



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-1033; Directorate Identifier 2010-NM-266-AD]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to supersede an existing airworthiness directive (AD) that applies to all Airbus Model A330-200 and -300 series airplanes, and Model A340-200 and -300 series airplanes. The existing AD currently requires repetitive inspections to detect discrepancies of the transfer tubes and the collar of the ball nut of the trimmable horizontal stabilizer actuator (THSA), and corrective action if necessary; repetitive inspections for discrepancies of the ball screw assembly, and corrective action if necessary; repetitive greasing of the THSA ball nut, and replacement of the THSA if necessary; and modification or replacement (as applicable) of the ball nut assembly, which would end certain repetitive inspections. Since we issued that AD, we have determined the repetitive inspections of the ball screw assembly (and corrective action if necessary) and repetitive greasing is needed for additional THSA nuts. This proposed AD would remove certain inspections, revise certain actions, and add airplanes to the applicability. We are proposing this AD to prevent degraded operation of the THSA, which could result in reduced controllability of the airplane.

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

ADDRESSES: You may send comments 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 SAS – Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email airworthiness.A330-A340@airbus.com; Internet: <http://www.airbus.com>. For TRW Aeronautical Systems, SAMM Avionique, and Lucas Aerospace service information identified in this proposed AD, contact Goodrich Corporation, Actuation Systems, Stafford Road, Fordhouses, Wolverhampton WV10 7EH, England; telephone +44 (0) 1902 624938; fax +44 (0) 1902 788100; email techpubs.wolverhampton@goodrich.com; Internet <http://www.goodrich.com/TechPubs.Y>. You may review copies of the 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>; 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 proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone: (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1138; 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-2012-1033; Directorate Identifier 2010-NM-266-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD based on those

comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

On March 17, 2005, we issued AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005). That AD required actions intended to address an unsafe condition on the products listed above. Since we issued AD 2005-07-04, the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2010-0192 (corrected), dated October 11, 2010; and EASA Airworthiness Directive 2010-0193 (corrected), dated October 11, 2010; (referred to after this as “the MCAI”), to correct an unsafe condition for the specified products. The MCAI states:

Several cases of transfer tube disconnection from the ball-nut of the trimmable horizontal stabilizer actuator (THSA) part number (P/N) 47172 and 47147-400 were detected on the ground during greasing and maintenance.

This condition is caused by water ingress into the ball-nut resulting in the jamming of the ball transfer circuit when the water freezes.

If the three (independent) ball circuits fail, then the THSA will operate on a fail-safe nut. This nut (which operates without balls) would then jam after several movements on the screw of the THSA.

This degraded operation is not detectable in the cockpit by the crew as long as the THSA does not jam and could

damage the ball screw and the fail-safe nut.

To detect this unsafe condition, [Dirección General de Aviación Civil] DGAC France AD F-2001-356 [and F-2001-357] was issued to require repetitive inspections of the transfer tubes and their collars in order to detect at an early stage any distortion or initiation of disconnection.

Further to a new case of transfer tube disconnection, * * * [revised ADs] required an additional repetitive greasing task with reinforcement of the ball-nut maintenance greasing instructions.

In addition, the electrical flight control computers monitor the operation of the THSA and the jamming of this actuator could be detected and indicated by messages on the maintenance system and on the [electronic centralized aircraft monitor] ECAM. In this case a mandatory inspection of the THSA is required before the next flight.

DGAC France AD F-2002-038 [and F-2002-037] required application of a final fix (related to inspection and greasing task required by DGAC France AD F-2001-356) [and F-2001-357] for the THSA P/N 47172 by application of Airbus modification 49590/Service Bulletin (SB) A330-27-3085 [or SB A340-27-4089]. It changes the THSA P/N from 47172 to 47172-300.

Later on, DGAC France AD F-2002-414R3 replaced the DGAC AD France F-2001-356R2 and F-2002-038 [and DGAC France AD F2002-415R2 superseded DGAC France ADs F-2001-357R2 and F-2002-037] requiring:

- the repetitive [detailed] inspection [for discrepancies] of all THSA P/N in service [for integrity of the primary and secondary load path and check the Checkable Shear Pins (CSPs)], and
- the lubrication of some THSA P/N, and
- the replacement of THSA P/N 47172, 47147-400 and 47147-2XX/-3XX

[DGAC France AD F-2002-414R3 and F-2002-415R2

correspond to FAA AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005).]

