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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0338; Product Identifier 2020-NM-047-AD; Amendment 39-21224; AD 2020-18-03]

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 A350-941 and -1041 airplanes. This AD was prompted by the results of laboratory tests on non-rechargeable lithium batteries installed in certain emergency locator transmitters (ELTs), which highlighted a lack of protection against current injections of 28 volts direct current (DC) or 115 volts alternating current (AC) that could lead to thermal runaway and a battery fire. This AD requires modifying a certain ELT by installing a diode between the ELT and the terminal block, 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 October 8, 2020.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 8, 2020.

ADDRESSES: For material incorporated by reference (IBR) in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; 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, 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 on the internet at https://www.regulations.gov by searching for and locating Docket No. FAA-2020-0338.

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-2020-0338; 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, 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: Kathleen Arrigotti, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3218; email kathleen.arrigotti@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2020-0070, dated March 24, 2020 ("EASA AD 2020-0070") (also referred to as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for certain Airbus SAS Model A350-941 and -1041 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 A350-941 and -1041 airplanes. The NPRM published in the Federal Register on April 27, 2020 (85 FR 23262). The NPRM was prompted by the results of laboratory tests on non-rechargeable lithium batteries installed in certain ELTs, which highlighted a lack of protection against current injections of 28 volts DC or 115 volts AC that could lead to thermal runaway and a battery fire. The NPRM proposed to require modifying a certain ELT by installing a diode between the ELT and the terminal block, as specified in an EASA AD.

The FAA is issuing this AD to address local fires in non-rechargeable lithium batteries installed in ELTs, which could result in damage to the airplane and injury to 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.

Request To Withdraw NPRM

Delta Air Lines (DAL) noted that the NPRM was based on the failure mode where a wire from the ELT is shorted to another wire carrying 28 volts DC or 115 volts AC causing voltage to be induced into the ELT's battery, resulting in a battery fire. The commenter explained that on Airbus Model A321 and A330 airplanes this failure mode could occur because the wiring is characterized by four discrete wires run in bundles with other discrete wires carrying 28 volts DC or 115 volts AC. The commenter questioned whether the NPRM should be applicable to Airbus Model A350 airplanes because these airplanes have a cable assembly with its four wires inside an outer jacket and shielding, which would therefore mitigate the unsafe condition addressed in the NPRM.

The FAA infers that the commenter is requesting that the NPRM be withdrawn because of the unique configuration of certain airplanes, including Airbus SAS Model A350-941 and -1041 airplanes. The FAA disagrees with the commenter's request. EASA, the State of Design Authority for these airplane models, conducted a risk assessment, and concluded that the type design of the applicable airplanes are susceptible to the current injection of 28 volts DC or 115 volts AC, that is not

limited to just wire chafing. Therefore, the FAA is requiring the applicable corrective actions in this AD to mitigate the risk of the thermal runaway and battery fire. The FAA has determined that it is necessary to issue this final rule.

Request To Allow Any Color and Width of Tape

DAL also requested that operators be allowed to use any color and width of reinforced silicon tape instead of part number ASNA51072503, to protect the wiring in the area where the diode is secured to the harness. The commenter explained that part number ASNA51072503 is specified in Airbus Service Bulletin A350-25-P152, dated January 10, 2020 ("Airbus Service Bulletin A350-25-P152"), and is for the 1-inch orange tape under the ASNA5107 standard [which is an aerospace industry standard for a silicone rubber tape]. The commenter requested approval to use any color and width of tape meeting the specifications of the broader ASNA5107 standard.

