

## COMMENT RESPONSE DOCUMENT

EASA PAD No. 21-090

[Published on 21 June 2021 and officially closed for comments on 19 July 2021]

**Commenter 1: British Airways Engineering – Tom Eldridge – 22/06/2021**

### Comment # 1

REF: PAD 21-090 Para (3) “Specific Instructions”.

BAW notes that the PAD Para (3) requirement is not included within the Airbus SB 53-1491.

Additionally, BAW notes that the affected area defined in the PAD 21-090 (Door stop fitting 1) is not the affected area of the SB (Frame 68 webs, flanges & inner caps between Stringers 21 & 23). The stipulation in Para (3) is limited to the Door Stop Fitting 1, which is actually covered by A320-53-1288/ AD 2016-0238 /PAD 20-179, and is not the subject of the SB 53-1491 which will be mandated under this proposed AD.

Can EASA please therefore confirm the reason for including this Para (3) requirement in the (P)AD? Can EASA confirm in the final AD that any repairs performed to the Frame 68 / Stringer 21 – 23 areas, which do not repair the door stop fitting, are not affected by this Para (3) requirement?

Please confirm why previous Airbus repairs in the affected areas are no longer valid, as evidenced by the Para (3) requirement to contact Airbus for additional instructions?

Given that the SRM introduction states “A new revision of the SRM does not supersede the previous ones. The existing Allowable Damage Limits (ADL) and Repairs assessed and done with previous versions of the SRM are still valid and no reassessment is required unless specified via an Airworthiness Directive” will EASA please provide a written list within the final AD to state explicitly which (if any) SRM ADLs/ repairs, at which SRM revision, are no longer valid and must be reassessed?

**EASA response: Comments agreed, AD has been revised to address the correct area to be inspected.**

**Paragraph 3 of the PAD (now (2) in the final AD) has been updated. For repairs/modifications, affecting the accomplishment of the inspections as required by the AD, and already re-assessed by Airbus, operators are required to follow new applicable instructions issued by Airbus. After the effective date of the AD, specific instructions will have to be managed using the AMOC process.**



**Commenter 2: Eurowings Technik GmbH – Daniel Grotjans – 23/06/2021****Comment # 2**

EWG and EWE have already inspected several aircraft according to SB A320-53-1491 Rev. 00. According to the PAD 21-090, these aircraft would have to be inspected again within the threshold as per paragraph 1.

Will EASA implement a credit in the future AD, which allows operator to comply to the requirements with such aircraft that were already inspected according to SB A320-53-1491 before the effective date of the AD? For these aircraft the interval of 19700 FC will apply.

**EASA response:**

***Comment noted. Actions accomplished before the effective date of the AD can be used for compliance with the requirements of the AD under the clause “Required as indicated, unless accomplished previously”. No changes have been made to the Final AD in response to this comment***

**Commenter 3: United Airlines – Neil Sorensen – 24/06/2021****Comment # 3**

United Airlines began the A320-53-1491 frame inspections this year. One damage finding was approved with an RDAF stating “This repair and the Instructions for Continued Airworthiness provided in this document cancel and supersede the inspections provided in ISB A320-53-1491 for the repaired area.” This is due to the repaired area now being reinforced with fittings, requiring different methods of inspections. Please clarify if Paragraph (2) and (3) allow an RDAF to supersede the inspection requirements in Paragraph (1) for the repaired area, if so stated in the RDAF.

**EASA response:**

***Comment noted. Repair instructions issued by Airbus before the effective date of the AD, following an inspection iaw the instructions of Airbus SB A320-53-1491 are acceptable for compliance with paragraph (3) of the AD (it was paragraph (2) in the PAD). See also EASA answer to comment 2 and 5B. No changes have been made to the Final AD in response to this comment***



**Commenter 4: Qatar Airways – Yazeed Matouq – 27/06/2021****Comment # 4****A. Definition of Affected area:**

The affected area needs to be exactly defined as according to PAD definitions. The affected area is “Door stop fitting 1 located at frame 68 / stringer 22, left-hand and right-hand side.” However, in this inspection program (as per ISB 53-1491 original issue) it is not the stop fitting itself that is subject to inspection. The inspection is addressed on STGR22 web horizontal flange and inner cap FR68 LH side and RH side. In fact, mismatch in the area definition is causing some confusion especially in understanding the requirements of the para 3 of the PAD as detailed below.

