Issued on March 27, 2025.

Steven W. Thompson,
Acting Deputy Director, Compliance & Airworthiness Division, Aircraft Certification
Service.

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