[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-9567; Directorate Identifier 2016-NM-147-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede Airworthiness Directive (AD) 2007-13-08, for certain Airbus Model A318, A319, A320, and A321 series airplanes. AD 2007-13-08 currently requires repetitive inspections of the auxiliary power unit (APU) starter motor, APU inlet plenum, and APU air intake for discrepancies; repetitive cleaning of the APU air intake, and applicable corrective actions. Since we issued AD 2007-13-08, a determination was made that the unsafe condition could occur on additional airplanes. This proposed AD would expand the applicability in AD 2007-13-08, and include an optional terminating installation for the repetitive actions. We are proposing this AD to address the unsafe condition on these products.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Airbus, Airworthiness Office–EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: account.airworth-eas@airbus.com; Internet: http://www.airbus.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

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-2016-9567; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2016-9567; Directorate Identifier 2016-NM-147-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On June 12, 2007, we issued AD 2007-13-08, Amendment 39-15112 (72 FR 33877, June 20, 2007) ("AD 2007-13-08"), for certain Airbus Model A318, A319, A320, and A321 series airplanes. AD 2007-13-08 was prompted by mandatory continuing airworthiness information issued by an airworthiness authority of another country to identify and correct an unsafe condition on an aviation product. AD 2007-13-08 currently

requires repetitive inspections of the APU starter motor, APU inlet plenum, and APU air intake for discrepancies; repetitive cleaning of the APU air intake, and applicable corrective actions. We issued AD 2007-13-08 to detect and correct reverse flow during APU startup, leading to flame propagation in the APU air inlet and intake duct. Such conditions could result in an in-flight fire in the APU area.

Since we issued AD 2007-13-08, the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2016-0176, dated August 31, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for all Airbus Model A318, A319, A320, and A321 airplanes. The MCAI states:

> An operator reported black smoke at the rear of the fuselage during taxi after landing. The smoke was caused by a fire in the auxiliary power unit (APU) air intake. The subsequent analysis demonstrated that, following numerous unsuccessful APU start attempts in flight, there is a risk of reverse flow leading to flame propagation to the APU air inlet and air intake duct.
>
> This condition, if not detected and corrected, could result in an in-flight fire in the APU area.
>
> Prompted by these findings, Airbus issued Service Bulletin (SB) A320-49-1068 to provide inspection and cleaning instructions. The applicable Flight Crew Operating Manual (FCOM) already contained a limitation for the number of APU start attempts, as follows:
>
> **APU STARTER**
> After 3 starter motor duty cycles, wait 60 minutes before attempting 3 more cycles
>
> To address this potential unsafe condition, EASA issued AD 2006-0153 to require repetitive inspections of the APU starter motor, APU inlet plenum and APU air intake [for

> discrepancies], as well as repetitive cleaning of the APU air intake [and applicable corrective actions].
>
> As the reverse flow inside the APU can only occur in flight with the APU inlet closed, various modifications (mod) were developed to introduce a new electronic control box (ECB) with associated software, the functionality of which keeps the APU inlet door open for 15 minutes, following an APU auto-shutdown in flight. Consequently, AD 2006-0153 was revised [which corresponds to FAA AD 2007-13-08], reducing the Applicability by excluding certain post-mod aeroplanes, and introducing these modifications as optional terminating actions.
>
> After EASA AD 2006-0153R2 was issued, it was determined that, as an APU ECB can be replaced (or moved from one aeroplane to another) in service, inadvertently installing a pre-mod ECB would reintroduce the unsafe condition. Prompted by this finding, EASA issued AD 2016-0159, retaining the requirements of EASA AD 2006-0153R2, which was superseded, expanding the Applicability and including references to additional optional terminating actions.
>
> Since EASA AD 2016-0159 was issued, it was determined that paragraph (5) of the [EASA] AD contained some erroneous statements, inadvertently excluding certain aeroplanes, those that have Airbus mod 23698 or mod 24498 embodied in production, from the repetitive actions.
>
> For the reason described above, this [EASA] AD retains the requirements of EASA AD 2016-0159, which is superseded, and corrects paragraph (5). For post-mod aeroplanes where, inadvertently, an 'affected' ECB has been installed in service, this AD adds the requirement to restore those aeroplanes to post-mod configuration by installation of a 'serviceable' ECB. This [EASA] AD also introduces some editorial changes, not affecting the required actions.

Discrepancies include a defective APU starter motor, misaligned brush wear indicator-pin, oil contamination of the brush wear indicator, and dirt, debris, dust, sand, oil, combustible residues, grease and other contaminations of the APU inlet plenum.

Corrective actions include replacement of the APU starter motor and cleaning the APU air intake, if necessary. You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-9567.

Related Service Information under 1 CFR part 51

Airbus has issued Service Bulletin A320-49-1068, Revision 01, dated February 2, 2006. The service information describes procedures for repetitive inspections for discrepancies of the APU starter motor, APU inlet plenum, and APU air intake, as well as repetitive cleaning of the APU air intake and applicable corrective actions.