Airbus has later introduced 4 new THSA P/N (47172-500, 47172-510, 47172-520 and 47172-530).

This [EASA] AD retains the requirements of DGAC France AD F-2002-414R3 [and F-2002-415R2], which is superseded, and requires repetitive inspections and lubrications of the new THSA P/N.

The repetitive inspection and lubrication requirements for THSA P/N 47172-520 and 47172-530 shall [also] be included in the next Airworthiness Limitation Section (ALS) Part 4 revision.

* * * * *

Corrective actions include replacing the THSA with a new THSA if cracks, dents, or corrosion are found, or if the feeler gage has failed at any of the four gaps. Corrective action is using a method approved by either the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the EASA (or its delegated agent) for a finding of metallic debris, loose nut, damaged or missing lock washers, pins and parts, or incorrect installation of items. AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005), specified repetitive inspections for discrepancies. This proposed AD specifies repetitive inspections for the integrity of the primary and secondary load path, and the CSPs, for certain airplanes. The unsafe condition is the degraded operation of the THSA, which could result in reduced controllability of the airplane. You may obtain further information by examining the MCAI in the AD docket.

Relevant Service Information

Airbus has issued the following service information for Model A330-200 and -300 series airplanes.

- Airbus Mandatory Service Bulletin A330-27-3102, Revision 08, excluding Appendix 1, dated December 6, 2007.
- Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, of Airbus A330 MRBR, Revision 12, dated July 1, 2010.
- Task 274400-00001-1-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.
- Task 274400-00001-1-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.
- Task 274400-00001-2-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.
- Task 274400-00001-2-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.
- Task 274400-00001-3-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.
- Task 274400-00001-3-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.
- Task 274400-00001-4-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

- Task 274400-00001-4-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.
 - Task 274400-00002-1-E, Lubrication of the THSA Ball Nut, of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.
- Airbus has issued the following service information for Model A340-200 and -300 series airplanes.
- Airbus Mandatory Service Bulletin A340-27-4107, Revision 08, excluding Appendix 1, dated December 6, 2007.
 - Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, of Airbus A340 MRBR, Revision 12, dated July 1, 2010.
 - Task 274400-00001-1-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.
 - Task 274400-00001-1-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.
 - Task 274400-00001-2-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.
 - Task 274400-00001-2-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.
 - Task 274400-00001-3-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.
 - Task 274400-00001-3-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

- Task 274400-00001-4-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.
 - Task 274400-00001-4-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.
 - Task 274400-00002-1-E, Lubrication of the THSA Ball Nut, of Airbus of A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.
- The actions described in this service information are intended to correct the unsafe condition identified in the MCAI.

FAA's Determination and Requirements of This Proposed AD

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of the same type design.

Explanation of Updated Credit Language

We have revised the heading and wording for paragraph (i) of this AD to provide appropriate credit for previous accomplishment of certain actions. This change does not affect the intent of that paragraph.

Explanation of Change to Costs of Compliance

Since issuance of AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005), we have increased the labor rate used in the Costs of Compliance from

\$65 per work-hour to \$85 per work-hour. The Costs of Compliance information, below, reflects this increase in the specified labor rate.

Costs of Compliance

Based on the service information, we estimate that this proposed AD would affect about 33 products of U.S. registry.

The actions that are required by AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005), and retained in this proposed AD take up to 36 work-hours per product, at an average labor rate of \$85 per work hour. Based on these figures, the estimated cost of the currently required actions is up to \$3,060 per product.

We estimate that it would take about 2 work-hours per product to comply with the new basic requirements of this proposed AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of the proposed AD on U.S. operators to be \$5,610, or \$170 per product.

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866,
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
3. Will not affect intrastate aviation in Alaska, and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

List of Subjects in 14 CFR Part 39

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

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by removing AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005), and adding the following new AD:

Airbus: Docket No. FAA-2012-1033; Directorate Identifier 2010-NM-266-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 supersedes AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005).

(c) Applicability

This AD applies to all Airbus Model A330-201, -202, -203, -223, -223F, -243, -243F, -301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and Model A340-211, -212, -213, -311, -312, and -313 airplanes; certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 27: Flight Controls.

