



**EU-Latin America and Caribbean
Aviation Partnership Project (EU-LAC APP)**

*Enhancing the aviation partnership between the EU and
Latin America and the Caribbean*

The Regional Regulatory EU Framework for Civil Drone Operations

CASSOS Webinar – 10 December 2020

Daniel COBO-VUILLEUMIER
EASA Drones Expert

Your safety is our mission.

An Agency of the European Union

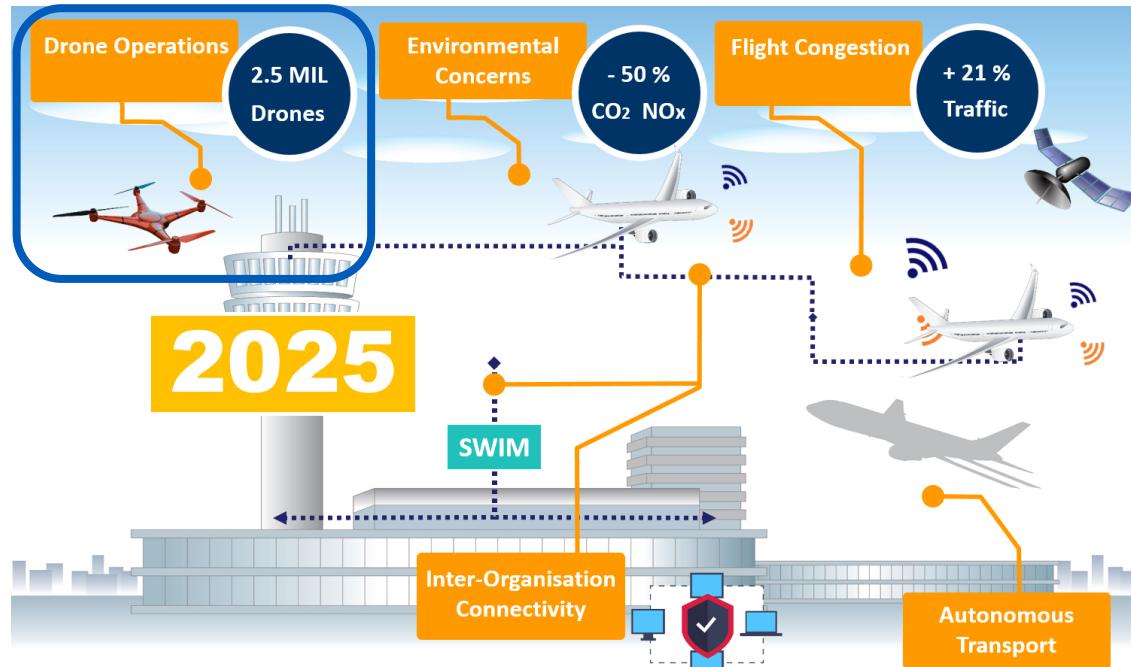


Content

- Background: European Aviation Strategy
- EU concept for the regulation of drone operations
- Regulatory framework and related activities

Background: European Aviation Strategy

Aviation faces important challenges ...



In Europe, the EU established in 2015 a new strategy (the *Aviation Strategy for Europe*) to address these challenges.

Background: European Aviation Strategy

- Drones are a particular challenge in Europe. Not only for their rapid growth in a region of more than 500 million people ...
- ... but because from the Basic Regulation for Aviation in 2002 the EU remit was limited to **drones with operative mass > 150 Kg in non-State operations.**
- But civil drone operations have been based on **small drones (<< 150 kg)** → MSs had to **regulate them at national level** → **lack of harmonisation across Europe.**
- An EU market requires having a common EU regulatory framework for drone operations.
- The '**Aviation Strategy for Europe**' established the need to develop a **new Basic Regulation** that enables the **regulation at EU level the civil operations of drones under a new regulatory concept.**

EU concept for the regulation of drone OPS

- EASA defined in the “*Concept of Operation*” and “*Technical Opinion*” (2015) the main principles of the regulatory concept for the civil operation of drones:
 - Operation centric
 - Risk-based
 - Proportionate
 - ‘Performance-based’ with ‘legal certainty’

EU concept for the regulation of drone OPS

→ Under those principles the following categories of drone operations are defined:



OPEN

Low intrinsic risk

NO-PRE APPROVAL

LIMITATIONS : 25 kg;
Visual line of sight (VLOS),
height <120m; system of
zones

3 SUB-CATEGORIES: fly
over, close, far from people

CE MARKING allows for
design requirements

SPECIFIC

Increased intrinsic risk
Authorisation by NAA
based on specific
operation risk assessment
(SORA)

STANDARD SCENARIOS

Optional concept of
approved operator with
privilege

CERTIFIED

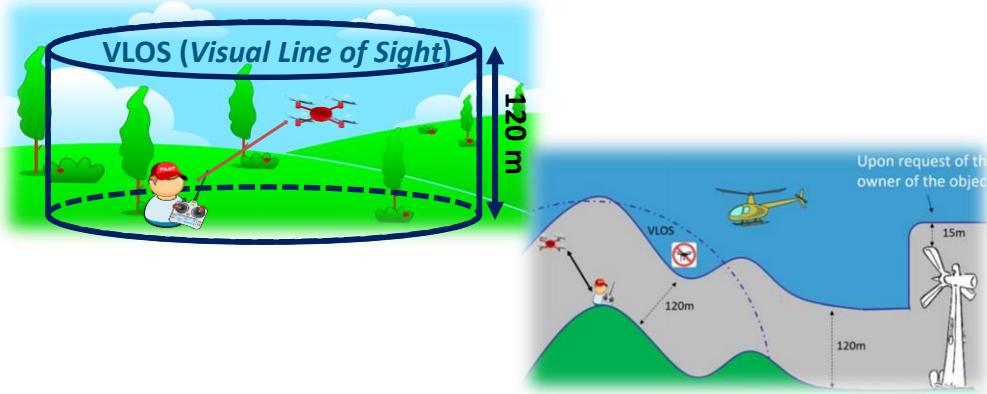
Intrinsic risk as in manned
aviation
Certification of UAS and
operator and licenced pilot
(unless autonomous flight)

