

Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 20-078

Issued: 13 May 2020

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

Type/Model designation(s):

A320 aeroplanes

Effective Date: [TbD: 7 days after AD issue date]

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2019-0189 dated 31 July 2019.

ATA – Aircraft Flight Manual Section Limitations – Amendment

Manufacturer(s):

Airbus

Applicability:

Airbus A320-251N, A320-252N, A320-253N, A320-271N, A320-272N and A320-273N aeroplanes, all manufacturer serial numbers, except those that have embodied Airbus modification (mod) 163923 in production.

Definitions:

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

The applicable AFM TR: Airbus Airplane Flight Manual (AFM) Temporary Revision (TR) 773 issue 1, TR 774 issue 1, TR 775 issue 1, TR 776 issue 1, TR 779 issue 1 and TR 780 issue 1, as applicable.

ELAC 103 CG envelope: Centre of gravity (CG) envelope defined by any Airbus AFM Documentary Units (DU) having mod 163923 identified in the DU Criteria (see Figure 1 - Appendix 1 of this AD), and embodied as instructed by Airbus Service Bulletin (SB) A320-27-1284 revision 1.

Note 1: Table 1 - Appendix 1 of this AD provides a non-exhaustive list of AFM DU having mod 163923 identified in the DU Criteria.



Groups: Group 1 are A320-251N, A320-253N, A320-271N and A320-273N aeroplanes.
Group 2 are A320-252N and A320-272N aeroplanes.

Reason:

Analysis and laboratory testing of the behaviour of the flight control laws of the A320neo identified a reduced efficiency of the angle of attack protection when the aeroplane is set in certain flight configurations and in combination with specific manoeuvres commanded by the flight crew, as described through Section 2 of Airbus Flight Operations Transmission (FOT) 999.0059/19.

This condition, although never encountered during operations, if not corrected, could lead to excessive pitch attitude, possibly resulting in increased flight crew workload.

To address this potential unsafe condition, Airbus issued the applicable AFM TR, limiting the centre of gravity envelope, which prevents the aforementioned condition, and the FOT 999.0059/19, providing aeroplane loading recommendations. Consequently, EASA issued AD 2019-0189 to require amendment of the applicable AFM by incorporating the applicable AFM TR for Group 1 aeroplanes (see Note 2 of this AD).

Since that AD was issued, Airbus designed mod 163923, introducing the ELAC L103 Part Number 3945129115 (data loadable), which allows operating the aeroplane within a new CG envelope. Airbus issued SB A320-27-1284 revision 1, providing instructions for ELAC update and clarifying impact on AFM, and FOT 999.0012/20, providing additional information for AFM update.

For the reasons described above, this AD retains the requirements of EASA AD 2019-0189, which is superseded, expands the applicability to allow all the aircraft models affected by the issue to take advantage of the ELAC L103, and introduces reference to the ELAC 103 CG envelope.

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

Required as indicated, unless accomplished previously:

AFM Change:

- (1) For Group 1 aeroplanes: Within 30 days after 14 August 2019 [the effective date of EASA AD 2019-0189], amend the applicable AFM by incorporating the applicable AFM TR, inform all flight crews, and, thereafter, operate the aeroplane accordingly.

Note 2: For Group 2 aeroplanes, the applicable AFM TR is incorporated in the applicable AFM before entry into service.

- (2) For Group 1 aeroplanes: Amending the applicable AFM of an aeroplane by incorporating a later AFM revision, which includes the same content as the applicable AFM TR, is acceptable to comply with the AFM amendment requirement of paragraph (1) of this AD, for that aeroplane.
- (3) For Group 1 and Group 2 aeroplanes: Amending the applicable AFM of an aeroplane by incorporating a later AFM revision which includes the ELAC 103 CG envelope, allows the removal of the applicable AFM TR, previously inserted in that AFM as required by paragraph (1) of this AD for Group 1 aeroplanes, or inserted in that AFM before entry into service for Group 2 aeroplanes, as applicable.



Ref. Publications:

Airbus A320 AFM TR 773 issue 1, EASA approval date 19 July 2019.

Airbus A320 AFM TR 774 issue 1, EASA approval date 19 July 2019.

Airbus A320 AFM TR 775 issue 1, EASA approval date 19 July 2019.

Airbus A320 AFM TR 776 issue 1, EASA approval date 19 July 2019.

