

**Draft Annex X to ED Decision 201X/XXX/R**

**‘Acceptable Means of Compliance (AMC) and Guidance Material (GM) to Regulation (EU) 2017/373’**

Annex XIV to ED Decision 2017/001/R is amended as follows:

The text of the amendment is arranged to show deleted text, new or amended text as shown below:

- deleted text is ~~struck through~~;
- new or amended text is highlighted in grey;
- an ellipsis ‘(…)’ indicates that the rest of the text is unchanged.

FOR INFORMATION ONLY

1. GM2 to Article 1 'Subject matter and scope' is added as follows:

**GM1 Article 1 Subject matter and scope<sup>1</sup>**

**DESIGN OF FLIGHT PROCEDURES AND DESIGN OF AIRSPACE STRUCTURES (AIRSPACE DESIGN)**

- (a) Article 8b(1) and (6)(a) of Regulation (EC) No 216/2008 as well as point 2(i) of Annex Vb (Essential Requirements) to said Regulation address the obligation in respect of "airspace design". It requires "airspace structures and flight procedures shall be properly designed, surveyed and validated before they can be deployed and used by aircraft."
- (b) The designation of airspace is Member States obligation, where civil and military national authorities are involved. The designation of airspace should include, but not limited to the design of airspace structure, the classification of the airspace and its approval.
- (c) Airspace design contains two aspects:
  - (1) design of flight procedures; and
  - (2) design of airspace structures ;
- (d) Member States shall ensure that flight procedure design service provider intending to design flight procedures for aerodromes or airspace under the authority of that Member States meets the requirements established in this Regulation. Therefore, flight procedure design service provider shall be granted a certificate and be entitled to exercise the privileges granted within the scope of that certificate, where it complies and continues to comply, in addition to the requirements referred to in Article 8b(1) of Regulation (EC) No 216/2008, with the following requirements of Article 6(k) to Regulation (EU) 2017/373.
- (e) The certification and oversight of the design of airspace structure is left to the Member State discretion, if it wishes so and this Regulation provides only the design criteria that need to be met as laid down in Appendixes 2 and 3 to Article 3.

2. GM1 Article 2 'Definitions' is amended as follows:

**GM1 Article 2 Definitions**

**GENERAL**

- (a) Article 3(q) of Regulation (EC) No 216/2008 defines ATM/ANS as 'the air traffic management functions as defined in Article 2(10) of Regulation (EC) No 549/2004, air navigation services defined in Article 2(4) of that Regulation, and services consisting in the origination and processing of data and formatting and delivering data to general air traffic for the purpose of safety-critical air navigation'.
- (b) It should, therefore, be noted that 'ATM/ANS' includes more services and functions than 'air traffic management' and 'air navigation services' together.
- (c) It is important to note that ATS is included in ATM and ANS.
- (d) As already defined, 'ATM network functions' refers to functions performed by the Network Manager in accordance with Regulation (EU) No 677/2011.

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<sup>1</sup> Before the adoption of the new EASA Basic Regulation.

- (e) The designation of airspace is Member States obligation, where civil and military national authorities are involved. The designation of airspace should include, but not limited to, the design of airspace structure, the classification of the airspace and its approval.
  - (f) The oversight of the design of airspace structure is left to the Member State discretion, if it wishes so and this Regulation provides only the design criteria that need to be met as laid down in Appendixes 2 and 3 to Article 3.
  - (g) Member States shall ensure that flight procedure design service provider intending to design flight procedures for aerodromes or in airspace under the authority of that Member States meets the requirements established in this Regulation. Therefore, flight procedure design service provider shall be granted a certificate and be entitled to exercise the privileges granted within the scope of that certificate, where it complies and continues to comply, in addition to the requirements referred to in Article 8b(1) of Regulation (EC) No 216/2008, with the following requirements laid down Article 6(k) to regulation (EU) 2017/373.
3. GM1 and GM2 associated to Article 3 'Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions' are added as follows:

**GM1 Article 3(1) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

**AERONAUTICAL INFORMATION SERVICES**

- (a) Member States ensure that aeronautical information services are provided as required by Annex VI for the entire territory of the Member State as well as those areas over the high seas in which the Member State is responsible for the provision of air traffic services.
- (b) For this purpose, Member States either:
  - (1) provide an aeronautical information service; or
  - (2) agree with one or more other State(s) for the provision of a joint service; or
  - (3) delegate the provision of aeronautical information services while remaining responsible for the aeronautical data and aeronautical information provided.
- (c) If the Member State entrusts more than one service provider with the provision of the aeronautical information services, the scope of each service provider is clearly defined and duplication is avoided.

