



Explanatory Note to Decision 2019/018/R

Acceptable Means of Compliance and Guidance Material to Part 21

RELATED TO:

- NPAs/CRDs 2015-03, 2017-20, 2019-03 — OPINION No 07/2016 — RMT.0262 (MDM.060)
- NPA/CRD 2012-08 — OPINION No 01/2017 — RMT.0393 & RMT.0394 (MDM.097(a)&(b))
- NPA/CRD 2017-01 — OPINION No 09/2017 — RMT.0514

EXECUTIVE SUMMARY

The objective of this Decision is to support the application of the amendments introduced in Part 21 through Commission Delegated Regulation (EU) 2019/897 as regards:

- the embodiment of level of involvement (LoI), the introduction of the possibility for new privileges for approved design organisations and other amendments to Part 21 that were proposed by EASA in its Opinion No 07/2016 ‘Embodiment of level of involvement requirements into Part-21’ (RMT.0262) of 23 May 2016;
- the new ICAO aeroplane CO₂ standard and the aircraft engine non-volatile particulate matter (nvPM) emissions standard, and the introduction of references to the updates of existing noise and engine emission standards in ICAO Annex 16, as proposed by EASA in its Opinion No 09/2017 ‘Implementation of the CAEP/10 amendments on climate change, emissions and noise’ (RMT.0514) of 7 November 2017; and
- the need for the issuance of a permit to fly (PtF) for certain maintenance check flights (MCFs), as proposed by EASA in its Opinion No 01/2017 ‘Maintenance check flights’ (RMT.0393 & RMT.0394) of 8 March 2017.

In order to achieve this objective, the Decision amends the Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Part 21.

Action area:	RMT.0262: Safety management; RMT.0393 & RMT.0394: Design and maintenance improvements; RMT.0514: Climate change		
Affected rules:	AMC and GM to Part 21		
Affected stakeholders:	Design approval holders (DAHs); EASA; Member States; production organisations; operators; maintenance organisations; continued airworthiness maintenance organisations (CAMOs)		
Driver:	RMT.0262, RMT.0393 & RMT.0394: Safety; RMT.0514: Environment	Rulemaking group:	RMT.0262, RMT.0514: No; RMT.0393 & RMT.0394: Yes
Impact assessment:	RMT.0262, RMT.0393 & RMT.0394: Light; RMT.0514: Full (by ICAO CAEP)	Rulemaking Procedure:	Standard

● EASA rulemaking process



27.8.2013	RMT.0262	2.3.2015	23.5.2016	12.3.2019	
1.4.2011	RMT.0393/0394	30.7.2012	7.3.2017	12.3.2019	28.8.2019
13.6.2016	RMT.0514	17.1.2017	6.11.2017	12.3.2019	



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1. About this Decision

The European Union Aviation Safety Agency (EASA) developed ED Decision 2019/018/R in line with Regulation (EU) 2018/1139¹ (the ‘Basic Regulation’) and the Rulemaking Procedure².

This rulemaking activity is included in the latest European Plan for Aviation Safety (EPAS)³ under the following rulemaking tasks (RMTs):

- RMT.0262 (MDM.060),
- RMT.0393 & RMT.0394 (MDM.097(a)&(b)), and
- RMT.0514.

The scope and timescales of these RMTs were defined in the related Terms of Reference⁴.

The draft text of this Decision has been developed by EASA. All the interested parties were consulted through notices of proposed amendments (NPAs) and comments were received from all the interested parties, including industry, national aviation authorities (NAAs) and social partners. The following Table 1 provides an overview of the comments received on the related public consultations and related EASA responses leading to this Decision:

NPA reference	Related RMT	# of comments received	# of commentators	Related CRD reference
2015-03	0262	347	38	2015-03
2017-20	0262	217	22	2017-20
2019-03	0262	57	17	2019-03
2012-08	0393/0394	362	48	2012-08
2017-01	0514	47	11	2017-01

Table 1

In consideration of the comments received, EASA developed and submitted its proposals to the European Commission for the amendment of Part 21, which were published in the Opinions in the following Table 2, leading to the adoption of Commission Delegated Regulation (EU) 2019/897⁵.

¹ Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EEC) No 3922/91 (OJ L 212, 22.8.2018, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1535612134845&uri=CELEX:32018R1139>).

² EASA is bound to follow a structured rulemaking process as required by Article 115(1) of Regulation (EU) 2018/1139. Such a process has been adopted by the EASA Management Board (MB) and is referred to as the ‘Rulemaking Procedure’. See MB Decision No 18-2015 of 15 December 2015 replacing Decision 01/2012 concerning the procedure to be applied by EASA for the issuing of opinions, certification specifications and guidance material (<http://www.easa.europa.eu/the-agency/management-board/decisions/easa-mb-decision-18-2015-rulemaking-procedure>).

