Airworthiness Directive

AD No.: 2017-0149R1

Issued: 05 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:
CFM INTERNATIONAL S.A.

Type/Model designation(s):
CFM56-3 engines

Effective Date:	Revision 1: 05 December 2017 Original issue: 30 August 2017
TCDS Number(s):	EASA.E.066
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2017-0149 dated 16 August 2017.

ATA 72 – Engine – Variable Stator Vane Actuating System – Check

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Manufacturer(s):
SNECMA (France); General Electric Aircraft Engines (United States)

Applicability:
CFM56-3, CFM56-3B and CFM56-3C engines, all serial numbers.

These engines are known to be installed on, but not limited to, Boeing 737-300, -400 and -500 aeroplanes.

Reason:
A dual engine loss of thrust control was reported. During subsequent investigation, corrosion was found on the inside of the high pressure compressor (HPC) case around the variable stator vane (VSV) bores.

This condition, if not detected and corrected, could lead to binding, sticking and seizure of the VSVs, causing loss of engine thrust control.

To address this potential unsafe condition, CFM International issued CFM56-3 Service Bulletin (SB) No. 72-1169, providing instructions to check the VSV.

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For the reason described above, EASA issued AD 2017-0149, requiring repetitive checks of the VSV actuating system and, depending on findings, accomplishment of applicable corrective action(s). That AD also included reference to an optional terminating action for the repetitive checks.

Since that AD was issued, it was determined that the Engine Shop Manual (ESM) subtasks, referenced in paragraph (2), inadvertently included some that are not related to the potential unsafe condition addressed by the AD. This AD is revised accordingly, and to correct a typographical error in a referenced subtask number.

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

Required as indicated, unless accomplished previously:

Note 1: For the purpose of this AD, an affected compressor front stator case has part number (P/N) 1499M30G01, or P/N 1499M30G02, or P/N 1499M30G03, or P/N 1676M88G01, and is not marked "RP031" adjacent to the part number

Note 2: For the purpose of this AD, an affected engine is equipped with an affected compressor front stator case.

Note 3: For the purpose of this AD, CFM International CFM56-3 SB No. 72-1169 is hereafter referred to as "the SB" in this AD.

Inspection:

(1) Within 12 months after 30 August 2017 [the effective date of the original issue of this AD], and, thereafter, at intervals not to exceed the compliance time as identified in Table 1 of this AD, as applicable, depending on the higher load measured during the previous check, accomplish a VSV travel check for HPC stage 1, stage 2 and stage 3 of each affected engine, in accordance with the instructions of the SB.

Table 1 – Compliance Time

Higher Load applied to move an Actuation Ring	Compliance Time
More than 334 Newton (N) / 75 pounds (lbs), but not more than 445 N / 100 lbs	3 months
334 N / 75 lbs or less	12 months

(2) For affected engines in shop, the VSV travel check as required by paragraph (1) of this AD can be accomplished in accordance with the instructions of the applicable ESM 72-32-00, subtask 72-32-00-420-053 or subtask 72-32-00-420-059.

Corrective Action(s):

(3) If, during any VSV travel check as required by paragraph (1) of this AD, the load required to move any actuation ring exceeds 445 N / 100 lbs, remove the affected engine from service and, before release to service of that engine, repair the engine in accordance with the instructions of the SB, or replace the compressor front stator case of that engine. Replacement of the

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compressor front stator case of an engine may be accomplished in accordance with the instructions of the applicable ESM.

Terminating action:

(4) Repair of an affected engine, as required by paragraph (3) of this AD, or in accordance with the instructions of CFM56-3 ESM 72-32-01, Repair 031, which includes marking the compressor front stator case "RP031" adjacent to the part number, constitutes terminating action for the repetitive checks as required by paragraph (1) of this AD for that engine provided that, following that repair, no affected compressor front case is installed on that engine.

Engine Installation:

(5) From 30 August 2017 [the effective date of the original issue of this AD], it is allowed to install an affected engine on an aeroplane provided that, following installation, VSV travel checks are accomplished on that engine as required by paragraph (1) of this AD.

Parts Installation:

(6) From 30 August 2017 [the effective date of the original issue of this AD], it is allowed to install an affected compressor front stator case on an engine provided that, following installation, VSV travel checks are accomplished on that engine as required by paragraph (1) of this AD.

Ref. Publications:

CFM International S.A. CFM56-3 SB No. 72-1169 original issue dated 25 April 2016, or Revision 01 dated 04 November 2016.

The use of later approved revisions of this 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. The original issue of this AD was posted on 26 April 2017 as PAD 17-054 for consultation until 24 May 2017. 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. For any question concerning the technical content of the requirements in this AD, please contact:

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