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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2016-9508; Directorate Identifier 2016-NM-065-AD; Amendment 39-18956; AD 2017-14-12]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus Airplanes**

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

**ACTION:** Final rule.

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**SUMMARY:** We are superseding Airworthiness Directive (AD) 2015-22-06 which applied to all Airbus Model A318, A319, A320, and A321 series airplanes. AD 2015-22-06 required revising the After Start Normal Procedures section of the airplane flight manual (AFM) to provide procedures that address latent failures in the spoiler and elevator computer (SEC). This AD requires installing new updated SEC software. This AD was prompted by reports that certain maintenance messages indicated the loss of elevator servo control monitoring performed by SEC 1, SEC 2, or both, during the engine start. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective September 22, 2017.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of September 22, 2017.

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of November 20, 2015 (80 FR 68429, November 5, 2015).

**ADDRESSES:** For service information identified in this final rule, contact Airbus, Airworthiness Office-EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425 227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9508.

## Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9508; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (telephone 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**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 2015-22-06, Amendment 39-18311 (80 FR 68429, November 5, 2015) (“AD 2015-22-06”). AD 2015-22-06 applied to all Airbus Model A318, A319, A320, and A321 series airplanes. The NPRM published in the Federal Register on December 20, 2016 (81 FR 92749). The NPRM was prompted by reports that some maintenance messages pointed out the loss of elevator servo control monitoring performed by SEC 1, SEC 2, or both, during the engine start. The NPRM proposed to continue to require revision of the After Start Normal Procedures section of the AFM. The NPRM also proposed to require multiple actions depending on airplane configuration. For airplanes with SEC C that have received the previous Airbus modification to SEC hardware, the NPRM proposed to require a software update and revision to the AFM. For airplanes that have not received the modification, the NPRM proposed to require inspection of the currently installed SEC hardware to determine if it is affected by this AD and to complete a corrective action to update the software and AFM as required. We are issuing this AD to prevent an undetected loss of redundancy during flight if an affected SEC cannot control the related elevator servo control(s), which could result in reduced control of the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive, 2016-0056, dated March 18, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A318 and A319 series airplanes, and Model A320-211, -212, -214, -231, -232, and -233, and A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The MCAI states:

Following the introduction of new Spoiler and Elevator Computer (SEC) hardware C Part Number (P/N) B372CAM0100 with software (SW) standards 122, 124 and 125 (identified by P/N B372CAM0101, P/N B372CAM0102 and P/N B372CAM0103, respectively, and hereafter referred to as an “affected SEC software standard” in this [EASA] AD), some airlines reported receiving maintenance messages, e.g. “SEC OR WIRING FROM L or R ELEV POS MON XDCR” and/or “SEC OR WIRING FROM G or Y ELEV POS XDCR”, which are associated with servo control or elevator transducer monitoring. Such messages are triggered by a short data inconsistency due to power transients, when the engines are started.

This condition, if not corrected, could lead to an undetected loss of redundancy during flight if an affected SEC cannot control the related elevator servo control(s), possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, EASA issued AD 2015-0191 [which corresponds to AD 2015-22-06] to require amendment of the applicable [Airbus] Airplane Flight Manual (AFM) to include the flight crew procedure necessary to recover full SEC redundancy.

Since that [EASA] AD was issued, to fix the software deficiency, SEC software standard 126 (identified by P/N B372CAM0104) was developed, which is embodied in production through Airbus modification (mod) 161208 (installation of SEC software standard 126), and introduced in service through Airbus Service Bulletin (SB) A320-27-1252.

For the reason described above, this [EASA] AD retains the AFM change requirements of EASA AD 2015-0191, which is superseded, and requires the removal and/or upgrade of [an affected] SEC.

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9508.

## **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM and the FAA's response to each comment.

## **Support for the NPRM**

The Air Line Pilots Association, International (ALPA), expressed its full support for the NPRM.

## **Request To Extend Compliance Time for Replacement of Affected Software**

American Airlines (AAL) requested that we revise the proposed AD to extend the proposed compliance time for replacement of the affected software from 3 months to 24 months. AAL mentioned that it has 121 airplanes, for a total of 363 SEC computers, and that the proposed compliance time of 3 months poses a significant burden on its ability to comply with the proposed requirements. AAL asserted that an increase in the specified compliance time would greatly decrease the burden with no added safety risk, due to the revision of the AFM specified in paragraph (g) of the proposed AD.

