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| EASA                                                                              | COMMENT RESPONSE DOCUMENT                                                                                                                               |
|  | <p style="text-align: center;"><b>EASA PAD No. 15-066</b><br/> <b>[Published on 22 May 2015 and officially closed for comments on 30 June 2015]</b></p> |

**Commenter 1: Zhejiang Loong Airlines Co., Ltd. – 马远江 (Ma Yuan Jiang) – 25/5/2015**

**Comment # 1**

During ongoing evaluation of EASA PAD No.: 15-066, we have one question as follow:

In the para Applicability of ref/A/ mentioned “CFM56-3, CFM56-3B and CFM56-3C engines, all serial numbers (s/n)”. However, in the Required Action(s) and Compliance Time(s) of ref/A/ has not mentioned CFM56-3, CFM56-3B and CFM56-3C engines, all information is for CFM56-7B engine.

Could you please kindly review and advise if CFM56-3, CFM56-3B and CFM56-3C are affected by EASA PAD No.: 15-066, if yes, please advise Required Action(s) and Compliance Time(s) if possible.

**EASA response:**

*Comment understood and partially agreed. The Reason section of the AD already explains that the affected parts (identified by P/N and s/n), although currently installed on CFM56-7B engines, are also eligible (by P/N) for installation on CFM56-3 engines. Paragraph (5) of the AD prevents affected parts (by P/N and s/n) to be installed on any engine, which includes – through the AD Applicability – CFM56-3 engines.*

*For the record, an EASA AD cannot require the scrapping of parts that are removed from an engine (with a serviceable replacement part installed, the product is safe, which is the main purpose of the AD), but an AD can prohibit (re)installation of an affected part.*

*The Final AD has been amended in response to this comment by clearly identifying that paragraphs (1) through (4) only apply to CFM56-7B engines.*

**Commenter 2: British Airways – John Moriarty – 26/5/2015**

**Comment # 2**

British Airways is currently reviewing EASA PAD No 15-066 (issued 22-May-2015) with respect to the CFM56-3C engines currently operating in its fleet. This review has noted that the terminating action requires a review of the affected parts listed in CFM56-7B SBs 72-0965 and 72-0964. British Airways do not operate the CFM56-7B and therefore do not have controlled access to these bulletins or any subsequent revisions thereof. These conditions make it impossible for British Airways to adequately comply with the proposed AD as it is currently written.

British Airways would like to request that any AD issued include a reference to manufacturers documentation that is accessible to CFM56-3 operators including any subsequent revisions that could potentially amend the list of affected parts in future.

This issue has also been communicated to our local CFM customer support representative.

**EASA response:**

**Comment agreed. The Final AD has been amended to include the full list of affected parts (P/N and s/n) in Appendices 1 and 2.**

**Commenter 3: Blue Panorama Airlines – Ravignani Roberto – 26/5/2015**

**Comment # 3**

Please accept our comments about the PAD 15-066, here attached.

The coming EASA AD seems to be applicable to all CFM56-3 (All Models) and -7 (with some exceptions) , requesting to identify find part number of gearshafts (two Part Numbers) affected by CFM56-7B SB 72--0964 Appendix A or B

A few major comments on subject EASA Document:

- 1 CFM56-3 are mentioned only on applicability.
- 2 All information provided are referenced to -7B documents (CFMI SBs). -3A/B/C engine is completely ignored. Obviously -3 operators do not have in their library any -7B Service Bulletins.
- 3 It appears almost impossible to identify engine affected by the two gearshafts P/N 335-303-002-0 (intermediate line 7) or P/N 335-302-902-0 (Fuel Pump Line 6) Both Part Numbers introduced by SB 72-791 Spare Parts Release. These SB's are hardly recorded on engine files and shop visit reports.
- 4 Required Action - Terminating Action - Requested before 6000 or 9000 FH since last SV (Initial Installation) to replace affected gearshafts appear not realistic. No instructions for engines with higher TSLSV.

Nine (9) engines out of 10 presently installed on our B737-300/400/500 fleet have higher TSLSV. What shall be done in this case.

We believe that this coming AD shall have applicability to -7B engine only or shall be completely reviewed to cover all our comments.

**EASA response:**

**Points 1, 2 and 3 are acknowledged and agreed. See EASA answers to Comments #1 and #2.**

**Point 4 not agreed. Paragraphs (4.1) and (4.2) of the AD clearly state “or within 50 FH after the effective date of this AD, whichever occurs later”. The 50 FH is an allowance for those engines that are close to, or have already exceeded the quoted compliance time. In addition, it should be noted that the affected parts are, at this time, only installed on CFM56-7B engines – see also EASA answer to Comment #2.**

**No changes have been made to the Final AD in response to point 4 of this comment.**

**Commenter 4: Canada North – Peter Silkin – 26/5/2015****Comment # 4**

We have a question on this notice of proposal. The AD currently says that the shafts could be installed on CFM56-3 engines, but there is only reference to CFM56-7B service bulletins. Due to us not being an operator of CFM56-7B engines we have no access to the -7B documentation. Also, we shouldn't be using a -7B service bulletin on a -3 engine. I suggest that another AD is created for the CFM56-3 engine, or this proposed AD has an additional section added to clearly state the requirements on a CFM56-3 engine with accompanying service bulletins specifically for the CFM56-3 engine.