(e) Reason

This AD was prompted by several reports of disconnection of the transfer tube from the ball nut of the trimmable horizontal stabilizer actuator (THSA). We are issuing this AD to prevent degraded operation of the THSA, which could result in reduced controllability of the airplane.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Retained Modification or Replacement

This paragraph restates the requirements of paragraph (g) of AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005). Except for Model A330-223F and -243F airplanes: Within 24 months after May 4, 2005 (the effective date of AD 2005-07-04), modify the ball nut of each THSA by doing paragraph (g)(1) or (g)(2) of this AD, as applicable.

(1) For THSAs having P/N 47172: Modify the ball nut of the THSA, or replace the existing THSA with a serviceable part having P/N 47172-300; in accordance with Airbus Service Bulletin A330-27-3085 (for Model A330 series airplanes) or A340-27-4089 (for Model A340-313 series airplanes), both Revision 02, both dated September 5, 2002; as applicable.

Note 1 to paragraph (g)(1) of this AD: Airbus Service Bulletins A330-27-3085 and A340-27-4089, both Revision 02, both dated September 5, 2002, refer to TRW Aeronautical Systems Service Bulletin 47172-27-03, dated October 24, 2001, which is not incorporated by reference in this AD, as additional guidance for accomplishing the modification of the ball nut of the THSA.

(2) For THSAs having P/N 47147-200, -210, -213, -300, -303, -350, or -400: Modify the ball nut of the THSA, or replace the existing THSA with an improved part having P/N 47147-500; as applicable; in accordance with Airbus Service Bulletin A330-27-3093 (for Model A330 series airplanes) or A340-27-4099 (for Model A340-200 and -300 series airplanes), both Revision 01, both dated September 5, 2002; as applicable.

Note 2 to paragraph (g)(2) of this AD: Airbus Service Bulletins A330-27-3093 and A340-27-4099, both Revision 01, both dated September 5, 2002, refer to TRW Aeronautical Systems Service Bulletin 47147-27-10, dated June 27, 2002, which is not incorporated by reference in this AD, as additional guidance for accomplishing the modification of the ball nut of the THSA.

(h) Retained Previous/Concurrent Requirements

This paragraph restates the requirements of paragraph (h) of AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005).

(1) Except for Model A330-223F and -243F airplanes, prior to or concurrently with accomplishing the requirements of paragraph (g)(2) of this AD, do all of the actions specified in the Accomplishment Instructions of the applicable Airbus service bulletins

listed in table 1 or 2 to paragraph (h)(1) of this AD, as applicable, in accordance with those service bulletins.

Note 3 to paragraph (h)(1) of this AD: Airbus Service Bulletin A330-27-3093, Revision 01, dated September 5, 2002, specifies that the actions in Airbus Service Bulletin A330-27-3052 be accomplished previously or concurrently. Airbus Service Bulletin A330-27-3052, Revision 03, dated December 5, 2001, specifies that the actions in Airbus Service Bulletins A330-27-3007, A330-27-3015, A330-27-3047, A330-27-3050, and A330-55-3020 be accomplished previously or concurrently.

Note 4 to paragraph (h)(1) of this AD: Airbus Service Bulletin A340-27-4099, Revision 01, dated September 5, 2002, specifies that the actions in Airbus Service Bulletin A340-27-4059 be accomplished previously or concurrently. Airbus Service Bulletin A340-27-4059, Revision 03, dated December 5, 2001, specifies that the actions in Airbus Service Bulletins A340-27-4007, A340-27-4025, A340-27-4054, A340-27-4057, and A340-55-4021 be accomplished previously or concurrently.

Table 1 to Paragraph (h)(1) of This AD – Retained Previous/Concurrent Requirements for Model A330 Series Airplanes

Airbus Service Bulletin –	Revision Level –	Date –	Main Action –	Additional Source of Guidance (Not Incorporated by Reference in This AD) –
A330-27-3007	01	September 18, 1996	Replace rudder servo controls with modified parts	Samm Avionique Service Bulletin SC5300-27-24-01, dated April 15, 1994
A330-27-3015	---	June 7, 1995	Modify the control valve detent and the jamming protection device on the THSA	Lucas Aerospace Service Bulletin 47147-27-02, Revision 1, dated January 31, 1996
A330-27-3047	01	November 26, 1997	Replace hydraulic motors on the THSA with new parts	Lucas Aerospace Service Bulletin 47147-27-04, Revision 1, dated June 20, 1997
A330-27-3050	---	November 15, 1996	Replace mechanical input shaft for THSA with modified part	Lucas Aerospace Service Bulletin 47147-27-05, dated November 8, 1996
A330-27-3052	03	December 5, 2001	Replace THSA with a modified THSA	Lucas Aerospace Service Bulletin 47147-27-07, dated May 4, 1998
A330-55-3020	01	October 21, 1998	Perform a general visual inspection of the THSA screw jack fitting assembly for correct installation of a washer; and correctly install washer as applicable	None

