



## Airworthiness Directive

**AD No.:** 2017-0257

**Issued:** 22 December 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

**Design Approval Holder's Name:**

AIRBUS

**Type/Model designation(s):**

A318, A319, A320 and A321 aeroplanes

**Effective Date:** 29 December 2017

**TCDS Number(s):** EASA.A.064

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 34 – Navigation – Back Up Speed Scale / Aircraft Flight Manual – Amendment

**Manufacturer(s):**

Airbus (formerly Airbus Industrie)

**Applicability:**

Airbus A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-211, A320-212, A320-214, A320-215, A320-216, A320-231, A320-232, A320-233, A320-251N, A320-271N, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231 and A321-232 aeroplanes, all manufacturer serial numbers.

**Reason:**

In extreme icing conditions, pitot probes may induce erroneous airspeed indications. Airbus developed a Back-up Speed Scale (BUSS, mainly based on angle of attack information) 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 a reliable source of airspeed. This BUSS is activated by switching OFF all three ADR (as per FCOM procedure) and is intended to be used below FL250 only (above FL250, the BUSS is disconnected). Following new investigation related to AoA probes blockages, it was identified that, when two AoA sensors and two pitot probes 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. For new delivered aeroplanes, the relevant procedure is incorporated into the applicable A320 family Aircraft Flight Manual (AFM).

For the reason described above, this AD requires a one-time AFM amendment to introduce the additional operational procedure.

#### **Required Action(s) and Compliance Time(s):**

Required as indicated, unless accomplished previously:

#### **AFM Amendment:**

- (1) Within 30 days after the effective date of this AD, amend the applicable AFM by incorporating the procedure as specified in Appendix 1 of this AD, inform all flight crews, and, thereafter, operate the aeroplane accordingly.
- (2) Amending the applicable AFM of an aeroplane to incorporate a later AFM revision, which includes the procedure as specified in Appendix 1 of this AD, is acceptable to comply with the requirements of paragraph (1) of this AD for that aeroplane.

#### **Credit:**

- (3) Aeroplanes operated with an AFM having an approval date after 02 March 2017 are compliant with the requirements of this AD, as that AFM already contains the required procedure.

#### **Ref. Publications:**

Airbus A318, A319, A320 and A321 AFM Change dated 13 June 2017.


The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

#### **Remarks:**

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – EIAS; Fax +33 5 61 93 44 51; E-mail: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com).



## Appendix 1 – AFM Procedure

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

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.


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## Appendix 1 – AFM Procedure (continued)

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

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.



## Appendix 1 – AFM Procedure (continued)

 <b>A318/A319/A320/A321</b> AIRPLANE FLIGHT MANUAL	<b>EMERGENCY PROCEDURES</b> <b>NAVIGATION</b>
<b>NAV - ADR 1+2+3 FAULT</b>	
Ident.: EMER-34-00007047.0003001 / 02 MAR 17 Criteria: (SA and ((154033 or 35871) and 38298))	APPROVED

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. 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.

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.





## Appendix 1 – AFM Procedure (continued)

<div> <b>AIRBUS</b></div> <div><b>A318/A319/A320/A321</b> AIRPLANE FLIGHT MANUAL</div>	<div>EMERGENCY PROCEDURES</div> <div>NAVIGATION</div>
<div>NAV - ADR 1+2+3 FAULT</div>	
<div>Ident.: EMER-34-00007047.0006001 / 15 MAY 17</div> <div>Criteria: ((SA and ((154033 or 35871) and 38298 and 151269)) or 320-200N)</div>	<div>APPROVED</div>

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. 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.

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.  
 For go-around, set thrust levers to TOGA.



## Appendix 1 – AFM Procedure (continued)

 <b>A318/A319/A320/A321</b> AIRPLANE FLIGHT MANUAL	<b>EMERGENCY PROCEDURES</b> <b>NAVIGATION</b>
<b>NAV - ADR 1+2+3 FAULT</b>	Ident.: EMER-34-00007047.0012001 / 07 APR 17 Criteria: (SA and 159281)

APPROVED

*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 on BKUP SPD/ALT on both PFDs.  
 Turn off all ADRs.  
 Fly the green area of the speed scale.

● **If AOA disagree:**

Turn off BKUP SPD/ALT on both PFDs.

Maneuver with care.  
 Do not use speed brakes.

- 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.

● **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.  
 For go-around, set thrust levers to TOGA.


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## Appendix 1 – AFM Procedure (end)

 <b>A318/A319/A320/A321</b> AIRPLANE FLIGHT MANUAL	<b>EMERGENCY PROCEDURES</b> <b>NAVIGATION</b>
	<b>NAV - ADR 1+2+3 FAULT</b>
Ident.: EMER-34-00007047.0010001 / 02 MAR 17 Criteria: 321-200N	<b>APPROVED</b>

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.  
 For go-around, set thrust levers to TOGA.

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