



European Aviation Safety Agency

EXPLANATORY NOTE

***Regulation Air Operations
Acceptable Means of Compliance (AMC)
and Guidance Material (GM)
to
Annex IV – Part-CAT***

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Executive Summary

This Explanatory note provides background information on the AMC and GM for the Decision on Annex IV - Part-CAT (A,H), technical requirements for commercial air transport (CAT) operations with aeroplanes and helicopters.

Based on the principles set out by the Management Board together with the European Commission, the Agency transposed the contents of EU-OPS and JAR-OPS 3 as Implementing rules and as AMC, depending on the nature of the provisions. Furthermore, the material of this Decision contains the former Section 2 material of JAR-OPS 1 and JAR-OPS 3 and aligns with ICAO SARPs of Annex 6 Part I and Part III Sections 1 and 2, as far as possible. The development of these requirements was based on the following objectives:

- maintain a high level of safety;
- ensure proportionate rules where appropriate;
- guarantee flexibility and efficiency for operators and authorities.

The content of this Decision is the result of an extensive consultation process involving authorities, associations, operators and aviation experts.

Introduction

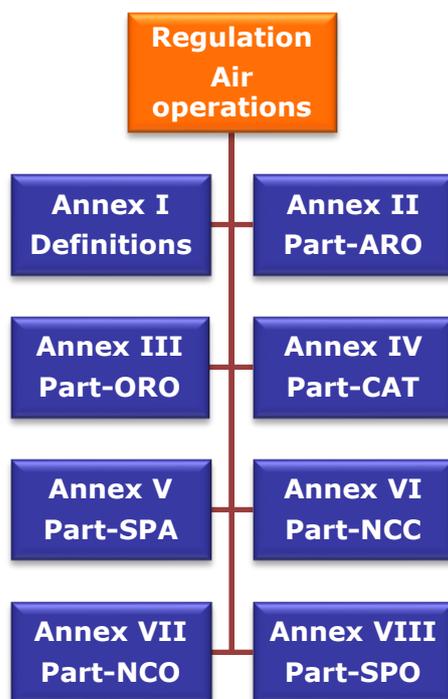
I. Scope of the Decision

1. This Explanatory note provides background information on the AMC and GM for the Decision on Annex IV - Part-CAT (A,H), technical requirements for commercial air transport (CAT) operations with aeroplanes and helicopters.
2. This Decision does not contain the AMC and GM material for commercial air transport operations of sailplanes, balloons, as well as A-to-A flights with aeroplanes and helicopters.

II. Rule structure

3. The following figure provides an overview of the Annexes under the Regulation on Air operations.

Figure 1: Annexes of the Regulation on Air operations¹



4. The following rule numbering convention was applied to AMCs:

AMC<n> <RULE><§>

Explanation:

AMC: Identifier;

¹ ARO: authority requirements for air operations; CAT: commercial air transport; NCC: non-commercial operations with complex motor-powered aircraft; NCO: non-commercial operations with other-than-complex motor-powered aircraft; ORO: organisation requirements for air operations; SPA: operations requiring a specific approval; SPO: specialised operations

- <n>:-: Number, starting with 1, incremented by 1, to be used in all cases, also when only one AMC exists for a given IR paragraph or subparagraph;
- <RULE >: IR reference;
- <§>: Reference of the IR subparagraph(s), where relevant; for AMCs addressing only one or more subparagraph(s) within a rule, the AMC reference includes an identification of the IR subparagraph; if more than one subparagraph is covered, all of them are listed; in the absence of such indication, the AMC covers the IR as a whole.

Where more than one AMC exists, AMCs are numbered by adding '.1', '.2', etc, to the AMC number.

Example:

AMC1 CAT.OP.MPA.145(a) Establishment of minimum flight altitudes

The other AMC number would be:

AMC1.1 CAT.OP.MPA.145(a) Establishment of minimum flight altitudes.

5. The following rule numbering convention was applied to GM:

GM<n> <RULE ><§>

The same explanation as provided for AMC applies.

III. Consultation

6. This Decision is based on:

- NPA 2009-02, published on 30 January 2009;
- CRD OPS I, published on 25 November 2010; and
- Opinion 04/2011, published on 1 June 2011.