**GM2 Article 3(1) Provision of ATM/ANS, flight procedure design and airspace structure design , and ATM network functions**

**AIRSPACE STRUCTURE**

Airspace structure should means a specific volume of airspace designed to ensure the safe and optimal operation of aircraft. Airspace structures may consist of:

- (a) controlled airspace, namely control zones and control areas, including terminal control areas and airways;
- (b) airspace restrictions, namely danger, restricted and prohibited areas;
- (c) radio mandatory zones, transponder mandatory zones; and

- (d) Other airspaces specified by the competent authority when defining the airspace change process, such as e.g. flight information zones, temporary segregated areas, temporary reserved areas or free route airspace.

4. AMC1 and GM1 associated to Article 3(5) 'Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions' are added as follows:

**AMC1 Article 3(5) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

**AERONAUTICAL INFORMATION — DATA ORIGINATION**

- (a) In order to ensure that parties originating data and aeronautical information comply with the provisions relevant to them, Member States should ensure that, at national level, such parties can document data origination activities, especially their working methods and operating procedures.
- (b) In carrying out its obligations, the Competent Authority (CA) should establish that parties originating aeronautical data and aeronautical information have met the applicable requirements. This should be achieved through periodic audits, assessments and as part of any pre-existing CA approvals, certification or licensing schemes.
- (c) Contracted activities should include services provided by parties originating aeronautical data and aeronautical information. As part of the certification process and continuing oversight of certificated aerodromes, the CA should seek evidence that such parties, contracted by a service provider or an aerodrome operator, are meeting the applicable requirements.
- (d) The CA should take implementing measures to ensure that parties originating aeronautical data and aeronautical information not currently regulated by the CA under any pre-existing approvals, certification, or licensing scheme, are compliant with the applicable requirements. These measures should include the following options:
  - (1) The inclusion of a declaration by the parties originating aeronautical data and aeronautical information in the formal arrangements that the applicable requirements have been met, or not;
  - (2) An assessment by the CA of the formal arrangements between the AIS provider/aerodrome operators and the parties originating aeronautical data and aeronautical information. Such parties that do not declare compliance with the applicable requirements in Regulation (EU) 2017/373 or to the data quality requirements in Regulation (EU) No 139/2014 in the formal arrangements should be subject to independent intervention by the CA, and appropriate corrective actions or enforcement measures taken;
  - (3) It should be determined that the aeronautical data and aeronautical information provided to the AIS provider/aerodrome operator by the party originating aeronautical data and aeronautical information, does not uphold the declaration of compliance provided by it in the formal arrangements. Such concerned should be subject to independent intervention by the CA, and appropriate corrective actions or enforcement measures taken.

**GM1 Article 3(5) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

**AERONAUTICAL INFORMATION SERVICES**

Certification of a service provider for the provision of aeronautical information services only confirms the compliance of the service provider with the applicable requirements of this Regulation and does not constitute a delegation from the Member State for the provision of the service as described in GM1 to article 3.

5. AMC1, AMC2, AMC3 and GM1 associated to Article 3(6) 'Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions' are added as follows:

**AMC1 Article 3(6) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

**AIRSPACE**

The designation of the particular portions of the airspace should be as follows:

- (a) flight information regions and flight information zones
- (b) control areas and control zones.

**AMC2 Article 3(6) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

**AERODROMES**

The designation of the particular aerodromes should be as follows:

- (a) Controlled aerodromes; and
- (b) Aerodrome flight information services (AFIS) aerodromes.

**AMC3 Article 3(6) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

**AIRSPACE**

Those portions of the airspace where it is determined that ATC service will be provided to IFR flights should be designated as control areas or control zones.

**GM1 Article 3(6) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

**DESIGNATION - GENERAL**

- (a) The airspace where air traffic services is provided is classified and designated in accordance requirements found at Commission Implementing Regulation (EU) 923/2012, SERA.6001 'Classification of airspaces' and Appendix 4 'ATS airspace classes — services provided and flight requirements' and in the associated Acceptable Means of Compliance and Guidance Material.
- (b) The delineation of airspace, wherein air traffic services is to be provided, should be related to the nature of the route structure and the need for efficient service rather than to national boundaries.
- (c) In the context of the provision of air traffic services across national boundaries:
  - (1) agreements to permit the delineation of airspace lying across national boundaries are advisable, when such action will facilitate the provision of air traffic services; agreements, which permit delineation of airspace boundaries by straight lines will, for example, be most convenient where data processing techniques are used by air traffic services units.

