[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-0533; Directorate Identifier 2016-NM-156-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all Airbus Model A300 B4-603 and A300 B4-622 airplanes; Model A300 B4-600R series airplanes; Model A300 C4-605R Variant F airplanes; Model A300 F4-600R series airplanes; and Model A310-203, A310-221, A310-222, A310-304, A310-322, A310-324, and A310-325 airplanes. This proposed AD was prompted by an evaluation by the design approval holder (DAH) that indicates that a section of the fuselage structure above the forward cargo door is subject to widespread fatigue damage (WFD). This proposed AD would require an inspection for cracks of the fastener and tooling holes at certain locations and a check of the diameter of the holes, and repair or modification of the affected fuselage structure if necessary. 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: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NRPM, contact Airbus SAS, Airworthiness Office–EAW, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: continued.airworthiness-wb.external@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.

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-2017-0533; 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: Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW, Renton, WA 98057-3356; telephone 425-227-2125; 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-2017-0533; Directorate Identifier 2016-NM-156-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

Structural fatigue damage is progressive. It begins as minute cracks, and those cracks grow under the action of repeated stresses. This can happen because of normal operational conditions and design attributes, or because of isolated situations or incidents such as material defects, poor fabrication quality, or corrosion pits, dings, or scratches. Fatigue damage can occur locally, in small areas or structural design details, or globally. Global fatigue damage is general degradation of large areas of structure with similar structural details and stress levels. Multiple-site damage is global damage that occurs in a large structural element such as a single rivet line of a lap splice joining two large skin panels. Global damage can also occur in multiple elements such as adjacent frames or stringers. Multiple-site-damage and multiple-element-damage cracks are typically too small initially to be reliably detected with normal inspection methods. Without intervention, these cracks will grow, and eventually compromise the structural integrity of the airplane, in a condition known as WFD. As an airplane ages, WFD will likely occur, and will certainly occur if the airplane is operated long enough without any intervention.

The FAA's WFD final rule (75 FR 69746, November 15, 2010) became effective on January 14, 2011. The WFD rule requires certain actions to prevent structural failure due to WFD throughout the operational life of certain existing transport category airplanes and all transport category airplanes that will be certificated in the future. For existing and future airplanes subject to the WFD rule, the rule requires that DAHs establish a limit of validity (LOV) of the engineering data that support the structural

maintenance program. Operators affected by the WFD rule may not fly an airplane beyond its LOV, unless an extended LOV is approved.

The WFD rule (75 FR 69746, November 15, 2010) does not require identifying and developing maintenance actions if the DAHs can show that such actions are not necessary to prevent WFD before the airplane reaches the LOV. Many LOVs, however, do depend on accomplishment of future maintenance actions. As stated in the WFD rule, any maintenance actions necessary to reach the LOV will be mandated by airworthiness directives through separate rulemaking actions.

In the context of WFD, this action is necessary to enable DAHs to propose LOVs that allow operators the longest operational lives for their airplanes, and still ensure that WFD will not occur. This approach allows for an implementation strategy that provides flexibility to DAHs in determining the timing of service information development (with FAA approval), while providing operators with certainty regarding the LOV applicable to their airplanes.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive AD 2016-0178, dated September 12, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for all Airbus Model A300 series airplanes. The MCAI states:

> In the frame of the Widespread Fatigue Damage (WFD) analysis, some structural areas were identified as requiring embodiment of a structural modification.
>
> This condition, if not corrected, could reduce the fuselage structural integrity.

> To address this unsafe condition, Airbus issued Service Bulletin (SB) A310-53-2145 and SB A300-53-6187 to provide instructions for structural reinforcement of the fuselage frames (FR) between FR20 Right Hand side (RH) and FR25 RH and the frame couplings between stringer (STGR) 20 RH and STGR23 RH, hereafter collectively referred to as 'the affected fuselage structure' in this [EASA] AD.
>
> For the reason described above, this [EASA] AD requires accomplishment of a one-time special detailed inspection (SDI) of the fastener and tooling holes, and modification of the affected fuselage structure.

The required actions include a rototest inspection for cracks of the fastener and tooling holes at certain locations and a check of the diameter of the holes, and repair or modification of the affected fuselage structure 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-2017-0533.

