

## COMMENT RESPONSE DOCUMENT

EASA PAD No. 23-102R1

**[Published on 30 November 2023 and officially closed for comments on 14 December 2023]**

### **Commenter 1: Iran Air – Meysam Moslehi Jenabian – 04/12/2023**

#### **Comment # 1**

We have an airplane that is A321-211 CEO model which SRM task has not been accomplished on, as mentioned in EASA PAD 23-102R1.

When applying the inspection threshold, which item should be followed :

A: Before exceeding 15 500 FC or 31 000 FH since first flight.

B: Before exceeding 6 900 FC or 13 800 FH since accomplishment of the SRM task, or 5 months after the effective date of this AD, whichever occurs later, as applicable.

#### **EASA response:**

**Comment noted. The table in the AD states: “A or B, whichever occurs first.”**

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

### **Commenter 2: Air New Zealand - Mark Pritchard – 07/12/2023**

#### **Comment # 2**

Air New Zealand is reviewing the recently issued PAD No. 23-102R1 and would like to enquire regarding the following requirements of the AD in relation to the SRM.

ANZ Models: A320 – ST1, A320neo – ST5 and A321neo ACF - ST8



(5) For Group 1 A321 NEO aeroplanes on which, before the effective date of this AD, SRM tasks 57-21-11-300-009 or 57-21-11-300-010 have been embodied and which included **Steps 2 to 9** (inclusive) for bush installation: Within 5 months of the effective date of this AD, contact Airbus for approved repair instructions and, within the compliance time specified therein, accomplish those instructions accordingly.

Additional Requirements for Future Repair(s):

(6) For Group 1 aeroplanes: From the effective date of this AD **in lieu of the thresholds and intervals specified in the SRM tasks**, accomplish the post-repair inspections of the affected areas within thresholds and intervals as defined in Appendix 1 of this AD, as applicable to aeroplane model and configuration.

(7) For Group 1 A321 NEO aeroplanes: From the effective date of this AD, accomplishment of a repair in accordance with the instructions of SRM task 57-21-11-300-009 or 57-21-11-300-010 is allowed, **provided that the bush is installed only in accordance with the Step 1 of those repair instructions**, when applicable.

A. Are the SRM Task 57-21-11-300-009 and 57-21-11-300-010 Steps 2 to 9 (inclusive) from the effective date of the AD, considered no longer approved repair data.

If this is the case, should Steps 2 thru 9 be removed from the SRM or be annotated with a statement to Contact Airbus prior to accomplishment.

NOTE: SRM tasks 57-21-11-300-010 is now showing as inactive for, SRM A321neo ACF ST8, revision 25, 01 Nov 2023.

2. Will Airbus be updating the SRM Repair/Inspections Tasks to refer to the AD for Thresholds and Interval Data.

**EASA response:**

**A. Comment noted. We confirm that according to the paragraph (7) of the AD it is no more allowed to perform steps 2 to 9.**

**B. Comment noted. Airbus confirmed that the corresponding SRM update is expected by end of 2024.**

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

**Commenter 3: British Airways – Tom Eldridge – 08/12/2023**

**Comment # 3**

**A. REF PAD PARA (5):**

“For Group 1 A321 NEO aeroplanes on which, before the effective date of this AD, SRM tasks 57-21-11-300-009 or 57-21-11-300-010 have been embodied and which included Steps 2 to 9 (inclusive) for bush installation:



Within 5 months of the effective date of this AD, contact Airbus for approved repair instructions and, within the compliance time specified therein, accomplish those instructions accordingly.”

BAW reviewed the affected tasks for ST8 A321 NEO ACF, and these tasks do not evidently reflect what is being meant by ‘Steps 2 to 9’. The repairs described in SRM 57-21-11-300-009 & SRM 57-21-11-300-010 are broken down into Para 1 & Para 2. Para 2.A ‘Repair Procedure’ is split into only 3 steps, each with sub-steps numbered (a), (b), (c) etc.

BAW had a conference call with Airbus Technical, SRM & Airworthiness specialists and highlighted that this is unclear. The Airbus specialists highlighted that the step definition is coming from one of the figures in the SRM task. As such, BAW believe that EASA should refer to the SRM figure(s) where steps 2 – 9 are defined.

To reduce potential for confusion, please would EASA update the final AD to refer to the SRM figure(s) that define the mentioned steps 2 – 9?

