**DOARI Comments Responses Document**

**DOARI 2018-01**

| **Comment** | **Comment summary** | **Suggested resolution** | **Comment is an observation (suggestion)\*** | **Comment is substantive (objection)\*\*** | **EASA****comment disposition** | **EASA response** |
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| **NR** | **Author** | **Section, table, figure** | **Page** |
| 1 | Rolls-Royce plc | Item 2 | 2 | Clarification requested on item 2 | Item 2 on the list covers minor design changes that need a new part number to be identified in the ALS, but without changing the safe life limits in ALS part 1( as defined in the consultation) This scenario is also considered for ALS part 4 in item 3 of the same list. I propose that the possibility of introducing a new part number into the ALS without changing the ALS limits should also be included for ALS Part 2 items (damage tolerance limits) and possibly ALS Part 3 (CMR). | Yes |  | **Noted** | Based on experience accumulated and further requests coming from industry, EASA will review the current list of minor ALS changes for possible extension. |
| 2 | Rolls-Royce plc | N/A | N/A | On which basis is EASA publishing DOARIs and what is the legal effectivity on existing DOAs . Where in the Part 21 will this be placed? Guidance only /AMC |  |  |  | **Noted** | Application of a consultation process in case of certain DOARIs is based on EASA MB Decision 12-2007, Article 3, Paragraph 1.As this type of DOARI is documenting an alternative means of compliance with Part 21 has no direct effect on existing DOAs (it is not mandatory).Such DOARI will be considered when revising Part 21 GM&AMC |
| 3 | Rolls-Royce plc | N/A | N/A | It is intended that any DOA could be granted this privilege to modify ALS as minor change once approved or is this only for TC/STC holders?  |  |  |  | **Noted** | Even if there is no explicit limitation in the application of these classification criteria, it is expected that only the TC holders (and in some limited case the STC holders) may have the necessary data to be able to implement (some of) these criteria. In any case, the extension of the DOA privileges to classify and approve minor ALS changes shall be subject of an application for Significant Change to the Design Assurance System.  |
| 4 | Federal Office of Civil Aviation (FOCA) | Item 7 | 2 | We propose to delete ID7 because:* Anti-MOD is not defined in Part 21.
 |  |  |  | **Partially accepted** | Indeed, an “anti-mod” is not defined in Part 21. However, this cannot constitute a reason to delete the respective item. Instead, the following definition is proposed to be introduced in the DOARI: “An “anti-mod” is a design change which defines a mean of removing a previously installed design change”. |
| 5 | Federal Office of Civil Aviation (FOCA) | Item 9 | 2 | We propose to delete ID9 because:* Safety analysis assumptions are complex in their nature, the impact of refined reliability on other safety assumptions should be reviewed by the competent authority;
* In terms of improved failure rates which are demonstrated by test: the method of the test should be agreed with the competent authority;
* In terms of improved failure rates which are demonstrated by in-service experience:
	+ The methodology of evaluating the in-service experience should be agreed with the competent authority;
	+ In-service reliability is not necessarily adequate to be used in the safety assessments, the calculated reliability (based on FMEA) should be used which allows to systematically cover all relevant failure modes;
	+ Good in-service reliability is a result of proper existing maintenance program. Extension of intervals might have an adverse impact on the in-service reliability, especially if combined with interval extension for other maintenance tasks;
	+ Statistic relevance should be agreed with the competent authority.
* Basically this point should be deleted as there are sufficient means to deal with it in the near future with privileges on MAJOR change to be granted to DOA that have shown good performances in this field (including internal processes for minor and safety methodology in use) and to be dealt with request for reclassification in the interim period.
 |  |  |  | **Partially accepted** |  The safety assumptions are not questioned, except the used failure rates at the time of initial TC. These failure rates might be changed with justification by the in-service experience.It is agreed that the “test” option is not appropriate and will be removed from this criteria.It is also agreed that the methodology for evaluating in service experience should be subject of EASA agreement. The criteria will be adjusted accordinglyMaintenance is of course influencing the reliability of an equipment. However, the proposed interval extension (CMRs) based on in-service reliability data / improved failure rates does not adversely affect the level of safety. This criteria will only be applicable to ALS Part 3.The new text is as follows:“Increase of interval resulting from change in safety analysis assumptions triggered by in-service reliability data / improved failure rates. The method for evaluating the in-service experience should be agreed by EASA.” |
| 6 | CAA Czech Republic | N/A | N/A | Without rejecting the principle of having minor ALS changes, the commentor is highlighting the concerns and precoutions needed in the implementation. Also some neclarities in the criteria applicability to structures or systems are mentioned as well.  |  |  |  | **Noted** | Indeed the presented examples of minor ALS changes are referring to either structures parts, ALS Part 1 & 2, or system, ALS Part 3 & 4 respectively.The extension of a DOA pribileges to classify and approve minor ALS changes shall be subject of an application for Significant Change to the Design Assurance System. Part of the investigation of this Significant Change the Agency will check the capability of the DOA to manage these changes.EASA experts are routinely part of DOA audits.  |

\* Please complete this column using the word “yes” or “no”

\*\* Please complete this column using the word “yes” or “no”