[Federal Register Volume 79, Number 177 (Friday, September 12, 2014)]
[Rules and Regulations]
[Pages 54579-54588]
From the Federal Register Online via the Government Printing Office [www.gpo.gov]
[FR Doc No: 2014-21552]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0088; Directorate Identifier 2011-NM-233-AD; Amendment 39-17703; AD 2013-25-07]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: We are superseding Airworthiness Directive (AD) 2007-18-09 for all Airbus Model A318, A319, A320, and A321 series airplanes. AD 2007-18-09 required repetitive inspections of the upper support of the nose landing gear (NLG), and related investigative and corrective actions if necessary; and also provided an optional terminating action for the repetitive inspections. This new AD adds installation of a new enhanced manufacturing and maintainability (EMM) braking and steering control unit (BSCU) standard, and adds airplanes to the applicability. This AD was prompted by a determination that previously allowed terminating actions no longer address the unsafe condition and that a new terminating action is necessary. We are issuing this AD to prevent landings with the NLG turned 90 degrees from centerline, which could result in reduced controllability of the airplane.

DATES: This AD becomes effective October 17, 2014.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of October 17, 2014.

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of October 11, 2007 (72 FR 51164, September 6, 2007).

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of November 30, 2005 (70 FR 70715, November 23, 2005).

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2013-0088; or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Airbus, Airworthiness Office–EIAS, 1 Rond Point, Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet http://www.airbus.com. You may

view this 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.

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:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007), which superseded AD 2005-24-06, Amendment 39-14386 (70 FR 70715, November 23, 2005). AD 2007-18-09 applied to all Airbus Model A318, A319, A320, and A321 series airplanes. The NPRM published in the Federal Register on February 8, 2013 (78 FR 9341). The NPRM was prompted by a determination that previously allowed terminating actions no longer address the identified unsafe condition and that a new terminating action is necessary. The NPRM proposed to continue to require repetitive inspections of the upper support of the NLG, and related investigative and corrective actions if necessary; and also provided a new optional terminating action for the repetitive inspections. The NPRM also proposed to install a new EMM BSCU standard, and add airplanes to the applicability. We are issuing this AD to prevent landings with the NLG turned 90 degrees from centerline, which could result in reduced controllability of the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2011-0201, dated October 13, 2011 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for all Airbus Model A318, A319, A320, and A321 series airplanes. The MCAI states:

> In 2005, an A320 aeroplane experienced a landing with the Nose Landing Gear (NLG) wheels rotated at 90 degrees to the aeroplane centreline.
>
> Investigation showed that the upper support of the NLG shock absorber was damaged and the anti-rotation lugs were ruptured. This caused the nose wheels to lose their centred position reference. The affected Braking and Steering Control Unit (BSCU) had logged a steering system fault because hydraulic power was not available at the time of steering system checks, therefore the BSCU was not able to proceed with the re-centring of the wheels. Failure to centre the NLG wheels correctly may result in a failure of the NLG to retract.
>
> To prevent further landing incidents with NLG wheels rotated at 90 degrees, [Direction Générale de l'Aviation Civile] DGAC France issued AD F-2005-191 [(http://ad.easa.europa.eu/blob/easaad20056411F20051910tb
>
> superseded.pdf/ADF-2005-1911) which corresponds to FAA AD 2005-24-06, Amendment 39-14386 (70 FR 70715, November 23, 2005)] to require the implementation of an operational procedure and the accomplishment of certain maintenance actions.
>
> EASA AD 2006-0174, [(http://ad.easa.europa.eu/blob/easaad20060174superseded.pdf/AD2006-01742) which

corresponds to FAA AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007)] which superseded AD F-2005-191, was issued to extend the applicability and to introduce repetitive boroscope inspections of the NLG upper support lugs and cylinder lugs which have been driven by EMM BSCU L4.1 (Part Number (P/N) E21327001) or L4.5 (P/N E21327003) and, corrective actions, depending on findings.

Since that [EASA] AD was issued, Airbus has demonstrated the acceptability of installing EMM BSCU L4.9B (P/N E21327006 or P/N E21327106) or conventional BSCU std 10 (P/N C202163392E34) or conventional BSCU std 10.1 (P/N C202163392E35) as terminating action for the actions required by EASA AD 2006-0174, for aeroplanes fitted with twin wheel Main Landing Gear (MLG) units.

