



European Union Aviation Safety Agency
Comment-Response Document (CRD)
2019-05(C) — AMC & GM to Part-145

RELATED NPA: 2019-05(C) & OPINION No 04/2020 — RMT.0251 (MDM.055) PHASE II

**Embodiment of the safety management system (SMS)
requirements into Part-145**

10.5.2022

Table of contents

1. Background	2
2. Summary of the outcome of the consultation and approach taken as regards the disposition of the comments on the Part-145 AMC & GM	3
3. Individual comments	7



1. Background

In relation to RMT.0251 (MDM.055) Phase II (Embodiment of the safety management system (SMS) requirements into Part 21 and Part-145), the NPA was arranged in 2019 in 3 sub-NPAs as follows:

- Sub-NPA 2019-05(A) for general consideration;
- Sub-NPA 2019-05(B) for Part 21 (amendments to Regulation (EU) No 748/2012 and the associated AMC & GM); and
- Sub-NPA 2019-05(C) for Part-145 (amendments to Regulation (EU) No 1321/2014 and the associated AMC & GM).

This NPA was published on 17 April 2019 and was subject to a public consultation until 6 September 2019.

On 19 December 2021 the Agency issued Opinion No 04/2020 together with CRD 2019-05 that addresses the comments related to the amendments to the Regulation as proposed in NPA 2019-05.

This CRD 2019-05(C) now intends to address the NPA comments related to the amendments to the AMC & GM as proposed in Sub-NPA 2019-05(C), i.e. the amendments to the Part-145 AMC & GM.

A CRD 2019-05(B) will also be published for the NPA comments related to the amendments to the AMC & GM amendments proposed in Sub-NPA 2019-05(B), i.e. the amendments to the Part 21 AMC & GM.

Note: Opinion No 04/2020 resulted in the adoption of [Regulation \(EU\) 2021/1963](#) amending the Continuing Airworthiness Regulation (Regulation (EU) No 1321/2014).

On initial airworthiness side (Part 21), the Opinion resulted in the adoption of:

- [Commission Delegated Regulation \(EU\) 2022/201](#)
- [Commission Implementing Regulation \(EU\) 2022/203](#)



2. Summary of the outcome of the consultation and approach taken as regards the disposition of the comments on the Part-145 AMC & GM

As regards Sub-NPA 2019-05(C), 467 comments were related to the AMC & GM, 13.5 % of which were duplicated comments. These comments can be consulted in Appendix 6.3 to CRD 2019-05.

An additional 40 comments on the AMC & GM by the Human Factor Collaborative Analysis Group (HFCAG) were received after the deadline of the consultation; they have also been taken into consideration in the rulemaking effort.

Similar to the approach taken with CRD 2019-05, due to this high number of comments, the decision has been made to summarise and group the comments and their response for CRD 2019-05(C).

Therefore, this CRD will provide a summary of the comments received on Sub-NPA 2019-05(C), limited to the AMC & GM. This CRD text has been developed by EASA, based on the review of these comments and the input of the RMT.0251 Phase II Focused Consultation Group (FCG) — the same group which was consulted for the development of the NPA. The FCG was composed of experts from industry and national competent authorities.

In order to review the comments to the Part-145 AMC & GM proposed in Sub-NPA 2019-05(C), these comments were clustered by topics, and various groups composed of selected members of the FCG and EASA were created to review the relevant comments. Two of these groups (AltMoC and Findings/observations) also considered the comments to the Part-21 AMC & GM proposed in Sub-NPA 2019-05(B) because the topics were affecting equally both domains (Part 21 and Part-145).

The groups created were the following:

- ‘Technical’ (maintenance related) (TEC): 3 meetings held on 17.03.2021, 05.05.2021 and 02.06.2021;
- ‘Safety Management’ (SM): 3 meetings held on 24.03.2021, 12.05.2021 and 09.06.2021;
- ‘Organisation Requirement’ (OR): 3 meetings held on 14.04.2021, 19.05.2021 and 16.06.2021;
- ‘Authority Requirements’ (AR): 3 meetings held on 22.04.2021, 26.05.2021 and 30.06.2021;
- ‘Alternative means of compliance’ (AltMoC): 9 meetings held on 12.04.2021, 07.05.2021, 14.10.2021, 05.11.2021, 16.11.2021, 03.12.2021, 24.01.2022, 10.02.2022 and 16.02.2022.
- ‘Findings and observations’: 9 meetings held on 26.03.2021, 20.04.2021, 21.05.2021, 10.06.2021, 21.06.2021, 20.10.2021, 10.11.2021, 26.12.2021 and 20.01.2022

These meetings aimed to prepare the ED Decision 2022/011/R amending the Part-145 AMC & GM.

