



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. FAA-2015-3632; Directorate Identifier 2015-NM-023-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) 2014-14-06 for all Airbus Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-111, -211, -212, and -214 airplanes; and Model A321-111, -112, -211, -212, and -213 airplanes. AD 2014-14-06 currently requires inspecting the aft engine mount retainers for surface finish, cracks, and failure, and replacement if necessary. Since we issued AD 2014-14-06, inspection results have shown that the main cause of crack initiation remains the vibration dynamic effect that affects both retainers, either with "dull" or "bright" surface finishes. This proposed AD would require repetitive inspections for damage, cracks, broken, and missing aft engine mount retainers, and replacement if necessary. We are proposing this AD to detect and correct failure of retainer brackets of the aft engine mount and consequent loss of the locking feature of the

nuts of the inner and outer pins; loss of the pins will result in the aft mount engine link no longer being secured to the aft engine mount.

**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 Airbus 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](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

For Goodrich Aerostructures service information identified in this proposed AD, contact Goodrich Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; telephone 619-691-2719; email [jan.lewis@goodrich.com](mailto:jan.lewis@goodrich.com); Internet <http://www.goodrich.com/TechPubs>.

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-2015-3632; 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-2015-3632; Directorate Identifier 2015-NM-023-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 July 3, 2014, we issued AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014). AD 2014-14-06 requires actions intended to address an unsafe condition on all Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-111, -211, -212, and -214 airplanes; and Model A321-111, -112, -211, -212, and -213 airplanes.

Since we issued AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014), we have determined that additional inspections are necessary to address the identified unsafe condition. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2015-0021, dated February 13, 2015 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition. The MCAI states:

During in-service inspections, several aft engine mount retainers, fitted on aeroplanes equipped with CFM56-5A/5B engines, have been found broken. The results of the initial investigations highlighted that two different types of surface finish had been applied

(respectively bright and dull material finishes), and that dull finish affects the strength of the retainer with regard to fatigue properties of the part. The pins which attach the engine link to the aft mount are secured by two nuts, which do not have a self-locking feature; this function is provided by the retainer brackets. In case of failure of the retainer bracket, the locking feature of the nuts of the inner and outer pins is lost; as a result, these nuts could subsequently become loose.

In case of full loss of the nuts, there is the potential to also lose the pins, in which case the aft mount link will no longer be secured to the aft engine mount. The same locking feature is used for the three link assemblies of the aft mount.

This condition, if not detected and corrected, could lead to in-flight loss of an aft mount link, possibly resulting in damage to the aeroplane and injury to person on the ground.

To address this potential unsafe condition, EASA issued AD 2013-0050 ([http://ad.easa.europa.eu/blob/easa\\_ad\\_2013\\_0050\\_superseded.pdf/AD\\_2013-0050\\_1](http://ad.easa.europa.eu/blob/easa_ad_2013_0050_superseded.pdf/AD_2013-0050_1) [which corresponds to FAA AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014)] to require detailed inspections (DET) of the aft engine mount retainers and the replacement of all retainers with dull finish with retainers having a bright finish.

Since that [EASA] AD was issued, inspection results have shown that the main cause of crack initiation remains the vibration dynamic effect that affects both retainers, either with "dull" or "bright" surface finishes. The non-conforming "dull" surface's pitting is an aggravating factor.

For the reasons described above, this [EASA] AD retains the requirements of EASA AD 2013-0050, which is superseded, and requires repetitive DET of all aft engine mount retainers and, depending on findings [damaged, cracked, broken, or missing retainers], their replacement.

This [EASA] AD is considered to be an interim action, pending development and availability of a final solution.

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-2015-3632.

### **Related Service Information under 1 CFR part 51**

Airbus has issued Service Bulletin A320-71-1060, dated October 9, 2014. This service information describes procedures for inspection of the aft engine mount retainers for surface finish (dull or bright), for damaged, cracked, broken, or missing retainers, and replacement.

Goodrich Aerostructures has issued Service Bulletin RA32071-160, dated September 18, 2014. This service information describes procedures for inspection of the aft engine mount inner retainers for cracks or failure, and replacement.

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 of this NPRM.

### **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.

## **Explanation of “RC” Procedures and Tests in Service Information**

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (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 procedures and tests identified as Required for Compliance (RC) in any service information 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 Airbus service information, procedures and tests that are identified as RC in any service information 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.

## **Costs of Compliance**

We estimate that this proposed AD affects 922 airplanes of U.S. registry.

The actions required by AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014), and retained in this proposed AD take about 3 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 2014-14-06 is \$255 per inspection cycle per product (for two engines).

We also estimate that it would take about 10 work-hours per product to comply with the basic requirements of this proposed AD, and 1 work-hour per product to report inspection findings. 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 \$862,070, or \$935 per product.

In addition, we estimate that any necessary follow-on actions would take about 2 work-hours and require parts costing \$10,000, for a cost of \$10,170 per product. We have no way of determining the number of aircraft that might need these actions.

#### **Paperwork Reduction Act**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800

Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection  
Clearance Officer, AES-200.

### **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) 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014), and adding the following new AD:

**Airbus:** Docket No. FAA-2015-3632; Directorate Identifier 2015-NM-023-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 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014).

**(c) Applicability**

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

- (1) Airbus Model A318-111 and -112 airplanes.
- (2) Airbus Model A319-111, -112, -113, -114, and -115 airplanes.
- (3) Airbus Model A320-211, -212, and -214 airplanes.
- (4) Airbus Model A321-111, -112, -211, -212, and -213 airplanes.

