



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-1882; Project Identifier MCAI-2023-00651-T; Amendment 39-22632; AD 2023-25-05]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2022-07-15, which applied to all Airbus SAS Model A318, A319, A320, and A321 series airplanes. AD 2022-07-15 required replacing affected braking and steering control units (BSCUs) and revising the operator's existing FAA-approved minimum equipment list (MEL). This AD was prompted by a determination that a type 1 relay combined with an affected BSCU would induce BSCU freezing. This AD removes certain airplanes from the applicability, retains the requirements of AD 2022-07-15, requires an inspection for the relay type installed and replacement of type 1 relays with type 2 relays, limits the installation of affected BSCUs on certain airplanes and prohibits the installation of affected BSCUs for certain other airplanes as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. 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 certain publications listed in this AD as of [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 other publication listed in this AD as of May 2, 2022 (87 FR 22438, April 15, 2022),

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1882; 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, D.C. 20590.

Material Incorporated by Reference:

- For EASA material incorporated by reference in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this material on the EASA website at ad.easa.europa.eu.

- For Airbus service information incorporated by reference in this AD, contact Airbus SAS, Airworthiness Office—EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; website airbus.com.

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on

the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at regulations.gov under Docket No. FAA-2023-1882.

FOR FURTHER INFORMATION CONTACT: Timothy Dowling, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 206-231-3667; email Timothy.P.Dowling@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2022-07-15, Amendment 39-22003 (87 FR 22438, April 15, 2022) (AD 2022-07-15). AD 2022-07-15 applied to all Airbus SAS Model A318-111, -112, -121, and -122 airplanes; Model A319-111, -112, -113, -114, -115, -131, -132, -133, -151N, -153N, and -171N airplanes; Model A320-211, -212, -214, -216, -231, -232, -233, -251N, -252N, -253N, -271N, -272N, and -273N airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, -232, -251N, -251NX, -252N, -252NX, -253N, -253NX, -271N, -271NX, -272N, and -272NX airplanes. AD 2022-07-15 required replacing affected BSCUs and revising the operator's existing FAA-approved MEL. The FAA issued AD 2022-07-15 to address loss of braking performance with significant increase in airplane stopping distance, possibly resulting in a runway excursion.

The NPRM published in the *Federal Register* on September 27, 2023 (88 FR 66307). The NPRM was prompted by AD 2023-0093R1, dated May 15, 2023, issued by EASA, which is the Technical Agent for the Member States of the European Union (EASA AD 2023-0093R1) (also referred to as the MCAI). The MCAI notes that the previous detection of several BSCU channel failures could induce, in the event of dual channel failures, loss of anti-skid function together with the reversion to the alternate braking mode, and loss of nose wheel steering, and lead to loss of braking performance with significant increase in airplane stopping distance, possibly resulting in a runway

excursion. The MCAI states that further investigation identified a type 1 relay installed in a position where a type 2 relay should have been installed. The combination of a type 1 relay with an affected BSCU could induce BSCU freezing. EASA therefore determined that it is necessary to replace type 1 relays with type 2 relays.

The MCAI also states that type 1 relays are no longer installed on Model A320 Current Engine Option (CEO) airplanes (i.e., Model A318 series airplanes; A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; A320-211, -212, -214, -216, -231, -232, and -233 airplanes; and A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes). Type 1 relays were required to be replaced on Model A320 CEO airplanes by AD 96-04-06, Amendment 39-9518 (61 FR 6927, February 23, 1996). AD 96-04-06 corresponded to DGAC France AD F-1993-163-043, dated September 29, 1993. Model A320 CEO airplanes are therefore not included in the applicability of this AD.

Further, the MCAI states that some relays installed at functional item number (FIN) locations 24GG and 25GG were not in conformity with the Airplane Inspection Report on certain airplanes.

In addition, it was determined that certain airplanes have been delivered with a BSCU P/N E21327107.