Related Service Information under 1 CFR part 51

Airbus issued the following service information:

- Airbus Service Bulletin A300-53-6187, Revision 00, dated May 31, 2016. This service information describes procedures for a rototest inspection for cracks of the fastener and tooling holes at certain locations, a check of the diameter of the holes, repair, and modification of the affected fuselage structure by reinforcing the frames between right hand FR 20 RH and FR 25 RH, or FR 21 RH and FR 25 RH, depending on the configuration; and reinforcing the frame couplings between stringer STGR 20 RH and STGR 23 RH.

- Airbus Service Bulletin A310-53-2145, Revision 00, dated May 31, 2016. This service information describes procedures for a rototest inspection for cracks of the fastener and tooling holes at certain locations, a check of the diameter of the holes, repair, and modification of the affected fuselage structure by reinforcing the frames between right hand FR20 RH and FR25 RH; and reinforcing the frame couplings between STGR 20 RH and STGR 23 RH.

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 the same type design.

Costs of Compliance

We estimate that this proposed AD affects 132 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators

Inspection, check, repair, and modification	45 work-hours X $85 per hour = $3,825	$2,360	$6,185	$816,420

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 adding the following new Airworthiness Directive (AD):

Airbus: Docket No. FAA-2017-0533; Directorate Identifier 2016-NM-156-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

None.

(c) Applicability

This AD applies to Airbus airplanes identified in paragraphs (c)(1) through (c)(5) of this AD, certificated in any category, all manufacturer serial numbers.

(1) Model A300 B4-603 and A300 B4-622 airplanes.

(2) Model A300 B4-605R and A300 B4-622R airplanes.

(3) Model A300 F4-605R and A300 F4-622R airplanes.

(4) Model A300 C4-605R Variant F airplanes.

(5) Model A310-203, -221, -222, -304, -322, -324, and -325 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Reason

This AD was prompted by an evaluation by the design approval holder that indicates that a section of the fuselage structure above the forward cargo door is subject to widespread fatigue damage. We are issuing this AD to prevent reduced structural integrity of these airplanes due to the failure of certain structural components.

(f) Compliance

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

(g) Check and Rototest Inspection of Affected Fastener and Tooling Holes

Before exceeding 42,500 flight cycles since the first flight of the airplane, do a check of the diameter of the fastener holes and tooling holes and a rototest inspection for cracks of all holes of removed fasteners and the tooling holes at the locations specified in, and in accordance with, the Accomplishment Instructions of Airbus Service Bulletin

A300-53-6187, Revision 00, dated May 31, 2016; or Airbus Service Bulletin A310-53-2145, Revision 00, dated May 31, 2016; as applicable.

(h) Repair of Detected Cracks

If any condition specified in paragraph (h)(1) or (h)(2) of this AD is found, prior to further flight, repair in accordance with 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). Concurrently with the repair, unless the approved repair instructions specify otherwise, modify the affected structure, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-53-6187, Revision 00, dated May 31, 2016; or Airbus Service Bulletin A310-53-2145, Revision 00, dated May 31, 2016; as applicable.

(1) Any crack is found during the rototest inspection required by paragraph (g) of this AD.

(2) Any hole diameter is greater than or equal to the maximum starting hole diameter specified in the Accomplishment Instructions of Airbus Service Bulletin A300-53-6187, Revision 00, dated May 31, 2016; or Airbus Service Bulletin A310-53-2145, Revision 00, dated May 31, 2016; as applicable, is found during the check required by paragraph (g) of this AD.

(i) Modification

If, during the actions required by paragraph (g) of this AD, no crack is found and the hole diameter is less than the maximum starting hole diameter specified in the

Accomplishment Instructions of Airbus Service Bulletin A300-53-6187, Revision 00, dated May 31, 2016; or Airbus Service Bulletin A310-53-2145, Revision 00, dated May 31, 2016; as applicable, before further flight, modify the affected fuselage structure, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A300-53-6187, Revision 00, dated May 31, 2016; or Airbus Service Bulletin A310-53-2145, Revision 00, dated May 31, 2016; as applicable.

(j) 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 manager of the International Branch, send it to the attention of the person identified in paragraph (k)(2) 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 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.

(3) Required for Compliance (RC): If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0178, dated September 12, 2016, for related information. You may examine the MCAI on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2017-0533.

(2) For more information about this AD, contact Dan Rodina, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-2125. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office–EAW, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: continued.airworthiness-wb.external@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 June 2, 2017.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
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