



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-8849; Directorate Identifier 2015-NM-174-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 A330-223F, -223, -321, -322, and -323 airplanes. The proposed AD was prompted by fatigue load analysis that determined the need for certain reduced inspection intervals and updated torque values of the forward mount pylon bolts. This proposed AD would require repetitive torque checks to determine if there are any loose or broken forward engine mount bolts, and, if necessary, replacement of all four forward engine mount bolts and associated nuts, inspection of the forward mount assembly, and repair. We are proposing this AD to detect and correct loose or broken bolts, which could lead to engine detachment in flight, and damage to the airplane.

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 SAS, Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 45 80; email: airworthiness.A330-A340@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-2016-8849; 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: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601

Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-227-1138; 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--2016-8849; Directorate Identifier 2015-NM-174-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 21, 2013, we issued AD 2013-14-04, Amendment 39-17509 (78 FR 68352, November 14, 2013) (“AD 2013-14-04”). AD 2013-14-04 requires actions intended to address the unsafe condition identified in this NPRM on all Airbus Model A330-223F, -223, -321, -322, and -323 airplanes.

Since we issued AD 2013-14-04, we have determined that it is necessary to update the torque values of the forward mount pylon bolts.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2015-0214, dated October 19, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A330-223F, -223, -321, -322, and -323 airplanes. The MCAI states:

The forward mount engine pylon bolts, Part Number (P/N) 51U615, fitted on Airbus A330 aeroplanes with Pratt & Whitney (PW) PW4000 engines, are made from MP159 material. Analysis made by PW identified that MP159 material pylon bolts do not meet the full life cycle torque check interval requirement, in a bolt-out condition. Consequently, PW issued Alert Service Bulletin (ASB) PW4G-100-A71-32, and the U.S. Federal Aviation Administration (FAA), as Engine Certification Authority, issued FAA AD 2006-16-05 [Amendment 39-14705 (71 FR 44185, August 4, 2006) (“AD 2006-16-05”)] to require repetitive torque checks of MP159 material forward mount pylon bolts fitted on certain PW4000 series engines.

However, the engine mount system is considered to be part of aeroplane certification rather than the engine certification. Following further fatigue load analysis by Airbus of the A330 engine mount system, it was determined that the torque check interval for MP159 material forward mount pylon bolts, as required by FAA AD 2006-16-05 (2,700 flight cycles (FC)), provided an insufficient level of safety for Airbus A330 aeroplanes.

This condition, if not detected and corrected, could ultimately lead to detachment of the engine from the aeroplane, possibly resulting in damage to the aeroplane and/or injury to persons on the ground.

Consequently, EASA issued AD 2012-0094 [which corresponds to FAA AD 2013-14-04] to require accomplishment of repetitive torque checks of the forward mount pylon bolts installed on affected A330 aeroplanes and, depending on findings, replacement of all four bolts and associated nuts, in accordance with PW ASB

PW4G-100-A71-32 Revision 01 and Airbus Service Bulletin (SB) A330-71-3028.

Since that AD was issued, it has been concluded that a new torque value must be applied.

Consequently, Airbus issued SB A330-71-3028 Revision 02 and PW issued ASB PW4G-100-A71-32 Revision 02 to update the torque value. Additional forward mount inspections are also provided in case of one or more forward engine mount bolts is found loose, broken or missing.

For the reasons described above, this AD retains the requirements of EASA AD 2012-0094, which is superseded, introduces a new torque value, and requires additional inspections and, depending on findings, corrective action(s).

Corrective actions include repetitive torque checks to determine if there are any loose or broken forward engine mount bolts on both engines, and, if necessary, replacement of all four forward engine mount bolts and associated nuts, inspection of the forward mount assembly, and repair. 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-2016-8849.

Related Service Information under 1 CFR part 51

Airbus has issued Service Bulletin A330-71-3028, Revision 02, dated August 31, 2015. The service information describes procedures for repetitive torque checks to determine if there are any loose or broken forward engine mount bolts on both engines, replacement of all four forward engine mount bolts and associated nuts, and inspection of the forward mount assembly. 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 41 airplanes of U.S. registry.

We also estimate that it would take about 3 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 \$6,747 per product. Based on these figures, we estimate the cost of this proposed AD on U.S. operators to be \$287,082, or \$7,002 per product.

In addition, we estimate that any necessary follow-on actions would take about 1 work-hour and require parts costing \$6,747, for a cost of \$6,832 per product. We have no way of determining the number of aircraft that might need these actions.

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--2016-8849; Directorate Identifier 2015-NM-174-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 affects AD 2006-16-05, Amendment 39-14705 (71 FR 44185, August 4, 2006) (“AD 2006-16-05”); and AD 2013-14-04, Amendment 39-17509 (78 FR 68352, November 14, 2013) (“AD 2013-14-04”).

(c) Applicability

This AD applies to Airbus Model A330-223F, -223, -321, -322, and -323 airplanes, certificated in any category, all manufacturer serial numbers.

(d) Subject

Air Transport Association (ATA) of America Code 71, Powerplant.

(e) Reason

This AD was prompted by fatigue load analysis that determined the need for certain reduced inspection intervals and updated torque values of the forward mount pylon bolts. We are issuing this AD to detect and correct loose or broken bolts, which could lead to engine detachment in flight, and damage to the airplane.