Following the completion of the series of web-meetings, the resulting proposed amendments to the Part-145 AMC & GM were shared (finding, observation and AltMoC AMC & GM excluded) with the entire FCG for a final consultation that occurred between 04.11.2021 and 03.12.2021. 191 comments were received from this consultation, from 6 commenters of the FCG. Most of these comments were used to clarify and refine the final text of this ED Decision. A few comments were found outside the scope of the RMT (e.g. role of the support staff) and were not accepted.

Summary of comments and dispositions under the 'TEC' group (technical topics)

Several comments were made on AMC1 145.A.10, in particular on the definition (and examples, and related provisions) of 'line maintenance' and 'base maintenance' (e.g. comments #835, #836, #1053, #286). The group spent significant time to review the definition and the AMC in general, trying to better fit it in the context of SMS and avoid confusion with the pre-flight inspection, while keeping certain flexibility. The group also introduced a provision for the organisation to develop a procedure determining whether the task(s) to be carried out fall under line maintenance or base maintenance.

Several comments related to AMC1 145.A.45(e) on the development of maintenance jobcards were reviewed (e.g. comment #347), also in view of the proposed amendment to the Regulation which introduced the notion of 'long maintenance task' in point 145.A.45(e). The discussion held during the development of the Opinion on the consideration of human factors in the development of jobcards was also taken into account.

Many comments were expressed on AMC1 145.A.70(a) and GM1 145.A.70 related to the content and purpose of the maintenance organisation exposition (MOE) (e.g. comments #500, #501, #502, #503, #504, #505 #227, #443, #8, #1064). The group spent significant time to review the content of the MOE trying at the same time to complement what could be missing, to clarify the intent of certain chapters while trying not to disrupt the general outline.

Summary of comments and dispositions under the 'SM' group (safety management topics)

A significant number of comments were made on the fatigue-related AMC & GM proposed in the NPA (e.g. comments #838, #71, #994, #1065, #430, #221, #353, #355, #661, #839, #357, #355, #884, #432, #775, #223, #358, #882, #158, #1065, #431). The main concerns expressed were about the reference to EU legislation on working time, the reference to ICAO Doc 9824, the way the mitigations are developed and the notion of 'fatigue risk management' (FRM).

The group reviewed the comments and the related AMC & GM having in mind that 'fatigue' is one element (amongst others) to be addressed by the organisation's management system, in particular during the activities of planning and when such organisation is prone to fatigue issues (which may not concern all maintenance organisations). The term 'fatigue risk management (system)', implying a system parallel to that of the organisation management system, should hence be avoided.

The group heavily reworked the proposed AMC1 145.A.47(b) on 'fatigue', withdrew GM1 145.A.47(b) as proposed in the NPA and created new GM instead, providing guidance on how to consider 'fatigue' in the planning of maintenance. The text was simplified and made more proportional. Focus was put on the objectives to be achieved when establishing the working shifts.

Several comments were expressed on the proposed GM1 145.A.200, which is a high-level GM describing the origin and objective of an organisation's management system (e.g. comments #117, #590, #536, #236, #113, #590, #591). The group reviewed the comments and made several amendments for clarity.

Several comments were expressed on the proposed AMC1 145.A.200(a)(3) describing the safety management key processes (e.g. comments #9, #542, #543, #545, #547, #592, #238, #1011). The group reviewed the comments and made several amendments to the AMC for clarity in particular to the paragraphs related to hazard identification and management of change.

Summary of comments and dispositions under the 'OR' group (organisation requirement)

A significant number of comments were expressed on AMC1 145.A.30(cc) which relates to the knowledge, background and experience of the nominated persons (e.g. comments #48, #67, #132, #215, #309, #414, #310, #414, #415, #416). Most of these comments expressed the point of view that the criteria laid down in the draft AMC were too strict and would limit the number of nominated persons candidates meeting these criteria, in particular for small and medium-sized enterprises (SMEs).