We do not agree to extend the specified compliance time. The operator provided no technical justification for revising this compliance time. Further, in developing an appropriate compliance time for this action, we considered the urgency associated with the subject unsafe condition, the availability of necessary replacement software, recommendations from the manufacturer, and the practical aspect of accomplishing the required modification within a period of time that corresponds to the normal scheduled maintenance for most affected operators. We have determined that a 3-month compliance time will ensure an acceptable level of safety and allow the software replacement to be done during regular maintenance schedules for most affected operators. However, under the provisions of paragraph (p)(1) of this AD, we will consider requests for approval of an extension of the compliance time if sufficient data are submitted to substantiate that the new compliance time would provide an acceptable level of safety. We have not changed this AD in this regard.

## **Request To Permit Replacement of SEC in Lieu of Software Standard 126**

AAL requested that we revise paragraph (i)(1) of the proposed AD to allow replacement of the SEC in lieu of installation of SEC software standard 126. AAL suggested that we add a statement similar to paragraph (i)(2) of the proposed AD, to paragraph (i)(1) of the proposed AD, allowing replacement of the SEC to be accomplished in accordance with an installation method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA Design Organization Approval (DOA). AAL asserted that there are cases where the option to replace the SEC in accordance with the applicable Airbus airplane maintenance manual or other approved methods on airplanes having Airbus modification 39429 would benefit operators, especially given the 3-month compliance time.

We disagree with the request to revise paragraph (i)(1) of this AD. As specified in the MCAI, paragraph (i)(1) of this AD applies to airplanes with Airbus modification 39429 embodied in production and requires installing SEC software standard 126, which is the only approved corrective action. The instructions in paragraph (i)(2) of this AD only apply to airplanes that have not received the modification in production. However, under the provisions of paragraph (p)(1) of this AD, we will consider alternative replacements if sufficient data are submitted to substantiate that the alternative replacement would provide an acceptable level of safety. We have not changed this AD in this regard.

## **Request To Specify Latest Airbus Service Bulletin**

Airbus requested that we revise the NPRM to reference Airbus Service Bulletin A320-27-1257, Revision 01, dated January 1, 2017, for the applicable software replacement required by paragraph (i)(2) of this AD. Airbus Service Bulletin A320-27-1257, dated December 18, 2015, was specified as the appropriate source of service information for the proposed SEC software replacement provided in the proposed AD. Airbus stated that Airbus Service Bulletin A320-27-1257, Revision 01, dated January 1, 2017, was issued to add a maintenance records check for determining the part number of the SEC software, and to correct a typographical error in a part number in a certain subtask.

We agree that this AD should specify Airbus Service Bulletin A320-27-1257, Revision 01, dated January 1, 2017. This service information corrects errors in Airbus Service Bulletin A320-27-1257, dated December 18, 2015, which were noted in the NPRM. No additional work is necessary for airplanes on which the actions were performed using Airbus Service Bulletin A320-27-1257, dated December 18, 2015. Therefore, we have changed this AD to refer to Airbus Service Bulletin A320-27-1257, Revision 01, dated January 1, 2017, as the appropriate source of service information for the applicable required SEC software replacement. We have also added paragraph (o) to this AD to provide credit for actions accomplished prior to the effective date of this AD, if those actions were performed using Airbus Service Bulletin A320-27-1257, dated December 18, 2015, and redesignated subsequent paragraphs accordingly.

## **Additional Changes to This AD**

We have revised this AD to provide credit for the software replacement required by paragraph (i)(1) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-27-1252, dated November 6, 2015. We have also moved the content of note 1 to paragraph (g) of the proposed AD to the text in paragraph (g) of this AD. We have redesignated the subsequent note accordingly. In addition, we have revised paragraph (m) of this AD to clarify the provision for installation of equivalent software and hardware. The proposed AD referred to the effective date of this AD. This AD refers to the effective date of the MCAI.

## 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 for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

## Related Service Information Under 1 CFR Part 51

We reviewed the following service information:

- Airbus Service Bulletin A320-27-1252, Revision 01, dated February 18, 2016.
- Airbus Service Bulletin A320-27-1257, Revision 01, dated January 1, 2017.

This service information provides information for identifying affected SECs and updating the software on affected SECs. These documents are distinct since they apply to different airplane configurations.

