



## Airworthiness Directive

**AD No.:** 2018-0071

**Issued:** 26 March 2018

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):

CFM56-7B engines

**Effective Date:** 02 April 2018

**TCDS Number(s):** EASA.E.004

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 72 – Engine – Fan Blades – Inspection

#### Manufacturer(s):

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

#### Applicability:

CFM56-7B20, CFM56-7B22, CFM56-7B22/B1, CFM56-7B24, CFM56-7B24/B1, CFM56-7B26, CFM56-7B26/B1, CFM56-7B26/B2, CFM56-7B27, CFM56-7B27/B1, CFM56-7B27/B3, CFM56-7B20/2, CFM56-7B22/2, CFM56-7B24/2, CFM56-7B26/2, CFM56-7B27/2, CFM56-7B20/3, CFM56-7B22/3, CFM56-7B22/3B1, CFM56-7B24/3, CFM56-7B24/3B1, CFM56-7B26/3, CFM56-7B26/3B1, CFM56-7B26/3B2, CFM56-7B27/3, CFM56-7B27/3B1, CFM56-7B27/3B1F, CFM56-7B27/3B3, CFM56-7B26/3F, CFM56-7B26/3B2F, CFM56-7B27/3F, CFM56-7B20E, CFM56-7B22E, CFM56-7B22E/B1, CFM56-7B24E, CFM56-7B24E/B1, CFM56-7B26E, CFM56-7B26E/B1, CFM56-7B26E/B2, CFM56-7B27E, CFM56-7B27E/B1, CFM56-7B27E/B3, CFM56-7B26E/F, CFM56-7B26E/B2F, CFM56-7B27E/F and CFM56-7B27E/B1F engines, all serial numbers.

These engines are known to be installed on, but not limited to, Boeing 737-600, 737-700, 737-800 and 737-900 aeroplanes.

#### Definitions:

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

**The SB:** CFM International CFM56-7B Service Bulletin (SB) No. 72-1024.



**Affected fan blade:** a fan blade having Part Number (P/N) 340-001-022-0, P/N 340-001-027-0, P/N 340-001-029-0, P/N 340-001-037-0 or P/N 340-001-039-0.

**Serviceable fan blade:** a not affected fan blade; or an affected fan blade which is new, or which passed an inspection in accordance with the instructions of the SB, or of CFM56-7B SB No. 72-1019, or an eddy current inspection (ECI) in accordance with CFM International Engine Shop Manual (ESM) task 72-21-01-200-001 Revision 55 or later.

**Reason:**

An occurrence was reported of fan blade failure on a CFM56-7B engine. The released fan blade was initially contained by the engine case, but there was subsequent uncontained forward release of debris and separation of the inlet cowl. Preliminary investigation determined that the fracture in the blade initiated from the fan blade dovetail.

This condition, if not detected and corrected, could lead to fan blade failure, possibly resulting in uncontained forward release of debris, with consequent damage to the engine and the aeroplane.

To address this potential unsafe condition, CFM International issued CFM56-7B SB No. 72-1019, later revised, and CFM56-7B SB No. 72-1024, providing inspection instructions.

For the reason described above, this AD requires a one-time inspection of certain fan blades, and, depending on findings, accomplishment of applicable corrective action(s).

This AD is considered an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

**Inspection:**

- (1) Within 9 months after the effective date of this AD, accomplish an ultrasonic inspection of each affected fan blade in accordance with the instructions of the SB.

**Corrective Action(s):**

- (2) If, during the inspection as required by paragraph (1) of this AD, any discrepancy is detected on a fan blade, before next flight, or before release to service of the engine, as applicable, replace that fan blade with a serviceable part in accordance with the instructions of the SB.

**Credit:**

- (3) Accomplishment of ECI of a fan blade of an engine in accordance with CFM International ESM task 72-21-01-200-001 Revision 55 or later is acceptable to comply with the requirements of paragraph (1) of this AD, as applicable, for that fan blade.
- (4) Inspections and corrective actions accomplished on an engine in accordance with the instructions of CFM56-7B SB No. 72-1019 are acceptable to comply with the requirements of paragraphs (1) and (2) of this AD for that engine.



**Part installation:**

- (5) From the effective date of this AD, it is allowed to install a fan blade on an engine, provided it is serviceable.

**Ref. Publications:**

CFM International S.A. CFM56-7B SB No. 72-1019 original issue dated 24 March 2017, or Revision 01 dated 13 June 2017.

CFM International S.A. CFM56-7B SB No. 72-1024 original issue dated 26 July 2017.

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. This AD was posted on 29 September 2017 as PAD 17-132 for consultation until 27 October 2017, and republished on 05 March 2018 for additional consultation until 19 March 2018. 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](mailto:ADs@easa.europa.eu).
4. For any question concerning the technical content of the requirements in this AD, please contact:

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