



Commission Implementing Regulation on a Regulatory Framework for the U-space June 2020 Revised Draft Drone Alliance Europe Comments

The Drone Alliance Europe (“DAE” or “the Alliance”) welcomes the revised U-space Implementing Regulation. The most recent draft of the U-space regulation offered by the European Commission at Meeting 2020/2 makes a number of changes to earlier drafts. In particular, DAE welcomes the removal of a proposed requirement that UAS flight authorisation requests must be submitted at least 30 minutes in advance of a flight and the removal of a tracking service. However, DAE remains concerned that the roles and responsibilities for the Common Information Service (CIS) are not clearly delineated; involving the CIS in communications between and among U-space Service Providers (“USSPs”) may distort the U-space ecosystem and create challenges for security, privacy, scalability, cost-effectiveness and competition. The Commission should clearly explain the allocation of responsibilities between the CIS provider and USSPs. In addition, the omission of the article on pricing controls for the CIS may create additional barriers to USSPs. DAE is also concerned that the question of manned aircraft participation in U-space remains unclear and has been transferred to a separate Commission rulemaking.

Common Information Service

CIS Responsibility. The CIS should be an interface to communicate authoritative data to USSPs and the U-space ecosystem, including airspace restrictions. However, the CIS should not be an intermediary for the exchange of flight information between USSPs. Article 5(3) and Article 5(5)(e) can be read to suggest that role for a CIS. While the CIS plays an important role in the USSP ecosystem, it should not be understood to facilitate interoperability among USSPs. Discovery and synchronization between USSPs can occur independently of the CIS. The regulation should also endorse standards-based interoperability among certified USSPs.

CIS Non-Discrimination. The CIS should not offer U-space services. DAE supports the non-discrimination principle in Whereas clause (1) and reads Article 5(6) in the current draft to embody that principle: the CIS provider shall provide the information “to all U-space service providers in that airspace with the same data quality and latency levels.” DAE asks the Commission to confirm DAE’s reading of Article 5(6).

CIS Pricing. As the CIS is intended to be the “single source” for certain kinds of aeronautical reference information, it will function as a monopoly. It is thus imperative that Member States provide oversight and control of the pricing for this function to avoid limiting access to the airspace.

Provision of CIS Services. Article 5 references three Annexes that are not included in the most recent draft: Annex 2 is to include the process for exchanging static and dynamic information; Annex 3 and Annex 4 are intended to address the nature of the information to be provided and

the quality and latency of such information. DAE requests the Commission publish these Annexes in draft form and seek public comment.

Integration of Manned and Unmanned Aircraft

Previous Article 4(4)(a) assigned to ANSPs the responsibility to dynamically reconfigure U-space that is located in controlled airspace to ensure that manned and unmanned aircraft remain segregated. The current draft Article 4 gives this responsibility to ensure segregation to Member States, “as laid down in” a non-referenced provision in Regulation 2017/373. DAE remains concerned the concept of dynamic airspace reconfiguration is unclear, possibly unnecessary in controlled airspace, and may be unworkable. DAE is also concerned that this concept is to be defined in a regulation other than this U-space Implementing Regulation.

The definition of “dynamic airspace reconfiguration” in Article 2(6) does not provide any more clarity than the definition of “dynamic reconfiguration of the airspace” in Article 3(2) in the previous draft.

(6) ‘dynamic airspace reconfiguration’ means the temporary limitation of the U-space airspace in order to accommodate short-term changes in manned traffic demand, by adjusting the geographical limits of that U-space airspace.

DAE recognises that the European Commission has adopted a short-term strategy to segregate manned aircraft from unmanned aircraft. In the long term, DAE is concerned that this strategy will stunt innovation. Even in the short term, it is not practical. Manned aircraft operate at low altitudes away from airports, and some are non-cooperative. While integration is a challenge, the Commission should strive for U-space rules and (follow-on) regulations to accommodate the integration of both manned and unmanned aircraft in the U-space.

DAE understands that U-space implementation will not occur all at once. With the publication of the U-space Implementing Regulation, and the qualification of CIS providers and USSPs, U-space services should be available even if full integration has not been accomplished. A phased approach will allow for the development of other rules necessary for integration.

Article 7 of the prior draft Implementing Regulation set out the obligations of manned aircraft operating in U-space airspace: such manned aircraft operations would not be permitted in uncontrolled airspace (as well as controlled airspace) designated as U-space unless their position information is provided regularly to USSPs “and there is sufficient level of performance in terms of accuracy, integrity, legitimacy of source and continuity as determined by the Agency.”

This Article has been removed in its entirety in the current draft. It appears from reading whereas clauses (12) and (22) that the Commission intends to address these issues in separate rulemakings.

(12) In order to allow unmanned aircraft to safely operate alongside manned aircraft, specific coordination procedures and communication facilities between appropriate air traffic service units, [USSPs] and UAS operators should be established. Therefore, the Commission Implementing Regulation 2017/373 is amended by [Regulation XXX] providing for a new coordination procedures between [USSPs] and air traffic service providers as well as a new requirement for a dynamic reconfiguration of U-space airspace.

...

(22) In order to all the traffic information service to provide information on all manned aircraft traffic, electronic conspicuity of manned aircraft should be guaranteed and therefore the relevant rules of Commission Implementing Regulation (EU) No 923/2012 [Standardised European Rules of the Air] have been amended by Regulation [add a reference], in particular by [...]