EASA accepts application
in its present remit

Some systems (Datalink,
Detect and Avoid, ...) may
receive an independent
approval

EU concept for the regulation of drone OPS

→ OPEN Category



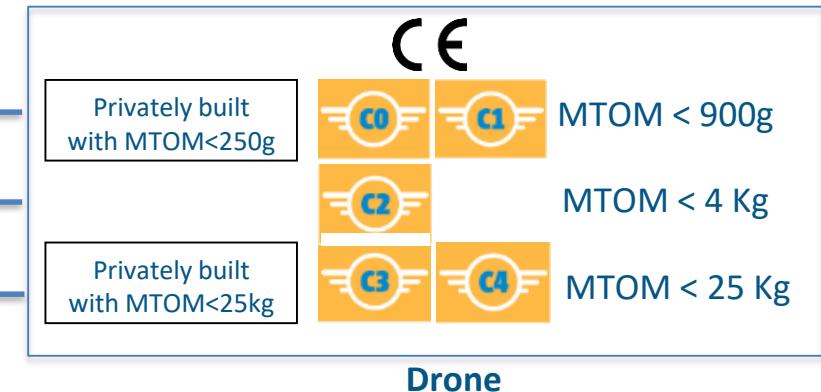
► Operation:

- Non-autonomous (remote pilot)
- VLOS (UA observer allowed)
- Flight height $\leq 120 \text{ m}$ (over the overflowed surface)
- No dropping material
- No carriage of dangerous goods
- Remote pilots age ≥ 16 (unless supervised)
- No operational authorisation required from the competent authority

► Additional limitations → subcategories:

- A1 "flight over people" — online exam
- A2 "flight close to people" — online + F2F exam
- A3 "flight away from people" — online exam