For the reasons described above, this [EASA] AD retains some of the requirements of EASA AD 2006-0174, which is superseded, extends the applicability to all A318, A319, A320 and A321 aeroplanes, requires the installation of BSCU L4.9B, or BSCU std 10, or BSCU std 10.1 for in service aeroplanes fitted with twin wheel MLG, which constitutes terminating action for the repetitive inspections and checks required by this [EASA] AD.

Installation of a NLG with new upper support anti-rotation lugs and new cylinders lugs, or installation of a NLG for which it can be demonstrated that it was never driven by EMM BSCU L4.1 or L4.5, is no longer considered as terminating action for the requirements of this [EASA] AD.

The unsafe condition is the NLG turning 90 degrees from centerline, which could result in reduced controllability of the airplane. You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2013-0088-0002.

Comments

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

Support for the NPRM (78 FR 9341, February 8, 2013)

United Airlines (UAL) stated that it concurs with the FAA's assertion that terminating action should consist of BSCU standard L4.9B, standard 10, or standard 10.1, rather than standard L4.1 or L4.5.

Statement of Compliance With the NPRM (78 FR 9341, February 8, 2013)

UAL stated that it is currently in the process of upgrading its BSCU to the enhanced EMM version specified in the NPRM (78 FR 9341, February 8, 2013) and is 81 percent complete.

Request for Alternative Actions

UAL stated that the NPRM (78 FR 9341, February 8, 2013) mandates accomplishment of the BSCU replacement within 6 months after the effective date of the AD, and that it is concerned the vendor may not be able to support this relatively short deadline with sufficient numbers of enhanced BSCUs. UAL asserted that a more feasible solution with an acceptable level of safety would be:

- Continue repetitive inspections of the upper support of the nose landing gear (NLG) until replacement with the EMM BSCU.
- Continue repetitive inspections of the NLG for airplanes on which the terminating action per AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007)–standard L4.1, L4.5, or L5-2 was done previously.
- Upgrade to the standard L4.9B, standard 10, or standard 10.1, could then be accomplished on attrition, as units are available from the BSCU manufacturer.

We disagree with the commenter's request. The compliance time for modification of EMM BSCU standard L4.9B was determined after conducting a risk assessment and determining the effect of associated risk on the worldwide fleet. We have determined that for twin wheel MLG, the repetitive inspection of the NLG upper support lugs and missing cylinder cannot be relied upon indefinitely until replacement with EMM BSCU standard L4.9B or applicable alternatives specified in paragraph (w) of this AD by attrition. Modification is not required by paragraph (v) of this AD for airplanes installed with bogie MLG. Only airplanes fitted with twin wheel MLG must do the modification within 6 months.

The compliance time was also established taking into consideration availability of parts. Operators have multiple options to install EMM BSCU standards in accordance with paragraph (w) of this AD. However, according to the provisions of paragraph (bb)(1) of this AD, we might approve requests to adjust the compliance time or allow alternative actions if the requests include substantiation that the new compliance time or alternative actions would provide an acceptable level of safety. We have not changed this final rule in this regard.

''Contacting the Manufacturer'' Paragraph in This AD

Since late 2006, we have included a standard paragraph titled "Airworthy Product" in all MCAI ADs in which the FAA develops an AD based on a foreign authority's AD.

We have become aware that some operators have misunderstood or misinterpreted the Airworthy Product paragraph to allow the owner/operator to use messages provided by the manufacturer as approval of deviations during the accomplishment of an AD-mandated action. The Airworthy Product paragraph does not approve messages or other information provided by the manufacturer for deviations to the requirements of the AD-mandated actions. The Airworthy Product paragraph only addresses the requirement to contact the manufacturer for corrective actions for the identified unsafe condition and does not cover deviations from other AD requirements. However, deviations to AD-required actions are addressed in 14 CFR 39.17, and anyone may request the approval for an alternative method of compliance to the AD-required actions using the procedures found in 14 CFR 39.19.

To address this misunderstanding and misinterpretation of the Airworthy Product paragraph, we have changed the paragraph and retitled it "Contacting the Manufacturer." This paragraph now clarifies that for any requirement in this AD to obtain corrective actions from a manufacturer, the actions must be accomplished using a method approved by the FAA, the EASA, or Airbus's EASA Design Organization Approval (DOA).

The Contacting the Manufacturer paragraph also clarifies that, if approved by the DOA, the approval must include the DOA-authorized signature. The DOA signature indicates that the data and information contained in the document are EASA-approved, which is also FAA-approved. Messages and other information provided by the manufacturer that do not contain the DOA-authorized signature approval are not EASA-approved, unless EASA directly approves the manufacturer's message or other information.