We also reviewed Airbus A318/A319/A320/A321 Temporary Revision TR572, Issue 1.0, dated August 13, 2015, to the Airbus A318/A319/A320/A321 AFM. This service information describes the reset of SEC 1 and SEC 2 that must be done after engine start.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## Costs of Compliance

We estimate that this AD affects 959 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

### Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
AFM revision (retained action from AD 2015-22-06)	1 work-hour × \$85 per hour = \$85	\$0	\$85	\$81,515
Removal and replacement of SEC (new action)	4 work-hours × \$85 per hour = \$340	0	340	326,060

## 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.

## **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) 2015-22-06, Amendment 39-18311 (80 FR 68429, November 5, 2015), and adding the following new AD:



**2017-14-12 Airbus:** Amendment 39-18956; Docket No. FAA-2016-9508; Directorate Identifier 2016-NM-065-AD.

**(a) Effective Date**

This AD is effective September 22, 2017.

**(b) Affected ADs**

This AD replaces AD 2015-22-06, Amendment 39-18311 (80 FR 68429, November 5, 2015) (“AD 2015-22-06”).

**(c) Applicability**

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

- (1) Airbus Model A318-111, -112, -121, and -122 airplanes.
- (2) Airbus Model A319-111, -112, -113, -114, -115, -131, -132, and -133 airplanes.
- (3) Airbus Model A320-211, -212, -214, -231, -232, and -233 airplanes.
- (4) Airbus Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes.

**(d) Subject**

Air Transport Association (ATA) of America Code 27, Flight controls.

**(e) Reason**

This AD was prompted by reports that certain maintenance messages were recorded within the post flight report (PFR) that indicated the loss of elevator servo control monitoring performed by spoiler and elevator computer (SEC) 1, SEC 2, or both, during the engine start. We are issuing this AD to prevent an undetected loss of redundancy during flight if an affected SEC cannot control the related elevator servo control(s), possibly resulting in reduced control of the airplane.

**(f) Compliance**

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

**(g) Retained Airplane Flight Manual (AFM) Revision, With Revised Compliance Language**

(1) This paragraph restates the requirements of paragraph (g) of AD 2015-22-06, with revised compliance language. For airplanes equipped with SEC hardware C part number (P/N) B372CAM0100 with software standards 122 (P/N B372CAM0101), 124 (P/N B372CAM0102), or 125 (P/N B372CAM0103), on SEC position 1 or 2, or both: Within 30 days after November 20, 2015 (the effective date of AD 2015-22-06), revise the After Start Normal Procedures section of the AFM

to include the statement specified in figure 1 to paragraph (g) of this AD. This may be done by inserting a copy of this AD or Airbus A318/A319/A320/A321 Temporary Revision TR572, Issue 1.0, dated August 13, 2015, to the Airbus A318/A319/A320/A321 AFM, into the applicable AFM. When a statement identical to that in figure 1 to paragraph (g) of this AD has been included in the After Start Normal Procedures section of the general revisions of the AFM, the general revisions may be inserted into the AFM, and this AD or Airbus A318/A319/A320/A321 Temporary Revision TR572, Issue 1.0, dated August 13, 2015, to the Airbus A318/A319/A320/A321 AFM, may be removed from the AFM.

(2) Inserting a copy of AD 2015-22-06 into the applicable AFM is acceptable for compliance with the requirement of paragraph (g)(1) of this AD. When a statement identical to that in figure 1 to paragraph (g) of this AD has been included in the After Start Normal Procedures section of the general revisions of the AFM, the general revisions may be inserted into the AFM, and AD 2015-22-06 may be removed from the AFM.

**Figure 1 to Paragraph (g) of This AD—AFM Temporary Revision**

AFTER START NORMAL PROCEDURE After both engines start: Turn OFF then ON SEC 1 and SEC 2 one after the other.
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Note 1 to paragraph (g) of this AD: Airbus Operations Engineering Bulletin OEB-50 provides additional information on the subject addressed by this AD.

**(h) Retained Parts Installation Limitation, With No Change**

This paragraph restates the requirements of paragraph (i) of AD 2015-22-06, with no change. For all airplanes: As of November 20, 2015 (the effective date of AD 2015-22-06), do not install SEC hardware C P/N B372CAM0100 with software standard 122 (P/N B372CAM0101), 124 (P/N B372CAM0102), or 125 (P/N B372CAM0103), on SEC position 1 or 2, or both, on any airplane, unless the AFM of the airplane is revised concurrently with that installation, as required by paragraph (g) of this AD.