**B. REF PAD PARA (6):**

“Additional Requirements for Future Repair(s):

“For Group 1 aeroplanes: From the effective date of this AD in lieu of the thresholds and intervals specified in the SRM tasks, accomplish the post-repair inspections of the affected areas within thresholds and intervals as defined in Appendix 1 of this AD, as applicable to aeroplane model and configuration.”

- (a) To help operators comply to this requirement, please would EASA ensure that by the next SRM revision, Airbus updates the SRIs for the subject repairs to align with the AD requirements? This is to prevent future potential errors.
- (b) It is noted that the PAD only restricts the threshold and interval of the post-repair inspections and does not explicitly state a method. Not all the SRIs, as they currently exist, provide an inspection method. After our conference call with the Airbus Technical, SRM & Airworthiness specialists, BAW understand that the Airbus technical intent is that the inspection method should be the external DVI as per the AOT (without manhole cover removal).

Please would EASA/ Airbus ensure this is fully defined in the final AD?

- (c) The statement above Para (6) which states in bold “Additional Requirements for Future Repair(s)” led 50% of the BAW Structures department to understand that the restriction to post-repair inspections added by Para (6) only applies to repairs performed after the effective date of the AD, and that repairs performed prior to the effective date are unaffected by this threshold/ interval reduction. Following our conference call with the Airbus Technical, SRM & Airworthiness specialists, BAW now understand that the technical intent is that any repair ever performed per the stated SRM references should have the threshold & interval restricted per the AD requirements, regardless of the date of repair.

Please would EASA improve the wording of this paragraph to make this technical intent clear?

**C. REF PAD PARA (7):**



“For Group 1 A321 NEO aeroplanes: From the effective date of this AD, accomplishment of a repair in accordance with the instructions of SRM task 57-21-11-300-009 or 57-21-11-300-010 is allowed, provided that the bush is installed only in accordance with the Step 1 of those repair instructions, when applicable.”

- Similar to BAW commentary on Para (5), it is not readily evident what is meant by the “step 1”, due to the way the SRM instructions are numbered, and this could lead to incorrect application of this paragraph.

Please would EASA update the final AD to accurately define what is meant by “Step 1 of those repair instructions”, by referring to the specific figure(s) where the step is defined?

- Similar to BAW commentary on Para (6), to help operators comply to this requirement, please would EASA ensure that by the next SRM revision, Airbus updates the SRM tasks to remove the other steps, such that there is no available instruction for larger bushes to be fitted? This is to prevent future potential errors.

**EASA response:**

**A. Comment agreed. The final AD is updated to provide the figure number of the SRM where the steps are detailed.**

**B. Comment noted and partially agreed.**

**(a) Airbus confirmed that the SRM update is expected by the end of 2024 to align with AD requirements. No changes have been made to the Final AD in response to this comment.**

**(b) Paragraph (6) of the final AD has been amended to refer to the AOT instructions. The final AD has been amended accordingly.**

**(c) Paragraph (1) of the final AD applies also to SRM repairs performed before the effective date of this AD. Paragraph (6) of the final AD applies to SRM repairs performed after the AD effective date to ensure that the adequate limitation applies. No changes have been made to the Final AD in response to this comment.**

**C. Refer to replies to A and B of the Comment # 3 above.**

**Commenter 4: Air Canada – Jack Szeto – 13/12/2023**

**Comment # 4**

1. “The SRM Task” includes both Category A Permanent Repairs and Category B Permanent Repairs with Future Inspections. Air Canada (along with other Operators) had expressed to Airbus that maintenance records of SRM Repairs are not digitally consolidated to facilitate complete review for AD-compliance. This is especially the case for Category A SRM repairs, for which records that do not affect ICAs mostly reside in MRO’s database,



and only Category B SRM repairs are recorded in Operator's database (to track/perform future inspections). Consequently, for Operators to comply with PAD's threshold and intervals for SRM Tasks, the conservative assumption must be made that every aircraft had been previously repaired per SRM Task since First Flight. Accordingly, the entire fleet of Group 1 must now be inspected within 5 months of AD-release ("FC/FH since accomplishment of SRM Task" would have expired since 1st flight). Air Canada kindly asks EASA to consider extending "5 months" inspection threshold to "1 year" or "2 years" from new AD-effective date for Operators to properly plan and prepare for inspection program.