The group reviewed the comments and discussed the topic in detail. In particular, it was acknowledged that there is no such AMC — with such criteria — in the air operations domain (Regulation (EU) 965/2012). But the group considered that the establishment of a minimum set of criteria for the knowledge, background and experience of nominated persons, is an essential element in the safety of the continuing airworthiness domain, and in particular for Part-145 organisations which represent the highest standard of maintenance organisation. Having said that, several alleviations were introduced into the initial text; for example, with the introduction of the notion of 'technical degree' (as an alternative to 'engineering degree'), or reducing the additional experience from 5 years to 2 years as an alternative to the degree. The group also developed specific provisions addressing the case where the candidate safety manager or compliance monitoring manager also holds a similar position under a certificate within the scope of Regulation (EU) 2018/1139. The opening sentence was also amended to become applicable to future nominated persons only, such that nominated persons in duty when the regulation becomes applicable would not need considering that AMC.

Several comments were also made on AMC1 145.A.75(b) which relates to subcontracting (e.g. comments #513, #514, #515, #516). The text of that AMC was thoroughly reviewed for clarity and also with the intent of better reflecting the current situation, practice and examples.

As explained in CRD 2019-05, one association had a major concern (ref. comments #1030, #1031, #1032) in relation to the fact that changes of nominated persons would require a prior approval. New GM (GM1 145.A.85(a)(2)) was developed by the group to explain that deputies would ensure business continuity during the approval process of the new nominated person.

Summary of comments and dispositions under the 'AR' group (authority requirement)

The group reviewed AMC1 145.B.305(c) and AMC2 145.B.305(c) related to the oversight planning cycle, which had been commented by a competent authority (e.g. comment #135). The discussion resulted in adding the 'organisation set-up' as an element for consideration in determining the cycle and defining the oversight programme. The group also agreed to remove the provision stating that the interval between two audits for a particular process should not exceed the interval of the applicable oversight planning cycle: that provision was considered to be unnecessarily restrictive in the context of the risk-based oversight, considering also that the competent authority shall completely verify compliance of the organisation with the Regulation during the oversight cycle anyway.

The group also introduced a new AMC (AMC 145.B.330(e)) providing provisions for the competent authority as to how they should handle the changes not requiring prior approval.

Summary of comments and dispositions under the 'AltMoC' group (Alternative means of compliance)

As explained in CRD 2019-05, because of a high number of comments raised on the amendments to the regulation points as proposed in the NPA 2019-05 addressing AltMoC, EASA organised an ad hoc webinar on 26 October 2020 with the FCG experts to explain the background and rationale behind the AltMoC provisions being kept in Opinion No 04/2020.

Based on these principles, and based on the text adopted through Regulation (EU) 2021/1963, the 'AltMoC' group reviewed the entire set of AMC & GM proposed in the NPA, and their comments, in order to clarify the intent, benefit and scope of the AltMoC.

The new AltMoC-related AMC & GM developed by the group (in Section A and Section B) clarify what an AltMoC is, who can propose them, what the process requires and how an organisation can benefit from them. The material also indicates examples of issues not requiring AltMoC. Due consideration was given to the differences between AltMoC proposed by organisations and AltMoC issued by competent authorities.

Summary of comments and dispositions under the 'Findings and Observations' group for Part-145

As explained in CRD 2019-05, the amendments to the Regulation proposed in NPA 2019-05 in relation to 'findings' had raised numerous comments. Following the publication of Opinion No 04/2020, the group reviewed AMC1 145.A.95 as proposed in the NPA to clarify the expected steps an organisation should take (including the corrective action plan) upon receipt of a finding. The group also amended the proposed GM1 145.A.95 on root cause analysis for simplification (point (c) on organisation 'system description' was deleted), and deleted GM1 145.B.350(b);(c) as proposed in the NPA, which was originally based on the current AMC 145.B.50(a).

Instead, the group developed the new GM1 145.B.350(f) to explain the difference between a 'level 2 finding' and an 'observation', and created the new AMC1 145.A.95(f) to provide provisions as to how an organisation should pay 'due consideration' to observations.



3. Individual comments

The comments to NPA 2019-05(C) can be found in Appendix 6.3 to CRD 2019-05.