**(i) New Requirement of This AD: Replacement of Software**

Within 3 months after the effective date of this AD, comply with the actions in paragraph (i)(1) or (i)(2) of this AD, as applicable.

(1) For an airplane that has received Airbus modification 39429 (installation of SEC hardware C P/N B372CAM0100) in production: Install SEC software standard 126, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1252, Revision 01, dated February 18, 2016.

(2) For an airplane that has not received Airbus modification 39429 in production: Inspect to determine whether an affected SEC software standard is installed. Do the inspection in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-27-1257, Revision 01, dated January 1, 2017, except as required by paragraph (n) of this AD. A review of airplane maintenance records is acceptable in lieu of this inspection if the part number of the SEC C can be conclusively determined from that review. If an affected SEC software standard is found installed, replace the affected software standard using an installation 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).



**(j) New Requirement of This AD: Compliance for Airplanes Having Airbus Modification 161208 Embodied in Production**

An airplane on which Airbus modification 161208 has been embodied in production is compliant with the requirements of paragraph (i) of this AD, provided it is determined that no affected SEC software standard, as identified in paragraph (g) of this AD, is installed on that airplane.

**(k) New Requirement of This AD: Disposition of AFM After Airplane Modification**

After modification of an airplane as required by paragraph (i) of this AD, remove the information specified in Airbus A318/A319/A320/A321 TR572, Issue 1.0, dated August 13, 2015, to the Airbus A318/A319/A320/A321 AFM from the AFM of that airplane.

**(l) New Requirement of This AD: Parts Installation Prohibition**

As of the effective date of this AD, no person may install on any airplane an affected SEC software standard, or a SEC hardware C hosting an affected SEC software standard.

**(m) New Provision of This AD: Installation of Equivalent Software and Hardware**

Installation on an airplane of a SEC software standard, or of a SEC hardware standard, approved after April 1, 2016 (the effective date of EASA AD 2016-0056), is acceptable for compliance with the requirements of paragraph (i) of this AD for that airplane, provided the conditions specified in paragraphs (m)(1) and (m)(2) of this AD are met.

(1) The software and hardware standard, as applicable, is approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA.

(2) Replacement of the affected software standard is done using an installation method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA.

**(n) Exceptions to Service Information Specifications**

Subtask 271257-832-006-001 of Airbus Service Bulletin A320-27-1257, Revision 01, dated January 1, 2017, includes incorrect instructions. This AD requires that those instructions be followed as specified in paragraphs (n)(1) and (n)(2) of this AD.

(1) For Subtask 271257-832-006-001, instruction “(b)”: If SEC C 126 software P/N B372CAM0104 is found, no further action is required by this AD.

(2) For Subtask 271257-832-006-001, instruction “(c)”: If SEC C 122 software P/N B372CAM0101, SEC C 124 software P/N B372CAM0102, or SEC C 125 software P/N B372CAM0103 is found, do corrective actions using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA.

**(o) Credit for Previous Actions**

This paragraph provides credit for the actions required by paragraph (i) of this AD, if those actions were performed before the effective date of this AD using the applicable service information specified in paragraph (o)(1) or (o)(2) of this AD.

(1) For airplanes that have received Airbus modification 39429 (installation of SEC hardware C P/N B372CAM0100) in production: Airbus Service Bulletin A320-27-1252, dated November 6, 2015.

(2) For airplanes that have not received Airbus modification 39429 in production: Airbus Service Bulletin A320-27-1257, dated December 18, 2015.

**(p) 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 the attention of the person identified in paragraph (r)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

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

(3) Required for Compliance (RC): Except as required by paragraph (n) of this AD: If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(q) Special Flight Permits**

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

**(r) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2016-0056, dated March 18, 2016, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9508.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (s)(5) and (s)(6) of this AD.

**(s) 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 this AD specifies otherwise.

(3) The following service information was approved for IBR on September 22, 2017.

(i) Airbus Service Bulletin A320-27-1252, Revision 01, dated February 18, 2016.

(ii) Airbus Service Bulletin A320-27-1257, Revision 01, dated January 1, 2017.

(4) The following service information was approved for IBR on November 20, 2015 (80 FR 68429, November 5, 2015).

(i) Airbus A318/A319/A320/A321 Temporary Revision TR572, Issue 1.0, dated August 13, 2015, to the Airbus A318/A319/A320/A321 Airplane Flight Manual.

(ii) Reserved.

(5) 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.

(6) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(7) 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 June 29, 2017.

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