This clarification does not remove flexibility previously afforded by the Airworthy Product paragraph. Consistent with long-standing FAA policy, such flexibility was never intended for required actions. This is also consistent with the recommendation of the Airworthiness Directive Implementation Aviation Rulemaking Committee to increase flexibility in complying with ADs by

identifying those actions in manufacturers' service instructions that are "Required for Compliance" with ADs. We continue to work with manufacturers to implement this recommendation. But once we determine that an action is required, any deviation from the requirement must be approved as an alternative method of compliance.

We also have decided not to include a generic reference to either the "delegated agent" or "design approval holder (DAH) with State of Design Authority design organization approval," but instead we have provided the specific delegation approval granted by the State of Design Authority for the DAH throughout this AD.

Additional Changes Made to This Final Rule

We have removed Note 1 to paragraph (i) of the proposed AD (78 FR 9341, February 8, 2013) and included that information in paragraph (i) of this AD. This change does not affect the intent of paragraph (i) of this AD.

We have also revised paragraph (m) of this AD to remove a reference to Chapter 32 of the Airbus A318/A319/A320/A321 Aircraft Maintenance Manual (AMM). As of the effective date of this AD, operators must contact the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA; as specified in paragraph (bb)(1) of this AD for approval to use this document. We also added a new Note 1 to paragraph (m) of this AD, which specifies that guidance for doing the installation required by paragraph (m) of this AD may be found in Chapter 32 of the Airbus A318/A319/A320/A321 AMM.

In addition, we have clarified paragraph (o) of this AD to indicate which part numbers correspond to which EMM units.

We removed Note 2 to paragraph (p) of the proposed AD (78 FR 9341, February 8, 2013) and included that information in new paragraph (aa)(3) of this AD. We have redesignated subsequent paragraphs accordingly. This change does not affect the intent of paragraph (p) of this AD.

We removed Note 3 to paragraph (r) of the proposed AD (78 FR 9341, February 8, 2013) and included that information in paragraph (r) of this AD. This change does not affect the intent of paragraph (r) of this AD.

Also, we revised paragraph (x) of the proposed AD (78 FR 9341, February 8, 2013) to indicate that accomplishing a modification specified in paragraph (w) of this AD is also a terminating action for the inspections required by paragraph (t) of this AD.

Paragraph (y) of the proposed AD (78 FR 9341, February 8, 2013) included a typographical error in the exception phrase. We have revised this AD to clarify the exception by specifying "Except for the prohibition specified in paragraph (z) of this AD. . . ."

Conclusion

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these changes:

- Are consistent with the intent that was proposed in the NPRM (78 FR 9341, February 8, 2013) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (78 FR 9341, February 8, 2013).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Costs of Compliance

We estimate that this AD affects about 755 products of U.S. registry.

The actions that are retained from AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007), 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 were required by AD 2007-18-09 is $255 per product.

We estimate that it will take 35 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is $85 per work-hour. Where the service information lists required parts costs that are covered under warranty, we have assumed that there will be no charge for these parts. As we do not control warranty coverage for affected parties, some parties may incur costs higher than estimated here. Based on these figures, we estimate the cost of this AD to the U.S. operators to be $2,246,125, or $2,975 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this AD. We have no way of determining the number of products 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 AD will not have federalism implications under Executive Order 13132. This AD will 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 that this AD:

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.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2013-0088; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this 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.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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) 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007), and adding the following new AD:

2013-25-07 Airbus: Amendment 39-17703. Docket No. FAA-2013-0088; Directorate Identifier 2011-NM-233-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective October 17, 2014.

(b) Affected ADs

This AD replaces AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007).

(c) Applicability

This AD applies to the Airbus airplanes listed in paragraphs (c)(1), (c)(2), (c)(3), and (c)(4) of this AD, certificated in any category, all 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 A320-111, -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 report of an airplane landing with the nose landing gear (NLG) turned 90 degrees from centerline, and from additional reports of upper support anti-rotation lugs of the NLG rupturing in service. We are issuing this AD to prevent landings with the NLG turned 90 degrees from centerline, which could result in reduced controllability of the airplane.

