



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0478; Directorate Identifier 2016-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 certain Airbus Model A319 series airplanes; Model A320-211, -212, -214, -231, -232, and -233, airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

This proposed AD was prompted by a report of cracks on frame forks and outer skin on the forward and aft cargo compartment doors. This proposed AD would require repetitive inspections of the frame forks, and corrective actions if necessary. This proposed AD would also include optional modifications that constitute terminating action. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: 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, 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>. 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-2017-0478; 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-2017-0478; Directorate Identifier 2016-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**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2016-0187, dated September 19, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Airbus Model A319 series airplanes; Model A320-211, -212, -214, -231, -232, and -233, airplanes; and

Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The MCAI

states:

During full scale fatigue test, cracks have been found on frame forks and outer skin on forward and aft cargo doors.

To improve the fatigue behaviour of the frame forks, Airbus introduced modification (mod) 22948 in production, and issued inspection Service Bulletin (SB) A320-52-1032 and modification SB A320-52-1042, both recommended.

Since those actions were taken, further improved cargo compartment doors have been introduced in production through Airbus mod 26213, on aeroplanes having MSN 0759 and up. This modification, which is not available for in-service retrofit, also includes provisions that exclude installation of pre-mod 26213 aft and forward compartment cargo doors on an aeroplane.

In the frame of the Widespread Fatigue Damage (WFD) study, it has been determined that repetitive inspections are necessary for aft and forward cargo compartment doors on aeroplanes that do not (or no longer) embody mod 22948 (or SB A320-52-1042), and those that do not embody mod 26213. Failure to detect cracks would reduce the cargo door structural integrity.

This condition, if not detected and corrected, could lead to cargo door failure, possibly resulting in decompression of the aeroplane and injury to occupants.

To address this unsafe condition, Airbus issued SB A320-52-1171 to provide inspection instructions. This SB was later revised to correct the list of affected cargo doors. Airbus also issued SB A320-52-1170, introducing a door modification which constitutes terminating action for the repetitive special detailed inspection (SDI).

For the reason described above, this [EASA] AD requires accomplishment of repetitive SDI by rototest of all frame forks in beam 4 area to detect cracks, and, depending on findings, accomplishment of applicable corrective action(s) [repair or replacement]. This AD also provides an optional

[modification that constitutes] terminating action for the repetitive SDI required by this [EASA] AD.

One of the optional modifications includes related investigative and corrective actions. The related investigative action is a high frequency eddy current (HFEC) rotating probe inspection for cracks, and the corrective action is a 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-2017-0478.

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

We reviewed the following Airbus service information.

- Airbus Service Bulletin A320-52-1171, Revision 01, dated September 5, 2016, describes procedures for repetitive special detailed inspections of all frame forks in the beam 4 area of any affected door, and corrective actions.
- Airbus Service Bulletin A320-52-1042, Revision 2, dated January 14, 1997, describes procedures for modification of all affected forward and aft cargo compartment doors of an airplane.
- Airbus Service Bulletin A320-52-1170, dated September 5, 2016, describes modification of all affected forward and aft cargo compartment doors of an airplane, including related investigative and corrective actions.

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 these same type designs.

## **Difference Between this Proposed AD and the MCAI or Service Information**

Note 2 of the MCAI specifies to refer to Airbus A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 1—Safe Life Airworthiness Limitation Items, Section 1, Chapter 5.2 (traceability). However, that document refers to an Airbus document to which we do not have access, and therefore we have not included a reference to Airbus A318/A319/A320/A321 ALS Part 1—Safe Life Airworthiness Limitation Items, Section 1, Chapter 5.2 (traceability) in this proposed AD.

## **Costs of Compliance**

We estimate that this proposed AD affects 88 airplanes of U.S. registry.

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

### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Special detailed inspection	25 work-hours X \$85 per hour = \$2,125	\$0	\$2,125	\$187,000

### Optional Actions

Action	Labor cost	Parts cost	Cost per product
Modification	24 work-hours X \$85 per hour = \$2,040	Up to \$240	Up to \$2,280

We have received no definitive data that would enable us to provide cost estimates for the on-condition repairs and replacements specified in this proposed 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-2017-0478; Directorate Identifier 2016-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**

None.

**(c) Applicability**

This AD applies to Airbus Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes; Model A320-211, -212, -214, -231, -232, and -233 airplanes; and Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes, certificated in any category, manufacturer serial numbers through 0758 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 52, Doors.

**(e) Reason**

This AD was prompted by a report of cracks on the frame forks and outer skin on the forward and aft cargo compartment doors. We are issuing this AD to detect and correct cracks on the frame forks and outer skin on the forward and aft cargo compartment doors, which could lead to reduced structural integrity and failure of the cargo compartment door, possible decompression of the airplane, and injury to occupants.

