[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-1491; Project Identifier MCAI-2022-00924-T; Amendment 39-22424; AD 2023-09-01]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Airbus SAS Model A318 series airplanes; Model A319 series airplanes; Model A320-211, -212, -214, -216, -231, -232, -233, -251N, -252N, -253N, -271N, -272N, and -273N airplanes; and Model A321 series airplanes. This AD was prompted by a report that certain overheat detection system (OHDS) sensing elements installed at certain positions might not properly detect thermal bleed leak events due to a quality escape during the manufacturing process. This AD requires a one-time detailed inspection of each affected part installed at an affected position and replacement if necessary, and prohibits the installation of affected parts at affected positions, 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].

ADDRESSES:

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2022–1491; 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 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. It is also available in the AD docket at regulations.gov by searching for and locating Docket No. FAA-2022-1491.

- For Kidde Aerospace & Defense service information incorporated by reference in this AD, contact Kidde Aerospace & Defense, 4200 Airport Drive NW, Wilson, NC 27896; phone: 252-246-7134; fax: 252-246-7181; email: avionicssupport@collins.com; website kiddeaerospace.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-2022-1491.

FOR FURTHER INFORMATION CONTACT: Timothy Dowling, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South

216th Street, Des Moines, WA 98198; 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 by adding an AD that would apply to all Airbus SAS Model A318 series airplanes; Model A319 series airplanes; Model A320-211, -212, -214, -216, -231, -232, -233, -251N, -252N, -253N, -271N, -272N, and -273N airplanes; and Model A321 series airplanes. The NPRM published in the *Federal Register* on December 6, 2022 (87 FR 74519). The NPRM was prompted by AD 2022-0147, dated July 14, 2022; corrected August 17, 2022, issued by EASA, which is the Technical Agent for the Member States of the European Union (EASA AD 2022-0147) (also referred to as the MCAI). The MCAI states that the affected part manufacturer, Kidde Aerospace & Defense, reported that certain OHDS sensing elements, produced before January 31, 2021, may not properly detect thermal bleed leak events due to a quality escape during the manufacturing process.

In the NPRM, the FAA proposed to require a one-time detailed inspection of each affected part installed at an affected position (i.e., a position identified as functional item number (FIN) 34HF, FIN 35HF, FIN 61HF or FIN 62HF) and replacement as applicable, and would prohibit the installation of affected parts at affected positions, as specified in EASA AD 2022-0147. The FAA is issuing this AD to address OHDS sensing elements that do not properly detect thermal bleed leak events, which could result in an air leak remaining undetected by the OHDS at an affected position and not being isolated during flight, possibly resulting in localized areas of the main landing gear bay and keel beam being exposed to high temperatures, and consequent reduced structural integrity of the airplane.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2022-1491.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from Air Line Pilots Association, International (ALPA), who supported the NPRM without change.

The FAA received additional comments from United Airlines. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request To Revise Exception Language

United Airlines requested that the FAA clarify the exception to EASA AD 2022-0147 specified in paragraph (h)(1) of the proposed AD. Section 1.A. of Kidde Aerospace & Defense Service Bulletin CFD-26-3, dated January 13, 2022; or Revision 1, dated March 29, 2022; states that the date code is A2105, or January 31, 2021. Section 1.C under Reason of the Kidde Aerospace & Defense Service Bulletin CFD-26-3 states, "CFD sensing elements produced between November 24, 2004, and January 31, 2021, may not properly detect thermal bleed leak events." Kidde Aerospace & Defense Service Bulletin CFD-26-3 states two different time constraints. The commenter asked the FAA to identify the correct time constraint including the serial number equivalent of the date code restriction "A2105."

The FAA agrees that parts produced prior to November 24, 2004, and after January 31, 2021, do not have the problem identified in this AD. In order to provide additional clarity, paragraph (h)(1) of this AD has been updated accordingly.

Request To Provide Serial Number to Date Code A2105

United Airlines requested that the FAA provide the corresponding serial numbers to Date Code A2105.

The FAA disagrees. Kidde Aerospace & Defense Service Bulletin CFD-26-3, dated January 13, 2022; and Revision 1, dated March 29, 2022; specify the affected part numbers and date code, which is sufficient to identify parts subject to the requirements of this AD. Any listed part number that was manufactured between November 24, 2004, and the 5th week of January 2021, regardless of serial number, is an affected part, as defined by the MCAI and this AD.

Request for Method to Mark Passing Units

United Airlines requested that the FAA specify what is being used to mark units that pass test requirements.

Part of the required actions of the Kidde Aerospace & Defense Service Bulletin CFD-26-3 is to mark one of the connector hex nuts. The marking method has been intentionally left at a high level to allow for local and regional customers to utilize their best marking practice. This can be achieved with a permanent marker and clear coat, paint, or a ceramic dye. Typically, a continuous fire detection (CFD) sensor may be removed 2–3 times in a 20- to 25-year life span of an airplane life to gain access to adjacent equipment that requires maintenance. Based on some open-end wrench trials at a Kidde lab, the marking was legible after many additional attempts at installing and removing the CFD sensors. It is standard practice to call out a part marking specification for that part of the process. For example MIL-STD 130 is one such common industry specification that is often used. The FAA considers this marking method as reasonable to achieve the necessary level of robustness over the service life of the aircraft, but operators may use other methods that result in legible and permanent markings.