³ https://www.easa.europa.eu/document-library/general-publications?publication_type%5B%5D=2467

⁴ **RMT.0262:** <https://www.easa.europa.eu/document-library/terms-of-reference/tor-and-concept-paper-mdm060-rmt0262-rmt0611-and-rmt0550-rmt0612>

RMT.0393 & RMT.0394: <https://www.easa.europa.eu/document-library/terms-of-reference-and-group-compositions/tor-mdm097-b>
RMT.0513 & RMT.0514: <https://www.easa.europa.eu/document-library/terms-of-reference-and-group-compositions/tor-rmt0513-and-rmt0514>

⁵ Commission Delegated Regulation (EU) 2019/897 of 12 March 2019 amending Regulation (EU) No 748/2012 as regards the inclusion of risk-based compliance verification in Annex I and the implementation of requirements for environmental protection (OJ L 144, 3.6.2019, p. 1) (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0897&qid=1565358258084&from=EN>).

Opinion reference	Title	Related RMT	Issue date
07/2016	'Level of involvement'	0262	23 May 2016
01/2017	'Maintenance check flights'	0393/0394	8 March 2017
09/2017	'Implementation of the CAEP/10 amendments on climate change, emissions and noise'	0513/0514	7 November 2017

Table 2

In parallel, EASA has developed — in consideration of the comments received during the public consultations referred to in Table 1 above — the final text of this Decision, with the AMC and GM to Part 21, supporting the application of the amendments introduced by Commission Delegated Regulation (EU) 2019/897.

The major milestones of these rulemaking activities are presented on the title page.



2. In summary — why and what

2.1. Why we need to change the AMC and GM to Part 21

RMT.0262

The Part 21 change introduced by this RMT addresses the risks in the process of certification of aircraft and related products, parts or appliances, as well as changes and repairs thereto.

The Part 21 certification process is based on the principle of assurance of compliance of products, parts and appliances with the applicable requirements. The applicant demonstrates compliance, and in the case of approved design organisations also independently verifies compliance, and EASA verifies the applicant's compliance demonstration on a non-exhaustive basis before issuing the certificate.

This RMT does not change the principle of compliance assurance but it introduces into the process a risk-based approach to the EASA's compliance verification.

Additionally, the Part 21 change introduced by this RMT introduces the possibility for design organisation approval (DOA) holders to obtain the privilege to approve certain major changes to type certificates (TCs), supplemental TCs (STCs), and/or major repair designs.

Furthermore, a number of other changes and improvements have been introduced into Part 21, thus including the relocation of certain requirements for the competent authority from Section A to Section B of Part 21.

In order to support the application of these changes to Part 21, EASA has developed AMC as well as GM.

RMT.0393 and RMT.0394

A number of accidents and incidents have happened in relation to flights conducted with aircraft that had just undergone incomplete or inadequate maintenance, or to flights conducted to verify the adequate maintenance of the aircraft.

Following the Perpignan accident⁶, EASA reviewed the operational requirements laid down in Regulation (EU) No 965/2012 and found that the issue of maintenance check flights (MCFs) was not sufficiently addressed. Therefore, this rulemaking activity was launched.

Among other changes to the implementing and delegated acts adopted on the basis of the Basic Regulation, Part 21 has been amended by including in point 21.A.701 the possibility to issue a permit to fly (PtF) for certain MCFs.

In order to support the application of point 21.A.701, EASA has amended the GM to 21.A.701.

RMT.0514

Following the 10th meeting of the ICAO Committee on Aviation Environmental Protection (CAEP/10) from 1 to 12 February 2016, the ICAO CAEP recommended amendments to ICAO Annex 16 Volume I 'Aircraft Noise' and Volume II 'Aircraft Engine Emissions', as well as the creation of a new Volume III 'Aeroplane CO₂ Emissions'. These recommendations were subsequently adopted by the ICAO Council at the 7th meeting of its 210th Session on 3 March 2017.

Amendment 12 of the 7th Edition of ICAO Annex 16 Volume I addresses the technical issues arising from the application of the Standards and Recommended Practices (SARPs) and the related guidance

⁶ BEA report on the accident on 27 November 2008 off the coast of Canet-Plage (66) to the Airbus A320-232 registered D-AXLA operated by XL Airways Germany (<https://www.bea.aero/docspa/2008/d-la081127.en/pdf/d-la081127.en.pdf>).

for aircraft noise certification. It includes miscellaneous editorial changes and corrections to enhance the utility of the documents and their compatibility with ICAO Doc 9501 'Environmental Technical Manual' (ETM) Volume I 'Procedures for the Noise Certification of Aircraft'. This includes the definition of reference conditions, flight path measurement techniques and guidelines for the noise certification of tilt-rotor aircraft. There are no changes to the noise limits. All the changes to Volume I are considered to be stringency neutral. No new standard on aircraft noise was recommended at CAEP/10.