**B. Definition of Previous Repair:**

EASA is kindly asked to provide more detailed definition of the previous repairs as mentioned in paragraph 3 of the PAD. For example, is there any specific SRM references need to be checked? Is a replacement of the stop fitting one is considered a repair ?

As matter of fact, this is a very open statement and not a reliable method to comply with AD requirement as there is a big chance of missing old repairs on the area.

In addition, Airbus in the related ISI is specifying that “For operators having accomplished the SRM 53-41-12-300-011 on frame 68 str22 (door stop 1) location with P/N R534-20799-200/201 installed, a temporary RDAF will be provided on demand with adapted inspection procedure pending on ISB 53-1491 revision.”

**C. Compliance of para 3:**

As confirmation of such a requirement is not reliable and hard to achieve, QTR is planning to do inspection on affected area for any previous repair before commencing the inspection as per SB 53-1491. However, due to the access needed, QTR would like to perform inspection for any previous repair existing on the affected area at the same compliance as required for inspection by AD i.e. as per table 1 of the PAD.

**EASA response:****4A) Refer to EASA answer to comment 1**

**4B) Refer to EASA answer to comment 1. To be noted that configuration control, including repairs, is operator responsibility. Replacement of parts, with no need for design activity, is not a repair iaw Part 21 definitions (21.A.431). No changes have been made to the Final AD in response to this comment.**

**4C) Noted. No changes have been made to the Final AD in response to this comment**



**Commenter 5: Delta Air Lines – Cecilia Teeuwen – 14/07/2021****Comment # 5****Reference:**

- (A) EASA Proposed Airworthiness Directive: PAD No. 21-090, dated 21 June 2021
- (B) EASA Airworthiness Directive: AD NO. 2016-0238, dated 04 January 2016
- (C) Airbus Service Bulletin (SB) A320-53-1491, dated 14 August 2020

**SUMMARY:**

EASA PAD 21-090, ref (A), was recently issued to address potential cracks on FR68, STR 22, LHS/RHS inner cap and frame flange area for certain A318/A319/A320/A321 series airplanes. This proposed rule was prompted by crack findings around, but not directly in, the Door Stop #1 FR68 inspection area that is addressed via EASA AD No. 2016-0238, ref (B), which specifically requires inspection of FR66/FR68 door stop fittings/frame attachment holes, but not the surrounding frame area. Since the inspection mandated by EASA AD No. 2016-0238 does not technically cover the frame area where cracks have now been found while MTC complied with its required actions, Airbus developed SB A320-53-1491, ref (C). This SB inspects the discrepant area on FR68 at STR 22 and requires Airbus be contacted in the event that cracks are found. Note that if these cracks are not found and corrected, the structural integrity of the fuselage could be reduced.

As a result of the release of SB A320-53-1491, EASA PAD 21-090 was issued to require repetitive inspections of the FR68, STR 22, LHS/RHS inner cap and frame flange area and accomplishment of corrective actions, as needed.

**DELTA'S COMMENTS**

Upon reviewing EASA PAD 21-090, DAL has the following comments and requests for clarification:

Comment#A: EASA PAD 21-090 definition of the 'affected area' does not match the area to be inspected per the SB A320-53-1491 required by EASA PAD 21-090.

The 'affected area' is defined as: "Door stop fitting 1 located at frame 68 / stringer 22, left-hand and right-hand side". The current definition implies that the door stop fitting 1 installation location is the area specifically impacted by this proposed rule. However, DAL notes that the door stop fitting 1 of fuselage frame (FR) 66 and FR 68, and related frame attachment holes are inspected as required by EASA AD No. 2016-0238 and per a different service bulletin than SB A320-53-1491.

