

**‘AMC and GM to Commission Implementing Regulation (EU) 2017/373— Issue 1,
Amendment 1’**

Annex XIV to 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:

- (a) deleted text is ~~struck through~~;
- (b) new or amended text is highlighted in blue;
- (c) an ellipsis ‘[...]’ indicates that the rest of the text is unchanged.

GM2 Article 1 Subject matter

DESIGN OF AIRSPACE STRUCTURES

- (a) Article 46 of Regulation (EU) 2018/1139 requires Member States to ensure that airspace structures are properly designed, surveyed and validated before they can be deployed and used by aircraft.
- (b) The designation of airspace is an obligation of the Member States, where civil and military national authorities are involved. The designation of airspace should include, but not be limited to, the design of airspace structure, the classification of the airspace and its approval.
- (c) The (possible) certification and oversight of the design of airspace structure activities 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 Appendix 1 to Part-FPD.

GM1 Article 2 Definitions

GENERAL

- (a) Point (5) of Article 3(e) of Regulation ~~(EC) No 216/2008~~ (EU) 2018/1139 defines ATM/ANS as ‘the air traffic management functions and services as defined in point (10) of Article 2(10) of Regulation (EC) No 549/2004; the air navigation services defined in point (4) of Article 2(4) of that Regulation, including the network management functions and services referred to in Article 6 of Regulation (EC) No 551/2004, as well as services which augment signals emitted by satellites of core constellations of GNSS for the purpose of air navigation; flight procedures design; 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) 2019/123 ~~No 677/2011~~.

GM1 Article 3(1) Provision of ATM/ANS and design of airspace structures

AIRSPACE STRUCTURE

Airspace structure refers to 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 or free route airspace;

- (b) airspace restrictions, namely danger, restricted, prohibited areas, temporary segregated areas and temporary reserved areas; and
- (c) other volumes of airspace as specified by the competent authority when defining the airspace change process, such as e.g. flight information zones, aerodrome traffic zone, RMZ/TMZ (XXX).



GM1 Article 3(5) Provision of ATM/ANS and design of airspace structures

AERONAUTICAL INFORMATION — DATA ORIGINATION

- (a) In order to ensure that parties originating aeronautical data and aeronautical information that are neither subject to the applicable requirements in Regulation (EU) 2017/373 nor to the data quality requirements in Regulation (EU) No 139/2014, comply with the provisions relevant to them, Member States may consider establishment of measures, at national level, that such parties meet the aeronautical data quality management requirements laid down in point ATM/ANS.OR.A.085 of Annex III, except those in points (c), (d), (f)(1) and (i) thereof, and that their working methods and operating procedures comply with the requirements laid down in ATM/ANS.OR.A.090.
- (b) The objectives in point (a) may be achieved through continuous oversight by the competent authorities on the basis of which measures, at national level, a certificate or approval has been issued or a declaration by these parties has been made.
- (c) When a contract is agreed between the services provider and the parties originating aeronautical data and aeronautical information, it should clearly define the contracted activities and the applicable requirements, including the necessary certificate, approval or declaration as required.

AMC1 Article 3(6) Provision of ATM/ANS and design of airspace structures

DESIGNATION

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

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

AMC2 Article 3(6) Provision of ATM/ANS and design of airspace structures

AERODROMES

The designation of the particular aerodromes should be as follows:

- (a) controlled aerodromes; and
- (b) aerodrome flight information services (AFIS) aerodromes.

GM1 to AMC2 Article 3(6) (a) Provision of ATM/ANS and design of airspace structures

AERODROMES

The aerodrome traffic zone should be linked to controlled aerodromes as potential aerodrome delineation.

AMC3 Article 3(6) Provision of ATM/ANS and design of airspace structures

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 and design of airspace structures

DESIGNATION — GENERAL

- (a) The airspace where air traffic services are provided is classified and designated in accordance with requirements found in 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 are 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.

GM1 Article 3(8) Provision of ATM/ANS and design of airspace structures

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

- (a) An airspace change is a change to an 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;
- (ii) meeting airspace capacity requirements;
- (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) an ATM/ANS 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) follows the national airspace change processes, where specified; and
- (iii) 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, but not limited to:

- (i) ATM/ANS providers;

- (ii) airspace users (including military);
- (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 an assessment is carried out before deploying 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 providers need to perform a safety assessment as per ATS.OR.205 of 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) ATC simulation;
- (iii) live trials;
- (iv) flight simulation;
- (v) data analytical tools;
- (vi) statistical analysis;
- (vii) collision risk modelling; and
- (viii) noise and emissions modelling.

(7) State's approval,

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

- (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;
 - (e) supporting maps, charts and diagrams; and
 - (f) airspace and infrastructure requirements; and
 - (C) Validation report.

