[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0529; Directorate Identifier 2013-NM-260-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Supplemental notice of proposed rulemaking (NPRM); reopening of comment period.

SUMMARY: We are revising an earlier proposed airworthiness directive (AD) for all Airbus Model A318, A319, A320, and A321 series airplanes. The NPRM proposed to supersede Airworthiness Directives (AD) 2011-13-11 and AD 2013-16-09.

AD 2011-13-11 currently requires an amendment of the airplane flight manual (AFM), repetitive checks of specific centralized fault display system (CFDS) messages, an inspection of the opening sequence of the main landing gear (MLG) door actuator for discrepancies if certain messages are found, and corrective actions if necessary.

AD 2013-16-09 currently requires an inspection to determine airplane configuration and part numbers of the landing gear control interface unit and MLG door actuators; and, for affected airplanes, repetitive inspections of the opening sequence of the MLG door actuator, and replacement of the MLG door actuator if necessary; and provides optional

terminating action for the repetitive inspections. The NPRM was prompted by a determination that the interval of the MLG door opening sequence inspection must be reduced. The NPRM proposed to reduce the interval of the MLG door opening sequence inspection, and also to replace or modify certain MLG door actuators. This action revises the NPRM by adding a flushing procedure to be performed when installing a new MLG door actuator. We are proposing this supplemental NPRM (SNPRM) to detect and correct deterioration of the damping ring and associated retaining ring of the MLG door actuator, which can sufficiently increase the friction inside the actuator to restrict opening of the MLG door by gravity, during operation of the landing gear alternate (free-fall) extension system. This condition could prevent the full extension and/or down-locking of the MLG, possibly resulting in MLG collapse during landing and consequent damage to the airplane and injury to occupants. Since these actions impose an additional burden over those proposed in the NPRM, we are reopening the comment period to allow the public the chance to comment on these proposed changes.

DATES: We must receive comments on this SNPRM 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 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; Internet http://www.airbus.com. For General Electric service information identified in this AD contact GE Aviation, Customer Support Center, 1 Neumann Way, Cincinnati, OH 45215; phone: 513-552-3272; email: cs.techpubs@ge.com; Internet: http://www.geaviation.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-2014-0529; 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 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-2014-0529; Directorate Identifier 2013-NM-260-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

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Model A318, A319, A320, and A321 series airplanes. The NPRM published in the Federal Register on August 13, 2014

(79 FR 47395; corrected August 27, 2014 (79 FR 51117)) ("the NPRM"). The NPRM proposed to supersede AD 2011-13-11, Amendment 39-16734 (76 FR 37241, June 27, 2011) ("AD 2011-13-11"); and AD 2013-16-09, Amendment 39-17547 (78 FR 48286, August 8, 2013) ("AD 2013-16-09"). AD 2011-13-11 currently requires an amendment of the AFM, repetitive checks of specific CFDS messages, an inspection of the opening sequence of the MLG door actuator for discrepancies if certain messages are found, and corrective actions if necessary. AD 2013-16-09 currently requires an inspection to determine airplane configuration and part numbers of the landing gear control interface unit and MLG door actuators; and, for affected airplanes, repetitive inspections of the opening sequence of the MLG door actuator, and replacement of the MLG door actuator if necessary; and provides optional terminating action for the repetitive inspections. The NPRM was prompted by a determination that the interval of the MLG door opening sequence inspection must be reduced. The NPRM proposed to reduce the interval of the MLG door opening sequence inspection, and also to replace or modify certain MLG door actuators.

Actions Since Previous NPRM was Issued

Since we issued the NPRM, we have determined that a flushing procedure must be performed when installing a new MLG door actuator. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0221, dated September 30, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition on all Airbus Model A318, A319, A320, and

A321 series airplanes. The MCAI states:

Some operators reported slow operation of the main landing gear (MLG) door opening/closing sequence, leading to the generation of [electronic centralized aircraft monitor] ECAM warnings during the landing gear retraction or extension sequence.

Investigations showed that the damping ring and associated retaining ring of the MLG door actuator may deteriorate. The resultant debris increases the friction inside the actuator which can be sufficiently high to restrict opening of the MLG door by gravity, during operation of the landing gear alternate (freefall) extension system.

This condition, if not corrected, could prevent the full extension and/or down locking of the MLG, possibly resulting in MLG collapse during landing or rollout and consequent damage to the aeroplane and injury to occupants.

[An EASA AD] was issued [and later revised] to require repetitive inspections of the opening sequence of the MLG door in order to identify the affected actuators, and to introduce as an optional terminating action Airbus production Modification (mod) 38274 and associated [Airbus] Service Bulletin (SB) A320-32-1338, which incorporate an improved retaining ring, located on the piston rod's extension end, and a new piston rod with machined shoulder to accommodate the thicker section of the modified retaining ring.