IV. Transposition of EU-OPS/JAR-OPS 3 and Section 2 material of JAR-OPS 1 and JAR-OPS 3

7. The following principles have been applied when transposing existing rule material:
8. EU-OPS and JAR-OPS 3 rules containing a safety objective have been retained as Implementing Rules (IRs). EU-OPS and JAR-OPS 3 rules unambiguously containing a means to comply with a safety objective have been moved to AMC level. In many instances, appendices of EU-OPS and JAR-OPS 3 were regarded as a means of compliance and have been transposed as AMC. In such cases where it was not possible to make a clear distinction between a safety objective and a means to comply with a safety objective, the existing rule text has been retained as IR.
9. In cases where the need for a more proportionate approach was demonstrated, the Agency developed an amended IR text containing a safety objective and an associated AMC.
10. The content of Appendix 1 to OPS 1.005(a), Operations of performance class B aeroplanes, Appendix 1 to OPS 3.005(f), Operations for small helicopters (VFR (visual flight rules) by day only), and Appendix 1 to OPS 3.005(g), Local area operations (VFR day only) have been transposed in the relevant Sections of Part-CAT and Part-ORO, where appropriate.
11. EU-OPS and JAR-OPS 3 rule text indicating an alternative to an IR has been deleted for legal reasons; such alternatives need to be dealt with using the procedures provided in Article 14 of the Basic Regulation. EU-OPS and JAR-OPS 3 rule text moved to the AMC level and indicating an alternative to an AMC without demonstrating that the requirements of the safety objective were fully met has been deleted; such alternative means of compliance, however, can be developed by operators or authorities using the alternative means of compliance procedure, provided that it is demonstrated that the safety objective is met and the same level of safety is achieved.
12. Text transposed in AMC material that demanded an approval by the competent authority for an alternative means of compliance has been deleted since it would be covered through the alternative means of compliance procedure.
13. EU-OPS and JAR-OPS 3 rule text that is also addressed in Annex IV of the Basic Regulation has been retained and a reference to the Basic Regulations has been added.
14. EU-OPS and JAR-OPS 3 rule text of an explanatory nature has been transposed as GM; notes have either been redrafted into AMC provisions, where treated as footnotes, transposed as GM, or deleted if they did not provide sufficient added value.
15. Existing rules that contained provisions as 'acceptable to the authority' have been consistently redrafted through all Subparts as 'the operator shall specify in the operations manual ...'. The Agency adopted this approach in order to specify a defined procedure for how such items should be brought to the attention of the competent authority.

V. Overview of reactions

16. In general, the received reactions showed overall support for the CRD versions of Part-CAT.

17. The majority of stakeholders supported the level of alignment of the proposed rules with EU-OPS and JAR-OPS 3, the proposed balance between IR and AMC material, as well as the proposed rule structure.
18. The CRD text for CAT operations with helicopters raised concerns in some areas whereas for CAT operations with aeroplanes, most parts of the text received overall acceptance.
19. The following chapters provide further information on the amendments to Annex IV – Part-CAT.

Annex IV - Part-CAT(A,H)

I. Scope

20. Part-CAT contains the technical rules for commercial air transport operations of aeroplanes, helicopters, sailplanes and balloons. It consists of four Subparts, which are further broken down to Sections containing aircraft category specific rules. Some Sections are further broken down into Chapters. Figure 9 and Figure 10 provide an overview of the structure of Part-CAT.
21. The Decision on Part-CAT covers the following sections for CAT operations with aeroplanes and helicopters (excluding A-to-A flights):
 - CAT.GEN.MPA;
 - CAT.OP.MPA;
 - CAT.POL.A, CAT.POL.H, CAT.POL.MAB; and
 - CAT.IDE.A, CAT.IDE.H.
22. Figure 2 and 3 below provides an overview of the structure of Part-CAT.

