



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0904; Product Identifier 2018-NM-108-AD;

Amendment 39-19575; AD 2019-03-23]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

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

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for all Airbus SAS Model A330-200, -200 Freighter, and -300 series airplanes, and Model A340-200, -300, -500, and -600 series airplanes. This AD was prompted by a report that certain sensor struts, in the case of down drive element disconnection, would be unable to provide failure detection information for flap movements. This AD requires repetitive inspections of certain drive station elements and sensor struts; an inspection of certain other drive station elements if necessary; and corrective actions if necessary. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Airbus SAS, Airworthiness Office – EAL, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 45 80; email: airworthiness.A330-A340@airbus.com; Internet: <http://www.airbus.com>. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0904.

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-2018-0904; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is 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: Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3229.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus SAS Model A330-200, -200 Freighter, and -300 series airplanes, and Model A340-200, -300, -500, and -600 series airplanes. The NPRM published in the Federal Register on November 5, 2018 (83 FR 55303). The NPRM was prompted by a report that certain sensor struts, in the case of down drive element disconnection, would be unable to provide failure detection information. The NPRM proposed to require repetitive inspections of certain drive station elements and sensor struts; an inspection of certain other drive station elements if necessary; and corrective actions if necessary.

We are issuing this AD to address abnormal flap movement due to mechanical drive station element disconnection at flap track station 4 or station 5 which could lead to undetected down drive shaft disconnection. Such a condition could result in complete flap disconnection in the case of additional failure on the remaining flap drive station, and could ultimately result in loss of 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 AD 2018-0151, dated July 16, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus SAS Model A330-200 Freighter series, Model A330-200 series, Model A330-300 series, Model A340-200 series, Model A340-300 series, Model A340-500 series, and Model A340-600 series airplanes. The MCAI states:

Design features of the track station 4 sensor struts, respectively installed on the right hand (RH) and left hand (LH) wings of an aeroplane, ensure detection of any abnormal flap movement in case of a mechanical DSE [drive station element] disconnection at the level of the flap track station 4 or flap track station 5. Evidence was collected revealing that the track station 4 sensor strut, in case of a down drive element disconnection, would be unable to provide failure detection information.

This condition, if not detected and corrected, in the case of an additional failure on the remaining flap drive station, could lead to a complete flap disconnection, possibly resulting in loss of control of the aeroplane.

To address this potential unsafe condition, Airbus published the applicable SB [Airbus Service Bulletin A330-27-3226, dated April 5, 2018; Airbus Service Bulletin A340-27-4206, dated April 3, 2018; or Airbus Service Bulletin A340-27-5071, dated April 3, 2018; as applicable] to provide inspection instructions of the track station 4 and track station 5 DSE and sensor struts of the LH and RH wings.

For the reasons described above, this [EASA] AD requires repetitive [detailed] inspections of the LH and RH track station 4 [DSE, repetitive general visual inspections of the LH and RH track station 4 sensor struts,] and [for certain airplanes, a one-time detailed inspection of the LH or RH, as applicable] track station 5 DSE * * * and, depending on findings, accomplishment of applicable corrective action(s).

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-2018-0904.

Comments

We gave the public the opportunity to participate in developing this final rule. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes.

We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing 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

Airbus has issued the following service information.

- Airbus Service Bulletin A330-27-3226, dated April 5, 2018.
- Airbus Service Bulletin A340-27-4206, dated April 3, 2018.
- Airbus Service Bulletin A340-27-5071, dated April 3, 2018.

This service information describes procedures for repetitive detailed inspections of the LH and RH track station 4 drive station elements; repetitive general visual inspections of the LH and RH track station 4 sensor struts; a detailed inspection of the track station 5 drive station elements if any discrepancy is found during a general visual inspection; and corrective actions (i.e., replacement of affected parts). These documents are distinct since they apply to different models. 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 105 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

Estimated costs for required actions*

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Up to 7 work-hours X \$85 per hour = \$595	\$0	Up to \$595	Up to \$62,475

*Table does not include estimated costs for reporting.

We estimate that it would take about 1 work-hour per product to comply with the reporting requirement in this AD. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of reporting the inspection results on U.S. operators to be \$8,925, or \$85 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.

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all known costs in our cost estimate.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The

paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has

delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

Regulatory Findings

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 adding the following new airworthiness directive (AD):

2019-03-23 Airbus SAS: Amendment 39-19575; Docket No. FAA-2018-0904; Product Identifier 2018-NM-108-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the Airbus SAS airplanes identified in paragraphs (c)(1) through (c)(7) of this AD, certificated in any category, all manufacturer serial numbers.

- (1) Model A330-223F and -243F airplanes.
- (2) Model A330-201, -202, -203, -223, and -243 airplanes.
- (3) Model A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes.
- (4) Model A340-211, -212, and -213 airplanes.
- (5) Model A340-311, -312, and -313 airplanes.
- (6) Model A340-541 airplanes.
- (7) Model A340-642 airplanes.

(d) Subject

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

(e) Reason

This AD was prompted by a report that the right-hand (RH) and left-hand (LH) track station 4 sensor struts, in the case of down drive element disconnection, would be unable to provide failure detection information for flap movements. We are issuing this AD to address abnormal flap movement due to mechanical drive station element disconnection at flap track station 4 or station 5 which could lead to undetected down drive shaft disconnection. Such a condition could result in complete flap disconnection in the case of additional failure on the remaining flap drive station, and could ultimately result in loss of control of the airplane.

