DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Airbus SAS Model A319-112, -115, and -132 airplanes; and Model A320-214, -216, -232, and -233 airplanes. This AD was prompted by a report that a possible interference was identified between 1M and 2M wiring harnesses and the tapping units, and that the interference could adversely affect the lavatory smoke detection system and/or the passenger oxygen system. This AD requires modifying the 1M and 2M harness routing, 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:** For the material incorporated by reference (IBR) in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 89990 1000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this IBR material on the EASA website at https://ad.easa.europa.eu. You may view this IBR material at the FAA, Transport Standards 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 on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2019-0873.

**Examining the AD Docket**

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2019-0873; 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 regulatory evaluation, 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.
FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223; email Sanjay.Ralhan@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2019-0227, dated September 11, 2019 (“EASA AD 2019-0227”) (also referred to as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Airbus SAS Model A319-112, -115, and -132 airplanes; and Model A320-214, -216, -232 and -233 airplanes.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Airbus SAS Model A319-112, -115, and -132 airplanes; and Model A320-214, -216, -232, and -233 airplanes. The NPRM published in the Federal Register on November 22, 2019 (84 FR 64443). The NPRM was prompted by a report that a possible interference was identified between 1M and 2M wiring harnesses and the tapping units, and that the interference could adversely affect the lavatory smoke detection system and/or the passenger oxygen system. The NPRM proposed to require modifying the 1M and 2M harness routing, as specified in an EASA AD.

The FAA is issuing this AD to address possible loss of lavatory smoke detection and/or passenger oxygen system commands, which could prevent the delivery of passenger oxygen during an emergency and possibly result in injury to airplane occupants. See the MCAI for additional background information.
Comments

The FAA gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA’s response to each comment. The FAA received one comment outside the scope of this rulemaking.

Support for the NPRM

Two anonymous commenters stated their support for the NPRM.

Request for Clarification on Affected Airplane Models

Megan Meyet requested clarification on other Airbus airplanes that may be affected by the unsafe condition identified in the proposed AD. The commenter asked what will the FAA do if there are other Airbus airplanes that are found to have the same issue. The commenter stated that the proposed AD lists a specific batch of Airbus airplanes that have a defective part, but does not mention what would happen if other airplane models are found to have the same issue.
The FAA agrees to clarify. The unsafe condition in this AD is caused by interference due to installation of optional tapping units, which reduced the clearance between the wire harnesses and tapping units. EASA and Airbus know the population of airplanes affected by this unsafe condition. Therefore, the Airbus airplanes specified in EASA AD 2019-0227 are the affected population. If additional airplanes are found to be affected by this unsafe condition, the FAA will consider additional rulemaking. The FAA has not changed this AD in this regard.

Request for Clarification of the Unsafe Condition

An anonymous commenter requested clarification of the unsafe condition. The commenter stated that the proposed AD was prompted by a report that a possible interference was identified between the 1M and 2M wiring harnesses and tapping units, and that this interference could have negative effects on the lavatory smoke detection system and possibly the passenger oxygen system. The commenter asked if this interference actually caused an error in the smoke alarm or in the oxygen system, or is this a proposed consequence of the interference? The commenter suggested that if it is only a proposed consequence, it would be more cost effective to run more tests before incurring the costs of the 6 airplanes affected by the proposed AD. The commenter also stated that if this issue has been confirmed, then the proposed AD is extremely important to adopt, and could affect countless lives if the passenger oxygen system commands failed in an emergency.

The FAA agrees to clarify. EASA, as the State of Design Authority for Airbus SAS airplanes, issued AD 2019-0227 based on its risk assessment, which takes into account the effects of system level failures on the airplane’s safety. This risk assessment
showed that a change in the installation of the tapping units creates the potential for contact between wire harnesses and the tapping units, because the tapping units are installed higher than they previously were. If this potential interference between the wiring harnesses and tapping units is not addressed, an unsafe condition may occur, resulting in failure of audio and/or visual warnings to the flight crew related to smoke detection in the lavatory and the loss of delivery of passenger oxygen in the event of an emergency. The FAA has determined that further testing and analysis are not needed, and the agency is issuing this AD to prevent this unsafe condition from occurring. The FAA has not revised this AD in this regard.

**Conclusion**

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. The FAA has determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

**Related IBR Material under 1 CFR Part 51**

EASA AD 2019-0227 describes procedures for modifying the 1M and 2M wiring harness routing. 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 6 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

**Estimated costs for required actions**

<table>
<thead>
<tr>
<th>Labor cost</th>
<th>Parts cost</th>
<th>Cost per product</th>
<th>Cost on U.S. operators</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 work-hours X $85 per hour = $510</td>
<td>$180</td>
<td>$690</td>
<td>$4,140</td>
</tr>
</tbody>
</table>

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.

Adoption of 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 (AD):


(a) Effective Date

This 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 Airbus SAS Model A319-112, -115, and -132 airplanes; and Model A320-214, -216, -232 and -233 airplanes; certificated in any category; as identified in European Union Aviation Safety Agency (EASA) AD 2019-0227, dated September 11, 2019 (“EASA AD 2019-0227”).

(d) Subject

Air Transport Association (ATA) of America Code 92, Electric and Electronic Common Installation.

(e) Reason

This AD was prompted by a report that a possible interference was identified between 1M and 2M wiring harnesses and the tapping units, and that the interference could adversely affect the lavatory smoke detection system and/or the passenger oxygen system. The FAA is issuing this AD to address possible loss of lavatory smoke detection and/or passenger oxygen system commands, which could prevent the delivery of passenger oxygen during an emergency and possibly result in injury to airplane occupants.

(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, EASA AD 2019-0227.
(h) Exceptions to EASA AD 2019-0227

(1) For purposes of determining compliance with the requirements of this AD: Where EASA AD 2019-0227 refers to its effective date, this AD requires using the effective date of this AD.

(2) The “Remarks” section of EASA AD 2019-0227 does not apply to this AD.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards 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 Section, send it to the attention of the person identified in paragraph (j) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district 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 Section, Transport Standards 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): For any service information referenced in EASA AD 2019-0227 that contains RC procedures and tests, except as required by paragraph (i)(2) of this AD, RC 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.

(j) Related Information

For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223; email Sanjay.Ralhan@faa.gov.

(k) 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.


(ii) [Reserved]
(3) For information about EASA AD 2019-0227, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 89990 6017; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at https://ad.easa.europa.eu.

(4) You may view this material at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. This material may be found in the AD docket on the Internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2019-0873.

(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 fedreg.legal@nara.gov, or go to: https://www.archives.gov/federal-register/cfr/ibr-locations.html.


Gaetano A. Sciortino, Deputy Director for Strategic Initiatives, Compliance & Airworthiness Division, Aircraft Certification Service.

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