Figure 2: Structure of Part-CAT – Headings

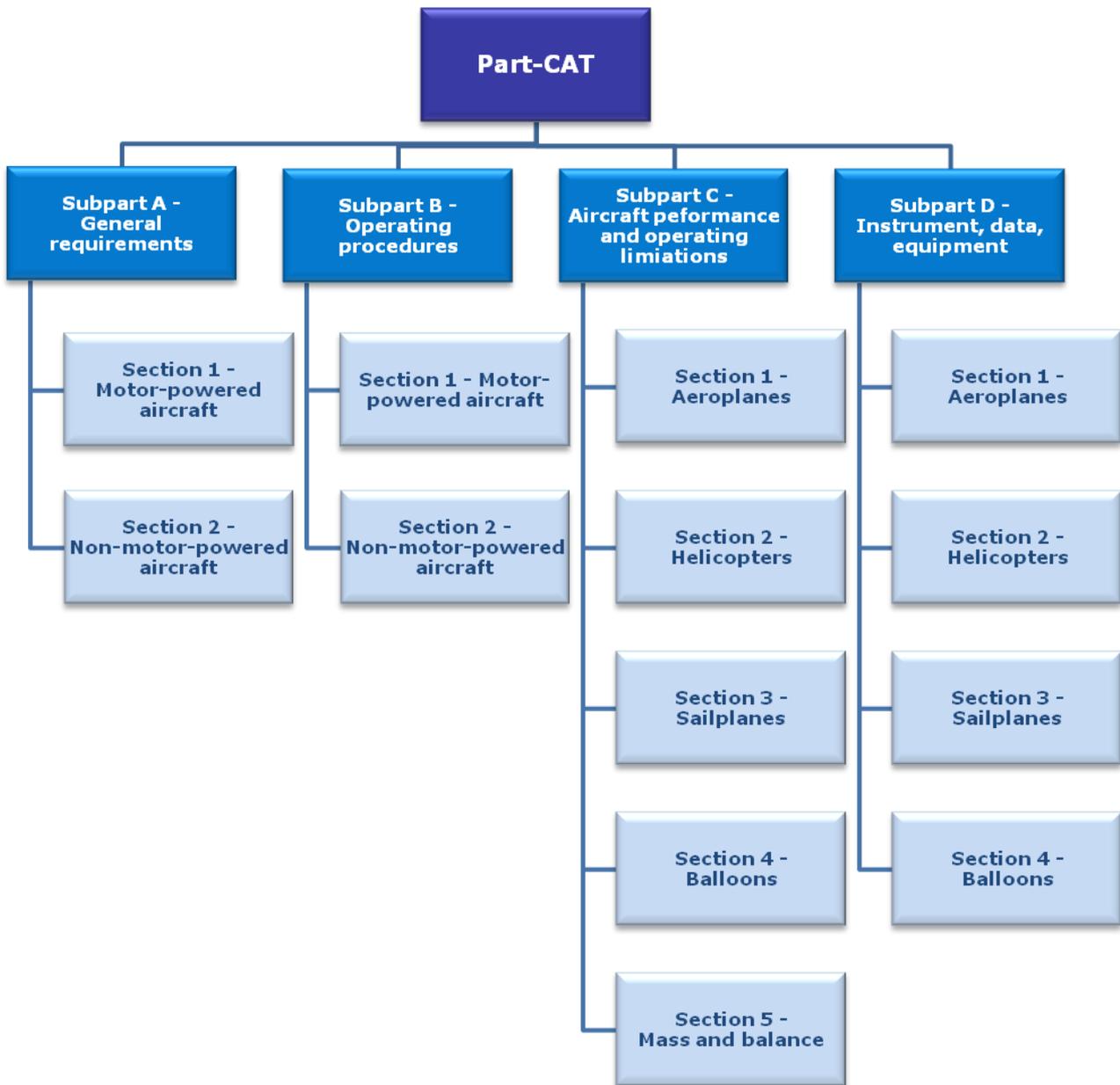
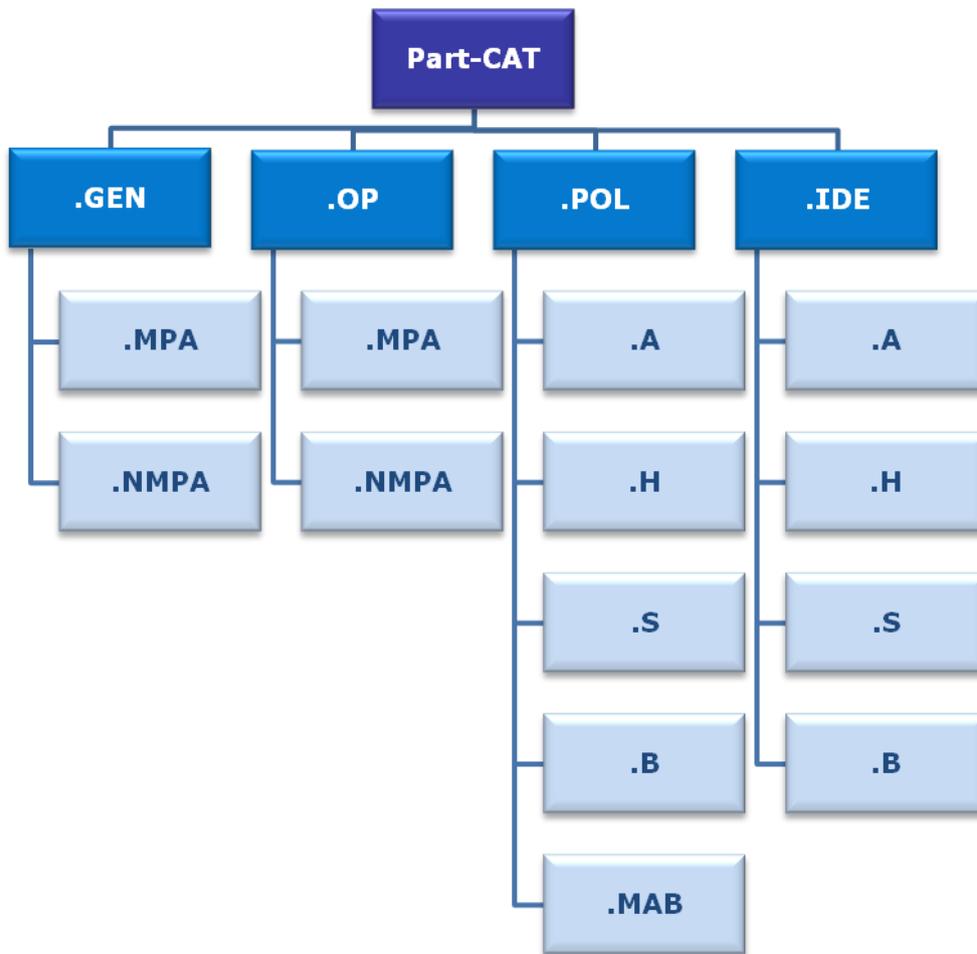