**EASA response:**

**Comments partially agreed. The AD already does include requirements for CFM56-3 engines, although no SBs are referenced. See EASA answers to Comments #1 and #2.**

**Commenter 5: SCAT Airline – Arpad Poti – 29/5/2015****Comment # 5**

I would like to give you some remarks to subject PAD for consideration to establish final AD please.

1. SCAT airline operates CFM56-3 and CFM56-7 engines as well. My main focus is the CFM56-3 engines now. These engines are over TSN/CSN 30 000 / 25 000 and had numerous SV's in the past. SCAT usually has documentation (that was provided at delivery only) about the 2-3 last shop visits only and as you may know AGB worksopes during SV's are minimum – thus the subject AGB shaft parts are not reported there – so to determine AD effectivity going to be extremely difficult. I think that is true for lots of CFM56-3 engines worldwide. In this case basically everybody will have to consider their engines affected and that -considering engines high TSN/CSN - means premature removals of AGB's for terminating action. If EASA do not change conditions precedent in final AD that may cause a quite expensive cost , long queues at MRO's and grounded aircrafts to meet AD requirements due to high demand in the future. CFM56-3 operators are not the richest that is why they are still using this engine type on B737 Classic.
2. Could CFMI assist in finding the necessary data for AD applicability helping the operators – do they have data from shops?
3. For CFM56-3 do EASA and CFMI know from which year the affected parts might have been installed in AGB's at MRO's during SV's?
4. Could CFMI work out a special procedure to inspect the subject parts P/N, S/N on wing (doing some access and BSI for example) if impossible to find out part data based on available documents? It's a very important issue.
5. Those operators they have CFM56-3 engines only are not able to see the affected P/N, S/N's in ref. CFM56-7 Service Bulletins because they do not have access to -7 service bulletins on their CFMI site. It is necessary to issue CFM56-3 related SB with affected parts list as well.

**EASA response:**

**Comments acknowledged and agreed. See EASA answers to Comments #1 and #2.**

**Commenter 6: FL Technics – Viktor Kondratjev – 4/6/2015****Comment # 6**

PAD 15-066 contains requirements to determine if affected gearshafts are installed on CFM56-3/7 AGB through review of maintenance records.

For CFM56-7 we have a list of ESN's, AGB P/N and S/N with gearshafts installed at production, which makes the determination easier.

Form CFM56-3 such list is not populated and shop visit reports generally does not contain the list of gearshafts P/Ns and S/Ns, only the P/N and S/N of the AGB Assy is met.

Could we expect some additional information or the alternative way to determine the installed P/Ns/SNs for CFM56-3 engines?

**EASA response:**

**Comments acknowledged and agreed. See EASA answers to Comments #1 and #2.**

**Commenter 7: Ryanair Ltd. – Mark Connolly – 17/6/2015****Comment # 7**

With reference to EASA PAD 15-066, Ryanair would like to make the following comment:

As terminating action to the repetitive inspection requirements identified in Paragraph 2 & 3, Paragraphs 4.1 & 4.2 of the PAD state that removal of the affected 73-tooth and 41-tooth gearshafts must be accomplished i.a.w. with CFM SB 72-0965. CFM SB 72-0965 Section 3 states that for all applicable engines, the gearshafts must be removed as follows:

A – Engine in Shop – Suspect gearshafts must be replaced iaw ESM 72-63-00.

B – Engine on Wing – Contact CFM for further guidance

Ryanair would like to highlight that we contracted an OEM (CFM/Snecma) Part-145 Maintenance organisation to accomplish suspect gearshaft replacements in accordance with CFM CDR instruction on engines which were neither in shop or on-wing. As CFM SB 72-0695 does not provide work instruction for suspect gearshaft removal from engines which were neither (a) in shop or (b) on wing, Ryanair, amongst other operators would be required to request an AMOC to meet the requirements of a future AD upon its release if it remains in its current format.

1. Ryanair would like to note that FAA NPRM 2015-NE-05-AD does not state in it's proposed requirements specific instruction for removal of the suspect gearshaft. Ryanair request that EASA review the required actions listed in PAD 15-066 and revise the document to bring [it] in line with requirements of FAA NPRM 2015-NE-05-AD (i.e. – no specific instruction for removal of the suspect gearshaft) or,
2. Include a statement within paragraph 4 of the PAD stating that removal of suspect gearshafts i.a.w. with a CFM CDR is acceptable regardless of engine location.

**EASA response:**

**Comment agreed. Paragraph (4) of the Final AD has been amended accordingly.**

**Commenter 8: Jet2.com – Helen Randerson – 3/7/2015**

**Comment # 8**

PAD 15-066 states that the applicability of the mandated requirement covers the following engines: *CFM56-3, CFM56-3B and CFM56-3C engines, all serial numbers (s/n), and CFM56-7B engines, all certified models, all s/n, except models CFM56-7B27A, CFM56-7B27A/3 and CFM56-7B27AE*

Within the Required Action and Reference Documents, only CFM56-7B engines are referenced. There is no action or related documents for the CFM56-3/-3C/-3C engines. The action against the CFM56-3/-3B/-3C engines requires clarification, or deletion, prior to the issue of the final mandated requirement.

**EASA response:**

***Comments partially agreed. The AD already does include requirements for CFM56-3 engines, although no SBs are referenced. See EASA answers to Comments #1 and #2.***