After in-service introduction of the new MLG door actuator, Part Number (P/N) 114122012 (Post-mod 38274 – SB A320-32-1338), several operators reported failures of internal parts of the MLG door actuator. Investigations confirmed that these failures could result in slow extension of the actuator rod, delaying the MLG door operation, or possibly stopping just before the end of the stroke, preventing the door to reach the fully open position.

[An EASA AD], which superseded EASA AD 2006-0112R1 [http://ad.easa.europa.eu/blob/easa_ad_2006_0112_R1_superseded.pdf/AD_2006-0112R1_1], was issued [and later revised] to require amendment of the applicable Airplane

Flight Manual (AFM), repetitive checks of specific Centralized Fault Display System (CFDS) messages, repetitive inspections of the opening sequence of the MLG door actuator and, depending on findings, corrective action(s).

Since EASA AD 2011-0069R1 [http://ad.easa.europa.eu/blob/easa_ad_2011_0069_R1_superseded.pdf/AD_2011-0069R1_1] was issued, Airbus introduced a reinforced MLG door actuator P/N 114122014 (mod 153655). Airbus issued SB A320-32-1407 containing instructions for in-service replacement of the affected MLG door actuators, or modification of the actuators to the new standard.

In addition, following a recent occurrence with a gear extension problem, the result of additional analyses by Airbus revealed that the CFDS expected specific messages may not be generated and as a result, repetitive checks of messages are not effective for aeroplanes fitted with landing gear control interface unit (LGCIU) interlink communication ARINC 429 (applied in production through Airbus mod 39303, or in service through Airbus SB A320-32-1409), in combination with LGCIUs 80-178-02-88012 or 80-178-03-88013 in both positions and at least one MLG door actuator pre-mod 153655 (pre-Airbus SB A320-32-1407 – pre-GE SB 114122-32-105) installed.

Prompted by these findings, EASA issued Emergency AD 2013-0132-E [http://ad.easa.europa.eu/blob/easa_ad_2013_0132_E_superseded.pdf/EAD_2013-0132-E_1 (which corresponds to FAA AD 2013-16-09)] to require identification of the affected aeroplanes to establish the configuration and, for those aeroplanes, repetitive inspections of the opening sequence of the MLG door actuator and, depending on findings, replacement of the MLG door actuator. That [EASA] AD also provided an optional terminating action by disconnection of the interlink for certain LGCIUs, or in-service modification of the aeroplane through Airbus SB A320-32-1407 (equivalent to Airbus production mod 153655).

Since those ADs (EASA AD 2011-0069R1 and EASA AD 2013-0132-E) were issued, analyses performed by Airbus have revealed that the MLG door opening sequence inspection interval needed to be reduced, and that the (previously optional) terminating action needed to be made mandatory.

Prompted by these findings, EASA issued AD 2013-0288 [http://ad.easa.europa.eu/blob/easa_ad_2013_0288_superseded.pdf/AD_2013-0288_1], retaining the requirements of EASA AD 2011-0069R1 and EASA AD 2013-0132-E, which were superseded, but with reduced inspection intervals, and to require replacement or modification, as applicable, of the affected MLG door actuators as terminating action to the monitoring and repetitive checks and inspections.

Following introduction of post-mod 153655 MLG door actuators on in-service aeroplanes, it has been observed that, in case the removed pre-mod MLG door actuator has internal damage, contamination of the hydraulic system could have occurred.

This condition, if not detected and corrected, could result in performance degradation (damping degradation) of the post-mod MLG door actuator. Testing performed with a new actuator tested in heavily contaminated hydraulic system did not show abnormal hydraulic Restriction/blockage. It is thus not requested to perform this "flushing procedure" on aircraft already retrofitted with std-14 actuators.

In addition, since EASA AD 2013-0288 was issued, the applicable AFM was revised and repetitive checks of specific CFDS messages are no longer considered to be required, due to the reduced intervals required by EASA AD 2013-0288.

For the reasons described above, this [EASA] AD partially retains the requirements of EASA AD 2013-0288, which is superseded, introduces improved wording for clarification and requires, in addition to the revised operational (AFM) procedure, hydraulic flushing prior to any installation of a post-mod MLG door actuator.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2014-0529-0003.

Related Service Information under 1 CFR part 51

Airbus has issued Service Bulletins A320-32-1390, Revision 03, dated July 3, 2014; and A320-32-1407, Revision 01, dated July 3, 2014. Airbus has also issued A318/A319/A320/A321 Temporary Revision (TR) TR437, L/G GEAR NOT DOWNLOCKED, Issue 1.0, dated May 23, 2014, to the Airplane Flight Manual (AFM).

