



# Notification of a Proposal to issue an Airworthiness Directive

**PAD No.:** 22-049

**Issued:** 28 April 2022

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

**Design Approval Holder's Name:**

AIRBUS S.A.S.

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

A319, A320 and A321 aeroplanes

**Effective Date:** [TBD - standard: 14 days after AD issue date]

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

**Foreign AD:** Not applicable

**Supersedure:** This AD supersedes EASA AD 2020-0118 dated 22 May 2020.

## ATA – Aircraft Flight Manual / Section Limitations – Amendment

### ATA 22 – Auto Flight – New Flight Guidance Standard – Modification

**Manufacturer(s):**

Airbus, formerly Airbus Industrie

**Applicability:**

Airbus A319-111, A319-112, A319-113, A319-114, A319-115, A319-151N, A319-153N, A320-251N, A320-252N, A320-253N, A320-271N, A320-272N, A320-273N, A321-251N, A321-251NX, A321-252N, A321-252NX, A321-253N, A321-253NX, A321-271N, A321-271NX, A321-272N and A321-272NX aeroplanes, all manufacturer serial numbers.

**Definitions:**

For the purpose of this AD, the following definitions apply:

**The AFM TR:** Airbus Airplane Flight Manual (AFM) Temporary Revision (TR) 784 issue 1 or TR 785 issue 1, as applicable.

**The SB:** Airbus Service Bulletin (SB) A320-22-1819, or SB A320-22-1820, or SB A320-22-1821, or SB A320-22-1822, or SB A320-22-1823, or SB A320-22-1824, or SB A320-22-1827, or SB A320-22-1828, as applicable.



**Airbus date of manufacture:** The date of transfer of title (ownership) of the aeroplane upon delivery by Airbus to the first operator, which is referenced in Airbus documentation.

**Affected FG:** Flight Guidance (FG) 2G and 3G standards as listed in Appendix 1 of this AD.

**Serviceable FG:** FG 3G standards as listed in Appendix 2 of this AD.

**Groups:** Group 1 aeroplanes are those that have an affected FG 3G installed.

Group 2 aeroplanes are those that have an affected FG 2G installed.

Group 3 aeroplanes are those that do not have an affected FG installed.

Note 1 : An aeroplane on which Airbus modification (mod) 167616, or mod 168507, or mod 163903, or mod 166790, or mod 168506 has been embodied in production is a Group 3 aeroplane, provided that no affected FG has been installed on that aeroplane since Airbus date of manufacture.

Note 2 : A Group 2 aeroplane on which a FG 2G standard is (optionally) replaced with a serviceable FG, in accordance with the instructions of the SB, becomes a Group 3 aeroplane.

#### Reason:

Following a non-stabilised approach, an Airbus A321 neo aeroplane initiated an automatic Go-around (i.e. with autopilot (AP) ON) which induced an aeroplane pitch-up attitude that resulted in an AP disconnection.

Investigations identified that this pitch-up attitude after Go-around initiation was due to the combination of AP ON, high lift configuration and application of Take-Off Go-Around (TOGA) thrust within 50 seconds after full retraction of the speed brakes.

Deeper analysis by computed simulation determined that, for some aeroplane models of the A320 family, when operated at a significant aft centre of gravity (CG), the pitch attitude could further increase after the abovementioned AP disconnection. However, such situation was never encountered in flight.

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

To address this potential unsafe condition, Airbus published the AFM TR, as defined in this AD, conditioning the use of speed brake to prevent the abovementioned condition, and Flight Operations Transmission 999.0034/20, providing operational recommendations. Consequently, EASA issued AD 2020-0118 to require amendment of the applicable AFM by incorporating the AFM TR.

Since that AD was issued, Airbus developed a new FG 3G standard and issued the SB, providing installation instructions, to address the potential unsafe condition and to allow removal of the AFM TR limitation. A new FG 2G standard has also been developed and is currently in the certification process.



For the reason described above, this AD retains the requirements of EASA AD 2020-0118, which is superseded, and requires installation of the new FG 3G standard on Group 1 aeroplanes.

This AD is considered interim action and further AD action is expected for Group 2 aeroplanes when the new FG 2G standard will be certified.

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

Required as indicated, unless accomplished previously:

#### **AFM Amendment:**

- (1) For Group 1 and 2 aeroplanes: Within 30 days after 05 June 2020 [the effective date of EASA AD 2020-0118], amend the applicable AFM by incorporating the AFM TR, inform all flight crews, and, thereafter, operate the aeroplane accordingly.
- (2) For Group 1 and 2 aeroplanes: Amending the applicable AFM of an aeroplane by incorporating a later AFM revision, which includes the same content as the AFM TR, is an acceptable method to comply with the requirements of paragraph (1) of this AD for that aeroplane.