EASA PAD 21-090 proposes an inspection in a very similar, but distinctly different area from EASA AD No. 2016-0238. EASA PAD 21-090 requires inspection of the FR68 LH side and RH side at STGR22 web horizontal flange and inner cap (fillet radii included) specifically, and IAW SB A320-53-1491.



DAL believes the current definition of the 'affected area' could be misleading to operators because it implies that the discrepant area is specifically related to the door stop fitting 1 on FR68 at STR22, whereas the area to be inspected per SB A320-53-1491 is the web horizontal flange and inner cap (fillet radii included) around the door stop fitting.

This current definition also impacts what repairs require additional evaluation by Airbus as outlined in EASA PAD 21-090 Para (3). Existing verbiage in the 'affected area' definition combined with the verbiage in Para (3) indicates that all repairs to the FR68 door stop fitting 1 installation location require re-evaluation, even though that damage was found (as intended) via the mandated actions in EASA AD No. 2016-0238. DAL believes the intent of EASA PAD 21-090 Para (3) is to re-evaluate only repairs specifically made at FR68/STR22 web horizontal flange and inner cap (fillet radii included), not the door stop 1 fitting or frame attachment holes.

If the intention of the 'affected area' definition in conjunction with EASA PAD 21-090 Para (3) is to have ALL repairs, both to the door stop fitting 1/frame attachment holes and to the frame web horizontal flange/inner cap (fillet radii included) re-evaluated, DAL requests clarification on why this is the case and why door stop 1/frame attachment hole repairs are not being addressed by revision to the related EASA PAD 21-090. For this scenario, DAL requests the following verbiage is used:

"Affected Area: Frame 68 / stringer 22, left-hand and right-hand side, door stop fitting 1, web horizontal flange, and inner cap (fillet radii included)."

If the intention of the 'affected area' definition in conjunction with EASA PAD 21-090 Para (3) is to have ONLY repairs to the frame web horizontal flange/inner cap (fillet radii included) re-evaluated, DAL kindly requests EASA revise the definition of affected area so it more accurately identifies where the inspections in SB A320-53-1491 are being performed and what requires re-evaluation per EASA PAD 21-090. This will ensure operators do not confuse the work proposed in EASA PAD 21-090 with that covered in EASA AD No. 2016-0238. For this scenario, DAL requests the following verbiage is used:

"Affected Area: Frame 68 / stringer 22, left-hand and right-hand side, web horizontal flange and inner cap (fillet radii included), level with door stop fitting 1."

#### Comment#B:

EASA PAD 21-090 Para (2) states that Airbus should be contacted for repair instructions when damage is found during the inspection covered in EASA PAD 21-090 Para (1). In the event that damage is found in the inspection area and repair is required, operators will obtain RDAFs to approve corrective actions. If an RDAF is obtained, it is possible that there will be follow on inspections required by the RDAF in the area. If this is the case, are operators to continue accomplishing the repetitive inspections covered in EASA PAD 21-090 Para (1) in addition to the inspections covered in the RDAF? If this is not the case, DAL requests to add a clarifying statement to the final rule's terminating action section that makes it clear RDAF inspections are to be used in lieu of EASA PAD 21-090 Para (1) inspections after repair has been completed.

#### Comment#C



EASA PAD 21-090 Para (3) states that any repairs accomplished in the 'affected area' prior to the AD Effective Date and per either the SRM or an RDAS must be submitted to Airbus for disposition within the compliance times specified in EASA PAD 21-090 Para (1). DAL recognizes that while RDAS's used to be the primary method for approving repair instructions, RDAF's are now used in their place. Since it is possible that repairs exist in the inspection area that are approved via either an RDAS or an RDAF, DAL requests the addition of 'RDAF' to the types of repair approvals listed in EASA PAD 21-090 Para (3).

