

Airworthiness Directive

AD No.: 2024-0091R1

Issued: 30 May 2024

Note: This Airworthiness Directive (AD) 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.

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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name: Type/Model designation(s):

AIRBUS S.A.S. A319, A320 and A321 aeroplanes

Effective Date: Revision 01: 06 June 2024

Original issue: 24 April 2024

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2024-0091 dated 17 April 2024, which superseded EASA

AD 2022-0096R2 dated 12 April 2024.

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, A321-252NX, A321-253NX, A321-253NX, A321-271NX, 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 1: Airbus Service Bulletin (SB) A320-22-1819, SB A320-22-1820, SB A320-22-1821, SB A320-22-1822, SB A320-22-1823, SB A320-22-1824, SB A320-22-1827, or SB A320-22-1828, as applicable.

The SB 2: Airbus SB A320-22-1895.

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 an FG which is not an affected FG, in accordance with approved instructions of Airbus becomes a Group 3 aeroplane. This can be accomplished in accordance with the instruction of SB A320-22-1B23 or SB A320-22-1B51, as applicable.

Reason:

Following a non-stabilised approach, an Airbus A321neo aeroplane initiated an automatic goaround, 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 above-mentioned 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 above-mentioned 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.

After 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. Consequently, EASA issued AD 2022-0096 (later revised to provide clarifications), retaining the requirements of EASA AD 2020-0118, which was superseded, and requiring installation of the new FG 3G standard on Group 1 aeroplanes.

After EASA AD 2022-0096R1 was issued, Airbus issued the SB 2 to introduce an in-service FG 3G updated standard for certain A319 aeroplanes fitted with CFM56 engines on which the SB 1 may not be applicable based on their specific configuration. Prompted by this EASA issued AD 2022-0096R2.

After EASA AD 2022-0096R2 was issued, it was determined that incorrect FG Software references were listed in Appendix 1 of that AD. Consequently, EASA issued AD 2024-0091, retaining the requirements of EASA AD 2022-0096R2, which was superseded, and providing the correct FG Software references in Appendix 1 of this AD.

Since that AD was issued, it was identified that Airbus published SB A320-22-1B23 and SB A320-22-1B51, which can be (optionally) accomplished to modify a Group 2 aeroplane into a Group 3 aeroplane. In addition, it has been noted that Appendix 1 of this AD lists FG 2G for aeroplane fitted with IAE V2500 engines that are not affected by this AD and should be removed from the Appendix 1 of this AD. This AD is revised accordingly.

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

Required as indicated by this AD, unless the actions required by this AD have been already accomplished:

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) 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, as applicable:

Within 24 months after 14 June 2022 [the effective date of EASA AD 2022-0096], install a serviceable FG on the aeroplane in accordance with the instructions of the SB 1; or

Within 9 months after 24 April 2024 [the effective date of the original issue of this AD], install a serviceable FG on the aeroplane in accordance with the instructions of the SB 2.



Note 3: The SB 2 is applicable to aeroplanes having an affected FG 3G installed with configuration FMGC 3G STD H2CPC18 or H2CPC19, and have configuration EIS 1 or EIS 2, and are equipped with CFM56 engines.

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 (see Note 4 of this AD).
 - (5.1) For Group 1 and 2 aeroplanes: After modification of the aeroplane as required by paragraph (3) of this AD, or as specified in Note 2 of this AD, as applicable.
 - (5.2) For Group 3 aeroplanes: From 14 June 2022 [the effective date of EASA AD 2022-0096] (see Note 1 and 2 of this AD).

Note 4: Installation of an affected FG on an aeroplane and, before next flight after that installation, modification of that affected FG into a FG which is not affected, accomplished in accordance with Airbus instructions, is not considered 'install' as specified in paragraph (5) of this AD.

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, or Revision 01 dated 20 April 2023.

Airbus SB A320-22-1820 original issue dated 23 May 2022, or Revision 01 dated 28 November 2022.

Airbus SB A320-22-1821 original issue dated 26 November 2021, or Revision 01 dated 24 March 2022, or Revision 02 dated 16 September 2022, or Revision 03 dated 19 May 2023.

Airbus SB A320-22-1822 original issue dated 14 February 2022, or Revision 01 dated 06 July 2023.

Airbus SB A320-22-1823 original issue dated 30 March 2022, or Revision 01 dated 20 June 2023.

Airbus SB A320-22-1824 original issue dated 18 March 2022, or Revision 01 dated 30 June 2023.

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

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

Airbus SB A320-22-1895 original issue dated 15 September 2023.



Airbus SB A320-22-1B23 original issue dated 15 December 2023.

Airbus SB A320-22-1B51 original issue dated 14 December 2023.

The use of later approved revisions of the above-mentioned documents 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, the original issue of this AD was posted on 17 April 2024 as Final AD with Request for Comments, postponing the public consultation process until 15 May 2024. The Comment Response Document can be found in the EASA Safety Publications Tool, in the compressed ('zipped') file, attached to the record for this AD.
- 3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
- 4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the <u>EU aviation safety reporting system</u>. This may include reporting on the same or similar components, other than those covered by the design to which this AD 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.
- 5. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS Airworthiness Office 1IASA; E-mail: account.airworth-eas@airbus.com.



Appendix 1 – List of Affected FG

Affected FG 2G standards listed below:

P/N	Designation	FIN	Serial Number
(see Note 5 of			Range
this AD)			
C13042AAxx	CEO CFMI FG 2G HONEYWELL PEGASUS	1CA1	All
		1CA2	
C13043AAxx	CEO CFMI FG 2G THALES GE	1CA1	All
C13043CAxx		1CA2	

Note 5: 'xx' represents any numerical sequence.

• Affected FG 3G standards listed below:

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

Appendix 2 – List of Serviceable FG 3G

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