

COMMENT RESPONSE DOCUMENT

EASA PAD No. 21-093R1

[Published on 13 July 2021 and officially closed for comments on 15 July 2021]

Commenter 1: Airworthiness Engineer – Rene Schlüter — 13 July 2021

Comment # 1

The affected Part No. P3APP003010() are installed also on Embraer (EMB-550) and Textron (C560XLS+) aircrafts.

The AD should reflect to this models also, or should be defined as a "appliance" AD. This would prevent any misleading interpretation, if the AD is applicable or Not.

EASA response:

Comment agreed. The affected umlaut HAFEX fire extinguishers may potentially be installed on any fixed-wing aeroplane or helicopter, which would make it difficult to state a comprehensive list of affected aircraft. Prompted by the need to capture all aircraft that could have an affected extinguisher installed, the AD will now apply directly to the affected umlaut HAFEX fire extinguishers, irrespective of the aircraft type(s) on which they are (to be) installed. PAD 21-093R2 has been revised accordingly.

Commenter 2: DGAC France – Richard Amy — 13 July 2021

Comment # 2

[...] I was made aware that some A220 airplanes are equipped with extinguisher P3APP003010A. However, A220 is not listed in the applicability section of subject AD. Could you confirm if the conducted safety assessment indeed concluded on the non-applicability to A220 models ?

EASA response:

Comment noted. See answer to Comment #1 above.



Commenter 3: Jet Aviation AG – Andrew Hanley – 13 July 2021**Comment # 3**

Re PAD 21-093R1, I would like to advise you that the extinguisher P3APP003010A has been installed on three VIP completion STCs in case this information is relevant to EASA. The details of the three STCs are as follows:

A319-153N, MSN 9012, EASA STC 10074094

A320-251N, MSN 8774, EASA STC 10075283 rev 1

A320-214, MSN 8555, EASA STC 10075547 rev 2

Please note that all three aircraft types are already listed on the PAD with being applicable to “all serial numbers” therefore I assume it is not necessary to list these STC’s specifically since they are already covered by the PAD applicability.

It is worth noting none of the three aircraft are operating on an EU registration.

EASA response:

Comment noted. See answer to Comment #1 above.

Commenter 4: Scandinavian Airlines System – Clement Jamet – 13 July 2021**Comment # 4**

In the PAD, the definition of an “affected part” doesn’t take into account the applicability defined in umlaut Engineering GmbH VSB P3VSB000003 §3.1, which take into account fire-extinguisher installed on A/C parked or stored in a high temperature environment (OAT > 40°C) .

In my opinion, this condition should be taken into account in the AD as well.

EASA response:

Comment not agreed. EASA has determined that it is not possible for an operator to determine the environmental conditions an extinguisher has been exposed to, and so the AD actions are not linked to temperature and duration of exposure. Where the AD deviates from the VSB instructions, the AD instructions take legal precedence. No change has been made to the revised PAD (21-093R2) in response to this comment.



Commenter 5: British Airways – Chris Wild – 13 July 2021**Comment # 5**

BAW will take delivery of new aircraft during 2021/2022 which, at time of writing, are expected to be equipped with affected parts from build (thus will be Group 1 aircraft). With the current wording of the PAD, if an aircraft is delivered (date of transfer-of-title) later than 30 days after the AD effective date, it will immediately be non-compliant and will require inspection. It is assumed this is not the intention of the AD for new delivery aircraft. Therefore, the following amendment proposal for the compliance times of repetitive inspection paragraph (1) is offered;

“For Group 1 aircraft: Within 30 days after the effective date of this AD, or within 6 months after the aircraft transfer-of-title, whichever occurs later, and, thereafter at intervals not to exceed 6 months...”

EASA response:

Comment partially agreed. The inspection per VSB will be required before delivery of the aircraft, the initial AD requirement is therefore considered as complied with and the next inspection will be due within 6 months (refer to paragraph (6) “Parts Installation”). No change has been made to the revised PAD (21-093R2) further to this comment.

Commenter 6: Easyfly – Ulianov Caipa – 13 July 2021**Comment # 6**

We are Easyfly, a Colombian ATR 42 and 72 aircrafts operator. Checking the content of this PAD for the extinguishers, we have found that the last ATR 42s aircrafts received were delivered with affected fire extinguishers P/N P3APP003010A. Aircrafts MSN 1406 and upwards were delivered with these part numbers.

We report this because we have not seen ATR 42s included on the affected type aircrafts, only 72 included.