The FAA partially agrees with the commenter's request. EASA AD 2020-0070 refers to Airbus Service Bulletin A350-25-P151, dated January 10, 2020 ("Airbus Service Bulletin A350-25-P151"), and Airbus Service Bulletin A350-25-P152, as the sources of service information for modifying the affected ELTs. Although the commenter mentioned only Airbus Service Bulletin A350-25-P152 in its comment, silicone tape having part number ASNA51072503 is specified in both service bulletins. The FAA agrees that operators can use any brightly colored tape because orange does not have a specific safety function. The FAA disagrees that operators can use any width of tape because the width could provide a safety function. The FAA has added paragraph (h)(3) to this AD to specify that operators may use any brightly colored 1-inch tape that meets the criteria specified in the ASNA5107 standard.

Request To Allow an Alternative Continuity Check

In addition, DAL requested and provided an option to replace Step 3.C.(g) specified in Airbus Service Bulletin A350-25-P152. The commenter explained that Step 3.C.(g) in Airbus Service Bulletin A350-25-P152 requires a continuity test of the modified wiring and provides no specific steps for this test other than referencing Electrical Standard Practices (ESP) section A350-A-20-52-21-00ZZZ-36AZ-A. The commenter noted that although this ESP section does provide basic continuity procedures, it fails to provide a procedure for a wire with a diode installed.

The FAA disagrees with the commenter's request. Based on the report from EASA, the State of Design Authority for these airplane models, the FAA has determined that the procedures described in Step 3.C.(g) of Airbus Service Bulletin A350-25-P152 do include a continuity test that considers an installed diode. Operators may, however, request alternative methods of compliance to replace Step 3.C.(g) specified in Airbus Service Bulletin A350-25-P152 by using the procedures described in paragraph (i)(1) of this AD and demonstrating how this alternative addresses the unsafe condition. The FAA has not changed this AD regarding this issue.

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 with the changes described previously and 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.

The FAA also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

Related IBR Material Under 1 CFR Part 51

EASA AD 2020-0070 describes procedures for modifying a certain ELT by installing a diode between the ELT and the terminal block. 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 7 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 × $85 per hour = $425	$400	$825	$5,775

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.

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):

2020-18-03 Airbus SAS: Amendment 39-21224; Docket No. FAA-2020-0338; Product Identifier 2020-NM-047-AD.

(a) Effective Date

This AD is effective October 8, 2020.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Airbus SAS Model A350-941 and -1041 airplanes, certificated in any category, as identified in European Union Aviation Safety Agency (EASA) AD 2020-0070, dated March 24, 2020 ("EASA AD 2020-0070").

(d) Subject

Air Transport Association (ATA) of America Code 25, Equipment/Furnishings.

(e) Reason

This AD was prompted by the results of laboratory tests on non-rechargeable lithium batteries installed in certain emergency locator transmitters (ELTs), which highlighted a lack of protection against current injections of 28 volts direct current (DC) or 115 volts alternating current (AC) that could lead to thermal runaway and a battery fire. The FAA is issuing this AD to address local fires in non-rechargeable lithium batteries installed in ELTs, which could result in damage to the airplane and injury to 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 2020-0070.

(h) Exceptions to EASA AD 2020-0070

(1) Where EASA AD 2020-0070 refers to its effective date, this AD requires using the effective date of this AD.

(2) The "Remarks" section of EASA AD 2020-0070 does not apply to this AD.

(3) Where the service information specified in EASA AD 2020-0070 specifies to use tape having part number ASNA51072503, this AD requires using any brightly colored 1-inch tape that meets the criteria specified in the ASNA5107 standard.

(i) Other FAA 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 local Flight Standards District 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 (j) 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 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, 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): For any service information referenced in EASA AD 2020-0070 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 Kathleen Arrigotti, Aerospace Engineer, Large Aircraft Section, International Validation Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3218; email kathleen.arrigotti@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.

(i) European Union Aviation Safety Agency (EASA) AD 2020-0070, dated March 24, 2020.

(ii) [Reserved]

(3) For information about EASA AD 2020-0070, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; 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, 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. 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-2020-0.

(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.

Issued on August 19, 2020.

Gaetano A. Sciortino,

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

[FR Doc. 2020-19402 Filed 9-2-20; 8:45 am]