Remote Pilot



EU concept for the regulation of drone OPS

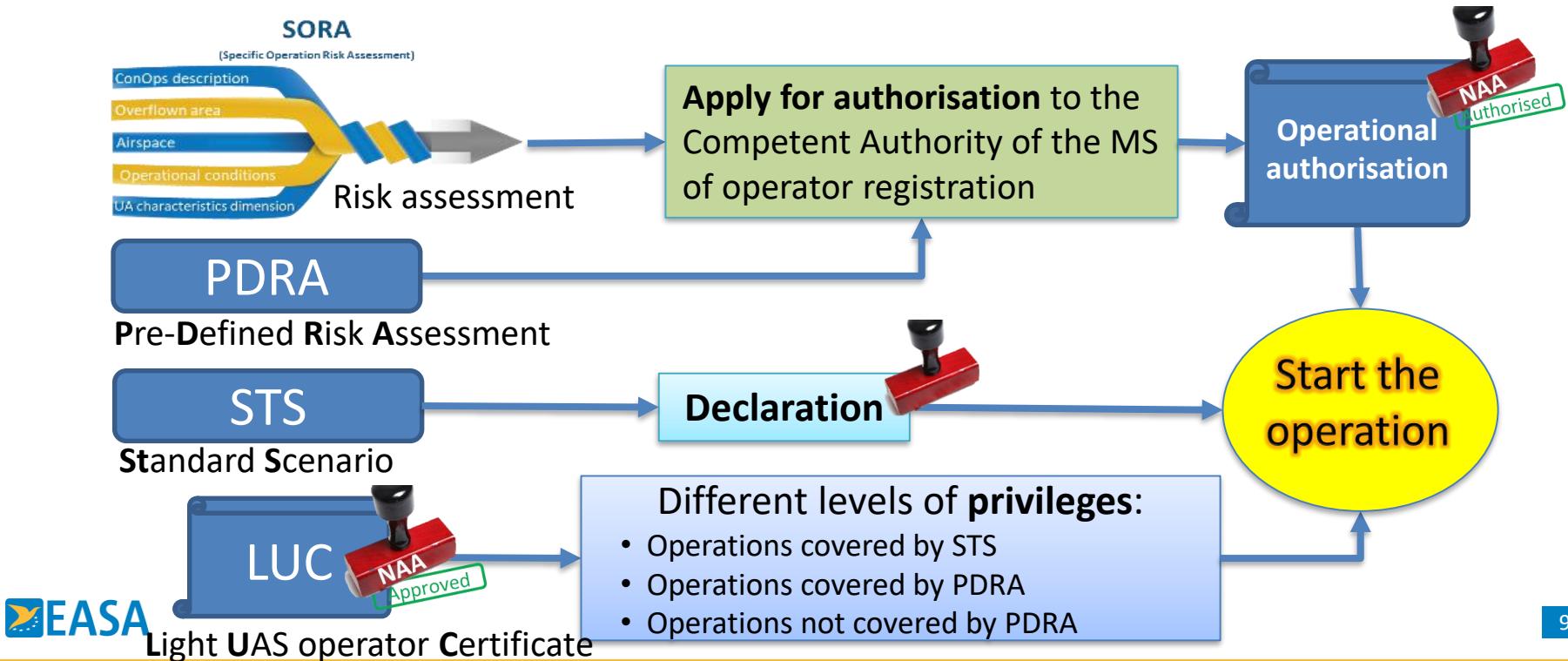
→ OPEN Category

Operation		Remote pilot competency	UAS				UAS operator registration
Subcategory	Area of operation (far from aerodromes, maximum height 120 m)		class	MTOM/ Joule (J)	Main technical requirements (CE marking)	Direct remote ID/ geo awareness	
A1 Fly over people	You can fly over uninvolvled people (not over crowds)	Read consumer info	Privately built C0	< 250 g C1	N/a Consumer information, <19 m/s, height limit complement to Toy Directive OR <19 m/s, height limit; no sharp edges and voltage limit	No	no
					Consumer information, <19m/s, kinetic energy, mechanical strength, lost-link management, no sharp edges, selectable height limit, noise, voltage limit, optional lights for controllability.		
A2 Fly close to people	You can fly at a safe distance from uninvolvled people	• Consumer info • online training • online test • declare completion of self-practical training • theoretical test in a centre recognised by the NAA	C2	< 4 kg	Consumer information, mechanical strength, no sharp edges, lost-link management, selectable height limit, low-speed mode, noise, voltage limit, lights for controllability or visibility.	Yes + unique Serial Number (SN) for identification	yes
A3 Fly far from people	You should fly: • in an area where it is reasonably expected that no uninvolvled people will be exposed to danger • at a safe distance from areas used for residential, industrial, commercial or recreational purposes	• Consumer info • online training • online test	C1/ C2 C3 C4 Privately built	< 25 kg	Consumer information, lost-link management, selectable height limit, voltage limit, lights for controllability or visibility.	if required by zone of operations e-id add-on module with unique SN	
					Consumer information, no automatic flight		
					N/a		

EU concept for the regulation of drone OPS

→ **SPECIFIC Category**

→ Drone operations exceeding the limitations defined in the 'open' category



EU concept for the regulation of drone OPS

→ **SPECIFIC Category**

→ Operations under operational authorisations

→ Granted by the competent authority of the MS where the UAS operator is registered, once that authority is satisfied with the **risk assessment and mitigation measures** submitted by the applicant.

→ **Risk assessments** must include:

- ConOPS
- Operational safety objectives
- Identification of risks
- Identification of range of possible risk mitigating measures
- Necessary level of robustness of the selected mitigating measures

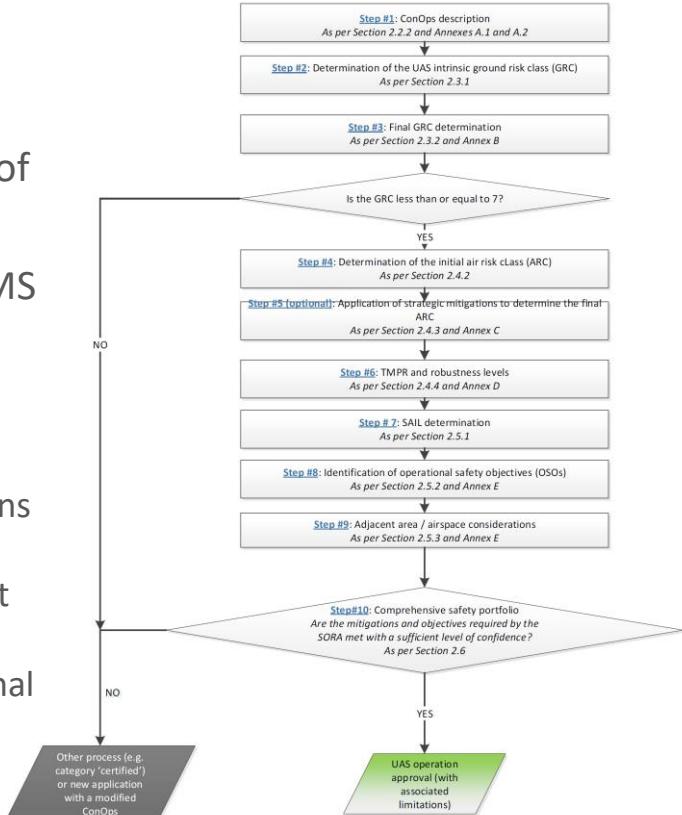
EU concept for the regulation of drone OPS

→ **SPECIFIC Category**

→ Operations under operational authorisations

- SORA is the methodology accepted by EASA as means of compliance to conduct the risk assessment.
- Developed by JARUS (with significant participation of MS EASA and MS)
- Main body with the core methodology + Annexes:
 - Annex A: ConOps
 - Annex B: Integrity and assurance levels for the mitigations used to reduce the intrinsic ground risk class (GRC)
 - Annex C: Strategic mitigation — collision risk assessment
 - Annex D: Tactical mitigation collision risk assessment
 - Annex E: Integrity and assurance levels for the operational safety objectives (OSOs)