Amendment 9 of the 3rd Edition of ICAO Annex 16 Volume II addresses various technical issues arising from the application of the SARPs and the related guidance for aircraft engine emissions certification. These include a definition of 'engine type certification', an update to the sampling line temperature stability limits, a change of the NO_x analyser calibration gas to NO, and a change in the naphthalene content within the test fuel specifications. There are no changes to the existing emissions limits. All the changes to Volume II are considered to be stringency neutral. In addition, a new nvPM emissions mass concentration standard has been introduced as Chapter 4 in Part III. This is supplemented by Appendix 7, which contains the certification procedures, including the measurement methodology, system operation and instrument calibration.

The new Volume III of ICAO Annex 16 introduces an aeroplane CO₂ emissions standard for both new and in-production aeroplane types.

In addition to the amendments to ICAO Annex 16, CAEP/10 approved ICAO Doc 9501 'Environmental Technical Manual' (ETM), Volume I 'Procedures for the Noise Certification of Aircraft', Volume II 'Procedures for the Emissions Certification of Aircraft Engines' and a new Volume III 'Aeroplane CO₂ Emissions'. The updated ETM volumes provide clarifications and additional guidance material to facilitate the harmonised implementation of ICAO Annex 16.

The AMC and GM to Part 21 make a direct reference to specific amendments to Volumes I and II of ICAO Annex 16, as well as to specific editions of the ETM. The AMC and GM to Part 21 therefore need to be amended to ensure alignment with the latest ICAO SARPs and associated guidance material.

2.2. What we want to achieve — objectives

The overall objectives of the EASA system are defined in Article 1 of the Basic Regulation. This Decision will contribute to the achievement of the overall objectives by addressing the issues outlined in Section 2.1.

The specific objective of this Decision is to support the application of the amendments introduced in Part 21 by Commission Delegated Regulation (EU) 2019/897.

2.3. How we want to achieve it — overview of the amendments

RMT.0262

The most significant changes related to RMT.0262 are listed hereafter:

— **AMC 21.A.14(b) Alternative procedures to demonstrate design capability (amended)**

This AMC is amended to reflect the new wording introduced into Part 21.

Occurrences of 'change to type design' are replaced by 'change(s) to type certificate', and the reference to the separate classification of OSD is deleted.

— **AMC 21.A.15(a) Form and manner (new)**



This new AMC provides detailed instructions on how to download and fill in the application form.

— **AMC 21.A.15(b) Content of the certification programme (new)**

This new AMC provides detailed information about the contents of the certification programme, and has been developed on the basis of the deleted AMC 21.A.20(b).

— **Appendix A to AMC 21.A.15(b) Means of compliance codes (new)**

This new Appendix A lists the means of compliance codes and the associated compliance documents. It is based on the deleted Appendix to AMC 21.A.20(b).

— **GM 21.A.15(c) Updates to the certification programme (new)**

This new GM provides detailed information on updating the contents of the certification programme. It has been developed on the basis of the deleted AMC 21.A.20(b).

— **AMC 21.A.15(b)(5) Breakdown of the certification programme into compliance demonstration items (CDIs) (new)**

This new AMC clarifies the definition of a CDI as well as the breakdown of the certification programme into meaningful CDIs.

— **GM No 1 to 21.A.15(d) Application for the approval of operational suitability data — MMEL for ELA1 and ELA2 aircraft (amended)**

This GM is amended to delete the applicability of OSD constituents. The new wording no longer contains the list of OSD constituents because that information is currently provided by the certification specifications related to OSD, which are regularly updated.

Regarding maintenance certifying staff data (MCSD), it is to be noted that EASA has already carried out a public consultation on the NPA that contains CS-MCSD⁷. The publication of CS-MCDS is expected in Q4/2019.

The title is amended to reflect its new contents.

— **GM 21.A.15(e) and (f) Period of validity for the application for a type certificate (TC) or restricted type certificate (RTC) (new)**

This new AMC provides detailed guidance on the extension of the original application date and the calculation of the new period of validity.

— **GM 21.A.20 Compliance demonstration process (new)**

This new GM describes how point 21.A.20 should be applied by different applicants.

— **GM 21.A.20(b) Reporting on the compliance demonstration process (new)**

This new GM provides detailed information about the reporting on the compliance demonstration process.

— **AMC 21.A.20(c) Compliance documentation (amended)**

This AMC is slightly amended to improve its wording and include appropriate references.

— **GM 21.A.20(d) Final statement (amended)**

This AMC is amended to improve its wording and to include appropriate references. Additionally, the meaning and purpose of the final statement is further clarified.

