

‘AMC & GM to Part-ATS — Issue 1, Amendment 4’

Annex IV 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:

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

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ANNEX IV — PART-ATS

SPECIFIC REQUIREMENTS FOR PROVIDERS OF AIR TRAFFIC SERVICES

SUBPART A — ADDITIONAL ORGANISATION REQUIREMENTS FOR PROVIDERS OF AIR TRAFFIC SERVICES (ATS.OR)

SECTION 1 — GENERAL

AMC1 ATS.OR.127(a) Coordination by air traffic services providers in U-space airspace

INFORMATION ON MANNED AIRCRAFT

Air traffic services providers should make arrangements with operators of manned special operations, which are exempted from the requirements on flight plan submission time according to point SERA.4001(d), to receive the earliest possible notification of an intended manned operation, either directly or through common information services when a single common information service provider is designated.

SUBPART B — TECHNICAL REQUIREMENTS FOR PROVIDERS OF AIR TRAFFIC SERVICES (ATS.TR)

SECTION 2 — AIR TRAFFIC CONTROL SERVICE

AMC1 ATS.TR.237(a) Dynamic reconfiguration of the U-space airspace

IMPACT OF DYNAMIC AIRSPACE RECONFIGURATION ON UAS OPERATIONS

Air traffic control units should only apply dynamic reconfiguration of the U-space airspace if there is a risk of collision between manned and unmanned aircraft, causing the revised flight authorisation of UASs, or potentially causing the forced landing of unmanned aircraft.

AMC2 ATS.TR.237(a) Dynamic reconfiguration of the U-space airspace

PRIORITY TO SPECIAL OPERATIONS

When intending to apply dynamic reconfiguration of the U-space airspace, air traffic control units should give priority to special operations, as defined in Article 4 of Regulation (EU) No 923/2012, whether performed by UASs or manned aircraft.

GM1 ATS.TR.237(a) Dynamic reconfiguration of the U-space airspace

TIMELY RECEIPT OF INFORMATION

Air traffic control units are expected to coordinate with U-space service providers to ensure they will receive the information about UAS special operations in a timely manner so that the air traffic control units can prioritise the traffic in the affected U-space airspace.

GM2 ATS.TR.237(a) Dynamic reconfiguration of the U-space airspace

PROPORTIONATE RESPONSE

- (a) For the purpose of supporting a more flexible use of the available airspace and to reduce the likelihood of forced landings, as airspace volumes are three-dimensional, Member States may consider dynamic reconfiguration of the U-space airspace in a three-dimensional multi-phased manner.
- (b) The following multi-phased reconfiguration may be considered:
 - (1) Vertical limitation: limit the ceiling of UAS operations to a level such as the lowest limit of the applicable obstacle limitation surface (i.e. inner horizontal surface), when available. Lowering the ceiling of the U-space airspace would allow for continuous

segregated operations as manned aircraft will fly above UASs. Keeping the U-space airspace partially active and usable for a prolonged period of time would safeguard the operation of UASs that fly at a lower altitude.

(2) Lateral limitation: deactivation of a U-space airspace section, where manned aircraft operations take place, down to ground. UAS flights outside the deactivated portion may continue. Hereby, the impact on UAS operations is limited to what is necessary.

(3) Full deactivation: fully deactivating the U-space airspace.

(c) As a result of the vertical and lateral limitation phases, UASs in flight will comply with updated UAS flight authorisations, as applicable, or immediately approach a predefined safety landing point, while because of the full deactivation phase they will proceed to such landing point. Safety landing points are appropriately selected by the UAS operator and submitted during UAS flight authorisation to ensure a quick landing without endangering people or surrounding property on the ground or damaging the UAS hardware.

AMC1 ATS.TR.237(b) Dynamic reconfiguration of the U-space airspace

TIMELY NOTIFICATION

Air traffic control units should coordinate with the U-space service providers concerned to ensure they will be notified as early as possible of the dynamic reconfiguration of the U-space airspace, so that the UAS operators may anticipate and apply any required action.

GM1 ATS.TR.237(b) Dynamic reconfiguration of the U-space airspace

EFFECTIVE COORDINATION

(a) Establishing a preset, minimum advance notice (in terms of time) could be difficult in many instances; however, analogy may be found in this respect in EUROCAE ED-269 'Minimum Operational Performance Standard for UAS Geo-Fencing' (published on 1 June 2020), which specifies the minimum performance expected from a geofencing function to ensure that it will perform its intended sub-functions satisfactorily under all conditions normally encountered in a routine aeronautical operation.

(b) EUROCAE ED-269 indicates the issue of a caution alert to the UAS operators when the location where the operations are taking place is to become forbidden soon and will have to be exited soon enough to enable exit before active restriction; for example; considering the distance to fly back to the authorised limit (or distance to exit) divided by the anticipated ground speed to do so. A minimum value of 2 minutes is suggested. It is also recommended to have an advisory alert before the caution alert (either 10 minutes or 5 times the caution anticipation time).

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- (c) In any case, when data that results from the dynamic airspace reconfiguration is made available as part of the common information service, it may include starting/ending time of the reconfiguration; otherwise it is intended to be immediately applicable, until further notice.
- (d) Except for emergency situations, coordination between air traffic control units and U-space service providers should allow for the completion of any authorised UAS flight that has started already, possibly through a revised UAS flight authorisation. In circumstances where the air traffic control unit considers that this would inappropriately postpone the airspace reconfiguration, UAS operators should at least be allowed sufficient time to reposition unmanned aircraft according to the adjusted geographical limits of the U-space airspace, or to safely proceed, without delay, to a landing site.