#### **Modification:**

- (3) For Group 1 aeroplanes: Within 24 months after the effective date of this AD, install a serviceable FG on the aeroplane in accordance with the instructions of the SB.

#### **Removal of AFM Amendment:**

- (4) After modification of an aeroplane as required by paragraph (3) of this AD, or as specified in Note 2 of this AD, as applicable, the operational procedure of the applicable AFM TR is no longer necessary and can be removed from the AFM of that aeroplane.

#### **FG Standard Installation:**

- (5) Do not install an affected FG on any aeroplane, as required by paragraph (5.1) or (5.2) of this AD, as applicable.
  - (5.1) For Group 1 aeroplanes: After modification of the aeroplane as required by paragraph (3) of this AD.
  - (5.2) For Group 3 aeroplanes: From the effective date of this AD (see Note 1 and 2).

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

Airbus A319 AFM TR 784 issue 1, EASA approval date 30 April 2020.

Airbus A319/A320/A321 AFM TR 785 issue 1, EASA approval date 30 April 2020.

Airbus SB A320-22-1819 original issue dated 07 March 2022.

Airbus SB A320-22-1820 original issue [publication expected May 2022].

Airbus SB A320-22-1821 original issue dated 26 November 2021, or Revision 01 dated 24 March 2022.



Airbus SB A320-22-1822 original issue dated 14 February 2022.

Airbus SB A320-22-1823 original issue dated 30 March 2022.

Airbus SB A320-22-1824 original issue dated 18 March 2022.

Airbus SB A320-22-1827 original issue dated 07 February 2022.

Airbus SB A320-22-1828 original issue dated 22 December 2021.

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

**Remarks:**

1. This Proposed AD will be closed for consultation on 26 May 2022.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this PAD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
4. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – Airworthiness Office – IIASA; E-mail: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com).



## Appendix 1 – List of Affected FG

- All FG 2G standards (a full list will be provided when serviceable FG 2G are certified);
- Affected FG 3G standards listed below:

FMGC LRU	FMGC Hardware	FG Software	Designation	FIN	Serial Number Range
C13207AA01 C13207CA02 C13207CA03 C13207CA04 C13207CA05 C13207CA06 C13207CA07 C13207CA08	C13207AA00 C13207CA00 C13207CA00 C13207CA00 C13207CA00 C13207CA00 C13207CA00 C13207CA00	G2858AAA01 G2858AAA02 G2858AAA03 G2858AAA04 G2858AAA05 G2858AAA06 G2858AAA07 G2858AAA08	CEO/NEO CFMI FG 3G HONEYWELL PEGASUS	1CA1 1CA2	All
C13208AA01 C13208AA02 C13208AA03 C13208AA04 C13208AA05 C13208AA06 C13208AA07 C13208AA08 C13208CA08	C13208AA00 C13208AA00 C13208AA00 C13208AA00 C13208AA00 C13208AA00 C13208AA00 C13208AA00 C13208CA00	G2858AAA01 G2858AAA02 G2858AAA03 G2858AAA04 G2858AAA05 G2858AAA06 G2858AAA07 G2858AAA08 G2858AAA08	CEO/NEO CFMI FG 3G THALES GE	1CA1 1CA2	All
C13207DA04 C13207DA05 C13207DA06 C13207DA07	C13207DA00 C13207DA00 C13207DA00 C13207DA00	G2859AAA04 G2859AAA05 G2859AAA06 G2859AAA07	CEO/NEO IAE PW FG 3G HONEYWELL PEGASUS	1CA1 1CA2	All
C13208BA04 C13208BA05 C13208BA06 C13208BA07 C13208DA06	C13208BA00 C13208BA00 C13208BA00 C13208BA00 C13208DA00	G2859AAA04 G2859AAA05 G2859AAA06 G2859AAA07 G2859AAA06	CEO/NEO IAE PW FG 3G THALES GE	1CA1 1CA2	All



## Appendix 2 – List of Serviceable FG 3G

FMGC LRU/ FG Software	FMGC Hardware	Designation	FIN	STD
C13207CA09	C13207CA00	CFMI FG 3G HONEYWELL PEGASUS	1CA1 1CA2	PC20
C13208AA09	C13208AA00	CFMI FG 3G THALES GE		
C13208CB09	C13208CB00	CFMI FG 3G THALES GE with mezzanine (increase memory)		
C13207DA08	C13207DA00	IAE PW FG 3G HONEYWELL PEGASUS		PI18
C13208BA08	C13208BA00	IAE PW FG 3G THALES GE		
C13208DB08	C13208DB00	IAE PW FG 3G THALES GE with mezzanine (increase memory)		
All later approved standards				