Airbus Service Bulletin A320-32-1390, Revision 03, dated July 3, 2014, describes procedures for inspecting the operation of the MLG door opening sequence to determine if an actuator is defective, flushing contamination from the landing gear extension and retraction system (LGERS), and replacing the door actuator if necessary.

Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014, describes procedures for flushing contamination from the LGERS, and installing new MLG door actuators.

Airbus A318/A319/A320/A321 TR TR437, L/G GEAR NOT DOWNLOCKED, Issue 1.0, dated May 23, 2014, to the AFM updates the procedure used for incomplete landing gear extension during approach.

General Electric Service Bulletin 114122-32-105, Revision 2, dated June 24, 2014, describes procedures for conversion of a MLG door actuator and to remove unwanted material from the hydraulic fluid route.

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 SNPRM.

Comments

We gave the public the opportunity to participate in developing this SNPRM. We considered the comments received.

Requests to Adopt the Actions of EASA Airworthiness Directive 2014-0221, dated September 30, 2014, and Certain Service Bulletins

Airbus requested that we revise the NPRM to adopt the requirements of EASA Airworthiness Directive 2014-0221, dated September 30, 2014; Airbus Service Bulletin A320-32-1390, Revision 03, dated July 3, 2014; and Airbus Service Bulletin A320-32-1407 Revision 01, dated July 3, 2014. Airbus stated that EASA issued a global airplane flight manual (AFM) TR to mandate updated operational procedures. US Airways requested that we reference Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014, and a new AFM procedure referenced in "FOT 999-0032/14."

We agree with the commenters' requests. EASA Airworthiness Directive 2014-0221, dated September 30, 2014, requires, among other things, a revised operational AFM procedure, and hydraulic flushing prior to any installation of a post-modification MLG door actuator. We have revised paragraphs (j), (k), (l), (m), and (w) as designated in the NPRM (paragraphs (j), (k), (l), (m), and (x) in this SNPRM)) to reference Airbus Service Bulletin A320-32-1390, Revision 03, dated July 3, 2014; and paragraphs (r), (t), (u), (w), and (x) as designated in the NPRM (paragraphs (r), (u), (v), (x), and (y) in this SNPRM)) to reference Airbus Service Bulletin A320-32-1407,

Revision 01, dated July 3, 2014; as the appropriate sources of service information for accomplishing the proposed actions.

Request to Not Mandate the Actions in Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014

United Airlines requested that we not require the actions in Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014. United Airlines stated that Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014, recommends that operators flush the affected hydraulic system. United Airlines stated that it disagrees with this proposed action and explained that Airbus instituted this requirement to flush the hydraulic system as it failed to recommend the removal, inspection, and cleaning of the restrictors during the modification of the MLG door actuator to the part number (P/N) 114122014 configuration. United Airlines also stated that it has opted to overhaul the MLG door actuators as well as perform the modification described in Airbus Service Bulletin A320-32-1407, dated May 14, 2013. United Airlines explained that this overhaul requires that the restrictors (P/N 114122233 and P/N 114122232) and transfer pipe be removed, inspected, and cleaned. United Airlines stated that it is of the opinion that flushing the hydraulic system is not required as there is no contamination present in the restrictors or the transfer pipe.

We disagree with the commenter's request. Airbus informed the FAA that debris can leave the damaged actuator and remain in the hydraulic lines connected to the door actuator. Flushing of the hydraulic system is required to prevent debris from entering the new actuator. If debris enters the new actuator, its performance can be affected. The flow rate during normal operation is insufficient to ensure complete flushing of the debris to

the hydraulic low pressure filter within a few door cycles. Therefore, a specific maintenance procedure has been defined and introduced in Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014; and General Electric Service Bulletin 114122-32-105, Revision 2, dated June 24, 2014. EASA has issued AD 2014-0221, dated September 30, 2014, requiring flushing of the affected hydraulic system in accordance with Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014.

Request to Provide Credit for Previous Actions

US Airways requested that we provide credit for the actions required by paragraphs (t) and (u) of the proposed AD (paragraphs (u) and (v) of this SNPRM)), if those actions were done before the effective date of the AD using Airbus Service Bulletins A320-32-1407, dated May 14, 2013, or Revision 01, dated July 3, 2014; or General Electric Service Bulletin 114122-32-105, dated January 17, 2013.

We partially agree with the commenter's request. In this SNPRM, paragraph (aa) already provides credit for General Electric Service Bulletin 114122-32-105, dated January 17, 2013, for the actions in paragraphs (u) and (v) done prior to the effective date of the final rule. We do not agree with giving credit for Airbus Service Bulletin A320-32-1407, dated May 14, 2013; or Revision 01, dated July 3, 2014; because those service bulletins do not require flushing the hydraulic system prior to the installation of P/N 114122014. We have not changed the proposed AD in this regard.

