[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-1242; Project Identifier MCAI-2022-00433-T; Amendment 39-22379; AD 2023-05-10]

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 A330-200, A330-200 Freighter, A330-300, A330-800, A330-900, A340-200, A340-300, A340-500, and A340-600 series airplanes. This AD was prompted by a report that an A319 airplane lost the right-hand front windshield in flight. Due to the design similarity, this condition can also exist or develop on Model A330 and A340 airplanes. This AD requires repetitive detailed inspections (DET) and electrical test measurements (ETM) of the affected parts and applicable corrective action, and prohibits the installation of affected parts under certain conditions, 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 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 under Docket No. FAA-2022-1242; 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 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.

- 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-2022-1242.

FOR FURTHER INFORMATION CONTACT: Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3229; email vladimir.ulyanov@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 A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342, A330-343, A330-743L,

A330-841, A330-941, A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, A340-542, A340-642, and A340-643 airplanes. The NPRM published in the *Federal Register* on September 30, 2022 (87 FR 59342). The NPRM was prompted by AD 2022-0057, dated March 28, 2022, issued by EASA, which is the Technical Agent for the Member States of the European Union (EASA AD 2022-0057) (also referred to as the MCAI). The MCAI states that a Model A319 airplane lost the right-hand front windshield in flight, with consequent rapid cockpit depressurization, causing damage to cockpit items/systems and significant increase of flightcrew workload. The investigations identified several contributing factors, including manufacturing variability, fretting between windshield components, water ingress, and electrical braids corrosion, which led to a thermal shock/overheat, damaging more than one windshield structural ply and impairing the structural integrity of the windshield. Due to the design similarity, this condition can also exist or develop on Model A330 and A340 airplanes. This condition, if not addressed, could possibly result in injury to the flightcrew and in-flight depressurization of the airplane, and would significantly increase pilot workload.

In the NPRM, the FAA proposed to require repetitive DET and ETM of the affected parts and applicable corrective action, and to prohibit the installation of affected parts under certain conditions, as specified in EASA AD 2022-0057. The FAA is issuing this AD to address possible windshield failure. This condition, if not addressed, could possibly result in injury to the flightcrew and in-flight depressurization of the airplane, and would significantly increase pilot workload.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2022-1242.

Discussion of Final Airworthiness Directive

Comments

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

The FAA received additional comments from Delta Air Lines (DAL) and another commenter whose comments were outside the scope of this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Clarify Testing Requirements

DAL asked for clarification of whether a windshield that fails the DET must have the ETM performed before it is replaced. DAL noted that, according to EASA AD 2022-0057 paragraphs (2) and (4), an ETM is to follow any DET. However, paragraphs (6) and (7) of EASA AD 2022-0057 prescribe corrective action (part replacement) for failing the DET or the ETM respectively, and it is unclear whether the ETM is required after a part fails the DET.

The FAA agrees to clarify the windshield testing requirements. EASA AD 2022-0057 requires both a DET and an ETM, regardless of the inspection results. The DET determines whether there is delamination and water ingress or corrosion inside the terminal block, whereas the ETM involves insulation and dielectric tests that help to detect potential wiring insulation damage and core degradation. Since there are multiple contributing factors and results related to the unsafe condition, it is important that both the DET and ETM be accomplished so that the extent of the unsafe condition can be addressed. Paragraph (6) of the EASA AD 2022-0057 requires replacement of the affected part if during DET any defect is found, and paragraph (7) of the EASA AD 2022-0057 requires replacement of the affected part in case the results of the ETM are found in the "red area."

Request to Change a Definition

DAL requested a change to the definition of "defect" given in paragraph (h)(2) of the proposed AD. DAL recommended using the DET "pass/fail" criteria given in the vendor service information as the definition, because "defect" is not defined in either the MCAI or the service information. DAL explained that the definition in the proposed AD includes "manufacturing variability" and "fretting between windshield components," but the service information does not specify a search for either of these factors. Also, "manufacturing variability" cannot be inspected for without identifying what the norm would be.

The FAA agrees to change the definition of "defect" to be consistent with the terminology in the service information. The definition change is based on the pass/fail criteria of the vendor service bulletin which specifies that if any humidity, moisture/water ingress, or corrosion is detected, or if the connector cannot be opened, the windshield must be rejected. However, the Airbus service information uses "delamination and/or bubbles" in lieu of the term humidity, and the FAA has determined "delamination and/or bubbles" is a more appropriate term. The FAA has changed paragraph (h)(2) of this AD to clarify that, for purposes of this AD, defects include evidence of any delamination and/or bubbles, moisture/water ingress, or corrosion, or a connector that cannot be opened.