In the NPRM, the FAA proposed to remove certain airplanes from the applicability, retain the requirements of AD 2022-07-15, require an inspection for the relay type installed and replacement of type 1 relays with type 2 relays, limit the installation of affected BSCUs on certain airplanes and prohibit the installation of affected BSCUs for certain other airplanes, as specified in EASA AD 2023-0093R1 described previously. 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-2023-1882.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from United Airlines, which supported the NPRM without change.

Conclusion

This product has been approved by the aviation authority of another country and is 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 comment 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 this product. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under 1 CFR Part 51

EASA AD 2023-0093R1 specifies procedures for replacing affected BSCUs if a fault signature is triggered, and implementing the instructions of master minimum equipment list (MMEL) updates on the basis of which the operator's existing MEL must be amended—that is, procedures for revising the operator's existing FAA-approved MEL with the provisions in the MMEL updates specified in the EASA AD. EASA AD 2023-0093R1 also specifies procedures for a general visual inspection of the FINs 24GG and 25GG to identify the relay type installed, and replacement of each type 1 relay with a type 2 relay. EASA AD 2023-0093R1 also limits the installation of affected parts.

Airbus Alert Operators Transmission A32N025-22, Rev 01, dated May 10, 2023, including Appendixes 1 through 3, dated May 2023, defines BSCU fault signatures that may be triggered on the airplane, and specifies procedures for replacing affected parts, among other actions.

This AD also requires Airbus Alert Operators Transmission A32N025-22, Rev 00, dated February 24, 2022, including Appendixes 1 through 4, dated February 21, 2022, which the Director of the Federal Register approved for incorporation by reference as of May 2, 2022 (87 FR 22438, April 15, 2022).

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 349 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained actions from AD 2022-07-15	Up to 5 work-hours X \$85 per hour = \$425	\$0	Up to \$425	Up to \$148,325
Relay inspection and replacement (new actions)	Up to 9 work-hours X \$85 per hour = \$765	\$0	Up to \$765	Up to \$266,985

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage for affected individuals. As a result, the FAA has included all known costs in the cost estimate.

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:

a. Removing Airworthiness Directive (AD) 2022-07-15, Amendment 39-22003

(87 FR 22438, April 15, 2022); and

b. Adding the following new AD:

2023-25-05 Airbus SAS: Amendment 39-22632; Docket No. FAA-2023-1882; Project Identifier MCAI-2023-00651-T.

(a) Effective Date

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

(b) Affected ADs

This AD replaces AD 2022-07-15, Amendment 39-22003 (87 FR 22438, April 15, 2022) (AD 2022-07-15).

(c) Applicability

This AD applies to the Airbus SAS airplanes, certificated in any category, identified in paragraphs (c)(1) through (3) of this AD.

(1) All Model A319-151N, A319-153N, and A319-171N airplanes.

(2) All Model A320-251N, A320-252N, A320-253N, A320-271N, A320-272N, and A320-273N airplanes.

(3) All Model A321-251N, A321-251NX, A321-252N, A321-252NX, A321-253N, A321-253NX, A321-271N, A321-271NX, A321-272N, and A321-272NX airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing Gear; and America Code 92, Electrical System Installation.

(e) Unsafe Condition

This AD was prompted by the detection of several channel failures on the braking and steering control unit (BSCU), inducing, in case of dual channel failures, loss of anti-skid function together with the reversion to the alternate braking mode, and loss of nose wheel steering. This AD was further prompted by the determination that a type 1 relay combined with an affected BSCU could induce BSCU freezing. The FAA is issuing this AD to address these conditions, which could lead to loss of braking performance with significant increase in airplane stopping distance, possibly resulting in a runway excursion.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2023-0093R1, dated May 15, 2023 (EASA AD 2023-0093R1).

(h) Exceptions to EASA AD 2023-0093R1

(1) Where EASA AD 2023-0093R1 refers to “10 March 2022 [the effective date of EASA AD 2022-0032 at original issue],” this AD requires using May 2, 2022 (the effective date of AD 2022-07-15).