(f) Compliance

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

(g) Definitions

For the purpose of this AD, the drive station elements are defined as the down drive, down drive shaft, geared rotary actuator (gearbox), geared rotary actuator (output lever and fork end), and drive strut.

(h) Detailed and General Visual Inspections

(1) At the applicable times specified in paragraphs (h)(1)(i) and (h)(1)(ii) of this AD, and thereafter not to exceed the applicable intervals specified in table 1 to paragraph (h)(1) of this AD, do a detailed inspection of the LH and RH track station 4 drive station elements for corrosion or ruptured, loose, or missing components (including any attached bolts and nuts that are loose, broken, or missing) and a general visual inspection of the LH and RH track station 4 sensor struts for corrosion or ruptured, loose, or missing components (including any attached bolts that are loose, broken, or missing), in

accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-27-3226, dated April 5, 2018; Airbus Service Bulletin A340-27-4206, dated April 3, 2018; or Airbus Service Bulletin A340-27-5071, dated April 3, 2018; as applicable.

Table 1 to paragraph (h)(1) of this AD - Inspection Intervals

Airplanes	Compliance Time (whichever occurs first)
A330, A340-200 and A340-300	3,300 flight cycles or 24 months
A340-500 and A340-600	1,600 flight cycles or 24 months

(i) For airplanes that, as of the effective date of this AD, have accumulated less than 1,000 flight cycles since first flight: Before exceeding 24 months since first flight or within 18 months after the effective date of this AD, whichever occurs later, but without exceeding 2,300 flight cycles since first flight.

(ii) For airplanes that, as of the effective date of this AD, have accumulated 1,000 or more flight cycles since first flight: Within 1,000 flight cycles or 12 months, whichever occurs first after the effective date of this AD.

(2) If, during any general visual inspection required by paragraph (h)(1) of this AD, any corrosion is detected or any ruptured, loose, or missing components (including any attached bolts that are loose, broken, or missing) are detected, before further flight, accomplish a detailed inspection of the applicable LH or RH track station 5 drive station elements for corrosion or ruptured, loose, or missing components (including any attached bolts and nuts that are loose, broken, or missing) in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-27-3226, dated April 5, 2018; Airbus

Service Bulletin A340-27-4206, dated April 3, 2018; or Airbus Service Bulletin A340-27-5071, dated April 3, 2018; as applicable.

(i) Corrective Actions

(1) If, during any detailed inspection required by paragraph (h)(1) of this AD, any corrosion is detected or any ruptured, loose, or missing components (including any attached bolts and nuts that are loose, broken, or missing) are detected, before further flight, replace each affected part with a serviceable part in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-27-3226, dated April 5, 2018; Airbus Service Bulletin A340-27-4206, dated April 3, 2018; or Airbus Service Bulletin A340-27-5071, dated April 3, 2018; as applicable, or using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(2) If, during any general visual inspection required by paragraph (h)(1) of this AD, any corrosion is detected or any ruptured, loose, or missing components (including any attached bolts that are loose, broken, or missing) are detected, before further flight, replace each affected part with a serviceable part in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-27-3226, dated April 5, 2018; Airbus Service Bulletin A340-27-4206, dated April 3, 2018; or Airbus Service Bulletin A340-27-5071, dated April 3, 2018; as applicable, or using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus

SAS's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) If, during any detailed inspection required by paragraph (h)(2) of this AD, any corrosion is detected or any ruptured, loose, or missing components (including any attached bolts and nuts that are loose, broken, or missing) are detected, before further flight, replace each affected part with a serviceable part in accordance with the Accomplishment Instructions of Airbus Service Bulletin A330-27-3226, dated April 5, 2018; Airbus Service Bulletin A340-27-4206, dated April 3, 2018; or Airbus Service Bulletin A340-27-5071, dated April 3, 2018; as applicable, or using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus SAS's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(j) Reporting

At the applicable time specified in paragraph (j)(1) or (j)(2) of this AD: Report the results (positive or negative) of each inspection required by paragraphs (h)(1) and (h)(2) of this AD to Airbus Service Bulletin Reporting Online Application on Airbus World (<https://w3.airbus.com/>), or submit the results to Airbus in accordance with the instructions of Airbus Service Bulletin A330-27-3226, dated April 5, 2018; Airbus Service Bulletin A340-27-4206, dated April 3, 2018; or Airbus Service Bulletin A340-27-5071, dated April 3, 2018.

(1) If the inspection was done on or after the effective date of this AD: Submit the report within 90 days after the inspection.

(2) If the inspection was done before the effective date of this AD: Submit the report within 90 days after the effective date of this AD.

(k) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Section, Transport Standards Branch, 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 Section, send it to the attention of the person identified in paragraph (l)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

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

(3) *Required for Compliance (RC)*: 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.

(4) *Reporting Requirements:* A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(I) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0151, dated July 16, 2018, 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-2018-0904.

(2) For more information about this AD, contact Vladimir Ulyanov, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3229.

(m) 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.

(i) Airbus Service Bulletin A330-27-3226, dated April 5, 2018.

(ii) Airbus Service Bulletin A340-27-4206, dated April 3, 2018.

(iii) Airbus Service Bulletin A340-27-5071, dated April 3, 2018.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EAL, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 45 80; email: airworthiness.A330-A340@airbus.com; Internet: <http://www.airbus.com>.

(4) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(5) 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 Des Moines, Washington, on February 14, 2019.

Michael Kaszycki,
Acting Director,
System Oversight Division,
Aircraft Certification Service.

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