- (ii) 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 aeronautical information publication (AIP), changes in the procedures of the ATS providers, etc.
- (9) Post implementation review
- (10) Maintenance and periodic review

GM2 Article 3(8) Provision of ATM/ANS and design of airspace structures

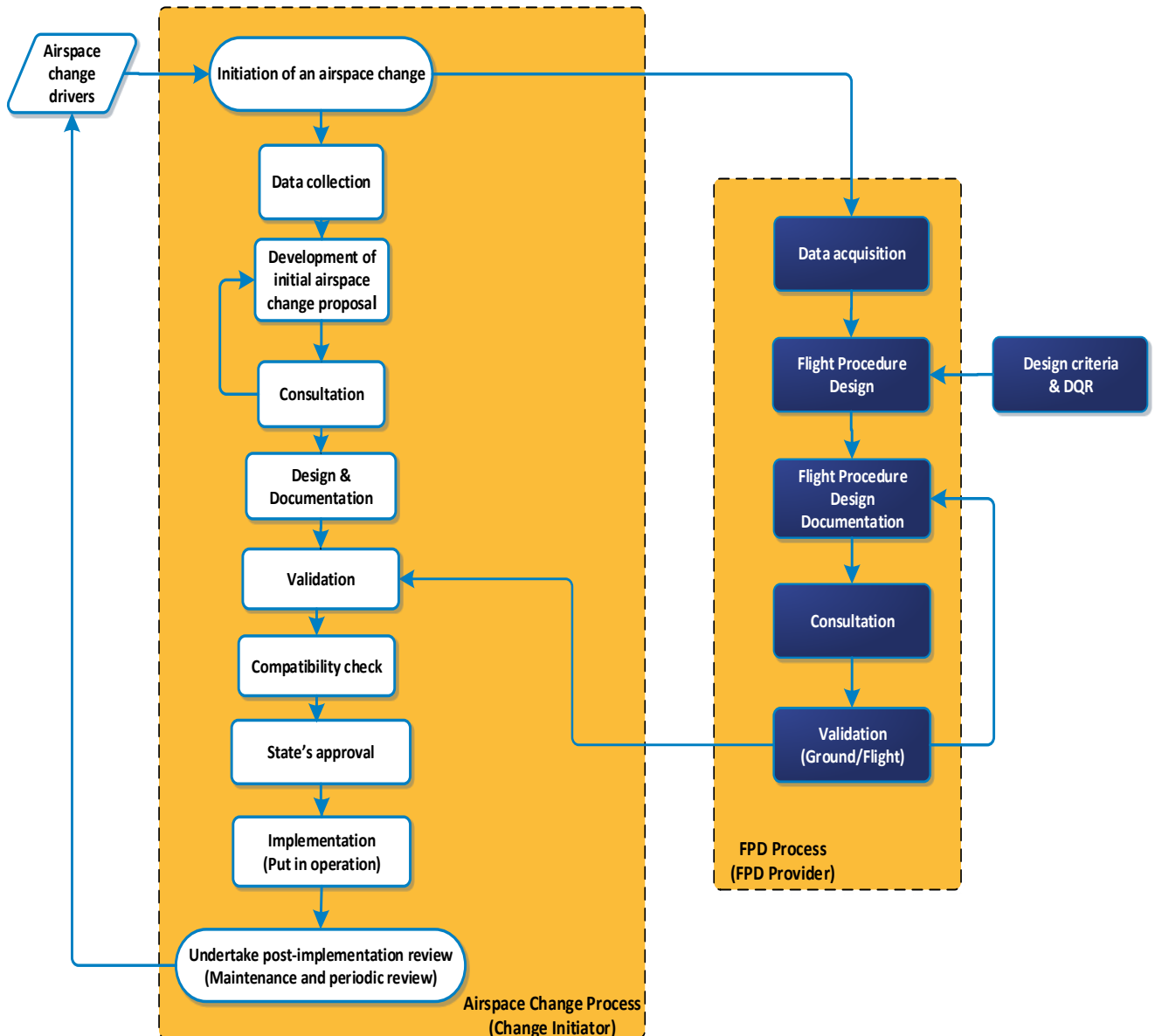
GENERAL — INTERACTIONS BETWEEN AIRSPACE CHANGE PROCESS AND FLIGHT PROCEDURE DESIGN PROCESS

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 might run in parallel.

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



[...]

AMC1 Article 3(9) Provision of ATM/ANS and design of airspace structures

PERIODIC REVIEW

Periodic review should be conducted at an interval not exceeding 5 years.