FAA's Determination and Requirements of this SNPRM

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.

Certain changes described above expand the scope of the NPRM. As a result, we have determined that it is necessary to reopen the comment period to provide additional opportunity for the public to comment on this SNPRM.

Explanation of "RC" Procedures and Tests in Service Information

The FAA worked in conjunction with industry, under the Airworthiness Directives 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 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.

Changes to the Proposed AD

This SNPRM makes the following changes to the NPRM.

We have moved the credit for Airbus Service Bulletin A320-32-1309, dated March 7, 2006, specified in paragraph (g) of AD 2011-13-11, into paragraph (aa)(1) of the proposed AD.

We have reformatted and redesignated three tables as figures to comply with requirements of the Office of the Federal Register, as follows:

- "Table 1 to Paragraph (p) of this AD – Affected Part Numbers" is "Figure 2 to Paragraph (p) of this AD – Affected Part Numbers;"
- "Table 2 to Paragraph (v) of this AD – Affected Part Numbers" is "Figure 3 to Paragraph (v) of this AD – Affected Part Numbers;" and
- "Table 3 to Paragraph (z) of this AD – Affected Part Numbers" is "Figure 4 to Paragraph (z) of this AD."

Costs of Compliance

We estimate that this SNPRM affects 953 airplanes of U.S. registry.

The actions that are required by AD 2011-13-11, and retained in this SNPRM, take about 7 work-hours per product, per inspection cycle, 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 2011-13-11 is $595 per product.

The actions that are required by AD 2013-16-09, and retained in this SNPRM, take about 3 work-hours per product, per inspection cycle, at an average labor rate of $85 per work-hour. Based on these figures, the estimated cost of the actions that were required by AD 2013-16-09 is $255 per product.

We also estimate that it would take about 19 work-hours per product to comply with the basic requirements of this SNPRM. The average labor rate is $85 per work-hour. Required parts would cost about $17,140 per product. Based on these figures, we estimate the cost of this SNPRM on U.S. operators to be $17,873,515, or $18,755 per product.

In addition, we estimate that any necessary follow-on actions would take about 3 work-hours, for a cost of $255 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:

a. Removing Airworthiness Directives (AD) 2011-13-11, Amendment 39-16734 (76 FR 37241, June 27, 2011) ("AD 2011-13-11"); and AD 2013-16-09, Amendment 39-17547 (78 FR 48286, August 8, 2013) ("AD 2013-16-09"); and

b. Adding the following new AD:

Airbus: Docket No. FAA-2014-0529; Directorate Identifier 2013-NM-260-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 2011-13-11, Amendment 39-16734 (76 FR 37241, June 27, 2011) ("AD 2011-13-11"); and AD 2013-16-09, Amendment 39-17547 (78 FR 48286, August 8, 2013) ("AD 2013-16-09").

(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, all manufacturer serial numbers.

(1) Model A318-111, -112, -121, and -122 airplanes.

(2) Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.

(3) Model A320-211, -212, -214, -231, -232, and -233 airplanes.

(4) Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing Gear.

(e) Reason

This AD was prompted by a determination that the inspection interval of the main landing gear (MLG) door opening sequence must be reduced. We are issuing this AD to detect and correct deterioration of the damping ring and associated retaining ring of the MLG door actuator, which can sufficiently increase the friction inside the actuator to restrict opening of the MLG door by gravity, during operation of the landing gear alternate (free-fall) extension system. This condition could prevent the full extension and/or down-locking of the MLG, possibly resulting in MLG collapse during landing and consequent damage to the aeroplane and injury to occupants.

(f) Compliance

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

(g) Retained Repetitive Inspections/Replacement, with a Formatting Change

This paragraph restates the requirements of paragraph (g) of AD 2011-13-11, with a formatting change. At the time specified in paragraph (g)(1) or (g)(2) of this AD, as applicable: Do a general visual inspection of the operation of the MLG door opening sequence to determine if a defective actuator is installed by doing all the applicable actions, including replacing the door actuator, as applicable, specified in the Accomplishment Instructions of Airbus Service Bulletin A320-32-1309, Revision 01, dated June 19, 2006. Do all applicable replacements before further flight. Repeat the inspection thereafter at intervals not to exceed 900 flight cycles. Doing the inspection required by paragraph (l) of this AD terminates the requirements of this paragraph.