Table 2 to Paragraph (h)(1) of This AD – Retained Previous/Concurrent Requirements for Model A340 Series Airplanes

Airbus Service Bulletin –	Revision Level –	Date –	Main Action –	Additional Source of Guidance (Not Incorporated by Reference in this AD) –
A340-27-4007	---	April 7, 1994	Replace hydraulic motors on the THSA with new parts	Lucas Aerospace Service Bulletin 47147-27-01, dated May 4, 1998
A340-27-4025	---	June 7, 1995	Modify the control valve detent and the jamming protection device on the THSA	Lucas Aerospace Service Bulletin 47147-27-02, Revision 1, dated January 31, 1996
A340-27-4054	01	November 26, 1997	Replace hydraulic motors on the THSA with new parts	Lucas Aerospace Service Bulletin 47147-27-04, Revision 1, dated June 20, 1997
A340-27-4057	---	November 15, 1996	Replace mechanical input shaft for THSA with modified part	Lucas Aerospace Service Bulletin 47147-27-05, dated November 8, 1996
A340-27-4059	03	December 5, 2001	Replace THSA with a modified THSA	Lucas Aerospace Service Bulletin 47147-27-07, dated May 4, 1998

Airbus Service Bulletin –	Revision Level –	Date –	Main Action –	Additional Source of Guidance (Not Incorporated by Reference in this AD) –
A340-55-4021	01	October 21, 1998	Perform a general visual inspection of the THSA screw jack fitting assembly for correct installation of a washer; and correctly install washer as applicable	None

(2) 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 ensure visual access to all 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.”

(i) Retained Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraphs (i)(1) and (i)(2) of this AD.

(1) This paragraph provides credit for the requirements of paragraph (g)(1) of this AD, if those actions were performed before May 4, 2005 (the effective date of AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005)), using Airbus Service Bulletin A330-27-3085 (for Model A330 series airplanes) or A340-27-4089 (for Model A340-313 series airplanes), both Revision 01, both dated January 23, 2002 (which are not incorporated by reference in this AD), as applicable.

(2) This paragraph provides credit for the requirements of paragraphs (g)(2) of this AD, if those actions were performed before May 4, 2005 (the effective date of AD 2005-07-04, Amendment 39-14028 (70 FR 16104, March 30, 2005)), using Airbus Service Bulletin A330-27-3093 (for Model A330 series airplanes) or A340-27-4099 (for Model A340-200 and -300 series airplanes), both dated June 27, 2002 (which are not incorporated by reference in this AD), as applicable.

(j) New Repetitive Greasing Procedure

(1) Within 700 flight hours after the effective date of this AD or within 700 flight hours after the date of the last lubrication, whichever occurs later, and thereafter at intervals not to exceed 700 flight hours from the last lubrication of the trimmable horizontal stabilizer (THS) actuator ball screw nut: Perform Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, in accordance with Airbus A330 Maintenance Review Board Report (MRBR), Revision 12, dated July 1, 2010 (for Model A330 series airplanes); or Airbus A340 MRBR, Revision 12, dated July 1, 2010 (for Model A340 series airplanes); on all THSA.

(2) For airplanes identified in paragraphs (j)(2)(i), (j)(2)(ii), and (j)(2)(iii) of this AD, as applicable, lubrication of the THS actuator ball screw nut performed at threshold and repetitive interval not exceeding 1,000 flight hours, in accordance with Task 274400-00002-1-E, Lubrication of the THSA Ball Nut, of Airbus A330 Airworthiness Limitations Section (ALS) Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009 (for Model A330 series airplanes); or Task 274400-00002-1-E, Lubrication of the THSA Ball Nut, of Airbus of A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009 (for Model A340-200 and -300 series airplanes); is acceptable for compliance with requirements of paragraph (j)(1) of this AD.