Figure 3: Structure of Part-CAT – Rule identifiers



II. CAT.GEN.MPA: Section 1 – Motor-powered aircraft

23. Most changes to the CRD version are of editorial nature or rectify errors in the rule text. All amendments are based on comments received.
24. The following AMC and GM material was amended compared to the CRD:
- AMC1 CAT.GEN.MPA.115, renumbered 115(a), in which a reference to passengers has been added for clarification in the subtitle and the text;
 - GM1 CAT.GEN.MPA.125, describing skills and knowledge to check if a person can be authorised by the operator to taxi an aeroplane;
 - GM1 CAT.GEN.MPA.130, describing two situations where it is allowed to turn the rotor under power: (1) for the purpose of flight (this is the intent of the IR); and (2) for maintenance purposes;
 - AMC1 CAT.GEN.MPA.140, GM1 CAT.GEN.MPA.140 and GM2 CAT.GEN.MPA.140, which transposes and amends parts of TGL29 on portable electronic devices (PED); the following key amendments should be noted:

- new approach to risk assessment: place of use of the PED - flight crew compartment, passenger compartment, cargo compartment - instead of differentiating between crew or passenger use;
 - general allowance for Bluetooth has been removed;
 - definition for switched-off status has been added;
 - rules for PED carried in the cargo compartment have been added;
 - criteria for demonstrating that radiation levels are tolerable to the aircraft systems have been added;
- GM1 CAT.GEN.MPA.195(b), for the inspection of flight recorder recordings: the reference to EUROCAE ED-112 has been replaced with a new text that has been consulted with the European Flight Recorder Partnership Group (EFRPG), with the aim to more closely align with ICAO Annex 6 Part I, Appendix 8.