(1) For airplanes on which a record of the total number of flight cycles on the MLG door actuator is available: Before the accumulation of 3,000 total flight cycles on the MLG door actuator, or within 800 flight cycles after April 27, 2007 (the effective date of AD 2007-06-18, Amendment 39-14999 (72 FR 13681, March 23, 2007)), whichever is later.

(2) For airplanes on which a record of the total number of flight cycles on the MLG door actuator is not available: Within 800 flight cycles after April 27, 2007 (the effective date of AD 2007-06-18.

(3) For the purposes of this AD, a general visual inspection is: "A visual examination of an interior or exterior area, installation, or assembly to detect obvious

damage, failure, or irregularity. This level of inspection is made from within touching distance unless otherwise specified. A mirror may be necessary to enhance visual access to all exposed surfaces in the inspection area. This level of inspection is made under normally available lighting conditions such as daylight, hangar lighting, flashlight, or droplight and may require removal or opening of access panels or doors. Stands, ladders, or platforms may be required to gain proximity to the area being checked."

(h) Retained Provision Regarding Reporting/Parts Return, with No Changes

This paragraph restates the requirements of paragraph (h) of AD 2011-13-11, with no changes. Although the Accomplishment Instructions of Airbus Service Bulletin A320-32-1309, Revision 01, dated June 19, 2006, specify submitting certain information to the manufacturer and sending defective actuators back to the component manufacturer for investigation, this AD does not include those requirements.

(i) Retained Revision of the Airplane Flight Manual (AFM), with Formatting Changes

This paragraph restates the requirements of paragraph (i) of AD 2011-13-11, with formatting changes. Within 14 days after July 12, 2011 (the effective date of AD 2011-13-11), revise the Emergency Procedure Section of the AFM to incorporate the information in figure 1 to paragraph (i) of this AD. This may be done by inserting a copy of this AD into the AFM. When a statement identical to that in figure 1 to paragraph (i) of this AD has been included in the Emergency Procedure Section of the general revisions of the AFM, the general revisions may be inserted into the AFM, and the copy of this AD may be removed from the AFM. Doing the actions required by paragraph (t) of this AD terminates the requirements of this paragraph.

Figure 1 to Paragraph (i) of this AD – AFM Revision

• If ECAM triggers the "L/G GEAR NOT DOWNLOCKED" warning, apply the following procedure: Recycle landing gear. • If unsuccessful after 2 min: Extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION.

(j) Retained Repetitive Checks, with New Optional Actions and New Service Information

This paragraph restates the requirements of paragraph (j) of AD 2011-13-11, with new optional actions and new service information. Within 14 days after July 12, 2011 (the effective date of AD 2011-13-11), or before the accumulation of 800 total flight cycles, whichever occurs later, check the post flight report (PFR) for centralized fault display system (CFDS) messages triggered within the last 8 days, in accordance with paragraph 4.2.1 of Airbus All Operators Telex (AOT) A320-32A1390, dated February 10, 2011. Repeat the check thereafter at intervals not to exceed 8 days or 5 flight cycles, whichever occurs later. If done in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, the use of an alternative method to check the PFR for CFDS messages (e.g., AIRMAN) is acceptable in lieu of this check if the messages can be conclusively determined from that method. Repetitive inspections of the door opening sequence of the left-hand (LH) and right-hand (RH) doors of the MLG, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014, are an

acceptable method of compliance for the actions required by this paragraph. Repetitive inspections of the door opening sequence of the LH and RH doors of the MLG of an airplane, as required by paragraph (p) of this AD, is an acceptable method to comply with the requirements of this paragraph.

(k) Retained On-Condition Inspection, with New Service Information

This paragraph restates the requirements of paragraph (k) of AD 2011-13-11, with new service information. If, during any check required by paragraph (j) of this AD, a pair of specific CFDS messages specified in paragraph 4.2.1 of Airbus AOT A320-32A1390, dated February 10, 2011, has been triggered by both landing gear control and indication units (LGCIU) for the same flight, before further flight, inspect the door opening sequence of the affected doors of the MLG for discrepancies (i.e., if any condition specified in steps (a) through (d) of paragraph 4.2.2 of Airbus AOT A320-32A1390, dated February 10, 2011, is not met; or if any door actuator fails any inspection check specified in Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014). Do the inspection in accordance with paragraph 4.2.2 of Airbus AOT A320-32A1390, dated February 10, 2011; or the Accomplishment Instructions of Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014. As of the effective date of this AD, use only Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014, for the actions required by this paragraph.