Request to Allow the Use of Repair Design Approval Forms (RDAFs)

DAL requested that the FAA approve the use of certain RDAFs as acceptable methods for completing certain steps specified in the service information, because those steps are not accomplishable as they are described in the service information.

The FAA does not agree to grant the requested approval because the FAA has not been able to determine whether the RDAFs provide an acceptable method for addressing the unsafe condition. Reportedly, Airbus has issued these RDAFs specifically for the use

by certain operators, including DAL, and have not granted their applicability to other operators. The use of these RDAFs may be approved through the alternative method of compliance (AMOC) process specified in paragraph (j)(1) of this AD if requested. This AD has not been changed.

Request for Clarification on Affected Parts

DAL requested clarification of whether the amendment part numbers listed in the service information represent affected parts and suggested creating an additional exception in paragraph (h) of the proposed AD to specify this. DAL remarked that the EASA AD 2022-0057 lists 10 affected parts. However, the vendor service information lists those same 10 part numbers and several amendment part numbers in its applicability.

The affected parts identified in Table 1 of EASA AD 2022-0057 refer to all of the part numbers listed in the service information, including those marked as “A”, “B”, “Amendt A” or “Amendt B” in the table of windshield part numbers in the vendor service information. An exception has been added as paragraph (h)(4) of this AD, stating “For Table 1 of EASA AD 2022-0057, the identified part numbers include those regardless of amendment level following the part number.”

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 the 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 2022-0057 specifies procedures for repetitive DET and ETM of the affected parts and applicable corrective actions. Corrective actions include replacement. EASA AD 2022-0057 also limits the installation of affected parts under certain conditions. 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 131 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
5 work-hours X $85 per hour = $425	$0	$425	$55,675

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
20 work-hours X $85 per hour = $1,700	$11,393	$13,093

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:

2023-05-10 Airbus SAS: Amendment 39-22379; Docket No. FAA-2022-1242; Project Identifier MCAI-2022-00433-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 identified in paragraphs (c)(1) through (9) of this AD, certificated in any category.

(1) Model A330-201, -202, -203, -223, and -243 airplanes.

(2) Model A330-223F and -243F airplanes.

(3) Model A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes.

(4) Model A330-841 airplanes.

(5) Model A330-941 airplanes.

(6) Model A340-211, -212, and -213 airplanes.

(7) Model A340-311, -312, and -313 airplanes.

(8) Model A340-541 airplanes.

(9) Model A340-642 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 56, Windows.

(e) Unsafe Condition

This AD was prompted by a report that a Model A319 airplane lost the right-hand front windshield in flight. Due to the design similarity, this condition can also exist or develop on Model A330 and A340 series airplanes. The FAA is issuing this AD to address possible windshield failure. This condition, if not addressed, could possibly result in injury to the flightcrew and in-flight depressurization of the airplane, and would significantly increase pilot workload.

(f) Compliance

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

(g) Requirements

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2022-0057, dated March 28, 2022 (EASA AD 2022-0057).

(h) Exceptions to EASA AD 2022-0057

(1) Where EASA AD 2022-0057 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where paragraph (6) of EASA AD 2022-0057 refers to a "defect, as identified in the SB," for purposes of this AD, defects include evidence of any delamination and/or bubbles, moisture/water ingress, or corrosion, or a connector that cannot be opened.

(3) The "Remarks" section of EASA AD 2022-0057 does not apply to this AD.

(4) For Table 1 of EASA AD 2022-0057, the identified part numbers include those regardless of amendment level following the part number.

(i) No Reporting Requirement

Although paragraphs (11) and (12) of EASA AD 2022-0057 and the service information referenced therein specify 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, Large Aircraft Section, 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 Large Aircraft Section, 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, Large Aircraft Section, 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 Vladimir Ulyanov, Aerospace Engineer, Large Aircraft Section, FAA, International Validation Branch, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3229; email vladimir.ulyanov@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference 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 2022-0057, dated March 28, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0057, 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) 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.

(5) You may view this material 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 March 9, 2023.

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

[FR Doc. 2023-07135 Filed: 4/6/2023 8:45 am; Publication Date: 4/7/2023]