⁷ Refer to NPA 2018-11 'Certification Specifications and Guidance Material for maintenance certifying staff type rating training', which is available at <https://www.easa.europa.eu/document-library/notices-of-proposed-amendment/npa-2018-11>.

- **GM 21.A.21(a)(3)(i) Clarification of the term ‘determined’ (new)**

This new GM clarifies the meaning of the term ‘determined’.
- **GM to 21.A.21(f)(b), 21.A.95(c), 21.A.97(c), 21.A.115(c), 21.B.103(b), 21.B.107(b) and 21.B.111(b) Approval of operational suitability data (OSD) (amended)**

This GM is amended to improve its wording and correct some references.
- **GM 21.A.33(d) Inspections and tests (amended)**

GM 21.A.33 is amended to reflect the deletion of point 21.A.33(a) and to improve its wording. The general content of this GM is maintained.
- **AMC 21.A.33 Inspections and tests (new)**

This AMC provides additional details on ‘inspection and tests’. The applicability of point 21.A.33 is clarified. The contents of the statement of conformity are clarified.
- **GM 21.A.90A Scope (amended)**

This GM is slightly reworded to reflect the changes introduced into point 21.A.90A.
- **GM 21.A.91 Classification of changes to a type certificate (TC) (amended)**

This GM is substantially amended to incorporate the classification part of the deleted GM 21.A.263(c)(4). Additionally, the reference to the separate classification of OSD is deleted and one criterion triggering a ‘major’ classification for a change is reintroduced to correct an erroneous cancellation.
- **Appendix A to GM 21.A.91 Examples of major changes per discipline (amended)**

The flow chart of Appendix A to GM 21.A.91 is amended to improve the terminology, correct certain references, and incorporate OSD considerations.
- **AMC 21.A.93(a) Form and manner (new)**

This new AMC clarifies the acceptable form and manner of applications for changes to TCs.
- **AMC 21.A.93(b) Certification programme for a change to a TC or an STC (amended)**

This amendment of AMC 21.A.93(b) provides further clarifications to establish a certification programme for a change to a TC or an STC. The text is amended to reflect the changes introduced into point 21.A.93(b).
- **GM No 1 to 21.A.93(b)(1)(iii) Interaction of changes to the type design and changes to operational suitability data (OSD) (amended)**

The references of GM No 1 to the previous point 21.A.93(c) are updated.
- **GM No 2 to 21.A.93(b)(1)(iii) Interaction of changes to the type design and changes to the master minimum equipment list (MMEL)**

The references of the previous GM No 2 to 21.A.93(c) are updated.
- **GM 21.A.93(c) Period of validity for the application (new)**

This new GM is inserted to clarify that applicants for a change to a TC should refer to GM 21.A.15(e) and (f) in order to determine the period of validity of the application.
- **AMC 21.A.95 Requirements for the approval of a minor change (new)**

This new AMC describes an acceptable process to approve minor changes.
- **GM 21.A.95(b) Requirements for approval of a minor change (new)**

This new GM clarifies that the level of detail of the compliance demonstration documents should not be affected by the entity that approves the change (i.e. EASA or the DOA that holds the privilege).

— **AMC 21.A.97 Requirements for the approval of a major change (amended)**

The wording is improved, the application of the Lol concept is clarified, references are corrected, and the meaning of ‘specific configurations’ is explained.

— **GM to 21.A.97(b) Requirements for the approval of a major change (new)**

This new GM clarifies that the level of detail of the compliance demonstration documents should not be affected by the entity that approves the change (i.e. EASA or the DOA that holds the privilege).

— **GM 21.A.101 Establishing the certification basis of changed aeronautical products (amended)**

This GM is amended to keep the correct references to Part 21. Additionally, all the guidance related to the validity of applications for a change to a TC has been deleted because this issue has been moved from point 21.A.101(e) to point 21.A.15(e) and (f).

— **GM No 1 to 21.A.101(g) Establishment of the operational suitability data (OSD) certification basis for changes to type certificates (TCs) (amended)**

This GM is slightly amended to improve the wording and include new references.

— **AMC 21.A.113(a) Form and manner (new)**

This new AMC clarifies the acceptable form and manner of an application for an STC.

— **AMC 21.A.115 Requirements for approval of major changes under supplementary type-certificate procedures (new)**

This new AMC provides further clarification of the requirements for the issuance of an STC. Its contents are partially derived from the deleted AMC 21.A.114.

— **GM No 1 to 21.A.239(a) Design assurance system (amended)**

This GM is updated to improve the contents of subparagraph 3.1.5 ‘Maintenance and Operating Instructions’ and to introduce the new obligation referred to in 21.A.265(h).