(f) Compliance

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

(g) Torque Check and Replacement

(1) At the applicable compliance time specified in table 1 to paragraph (g) of this AD, do a torque check to determine if there are any loose or broken forward engine mount bolts (4 positions/engine) on both engines, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-71-3028, Revision 02, dated August 31, 2015. Repeat the torque check at the applicable time intervals not to exceed the values specified in table 1 to paragraph (g) of this AD. For the purposes of this AD, the average flight time (AFT) is defined as a computation of the number of flight hours divided by the number of flight cycles accumulated since the most recent torque check or since the airplane's first flight, as applicable. Accomplishment of the initial torque check required by this AD terminates the requirements of AD 2013-14-05.

Table 1 to Paragraph (g) of this AD

Airplane models	Flight cycles accumulated as of December 19, 2013 (the effective date of AD 2013-14-04), either since last torque check specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane's first flight, as applicable	Compliance time	Torque check interval (not to exceed)
Model A330-321, -322, and -323 airplanes with AFT more than 132 minutes; and Model A330-223 airplanes	0 – 1,850	Within 2,350 flight cycles since the last torque check as specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane's first flight, as applicable	2,350 flight cycles or 24,320 flight hours, whichever occurs first
Model A330-321, -322, and -323 airplanes with AFT more than 132 minutes; and Model A330-223 airplanes	1,851 – 2,700	Within 500 flight cycles after December 19, 2013 (the effective date of AD 2013-14-04), without exceeding 2,700 flight cycles since last torque check as specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane's first flight, as applicable; or within 3 months after December 19, 2013; whichever occurs later	2,350 flight cycles or 24,320 flight hours, whichever occurs first

Airplane models	Flight cycles accumulated as of December 19, 2013 (the effective date of AD 2013-14-04), either since last torque check specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane's first flight, as applicable	Compliance time	Torque check interval (not to exceed)
Model A330-321, -322, and -323 airplanes with AFT 132 minutes or less; and Model A330-321, -322, and -323 airplanes on which the AFT is not calculated on a regular basis	0 – 1,450	Within 1,950 flight cycles since the last torque check performed as specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane's first flight, as applicable	1,950 flight cycles or 20,210 flight hours, whichever occurs first
Model A330-321, -322, and -323 airplanes with AFT 132 minutes or less; and Model A330-321,-322, and -323 airplanes on which the AFT is not calculated on a regular basis	1,451 – 2,700	Within 500 flight cycles after December 19, 2013 (the effective date of AD 2013-14-04), without exceeding 2,700 flight cycles since last torque check performed as specified in Pratt & Whitney Alert Service Bulletin PW4-100-A71-32, or since airplane's first flight, as applicable; or within 3 months after December 19, 2013; whichever occurs later.	1,950 flight cycles or 20,210 flight hours, whichever occurs first

Airplane models	Flight cycles accumulated as of December 19, 2013 (the effective date of AD 2013-14-04), either since last torque check specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane's first flight, as applicable	Compliance time	Torque check interval (not to exceed)
Model A330-223F airplanes	Any	Within 2,140 flight cycles or 6,600 flight hours, whichever occurs first since the last torque check performed as specified in Pratt & Whitney Alert Service Bulletin PW4G-100-A71-32, or since airplane's first flight, as applicable	2,140 flight cycles or 6,600 flight hours, whichever occurs first

(2) If any loose or broken bolt is detected during the check required by paragraph (g)(1) of this AD, before further flight, do the actions specified by paragraphs (g)(2)(i) and (g)(2)(ii) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-71-3028, Revision 02, dated August 31, 2015; except, where the service information specifies to contact the manufacturer for further actions, this AD requires repair before further flight 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).

(i) Replace all four forward engine mount bolts and associated nuts, on the engine where the loose or broken bolt was detected, with new bolts and nuts.

(ii) Do nondestructive inspections of the forward mount assembly for damage including cracks, dents, nicks, and scratches, and do all applicable corrective actions.

(3) Replacement of bolts and nuts as required by paragraph (g)(2)(i) of this AD is not terminating action for the repetitive torque checks required by paragraph (g)(1) of this AD.

(h) Provisions for Compliance with AD 2006-16-05

Accomplishment of the actions required by paragraph (g) of this AD constitutes compliance with the requirements specified in paragraph (g) of AD 2006-16-05.

(i) Parts Installation Prohibition

As of December 19, 2013 (the effective date of AD 2013-14-04), no person may install any INCO718 material, forward mount pylon bolt having Pratt & Whitney part number 54T670 on any airplane.

(j) Credit for Previous Actions

This paragraph provides credit for the actions required by paragraphs (g)(1) and (g)(2)(i) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A330-71-3028, dated December 16, 2011, or Airbus Service Bulletin A330-71-3028, Revision 01, dated February 20, 2012. This service information is not incorporated by reference in this AD.

(k) 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: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-227-1138; 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 Design

Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): Except as required by paragraph (g)(2) of this AD: 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.

(l) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) 2015-0214, dated October 19, 2015, 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-2016-8849.

(2) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone: +33 5 61 93 36 96; fax: +33 5 61 93 45 80; email: airworthiness.A330-A340@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 August 18, 2016.

Dorr M. Anderson,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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