EASA response:

Comment noted. See answer to Comment #1 above.



Commenter 7: Easyjet – Konstantinos Tsaknakis – 13 July 2021**Comment # 7**

Comments on Repetitive Inspections of para.1:

- EZY would like EASA to review the compliance time 30days and increase that to 60days as this is very short for operators with large fleets of aircraft
- EZY would like to investigate the possibility of of an alleviation of the repeat 6mo interval to a 12mo interval considering we are operating in a geographical location rarely affected by the conditions.
- Can credit be claimed based a on previous accomplishment of the inspection as per the VSB? If we perform the VSB on our fleet prior to the AD issuance, do we need to re-inspect upon issuance of the AD if no credit para is included?

Comment on Terminating action of para 4:

- Does the replacement of an affected P/N with a non-affected P/N constitute a terminating action? This is a recommended action as per the VSB SECTION 2.0, M.Materials

EASA response:**Comments on Repetitive Inspections of para.1:**

- **Comment not agreed. As described in the reason paragraph, the immediate risk of aircraft flying with inoperative extinguishers must be mitigated.**
- **Comment not agreed. As described in the reason paragraph, it is not possible for an operator to determine the exact environmental conditions the extinguisher will be exposed to in service.**
- **Comment agreed. Inspections are required “unless accomplished previously”. Any inspection, accomplished in accordance with the VSB issue required by the AD, is therefore accepted. A credit paragraph has been added to the revised PAD (21-093R2) to accept inspections in accordance with previous VSB issues.**

Comment on Terminating action of para 4:

- **Comment agreed. Operators may choose to replace (using an approved change) each affected part with a serviceable part having a different P/N, thereafter, no further inspections will be required.**



Commenter 8: Japan Air Commuter – Ritsutaro Araki – 14 July 2021**Comment # 8**

We checked your PAD 21-093R1 as attached.

Applicability for ATR aircraft is only listed ATR72 aeroplane.

But actually, affected parts of HAFEX are equipped with some ATR72 and 42 aeroplane which we operate.

That would be grateful if you could communicate with ATR and correct applicability if required.

EASA response:

Comment noted. See answer to Comment #1 above.

Commenter 9: Azul Airlines – Mariana Metzker – 15 July 2021**Comment # 9**

We would like to know two points:

- 1- Applicability of Embraer E190-400 (E2). We noted we have the same PN installed on the Embraer E2. May you please inform if the Embraer fleet E190-400 (E2) should also be listed on the applicability of the AD? [...]
- 2- Once the airline has already applied the Engineering GmbH VSB P3VSB000003 (formerly P3 Engineering GmbH), can it be considered as AD compliance (when issued) or will it have to be performed again?

EASA response:

- 1- **Comment noted. See answer to Comment #1 above.**
- 2- **Comment agreed. Inspections are required “unless accomplished previously”. Any inspection, accomplished in accordance with the VSB issue required by the AD, is therefore accepted. A credit paragraph has been added to the revised PAD (21-093R2) to accept inspections in accordance with previous VSB issues.**



Commenter 10: Cathay Pacific – Dickson Ma – 15 July 2021**Comment # 10**

Cathay pacific has reviewed the PAD 21-093R1 and the VSB P3VSB000003 Rev00

Proposal 1

Amend repetitive inspections (2) for clarification

“Thereafter, inspect each affected part on that aircraft as required by paragraph (1) of this AD.

To

“Thereafter, at intervals not to exceed 6 months, inspect each affected part in accordance with the instructions of paragraph 3.2 of the VSB, or equivalent maintenance instructions issued by the design (change) approval holder.”

Supporting Reasons 1

Repetitive inspections (1) have 2ea requirements to follow,

Inspect within 30 days after the effective date of this AD

6 month repeat inspection

Inspect within 30 days after the effective date of this AD should not be applicable to parking A/C.

Proposal 2

Remove the requirement for performing VSB prior to installation.

Background 2

- PAD 21-093 Part(s) Installation stated
Serviceable part are defined in the PAD below:

Part(s) Installation:

- (4) For Group 1 and Group 2 aircraft: From the effective date of this AD, it is allowed to install on any aircraft an affected part, provided it is a serviceable part, as defined in this AD, and that, following installation, it is inspected as required by this AD.



Serviceable part are defined in the PAD below:

Serviceable part: Any hand-held fire extinguisher that is not an affected part and is eligible for installation on the aircraft; or an affected part that, prior to installation, has passed an inspection (no defect found) in accordance with the instructions of the VSB.