III. CAT.OP.MPA: Section 1 – Motor-powered aircraft

25. Most changes are of editorial nature or rectify errors in the text. All amendments are based on comments received.
26. The following AMC and GM material was amended compared to the CRD:
- GM1 CAT.OP.MPA.100(a)(2) was added; it transposes ACJ 1.216 on in-flight operational instructions, reminding to obtain clearance from air traffic service units before making a flight plan change;
 - GM3 CAT.OP.MPA.110 has been added to provide further information on the pre-conditions to undertake SBAS CAT I operations and lists the currently available regional systems operative or at a planning stage;
 - AMC1 CAT.OP.MPA.115, AMC2 CAT.OP.MPA.115, AMC3 CAT.OP.MPA.115, GM1 CAT.OP.MPA.115 have been significantly amended and restructured for the following reasons: the former text transposing ACJ OPS 1.430 combined within a single ACJ non-precision approach (NPA) operations flown with the continuous descent final approach (CDFA) flight technique, NPA operations without applying the CDFA flight technique, as well as approach procedure with vertical guidance (APV) operations; the new text does no longer contains APV related rules, reduces the complexity of the text and improves the structure of the rule text;
 - GM1 CAT.OP.MPA.145(a), which provides methods for calculating minimum flight altitudes, has been amended with the Lido formula;
 - AMC1 CAT.OP.MPA.155, renumbered 155(b), has been carefully reviewed, and amended for further clarification, taking into account the reactions received and the fact that there is an on-going rulemaking task dedicated to the carriage of SCPs (RMT.0269/270). Consideration was also given to the fact that EU-OPS requirement on carriage of PRMs, as well as the related ACJ material of Section 2 of JAR-OPS 1 referred to as TGL44, had been drafted in the early 90ties, long before the adoption of Regulation (EC) No 1107/2006. Therefore, when transposing this material, further consideration was given to consistency between the safety rules for air operations deriving from Regulation (EC) No 216/2008 and Regulation (EC) No 1107/2006, as well as to the operators' responsibility to comply with both regulations;

- GM1 CAT.OP.MPA.155, providing guidance on the term special categories of passengers has been deleted because the term is sufficiently defined in the IR;
- GM2 CAT.OP.MPA.185 contains an amended table for the application of aerodrome forecasts to pre-flight planning;
- GM1 CAT.OP.MPA.185 and GM1 CAT.OP.MPA.186 have been amended and contain further guidance on planning minima for APV operations, lower than standard CAT I (LTS CAT I) operations and other than standard CAT II (OTS CAT II) operations in the absence of applicable requirements in Table 1 of CAT.OP.MPA.185;
- AMC1 CAT.OP.MPA.305(e), containing the visual references for instrument approach operations, has been amended for operations using EVS and applying an operational credit on the RVR based on the amendments made to the IR, which makes a distinction between CAT I operations and APV and NPA operations applying the CDFA technique;

IV. CAT.POL.A: Section 1 – Aeroplanes

27. Most changes are of editorial nature or rectify errors in the text. All amendments are based on comments received.
28. The following AMC and GM material was amended compared to the CRD:
- AMC1 CAT.POL.A.105, which correlated to AMC 1.475(b) dealing with the certification of data for applying reverse thrust credits, has been deleted because the content is out-dated;
 - AMC2 CAT.POL.A.225 was replaced by the content of 1.510 (b), containing performance rules for missed approach operations with a performance class A aeroplane; this text was moved to the AMC in order to provide the flexibility to propose alternative means of compliance, which otherwise would have required an Article 14 procedure;
 - GM1 CAT.POL.A.225 was added, transposing IEM 1.510(b) and (c);
 - AMC2 CAT.POL.A.330 was added, transposing AMC OPS 1.550(b)(4).

V. CAT.POL.H: Section 2 - Helicopters

29. The following GM were deleted compared to the CRD:
- GM1 CAT.POL.H.200&CAT.POL.H.300&CAT.POL.H.400: text merged with AMC.
 - GM1 CAT.POL.H.225(a)(2), as this GM is not within the scope of the Agency's remit. The Agency believes that this GM should be included in the Member States' State Safety Programmes (SSPs) and therefore undertakes to include it in the European Aviation Safety Programme (EASP) and European Aviation Safety Plan (EASp).
 - GM1 CAT.POL.H.420 was deleted as a consequence of the changes made to the rule by the EASA Committee. The changes made during comitology meant that the associated AMC and GM had to be completely redrafted.
30. The following AMC was amended compared to the CRD:
- AMC1 CAT.POL.H.205(e), figure 2 amended to be in line with the AMC text.