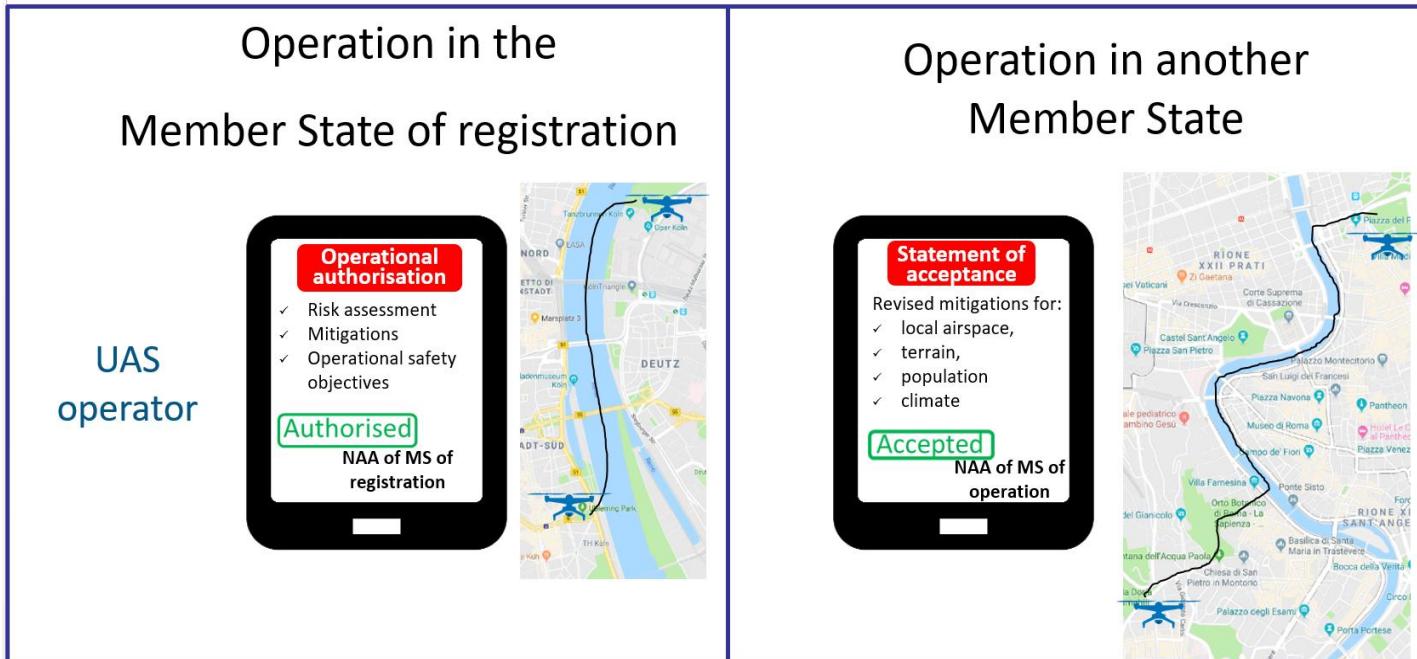
- Intro to SORA at EASA workshop (2018):
<https://www.youtube.com/watch?v=sq7wozIzXBM>



EU concept for the regulation of drone OPS

→ **SPECIFIC Category**

→ Cross-border operations under operational authorisation



EU concept for the regulation of drone OPS

→ **SPECIFIC Category**

→ Operations under operational authorisation

→ **Pre-defined Risk Assessment (PDRA)**

- Intended to facilitate operational authorisations in common operations.
- Set of provisions derived from the risk assessment applied to a type of operations.
- 2 types:
 - “Generic” (PDRA-G0x) → low prescriptiveness (as in SORA), so far based on PDRAs developed by JARUS
 - “Specific” (PDRA-S0x) → higher prescriptiveness for ‘Specific’ PDRAs, in principle based on STS
- PDRAs are published as acceptable means of compliance (AMC)

EU concept for the regulation of drone OPS

→ **SPECIFIC Category**

→ Operations under Standard Scenario (STS)

→ STS are conceived to relieve UAS operators and competent authorities from the operational authorisation for UAS operations:

→ for which **sufficient in-service experience** exist → can be standardised

→ with **low intrinsic risk** exceeding 'open' cat. → Up to SAIL II (SORA) → suitable for operational declaration

→ using **drones under CE marking** → no need for UAS operator and competent authority verification of UAS compliance with technical requirements

