



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-6144; Product Identifier 2015-NM-088-AD; Amendment 39-21012; AD 2019-24-01]

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 Airbus SAS Model A318 and A319 series airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes; Model A330-200 and A330-200 Freighter series airplanes; Model A340-200 and -300 series airplanes; and Model A340-500 and -600 airplanes (except for airplanes equipped with flammability reduction means (FRM) approved by the FAA as compliant with the Fuel Tank Flammability Reduction (FTFR) rule). This AD was prompted by the FAA's analysis of the fuel system reviews on these models conducted by the manufacturer. This AD requires modifying the fuel quantity indicating system (FQIS) to prevent development of an ignition source inside the center fuel tank due to electrical fault conditions. This AD also provides alternative actions for cargo airplanes. This AD does not apply to airplanes equipped with FRM approved by the FAA. 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].

ADDRESSES:

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-6144; 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: Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3225.

SUPPLEMENTARY INFORMATION:

Discussion

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 A318 and A319 series airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; Model A330-200, -200 Freighter, and -300 series airplanes; and Model A340-200, -300, -500, and -600 series airplanes. The NPRM published in the Federal Register on May 3, 2016 (81 FR 26487). The NPRM was prompted by the FAA's analysis of fuel system reviews on these models conducted by the manufacturer. The NPRM proposed to require

modifying the FQIS to prevent development of an ignition source inside the center fuel tank due to electrical fault conditions. The NPRM also provided alternative actions for cargo airplanes. The FAA is issuing this AD to address ignition sources inside the center fuel tank, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

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.

Support for NPRM

The Air Line Pilots Association, International (ALPA) and National Air Traffic Controllers Association (NATCA) supported the intent of the NPRM. Additional comments from NATCA are addressed below.

Request to Withdraw NPRM: EASA's Different Risk Assessment Policy

Airbus and the European Aviation Safety Agency (EASA) noted differences between EASA's risk assessment policy and that of the FAA. Based on its own criteria, EASA concluded that there is no unsafe condition, and that in the absence of a Transport Airplane Risk Assessment Methodology (TARAM) analysis, the NPRM was based on noncompliance with Special Federal Aviation Regulation (SFAR) 88, Fuel Tank System Fault Tolerance Evaluation Requirements, (66 FR 23086, May 7, 2001) to 14 CFR part 21, and, more specifically, with 14 CFR 25.981(a)(3), rather than a direct unsafe condition. The commenters asserted that Airbus has shown that the failure condition described in the NPRM is extremely improbable and not unsafe according to EASA

policy. The commenters therefore considered the proposed corrective actions unnecessary.

The FAA infers that the commenters request that the agency withdraw the NPRM. The FAA disagrees with the request. The FAA does not agree that the NPRM was based simply on a noncompliance with 14 CFR 25.981(a) identified from the manufacturer's fuel system reviews. This final rule addresses an unsafe condition identified by the FAA. The FAA determined that an unsafe condition exists using the criteria in FAA Policy Memorandum ANM100-2003-112-15, "SFAR 88 – Mandatory Action Decision Criteria," dated February 25, 2003¹. That policy was used to evaluate the noncompliant design areas identified in the manufacturer's fuel system reviews and determine which noncompliance issues were unsafe conditions that required corrective action under 14 CFR part 39. The FAA's unsafe condition determination was not based on an assessment of average risk or total fleet risk, but rather was driven by the qualitative identification of an unacceptable level of individual risk that exists on flights that are anticipated to occur with a preexisting latent in-tank failure condition and with a flammable center fuel tank. While EASA referenced SFAR 88 as a factor in determination of the unsafe condition, the FAA did not include SFAR 88 in the above response because SFAR 88 was a procedural rule that required re-examination of compliance with 14 CFR 25.981(a). Noncompliance to SFAR 88 is not submitting the analysis that shows the design complies with 14 CFR 25.981 and appendix H to part 25 (as amended at 66 FR 23086, May 7, 2001, amendment 25-102). For these reasons, and based on further detailed responses to

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[http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgPolicy.nsf/0/dc94c3a46396950386256d5e006aed11/\\$FILE/Feb2503.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgPolicy.nsf/0/dc94c3a46396950386256d5e006aed11/$FILE/Feb2503.pdf)

similar comments in supplemental NPRM (SNPRM) Docket No. FAA-2012-0187 (80 FR 9400, February 23, 2015), and in AD 2016-07-07, Amendment 39-18452 (81 FR 19472, April 5, 2016) (“AD 2016-07-07”), which addressed the same unsafe condition for Model 757 airplanes, the FAA has determined that it is necessary to issue this final rule.