(l) Retained Repetitive Inspections, with New Service Information, New Optional Actions, and Reduced Compliance Times

This paragraph restates the requirements of paragraph (l) of AD 2011-13-11, with new service information, new optional actions, and reduced compliance times. At the applicable time specified in paragraph (l)(1) or (l)(2) of this AD: Inspect the door opening sequence of the LH and RH doors of the MLG for discrepancies (i.e., if any condition specified in steps (a) through (d) of paragraph 4.2.2 of Airbus AOT A320-32A1390, dated February 10, 2011, is not met; or if any door actuator fails any inspection check specified in the Accomplishment Instructions of Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014). Do the inspection in accordance with the instructions of paragraph 4.2.2 of Airbus AOT A320-32A1390, dated February 10, 2011; or the Accomplishment Instructions of Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014. As of the effective date of this AD, use only Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014, for the actions required by this paragraph. Repeat the inspection within 8 days or 5 flight cycles after the effective date of this AD, whichever occurs later, without exceeding 425 flight cycles since the most recent inspection; and thereafter repeat the inspection at intervals not to exceed 8 days or 5 flight cycles, whichever occurs later. In addition, whenever any airplane is not operated for a period longer than 8 days, do the inspection before further flight. Doing this inspection terminates the requirements of paragraph (g) of this AD. Repetitive inspections of the door opening sequence of the LH and RH doors of the MLG of an airplane, as required by paragraph (p) of this AD, is an acceptable method to comply with the requirements of this paragraph.

(1) For airplanes on which an inspection required by paragraph (g) of this AD has been done as of July 12, 2011 (the effective date of AD 2011-13-11): Within 800 flight cycles after doing the most recent inspection required by paragraph (g) of this AD, or within 100 flight cycles after July 12, 2011, whichever occurs later.

(2) For airplanes on which an inspection required by paragraph (g) of this AD has not been done as of July 12, 2011 (the effective date of AD 2011-13-11): Within 800 flight cycles after July 12, 2011.

(m) Retained Replacement, with New Service Information

This paragraph restates the requirements of paragraph (m) of AD 2011-13-11, with new service information. If any discrepancy (i.e., if any condition specified in steps (a) through (d) of paragraph 4.2.2 of Airbus AOT A320-32A1390, dated February 10, 2011, is not met; or if any door actuator fails any inspection check specified in the Accomplishment Instructions of Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014) is found during any inspection required by paragraph (k) or (l) of this AD, before further flight, replace the affected MLG door actuator with a new MLG door actuator, in accordance with the instructions of Airbus AOT A320-32A1390, dated February 10, 2011; or Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014. As of the effective date of this AD, use only Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014, to do the actions required by this paragraph.

(n) Retained Statement of No Terminating Action for Certain Requirements, with No Changes

This paragraph restates the statement of paragraph (n) of AD 2011-13-11, with no changes. Replacement of the MLG door actuator as required by paragraph (m) of this AD is not a terminating action for the repetitive actions required by paragraphs (j) and (l) of this AD.

(o) Retained Configuration and Part Number Determination, with No Changes

This paragraph restates the requirements of paragraph (g) of AD 2013-16-09, with no changes. At the later of the compliance times specified in paragraphs (o)(1) and (o)(2) of this AD: Do an inspection to determine the configuration (modification status) of the airplane and identify the part number of the LH and RH LGCIU and MLG door actuators. A review of the airplane delivery or maintenance records is acceptable for compliance with the requirements of this paragraph provided the airplane configuration and installed components can be conclusively determined from that review.

(1) Prior to the accumulation of 800 total flight cycles since first flight of the airplane.

(2) Within 14 days after August 23, 2013 (the effective date of AD 2013-16-09).

(p) Retained MLG Door Opening Sequence Repetitive Inspections, with No Changes

This paragraph restates the requirements of paragraph (h) of AD 2013-16-09, with no changes. If, during the determination and identification required by paragraph (o) of this AD, the configuration of the airplane is determined to be post-Airbus Modification 39303 or post-Airbus Service Bulletin A320-32-1409 (Interlink Communication ARINC 429 installed), and both an LGCIU and a MLG door actuator are installed with a part

number listed in figure 2 to paragraph (p) of this AD: Except as provided by paragraph (s) of this AD, at the later of the compliance times specified in paragraphs (o)(1) and (o)(2) of this AD, and thereafter at intervals not to exceed 8 days or 5 flight cycles, whichever occurs later, do an inspection of the door opening sequence of the LH and RH MLG doors, in accordance with the instructions of Airbus AOT A32N001-13, dated June 24, 2013.

Figure 2 to Paragraph (p) of this AD – Affected Part Numbers

Component name	Part number
LGCIU (LH and RH)	80-178-02-88012
	80-178-03-88013
MLG door actuator	114122006
	114122007
	114122009
	114122010
	114122011
	114122012

(q) Retained MLG Door Opening Sequence Corrective Action, with No Changes

This paragraph restates the requirements of paragraph (i) of AD 2013-16-09, with no changes. If a slow door operation or restricted extension is found during any inspection required by paragraph (p) of this AD: Before further flight, replace the affected MLG door actuator with a new or serviceable actuator, in accordance with the instructions of Airbus AOT A32N001-13, dated June 24, 2013.