In Cathay Pacific interpretation affected PN are required to perform and passed the VSB prior to installation on the A/C in the inventory store (component level), but the recommended. VSB is design to be perform on-board (aircraft level) which is reflected in questions from 3.1 “Determination of aircraft/equipment history”.

Supporting Reasons 2

- 1) All the portable fire extinguisher installed on aircraft are brand new delivered from vendor and have not been previously installed/used on aircraft, and they are store in a controlled store environment prior to installation and have not exposed high temperature, therefore it un-necessary to perform VSB inspection prior to installation for new portable fire extinguisher.
- 2) All fire extinguisher are configuration controlled, and all routine maintenance for portable fire extinguisher with pressure gauge are performed on-board (pressure check, condition check and expiry replacement). Therefore once the portable fire extinguisher is installed on A/C, it will stay on aircraft until end of life or removed as unserviceable and scraped during maintenance, Aircraft offloaded portable fire extinguisher will not be re-use or installed to A/C.
- 3) User cannot perform the whole VSB (3.1) prior to installation in inventory store (component level) as VSB P3VSB000003 3.1 “Determination of aircraft/equipment history” is design to be perform on-board (aircraft level).
- 4) Even answering VSB 3.1 “Determination of aircraft/equipment history” on an aircraft level, it will be close to impossible for airlines to have supporting maintenance date related to temperature and sunlight exposure to justify not to perform 3.2.

Conclusion 2

Above reasons demonstrated

“VSB inspection prior to installation” is unnecessary as all bottle are brand new when install and will not be re-used after removed off aircraft.

“VSB inspection prior to installation” cannot be performed as VSB 3.1 is design to be perform on-aircraft not in inventory level.

“VSB inspection prior to installation” bring no value in reducing the risk and will create addition maintenance and cost burden to airlines.



EASA response:

Proposal 1: Comment agreed. In the revised PAD (21-093R2), paragraph (2) and (6) have been amended to clarify that, after inspection upon release to service or part(s) installation, the next inspection will be due within 6 months.

Proposal 2: Comment partially agreed. It cannot be excluded that affected fire extinguishers are re-installed on the same or another aircraft. The PAD has been amended to only require the extinguisher inspection as per VSB paragraph 3.2.C.

Commenter 11: EAT DHL Leipzig – Sophie Kürner – 15 July 2021
Comment # 11

[...] The Engineering department of EAT DHL Leipzig, discussed the PAD No. 21-093R1 issued 13 July 21 today and the following questions/comments occurred:

- Would a replacement of the affected parts by alternative P/N's P3APP003010D, -E, -F mentioned in the VSB P3VSB000003 be a possible Terminating Action or does the unsafe condition not exist for D/E/F?
- Regarding the applicability of the PAD: The PAD is limited to certain aircraft types. Due to the REACH-regulation it will be necessary to replace all HALON-extinguishers of our A300-600 and B757 fleets with the affected parts by 2025. Because of that we think the phrasing 'but not limited to' or similar should be added to the effectivity table?

EASA response:

Comments agreed. See answer to Comments #1 and #7 (last point) above.

Commenter 12: Sabena Technics – Jean-Christophe Metais – 15 July 2021
Comment # 12

We would like to inform you that affected parts Part Number (P/N) P3APP003010A are installed on 2 Fokker F28 MARK 0100 (TCDS EASA.A.037) by a minor modification of Sabena technics DOA.



As the Design approval Holder & Type/Model designation of this F28 is not mentioned on the PAD, could you confirm if there is a need to revise the applicability of the PAD/AD ?

EASA response:

Comment noted. See answer to Comment #1 above.

Commenter 13: Sabena Technics – Gregory Le Corre – 15 July 2021

Comment # 13

I see the revision 1 of the PAD 21-093, and I see that the effectivity is for Aircraft, and not for appliance.

I do the airworthiness continuing of a Fokker 100 for the French Air force, and this aircraft is not in the effectivity.

Extinguisher P/N P3APP003010A are installed on this aircraft by DOE issued by Sabena technics Bordeaux. (minor modification)

Sabena technics reference : DEO FK107-26-01 MOD S-26-4187 - CABIN FIRE EXTINGUISHERS REPLACEMENT - if the effectivity is not updated, I am not concerned by this PAD, despite I have concerned extinguisher on board.

Could you please confirm the effectivity of this PAD.

EASA response:

Comment noted. See answer to Comment #1 above.