(i) Airplanes on which Airbus Modifications 52269, 56056, and 55780 have been done in production.

(ii) Model A330 series airplanes on which the actions specified in Airbus Mandatory Service Bulletin A330-27-3137, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated January 18, 2010; and Airbus Mandatory Service Bulletin A330-92-3046, Revision 04, dated July 16, 2010, or Revision 05, dated November 7, 2011; (which are not incorporated by reference in this AD) have been done in service.

(iii) Model A340-200 and -300 series airplanes on which the actions specified in Airbus Mandatory Service Bulletin A340-27-4136, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated February 24, 2010; and Airbus

Mandatory Service Bulletin A340-92-4056, Revision 03, dated July 16, 2010; (which are not incorporated by reference in this AD) have been done in service.

(k) New Repetitive Inspections of the Ball Screw Assembly and Corrective Actions

For all airplanes, except for those airplanes identified in paragraphs (k)(1), (k)(2), and (k)(3) of this AD: Do the applicable actions specified in paragraphs (k)(4) and (k)(5) of this AD within 700 flight hours after the effective date of this AD, and repeat the inspection thereafter at intervals not to exceed 700 flight hours.

(1) Airplanes on which the actions specified in Airbus Modifications 52269, 56056, and 55780 have been done in production.

(2) Model A330 series airplanes on which Airbus Mandatory Service Bulletin A330-27-3137, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated January 18, 2010; and Airbus Mandatory Service Bulletin A330-92-3046, Revision 04, dated July 16, 2010, or Revision 05, dated November 7, 2011; (which are not incorporated by reference in this AD) have been done in service.

(3) Model A340-200 and -300 series airplanes on which the actions specified in Airbus Mandatory Service Bulletin A340-27-4136, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated February 24, 2010; and Airbus Mandatory Service Bulletin A340-92-4056, Revision 03, dated July 16, 2010; have been done in service.

(4) For airplanes on which the actions specified in Airbus Mandatory Service Bulletin A330-27-3137, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated January 18, 2010 (for Model A330 series airplanes); or Airbus

Mandatory Service Bulletin A340-27-4136, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated February 24, 2010 (for Model A340-200 and -300 series airplanes); (which are not incorporated by reference in this AD) have been done: Do the applicable detailed inspection of the ball screw assembly for integrity of the primary and secondary load path and check the checkable shear pins (CSP), and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27-3102, Revision 08, excluding Appendix 1, dated December 6, 2007 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-27-4107, Revision 08, excluding Appendix 1, dated December 6, 2007 (for Model A340-200 and -300 series airplanes); except as required by paragraph (k)(6) of this AD. Do all applicable corrective actions before further flight.

(5) For airplanes on which the actions specified in Airbus Mandatory Service Bulletin A330-27-3137, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated January 18, 2010 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-27-4136, dated March 20, 2007, Revision 01, dated December 6, 2007, or Revision 02, dated February 24, 2010 (for Model A340-200 and -300 series airplanes); (which are not incorporated by reference in this AD) have not been done: Perform a detailed inspection of the ball screw assembly for integrity of the primary and secondary load path, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27-3102, Revision 08, excluding Appendix 1, dated December 6, 2007 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-27-4107,

Revision 08, excluding Appendix 1, dated December 6, 2007 (for Model A340 series airplanes); except as required by paragraph (k)(6) of this AD. Do all applicable corrective actions before further flight.

(6) Where Airbus Mandatory Service Bulletin A330-27-3102, Revision 08, excluding Appendix 1, dated December 6, 2007 (for Model A330 series airplanes); or Airbus Mandatory Service Bulletin A340-27-4107, Revision 08, excluding Appendix 1, dated December 6, 2007 (for Model A340 series airplanes); specify contacting Airbus for a damage assessment, this AD requires contacting the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA) (or its delegated agent); for required actions before further flight, and doing the specified actions within the times given.

(l) New Actions for Electronic Centralized Aircraft Monitor (ECAM) Fault Messages

For airplanes identified in paragraph (k) of this AD, if one of the "PRIM X PITCH FAULT" or "STAB CTL FAULT" messages is displayed on the ECAM associated with the "PITCH TRIM ACTR (1CS)" maintenance message, do the applicable detailed inspection and all applicable corrective actions specified in paragraph (k)(4) or (k)(5) of this AD, as applicable to airplane configuration, before further flight after the message is displayed on the ECAM.

