



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0024; Product Identifier 2018-NM-002-AD; Amendment 39-19171; AD 2018-02-18]

RIN 2120-AA64

Airworthiness Directives; Airbus Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Airbus Model A318, A319, and A320 series airplanes and Model A321-111, -112, -131, -211, -212, -213, -231, -232 airplanes. This AD requires revising the airplane flight manual (AFM) to provide guidance to the flight crew for emergency procedures when erroneous airspeed indications are displayed on the back-up speed scale (BUSS). This AD was prompted by a determination that, when two angle of attack (AoA) sensors are adversely affected by icing conditions at the same time, data displayed on the BUSS could be erroneous. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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-2018-0024; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Sanjay Ralhan, Aerospace Engineer,
International Section, Transport Standards Branch, FAA, 1601 Lind Avenue SW.,
Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2017-0257R1, dated January 9, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Airbus Model A318, A319, and A320 series airplanes, and Model A321-111, -112, -131, -211, -212, -213, -231, -232 airplanes. The MCAI states:

In extreme icing conditions, pitot probes may induce erroneous airspeed indications. Airbus developed a Back-up Speed Scale (BUSS and reversible BUSS, based on angle of attack (AoA) value) displayed on the Primary Flight Display (PFD), together with a PFD Back-Up Altitude Scale based on Global Positioning System (GPS) altitude to provide flight crews with reliable information on airspeed. This BUSS is intended to be used below flight level (FL) 250 only (above FL250, the BUSS is disconnected). Following new investigation related to AoA probes blockages, it was identified that, when two AoA sensors are adversely affected by icing conditions at the same time, data displayed on the BUSS could be erroneous.

This condition, if not corrected, could lead to an increased flight crew workload, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, Airbus established specific operational instructions to be applied by the flight crew under certain defined conditions. The relevant procedure has been incorporated into the

applicable A320 family Aircraft Flight Manual (AFM) since 07 March 2017 (publication date).

For the reason described above, this [EASA] AD requires a one-time AFM amendment to introduce the additional operational procedure [to provide guidance to the flight crew for emergency procedures when erroneous airspeed indications are displayed on the BUSS].

* * * * *

This AD contains a figure derived from the MCAI with content written by Airbus. Because this content (including the Airbus logo) is already publicly available through the MCAI, which is a public document, it is not subject to copyright protection.

You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0024.

FAA's Determination and Requirements of this 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 issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other products of these same type designs.

FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because when two AoA sensors are adversely affected by icing conditions at the same time, data displayed on the BUSS could be erroneous,

leading to an increased flight crew workload that could ultimately result in reduced control of the airplane. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0024; Product Identifier 2018-NM-002-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this 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 AD.

Costs of Compliance

We estimate that this AD affects 1,180 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
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Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
AFM revision	1 work-hour X \$85 per hour = \$85	\$0	\$85	\$100,300

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 to the Director of the System Oversight Division.

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 adding the following new airworthiness directive (AD):

2018-02-18 Airbus: Amendment 39-19171; Docket No. FAA-2018-0024; Product Identifier 2018-NM-002-AD.

(a) Effective Date

This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to the Airbus airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category, all manufacturer serial numbers on which Airbus modification 35871 has been embodied in production or Airbus Service Bulletin A320-34-1397 has been embodied in service, except airplanes on which Airbus modification 159281 has also been embodied in production or Airbus Service Bulletin A320-34-1658 or Airbus Service Bulletin A320-34-1659 has also been embodied in service.

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

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

(3) Model A320-211, -212, -214, -216, -231, -232, -233, -251N, and -271N airplanes.

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

(d) Subject

Air Transport Association (ATA) of America Code 34, Navigation.

(e) Reason

This AD was prompted by a determination that, when two angle of attack (AoA) sensors are adversely affected by icing conditions at the same time, data displayed on the back-up speed scale (BUSS) could be erroneous. We are issuing this AD to address erroneous airspeed data displays, which could lead to an increased flight crew workload, possibly resulting in reduced control of the airplane.