See also Article 7(3) of the current draft:

Where UAS flight takes place within the controlled airspace, the [USSPs] shall establish a procedure to coordinate the flight authorisation requests with the relevant air traffic service units.

DAE believes that a final U-space Implementing Regulation should address all issues necessary to implement the initial phases of U-space as quickly as possible. If the final U-space Implementing Regulation is not going to include the issues necessary for an integrated U-space with manned aircraft participation, DAE urges the Commission to complete those other two proceedings in parallel so as to be issued contemporaneously.

Flight Authorisations

DAE welcomes changes to the flight authorisation service. Removal of the 30-minute pre-flight authorisation request requirement in Article 6(4) of the previous draft is critical to an industry which enables on-demand service. UAS deliver goods in a matter of minutes; carry medical samples for urgent testing; respond to accidents; or deploy to disaster zones. Pre-notification requirements would make these operations impossible.

Article 10 of the previous draft required the USSP's Flight Authorization Service to respond to a request within a timely manner. DAE asked for clarification of this requirement. DAE agrees with

the provision in Article 10(5) in the current draft that the USSP shall confirm the flight authorisation activation “without unjustified delay.”

In addition, DAE welcomes the clarification of the steps for processing a flight authorisation request, and the clarification that a USSP “may” (not “must”) propose an alternative flight plan. In some cases, USSPs will not have all information about the performance of a UAS necessary to propose an alternative flight plan, so this should be a discretionary choice.

Additionally, Article 7(3) of the current draft clarifies that a USSP can validate flight authorisations for flights not occurring in controlled airspace.

Removal of Tracking Service

The concept of UAS surveillance is a misguided adaptation from traditional air traffic management. Given the scale of UAS operations expected within the next few years, it is infeasible to expect UAS observations with flight tracking. Therefore, DAE applauds the removal of a tracking service.

Geo-awareness Service

As DAE commented previously, we are concerned that the notion of UAS geographical zones to be determined by each Member State poses risk to a harmonized U-space system throughout the EU. The restrictions each Member State specifies for each UAS geographical zone will not be machine parcelable, posing a challenge to the efficiency of the geo-awareness service in Article 9.

Privacy and Data Access

UAS position data is capable of revealing highly sensitive information about EU nationals, such as the customers of drone services (e.g., a drone delivery to a house) or operators (e.g., a hobbyist flying in private property). Article 8(3) provides for the sharing of remote identification data with the public, without distinguishing different levels of access among different kinds of stakeholders. The U-space Implementing Regulation should place limits on the sharing of and access to this data. For example, a general member of the public may not have access to the same identifiable, sensitive, or private UAS position information as a public safety or security stakeholder.

Further, the U-space Implementing Regulation should permit operators to transmit an anonymised session identifier through network remote identification instead of their registration or serial numbers. The session identifier can be reported to relevant authorities if required and correlated with a specific operator.

Standards

Success of the U-space will depend on EASA and Member State adoption of internationally recognized standards. International standards help to ensure that U-space implementations are safe, well-informed by international best practices, and interoperable across Member State borders. As such, the final U-space regulation must include a robust acknowledgement of standards development and implementation strategies.

Standards development bodies facilitate safety by setting strict performance-based targets while maintaining flexibility for future progress. That flexibility will underscore U-space interoperability and allow operators to maintain compliant systems while keeping up with the rapid pace of innovation.

A final U-space regulation should include a greater recognition of the role that standards will play in supporting and maintaining global interoperability. A final regulation, or AMC, should also endorse existing remote identification standards, as e-identification will be the first interoperable service to be offered in the U-space.

USSP Certification Process

The previous draft allowed for a USSP or CIS provider certificate to be issued by a Member State or EASA, “as applicable.” DAE supported this provision for USSPs that intend to operate in more than one Member State. In the current draft, some, but not all, references to the “Agency” have been removed. It appears from Article 14(2) that a USSP from a country outside of the EU may apply for a USSP certificate from EASA “or the first Member State where they intend to operate.” DAE supports that provision.

DAE believes the USSP certification process should not present undue challenges to providers who wish to become multinational operators. The final U-space Implementing Regulation should identify pathways for a USSP certificate in one country to be recognized by other Member States. In this respect, DAE urges the Commission to provide guidance to Member States to ensure the qualification requirements and processes for USSPs (and CIS providers) are common throughout the European Union.

Equipage requirements

The final U-space Implementing Regulation should endorse a performance-based approach to achieving adequate levels of safety and performance in the U-space. Whereas clause (6) states “[t]here should be minimum requirements for UAS operators and U-space service providers for equipment and performance of UAS and services[. . .].” DAE recommends that this reference to

minimum equipage for UAS and USSPs should be removed. Performance requirements will be determined through operational approvals, not U-space regulation.

Annex 5

DAE expressed concerns about the UAS flight authorisation request form, which was Annex 1 in the previous draft U-space Implementing Regulation. DAE believes most of the fields should be revised. For example, field (5) should not be a flight path but an operational intent. ASTM standards and SORA are defining operational intents rather than flight paths. Operational intents are a set of one or more volumes of airspace with associated entry and exit times. Operational intents can represent both typical VLOS operations (e.g., a single volume), or BVLOS operations that comprise a series of volumes proceeding along the flight path. A flight authorisation should be issued on the basis of operational intents.

Another example in need of revision is field (1): WiFi is not a means of identification but a means of transmission.