Request to Withdraw NPRM: Combination of Failures is Extremely Improbable

Airbus stated that the risk of ignition sources addressed by the NPRM results from combinations of the electrical fault conditions that have been demonstrated to be extremely improbable.

The FAA infers that Airbus would like the NPRM withdrawn. The FAA disagrees with the request to withdraw the NPRM. While the average risk per flight hour of a fuel tank ignition source may be extremely improbable, the actual risk is not evenly spread across all flight hours, and is instead almost completely concentrated on the subset of flights that occur with a latent failure in the fuel tank and experience flammable conditions. For those flights, a single additional failure that causes a hot short onto compromised fuel tank circuit wiring could cause an ignition source. Such flights do not provide an acceptable level of safety. As explained in the previous comment disposition, the FAA considered both average fleet risk and individual risk and determined an unsafe condition existed based on individual risk, rather than average fleet risk. Finally, the proposed requirements in the NPRM are consistent with the FAA’s policy for the unsafe condition determinations related to SFAR 88 contained in FAA Policy Memorandum ANM100-2003-112-15, “SFAR 88-Mandatory Action Decision Criteria,” dated February 25, 2003. The FAA provided a detailed response to similar comments and described the FAA’s risk assessment in a related SNPRM that addressed the same unsafe condition for

Model 757 airplanes, in Docket No. FAA-2012-0187 (80 FR 9400, February 23, 2015); and in AD 2016-07-07. The FAA has therefore determined that it is necessary to issue this final rule.

Request to Withdraw NPRM: High Cost of Compliance

Air France reported that EASA has not mandated any FRM retrofit on the affected airplanes, and explained that EASA’s adoption of similar rulemaking would have unbearable impact (heavy costs including labor) on the Air France fleet.

The FAA acknowledges the commenter’s concerns about the cost of compliance with this AD, and the FAA infers that the commenter would like the NPRM withdrawn. The FAA considers it necessary to address this unsafe condition for the reasons discussed in the responses to the two comments above. The FAA considers these costs necessary to address the identified unsafe condition. The FAA has therefore determined that it is necessary to issue this final rule.

Request to Clarify Applicability: Limit to Airplanes without FRM

Because of numerous queries from airlines about the applicability of the proposed AD, Airbus requested that the FAA revise the SUMMARY and “Proposed AD Requirements” section of the NPRM by clarifying that the proposed AD does not apply to airplanes equipped with FRM.

The FAA agrees to revise the SUMMARY of this final rule by highlighting the exception to the applicability, i.e., that airplanes are not affected by this AD if they are equipped with FRM approved by the FAA as compliant with the FTFR rule (73 FR 42444, July 21, 2008) requirements of 14 CFR 25.981(b) or 14 CFR 26.33(c)(1). The applicability in paragraph (c) of the proposed AD, however, already excluded airplanes

equipped with FRM; it is therefore unnecessary to change the regulatory language of this final rule to add this clarification.

Request to Clarify Number of Affected Airplanes

Airbus requested that the FAA clarify the Costs of Compliance section in the NPRM to emphasize that the number of affected airplanes is based on the FAA's analysis of the number of airplanes identified in the applicability that are currently registered in the U.S. and operated under 14 CFR part 91. Airbus considered that this change would further explain the scope of the applicability of the proposed AD.

The FAA agrees to clarify the affected airplanes. Although airplanes operated under 14 CFR part 91 are primarily affected by this AD and accounted for in the Costs of Compliance section of this AD, the applicability of this AD includes airplanes that are not equipped with FRM, operated under all potential 14 CFR operating requirements. It is clearer to apply the requirements based on the airplane type design rather than intended operating requirements. No change to the final rule is necessary regarding this issue.

Request to Revise Applicability: Add Model A321

Airbus stated that there is no valid rationale for excluding Model A321 series airplanes from the applicability of the proposed AD.