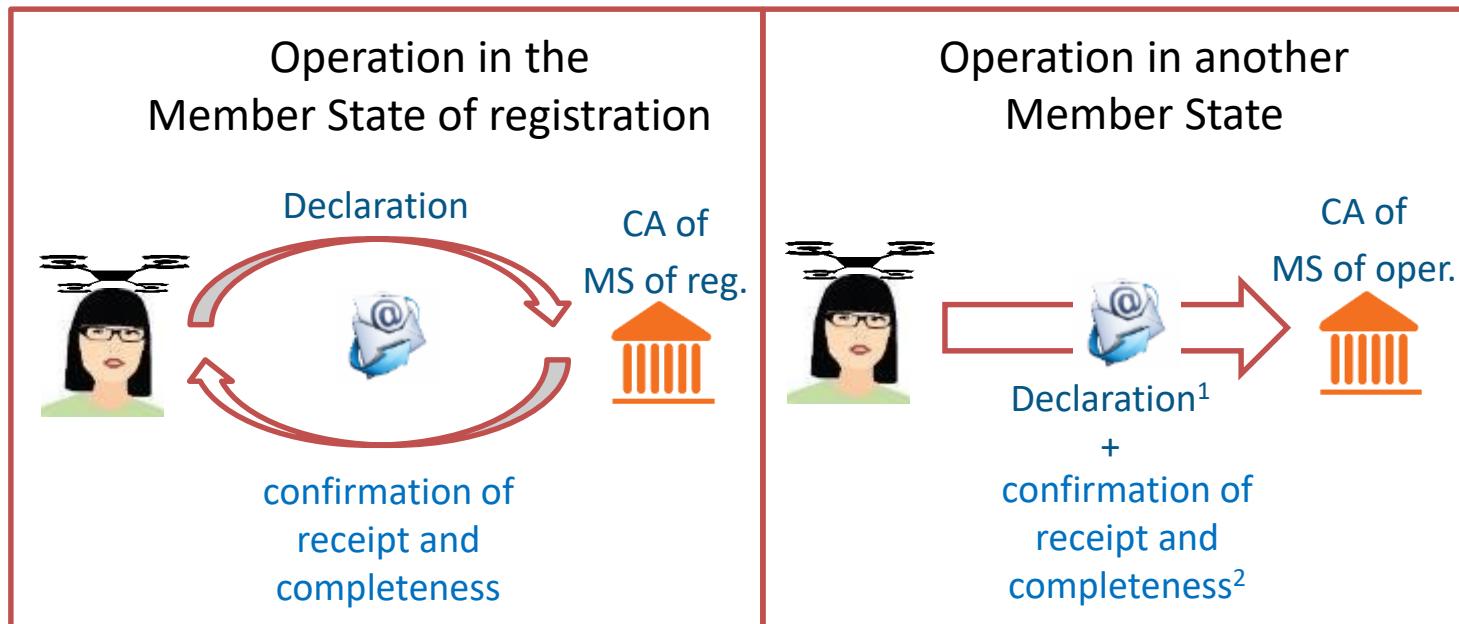
→ under rather **prescriptive requirements** (consistent with declarative regime)

→ STS are included **in the regulation** (requirements)

EU concept for the regulation of drone OPS

→ **SPECIFIC Category**

→ Cross-border operations under STS (declaration)



1: the one submitted to the MS of registration
2: the one received from the MS of registration

EU concept for the regulation of drone OPS

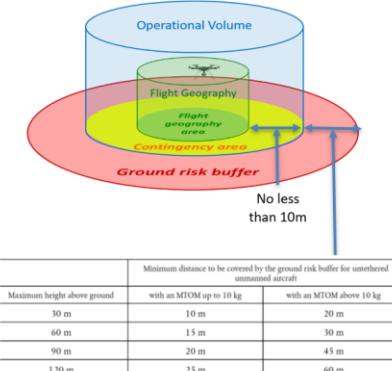
→ SPECIFIC Category

→ Operations under Standard Scenario (STS)

→ 2 STS developed so far: STS-01 and STS-02

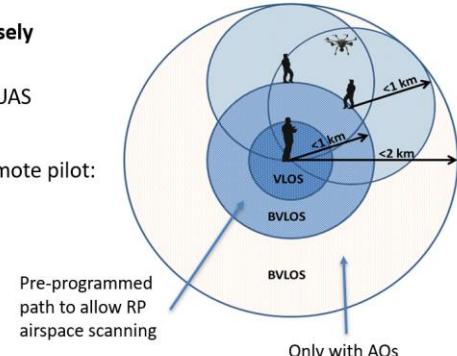
STS-01 – Overview

- Operations:
 - In VLOS
 - Over a **controlled ground area** that may be in **populated environment**
 - **Ground risk buffer** depends on:
 - Height
 - **Mass threshold** (more conservative > 10 kg due to less in-service experience)
 - **Low ground speed** (<5 m/s for untethered UA)
 - With **Class C5 UAS**



STS-02 – Overview

- Operations:
 - Over a **controlled ground area in sparsely populated environment**
 - **Ground risk buffer** determined using UAS manufacturer instructions
 - May be **BVLOS** with UA distance to remote pilot:
 - Up to 1 km if no airspace observer (AO)
 - Up to 2 km if AO(s)
 - In area with flight visibility > 5 km
 - With **Class C6 UAS**



EU concept for the regulation of drone OPS

→ **SPECIFIC Category**

→ Operations under Standard Scenario (STS)

→ 2 STS developed so far: STS-01 and STS-02

Requirements from class C3 (except a few¹) plus:

	5	6
UA limitations	No fixed-wing unless tethered	Max. ground speed < 50 m/s
If equipped with geo-awareness, same as C3	Yes	Yes
Information to RP on UA flight parameters	Height	Position, height, speed
Selectable low-speed mode (if untethered)	Yes	No
Programmable flight path	No	Yes
“Geo-caging” (prevent exceeding programmed volume)	No	Yes
Means to terminate flight (FTS)	Yes (if untethered)	Yes, but no reduction of effect of impact dynamics
Means for RP to monitor quality of C2 Link	Yes (if untethered)	Yes
Information in manufacturer instructions additional to C3	Yes	Yes

1: C5&C6 → No req. on height limiter and geo-awareness. C6: No requirement on electric energy for propulsion

EU concept for the regulation of drone OPS

→ **SPECIFIC Category**

→ Operations under a ‘Light UAS operator Certificate (LUC)

- LUC is an organisational approval certificate → **only legal entities** may apply for it.
- LUC is **not a mandatory requirement**.
- LUC requires the UAS operator to have a **safety management system (SMS)**
 - SMS must be adequate to the size of the operator and the nature and complexity of its activities.
- Requirements to be demonstrated are included in the regulation.
- When the competent authority is satisfied with the compliance it will issue a LUC with **privileges based on the UAS operator capacity and maturity**.
- Privileges may be **up to allow the UAS operator to self-authorise operations** without applying for an authorisation.