**(f) Compliance**

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

**(g) Definition of Affected Door**

For the purpose of this AD, an “affected door” is a forward or aft cargo compartment door, having any part number listed in table 1 to paragraph (g) of this AD, except a cargo compartment door on which Airbus Service Bulletin A320-52-1042 or Airbus Service Bulletin A320-52-1170 is embodied.

**Table 1 to paragraph (g) of this AD – *Affected part numbers***

<b>Forward Cargo Compartment Door Part Numbers</b>	<b>Aft Cargo Compartment Door Part Numbers</b>
D52371000000	D52371900000
D52371000002	D52371900002
D52371000004	D52371900004
D52371000006	D52371900008
D52371000008	D52371900010
D52371000010	D52371900012
D52371000012	D52371900014
D52371000014	D52371900016
D52371000016	D52371900018
D52371000018	D52371900022
D52371000022	

**(h) Repetitive Special Detailed Inspection of Frame Forks**

At the latest of the compliance times listed in paragraphs (h)(1) through (h)(4) of this AD: Do a special detailed inspection of all frame forks in the beam 4 area of any affected door as defined in paragraph (g) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1171, Revision 01, dated September 5, 2016 (“SB A320-52-1171 R01”), except as specified in paragraphs (k) and (l) of this AD. Repeat the inspection thereafter at intervals not to exceed 3,000

flight cycles. A review of the airplane delivery or maintenance records is acceptable to identify any affected door installed on the airplane, provided that the cargo compartment door part number can be conclusively determined from that review.

(1) Before exceeding 37,500 flight cycles since first installation of the door on an airplane.

(2) Within 900 flight cycles after the effective date of this AD, without exceeding 41,950 flight cycles since first installation of the door on an airplane.

(3) Within 50 flight cycles after the effective date of this AD, for a door having reached or exceeded 41,900 flight cycles since first installation on an airplane.

(4) Within 3,000 flight cycles since the last inspection of the door as specified in Airbus Service Bulletin A320-52-1032.

**(i) Corrective Actions**

If any crack is found during any inspection required by paragraph (h) of this AD, before further flight, do all applicable corrective actions in accordance with the Accomplishment Instructions of SB A320-52-1171 R01, except as specified in paragraphs (k) and (l) of this AD. Accomplishment of applicable corrective actions does not constitute terminating action for the repetitive inspections.

**(j) Optional Terminating Action**

(1) Modification of all affected doors of an airplane in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1042, Revision 2, dated January 14, 1997, constitutes terminating action for the repetitive inspections

specified in paragraph (h) of this AD for that airplane, provided that, after modification, no affected door is re-installed on that airplane.

(2) Modification of all affected doors of an airplane including accomplishment of all applicable related investigative and corrective actions in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1170, dated September 5, 2016, except as specified in paragraphs (k) and (l) of this AD, constitutes terminating action for the repetitive inspections specified in paragraph (h) of this AD for that airplane, provided that, after modification, no affected door is re-installed on that airplane.

(3) Modification of all affected doors on an airplane, in case of finding damaged frame forks, as specified in an Airbus Repair Design Approval Sheet (RDAS), and done in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA); constitutes terminating action for the repetitive inspection specified in paragraph (h) of this AD for that airplane, provided that, after modification, no affected door is re-installed on that airplane.

**(k) Exception to Service Information**

Where SB A320-52-1171 R01 specifies to contact Airbus for appropriate action, and specifies that action as "RC" (Required for Compliance): Before further flight, accomplish corrective actions in accordance with the procedures specified in paragraph (o)(2) of this AD.

**(l) No Reporting Requirement**

Although SB A320-52-1171 R01 specifies to submit certain information to the manufacturer, and specifies that action as “RC” (Required for Compliance), this AD does not include that requirement.

**(m) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraphs (h) and (i) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-52-1171, dated October 29, 2015, provided that it can be conclusively determined that any part number D52371000018 was also inspected as specified in paragraph (h) of this AD.

**(n) Parts Installation Limitation**

As of the effective date of this AD, no person may install, on any airplane, an affected door specified in paragraph (g) of this AD, unless it has been inspected in accordance with the requirements of paragraph (h) of this AD and all applicable corrective actions have been done in accordance with paragraph (i) of this AD.

**(o) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Branch,

send it to the attention of the person identified in paragraph (p)(2) of this AD.

Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

**(3) Required for Compliance (RC):** Except as specified in paragraphs (k) and (l) 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.

**(p) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0187, dated September 19, 2016, 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-2017-0478.

(2) For more information about this AD, 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.

(3) For service information identified in this AD, contact Airbus, Airworthiness – 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>. 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 May 12, 2017.

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

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