

A primer on the EU U-space regulations

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Setting the scene



(2018/1139)



Commission Implementing Basic Regulation Regulation (EU) 2019/947 **Commission Delegated** Regulation (EU) 2019/945



Commission Implementing Regulation (EU) 2021/664



AMC/GM **Standards**

Following three basic concepts:

- **Operation centric**
- Risk based
- Performance based

Open category: buy and fly – strict limits

Specific category: assess risk

Certified category: traditional certification

Geographical zones (IR947 Art.15)



U-space airspace (IR664)



U-space Services



Network identification service

Geo-awareness service

Traffic information service

UAS fight authorization service

Weather information service
Conformance monitoring service

Mandatory

Optional



U-space regulation



- Article 3, U-space airspace;
- Article 4, dynamic airspace configuration;
- Article 5, common information service;
- Article 6, UAS operators;
- Article 7, U-space service providers;
- Article 8, network identification service;
- Article 9, geo-awareness service;
- Article 10, UAS flight authorisation service;
- Article 11, traffic information service;
- Article 12, weather information service;
- Article 13, conformance monitoring service.

- Airspace design
- Dynamic configuration of U-space airspace
- Electronic Conspicuity
- USSPs certification



Common Information Services



Geographical limits

CAA

Performance requirement

Certified USSPs

UAS geographical zones

Dynamic reconfigurations of the airspace

Operational data

ANS

Terms and conditions

JSSP

Provisions of the Regulatory framework



For ANSPs

(EU) 2017/373 Amendments as regards requirements for providers of ATM/ANS and other ATM network functions in the U-space airspace designated in controlled airspace

ANSPs are responsible for segregating manned aviation in controlled airspace through dynamic reconfiguration of the airspace

For manned aviation

(EU) 923/2012 (SERA) Amendments as regards requirements for manned aviation operating in U-Space airspace

Manned aircraft not receiving ATC service shall make themselves electronic conspicuous to USSPs.



U-space Package (1/3)



Commission implementing REG (EU) 2021/664 on a regulatory framework for the U-space

- Chapter VI:
 - Article 17 Capabilities of the competent authorities
 - Article 18 Tasks of the competent authorities
 - Article 19 Entry into force and application (it shall apply from 26 January 2023)



U-space Package (1/3) - bis



Commission implementing REG (EU) 2021/664 on a regulatory framework for the U-space

- Annex I Criteria for the definition of capabilities, performance requirements, operational conditions and airspace constraints
- Annex II Publication of the common information
- Annex III Data quality, data latency and data protection requirements
- Annex IV UAS flight authorisation request
- Annex V Exchange of relevant operational data and information between U-space service providers and air traffic service providers
- Annex VI Certificate for U-space Service Provider



U-space Package (2/3)



Commission Implementing REG (EU) 2021/665 (amending IR (EU) 2017/373) as regards requirements for providers of ATM/ANS and other ATM network functions in the U-space airspace designated in controlled airspace.

- ATS.OR.127 Coordination by ATS providers in U-space airspace
- ATS.TR.237 Dynamic reconfiguration of the U-space airspace



U-space Package (3/3)



Commission Implementing REG (EU) 2021/666 (amending REG (EU)

No 923/2012) as regards requirements for manned aviation operating in U-space airspace)

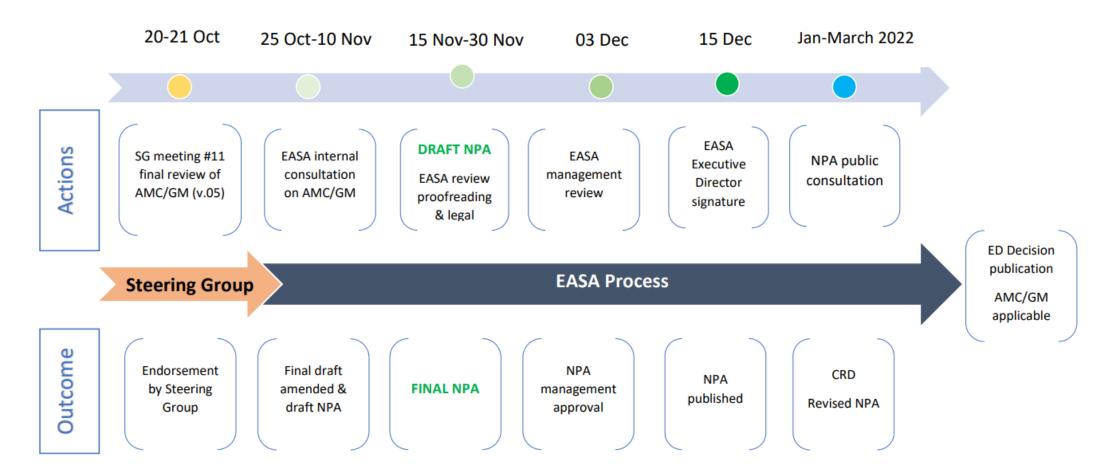
SERA 6005 in Section 6 of the Annex is replaced by

SERA 6005 – Requirements for communications, SSR transponder and electronic conspicuity in U-space airspace



U-space AMC/GM







Requirement – Airspace Risk Assessment



Commission Implementing Regulation (EU) 2021/664 Regulatory Framework for the U-space, Article 3 UAS operators

U-SPACE AIRSPACE AND COMMON INFORMATION SERVICES

- 3.1. Where Member States designate U-space airspace for safety, security, privacy or environmental reasons such designation shall be supported by an airspace risk assessment.
- 3.4. For each U-space airspace, based on the airspace risk assessment referred to in paragraph 1 and using the criteria set out in Annex I, Member States shall determine: (a) the UAS capabilities and performance requirements; (b) the U-space services performance requirements; (c) the applicable operational conditions and airspace constraints







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