The FAA agrees that the unsafe condition identified in the NPRM also applies to Model A321 series airplanes without FRM approved by the FAA as compliant with the FTFR rule requirements of 14 CFR 25.981(b) or 14 CFR 26.33(c)(1). The addition of an airplane model to a final rule typically requires prior notice and opportunity for comment on that addition. However, section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C.) authorizes agencies to dispense with notice and comment procedures

for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without seeking comment prior to the rulemaking. There are currently no Model A321 series airplanes on the U.S. Register that do not have FRM approved by the FAA. Therefore, notice and opportunity for prior public comment are unnecessary, pursuant to 5 U.S.C. 553(b)(3)(B). The FAA has revised paragraph (c) of this AD to include FAA-certificated Model A321 series airplanes that are not equipped with FRM.

Request to Revise Applicability: Remove Model A330-300

Airbus requested that the FAA revise the applicability of the proposed AD to remove Model A330-300 airplanes, because those airplanes are either not fitted with a center tank or, if fitted with a center tank, are compliant with 14 CFR 25.981(a)(3), as amended at 66 FR 23086, May 7, 2001, amendment 25-102. Airbus added that Model A330-300 series airplanes fitted with a center wing tank will all have been delivered with compliant FRM.

The FAA agrees with the commenter’s request. Model A330-300 series airplanes were originally produced with no center fuel tank; therefore, those airplanes were not subject to the unsafe condition. Model A330-300 series airplanes have been redesigned and are now equipped with an optional center fuel tank that is compliant with 14 CFR 25.981(a)(3). Because of this unique design and production history, the FAA does not anticipate that any Model A330-300 series airplanes with a center fuel tank installed will be operated without a compliant FRM. The FAA therefore has removed Model A330-300 series airplanes from the applicability of this AD.

Request to Remove Paragraph (g)

United Airlines noted that the overall applicability of the proposed AD was limited to airplanes without FRM, and requested that the FAA delete paragraph (g) of the proposed AD, since FRM will have been installed on all affected airplanes in passenger configuration by December 26, 2018 – well ahead of the compliance deadline of the proposed AD.

The FAA infers that the commenter has assumed that the requirements of paragraph (g) of this AD apply only to passenger-carrying airplanes in air carrier operations. The FAA disagrees with the request to remove paragraph (g) of this AD. There are other passenger-carrying airplanes operated under 14 CFR part 91 that are not required to install FRM. (The requirement to install FRM on all passenger-carrying airplanes operated by air carriers is in 14 CFR 121.1117.) Paragraph (g) of this AD is the main requirement for all affected airplanes, which includes both passenger-carrying (regardless of operations) and cargo-only airplanes. Paragraph (h) of this AD provides alternative actions for cargo-only airplanes. The FAA has not changed this AD regarding this issue.

Request to Limit Modification Requirements to Certain Airplanes

As an alternative to removing paragraph (g) of the proposed AD, United Airlines requested that the FAA instead revise that paragraph to limit the affected airplanes to those in cargo configurations that do not have FRM installed, and non-U.S. registered airplanes for which the FRM rule is not mandatory.

The FAA disagrees with this request. Paragraph (g) of this AD is intended to include passenger-carrying airplanes with the unsafe condition, but the commenter's

proposed change to the airplanes affected by paragraph (g) of this AD would not include those airplanes. As previously discussed, there are passenger-carrying airplanes operated under 14 CFR part 91 that are not required to install FRM. As with all ADs, this AD does not apply to non-U.S.-registered airplanes. Therefore, the FAA has not changed this AD regarding this issue.

Request to Identify Compliant FRM as Acceptable

Airbus requested that the FAA clearly identify the installation of FRM as an acceptable way to comply with the proposed AD requirements. Airbus noted that there are no FQIS or wiring modifications being designed for retrofit for the single-aisle/long range models, but FRM that is compliant with the FTFR rule is available (with possibly some necessary customization adaptations) for all concerned models, including potential future passenger-to-cargo conversions. Airbus noted that the FAA could have addressed the unsafe condition through means other than an AD, such as revising 14 CFR part 91 or mandating installation of an FRM on future passenger-to-freighter conversions by amended type certificate or supplemental type certificate.