EU concept for the regulation of drone OPS

→ CERTIFIED Category

- Drone operations **exceeding the risk** that can be mitigated in the **specific category**.
- Cases where drone operations fall in this category include:
 - Operations **over assemblies of people** with drones > 3m (charact. dimension)
 - Operations with **drones carrying people**
 - Operations with **drones carrying dangerous goods** if, in case of accident, there is **high risk to third parties**.



EU concept for the regulation of drone OPS

→ CERTIFIED Category

- Mitigation measures similar to those required in manned aviation → equivalent concept and processes to manned aviation.
- Assurance through:
 - Certification of UAS operators
 - Certification of drones (UAS) and with approved equipment for the airspace where the intended operations take place.
 - Licensed ‘remote crew’

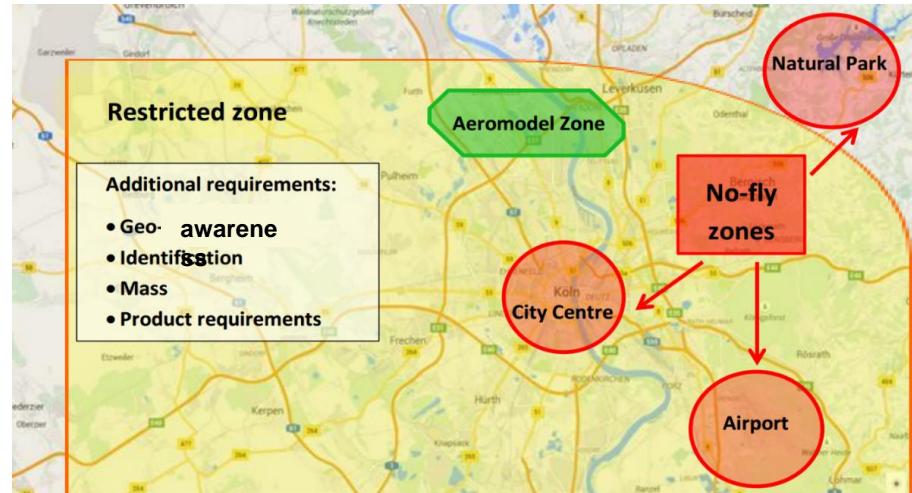
EU concept for the regulation of drone OPS

→ UAS geographical zones and geo-awareness: Flexibility for MS and support to UAS operations compliance

→ Member States may define 'UAS geographical zones' to:

- Forbid, require certain conditions or authorisation
- Require compliance with environmental requirements
- Allow access to only some classes of drones
- Allow access only to drones with certain characteristics or functions (e.g. remote ID, geo-awareness...)

→ Geo-awareness system in the UAS → facilitates remote pilot compliance with the UAS geographical zones



EU concept for the regulation of drone OPS

→ Tools for enforcement

→ Registration → 'real time' & interoperable registries (data bases)

for:

→ Drone operators:

→ In the 'open' category:

→ drones with MTOM > 250 g

→ drones (not toys) with MTOM < 250g quipped with sensor able to capture personal data

→ drones that can transfer > 80J to human body at impact

→ In the 'specific' category: all drone operators

→ Drones with certificate of airworthiness

→ Drone (>250 g) marked and identified with UAS operator registration number



EU concept for the regulation of drone OPS

→ Tools for enforcement

→ Remote identification

- UAS operator registration number and drone unique serial number
- Remote pilot or drone take-off position
- Drone current position, height, timestamp
- Direction and speed of the drone

Direct remote identification



Network remote identification

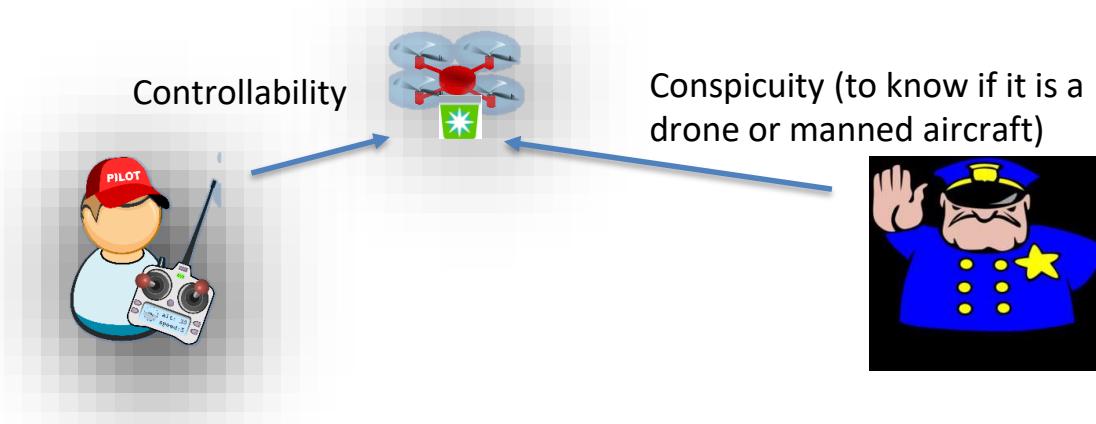


Remote identification		
	Direct	Network
Open category and STS	Mandatory	Optional
Specific category under authorisation	Optional	Optional However the UAS must have one of the 2

EU concept for the regulation of drone OPS

→ Tools for enforcement

- Conspicuity: Green flashing light to be used for night operations for drones covered by CE class mark