31. The following AMC and GM were added compared to the CRD:

- GM1 CAT.POL.H.105(c)(3)(ii)(A), transposing the definition in JAR-OPS 3.480(a)(26).
- GM1 CAT.POL.H.225(a)(6), to explain the endorsement process as a result of the EASA Committee changes to the rule, that replaced the approval from the Authority of the State in which the public interest site (PIS) is located, if different from the Member State issuing the AOC.
- AMC1-CAT.POL.H.305(b), comments received from the review group indicated some difficulty in understanding the 'the operational authority of the State of design', since the Agency is the State of Design of EU produced helicopters or engines. The approval to operate without an assured safe forced landing capability is an operational approval and since the Agency has not been attributed power to issue such operational approvals, EASA therefore cannot take ownership of the information. The AMC has therefore been amended to make clear that the information needs to be provided by the engine type certificate holder or the helicopter type certificate holder, depending on the way they share the work, directly to the competent authority responsible for issuing the operational approval without the intervention of the Agency.
- AMC1 CAT.POL.H.420: as a result of the EASA Committee changes to the rule, the Committee tasked the Agency with drafting a new AMC to address safety risk assessment. The AMC explains the comparative risk assessment made by the JAA for remote and mountainous areas, and lists for other areas of operation those elements that should be addressed in the safety risk assessment.
- GM1 CAT.POL.H.420 provides an example of such a safety risk assessment.
- GM2 CAT.POL.H.420, to explain the endorsement process as a result of the EASA Committee changes to the rule, that replaced the approval from the Authority of the State in which operations are intended to take place, if different from the Member State issuing the AOC.

VI. CAT.POL.MAB: Section 5 – Mass and balance

32. The text has been generally revised to ensure consistency with the final version of the corresponding implementing rules in terms of numbering, titles and formatting. Certain long AMCs or those AMCs containing several sub headings have been split and re-numbered for clarity.

33. The following significant change to the CRD was made:

- the need for signatures on the mass and balance documentation has been elevated to IR level and AMC1 CAT.POL.MAB.105(c) has been added to clarify what can be considered equivalent to a signature.

VII: CAT.IDE: Subpart D – Instrument, data, equipment

34. The balance between AMC and purely explanatory material has been checked and in some cases text has been downgraded to GM level.

35. Significant changes to the CRD are as follows:

- GM1 CAT.IDE.A/H.100 on approved equipment has been deleted as of no added value to the corresponding IR.
- GM1 CAT.IDE.H.110 on spare electrical fuses for helicopters has been deleted in accordance with the same change made to the corresponding rule.
- AMC1 CAT.IDE.H.115 on landing light for helicopters has been deleted after comments as the corresponding rule was considered sufficiently complete.
- AMC1 CAT.IDE.A.130(i)/.H.130(f) on standby attitude has been deleted as it duplicated the IR.
- Further to comments, a new AMC for aeroplanes and helicopters has been added to clarify the intent of the requirement of the illumination of standby instruments.
- GM1 CAT.IDE.A.150 has been added to specify what is an acceptable standard for Class A and Class B TAWS.
- AMC1 CAT.IDE.A/H.180 has been revised to better specify audibility conditions of the public address system.
- The text of all AMC and GM on cockpit voice recorders, flight data recorders and data link recorders has been revised with the help of experts. References to EUROCAE documents have been checked and updated. The text has been also harmonised with the corresponding requirements already updated in accordance with NPA-OPS 39B (Type 1A FDR). NPA-OPS 48A Data Link Communications Recording for New Built Aeroplanes and NPA-OPS 67 Type IVA Flight data recorders for helicopters were also taken into consideration.
- AMC2 CAT.IDE.A/H.205 has been revised to fit the new concept of upper torso restraint system introduced in the corresponding rule. The text of AMC3 CAT.IDE.A.205 on seats for the minimum required cabin crew has also been clarified after comments received.
- AMC1 CAT.IDE.A/H.220 on the content of first-aid kits has been revised to delete items not relevant for first-aid purposes. Also, a paragraph has been added to recommend replenishment of the kit after use in flight.
- AMC1 CAT.IDE.A.225 on the content of emergency medical kit has been revised to delete items that are not relevant. In addition, a paragraph has been added to recommend replenishment of the kit after use in flight.
- GM1 CAT.IDE.A.230 on first-aid oxygen has been revised to specify the proportion of passengers needing oxygen.
- AMC1 & AMC2 CAT.IDE.A.285(a) on life-jackets has been added to include missing information on the accessibility and electric illumination of the life-jacket.