The FAA acknowledges the commenter's request. However, the FAA has determined that it is not necessary to identify FRM as acceptable for compliance with this AD, since this issue is already addressed in the AD applicability. Airplanes equipped with FAA-approved FRM that meets the requirements of 14 CFR 25.981(b) or 26.33(c)(1) are not affected by this AD. It is therefore unnecessary to include FRM installation as an alternative way to comply with the requirements of this AD. The FAA has not changed this AD regarding this issue.

Request to Delay AD Pending Approved Procedures

All Nippon Airways (ANA) noted that paragraph (g) of the proposed AD would require modifying the FQIS, but does not describe that modification. ANA therefore requested that the FAA delay issuance of the final rule until a specific procedure for operators to follow is available. ANA expressed concern that absent a clear description of the specific procedure that operators should follow, it will be difficult for operators to comply with the proposed requirements.

The FAA infers that ANA is referring to specific service information for the operator to follow that will address the unsafe condition on the affected airplanes, since the NPRM does not specify service information. The FAA disagrees with the commenter's request. Since the FAA has determined that an unsafe condition exists and that affected airplanes must be modified to ensure continued safety, further delay of this action would be inappropriate. Because of the additional delay due to litigation on the similar AD for Model 757 airplanes, AD 2016-07-07, and the compliance time extension to 72 months, which is discussed in the comment disposition below, the FAA finds that sufficient time exists for manufacturers to develop service information to support operator compliance with the requirements of this AD. If service information is developed, approved, and available in the future, operators may request approval under the provisions of paragraph (i) of this AD to use approved service instructions, as an alternative method of compliance (AMOC) for the requirements of this AD, or the FAA may approve the service information as a global AMOC for this AD.

Request to Change Compliance Time

Airbus requested that the FAA extend the compliance time from 60 months to 72 months, based on the compliance time in AD 2016-07-07, which has a similar unsafe condition and similar corrective actions.

Conversely, NATCA recommended that the FAA reject requests for a compliance time longer than 5 years as proposed. Assuming final rule issuance in 2016, NATCA stated that a 5-year compliance time would result in required compliance by 2021 – 25 years after the TWA Flight 800 fuel tank explosion that led to the requirements in SFAR 88, and 20 years after issuance of SFAR 88.

The FAA agrees with the request to extend the compliance time, and disagrees with NATCA's request. The FAA received similar requests to extend the compliance time from several commenters regarding the NPRMs for the FQIS modification on other airplanes. The FAA has determined that a 72-month compliance time is appropriate and will provide operators adequate time to prepare for and perform the required modifications without excessive disruption of operations. The FAA has determined that the requested moderate increase in compliance time will continue to provide an acceptable level of safety. The FAA has changed paragraphs (g) and (h)(2) of this AD accordingly.

Request to Clarify Certification Basis for Modification Requirements

NATCA recommended that the FAA revise paragraph (g) of the proposed AD to clearly state that the required FQIS design changes must comply with the fail-safe requirements of 14 CFR 25.901(c), as amended by 43 FR 50597, October 30, 1978,

amendment 25-46, and 14 CFR 25.981(a) and (b), as amended by 66 FR 23086, May 7, 2001, amendment 25-102; NATCA added that these provisions are required by SFAR 88.

The FAA infers that NATCA is proposing that the certification basis of the design changes to the FQIS system design be at the amendment levels cited above. The FAA further infers that NATCA proposes that the FAA require the entire FQIS system design to comply at those amendment levels rather than allowing only a portion of the system to comply with those amendments. The FAA partially agrees with NATCA's request. The FAA agrees that the design change must comply with the applicable certification basis, because design changes are required to comply with the applicable certification basis under part 21. The FAA disagrees, however, with identifying the specific certification basis in this AD, because it varies by design. In addition, the FAA previously identified in the SNPRM for AD 2016-07-07, in the response to comments under "Requests To Withdraw NPRM (77 FR 12506, March 1, 2012) Based on Applicability" that the option for cargo airplanes will require a partial exemption from 14 CFR 25.901(c) and 25.981(a)(3). The partial exemption is needed because portions of the FQIS would remain unmodified, and the overall system would therefore still not fully comply with those regulations. The FAA has already granted such exemptions for other airplane models. Identifying these amendments as required would also not take into account exceptions (reversions to earlier versions of regulations) granted in the certification basis under 14 CFR 21.101. The FAA has not changed this AD regarding this issue.