(f) Compliance

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

(g) Retained Records Review

This paragraph restates the requirements of paragraph (f) of AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007). Within 5 days after November 30, 2005 (the effective date of AD 2005-24-06, Amendment 39-14386 (70 FR 70715, November 23, 2005)), perform a records review to determine whether the airplane is equipped with or has ever been equipped with an enhanced manufacturing and maintainability (EMM) braking and steering control unit (BSCU) having part number (P/N) E21327001 (standard L4.1, installed by Airbus Modification 26965 or Airbus Service Bulletin A320-32-1912) or P/N E21327003 (standard L4.5, installed by Airbus

Modification 33376 or Airbus Service Bulletin A320-32-1261). Airbus Service Bulletin A320-32-1310, dated February 8, 2006, is one approved method for doing the records review.

(h) Retained Statement of No Further Action Required After Records Review

This paragraph restates a provision from paragraph (g) of AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007). For airplanes on which a records review required by paragraph (g) of this AD conclusively determines that the airplane is not and never has been equipped with a BSCU P/N E21327001 or P/N E21327003, no further action is required by paragraphs (i), (j), (k), (l), and (m) of this AD.

(i) Retained AFM Revision

This paragraph restates the requirements of paragraph (h) of AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007). For airplanes that are not specified in paragraph (h) of this AD and on which Airbus Modification 31152 has not been incorporated in production (i.e., applicable only to aircraft with steering powered by the green hydraulic system): Within 10 days after November 30, 2005 (the effective date of AD 2005-24-06, Amendment 39-14386 (70 FR 70715, November 23, 2005)), revise the Limitation Section of the Airbus A318/319/320/321 AFM to include the following information. This may be done by inserting a copy of figure 1 to paragraph (i) of this AD into the AFM. Accomplishment of the actions required by paragraph (r) of this AD terminates the requirements of this paragraph, and the AFM limitation required by this paragraph must be removed. When a statement identical to that in figure 1 to paragraph (i) of this AD has been included in the general revisions of the AFM, the general revisions may be inserted into the AFM, and the copy of figure 1 to paragraph (i) of this AD or AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007), may be removed from the AFM.

Figure 1 to Paragraph (i) of this AD - *Retained AFM Revision*

The ECAM message, in case of a nose wheel steering failure, will be worded as follows:

- "WHEEL N/W STRG FAULT" for aircraft with the FWC E3 and subsequent standards

-"WHEEL N.W. STEER FAULT" for aircraft with the FWC E2 Standard.

■ If the L/G SHOCK ABSORBER FAULT ECAM caution is triggered at any time in flight, and the WHEEL N/W STRG FAULT ECAM caution is triggered after the landing gear extension:

When all landing gear doors are indicated closed on ECAM WHEEL page, reset the BSCU:

- A/SKID&N/W STRG---------- OFF THEN ON

If the WHEEL N/W STRG FAULT ECAM caution is no longer displayed, this indicates a successful nose wheel re-centering and steering recovery.

- Rearm the AUTO BRAKE, if necessary.

If the WHEEL N/W STRG FAULT ECAM caution remains displayed, this indicates that the nose wheel steering remains lost, and that the nose wheels are not centered.

- During landing, delay nose wheel touchdown for as long as possible.

- Refer to the ECAM STATUS.

■ If the WHEEL N/W STRG FAULT ECAM caution appears, without the L/G SHOCK ABSORBER FAULT ECAM caution:

- No specific crew action is requested by the WHEEL N/W STRG FAULT ECAM caution procedure.

- Refer to the ECAM STATUS.

(j) Retained Inspection Thresholds

This paragraph restates the requirements of paragraph (i) of AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007), with specific delegation approval language. For airplanes that are not specified in paragraph (h) of this AD: At the earlier of the times specified in paragraphs (j)(1) and (j)(2) of this AD, do a special detailed inspection (boroscopic) for broken or cracked NLG upper support lugs and missing cylinder lugs, and do all applicable related investigative/corrective actions before further flight. Do all actions in accordance with Airbus Technical Note 957.1901/05, dated October 18, 2005; or the Accomplishment Instructions of Airbus Service Bulletin A320-32-1310, dated February 8, 2006. After October 11, 2007 (the effective date of AD 2007-18-09), only Airbus Service Bulletin A320-32-1310, dated February 8, 2006, may be used. Where Airbus Service Bulletin A320-32-1310, dated February 8, 2006, specifies that restoring the NLG is necessary in accordance with Airbus recommendations, this AD requires restoring the NLG 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). Repeat the inspection thereafter at the applicable interval specified in paragraph (k) or (l) of this AD until the inspection required by paragraph (t) of this AD is accomplished.