Airbus A320 AFM TR 779 issue 1, EASA approval date 10 September 2019.

Airbus A320 AFM TR 780 issue 1, EASA approval date 10 September 2019.

Airbus SB A320-27-1284 revision 01 dated 30 April 2020.

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

Airbus FOT 999.0059/19 original issue dated 25 July 2019.

Airbus FOT 999.0012/20 original issue dated 20 February 2020.

Remarks:

1. This Proposed AD will be closed for consultation on 27 May 2020.
2. Enquiries regarding this PAD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: 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](#).
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.



Appendix 1
Table 1 - AFM DU having mod 163923 in the DU criteria

DU Title	DU Identification Number (depending on airplane configuration)
Center of Gravity Envelope - Weight Variant 50	00016376.0056001
	00016376.0057001
	00016376.0058001
	00016376.0059001
	00016376.0064001
	00016376.0065001
Center of Gravity Envelope - Weight Variant 51	00016452.0055001
	00016452.0056001
	00016452.0057001
	00016452.0058001
	00016452.0059001
	00016452.0060001
Center of Gravity Envelope - Weight Variant 52	00016453.0028001
	00016453.0029001
	00016453.0030001
	00016453.0031001
	00016453.0033001
	00016453.0034001
Center of Gravity Envelope - Weight Variant 53	00016454.0031001
	00016454.0032001
	00016454.0034001
	00016454.0035001
	00016454.0036001
	00016454.0037001
Center of Gravity Envelope - Weight Variant 54	00016455.0023001
	00016455.0024001
	00016455.0025001
	00016455.0026001
	00016455.0029001
	00016455.0030001
Center of Gravity Envelope - Weight Variant 55	00016456.0031001
	00016456.0033001
	00016456.0035001
	00016456.0036001
	00016456.0044001
	00016456.0045001



DU Title	DU Identification Number (depending on airplane configuration)
Center of Gravity Envelope - Weight Variant 56	00016457.0022001
	00016457.0023001
	00016457.0026001
	00016457.0027001
	00016457.0029001
	00016457.0030001
Center of Gravity Envelope - Weight Variant 57	00016458.0022001
	00016458.0023001
	00016458.0025001
	00016458.0026001
	00016458.0028001
	00016458.0029001
Center of Gravity Envelope - Weight Variant 68	00021129.0011001
	00021129.0012001
	00021129.0016001
	00021129.0017001
Center of Gravity Envelope - Weight Variant 69	00021698.0020001
	00021698.0021001
	00021698.0024001
	00021698.0025001
	00021698.0027001
	00021698.0028001
Center of Gravity Envelope - Weight Variant 71	00021700.0012001
	00021700.0013001
	00021700.0014001
	00021700.0015001
	00021700.0017001
	00021700.0018001
Center of Gravity Envelope - Weight Variant 75	00022346.0021001
	00022346.0022001
	00022346.0027001
	00022346.0028001
Center of Gravity Envelope - Weight Variant 78	00021707.0011001
	00021707.0012001
	00021707.0016001
	00021707.0017001
Center of Gravity Envelope - Weight Variant 82	00021708.0011001
	00021708.0012001
	00021708.0014001
	00021708.0015001



DU Title	DU Identification Number (depending on airplane configuration)
Center of Gravity Envelope - Weight Variant 83	00023297.0010001
	00023297.0011001
	00023297.0013001
	00023297.0014001
	00023297.0016001
	00023297.0017001
Center of Gravity Envelope - Weight Variant 85	00023637.0005001
	00023637.0006001
	00023637.0007001
	00023637.0008001
	00023637.0010001
	00023637.0011001
Center of Gravity Envelope - Weight Variant 110	00022553.0004001
	00022553.0006001
Center of Gravity Envelope - Weight Variant 111	00022587.0004001
	00022587.0005001
Center of Gravity Envelope - Weight Variant 112	00022589.0004001
	00022589.0005001
Zero Fuel Center of Gravity (ZFCG) with up to 4 Additional Center Tanks (ACTs) Installed	00022641.0003001
	00022641.0004001

Figure 1 – Example of DU Criteria

CENTER OF GRAVITY ENVELOPE - WEIGHT VARIANT 50	
Ident: LIM-WGHT-00016376.0058001 / 07 FEB 20	APPROVED
Criteria: ((320-271N or 320-272N) and (161248 and 163923))	