- (2) where delineation of airspace is made by reference to national boundaries, there is a need for suitably sited transfer points to be mutually agreed upon.

6. GM1 and GM2 associated to Article 3(7) 'Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions' are added as follows:

**GM1 Article 3(7) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

**GENERAL — DESIGN PROCESS OF AIRSPACE STRUCTURES AND FLIGHT PROCEDURES CONTAINED THEREIN**

(a) An airspace change is a change to an airspace structure and/or the flight procedures contained within, if the flight procedure or change thereto makes necessary a change to the airspace structure.

(b) The process for the airspace change should include the following elements:

- (1) initiation for an airspace change, including briefing by an initiator

**DRIVERS FOR AIRSPACE CHANGES**

Drivers for airspace changes include, but are not limited to business, technological, legal and social aspects, such as:

- (i) enhancing operational safety and/or efficiency in accordance with ICAO Doc. 9859, Safety Management Manual (SMM);
- (ii) addressing airspace capacity needs;
- (iii) reducing the environmental impacts of aircraft operations;
- (iv) enabling changes to the CNS infrastructure; or
- (v) correcting identified deficiencies.

**INITIATION**

Initiator may be, but is not limited to, any of the following:

- (i) The Member State;
- (ii) The competent authority;
- (iii) An aerodrome operator;
- (iv) A service provider ; or
- (v) An airspace user.

In undertaking an airspace change, the initiator:

- (i) proposes an airspace modification whilst ensuring that the airspace change satisfies and/or enhances safety, improves capacity and mitigates, as far as practicable, any environmental impacts in line with the applicable requirements and design criteria;
- (ii) identifies relevant stakeholders and conducts consultation(s);

- (2) Data collection

- (3) Initial proposal development

- (4) Consultation with affected stakeholders

Affected stakeholders should be considered to be:

- (i) service providers;
- (ii) airspace users;
- (iii) aerodrome operators;
- (iv) State's authorities;
- (v) other groups affected by the airspace change (e.g. local municipalities, environmental organisations, adjacent States, etc.);.

The initiator should ensure that a safety assessment will be carried out before implementing the airspace change.

If a change to the airspace results in a change to the functional system(s) of the ATS providers serving the affected airspace, those affected ATS provider(s) needs to perform a safety assessment as per ATS.OR.205 to this Regulation.

(5) Design and documentation

(6) validation

The airspace change may be validated using one or more of the following methodologies:

- (i) airspace modelling;
- (ii) fast time simulation;
- (iii) real time simulation;
- (iv) live ATC trials;
- (v) flight simulation;
- (vi) data analytical tools;
- (vii) statistical analysis;
- (viii) collision risk modelling;
- (ix) noise and emissions modelling;
- (x) expert judgement; and
- (xi) flight trials.

(7) State's approval,

The airspace change proposal should be submitted to the State's authority for assessment addressing the following:

- (i) Operational requirements:
  - (A) Justification for the change;
  - (B) Technical description of the change:
    - (a) airspace description;
    - (b) traffic forecasts;
    - (c) supporting infrastructure/resources;
    - (d) operational impact; and

- (e) supporting maps, charts and diagrams; and
  - (f) Airspace and infrastructure requirements;
- (C) Validation report.
- (ii) Safety assessment report
- (iii) Environmental report
- (iv) Consultation report:
- (v) Implementation plan:
  - (A) target implementation date and alternative date (or dates), taking due account of the predetermined agreed AIRAC dates in addition to the time needed by the AIS provider for the preparation, production and issuance of relevant material for promulgation; and
  - (B) planned awareness and education activities.
- (vi) Economic impact.
- (8) Implementation of the airspace change

The initiator should implement those aspects of the airspace change that are under its remit; however, the implementation of the airspace change may require other stakeholders implementing changes in their services.