(1) Within 100 flight cycles following an ECAM caution L/G SHOCK ABSORBER FAULT associated with at least one of the following CFDS messages specified in paragraph (j)(1)(i), (j)(1)(ii), or (j)(1)(iii) of this AD. As of the effective date of this AD, for the conditions specified in paragraph (j)(1) of this AD, do the actions required by paragraph (r) of this AD.

(i) N L/G EXT PROX SNSR 24GA TGT POS.

(ii) N L/G EXT PROX SNSR 25GA TGT POS.

(iii) N L/G SHOCK ABSORBER FAULT 2526GM.

(2) At the later of the times specified in paragraphs (j)(2)(i) and (j)(2)(ii) of this AD.

(i) Within 20 months, 6,000 flight hours, or 4,500 flight cycles since the date of issuance of the original French standard airworthiness certificate or the original French export certificate of airworthiness, whichever occurs first.

(ii) Within 6 months, 1,800 flight hours, or 1,350 flight cycles after October 11, 2007 (the effective date of AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007)), whichever occurs first.

(k) Retained Repetitive Inspection Intervals for BSCU Standard L4.1 or L4.5

This paragraph restates the requirements of paragraph (j) of AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007). For airplanes not specified in paragraph (h) of this AD that are equipped with EMM BSCU standard L4.1 or L4.5: Repeat the inspection specified in paragraph (j) of this AD thereafter at intervals not to exceed the earliest of 6 months, 1,800 flight hours, 1,350 flight cycles, or 100 flight cycles following certain ECAM cautions and CFDS messages, as specified in paragraph (j)(1) of this AD.

(l) Retained Repetitive Inspection Intervals for BSCU Standard L4.8 or Non-EMM BSCU

This paragraph restates the requirements of paragraph (k) of AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007). For airplanes not specified in paragraph (h) of this AD that are equipped with EMM BSCU standard L4.8 or a non-EMM BSCU: Repeat the inspection specified in paragraph (j) of this AD thereafter at intervals not to exceed the earliest of 20 months, 6,000 flight hours, 4,500 flight cycles, or 100 flight cycles following certain ECAM cautions and CFDS messages, as specified in paragraph (j)(1) of this AD.

(m) Retained Optional Terminating Action With Limiting Date Restriction

This paragraph restates the requirements of paragraph (l) of AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007), with a limiting date restriction and specific delegation approval language. For airplanes that are not specified in paragraph (h) of this AD: Installation of an NLG with new upper support anti-rotation lugs and new cylinder lugs, or installation of an NLG that was never driven by EMM BSCU standard L4.1 or L4.5, combined with installation of EMM BSCU standard L4.8 or a non-EMM BSCU, before the effective date of this AD, constitutes terminating action for the requirements of paragraphs (g), (h), (i), (j), (k), and (l) of this AD. Do the installations in accordance with a method approved by the Manager, International Branch, ANM-116; or EASA; or Airbus's EASA DOA.

Note 1 to paragraph (m) of this AD: Guidance for doing the installation required by paragraph (m) of this AD may be found in Chapter 32 of the Airbus A318/A319/A320/A321 Airplane Maintenance Manual.

(n) Retained Statement of No Reporting Requirement

This paragraph restates the requirements of paragraph (m) of AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007). Although Airbus Service Bulletin A320-32-1310, dated February 8, 2006, specifies sending certain inspection results to Airbus, this AD does not include that requirement.

(o) New Part Number Identification

For the purpose of this AD, the following part numbers are identified.

(1) P/N E21327001 installed by Airbus Modification 26965 or by Airbus Service Bulletin A320-32-1912 in service stands for EMM BSCU L4.1.

(2) P/N E21327003 installed by Airbus Modification 33376 or Airbus Service Bulletin A320-32-1261 in service stands for EMM BSCU L4.5.

(3) P/N E21327004 installed by Airbus Modification 35216 or Airbus Service Bulletin A320-32-1305 or Airbus Service Bulletin A320-32-1343/AOT A320-32A1343 in service stands for EMM BSCU L4.8.

(4) P/N E213270B1 installed by Airbus Modification 31931 or Airbus Service Bulletin A320-32-1206 stands for EMM BSCU L5-2.

(5) P/N E21327006 installed by Airbus Modification 38973 or Airbus Service Bulletin A320-32-1350 or Airbus Service Bulletin A320-32-1361 stands for EMM BSCU L4.9B.

(6) P/N E21327106 installed by Airbus Modification 151575 or Airbus Service Bulletin A320-32-1387 stands for EMM BSCU L4.9B.

