



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 20-100R1

Issued: 19 October 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:

CFM INTERNATIONAL S.A.

Type/Model designation(s):

CFM56-3 and CFM56-7B engines

Effective Date: [14 days after AD issue date]

TCDS Number(s): EASA.E.066 and EASA.E.004

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2012-0209 dated 08 October 2012.

ATA 72 – Engine – Accessory Gearbox – Modification

Manufacturer(s):

SAFRAN Aircraft Engines, formerly SNECMA (France); General Electric Aviation (United States)

Applicability:

CFM56-3 engines, all models, all serial numbers (s/n).

CFM56-7B20, CFM56-7B20/2, CFM56-7B20/3, CFM56-7B22, CFM56-7B22/2, CFM56-7B22/3, CFM56-7B22/3B1, CFM56-7B22/B1, CFM56-7B24, CFM56-7B24/2, CFM56-7B24/3, CFM56-7B24/3B1, CFM56-7B24/B1, CFM56-7B26, CFM56-7B26/2, CFM56-7B26/3, CFM56-7B26/3B1, CFM56-7B26/3B2, CFM56-7B26/3B2F, CFM56-7B26/3F, CFM56-7B26/B1, CFM56-7B26/B2, CFM56-7B27, CFM56-7B27/2, CFM56-7B27/3, CFM56-7B27/3B1, CFM56-7B27/3B1F, CFM56-7B27/3B3, CFM56-7B27/3F, CFM56-7B27/B1 and CFM56-7B27/B3 engines, all s/n.

These engines are known to be installed on, but not limited to, Boeing 737 aeroplanes.

Definitions:

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



Affected AGB: Accessory gearboxes (AGB), having Part Number (P/N) 335-300-103-0, 335-300-105-0, 335-300-106-0, 335-300-107-0, 335-300-108-0, 335-300-109-0 or P/N 335-300-110-0 (for CFM56-3 engines) or P/N 340-046-503-0, P/N 340-046-504-0 or P/N 340-046-505-0 (for CFM56-7B engines).

Serviceable AGB: AGB having P/N 335-300-112-0 (for CFM56-3 engines); or P/N 340-046-508-0 or P/N 340-046-509-0 (for CFM56-7B engines).

The applicable S/B: CFM International (CFMI) Service Bulletin (S/B) CFM56-3 S/B 72-1129, CFM56-7B S/B 72-0564 Revision 2, and CFM56-7B S/B 72-0879 Revision 1, as applicable.

Groups: Group 1 engines are those that have an affected AGB installed. Group 2 engines are those that do not have an affected AGB installed.

Qualifying engine shop visit: A shop visit which involves the removal of at least one of the engine major modules: fan, core engine, or low pressure turbine.

Reason:

Reports were received of CFM56-3 and CFM56-7B engine oil loss and engine failure, following the accomplishment of maintenance tasks which included the removal of the AGB hand-cranking cover. In four instances, the oil loss affected both engines on the same aeroplane. The results of subsequent investigations determined that, in each event, the AGB hand-cranking cover had been re-installed incorrectly.

This condition, if not detected and corrected, may lead to engine oil loss, possibly resulting in engine failure and consequent reduced control of the aeroplane.

To address this potential unsafe condition, CFMI developed an improved AGB and issued the applicable S/B. Consequently, EASA issued AD 2012-0209 to require replacement of all affected AGB with serviceable AGB. That AD also prohibited (re)installation of affected AGB on modified engines.

Since that AD was issued, the compliance time for AGB replacement was re-assessed, and CFMI revised accordingly CFM56-3 S/B 72-1129 (now at Revision 7) and CFM56-7B S/B 72-0564 (now at Revision 8).

For the reasons described above, this AD retains the requirements of EASA AD 2012-0209, which is superseded, but introduces a calendar date limit for AGB replacement.

This PAD is republished to correct the definition of "Affected AGB".

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

Required as indicated, unless accomplished previously:

AGB Replacement/Upgrade:

- (1) For Group 1 CFM56-3 engines: Not later than during the first qualifying engine shop-visit beginning after 01 March 2013, and in any case not later than 31 December 2026, replace each affected AGB with a serviceable AGB in accordance with the instructions of the applicable S/B.



- (2) For Group 1 CFM56-7B engines: Not later than during the first qualifying engine shop-visit beginning after 22 October 2012 [the effective date of EASA AD 2012-0209], and in any case not later than 31 December 2024, replace each affected AGB with a serviceable AGB in accordance with the instructions of the applicable S/B.
- (3) Modification and reidentification of an affected AGB into a serviceable AGB, in accordance with applicable CFMI instructions, is an acceptable mean to comply with the requirements of paragraph (1) or (2) of this AD, as applicable, for that AGB

Repetitive Inspections:

- (4) For Group 1 engines: From 22 October 2012 [the effective date of EASA AD 2012-0209] and until the engine is modified as required by paragraph (1) or (2) of this AD, as applicable, any maintenance task which involves the removal and re-installation of the AGB hand-cranking cover must be classified “flight safety sensitive maintenance” and an independent inspection of the correct installation of the hand-cranking cover must be carried out, prior to release to service of the aeroplane or the engine, as applicable.

Parts Installation:

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

Ref. Publications:

CFMI CFM56-7B S/B 72-0564 Revision 2 dated 16 November 2010, Revision 3 dated 25 May 2011, Revision 4 dated 30 September 2013, Revision 5 dated 14 January 2014, Revision 6 dated 20 January 2017, Revision 7 dated 07 November 2018 and Revision 8 dated 06 May 2020.

CFMI CFM56-3 S/B 72-1129 original issue dated 09 March 2011, Revision 1 dated 22 June 2012, Revision 2 dated 16 November 2012, Revision 3 dated 15 January 2014, Revision 4 dated 19 February 2016, Revision 5 dated 20 January 2017, Revision 6 dated 07 November 2018 and Revision 7 dated 06 May 2020.

CFMI CFM56-7B S/B 72-0879 Revision 1 dated 12 April 2012, Revision 2 dated 15 July 2013, Revision 3 dated 15 January 2014, Revision 4 dated 07 September 2015, Revision 5 dated 20 January 2017 and Revision 6 dated 01 March 2018.

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 02 November 2020.



2. The original issue of this PAD was posted on 29 June 2020 for consultation until 27 July 2020. The Comment Response Documents can be found in the [EASA Safety Publications Tool](#), in the compressed (zipped) file attached to the record for this PAD
3. Enquiries regarding this PAD should be referred to the EASA Programming and Continued Airworthiness 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 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.
5. For any question concerning the technical content of the requirements in this PAD, please contact: CFM International S.A., Customer Support Centre, Telephone: +33 1 64 14 88 66, Fax: +33 1 64 79 85 55, E-mail: cfm.csc@safrangroup.com,

or

CFM Inc. Aviation Operations Centre, Telephone: +1 513-552-3272, or +1 877-432-3272, Fax: +1 877-432-3329, E-mail: geae.aoc@ge.com, or aviation.fleetsupport@ge.com.