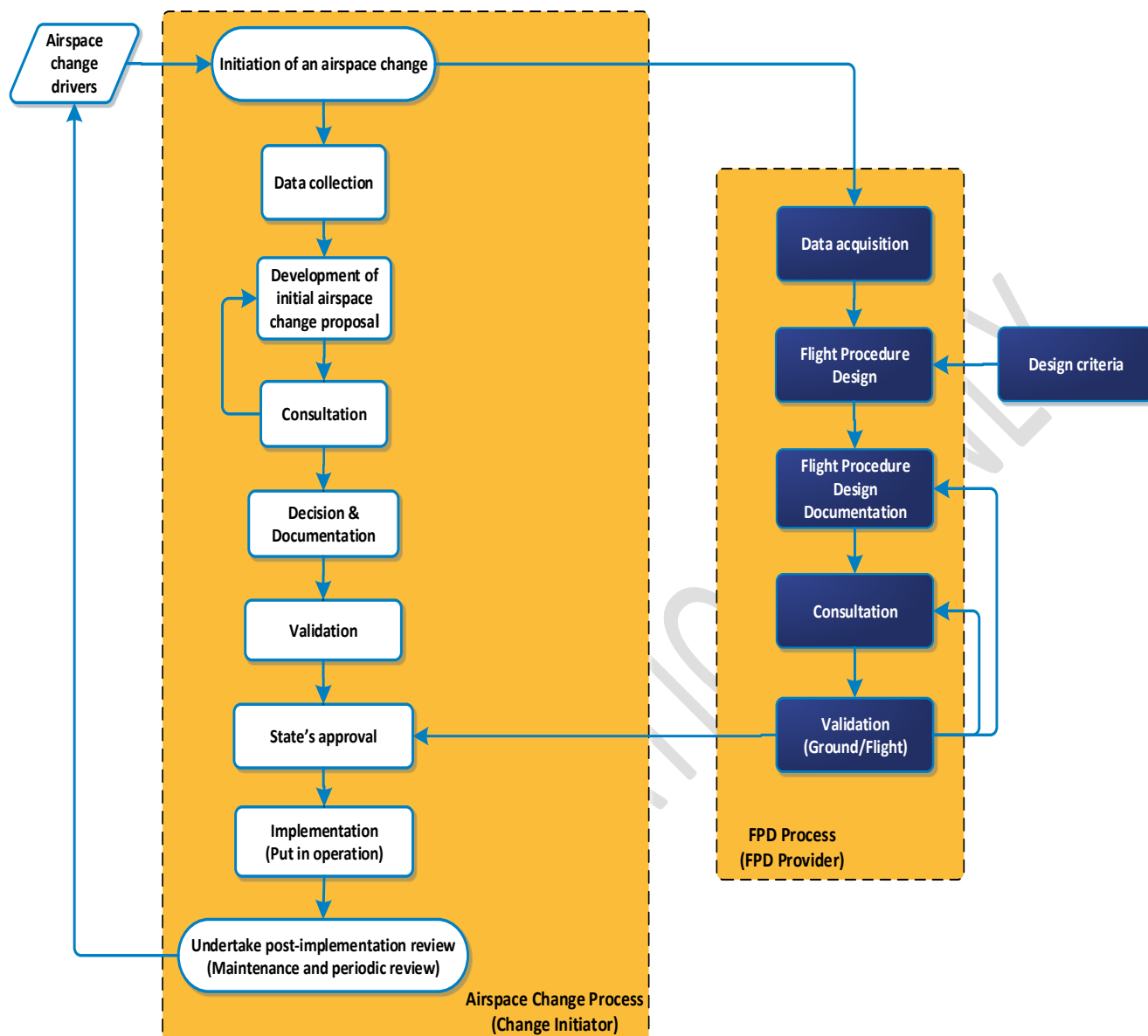
The implementation of the airspace change could include amendment in the AIP, changes in the procedures of the ATS providers, etc.
- (9) maintenance and periodic review

## **GM2 Article 3(7) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

### **GENERAL — INTERACTIONS BETWEEN AIRSPACE CHANGE PROCESS AND FLIGHT PROCEDURE DESIGN PROCESS**

The flight procedure design process is embedded in the airspace change process. When an airspace change includes the design of a new flight procedure or the modification of an existing flight procedure and the initiator is at the same time the flight procedure design service provider, both processes are effectively the same that the flight procedure design provider applies. However, when the initiator is a different organisation than the flight procedure design service provider, this flight procedure design process can be regarded as a sub-process of the wider process as depicted in Figure 1. Figure 1 shows the interactions between the airspace change process and the flight procedure design process.





**Figure 1 — Interactions between airspace change process and flight procedure design process**

7. AMC1 and GM1 associated to Article 3(8) 'Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions' are added as follows:

**AMC1 Article 3(8) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

**PERIODIC REVIEW**

Periodic review should be conducted at an interval not exceeding five years.

**GM1 Article 3(8) Provision of ATM/ANS, flight procedure design and airspace structure design, and ATM network functions**

**PERIODIC REVIEW**

Periodic reviewed should be performed in a reasonable period after the application of this Regulation to ensure that the design criteria and applicable requirements are met.