(7) P/N C202163392E34 installed by Airbus Service Bulletin A320-32-1336 or Airbus Service Bulletin A320-32-1360 stands for conventional BSCU standard 10.

(8) P/N C202163392E35 installed by Airbus Service Bulletin A320-32-1369 stands for conventional BSCU standard 10.1.

(p) New Records Review

Within 5 days after the effective date of this AD: Perform a records review to determine whether the airplane is equipped with or has ever been equipped with an EMM BSCU having P/N E21327001 (standard L4.1, installed by Airbus Modification 26965, or Airbus Service Bulletin A320-32-1912); or P/N E21327003 (standard L4.5, installed by Airbus Modification 33376, or Airbus Service Bulletin A320-32-1261); or P/N E21327004 (standard L4.8, installed by Airbus Modification 35216, or Airbus Service Bulletin A320-32-1305, or Airbus Service Bulletin A320-32-1343/AOT A320-32A1343); or P/N E213270B1 (standard L5-2, installed by Airbus Modification 31931, or Airbus Service Bulletin A320-32-1206).

(q) New Statement of No Further Action Required After Records Review

For airplanes on which a records review required by paragraph (p) of this AD conclusively determines that the airplane is not and never has been equipped with an EMM BSCU having P/N E21327001, P/N E21327003, P/N E21327004, or P/N E213270B1, no further action is required by paragraphs (r) and (s) of this AD.

(r) New AFM Revision

For airplanes that are not identified in paragraph (q) of this AD and on which Airbus Modification 31152 has not been incorporated in production (i.e., applicable only to aircraft with steering powered by the green hydraulic system): Within 10 days after the effective date of this AD, revise the Limitation Section of the Airbus A318/319/320/321 AFM to include the following

information. This revision may be done by inserting a copy of figure 2 to paragraph (r) of this AD into the AFM. Accomplishment of the actions required by this paragraph terminates the requirements of paragraph (i) of this AD, and the AFM revision required by paragraph (i) of this AD must be removed. When a statement identical to that in figure 2 to paragraph (r) of this AD has been included in the general revisions of the AFM, the general revisions may be inserted into the AFM, and the copy of figure 2 to paragraph (r) of this AD may be removed from the AFM.

Figure 2 to Paragraph (r) of this AD – *New AFM Revision*

The ECAM message, in case of a nose wheel steering failure, will be worded as follows:

- "WHEEL N/W STRG FAULT" for airplanes with Flight Warning Computer (FWC) software post E3P.

- "WHEEL N.W. STEER FAULT" for airplanes with FWC software pre E3P.

■ If the L/G SHOCK ABSORBER FAULT ECAM caution is triggered at any time in flight, and the WHEEL N/W STRG FAULT ECAM caution is triggered after the landing gear extension:

• When all landing gear doors are indicated closed on ECAM WHEEL page, reset the BSCU:

- A/SKID&N/W STRG---------- OFF THEN ON

• If the WHEEL N/W STRG FAULT ECAM caution is no longer displayed, this indicates a successful nose wheel re-centering and steering recovery.

- Rearm the AUTO BRAKE, if necessary.

• If the WHEEL N/W STRG FAULT ECAM caution remains displayed, this indicates that the nose wheel steering remains lost, and that the nose wheels are not centered.

- During landing, delay nose wheel touchdown for as long as possible.

- Refer to the ECAM STATUS.

■ If the WHEEL N/W STRG FAULT ECAM caution appears, without the L/G SHOCK ABSORBER FAULT ECAM caution:

- No specific crew action is requested by the WHEEL N/W STRG FAULT ECAM caution procedure.

- Refer to the ECAM STATUS.

Note: For airplanes fitted with pre FWC E3P standard, read N.W STEER instead of N/W STRG.

(s) New Inspection Following Certain Centralized Fault Display System Messages

(1) For airplanes other than those identified in paragraph (q) of this AD: Within 100 flight cycles following an ECAM caution L/G SHOCK ABSORBER FAULT associated with at least one of the following CFDS messages specified in paragraph (s)(1)(i), (s)(1)(ii), or (s)(1)(iii) of this AD, do the actions specified in paragraph (s)(2) of this AD.

(i) N L/G EXT PROX SNSR 24GA TGT POS.

(ii) N L/G EXT PROX SNSR 25GA TGT POS.

(iii) N L/G SHOCK ABSORBER FAULT 2526GM.