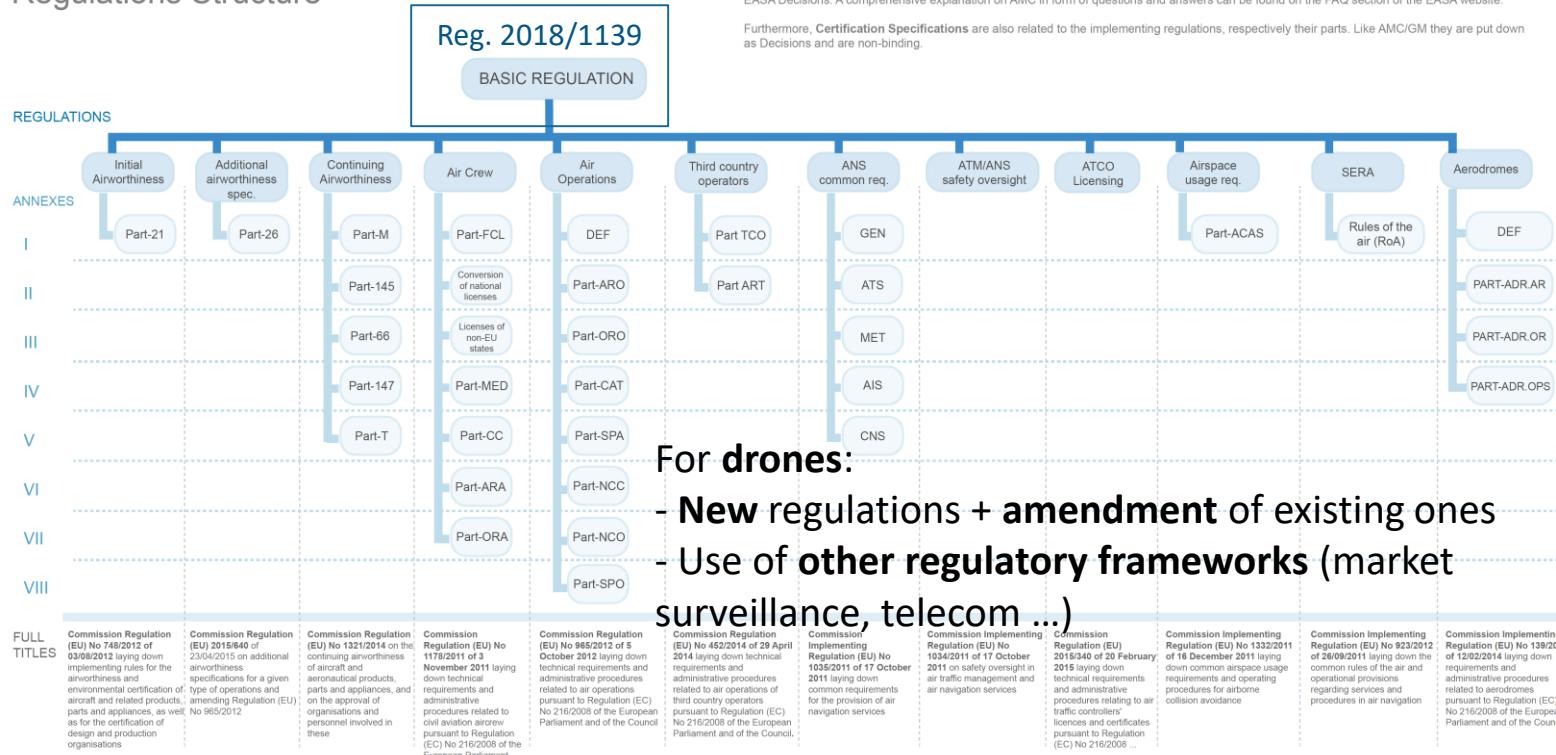


Regulatory Framework and related activities

→ EU regulatory framework for aviation

Regulations Structure

2018



Regulatory Framework and related activities

→ Basic Regulation: Reg. (EU) 2018/1139

- Entered into force on 11 September 2018
- Covers all unmanned aircraft for non-State operations regardless of the operating mass, except:
 - Tethered aircraft with MTOM < 1 Kg
- Covers remotely piloted aircraft, autonomous aircraft and optionally piloted (OPV) → all UAS*
- Requires the registration of UAS operators in case:
 - the drone impact against a person can transmit to his/her body more than 80 J of kinetic energy;
 - the drone may pose a risk for privacy, data protection, security or environment;
 - the drone design is subject to certification, in which case, also the drone has to be registered.



* Drone → colloquial term to refer to unmanned aircraft

22.8.2018 EN Official Journal of the European Union L 212/1

I
(Legislative act)

REGULATIONS

REGULATION (EU) 2018/1139 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 4 July 2018

on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EC) No 3922/91

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 100(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee (¹),

Having regard to the opinion of the Committee of the Regions (²),

Acting in accordance with the ordinary legislative procedure (³),

Whereas:

(1) A high and uniform level of civil aviation safety should be ensured at all times by the adoption of common safety rules and by measures ensuring that any goods, persons and organisations involved in civil aviation activity in the Union comply with such rules.

(2) In addition, a high and uniform level of environmental protection should be ensured at all times by measures ensuring that any goods, persons and organisations involved in civil aviation activity in the Union comply with relevant Union law and with international standards and recommended practices.

(3) In addition, third-country aircraft that are operated into, within or out of the territory where the relevant provisions of the Treaty on the Functioning of the European Union (TFEU) and the Treaty on the Functioning of the European Union (TFEU) (the Treaties) apply should be subject to appropriate oversight at Union level within the limits set by the Convention on International Civil Aviation, signed in Chicago on 7 December 1944 (the Chicago Convention), to which all Member States are parties.