(f) Compliance

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

(g) Airplane Flight Manual (AFM) Revision

Except for airplanes identified in paragraph (h) of this AD: Within 30 days after the effective date of this AD, revise the AFM to incorporate the procedure specified in figure 1 to paragraphs (g) and (h) of this AD, and thereafter operate the airplane accordingly. When a procedure identical to that in figure 1 to paragraphs (g) and (h) of this AD has been included in the general revisions of the AFM, the general revisions may be inserted into the AFM.

Figure 1 to paragraphs (g) and (h) of this AD – AFM procedure

AIRBUS A318/A319/A320/A321 AIRPLANE FLIGHT MANUAL	EMERGENCY PROCEDURES NAVIGATION
NAV - ADR 1+2+3 FAULT	
Ident.: EMER-34-00007047.0001001 / 02 MAR 17 APPROVED	
Criteria: (SA and (154033 or 35871))	
Impacted by TDU: 00014228 NAV - ADR 1+2+3 FAULT	

¹ Note: *Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).*

Disconnect autopilot.
Turn off flight directors.
Disconnect autothrust.
Turn off all ADRs.
Fly the green area of the speed scale.

Note:

1. *Standby instruments may be unreliable.*
2. *The altitude displayed on the PFD is a GPS altitude.*
3. *Automatic cabin pressurization system is inoperative. Refer to ABN-21 CAB PR - SYS 1 + 2 FAULT.*
4. *Rudder travel limiter is inoperative. Refer to ABN-22-AUTOFLT AUTO FLT - RUD TRV LIM SYS.*
5. *If the BUSS does not react to longitudinal stick input when flying the green area of the speed scale, the flight crew must disregard the BUSS and adjust pitch attitude and thrust regarding flight phase and aircraft configuration to obtain and maintain target.*

Do not use speed brakes.
Maneuver with care.

● **When FLAPS 2:**
Extend landing gear by gravity. *Refer to ABN-32 L/G GRAVITY EXTENSION.*

Approach speed: fly the bug.
Apply necessary landing performance corrections.

Figure 1 to paragraphs (g) and (h) of this AD – AFM procedure continued

AIRBUS A318/A319/A320/A321 AIRPLANE FLIGHT MANUAL	EMERGENCY PROCEDURES NAVIGATION
NAV - ADR 1+2+3 FAULT	
Ident.: EMER-34-00007047.0005001 / 02 MAR 17 Criteria: (SA and ((154033 or 35871) and 151269)) Impacted by TDU: 00014228 NAV - ADR 1+2+3 FAULT	
APPROVED	

² *Note:* Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).

Disconnect autopilot.
Turn off flight directors.
Disconnect autothrust.
Turn on probe and window heat.
Turn off all ADRs.
Fly the green area of the speed scale.

Note:

1. Standby instruments may be unreliable.
2. The altitude displayed on the PFD is a GPS altitude.
3. Automatic cabin pressurization system is inoperative. Refer to ABN-21 CAB PR - SYS 1 + 2 FAULT.
4. Rudder travel limiter is inoperative. Refer to ABN-22-AUTOFLT AUTO FLT - RUD TRV LIM SYS.
5. If the BUSS does not react to longitudinal stick input when flying the green area of the speed scale, the flight crew must disregard the BUSS and adjust pitch attitude and thrust regarding flight phase and aircraft configuration to obtain and maintain target.

Do not use speed brakes.
Maneuver with care.

- **When FLAPS 2:**
Extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION.

Approach speed: fly the bug.
Apply necessary landing performance corrections.