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 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 this product. Except for minor editorial changes, and any other changes described previously, 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 2022-0147 specifies procedures for a one-time special detailed inspection (SDI) of each OHDS sensing element installed at an affected position to detect discrepancies (an incorrect electronic centralized aircraft monitor (ECAM) alert (one not related to AIR L WING LEAK) being displayed following the inspection of any OHDS sensing element) and, depending on findings, replacement of any affected part with a serviceable part. EASA AD 2022-0147 also prohibits the installation of affected parts at affected positions.

Kidde Aerospace & Defense Service Bulletin CFD-26-3, dated January 13, 2022; and Revision 1, dated March 29, 2022; specify the part numbers and corresponding date codes of the affected OHDS sensing elements.

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 1,836 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated costs for required actions

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
6 work-hours X $85 per hour = $510	$0	$510	$936,360

The FAA estimates the following costs to do any necessary on-condition action that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need this on-condition action:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
1 work-hour X $85 per hour = $85	$1,645	$1,730 (per OHDS sensing element)

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all 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:

2023-09-01 Airbus SAS: Amendment 39-22424; Docket No. FAA-2022–1491; Project Identifier MCAI-2022-00924-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

None.

(c) Applicability

This AD applies to all Airbus SAS airplanes, certificated in any category, as identified in paragraphs (c)(1) through (4) of this AD.

(1) Model A318-111, -112, -121, and -122 airplanes.

(2) Model A319-111, -112, -113, -114, -115, -131, -132, -133, -151N, -153N, and -171N airplanes.

(3) Model A320-211, -212, -214, -216, -231, -232, -233, -251N, -252N, -253N, -271N, -272N, and -273N airplanes.

(4) Model A321-111, -112, -131, -211, -212, -213, -231, -232, -251N, -252N, -253N, -271N, -272N, -251NX, -252NX, -253NX, -271NX, and -272NX airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 36, Pneumatic.

(e) Unsafe Condition

This AD was prompted by a report that certain overheat detection system (OHDS) sensing elements installed at certain positions might not properly detect thermal bleed leak events due to a quality escape during the manufacturing process. The FAA is issuing this AD to address OHDS sensing elements that do not properly detect thermal bleed leak events. The unsafe condition, if not addressed, could result in an air leak remaining undetected by the OHDS at an affected position and not being isolated during flight, possibly resulting in localized areas of the main landing gear bay and keel beam being exposed to high temperatures, and consequent reduced structural integrity of the airplane.

(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 2022-0147, dated July 14, 2022; corrected August 17, 2022 (EASA AD 2022-0147).

(h) Exceptions to EASA AD 2022-0147

(1) Where EASA AD 2022-0147 defines "Affected part" and identifies part numbers and corresponding date codes as those "listed in Section 1.A of the VSB," for this AD, those part numbers and corresponding date codes are listed in Section 1.A. of Kidde Aerospace & Defense Service Bulletin CFD-26-3, dated January 13, 2022; or Revision 1, dated March 29, 2022. The date codes listed in Section 1.A. of Kidde Aerospace & Defense Service Bulletin CFD-26-3, dated January 13, 2022; and Revision 1, dated March 29, 2022; do not apply to parts produced prior to November 24, 2004, or after January 31, 2021.

(2) Where EASA AD 2022-0147 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where paragraph (2) of EASA AD 2022-0147 refers to "any discrepancy as defined in the SB," for this AD, a discrepancy is an incorrect electronic centralized aircraft monitor (ECAM) alert (one not related to AIR L WING LEAK) being displayed following the inspection of any OHDS sensing element.

(4) Where the service information referenced in EASA AD 2022-0147 specifies to send an affected part to the manufacturer, this AD does not include that requirement.

(5) This AD does not adopt the "Remarks" section of EASA AD 2022-0147.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2022-0147 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

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

(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 procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are 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 procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(k) Additional Information

For more information about this AD, contact Timothy Dowling, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th Street, Des Moines, WA 98198; 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.

(i) European Union Aviation Safety Agency (EASA) AD 2022-0147, dated July 14, 2022; corrected August 17, 2022.

(ii) Kidde Aerospace & Defense Service Bulletin CFD-26-3, dated January 13, 2022.

(iii) Kidde Aerospace & Defense Service Bulletin CFD-26-3, Revision 1, dated March 29, 2022.

(3) For EASA AD 2022-0147, 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.

(4) For Kidde Aerospace & Defense service information identified in this AD, contact Kidde Aerospace & Defense, 4200 Airport Drive NW, Wilson, NC 27896;

phone: 252-246-7134; fax: 252-246-7181; email: avionicssupport@collins.com; website kiddeaerospace.com.

(5) 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.

(6) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email fr.inspection@nara.gov, or go to www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on April 28, 2023.

Gaetano A. Sciortino, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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