(m) New Optional Method of Compliance

For airplanes having THSA P/N 47147-500, 47147-700, 47172-300, 47172-500, or 47172-510, accomplishing the repetitive actions specified in paragraph (m)(1) or (m)(2) of this AD, as applicable, is acceptable for compliance with the corresponding actions specified in paragraph (k)(4) or (k)(5) of this AD, as applicable.

(1) For Model A330 series airplanes, the repetitive actions specified in paragraphs (m)(1)(i) through (m)(1)(viii) of this AD.

(i) Task 274400-00001-1-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(ii) Task 274400-00001-1-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(iii) Task 274400-00001-2-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(iv) Task 274400-00001-2-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(v) Task 274400-00001-3-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(vi) Task 274400-00001-3-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(vii) Task 274400-00001-4-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(viii) Task 274400-00001-4-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(2) For Model A340-200 and -300 series airplanes, the repetitive actions specified in paragraphs (m)(2)(i) through (m)(2)(viii) of this AD.

(i) Task 274400-00001-1-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(ii) Task 274400-00001-1-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(iii) Task 274400-00001-2-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(iv) Task 274400-00001-2-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(v) Task 274400-00001-3-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(vi) Task 274400-00001-3-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(vii) Task 274400-00001-4-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(viii) Task 274400-00001-4-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(n) New Credit for Previous Actions

(1) This paragraph provides credit for the inspections and corrective actions required by paragraph (k) of this AD, if those actions were performed before the effective

date of this AD using the service information specified in paragraphs (n)(1)(i) through (n)(1)(vi) of this AD (which is not incorporated by reference in this AD).

(i) Airbus Service Bulletin A330-27-3102, Revision 02, excluding Appendix 01, dated November 7, 2002.

(ii) Airbus Service Bulletin A330-27-3102, Revision 03, excluding Appendix 01, dated June 20, 2003.

(iii) Airbus Service Bulletin A330-27-3102, Revision 04, excluding Appendix 01, dated December 8, 2003.

(iv) Airbus Mandatory Service Bulletin A330-27-3102, Revision 05, excluding Appendix 01, dated July 7, 2004.

(v) Airbus Mandatory Service Bulletin A330-27-3102, Revision 06, excluding Appendix 01, dated December 16, 2005.

(vi) Airbus Mandatory Service Bulletin A330-27-3102, Revision 07, excluding Appendix 01, dated March 16, 2007.

(2) This paragraph provides credit for the inspections and corrective actions required by paragraph (k) of this AD, if those actions were performed before the effective date of this AD using the service information specified in paragraphs (n)(2)(i) through (n)(2)(vi) of this AD (which is not incorporated by reference in this AD).

(i) Airbus Service Bulletin A340-27-4107, Revision 02, excluding Appendix 01, dated September 23, 2002.

(ii) Airbus Service Bulletin A340-27-4107, Revision 03, excluding Appendix 01, dated December 4, 2002.

(iii) Airbus Mandatory Service Bulletin A340-27-4107, Revision 04, excluding Appendix 01, dated June 20, 2003.

(iv) Airbus Mandatory Service Bulletin A340-27-4107, Revision 05, excluding Appendix 01, dated December 8, 2003.

(v) Airbus Mandatory Service Bulletin A340-27-4107, Revision 06, excluding Appendix 01, dated December 16, 2005.

(vi) Airbus Mandatory Service Bulletin A340-27-4107, Revision 07, excluding Appendix 01, dated March 16, 2007.

(3) This paragraph provides credit for the actions specified in paragraph (j) of this AD, if those actions were performed before the effective date of this AD using Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, of Airbus A330 MRBR, Revision 11, dated June 18, 2008 (which is not incorporated by reference in this AD).

(4) This paragraph provides credit for the actions specified in paragraph (j) of this AD, if those actions were performed before the effective date of this AD using Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, of Airbus A340 MRBR, Revision 11, dated June 18, 2008 (which is not incorporated by reference in this AD).