Airbus has also issued the following service information, which describes procedures for replacing the ECB. These documents are distinct since they apply to different airplane models in different configurations.

- Airbus Service Bulletin A320-49-1070, dated July 28, 2006.
- Airbus Service Bulletin A320-49-1075, Revision 01, dated December 1, 2006.
- Airbus Service Bulletin A320-49-1077, Revision 04, dated February 27, 2013.
- Airbus Service Bulletin A320-49-1098, dated June 21, 2011.
- Airbus Service Bulletin A320-49-1102, dated January 3, 2012.
- Airbus Service Bulletin A320-49-1107, Revision 02, dated May 10, 2016.

This service information 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.

FAA's Determination and Requirements of this Proposed AD

This product has been approved by the aviation authority of another country, and

is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

Costs of Compliance

We estimate that this proposed AD affects 1,182 airplanes of U.S. registry.

The actions required by AD 2007-13-08, and retained in this proposed AD, take about 4 work-hours per product, at an average labor rate of $85 per work-hour. Based on these figures, the estimated cost of the actions that are required by AD 2007-13-08 is $340 per product.

We also estimate that it would take about 4 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is $85 per work-hour. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be $401,880, or $340 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

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.

We are 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

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

1. Is not a "significant regulatory action" under Executive Order 12866;

2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);

3. Will not affect intrastate aviation in Alaska; and

4. 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 Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 removing Airworthiness Directive (AD) 2007-13-08, Amendment 39-15112 (72 FR 33877, June 20, 2007), and adding the following new AD:

Airbus: Docket No. FAA-2016-9567; Directorate Identifier 2016-NM-147-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD replaces AD 2007-13-08, Amendment 39-15112 (72 FR 33877, June 20, 2007) ("AD 2007-13-08").

(c) Applicability

This AD applies to Airbus airplanes identified in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) of this AD, all manufacturer serial numbers, certificated in any category.

(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, -212, -213, -231, and -232 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 49, Airborne Auxiliary Power.

(e) Reason

This AD was prompted by a report of a fire in the auxiliary power unit (APU) air intake. An analysis demonstrated that, following numerous unsuccessful APU start attempts in flight, there is a risk of reverse airflow, leading to flame propagation to the APU air inlet and air intake duct. This AD was also prompted by the determination that AD 2007-13-08 only addresses the unsafe condition for certain airplanes. We are issuing this AD to detect and correct reverse flow during APU startup, leading to flame propagation in the APU air inlet and intake duct. Such conditions could result in an in-flight fire in the APU area.

(f) Compliance

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

(g) Repetitive Inspections and Corrective Actions

Except as provided by paragraph (i) of this AD, within 600 flight hours after July 25, 2007 (the effective date of AD 2007-13-08), or within 60 days after the effective date of this AD, whichever occurs later: Inspect the APU starter motor, APU air inlet plenum, and APU air intake of each affected APU identified in table 1 to paragraphs (g), (h), (i)(2), (j), and (k) of this AD for discrepancies; and do all applicable corrective

actions before further flight; in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-49-1068, Revision 01, dated February 2, 2006. Repeat the inspection thereafter at intervals not to exceed 600 flight hours.

Table 1 to Paragraphs (g), (h), (i)(2), (j), and (k) of this AD –
Affected APU and Electronic Control Box (ECB)

APU	ECB Part Numbers (P/N)
APIC APS 3200	4500003D, 4500003E, 4500003F, 4500003G, 4500003H, or 4500003J
Honeywell 131-9A	3888394-120201, 3888394-121202, 3888394-121203, 3888394-221202, or 3888394-221203
Honeywell GTCP36-300	307950-1, 307950-2, 307950-3, 307950-4, 304640-1, 304640-2, 304640-3, 304640-4, 304817-1, or 304817-2

(h) Repetitive Cleanings

Except as provided by paragraph (i) of this AD, prior to the accumulation of 2,400 flight hours since first flight of the airplane, or within 600 flight hours after July 25, 2007 (the effective date of AD 2007-13-08), or within 60 days after the effective date of this AD, whichever occurs latest, unless accomplished previously in accordance with Airbus Service Bulletin A320-49-1098, dated June 21, 2011: Clean the APU air intake of each affected APU identified in table 1 to paragraphs (g), (h), (i)(2), (j), and (k) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-49-1068, Revision 01, dated February 2, 2006. Repeat the cleaning task thereafter at intervals not to exceed 2,400 flight hours.

(i) Exceptions to Requirements in Paragraphs (g) and (h) of this AD

(1) For airplanes equipped with an APU and associated ECB part number identified in table 2 to paragraphs (i)(1), (i)(2), and (j) of this AD, the actions specified in paragraphs (g) and (h) of this AD are not required.