(2) Where EASA AD 2023-0093R1 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where EASA AD 2023-0093R1 defines “the AOT 1” as “Airbus Alert Operators Transmission (AOT 1) A32N025-22,” this AD requires using Airbus Alert Operators Transmission A32N025-22, Rev 00, dated February 24, 2022, including Appendixes 1 through 4, dated February 21, 2022, or Airbus Alert Operators

Transmission A32N025-22, Rev 01, dated May 10, 2023, including Appendixes 1 through 3, dated May 2023.

(4) Where paragraphs (2) and (3) of EASA AD 2023-0093R1 specify “in accordance with the instructions of the AOT 1,” replace those words with “in accordance with the ‘Remove and replace BSCU P/N E21327307’ step in paragraph 5.6., ‘Instructions,’ of Airbus Alert Operators Transmission A32N025-22, Rev 00, dated February 24, 2022, including Appendixes 1 through 4, dated February 21, 2022, or of Airbus Alert Operators Transmission A32N025-22, Rev 01, dated May 10, 2023, including Appendixes 1 through 3, dated May 2023.” No other actions in Airbus Alert Operators Transmission A32N030-23, Rev 00, dated February 27, 2023, including Appendixes 1 and 2, dated February 21, 2023 (referenced in EASA AD 2023-0093R1 and not incorporated by reference in this AD), or Airbus Alert Operators Transmission A32N025-22, Rev 01, dated May 10, 2023, including Appendixes 1 through 3, dated May 2023, are required for compliance for the replacement.

(5) Where paragraph (4) of EASA AD 2023-0093R1 requires operators to “implement the instructions of the MMEL [master minimum equipment list] update,” this AD requires replacing those words with “implement the operator’s existing FAA-approved minimum equipment list (MEL) with the provisions specified in ‘The MMEL update’ as identified in EASA AD 2023-0093R1.”

(6) Where paragraph (4) of EASA AD 2023-0093R1 specifies to “inform all flight crews, and, thereafter, operate the airplane accordingly,” this AD does not require those actions as those actions are already required by existing FAA operating regulations.

(7) This AD does not adopt the “Remarks” section of EASA AD 2023-0093R1.

(i) No Reporting Requirement

Although certain service information specified in EASA AD 2023-0093R1 specifies to report certain information and send affected parts to the manufacturer, this AD does not require those actions.

(j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *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 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to 9-AVS-AIR-730-AMOC@faa.gov.

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(ii) AMOCs approved previously for AD 2022-07-15 are approved as AMOCs for the corresponding provisions of EASA AD 2023-0093R1 that are required by paragraph (g) of this AD.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC)*: Except as required by paragraph (j)(2) of this AD, if any service information contains paragraphs that are labeled as RC, the instructions in RC paragraphs, including subparagraphs under an RC paragraph, must be

done to comply with this AD; any paragraphs, including subparagraphs under those paragraphs, that are not identified as RC are recommended. The instructions in paragraphs, including subparagraphs under those paragraphs, not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the instructions identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to instructions identified as RC require approval of an AMOC.

(k) Additional Information

For more information about this AD, contact Timothy Dowling, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 206-231-3667; email Timothy.P.Dowling@faa.gov.

(l) Material Incorporated by Reference

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

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

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Airbus Alert Operators Transmission A32N025-22, Rev 01, dated May 10, 2023, including Appendixes 1 through 3, dated May 2023.

(ii) European Union Aviation Safety Agency (EASA) AD 2023-0093R1, dated May 15, 2023.

(4) The following service information was approved for IBR on May 2, 2022 (87 FR 22438, April 15, 2022).

(i) Airbus Alert Operators Transmission A32N025-22, Rev 00, dated February 24, 2022, including Appendixes 1 through 4, dated February 21, 2022.

(ii) [Reserved]

(5) For EASA AD 2023-0093R1, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this EASA AD on the EASA website at ad.easa.europa.eu.

(6) For Airbus service information identified in this AD, contact Airbus SAS, Airworthiness Office – EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; website airbus.com.

(7) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(8) 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 December 14, 2023.

Victor Wicklund,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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