**(d) Subject**

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

**(e) Reason**

This AD was prompted by inspection results that have shown that the main cause of crack initiation in the aft engine mount retainers is the vibration dynamic effect that affects both retainers, either with "dull" or "bright" surface finishes. We are issuing this AD to detect and correct failure of retainer brackets of the aft engine mount and consequent loss of the locking feature of the nuts of the inner and outer pins; loss of the pins will result in the aft mount engine link no longer being secured to the aft engine mount.

**(f) Compliance**

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

**(g) Retained Inspection, with No Changes**

This paragraph restates the requirements of paragraph (g) of AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014), with no changes. Within 3 months after August 27, 2014 (the effective date of AD 2014-14-06): Do a detailed inspection of the aft engine mount retainers for surface finish (dull or bright), and for cracks and failure, in accordance with Section 4.2.2, "Inspection Requirements," of Airbus Alert Operators Transmission (AOT) A71N001-12, Rev. 2, dated February 27, 2013, except as specified in paragraph (h) of this AD.

**(h) Retained Exception to Paragraph (g) of this AD, with No Changes**

This paragraph restates the requirements of paragraph (h) of AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014), with no changes. The actions required by paragraph (g) of this AD are not required to be done on airplanes with manufacturer serial numbers 4942 and higher, provided a review of maintenance records verifies that no aft engine mount retainers have been replaced since first flight of the airplane.

**(i) Retained Repetitive Inspection and Retainer Replacement for Dull Finish Retainers, with No Changes**

This paragraph restates the requirements of paragraph (i) of AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014), with no changes. If, during the detailed inspection required by paragraph (g) of this AD, any installed dull finish aft engine mount retainer is found without cracks and not failed: Do the actions specified in paragraphs (i)(1) and (i)(2) of this AD.

(1) Within 25 flight cycles after doing the actions required by paragraph (g) of this AD: Repeat the detailed inspection specified in paragraph (g) of this AD.

(2) Within 50 flight cycles after doing the first detailed inspection specified in paragraph (g) of this AD: Replace all dull finish retainers with new retainers, in accordance with Section 4.2.3.1, "Replacement Procedure," of Airbus AOT A71N001-12, Rev. 2, dated February 27, 2013.

**(j) Retained Replacement of Cracked or Failed Retainers, with No Changes**

This paragraph restates the requirements of paragraph (j) of AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014), with no changes. If, during any detailed inspection specified in paragraph (g) of this AD, any installed aft engine mount retainer is found cracked or failed: Before further flight, replace all affected aft engine mount retainers with new retainers, in accordance with Section 4.2.3, "Replacement Procedure," of Airbus AOT A71N001-12, Rev. 2, dated February 27, 2013.

**(k) Retained Parts Prohibition, with No Changes**

This paragraph restates the requirements of paragraph (k) of AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014), with no changes. As of August 27, 2014 (the effective date of AD 2014-14-06), no person may install any aft engine mount retainer with a dull finish on any airplane. The instructions of Airbus AOT A71N001-12, Rev. 2, dated February 27, 2013; or the Accomplishment Instructions of Goodrich Service Bulletin RA32071-146, Rev. 2, dated July 26, 2012; may be used to verify the correct finish of the part.

**(l) Retained Credit for Previous Actions, with No Changes**

This paragraph restates the provisions of paragraph (l) of AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014), with no changes. This paragraph provides credit for actions required by paragraphs (g), (i), and (j) of this AD, if those actions were performed before August 27, 2014 (the effective date of AD 2014-14-06) using Airbus AOT A71N001-12, Rev. 1, dated August 9, 2012, which is not incorporated by reference in this AD.

**(m) New Requirement of this AD: Repetitive Inspections**

At the latest of the applicable times specified in paragraphs (m)(1), (m)(2), and (m)(3) of this AD: Do a detailed inspection for damaged, cracked, broken, or missing aft engine mount retainers, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-71-1060, dated October 9, 2014; or Goodrich Service Bulletin RA32071-160, dated September 18, 2014. Repeat the inspection of the aft engine mount retainers thereafter at intervals not to exceed 12 months.

(1) Within 12 months since the date of issuance of the original airworthiness certificate or the date of issuance of the original export certificate of airworthiness.

(2) Within 12 months after installation of new retainers.

(3) Within 9 months after the effective date of this AD.

**(n) New Requirement of this AD: Replacement of Retainers with Findings**

If, during any detailed inspection specified in paragraph (m) of this AD, any installed aft engine mount retainer is found damaged, cracked, broken, or missing: Before further flight, replace all affected aft engine mount retainers with new retainers, in

accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-71-1060, dated October 9, 2014.

**(o) New Requirement of this AD: No Terminating Action**

Replacement of retainers on an airplane, as required by paragraph (n) of this AD, does not constitute terminating action for the repetitive inspections required by paragraph (m) of this AD for that airplane.

**(p) New Requirement of this AD: Required Reporting**

Submit a report of positive findings of any inspection required by paragraph (m) of this AD to Airbus at the applicable time specified in paragraph (p)(1) or (p)(2) of this AD. The report must include the inspection results, a description of any discrepancies found, the airplane serial number, and the number of landings and flight hours on the airplane.

(1) If the inspection was done on or after the effective date of this AD: Submit the report within 30 days after the inspection.

(2) If the inspection was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

**(q) 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 the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(3) Reporting Requirements:** A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the

burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

**(4) Required for Compliance (RC):** If any Airbus 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 a serviceable condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(r) 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.

**(s) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency Airworthiness Directive 2015-0021, dated February 13, 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-2015-3632.

(2) For Airbus 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](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

(3) For Goodrich Aerostructures service information identified in this AD, contact Goodrich Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; telephone 619-691-2719; email [jan.lewis@goodrich.com](mailto:jan.lewis@goodrich.com); Internet <http://www.goodrich.com/TechPubs>.

(4) 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 September 9, 2015.

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

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