Figure 1 to paragraphs (g) and (h) of this AD – AFM procedure continued

AIRBUS A318/A319/A320/A321 AIRPLANE FLIGHT MANUAL	EMERGENCY PROCEDURES NAVIGATION
NAV - ADR 1+2+3 FAULT	
Ident.: EMER-34-00007047.0003001 / 02 MAR 17 APPROVED Criteria: (SA and ((154033 or 35871) and 38298)) Impacted by TDU: 00014228 NAV - ADR 1+2+3 FAULT	
<p>³ <i>Note:</i> Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).</p> <p>Disconnect autopilot. Turn off flight directors. Disconnect autothrust. Turn off all ADRs. Fly the green area of the speed scale.</p> <p><i>Note:</i></p> <ol style="list-style-type: none"> 1. When FLAPS 0, flight controls are in direct law. Refer to ABN-27 F/CTL - DIRECT LAW (PROT LOST). 2. Standby instruments may be unreliable. 3. The altitude displayed on the PFD is a GPS altitude. 4. Automatic cabin pressurization system is inoperative. Refer to ABN-21 CAB PR - SYS 1 + 2 FAULT. 5. Rudder travel limiter is inoperative. Refer to ABN-22-AUTOFLT AUTO FLT - RUD TRV LIM SYS. 6. If the BUSS does not react to longitudinal stick input when flying the green area of the speed scale, the flight crew must disregard the BUSS and adjust pitch attitude and thrust regarding flight phase and aircraft configuration to obtain and maintain target. <p>Do not use speed brakes. Maneuver with care.</p> <p>● When FLAPS 2: Extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION.</p> <p>Approach speed: fly the bug. Apply necessary landing performance corrections.</p>	

Figure 1 to paragraphs (g) and (h) of this AD – AFM procedure continued

AIRBUS A318/A319/A320/A321 AIRPLANE FLIGHT MANUAL	EMERGENCY PROCEDURES NAVIGATION
NAV - ADR 1+2+3 FAULT	
Ident.: EMER-34-00007047.0006001 / 02 MAR 17 APPROVED	
Criteria: ((SA and ((154033 or 35871) and 38298 and 151269)) or 320-200N)	
Impacted by TDU: 00014228 NAV - ADR 1+2+3 FAULT	
<p>4 <i>Note:</i> Flight controls are in alternate law. Refer to ABN-27 F/CTL - ALTN LAW (PROT LOST).</p> <p>Disconnect autopilot. Turn off flight directors. Disconnect autothrust. Turn on probe and window heat. Turn off all ADRs. Fly the green area of the speed scale.</p> <p><i>Note:</i></p> <ol style="list-style-type: none">1. When FLAPS 0, flight controls are in direct law. Refer to ABN-27 F/CTL - DIRECT LAW (PROT LOST).2. Standby instruments may be unreliable.3. The altitude displayed on the PFD is a GPS altitude.4. Automatic cabin pressurization system is inoperative. Refer to ABN-21 CAB PR - SYS 1 + 2 FAULT.5. Rudder travel limiter is inoperative. Refer to ABN-22-AUTOFLT AUTO FLT - RUD TRV LIM SYS.6. If the BUSS does not react to longitudinal stick input when flying the green area of the speed scale, the flight crew must disregard the BUSS and adjust pitch attitude and thrust regarding flight phase and aircraft configuration to obtain and maintain target. <p>Do not use speed brakes. Maneuver with care.</p> <ul style="list-style-type: none">● When FLAPS 2: Extend landing gear by gravity. Refer to ABN-32 L/G GRAVITY EXTENSION. <p>Approach speed: fly the bug. Apply necessary landing performance corrections.</p>	

(h) Airplanes Not Affected by Paragraph (g) of This AD

Airplanes operated with an AFM having the NAV – ADR 1+2+3 FAULT procedure identical to the procedure specified in figure 1 to paragraphs (g) and (h) of this AD, with an approval date on or after March 2, 2017, are compliant with the requirements of this AD, provided that the procedure specified in figure 1 to paragraphs (g) and (h) of this AD is not removed from the AFM.

(i) 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 (k)(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 the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization

Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(j) 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.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2017-0257R1, dated January 9, 2018, for related information. You may examine the MCAI on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0024.

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

(I) Material Incorporated by Reference

None.

Issued in Renton, Washington, on January 19, 2018.

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