— **GM 21.A.247 Significant changes in the design assurance system (amended)**

This GM is amended to reflect the changes introduced in point 21.A.263(c).

— **GM No 2 to 21.A.243(d) Data requirements — Statement of the qualification and experience — Organisations designing minor changes to type designs or minor repairs to products (amended)**

This GM is amended to reflect the deletion of the privilege referred to in 21.A.263(c)(3) and the introduction of the obligation referred to in 21.A.265(h).

— **GM 21.A.247 Significant changes in the design assurance system (amended)**

This GM is amended to reflect the changes introduced in point 21.A.263.

— **AMC No 1 to 21.A.263(c)(1) Procedure for the classification of changes to a type certificate (TC) or to a supplemental type certificate (STC) and of repair designs as ‘minor’ or ‘major’ (amended)**

This AMC is amended to improve the language and clarity.

- **AMC No 2 to 21.A.263(c)(1) Privileges — Organisations designing minor changes to a type certificate (TC) or a supplemental type certificate (STC) and minor repairs to products: classification procedure (amended)**

This AMC is amended to improve the language and clarity.

- **AMC No 1 to 21.A.263(c)(2) Procedure for the approval of minor changes to a type certificate (TC), APU ETSO or a supplemental type certificate (STC), and minor repairs (amended)**

This AMC is amended to improve the language and include changes to STCs.

- **AMC No 2 to 21.A.263(c)(2) Privileges — Organisations designing minor changes to a type certificate (TC), APU ETSO or a supplemental type certificate (STC) and minor repairs to products: procedure for the approval of minor changes to a TC, APU ETSO or minor repairs (amended)**

This AMC is amended to improve the language and to include changes to STCs.

- **AMC No 3 to 21.A.263(c)(2) Procedure for the approval of minor changes to a type certificate (TC) which affect the aircraft flight manual (AFM) (new)**

This new AMC provides guidance for developing a procedure for the approval of minor changes to an aircraft flight manual (AFM). It is based on the deleted GM 21.A.263(c)(4).

- **AMC 21.A.263(c)(6) Procedure for the approval of the conditions for issuing a permit to fly (amended)**

This AMC is amended to partially incorporate the content of the deleted AMC 21.A.263(b)(1).

- **AMC No 1 to 21.A.263(c)(5), (8) and (9) Scope and criteria (new)**

This new AMC provides the scope of the new privilege for approved design organisations, with particular focus on the meaning of ‘certain’.

- **AMC No 2 to 21.A.263(c)(5), (8) and (9) Procedure for the approval of a major repair, a major change to a type certificate (TC), or a supplemental type certificate (STC) by a design organisation approval (DOA) holder under their privileges (new)**

This new AMC provides a process for the approval of a major change/repair or STC under the new privilege.

- **GM 21.A.263(c)(5), (8) and (9) Numbering system for supplemental type certificates (STCs), major changes, and major repairs issued by design organisation approval (DOA) holders, and information to EASA (new)**

This new GM provides an example of the numbering system for the STCs, major changes, and major repairs approved using the new privilege.

- **GM 21.A.265(h) Designation of data and information issued under the authority of a design organisation approval (DOA) holder (new)**

This new GM partially incorporates the content of the deleted GM 21.A.263(c)(3). It provides guidance for compliance with the new obligation referred to in point 21.A.265(h).

- **GM 21.A.431A Scope (amended)**

This GM is amended to update and improve the flow chart for approvals or repairs.

- **GM 21.A.432B(b) Alternative procedures (new)**

This GM is introduced to create a link to AMC 21.A.14(b) regarding the alternative procedures.

- **AMC 21.A.432C(a) Form and manner**



This new AMC describes the acceptable form and manner of an application for a major repair/major change to a TC.

— **AMC 21.A.432C(b) Certification programme for a repair design approval (new)**

This new AMC provides further clarification to applicants on the content of the certification programme for a repair design.

— **AMC 21.A.433(b) and 21.A.447 Repair design and record keeping (new)**

This AMC is introduced to reflect the new extended text of point 21.A.433 and to update the references.

— **GM 21.A.435(b) Repair design approval (new)**

This new GM provides clarifications for the approval of repair designs, taking into account all the possible cases.

— **AMC 21.A.605(a)(1) Certification programme (new)**

This new AMC provides acceptable means to prepare a certification programme for ETSO authorisations. In point (b)(6), the meaning of the scope of the safety assessment is discussed and clarified.

— **GM 21.A.605(b) Reporting from the compliance demonstration process and updates to the certification programme (new)**

This GM provides guidance on difficulties and events to be reported to EASA.

— **AMC 21.A.606(d) Declaration (new)**

This new AMC provides an acceptable means to issue the declaration required by point 21.A.606(d).