(2) For airplanes identified in paragraph (s)(1) of this AD: Do the actions specified in paragraphs (s)(2)(i) and (s)(2)(ii) of this AD.

(i) Check the NLG strut inflation pressure, weight-off-wheels, and weight-on-wheels, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1310,

Revision 01, dated June 23, 2011, and before further flight, do all applicable corrective actions and adjustments, in accordance with Airbus A318/A319/A320/A321 Airplane Maintenance Manual Task 12-12-32-610-001-A, Check NLG Shock Absorber Fluid Level and Charge Pressure ("Two-Point Check"–Aircraft on Jacks to start), Revision August 1, 2012.

(ii) Do a boroscopic inspection for broken or cracked NLG upper support lugs and missing or cracked cylinder lugs, and do all applicable related investigative and corrective actions before further flight. Do all actions in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1310, Revision 01, dated June 23, 2011. Where Airbus Service Bulletin A320-32-1310, Revision 01, dated June 23, 2011, specifies restoring the NLG in accordance with Airbus recommendations, this AD requires restoring the NLG before further flight, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA.

(t) New Initial Boroscopic Inspection

At the applicable times specified in paragraphs (t)(1) and (t)(2) of this AD: Do a boroscopic inspection for broken or cracked NLG upper support lugs and missing or cracked cylinder lugs, and do all applicable related investigative and corrective actions before further flight. Do all actions in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1310, Revision 01, dated June 23, 2011. Where Airbus Service Bulletin A320-32-1310, Revision 01, dated June 23, 2011, specifies restoring the NLG in accordance with Airbus recommendations, this AD requires restoring the NLG before further flight, in accordance with a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA. Accomplishment of the actions required by this paragraph terminate the requirements of paragraphs (j), (k), and (l) of this AD.

(1) For airplanes fitted with twin wheel main landing gear (MLG) that have been equipped with EMM BSCU standard L4.1, L4.5, or L4.8: At the later of the times specified in paragraphs (t)(1)(i) and (t)(1)(ii) of this AD.

(i) Within 20 months, or 6,000 flight hours, or 4,500 flight cycles since first flight of the airplane, whichever occurs first.

(ii) Within 6 months, or 1,800 flight hours, or 1,350 flight cycles after the effective date of this AD, whichever occurs first.

(2) For airplanes fitted with bogie MLG: At the later of the times specified in paragraphs (t)(2)(i) and (t)(2)(ii) of this AD.

(i) Within 20 months, or 6,000 flight hours, or 4,500 flight cycles after the installation of EMM BSCU standard L5-2, whichever occurs first.

(ii) Within 6 months, or 1,800 flight hours, or 1,350 flight cycles after the effective date of this AD, whichever occurs first.

(u) New Repetitive Boroscopic Inspections

After accomplishing the inspection specified in paragraph (t) of this AD: Repeat the inspection required by paragraph (t) of this AD thereafter at the applicable interval specified in paragraphs (u)(1), (u)(2), and (u)(3) of this AD.

(1) For airplanes fitted with twin wheel MLG that have been equipped with EMM BSCU standard L4.8: At intervals not to exceed 20 months, or 6,000 flight hours, or 4,500 flight cycles, whichever occurs first.

(2) For airplanes fitted with twin wheel MLG that have been equipped with EMM BSCU standard L4.1 or L4.5: At intervals not to exceed 6 months, or 1,800 flight hours, or 1,350 flight cycles, whichever occurs first.

(3) For airplanes fitted with bogie MLG: At intervals not to exceed 20 months, or 6,000 flight hours, or 4,500 flight cycles, whichever occurs first.

(v) New Modification

For airplanes fitted with twin wheel MLG: Within 6 months after the effective date of this AD, modify the airplane by installing EMM BSCU standard L4.9B, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1350, dated July 31, 2008.

(w) New Optional Method of Modification

Doing a modification specified in paragraph (w)(1), (w)(2), or (w)(3) of this AD, is acceptable for compliance with the requirements of paragraph (v) of this AD.

(1) Modification of the airplane by installing EMM BSCU standard L4.9B, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1387, dated April 7, 2011.

(2) Modification of the airplane by installing conventional EMM BSCU standard 10, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1360, dated March 18, 2009; or Airbus Service Bulletin A320-32-1336, Revision 01, dated January 10, 2008.

(3) Modification of the airplane by installing conventional EMM BSCU standard 10.1, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-32-1369, Revision 01, dated March 31, 2010.

