



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-6539; Directorate Identifier 2015-NM-036-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 A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-211, -212, and -214 airplanes; and Model A321-111, -112, -211, -212, and -213 airplanes. This proposed AD was prompted by an evaluation by the design approval holder (DAH) indicating that the forward engine mounts are subject to widespread fatigue damage (WFD). This proposed AD would require repetitive detailed inspections of the right and left forward engine mounts, and corrective action if necessary. These inspections are required by AD 2015-05-02. This proposed AD would reduce the compliance times for those inspections. We are proposing this AD to detect and correct fatigue cracking in the forward engine mounts, which could result in reduced structural integrity of the airplane and could lead to in-flight loss of an engine, possibly resulting in reduced controllability of 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: 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-2015-6539; 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-2015-6539; Directorate Identifier 2015-NM-036-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 widespread fatigue damage (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 of these 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.

Failure of a forward engine mount could lead to in-flight loss of an engine, possibly resulting in reduced controllability of the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2015-0038, dated March 4, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-211, -212, and -214 airplanes; and Model A321- 111, -112, -211, -212, and -213 airplanes. The MCAI states:

During a A320 Extended Service Goal (ESG) residual fatigue test, in which new loads were used, taking into account the results of the 2006 fleet survey, the CFM56-5A/5B forward engine mount experienced a failure before reaching the threshold/interval for the detailed inspection of that forward engine mount, as identified in Airbus A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 2 (hereafter referred to in this [EASA] AD as ‘the ALS’) task 712111-01. In case of total loss of the primary load path, the current maintenance requirements do not ensure the design integrity of the remaining structure.

This condition, if not corrected, could lead to in-flight loss of an engine, possibly resulting in reduced control of the aeroplane and injury to persons on the ground.

For the reasons described above, this [EASA] AD requires implementation of a reduced threshold and interval for the detailed inspections (DET) of the forward engine mount on both right hand (RH) and left hand (LH) sides, as specified in the ALS, task 712111-01.

Once further investigations and test are completed, the threshold and interval of the ALS task 712111-01 will likely be modified accordingly.

Required actions include repair of discrepancies (cracks) found during the inspection.

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-2015-6539.

Related AD

AD 2015-05-02, Amendment 39-18112 (80 FR 15152, March 23, 2015), which is applicable to all Airbus Model A318, A319, A320, and A321 series airplanes, requires revising the maintenance or inspection program, as applicable, to incorporate certain Airworthiness Limitation Items. Paragraph (n)(2) of AD 2015-05-02 requires incorporating Part 2 – Damage-Tolerant Airworthiness Limitation Items (DT ALI), of the Airbus A318/A319/A320/A321 ALS, Revision 02, dated May 28, 2013. AD 2015-05-02 corresponds to EASA AD 2013-0147, dated July 16, 2013. We considered the fleet size that would be affected by superseding AD 2015-05-02, and the consequent workload associated with revising maintenance record entries, and determined that this proposed AD should not supersede AD 2015-05-02.

Although this proposed AD would not supersede AD 2015-05-02, paragraph (g) of this proposed AD would terminate the initial and repetitive inspections for the corresponding inspections in paragraph (n)(2) of AD 2015-05-02, Amendment 39-18112 (80 FR 15152, March 23, 2015), for Airbus Airworthiness Limitation Tasks 712111-01-1, 712111-01-2, 712111-01-3, and 712111-01-4, “Detailed Inspection of Forward Engine Mount Installation.”

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.

Interim Action

We consider this proposed AD interim action. Once further investigations and tests are completed, the initial compliance time and repetitive intervals for Airbus Airworthiness Limitation Tasks 712111-01-1, 712111-01-2, 712111-01-3, and 712111-01-4, “Detailed Inspection of Forward Engine Mount Installation,” could be revised and we might consider further rulemaking at that time.

Costs of Compliance

We estimate that this proposed AD affects 940 airplanes of U.S. registry.

We also estimate that it would take about 1 work-hour 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 \$79,900, or \$85 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition parts cost specified in this 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 adding the following new airworthiness directive (AD):

Airbus: Docket No. FAA-2015-6539; Directorate Identifier 2015-NM-036-AD.

(a) Comments Due Date

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

(b) Affected AD

This AD affects AD 2015-05-02, Amendment 39-18112 (80 FR 15152, March 23, 2015).

(c) Applicability

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

(1) Model A318-111 and -112 airplanes.

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

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

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

(d) Subject

Air Transport Association (ATA) of America Code 05, Periodic Inspections.

(e) Reason

This AD was prompted by an evaluation by the design approval holder indicating that the forward engine mounts are subject to widespread fatigue damage. We are issuing this AD to detect and correct fatigue cracking in the forward engine mounts, which could result in reduced structural integrity of the airplane and could lead to in-flight loss of an engine, possibly resulting in reduced controllability of the airplane.

(f) Compliance

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

(g) Repetitive Inspections

At the latest of the times specified in paragraphs (g)(1), (g)(2), and (g)(3) of this AD: Do a detailed inspection of the left and right forward engine mounts for discrepancies (cracking), using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA. Repeat the inspection thereafter at intervals not to exceed 800 flight cycles.

Note 1 to paragraphs (g) and (h) of this AD: Guidance for the inspection and engine mount replacement can be found in Task 712111-210-040 of the Airbus A318/A319/A320/A321 Maintenance Manual.

(1) Within 800 flight cycles since the first flight of the airplane.

(2) Within 800 flight cycles since the most recent detailed inspection specified in Airbus Airworthiness Limitation Tasks 712111-01-1, 712111-01-2, 712111-01-3, or 712111-01-4, "Detailed Inspection of Forward Engine Mount Installation," as applicable.

(3) Within 800 flight cycles after the effective date of this AD.

(h) Corrective Action

If any discrepancy (cracking) is found during any inspection required by paragraph (g) of this AD: Before further flight, replace the affected forward engine mount with a serviceable part, 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) No Terminating Action

Replacement of a forward engine mount does not constitute terminating action for the repetitive inspections required by paragraph (g) of this AD.

(j) Termination of Certain Tasks Required by AD 2015-05-02, Amendment 39-18112 (80 FR 15152, March 23, 2015)

Accomplishment of the inspections required by paragraph (g) of this AD terminates the initial and repetitive inspections specified in paragraph (n)(2) of AD 2015-05-02, Amendment 39-18112 (80 FR 15152, March 23, 2015), for Airbus Airworthiness Limitation Tasks 712111-01-1, 712111-01-2, 712111-01-3, and 712111-01-4, “Detailed Inspection of Forward Engine Mount Installation.”

(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: 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: 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 the EASA; or Airbus’s EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(l) Special Flight Permits

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

(m) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2015-0038, dated March 4, 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-2015-6539.

(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 November 20, 2015.

Jeffrey E. Duven,

Manager,

Transport Airplane Directorate,

Aircraft Certification Service.

[FR Doc. 2015-30216 Filed: 11/27/2015 8:45 am; Publication Date: 11/30/2015]