GM1 Article 3a(1) Determination of the need for the provision of air traffic services

ELEMENTS TO DETERMINE THE NEED FOR AIR TRAFFIC SERVICES PROVISION

The determination of the need for air traffic services provision in a given area and/or aerodrome may be subject to consideration and evaluation of a great number and typology of elements, such as:

- (a) a mixture of different types of air traffic with aircraft of varying speeds (conventional, jet, etc.) might necessitate the air traffic services provision, whereas a relatively greater density of traffic where only one type of operation is involved would not;
- (b) meteorological conditions might have considerable effect in areas where there is a constant flow of air traffic (e.g. scheduled traffic), whereas similar or worse meteorological conditions might be relatively unimportant in an area where air traffic would be discontinued in such conditions (e.g. local visual flight rules (VFR) flights);
- (c) open stretches of water, mountainous, uninhabited or desert areas might necessitate the air traffic services provision even though the frequency of operations is extremely low;
- (d) the complexity of the airspace concerned; and
- (e) the language(s) to be used in air-ground communications, in the case of AFIS.

GM2 Article 3a(1) Determination of the need for the provision of air traffic services

NON-ATS (AIR TRAFFIC SERVICES) AERONAUTICAL STATIONS

(a) Description of non-ATS aeronautical stations

Where a Member State determines that no requirement exists for the air traffic services provision at an aerodrome and its vicinity or in other airspace, a universal communication (UNICOM)-type aeronautical station may be established (with call signs like RADIO, UNICOM, name of the aero club, etc.). Such a station should be established following the Member State arrangements, to facilitate the activities of aircraft (for example, a frequency used by pilots to announce their intentions at an aerodrome where air traffic services are not provided).

It may be established in an airspace where Member States have decided that whilst en-route flight information service will be provided by a designated and certified flight information service provider, there is no requirement for mandatory two-way radio communication. In such cases, the Member State should ensure that the aeronautical station does not provide air traffic services, but acts as an informal facility for exchanges on, for example, aerodrome conditions or other activities at the aerodrome.

(b) Promulgation of information for non-ATS aeronautical stations

The arrangements established for non-ATS aeronautical stations should ensure that information regarding their availability are included in the relevant parts of the AIP. The information should include, as a minimum, the following:

- (1) identification of the aerodrome, where applicable;

- (2) location and identification of the aeronautical station, where applicable;
- (3) hours of operation of the aeronautical station, where applicable;
- (4) language(s) used;
- (5) detailed description of the facilitation provided and its limitations;
- (6) special procedures for application by pilots; and
- (7) any other pertinent information.

(c) Identification of non-ATS aeronautical stations

Where a non-ATS aeronautical station is established:

- (1) the station should normally be identified by the name of the aerodrome at which they are providing air-ground or air-air communication, or by the name of a nearby town or city or geographic feature or area, or by the name of the aero club it facilitates; and
- (2) the name of the station should be complemented by the suffix 'RADIO', as established in Section 5.2.1.7.1.2 of ICAO Annex 10 Volume II.

GM1 to Article 3b(b) Coordination between military authorities and air traffic service providers

The requirement is generic and includes but is not limited to the need to designate areas or routes where the requirements concerning flight plans, two-way communications and position reporting are applicable to all flights. This should be done to ensure that all pertinent data is available for the use of the appropriate air traffic services units specifically for the purpose of facilitating identification of civil aircraft and thus of eliminating or reducing the need for interceptions.

GM2 Article 3c(1) Coordination of air operations potentially hazardous to civil aviation**COORDINATION OF MILITARY ACTIVITIES POTENTIALLY HAZARDOUS TO CIVIL AVIATION**

Guidance for the coordination of such activities is provided in ICAO Doc 9554 'Manual Concerning Safety Measures Relating to Military Activities Potentially Hazardous to Civil Aircraft Operations'.

GM1 Article 3c(2) Coordination of air operations potentially hazardous to civil aviation

In determining these arrangements, the following should be applied:

- (a) the locations or areas, times and durations for the activities should be selected to avoid closure or realignment of established air traffic services routes, blocking of the most economic flight levels, or delays of scheduled aircraft operations, unless no other options exist;
- (b) the size of the airspace designated for the conduct of the activities should be kept as small as possible; and

- (c) direct communication between the appropriate air traffic services unit(s) and the organisation or unit conducting the activities should be provided for use in the event that civil aircraft emergencies or other unforeseen circumstances require discontinuation of the activities.

GM1 Article 3d(2) Very-high frequency (VHF) emergency frequency

When Member States consider the possibility to allow the use of the VHF emergency frequency for other activities related to the intended use of this frequency (e.g. for training), consideration should be given to the impact on the operations of the air traffic services units located in the neighbouring States, in order to prevent triggering unnecessary actions related to the use of the emergency frequency.