[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-0926; Directorate Identifier 2014-NM-121-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) 97-07-14, for certain Airbus Model A320-111, -211, and -231 airplanes. AD 97-07-14 currently requires modification of an area on the front spar of the wing center section by installing shims and new fasteners to reinforce pressure floor fittings. Since we issued AD 97-07-14, we have determined the need for repetitive inspections on airplanes on which the modification of the rib flange on the front spar of the wing center section has been done. This proposed AD would continue to require modifying the rib flange on the front spar of the wing center section by installing shims and new fasteners to reinforce pressure floor fittings; and would require repetitive high frequency eddy current inspections for cracking of the radius of the rib flanges and vertical stiffener at frame 36, a rototest inspection for cracking of the fastener holes of the rib flanges, repair if needed, and adding additional airplanes to the applicability. We are proposing this AD to prevent

fatigue cracking on the rib flange area of the front spar of the wing center section, which can reduce the structural integrity of fuselage frame 36 and the wing center section.

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 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 proposed 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 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-2015-0926; 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-2015-0926; Directorate Identifier 2014-NM-121-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 March 27, 1997, we issued AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997). AD 97-07-14 requires modification of an area on the front spar of the wing center section by installing shims and new fasteners to reinforce pressure floor fittings on certain Airbus Model A320-111, -211 and -231 airplanes.

Since we issued AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997), we have determined the need for repetitive inspections on airplanes on which Airbus Modification 20976 (modification of the rib flange on the front spar of the wing center section) was done in production, or was done using Airbus Service Bulletin A320-57-1013, dated April 12, 1989; or Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0053, dated March 7, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition on certain Airbus Model A320-211 and -231 airplanes. The MCAI states:

> During full scale fatigue tests on the Airbus A320 test specimen, cracks were found in the rib flange on the front spar side perpendicular to vertical posts at frame (FR) 36. It was determined that similar cracks could develop on certain in-service aeroplanes.
>
> This condition, if not detected and corrected, could affect the wing structural integrity.

To reduce the risk of crack initiation, two modifications for aeroplanes in production and one modification for in-service aeroplanes were developed by Airbus: Prior to [manufacturer serial number] MSN 0085, the adaptation modification (Mod) 20976 was applied in production, consisting in installing shims under the fasteners linking the rib flange, the lower corner, the front spar and its vertical stiffener; from MSN 0085 onwards, the serial Mod 20908 was applied in production, consisting in installing reinforced lower surface rib flanges at front spar level.

Airbus issued Service Bulletin (SB) A320-57-1013 for affected in-service aeroplanes, and [Directorate General for Civil Aviation] DGAC France issued AD 95-098-066 [which corresponds to FAA AD 97-07-14, Amendment 39-9988, (62 FR 16473, April 7, 1997)] to require installation of shims under the fasteners linking the rib flange, the lower corner, the front spar and its vertical stiffener.

Following a recent analysis, Airbus identified the need for repetitive [HFEC and rototest] inspections for aeroplanes on which Airbus SB A320-57-1013 or production Mod 20976 has been embodied.

For the reason described above, this [EASA] AD retains the requirements of DGAC France AD 95-098-066, which is superseded, and requires repetitive [HFEC and rototest] inspections of the center wing lower ribs at FR 36 and, depending on findings, accomplishment of a repair.

After EASA issued PAD 14-013, it was discovered that additional work [removal of shims and fasteners on the rib flange on the front spar side and doing an HFEC inspection for cracking of the radius of the rib flanges and a rototest inspection for cracking of the fastener holes during each inspection] to be included in Revision 01 of Airbus SB A320-57-1175, is required to accomplish the inspections. This Final [EASA] AD has been amended accordingly.

Airplanes having MSNs 001, 009, and 015 were not included in the applicability of AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997). EASA AD 2014-0053, dated March 7, 2014, expanded the applicability to all airplanes having up to MSN 0084. We included paragraph (h) of this proposed AD to require the modification for the airplanes having MSNs 001, 009, and 015.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-2015-0926.

Related Service Information under 1 CFR part 51

Airbus has issued Service Bulletin A320-57-1175, Revision 01, including Appendix 01 and Appendix 02, dated May 28, 2014. The service information describes procedures for repetitive high frequency eddy current inspections for cracking of the radius of the rib flanges and vertical stiffener at frame 36, a rototest inspection for cracking of the fastener holes of the rib flanges, and repair. The actions described in this service information are intended to correct the unsafe condition identified in the MCAI. This service information is reasonably available; see ADDRESSES for ways to access this service information.

Explanation of "RC" Procedures and Tests in Service Information

The FAA worked in conjunction with industry, under the Airworthiness Directives Implementation Aviation Rulemaking Committee (AD ARC), to enhance the AD system. One enhancement was a new process for annotating which procedures and tests in the service information are required for compliance with an AD. Differentiating these procedures and tests from other tasks in the service information is expected to

improve an owner's/operator's understanding of crucial AD requirements and help provide consistent judgment in AD compliance. The actions specified in the service information identified previously include procedures and tests that are identified as RC (required for compliance) because these procedures have a direct effect on detecting, preventing, resolving, or eliminating an identified unsafe condition.