— **GM 21.B.75 Special conditions (new)**

This new GM provides additional guidance on the special conditions introduced into point 21.B.75. It has been partially derived from the deleted GM 21.A.16B.

— **GM 21.B.80 Type-certification basis for a type certificate (TC) or restricted type certificate (RTC) (new)**

This new GM provides additional guidance on 'elect to comply', equivalent safety findings, and deviations. It also provides some clarifications regarding the 'alternative means of compliance'.

— **GM 21.B.82(a) Reference data for operational suitability certification basis (new)**

This new GM provides additional guidance on the reference data for the OSD certification basis. The wording stems partially from the deleted GM 21.A.17B(a)(1).

— **AMC 21.B.100(a) and 21.A.15(b)(6) Level of involvement (LoI) in a certification project for a type certificate (TC), a major change to a TC, a supplemental type certificate (STC), a major repair design or an ETSO authorisation for an APU (new)**

This new AMC provides an acceptable means to propose and determine EASA's LoI considering the new risk-based approach. The wording stems largely from Certification Memorandum CM-21.A/21.B-001⁸.

⁸ <https://www.easa.europa.eu/document-library/product-certification-consultations/cm-21a21b-001>

— **AMC No 1 to 21.B.100(b) Level of involvement (LoI) in projects for minor changes and minor repairs (new)**

This new AMC provides an acceptable means to determine EASA's LoI in cases of applications for minor changes/repairs considering the new risk-based approach.

— **AMC No 2 to 21.B.100(b) Level of involvement (LoI) in European technical standard order authorisation (ETSOA) projects (new)**

This new AMC provides an acceptable means to determine EASA's LoI in cases of applications for ETSO authorisations considering the new risk-based approach.

— **GM 21.B.107 and 21.B.111 Operational suitability data (OSD) considerations for approval of changes to type certificates (TCs) or supplemental type certificates (STCs) (amended)**

GM No 1 21.A.103, 21.A.115 and 21.B.70 is amended to improve the wording and update the links. This GM is amended to reflect the deletion of the 'separate OSD classification' concept from Part 21.

— **Correction of references to Part 21**

Part 21 has been significantly restructured to improve its consistency, therefore several AMC/GM are amended in order to keep the correct references to Part 21.

The Appendix to this Explanatory Note contains a correlation table for Part 21 before and after its amendment by Commission Delegated Regulation (EU) 2019/897.

Table 3 below lists the AMC and GM that are deleted by this Decision:

Point reference number (*)	AMC or GM	AMC/GM title	Remarks
21.A.16B	GM	Special Conditions	Reg. (EU) 2019/897 deletes point 21.A.16B
21.A.17B(a)(1)	GM	Reference date for operational suitability certification basis	Reg. (EU) 2019/897 deletes point 21.A.17B
21.A.20(b)	AMC	Certification programme	This AMC is replaced by GM 21.A.15(c) and GM 21.A.20(b)
21.A.20(b)	GM	Update to the Certification Programme	This GM is replaced by GM 21.A.15(c)
21.A.114	AMC	Compliance demonstration process for Supplemental Type-Certificate	Reg. (EU) 2019/897 deletes point 21.A.114
21.A.263(b)	GM	DOA privilege related to compliance documents	Reg. (EU) 2019/897 deletes point 21.A.263(b)
21.A.263(b)(1)	AMC	Compliance documents with conditions related to engine or propeller	Reg. (EU) 2019/897 deletes point 21.A.263(b)

Point reference number (*)	AMC or GM	AMC/GM title	Remarks
		without a type-certificate or with unapproved changes and fitted on aircraft for which a permit to fly is requested	
21.A.263(c)(3)	GM	Issue of information or instructions	Reg. (EU) 2019/897 deletes point 21.A.263(c)(3)
21.A.263(c)(4)	GM	Procedure for the approval of minor revisions to the aircraft flight manual	Reg. (EU) 2019/897 deletes point 21.A.263(c)(4)
21.A.437	GM	Issue of repair design approval	Reg. (EU) 2019/897 deletes point 21.A.437
21.A.437(a)	GM	Issue of repair design approval	Reg. (EU) 2019/897 deletes point 21.A.437
21.A.437(b)	AMC	Issue of repair design approval	Reg. (EU) 2019/897 deletes point 21.A.437

Table 3

(*) Reference to Part 21 before Commission Delegated Regulation (EU) 2019/897.

RMT.0393 & RMT.0394

Related to RMT.0393 & RMT.0394, GM 21.A.701(a) is amended by adding a new paragraph to explain which maintenance check flights need to be operated under a 'permit to fly'.

It should be noted that GM 21.A.701(a) refers to GM M.A.301(i) that it is currently not existing. The publication of this GM is expected by the end of 2019.