(x) New Terminating Action

In-service modification of an airplane fitted with twin wheel MLG, as required by paragraph (v) or as specified in paragraph (w) of this AD, constitutes terminating action for the initial and repetitive inspections required by paragraph (t) of this AD. In addition, the AFM changes required by paragraph (r) of this AD may be removed from the AFM, and the requirements of paragraph (s) of this AD are no longer required.

(y) New Exception From Certain Actions

Except for the prohibition specified in paragraph (z) of this AD, airplanes that have been delivered with Airbus Modification 38973 and/or Airbus Modification 151575 that install EMM BSCU standard L4.9B are not affected by the requirements of this AD, provided that no installation of previous EMM BSCU standard L4.1, L4.5, or L4.8 has been performed since the first flight of the airplane.

(z) New Parts Installation Prohibition

For airplanes on which EMM BSCU L4.1, or EMM BSCU L4.5, or EMM BSCU L4.8 is not installed: As of the effective date of this AD, no person may modify any airplane by installing EMM BSCU standard L4.1, L4.5, or L4.8.

(aa) Credit for Previous Actions

(1) This paragraph restates the requirements of paragraph (n) of AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007). This paragraph provides credit for the inspections required by paragraph (j) of this AD, if those inspections were performed before October 11, 2007 (the effective date of AD 2007-18-09), using Chapter 12, Subject 12-14-32, of the Airbus A318/A319/A320/A321 AMM, as revised by Airbus A318/A319/A320/A321 AMM Temporary Revision 12-001, dated November 13, 2005, which is not incorporated by reference in this AD.

(2) This paragraph provides credit for the inspections and related investigative/corrective actions required by paragraphs (j), (k), and (l) of this AD, if those inspections were performed before the effective date of this AD using Airbus Service Bulletin A320-32-1310, dated February 8, 2006.

(3) This paragraph provides credit for the records review required by paragraph (p) of this AD, if the review was performed before the effective date of this AD using Airbus Service Bulletin A320-32-1310, Revision 01, dated June 23, 2011.

(4) This paragraph provides credit for the modifications specified in paragraph (w)(2) of this AD, if those modifications were performed before the effective date of this AD using Airbus Service Bulletin A320-32-1336, dated September 19, 2007, which is not incorporated by reference in this AD.

(5) This paragraph provides credit for the modifications required by paragraph (w)(3) of this AD, if those modifications were performed before the effective date of this AD using Airbus Service Bulletin A320-32-1369, dated March 22, 2009, which 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.

(i) 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.

(ii) AMOCs approved previously for AD 2007-18-09, Amendment 39-15189 (72 FR 51164, September 6, 2007), are not approved as AMOCs with 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 EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(cc) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2011-0201, dated October 13, 2011, for related information. You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2013-0088-0002.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (dd)(6) and (dd)(7) of this AD.

(dd) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(3) The following service information was approved for IBR October 17, 2014.

(i) Airbus A318/A319/A320/A321 Airplane Maintenance Manual Task 12-12-32-610-001-A, Check NLG Shock Absorber Fluid Level and Charge Pressure ("Two-Point Check"–Aircraft on Jacks to start), Revision August 1, 2012.

(ii) Airbus Service Bulletin A320-32-1310, Revision 01, dated June 23, 2011.

(iii) Airbus Service Bulletin A320-32-1336, Revision 01, dated January 10, 2008.

(iv) Airbus Service Bulletin A320-32-1350, dated July 31, 2008.

(v) Airbus Service Bulletin A320-32-1360, dated March 18, 2009.

(vi) Airbus Service Bulletin A320-32-1369, Revision 01, dated March 31, 2010.

(vii) Airbus Service Bulletin A320-32-1387, dated April 7, 2011.

(4) The following service information was approved for IBR on October 11, 2007 (72 FR 51164, September 6, 2007).

(i) Airbus Service Bulletin A320-32-1310, dated February 8, 2006.

(ii) Reserved.

(5) The following service information was approved for IBR on November 30, 2005 (70 FR 70715, November 23, 2005).

(i) Airbus Technical Note 957.1901/05, dated October 18, 2005.

(ii) Reserved.

(6) For service information identified in this AD, contact Airbus, Airworthiness Office–EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; Internet http://www.airbus.com.

(7) You may review copies of the 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.

(8) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued in Renton, Washington, on November 29, 2013.

Jeffrey E. Duven,

Manager, Transport Airplane Directorate,

Aircraft Certification Service.