Table 2 to Paragraphs (i)(1), (i)(2), and (j) of this AD – *Non-Affected ECB*

APU	ECB Part Numbers (P/N)
APIC APS 3200	4500003K, 4500003L, or 4500003M
Honeywell 131-9A	3888394-121204, 3888394-121205, 3888394-221204, 3888394-221205, or 3888394-321206
Honeywell GTCP36-300	304640-5, 304817-3, or 3888394-230301

(2) For airplanes on which Airbus Modification 35803, 35936, 152289, 152645, 155015, or 157848 has been embodied in production, the actions specified in paragraphs (g) and (h) of this AD are not required provided that, within 30 days after the effective date of this AD, the applicable actions specified in paragraphs (i)(2)(i) and (i)(2)(ii) of this AD are done.

(i) The part number of the installed ECB is identified.

(ii) Any affected ECB identified in table 1 to paragraphs (g), (h), (i)(2), (j), and (k) of this AD that is found to be installed is replaced with an ECB having a part number identified in table 2 to paragraphs (i)(1), (i)(2), and (j) of this AD, as applicable to the APU installed on the airplane; and the replacement is done in accordance with the Accomplishment Instructions of the applicable service information identified in paragraph (i)(2)(ii)(A), (i)(2)(ii)(B), (i)(2)(ii)(C), (i)(2)(ii)(D), (i)(2)(ii)(E), or (i)(2)(ii)(F) of this AD; or using a method approved by the Manager, International Branch,

ANM-116, Transport Airplane Directorate, FAA, or the European Aviation Safety Agency (EASA), or Airbus's EASA Design Organization Approval (DOA).

(A) Airbus Service Bulletin A320-49-1070, dated July 28, 2006.

(B) Airbus Service Bulletin A320-49-1075, Revision 01, dated December 1, 2006.

(C) Airbus Service Bulletin A320-49-1077, Revision 04, dated February 27, 2013.

(D) Airbus Service Bulletin A320-49-1098, dated June 21, 2011.

(E) Airbus Service Bulletin A320-49-1102, dated January 3, 2012.

(F) Airbus Service Bulletin A320-49-1107, Revision 02, dated May 10, 2016.

(3) For airplanes on which an APU ECB having a part number approved after the effective date of this AD is installed, the actions specified in paragraphs (g) and (h) of this AD are not required, provided the conditions specified in paragraphs (i)(3)(i) and (i)(3)(ii) of this AD are met.

(i) The part number must be approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA.

(ii) The installation must be accomplished in accordance with airplane modification instructions approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA.

(j) Optional Terminating Action

Replacing an affected ECB identified in table 1 to paragraphs (g), (h), (i)(2), (j), and (k) of this AD with an ECB having a part number identified in table 2 to paragraphs (i)(1), (i)(2), and (j) of this AD, as applicable to the APU installed on the airplane, constitutes terminating action for the repetitive inspections required by

paragraphs (g) and (h) of this AD. The replacement must be done in accordance with the Accomplishment Instructions of the applicable service information identified in paragraph (i)(2)(ii) (A), (i)(2)(ii) (B), (i)(2)(ii)(C), (i)(2)(ii)(D), (i)(2)(ii)(E), or (i)(2)(ii)(F) of this AD, or using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA.

(k) Parts Installation Prohibition

As of the effective date of this AD, no person may install on any airplane an APU with an associated ECB identified in table 1 to paragraphs (g), (h), (i)(2), (j), and (k) of this AD.

(l) Credit for Previous Actions

This paragraph provides credit for actions specified in paragraphs (i)(2) and (j) of this AD, if those actions were performed before the effective date of this AD using any of the service information specified in paragraphs (l)(1) through (l)(7) of this AD.

(1) Airbus Service Bulletin A320-49-1075, dated September 22, 2006, which was incorporated by reference in AD 2007-13-08.

(2) Airbus Service Bulletin A320-49-1077, dated March 21, 2007, which is not incorporated by reference in this AD.

(3) Airbus Service Bulletin A320-49-1077, Revision 01, dated August 9, 2007, which is not incorporated by reference in this AD.

(4) Airbus Service Bulletin A320-49-1077, Revision 02, dated July 1, 2008, which is not incorporated by reference in this AD.

(5) Airbus Service Bulletin A320-49-1077, Revision 03, dated December 8, 2008, which is not incorporated by reference in this AD.

(6) Airbus Service Bulletin A320-49-1107, dated November 5, 2013, which is not incorporated by reference in this AD.

(7) Airbus Service Bulletin A320-49-1107, Revision 01, dated July 28, 2015, which is not incorporated by reference in this AD.

(m) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, 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 Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov.

(i) 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. The AMOC approval letter must specifically reference this AD.

(ii) AMOCs approved previously for AD 2007-13-08 are approved as AMOCs for the corresponding provisions of paragraphs (g) and (h) of this AD.

(2) Contacting the Manufacturer: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(n) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0176, dated August 31, 2016, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-9567.

(2) For service information identified in this AD, contact Airbus, Airworthiness Office–EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: account.airworth-eas@airbus.com; Internet: http://www.airbus.com. You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on December 23, 2016.

Thomas Groves,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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