RMT.0514

Related to RMT.0514, hereafter is the list of the AMC and GM that are amended or introduced:

- **Appendix A to GM 21.A.91: Examples of Major Changes per discipline (amended)**
Change criteria guidance is integrated for the new aeroplane CO₂ standard.
- **GM 21.A.101 Establishment of the type-certification basis of changed aeronautical products (amended)**
This GM is amended to clarify that the GM on Changed Product Rules is not intended to be used to determine the applicable aeroplane CO₂ standard for changed products.

— **GM No. 2 to 21.A.121 Applicability — Applicable design data (amended)**

This GM is amended to clarify that ‘applicable design data’ includes the necessary information to determine compliance with the aeroplane CO₂ standard production cut-off requirements.

— **AMC No. 1 to 21.A.130(b) Statement of conformity for complete aircraft (amended)**

This AMC is amended to clarify that the statement of conformity is required to include information on any exemption granted to an aeroplane against the CO₂ standard.

— **AMC 21.A.130 (b) (4) Applicable engine exhaust emissions requirements (amended)**

The title of this AMC is amended to clarify that this section refers to engine emissions and not aeroplane CO₂ emissions.

— **AMC 21.A.130(b)(5) Applicable aeroplane CO₂ emissions requirements (new)**

This AMC is added to recognise the possibility that exemptions can be granted against the aeroplane CO₂ standard.

— **GM 21.A.131 Scope — Applicable design data (amended)**

This GM is amended to integrate the new aeroplane CO₂ standard, and simplify the title by referring to ‘environmental protection’ requirements rather than listing all the specific elements.

— **GM 21.A.145(b)(2) Approval Requirements — Airworthiness and environmental protection, production/quality data procedures (amended)**

The title of this GM is amended to integrate the new aeroplane CO₂ standard, and simplify the title by referring to ‘environmental protection’ requirements rather than listing all the specific elements.

— **AMC No 2 to 21.A.163(c) Completion of EASA Form 1 (amended)**

This AMC is amended to clarify that this refers to engine emissions requirements.

— **AMC 21A.165(c)(3) Applicable engine exhaust emissions requirements (amended)**

The title of this AMC is amended to clarify that this section refers to engine emissions and not aeroplane CO₂ emissions.

— **AMC 21A.165(c)(4) Applicable aeroplane CO₂ emissions requirements (new)**

This AMC is added to recognise the possibility that exemptions can be granted against the aeroplane CO₂ standard.

3. References

3.1. Related regulations

- Commission Regulation (EU) No 748/2012 of 3 August 2012 laying down implementing rules for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations (OJ L 224, 21.8.2012, p. 1)
- Commission Delegated Regulation (EU) 2019/897 of 12 March 2019 amending Regulation (EU) No 748/2012 as regards the inclusion of a risk-based compliance verification in Annex I and the implementation of requirements for environmental protection (OJ L 144, 3.6.2019, p. 1)

3.2. Affected decisions

- Decision N° 2012/020/R of the Executive Director of the Agency of 30 October 2012 on Acceptable Means of Compliance and Guidance Material for the airworthiness and environmental certification of aircraft and related products, parts and appliances, as well as for the certification of design and production organisations ('AMC and GM to Part 21')
 - Repealing Decision No 2003/01/RM of the Executive Director of the Agency of 17 October 2003

3.3. Other reference documents

- ICAO CAEP/10 Working Paper (WP)/92, Report of the 10th meeting of the Committee on Aviation Environmental Protection, February 2016
- ICAO State Letter AN 1/17.14-16/53, 'Proposals for the amendment of Annex 16, Volume I concerning Standards and Recommended Practices relating to environmental protection — Aircraft noise', 8 July 2016
- ICAO State Letter AN 1/17.14-16/55, 'Proposals for the amendment of Annex 16, Volume II concerning Standards and Recommended Practices relating to environmental protection — Aircraft engine emissions', 8 July 2016
- ICAO State Letter AN 1/17.14-16/56, 'Proposals for the First Edition of Annex 16, Volume III, concerning Standards and Recommended Practices relating to environmental protection — Aeroplane CO2 emissions', 8 July 2016
- Annex 16 'Environmental Protection' to the Convention on International Civil Aviation
- ICAO Doc 9501 'Environmental Technical Manual', Volumes I, II and III



4. Appendix: Correlation table for Part 21 before and after Commission Delegated Regulation (EU) 2019/897

This correlation table provides cross references between the points of Annex I (Part 21) to Commission Regulation (EU) No 748/2012 before and after the amendments introduced by Commission Delegated Regulation (EU) 2019/897.