**EASA response:**

**5A) Refer to EASA answer to comment 1**

**5B) Comment noted. The AD requires, in case of discrepancies, to contact Airbus and follow their instructions. It is assumed that those instructions will clarify whether the inspections as required by paragraph (1) of the AD will have to be accomplished even after the repair or not. No changes have been made to the Final AD in response to this comment.**

**5C) Comment agreed, but no more relevant due to new verbiage of paragraph (3) of the PAD (paragraph (2) of the final AD). No changes have been made to the Final AD in response to this comment.**

**Commenter 6: Deutsche Lufthansa AG – Stefan Hermes – 15/07/2021**

**Comment # 6**

During the first accomplishment of SB A320-53-1491 on one of our A319, DLH found a repair in the applicable inspection zone on RH side. This repair consists of a doubler repair due to findings at the door stop fitting inspection as per SB A320-53-1288 mandated by EAD 2016-0238. The repair was performed in accordance with RDAS 70575728/003/2013 and TD/70575728/037/2021#A. After contacting Airbus, DLH received further inspection requirement regarding SB A320-53-1491. DLH would like to remind EASA that both SBs/AD are affecting each other.

Hence, DLH would like to know if the repair solution after findings in accordance with the mentioned SB are standard repairs or MSN specific. If the repairs are not related to one MSN, DLH would like to request that the standard repair procedure and following inspection program will be included within the final AD and next SB revision.

**EASA response:**

**Comment noted. No standard repairs are currently available. Possible future standard repairs will be assessed for inclusion in a revision of the SB. No changes have been made to the Final AD in response to this comment.**



**Commenter 7: Aegean Air – Zacharoula Stamataki – 16/07/2021****Comment # 7**

PAD par. (3) instructs that Airbus must be contacted in case the affected area has been already repaired in accordance with the instructions of the applicable Structural Repair Manual, without any specific reference though, on the applicable Structural Repair Manual ADL and Repair Tasks.

Based on SRM Introduction, in case re-assessment of an SRM ADL and Repair is required, this should be specified via an Airworthiness Directive. Thus, Aegean Airlines expects that PAD 21-090 Definitions section will be updated to make reference to the specific Structural Repair Manual ADL and Repair tasks for which Airbus must be contacted for approved instructions in accordance with PAD par. (3).

**EASA response:**

***Refer to EASA answer to comment 1***

**Commenter 8: Air Canada – Jack Szeto – 16/07/2021****Comment # 8**

Proposed mandatory SDI/HFEC inspections at Frame 68/Stringer 22 require extensive access due to installation of Aft Lavatory and Aft Galley in standard A319/A320/A321 cabin configuration. This level of access is typically only available during Airframe Visits at scheduled H-Chks (every 5-6 years). The 12-24 month compliance time will mandate Operators to perform SBA320-53-1491 inspections in [Line Maintenance] or [Airframe Visits which Aft Lav & Aft Galley are not removed]. For context, the additional workload to remove and re-install Aft Lavatory and Aft Galley can take up to 200 Man-Hrs.

Please kindly consider the following:

- A. Reported cracks were detected during accomplishment of Inspections required by AD2016-0238. It appears reasonable to presume Inspections per ALI task 534129 or ALI task 534130 or SB A320-53-1288 would also detect any existing cracks at Frame 68/Stringer 22. Please consider crediting/extending threshold for the group of aircraft that previously had these ALI or SB Inspections accomplished.
- B. From discussions with MRO/NDT inspectors, it is possible to perform a Detailed Visual Inspection of FR68's Horizontal Flange and Inner Cap using a Borescope (without removing Aft Lavatory and Aft Galley). This NDT method can be performed in a Line Maintenance environment, and can detect



visible cracks that may affect the structural integrity of the fuselage. Please consider approving the use of a borescope to perform Detailed Visual Inspection of FR68's Horizontal Flange and Inner Cap, as an alternate method with shorter inspection intervals, in order to extend threshold of HFEC inspections. An example of using Visual Inspections with shorter intervals to extend threshold of HFEC inspections can be found in EASA AD2020-0280 Paragraph (7).

***EASA response:***

***Comment noted. This proposal is currently being assessed. In order not to delay further the issuance of the Final AD, it has been decided not to wait for conclusion of this assessment; if agreed, it will be possibly included in a revised SB and/or AD. Specific request can be managed using the AMOC process. No changes have been made to the Final AD in response to this comment.***