(o) Other FAA AD Provisions

The following provisions also apply to this AD:

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

appropriate. If sending information directly to the International Branch, send it to ATTN: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone: 425-227-1138; 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) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(p) Related Information

(1) Refer to MCAI EASA Airworthiness Directive 2010-0192 (corrected), dated October 11, 2010; EASA Airworthiness Directive 2010-0193 (corrected), dated October 11, 2010; and the following service information; for related information

(i) Airbus Mandatory Service Bulletin A330-27-3102, Revision 08, excluding Appendix 1, dated December 6, 2007.

(ii) Airbus Mandatory Service Bulletin A340-27-4107, Revision 08, excluding Appendix 1, dated December 6, 2007.

- (iii) Airbus Service Bulletin A330-27-3007, Revision 01, dated September 18, 1996.
- (iv) Airbus Service Bulletin A330-27-3015, dated June 7, 1995.
- (v) Airbus Service Bulletin A330-27-3047, Revision 01, dated November 26, 1997.
- (vi) Airbus Service Bulletin A330-27-3050, dated November 15, 1996.
- (vii) Airbus Service Bulletin A330-27-3052, Revision 03, dated December 5, 2001.
- (viii) Airbus Service Bulletin A330-27-3085, Revision 02, dated September 5, 2002.
- (ix) Airbus Service Bulletin A330-27-3093, Revision 01, dated September 5, 2002.
- (x) Airbus Service Bulletin A330-55-3020, Revision 01, dated October 21, 1998.
- (xi) Airbus Service Bulletin A340-27-4007, dated April 7, 1994.
- (xii) Airbus Service Bulletin A340-27-4025, dated June 7, 1995.
- (xiii) Airbus Service Bulletin A340-27-4054, Revision 01, dated November 26, 1997.
- (xiv) Airbus Service Bulletin A340-27-4057, dated November 15, 1996.
- (xv) Airbus Service Bulletin A340-27-4059, Revision 03, dated December 5, 2001.
- (xvi) Airbus Service Bulletin A340-27-4089, Revision 02, dated September 5, 2002.

(xvii) Airbus Service Bulletin A340-27-4099, Revision 01, dated September 5, 2002.

(xviii) Airbus Service Bulletin A340-55-4021, Revision 01, October 21, 1998.

(xix) Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, of Airbus A330 MRBR, Revision 12, dated July 1, 2010.

(xx) Task 27.40.00/02, Lubrication of THS Actuator Ball Screw Nut, of Airbus A340 MRBR, Revision 12, dated July 1, 2010.

(xxi) Task 274400-00001-1-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(xxii) Task 274400-00001-1-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(xxiii) Task 274400-00001-1-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(xxiv) Task 274400-00001-1-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(xxv) Task 274400-00001-2-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(xxvi) Task 274400-00001-2-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(xxvii) Task 274400-00001-2-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(xxviii) Task 274400-00001-2-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(xxix) Task 274400-00001-3-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(xxx) Task 274400-00001-3-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(xxxii) Task 274400-00001-3-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(xxxiii) Task 274400-00001-3-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(xxxiiii) Task 274400-00001-4-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(xxxv) Task 274400-00001-4-E of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 03, dated September 9, 2011.

(xxxvi) Task 274400-00001-4-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(xxxvii) Task 274400-00001-4-E of Airbus A340 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated October 12, 2011.

(xxxviii) Task 274400-00002-1-E, Lubrication of the THSA Ball Nut, of Airbus A330 ALS Part 4 - Ageing Systems Maintenance, Revision 02, dated December 16, 2009.

(xxxviii) Task 274400-00002-1-E, Lubrication of the THSA Ball Nut, of Airbus of A340 ALS Part 4 - Ageing Systems Maintenance, Revision 01, dated December 15, 2009.

(2) For Airbus service information identified in this AD, contact Airbus SAS – Airworthiness Office – EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email airworthiness.A330-A340@airbus.com; Internet: <http://www.airbus.com>. For TRW Aeronautical Systems, SAMM Avionique, and Lucas Aerospace service information identified in this proposed AD, contact Goodrich Corporation, Actuation Systems, Stafford Road, Fordhouses, Wolverhampton WV10 7EH, England; telephone +44 (0) 1902 624938; fax +44 (0) 1902 788100; email techpubs.wolverhampton@goodrich.com; Internet <http://www.goodrich.com/TechPubs.Y>. You may review copies of the 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. Issued in Renton, Washington, on September 21, 2012.

Ali Bahrami,
Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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