(r) Retained Terminating Action Limitation for Certain Actions, with New Service Information

This paragraph restates the requirements of paragraph (j) of AD 2013-16-09, with new service information. Replacement of a MLG door actuator, as required by paragraph (q) of this AD, does not constitute terminating action for the repetitive inspections required by paragraph (p) of this AD, unless MLG door actuators having P/N 114122014 are installed on both LH and RH sides, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1407, dated May 14, 2013; or Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014. As of the effective date of this AD, use only Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014, for the actions required by this paragraph.

(s) Retained Repetitive Inspection Exception, with No Changes

This paragraph restates the requirements of paragraph (k) of AD 2013-16-09, with no changes. Airplanes on which the LGCIU interlink is disconnected (Airbus Modification 155522 applied in production, or modified in-service in accordance with the instructions of Airbus AOT A32N001-13, dated June 24, 2013), or on which MLG door actuators having P/N 114122014 are installed on both LH and RH sides (Airbus Modification 153655 applied in production, or modified in-service as described in Airbus Service Bulletin A320-32-1407), are not required to do the actions required by paragraph (p) of this AD, provided that the airplane is not modified to a configuration as defined in paragraph (p) of this AD.

(t) New Revision of the AFM

Within 14 days after the effective date of this AD, revise the Emergency Procedure Section of the AFM to incorporate Airbus A318/A319/A320/A321 Temporary Revision (TR) TR437, L/G GEAR NOT DOWNLOCKED, Issue 1.0, dated May 23, 2014. When this TR has been included in general revisions of the AFM, the general revisions may be inserted in the AFM, provided the relevant information in the general revision is identical to that in this TR, and the copy of this TR may be removed from the AFM. Doing the action required by this paragraph terminates the actions required by paragraph (i) of this AD.

(u) New Replacement of MLG Door Actuator having P/N 114122012

Within 12 months after the effective date of this AD: Replace each MLG door actuator having P/N 114122012 with a MLG door actuator having P/N 14122014, and flush the affected hydraulic system, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014; or modify each actuator, including doing all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of General Electric Service Bulletin 114122-32-105, Revision 2, dated June 24, 2014; except where General Electric Service Bulletin 114122-32-105, Revision 2, dated June 24, 2014, specifies to contact the manufacturer, 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).

(v) New Replacement of Certain Other MLG Door Actuators

Within 24 months after the effective date of this AD: Replace each MLG door actuator having a part number listed in figure 3 to paragraph (v) of this AD, except P/N 114122012, with a MLG door actuator having P/N 14122014, and flush the affected hydraulic system, in accordance with Accomplishment Instructions of Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014; or modify each actuator, including doing all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of General Electric Service Bulletin 114122-32-105, Revision 2, dated June 24, 2014; except where General Electric Service Bulletin 114122-32-105, Revision 2, dated June 24, 2014, specifies to contact the manufacturer, before further flight, repair using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA; or Airbus's EASA DOA.

Figure 3 to Paragraph (v) of this AD – Affected Part Numbers

Component name	Part number
MLG door actuator	114122006
	114122007
	114122009
	114122010
	114122011
	114122012

(w) New Terminating Action

Modification of an airplane as required by paragraphs (u) and (v) of this AD, as applicable, constitutes terminating action for all repetitive actions (PFR monitoring checks and inspections) required by this AD for that airplane.

(x) New Conditional Terminating Action

Replacement of a MLG door actuator as required by paragraphs (m) and (q) of this AD; or corrective actions as specified in Airbus AOT A320-32A1390, dated February 10, 2011; or replacement of a MLG door actuator as specified in Airbus Service Bulletin A320-32-1390, Revision 03, dated July 13, 2014; does not constitute terminating action for the repetitive inspections required by paragraphs (j), (l), and (p) of this AD, unless MLG door actuators having P/N 114122014 are installed on both LH and RH sides, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014.

(y) New Exception to AD Requirements

(1) An airplane on which MLG door actuators having P/N 114122014 are installed on both LH and RH sides (Airbus Modification 153655 applied in production, or modified in service as specified in Airbus Service Bulletin A320-32-1407, dated May 14, 2013; Airbus Service Bulletin A320-32-1407, Revision 01, dated July 3, 2014; General Electric Service Bulletin 114122-32-105, dated January 17, 2013; or General Electric Service Bulletin 114122-32-105, Revision 1, dated March 26, 2013; or General Electric Service Bulletin 114122-32-105, Revision 2, dated June 24, 2014); is not affected by the requirements of paragraphs (j) through (v) of this AD, provided that no MLG door

actuator with a part number in figure 3 to paragraph (v) of this AD has been installed on that airplane since first flight, or since modification, as applicable.