2. For Air Canada, AD-affected aircraft has average utilization of 2300FC/7000FH between airframe visits. Air Canada notes that "2000FC/4000FH Inspection Interval" does not allow aircraft to reach next airframe visit. Air Canada kindly requests that EASA/Airbus explore alternate means of Inspection methods which would extend repeat inspection interval. Proposed method includes the use of HFEC-inspection (with Access Covers Removed). Although HFEC inspection access is more extensive, the inspection can be scheduled during airframe visit, and this NDT method will allow early detection of crack initiation in area underneath manhole access hole cover, which should correspond to a longer period for 'crack growth' before reaching critical crack length. Accordingly, this should correspond to longer Safe Inspection Period / Inspection Interval. For Air Canada, this WAS NOT an urgent consideration for AD2021-0256 as Air Canada's Group 1 fleet would not reach the Inspection Threshold for a few more years. However, with the proposed "Inspection Threshold from accomplishment of SRM Task" (Ref. Comment 1), Air Canada's entire Group 1 fleet is now required to perform inspection in Line maintenance within 5 months. Air Canada acknowledges that this ALT inspection method likely cannot be approved in time for current PAD/AD release, but Air Canada kindly asks EASA/Airbus to work towards minimizing impact to Airline Operation by using Inspection Methods that extend Inspection Intervals to reach airframe visits.

**EASA response:**

1. ***Comment noted. SRM Category A applies to A319 aeroplanes used as Corporate Jet. Category B applies to the rest of the fleet. Compliance time is considered to be adequate. No changes have been made to the Final AD in response to this comment.***
2. ***Comment noted. At the time of the final AD issuance EASA does not have enough elements to justify compliance time extension. No changes have been made to the Final AD in response to this comment.***

**Commenter 5: Delta Airlines – James Thompson – 14/12/2023**

**Comment # 5**

**Reference:**

(A) EASA Proposed Airworthiness Directive: PAD No. 23-102R1, dated 30 November 23



(B) Airbus Alert Operators Transmission (AOT) A57N018-21 Rev 00, dated 08 Nov 21

(C) Airbus Alert Operators Transmission (AOT) A57N018-21 Rev 01, dated 14 Jun 23

1. Commenter request: Update the effectivity definitions in REF[A] (“CEO aeroplanes” and “NEO aeroplanes”) to align more closely with the effectivity definition in REF[C] and remove the following statement “having a configuration as defined in EASA TCDS EASA.A.064” from both definitions.

Justification: REF[C] defines effectivity as:

-A319/A320/A321\_CEO aircraft equipped with Sharklet devices installed in production or in-service as per Airbus Service Bulletin (SB A320-57-1173, or SB A320-57-1186 or SB A320-57-1187 or SB A320-57-1193).

-And all A319/A320/A321\_NEO aircraft.

This definition makes no reference to the aircraft certificate of worthiness or type certificate data sheet.

DAL is not aware of many EASA AD's that incorporate the TCDS into the effectivity definition.

Furthermore, DAL is concerned that by specifying the TCDS, operators will be required to perform an unnecessary records review through delivery documentation to prove that all A/C do in fact have a “configuration as defined in EASA TCDS EASA.A.064.”

Furthermore, DAL does not believe that adding the verbiage “configuration as defined in EASA TCDS EASA.A.064,” adds any additional clarity to the effectivity definition with REF[A].

List paragraphs that change; describe (nonobvious) changes: Definitions: Change Definition for “CEO aeroplanes” and “NEO aeroplanes”.

2. Commenter request: Update the effectivity definition in REF[A] “NEO aeroplanes” to align more closely with the effectivity definition in REF[C] and update the following statement “with either LEAP-1A or PW1100G series engines installed” to the following statement: “with either LEAP-1A or PW11XXGX-XX series engines installed”

Justification: REF[C] defines effectivity as: “all A319/A320/A321\_NEO aircraft.”

Per the aircraft certificate of worthiness for the DAL A321NEO fleet, engine type is defined as “PW1133GA-JM”.

It is not clear if PW1133GA-JM engine type is part of the “PW1100G series”.

DAL is concerned that the definition of the NEO engine per REF[A] is not clear enough and may potentially lead to uncertainty regarding the effectivity status of DAL's NEO engine.

List paragraphs that change; describe (nonobvious) changes: Definitions: Change Definition for “NEO aeroplanes”

3. Commenter Request: Add a statement to REF[A] that “Paragraph 4.2.1 “Access” and paragraph 4.2.4 “Close-Up”, do not constitute or affect the technical intent of the AOT. Operators can therefore, as deemed necessary, omit or add access and/or close-up steps to add flexibility to their maintenance operations as long as the technical intent of the AOT is met within the set parameters.”

