



COMMENT RESPONSE DOCUMENT

EASA PAD No. 18-119

[Published on 28 August 2018 and officially closed for comments on 25 September 2018]

Commenter 1: easyJet – Graham Pearce – 03/09/2018

Comment # 1

A) This PAD would mandate CFM SB LEAP-1A 73-00-0027-01A-930A-D which I shall abbreviate in this email to 73-00-0027. When tracking an SB we always 'attach' the SB in our technical records system to the component it affects: in this case the EEC of which there are two per engine; not the engine itself as EECs can be changed. We therefore track the SB against the serial number of each EEC on wing and in stock and its SB status stays with it when it removed / re-installed etc. Note that it is the aeroplane SB by which we have to perform the mod on wing; that being Airbus SB A320-73-1129. This Airbus SB covers the CFM SB. Note that pre and post 73-00-0027 software standards are not mixable on one engine and not mixable between engines on an aeroplane.

It follows that the AD status and mod status of the EECs drives the AD status and mod status of the parent engines and the parent aeroplane, because all four EECs must be pre or post CFM SB 73-00-0027.

The mod status of a spare EEC in stock, being released from workshop maintenance or being manufactured depends upon which software it contains: in this case whether the software 2590M00P08 has been installed, ie the status of SB 73-00-0027. Therefore it is the EEC that is either pre or post SB – not the engine. Airlines need to know whether the software in an EEC is pre or post SB. In physical terms a pre SB EEC would not be in compliance with the AD, and a post SB EEC would be in compliance.

Furthermore an EASA form 1 for a repaired or new EEC would often state the software status installed and this would in effect indicate its AD status; but if the AD is against the engine (not the EEC) it would be impossible to state an AD status of an individual EEC.

Question 1: Although the PAD mandates the CFM mod at engine level would it be more appropriate to mandate it against the EEC itself as that is the part that is modified; or alternatively should the AD be at aeroplane level by mandating A320-73-1129?

B) Regarding PAD page 1 para "For the purpose of recording AD compliance, it is acceptable to shorten the reference to the SB as "LEAP-1A 73-0027 Issue 001." However, CFM has elected to use S1000D format for LEAP SBs, which has two extra zeroes: for example "LEAP-1A-73-00-0027" as opposed to LEAP-1A-73-0027".



Question 2: Can the AD either include “LEAP-1A-73-00-0027” as an acceptable format for recording compliance or alternatively be less prescriptive in order to accommodate the various recording policies and format that have been put in place by airlines already operating LEAPs and with substantial pre-existing SB records format. This would avoid multiple airlines having to apply for AMOCs to record the SB number in a different way.

C) Regarding page 2 para Groups the sentence: “An engine having s/n 598-782 or higher is a Group 2 engine, provided it is determined that the EEC SW currently installed on that engine is still a not affected SW” seems to be superfluous, because what matters is the software contained in the EECs fitted to engines, irrespective of which engine s/n the EEC is fitted to. If an engine after s/n 598782 receives (before the AD effective date) an EEC with affected software it is in any case an affected engine without the need to identify its s/n; and an engine prior to that s/n with no affected EEC (post mod) is not affected despite its s/n.

D) Regarding para (1) software update: Para 1 states “....within 3 months of the effective date of this AD, update the EEC SW in accordance with the SB”, the SB being 73-00-0027 (version L1A0550, known as FCS.5.5).

However, on 29th August 2018 during a the CFM monthly world-wide LEAP-1A customer connect meeting CFM advised that another new version of EEC software is planned for release by SB 73-00-0028 (known as FCS.5.7) during September 2018, and that it is possible to update EECs from the current softwares (known as FCS.4.0 and FCS.5.0) straight to FCS.5.7 version (SB 73-00-0028) without having to do SB 73-00-0027 (FCS.5.5.)

Question 3: Would EASA therefore discuss with CFM and consider allowing operators to comply with the PAD 18-119 by embodying either SB 73-00-0027 or SB 73-00-0028? Alternatively, amend para (1) to say “....the SB or a later software version”.

EASA response:

A) Comment noted: An AD must be issued to the product, part or appliance subject to a specific airworthiness approval: type-certificates (TC) or supplemental type-certificates (STC) for aircraft, engines or propellers, or European Technical Standard Orders (ETSO). The EEC is not subject to a specific airworthiness approval, but is part of the engine equipment. For that reason, it has been decided to issue the AD to the engine TC.

B) Comment agreed: Reference to the shortened SB number is removed. As a general note, continuing airworthiness records must be kept in a form acceptable to the competent authority (i.e., the NAA). Acceptability of using shortened SB numbers should be checked with the NAA.

C) Comment noted: Those engines are known to have been delivered with EECs having not affected SW. The information is included to ease the determination of the status of the engine.

D) Comment noted: Later revisions of the referenced SB are already accepted for compliance (ref sentence “the use of later revision...” in the Ref. publication section). Considering the definition of a “not affected software”, which has been clarified, later SW revisions are acceptable for compliance as stated in paragraph (2) of the AD, provided they are installed in accordance with CFM instructions.

No changes have been made to the Final AD in response to comments A and C