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21.A.2	21.A.2
21.A.3A	21.A.3A
21.A.3B	21.A.3B
21.A.4	21.A.4
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21.A.11	21.A.11
21.A.13	21.A.13
21.A.14	21.A.14
21.A.15(a)	21.A.15(a)
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—	21.A.15(b)(3) to (b)(7)
21.A.15(d)	21.A.15(d)
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21.A.16A	21.B.70
21.A.16B	21.B.75
21.A.17A	21.B.80
21.A.17B	21.B.82
21.A.18(a), (b)	21.B.85(a), (c)
21.A.18(c)	—
21.A.19	21.A.19
21.A.20(a)	21.A.20(a)
21.A.20(b)	21.A.15(b)
—	21.A.20(b)
21.A.20(c)	21.A.20(c)

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21.A.20(d)	21.A.20(d)(1)
21.A.20(e)	21.A.20(e)
21.A.21(a)	21.A.21(a)(1)
21.A.21(b)	21.A.21(a)(2)
21.A.21(c)(1)	21.A.21(a)(3)
21.A.21(c)(2)	21.B.80(a)(2)
21.A.21(c)(3)	21.A.20(d)(2)
21.A.21(c)(4)	—
21.A.21(d)	21.A.21(a)(3)
21.A.21(e)	21.A.20(d)(1)
21.A.21(f)	21.A.21(b)
21.A.23	21.A.21
21.A.31	21.A.31
21.A.33(a)	—
21.A.33(b)	21.A.33(b)
21.A.33(c)	21.A.33(c) last paragraph
—	21.A.33(c) first paragraph
21.A.33(d), (e)	21.A.33(d), (e)
21.A.35	21.A.35
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21.A.44	21.A.44
21.A.47	21.A.47
21.A.51	21.A.51
21.A.55	21.A.55
21.A.57	21.A.57
21.A.61	21.A.61
21.A.62	21.A.62
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21.A.90B	21.A.90B
21.A.91	21.A.91



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21.A.93(a)	21.A.93(b)
—	21.A.93(b) first paragraph, (b)(1)(i)
21.A.93(b)	21.A.93(b)(2)
21.A.93(c)	21.A.93(b)(1)(iii)
—	21.A.93(b)(3), (c)
21.A.95(a), (b)	21.A.95(a)
—	21.A.95(b) to (e)
21.A.97(a)	—
21.A.97(b)	21.A.97(d) and 21.B.107(d)
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21.A.101(a), (b), (c), (d), (f), (g)	21.A.101(a), (b), (c), (d), (f), (g)
21.A.101(e)	21.A.93(c)
21.A.103(a)(1), (2), (3)	21.A.97(b)
21.A.103(a)(4)	21.B.107(b)
21.A.103(b)	21.B.107(a)(1)(i)
21.A.105	21.A.105
21.A.107	21.A.107
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21.A.109	21.A.109
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—	21.A.211 last sentence
21.A.112A	21.A.112A
21.A.112B	21.A.112B
21.A.113(a) and (b)	21.A.113(a) and (b)
—	21.A.113(c)
21.A.114	—
21.A.115(a)	21.A.115(b)(4)
21.A.115(b)(1), (2)	21.A.115(b)(2)
21.A.115(b)(3)	21.B.111(a)(3)



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21.A.119	21.A.119
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21.A.129	21.A.129
21.A.130(a), (c)	21.A.130(a), (c)
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21.A.133	21.A.133
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21.A.157	21.A.157
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21.A.263(c)(4)	21.A.263(c)(2)
21.A.263(c)(5) to (c)(7)	21.A.263(c)(5) to (c)(7)
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21.A.303	21.A.303
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21.A.307	21.A.307
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21.A.433(a)(2)	21.A.433(b)
21.A.433(a)(3)	21.A.433(a)(2)
21.A.433(b)	21.A.433(a)(4)
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21.A.604	21.A.604
21.A.605(a) to (f)	21.A.605(a)(2) to (a)(7)
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21.A.606(a), (b)	21.A.606(a), (b)
21.A.606(c)	—



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21.A.611	21.A.611
21.A.613	21.A.613
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21.A.619	21.A.619
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21.A.701(b)	21.A.701(b)
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21.A.707	21.A.707
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21.A.709	21.A.709
21.A.710	21.A.710
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21.B.35	21.B.35
21.B.40	21.B.40
21.B.45	21.B.45
21.B.55	21.B.55
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21.B.125	21.B.125
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21.B.240	21.B.240
21.B.245	21.B.245
21.B.260	21.B.260
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21.B.325	21.B.325
21.B.326(a)(1), (2)	21.B.326(a)(1), (2)
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21.B.326(b)(1)(i), (ii), (iii)	21.B.326(b)(1)(i), (ii), (iii)
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21.B.326(b)(2)	21.B.326(b)(2)
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21.B.327	21.B.327
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