Justification: There are several occurrences of “in accordance with” language within REF[C] that should be “refer to” language. These occurrences do not appear in Required for Compliance (RC) paragraphs:

1) Paragraph 4.2.1 (ACCESS) - For both wings, it is required to remove the fixed fairing of the Flap Track n°4 (in accordance with the Ref.[2]) to perform the DVI.



2) Paragraph 4.2.4 (CLOSE-UP) - In case of nil finding, re-install the fixed fairing of the Flap Tracks n°4 (in accordance with the Ref.[3]) before next flight.

However, there are several “in accordance with” references from RC paragraphs to paragraph 4.2 (which includes the access and close-up steps):

1) 4.1.1 ACCOMPLISHMENT TIMESCALE – (RC): “Perform the initial inspection in accordance with paragraph 4.2.”

2) 4.1.1 ACCOMPLISHMENT TIMESCALE – (RC): “Repeat the inspection in accordance with paragraph 4.2.”

Based on similar conversations with the FAA regarding similar use

of “in accordance with” language, it may be understood that since paragraph 4.1.1 which is a “RC” paragraph, refers to paragraph 4.2 with “in accordance with” verbiage, all the actions within para 4.2, (including access and close-up steps) must be done “in accordance with” the referenced manuals.

As a consequence, the note within REF[A] that “Operators can therefore, as deemed necessary, omit or add access and/or close-up steps to add flexibility to their maintenance operations as long as the technical intent of the AOT is met within the set parameters” is no longer relevant or applicable for AD compliance.

List paragraphs that change; describe (nonobvious) changes: Definitions: Add new paragraph to the PAD to allow for operator discretion while performing access and close-up steps.

4. Commenter request: Add an allowance in the SRM task definition to contact the manufacturer to determine if the version used of the SRM is post correction and not limited to using Step 1 only (Para (7)).

Justification: It may be assumed that since the SRM has been identified as “not adequate”, Airbus will update and improve the SRM chapter in the near future.

As REF[A] is currently written, there is no version of the SRM detailed. Therefore, once Airbus updated the specified SRM chapters to correct the repair process, operators will still be limited to using Step 1 only – Para (7) per the AD.

Operators should have the flexibility of contacting the manufacturer to understand when the SRM has been updated and the relevant repair process has been corrected. From this point, operators should be able to perform the entire SRM repair and not just Step 1 per REF[A] without an AMoC.

Without placing a limit or allowance on the SRM version used, operators will be required to obtain an AMoC to use the corrected SRM task in its entirety.

List paragraphs that change; describe (nonobvious) changes: Definitions: As part of the SRM task definition, allow operators to contact the manufacturer to determine if the SRM repair is sufficient or still requires the limitation of using Step 1 only.

5. Commenter request: Remove Structural Repair Manual (SRM) tasks 57-21-11-300-002, 57-21-11-300-003, 57-21-11-300-021, 57-21-11-300-022 and 57-21-11-300-025 from the SRM task definitions paragraph.

Justification: Within REF[A], there is no reference to Structural Repair Manual (SRM) task 57-21-11-300-002, 57-21-11-300-003, 57-21-11-300-021, 57-21-11-300-022 and 57-21-11-300-025 other than the definitions paragraph.



DAL would like a clarification why these SRM chapters appear in the definition paragraph but do not appear in paragraph (5) or (7) together with SRM tasks 57-21-11-300-009 and 57-21-11-300-010. It is unclear if repairs performed in accordance with 57-21-11-300-002, 57-21-11-300-003, 57-21-11-300-021, 57-21-11-300-022 and 57-21-11-300-025 are AD affected or only those repairs performed IAW SRM tasks 57-21-11-300-009 and 57-21-11-300-010.

List paragraphs that change; describe (nonobvious) changes: Remove non relevant SRM task references from the SRM task definition.

**EASA response:**

1. ***Comment agreed. The Definition paragraph has been updated in the final AD.***
2. ***Comment agreed. Refer to reply to answer 1. to Comment #5.***
3. ***Comment noted. EASA has not implemented yet the Required for Compliance concept. We recommend reviewing the issue with the Registry Authority adopting the final AD. No change to the AD. No changes have been made to the Final AD in response to this comment.***
4. ***Refer to reply to Comment #3.***
5. ***The term 'SRM task' defined in the AD is used in paragraph (6) of the AD and in the Appendix for AD simplification. Paragraphs (5) and (7) of the AD refer to two specific SRM tasks and not to the 'SRM task' term. No changes have been made to the Final AD in response to this comment.***