Request to Address Unsafe Condition on All Fuel Tanks

NATCA recommended that the FAA require design changes that eliminate unsafe FQIS failure conditions on all fuel tanks on the affected models, regardless of fuel tank

location or the percentage of time the fuel tank is flammable. NATCA referred to four fuel tank explosions in low-flammability exposure time fuel tanks identified by the FAA during FTFR rulemaking. NATCA stated that neither FRM nor alternative actions for cargo airplanes (e.g., BITE checks (checks of built-in test equipment) followed by applicable repairs before further flight and modification of the center fuel tank FQIS wiring within 72 months) would bring the airplane into full regulatory compliance. NATCA added that the combination of failures described in the NPRM meets the criteria for “known combinations” of failures that require corrective action in Policy Memorandum ANM100-2003-112-15.

The FAA disagrees with the commenter’s request. The FAA has determined that according to Policy Memorandum ANM100-2003-112-15, this failure condition for the airplanes affected by this AD should not be classified as a “known combination.” While the FQIS design architecture is similar to that of the early Boeing Model 747 configuration that is suspected of contributing to the TWA Flight 800 fuel tank explosion, significant differences exist in the design of FQIS components and wire installations between the affected Airbus SAS models and the early Model 747 airplanes such that the intent of the “known combinations” provision for low flammability fuel tanks in the policy memorandum is not applicable. Therefore, this AD affects only the identified Airbus airplanes with high flammability exposure time fuel tanks, as specified in paragraph (c) of this AD. The FAA provided a detailed response to similar comments in AD 2016-07-07. The FAA has not changed this final rule regarding this issue.

Request to Require Modifications on All Production Airplanes

NATCA recommended that the FAA require designs that comply with 14 CFR 25.901(c) and 25.981(a)(3) on all newly produced transport airplanes. NATCA stated that continuing to grant exemptions to 14 CFR 25.901(c), as amended by 42 FR 15042, March 17, 1977, amendment 25-40; and 14 CFR 25.981(a)(3), as amended by 66 FR 23086, May 7, 2001, amendment 25-102; has allowed continued production of thousands of airplanes with this known unsafe condition.

The FAA disagrees with the commenter's request. This AD applies to airplanes, including newly produced airplanes, as specified in paragraph (c) of this AD. The recommendation to require production airplanes of existing designs to fully comply with 25.901(c) and 25.981(a)(3) is outside the scope of this rulemaking. The FAA has not changed this final rule regarding this issue.

Request to Require Design Changes from Manufacturers

NATCA recommended that the FAA follow the agency's compliance and enforcement policy to require manufacturers to develop the necessary design changes soon enough to support operators' ability to comply with the proposed requirements. NATCA noted that SFAR 88 required manufacturers to develop all design changes for unsafe conditions identified by their SFAR 88 design reviews by December 2002, or within an additional 18 months if the FAA granted an extension.

The FAA acknowledges the commenter's concerns. However, any enforcement action is outside the scope of this rulemaking. The FAA has not changed this final rule regarding this issue.

Request to Clarify Cost Estimate

Air France noted that the cost section of the NPRM provided both 1,200- and 74-work-hour estimates, and questioned which figure applied to the wire separation modification.

The FAA agrees that clarification is needed, and has revised the Costs of Compliance section to specify 1,200 work-hours for the modification required by paragraph (g) of this AD, and 74 work-hours for the alternative wire separation modification provided by paragraph (h)(2) of this AD.

Clarification of BITE Check Compliance Time

The FAA has revised paragraph (h)(1) of this AD to clarify the compliance time for the BITE check relative to the requirement to record the fault codes. The FAA recognized that operators might interpret the proposed requirements for alternative actions for cargo airplanes as allowing additional flights prior to performing the BITE check after first recording the fault codes. The FAA intended for operators to perform the BITE check immediately after recording the fault codes to address both the fault codes that exist prior to performing the BITE check as well as any new codes that are identified during the BITE check.

Additional Compliance Time Change

For consistency with similar ADs related to FQIS, the FAA has changed the repetitive interval for recording the existing fault codes stored in the fuel quantity indicating (FQI) computer and BITE check from “not to exceed 650 flights hours” to “not to exceed 750 flights hours.” The FAA has determined that this change continues to provide an acceptable level of safety.

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.

Costs of Compliance

The FAA estimates that this AD affects 1 airplane of U.S. registry.