(2) An airplane in the configuration specified in paragraph (y)(1) of this AD, and with flight warning computers having P/N 350E053021212 (H2F7) installed (Airbus Modification 153741 applied in production, or modified in service as specified in Airbus Service Bulletin A320-31-1414), is not affected by the requirement of paragraph (t) of this AD and, following modification, Airbus A318/A319/A320/A321 TR TR437, L/G GEAR NOT DOWNLOCKED, Issue 1.0, dated May 23, 2014 (if inserted), may be removed from the AFM of that airplane.

(z) New Parts Installation Prohibitions

(1) Except as specified in paragraph (z)(2) of this AD, as of the effective date of this AD, do not install on any airplane a MLG door actuator having a part number listed in figure 3 to paragraph (v) of this AD.

(2) For an airplane subject to the requirements of paragraphs (u) and (v) of this AD, as applicable, do not install a MLG door actuator having a part number listed in figure 3 to paragraph (v) of this AD after modification of the airplane.

(3) Except as specified in paragraph (z)(4) of this AD, as of the effective date of this AD, do not install on any airplane a flight warning computer (FWC) having a part number listed in figure 4 to paragraph (z) of this AD.

(4) For an airplane subject to the requirements of paragraphs (u) and (v) of this AD, as applicable, do not install a FWC having a part number listed in figure 4 to paragraph (z) of this AD after modification of the airplane.

Figure 4 to Paragraph (z) of this AD – Affected Part Numbers

Component name	Part number
Flight warning computer	350E016187171 (C5)
	350E017238484 (H1D1)
	350E017248685 (H1D2)
	350E017251414 (H1E1)
	350E017271616 (H1E2)
	350E018291818 (H1E3CJ)
	350E018301919 (H1E3P)
	350E018312020 (H1E3Q)
	350E053020202 (H2E2)
	350E053020303 (H2E3)
	350E053020404 (H2E4)
	350E053020606 (H2F2)
	350E053020707 (H2F3)
	350E053021010 (H2F3P)
	350E053020808 (H2F4)
	350E053020909 (H2F5)
	350E053021111 (H2F6)

(aa) Credit for Previous Actions

(1) This paragraph provides credit for actions required by paragraph (g) of this AD, if those actions were performed before April 27, 2007 (the effective date of AD 2007-06-18), using Airbus Service Bulletin A320-32-1309, dated March 7, 2006. This service information is not incorporated by reference in this AD.

(2) This paragraph provides credit for actions required by paragraphs (k), (l), and (m) of this AD, if those actions were performed before the effective date of this AD

using Airbus Service Bulletin A320-32-1390, Revision 01, dated September 21, 2011; or Revision 02, dated October 23, 2013. Airbus Service Bulletin A320-32-1390, Revision 01, dated September 21, 2011, was incorporated by reference in AD 2011-13-11. Airbus Service Bulletin A320-32-1390, Revision 02, dated October 23, 2013, is not incorporated by reference in this AD.

(3) This paragraph provides credit for actions required by paragraphs (u) and (v) of this AD, if those actions were performed before the effective date of this AD using General Electric Service Bulletin 114122-32-105, dated January 17, 2013; or General Electric Service Bulletin 114122-32-105, Revision 1, dated March 26, 2013. This service information is not incorporated by reference in this AD.

(bb) 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) 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.

(3) Contacting the Manufacturer: As of the effective date of this AD**,** except as specified in paragraph (j) of this AD for the use of an alternative method to check the PFR for CFDS messages, 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.

(4) Previously Approved AMOCs: AMOCs approved previously for the AD 2011-13-11 and AD 2013-16-09 are approved as AMOCs for the corresponding provisions of this AD.

(cc) Special Flight Permits

Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the airplane can be modified (if the operator elects to do so), provided the MLG remains extended and locked, and that no MLG recycle is done.

(dd) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0221, dated September 30, 2014, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2014-0529-0003.

(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; Internet http://www.airbus.com.

(3) For General Electric service information identified in this AD, contact GE Aviation, Customer Support Center, 1 Neumann Way, Cincinnati, OH 45215; phone: 513-552-3272; email: cs.techpubs@ge.com; Internet: http://www.geaviation.com.

(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 August 21, 2015.

Kevin Hull,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
[FR Doc. 2015-21730 Filed: 9/21/2015 08:45 am; Publication Date: 9/22/2015]