As specified in a NOTE under the Accomplishment Instructions of the specified service information, procedures and tests identified as RC must be done to comply with the proposed AD. However, procedures and 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 alternative method of compliance (AMOC), provided the procedures and tests identified as RC can be done and the airplane can be put back in a serviceable condition. Any substitutions or changes to procedures or tests identified as RC will require approval of an AMOC.

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.

Differences Between the AD and the MCAI or Service Information

Although Airbus Service Bulletin A320-57-1175, Revision 01, including Appendix 01 and Appendix 02, dated May 28, 2014, specifies to contact the manufacturer for instructions on how to repair certain conditions, this proposed AD would require repairing those conditions using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA or its delegated agent, or Airbus' EASA Design Organization Approval (DOA).

Costs of Compliance

We estimate that this proposed AD affects 11 airplanes of U.S. registry.

The actions required by AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997), and retained in this proposed AD take about 13 work-hours per product, at an average labor rate of $85 per work-hour. Required parts cost about $576 per product. Based on these figures, the estimated cost of the actions that are required by AD 97-07-14 is $1,681 per product.

We also estimate that it would take about 45 work-hours per product to comply with the basic requirements of this proposed AD. The average labor rate is $85 per work-hour. Required parts would cost about $1,600 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be $59,675, or $5,425 per product.

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) 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997), and adding the following new AD:

Airbus: Docket No. FAA-2015-0926; Directorate Identifier 2014-NM-121-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 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997).

(c) Applicability

This AD applies to Airbus Model A320-211 and -231 airplanes, certificated in any category, all manufacturer serial numbers (MSN) up to MSN 0084 inclusive.

(d) Subject

Air Transport Association (ATA) of America Code 57, Wings.

(e) Reason

This AD was prompted by the determination that repetitive inspections are needed on airplanes on which the modification of the rib flange on the front spar of the wing center section has been done. We are issuing this AD to prevent fatigue cracking on the rib flange area of the front spar of the wing center section, which can reduce the structural integrity of fuselage frame 36 and the wing center section.

(f) Compliance

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

(g) Retained Modification

This paragraph restates the requirements of paragraph (a) of AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997). For airplanes with manufacturer serial number (MSN) 005 through 008 inclusive, MSN 010 through 014 inclusive, and MSN 016 through 042 inclusive: Prior to the accumulation of 16,000 total landings, or within 3 months after May 12, 1997 (the effective date of AD 97-07-14), whichever occurs later, modify the rib flange on the front spar of the wing center section by installing shims and new fasteners to reinforce pressure floor fittings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992.

(h) Modification for Airplanes with MSNs 001, 009, and 015

Prior to the accumulation of 16,000 total landings since first flight, or within 30 days after the effective date of this AD, whichever occurs later, modify the rib flange on the front spar of the wing center section by installing shims and new fasteners to reinforce pressure floor fittings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992.

(i) New Requirement of this AD: Repetitive Inspections

Within the applicable compliance times specified in paragraphs (i)(1) and (i)(2) of this AD, do a high frequency eddy current (HFEC) inspection for cracking of the radius of the rib flanges and vertical stiffener at frame 36 and do a rototest inspection for cracking of the fastener holes of the rib flanges and vertical stiffener, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1175, Revision 01, including Appendix 01, dated May 28, 2014. During each inspection, remove the shims and fasteners on the rib flange on the front spar side and do an HFEC inspection for cracking of the radius of the rib flanges and a rototest inspection for cracking of the fastener holes. If no cracking is found, oversize the holes of the rib flange and the holes of the shims, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1175, Revision 01, including Appendix 01, dated May 28, 2014. Repeat the inspections thereafter at intervals not to exceed 32,500 flight cycles or 65,000 flight hours, whichever occurs first.

(1) For airplanes having Airbus Modification 20976 embodied: At the later of the times specified in paragraphs (i)(1)(i) or (i)(1)(ii) of this AD.

(i) Before exceeding 47,800 flight cycles or 95,600 flight hours, whichever occurs first, since the airplane's first flight.

(ii) Within 850 flight cycles or 1,700 flight hours, whichever occurs first, after the effective date of this AD.

(2) For airplanes on which the modification of the front spar of the wing center section was accomplished using Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992: At the later of the times specified in paragraphs (i)(2)(i) or (i)(2)(ii) of this AD.

(i) Before exceeding 10,700 flight cycles or 21,500 flight hours, whichever occurs first, after the modification of the rib flange on the front spar of the wing center section was done using Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992.

(ii) Within 850 flight cycles or 1,700 flight hours, whichever occurs first, after the effective date of this AD.

(j) Repair

If, during any inspection required by paragraph (i) of this AD, any cracking is found, before further flight, repair 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).

(k) Credit for Previous Actions

This paragraph restates the requirements of Note 2 of paragraph (g) of AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997): This paragraph provides credit for the modification of the rib flange required by paragraph (g) of this AD, if those actions were performed before May 12, 1997 (the effective date of AD 97-07-14) using Airbus Service Bulletin A320-57-1013, dated April 12, 1989.

(l) 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. 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.

(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.

(3) Required for Compliance (RC): Except as required by paragraph (j) of this AD, if the 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 and 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 a serviceable condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0053, dated March 7, 2014, 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-2015-0926.

(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 April 6, 2015.

John P. Piccola, Jr.,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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