The FAA also estimates that it takes about 1,200 work-hours per product to comply with the basic modification requirements of paragraph (g) of this AD. The average labor rate is \$85 per work-hour. The FAA received no definitive data that would enable the agency to provide cost estimates for the parts needed to do the actions specified in this AD. Based on these figures, the FAA estimates the labor cost of this AD on U.S. operators to be \$102,000.

The FAA has not received definitive information on the costs for the alternative wire separation modification specified in paragraph (h)(2) of this AD. The cost for this action in similar rulemaking on other airplanes, however, suggests that this modification

could take about 74 work-hours with parts costing about \$10,000, for a total estimated cost to U.S. operators of \$16,290 per product.

The FAA estimates that the repetitive FQIS tank circuit checks associated with the alternative wire separation modification would take about 1 work-hour per check. The FAA estimates the cost of this check on U.S. operators to be \$85 per product, per check.

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

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):

2019-24-01 Airbus SAS: Amendment 39-21012; Docket No. FAA-2016-6144; Product Identifier 2015-NM-088-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 the Airbus SAS airplanes, certificated in any category, identified in paragraphs (c)(1) through (6) of this AD, except airplanes equipped with a flammability reduction means (FRM) approved by the FAA as compliant with the Fuel Tank Flammability Reduction (FTFR) requirements of 14 CFR 25.981(b) or 14 CFR 26.33(c)(1).

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

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

(3) Model A320-211, -212, -214, -231, -232, and -233 airplanes.

(4) Model A321-111, -112, -131, -211, -231, -212, -213, and -232 airplanes.

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

(6) Model A340-211, -212, -213, -311, -312, -313, -541, and -642 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 28, Fuel.

(e) Unsafe Condition

This AD was prompted by the FAA's analysis of fuel system reviews on the affected airplanes conducted by the manufacturer. The FAA is issuing this AD to address

ignition sources inside the center fuel tank, which, in combination with flammable fuel vapors, could result in a fuel tank explosion and consequent loss of the airplane.

(f) Compliance

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

(g) Modification

Within 72 months after the effective date of this AD, modify the fuel quantity indicating system (FQIS) to prevent development of an ignition source inside the center fuel tank due to electrical fault conditions, using a method approved by the Manager, International Section, Transport Standard Branch, FAA.

(h) Alternative Actions for Cargo Airplanes

For airplanes used exclusively for cargo operations: As an alternative to the requirements of paragraph (g) of this AD, do the actions specified in paragraphs (h)(1) and (2) of this AD. To exercise this alternative, operators must perform the first inspection required under paragraph (h)(1) of this AD within 6 months after the effective date of this AD. To exercise this alternative for airplanes returned to service after conversion of the airplane from a passenger configuration to an all-cargo configuration more than 6 months after the effective date of this AD, operators must perform the first inspection required by paragraph (h)(1) of this AD prior to further flight after the conversion.

(1) Within 6 months after the effective date of this AD, record the existing fault codes stored in the fuel quantity indicating (FQI) computer, and before further flight thereafter, do a BITE check (check of built-in test equipment) of the FQI computer, using a method approved by the Manager, International Section, Transport Standards Branch,

FAA. If any fault code is recorded prior to the BITE check or as a result of the BITE check, before further flight, do all applicable repairs and repeat the BITE check until a successful test is performed with no fault found, using a method approved by the Manager, International Section, Transport Standards Branch, FAA. Repeat these actions thereafter at intervals not to exceed 750 flight hours. Modification as specified in paragraph (h)(2) of this AD does not terminate the repetitive BITE check requirement of this paragraph.

(2) Within 72 months after the effective date of this AD, modify the airplane by separating FQIS wiring that runs between the FQI computer and the center fuel tank wall penetrations, including any circuits that might pass through a main fuel tank, from other airplane wiring that is not intrinsically safe, using methods approved by the Manager, International Section, Transport Standards Branch, FAA.

(i) Alternative Methods of Compliance (AMOCs)

(1) 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 manager of the ACO, send it to the attention of the person identified in paragraph (j) of this AD.

(2) 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.

(j) Related Information

For more information about this AD, contact Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3225.

(k) Material Incorporated by Reference

None.

Issued in Des Moines, Washington, on December 4, 2019.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

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