(4) It would not be appropriate to subject all aircraft to common rules. In particular, in light of their limited risk to civil aviation safety, aircraft that are of simple design or operate mainly on a local basis, and those which are

(¹) OJ L 75, 10.3.2017, p. 111.
(²) OJ L 88, 21.3.2017, p. 49.
(³) Position of the European Parliament of 12 June 2018 (not yet published in the Official Journal) and decision of the Council of 26 June 2018.

Regulatory Framework and related activities

→ Basic Regulation: Reg. (EU) 2018/1139

- EASA competences → same as for manned aviation:
 - Certifications and declarations related to design
 - Third-country organisations
 - Authorisation of third country operators (TCOs)
- Annex IX on 'essential requirements for unmanned aircraft', including:
 - Design, production, maintenance and operation
 - Environmental protection
 - Registration and marking of unmanned aircraft and registration of UAS operators

22.8.2018 EN Official Journal of the European Union L 212/1

I
(Legislative act)

REGULATIONS

REGULATION (EU) 2018/1139 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
of 4 July 2018
on common rules in the field of civil aviation and establishing a European Union Aviation Safety Agency, and amending Regulations (EC) No 2111/2005, (EC) No 1008/2008, (EU) No 996/2010, (EU) No 376/2014 and Directives 2014/30/EU and 2014/53/EU of the European Parliament and of the Council, and repealing Regulations (EC) No 552/2004 and (EC) No 216/2008 of the European Parliament and of the Council and Council Regulation (EC) No 3922/91
(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 100(2) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee (¹),

Having regard to the opinion of the Committee of the Regions (²),

Acting in accordance with the ordinary legislative procedure (³),

Whereas:

(1) A high and uniform level of civil aviation safety should be ensured at all times by the adoption of common safety rules and by measures ensuring that any goods, persons and organisations involved in civil aviation activity in the Union comply with such rules.

(2) In addition, a high and uniform level of environmental protection should be ensured at all times by measures ensuring that any goods, persons and organisations involved in civil aviation activity in the Union comply with relevant Union law and with international standards and recommended practices.

(3) In addition, third-country aircraft that are operated into, within or out of the territory where the relevant provisions of the Treaty on the Functioning of the European Union (TFEU) and the Treaty on the Functioning of the European Union (TFEU) (the Treaties) apply should be subject to appropriate oversight at Union level within the limits set by the Convention on International Civil Aviation, signed in Chicago on 7 December 1944 (the Chicago Convention), to which all Member States are parties.

(4) It would not be appropriate to subject all aircraft to common rules. In particular, in light of their limited risk to civil aviation safety, aircraft that are of simple design or operate mainly on a local basis, and those which are

(1) OJ L 75, 10.3.2017, p. 111.
(2) OJ C 88, 21.3.2017, p. 69.
(3) Position of the European Parliament of 12 June 2018 (not yet published in the Official Journal) and decision of the Council of 26 June 2018.

Regulatory Framework and related activities

- EASA and the development of the regulatory framework for UAS operations
 - EASA rulemaking tasks to develop the regulatory framework for UAS operations are:
 - RMT.0230 (ToR: <https://www.easa.europa.eu/document-library/terms-of-reference-and-group-compositions/tor-rmt0230>):
 - Develop the **EASA Opinions** containing the **draft regulations** for the 3 categories of OPS
 - Develop the **acceptable means of compliance & guidance material** (AMC & GM)
 - Develop the **certification specifications** (CS)
 - RMT.0729 (ToR: <https://www.easa.europa.eu/document-library/terms-of-reference-and-group-compositions/tor-rmt0729>):
 - **Update of regulations** of UAS operations in the '**open**' and '**specific**' categories
 - RMT.0730 (ToR: <https://www.easa.europa.eu/document-library/terms-of-reference-and-group-compositions/tor-rmt0730>):
 - **Update of the AMC&GM** to the regulation of UAS operations in the '**open**' and '**specific**' categories

Regulatory Framework and related activities

- Regulation of UAS operations in the ‘open’ and ‘specific’ categories
 - Civil drone operations taking place in MS will fall in the ‘open’ and ‘specific’ categories → more urgent need to be regulated at EU level ...
 - ... and also the categories that present more challenges (new actors and products, not ‘traditionally’ in the aviation system) → more intensive and extensive consultation process



Regulatory Framework and related activities

- Regulation of UAS operations in the ‘open’ and ‘specific’ categories
 - Commission Implementing Regulation (EU) 2019/947

- UAS operations (OPS, UAS operators, remote pilots, competent authorities...)

- Cover regulation – Articles
 - Annex UAS – Subpart A: Open category
 - Annex UAS – Subpart B: Specific category
 - Annex UAS – Subpart C: LUC

- Registration
 - Reg. (EU) 2020/639 → amendment to include 2 first STSs (STS-01, STS-02)



Consolidated version:
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02019R0947-20200606&qid=1592645580567&from=en>

Regulatory Framework and related activities

- Regulation of UAS operations in the ‘open’ and ‘specific’ categories
- Commission Delegated Regulation (EU) 2019/945

→ UAS intended to be operated in the ‘open’ category and remote identification add-ons

→ UAS operated in the ‘specific’ and ‘certified’ categories

→ Third-country UAS operators

→ Reg. (EU) 2020/1058 → amendment to include 2 UAS classes for STSs (C5 and C6)



<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019R0945>



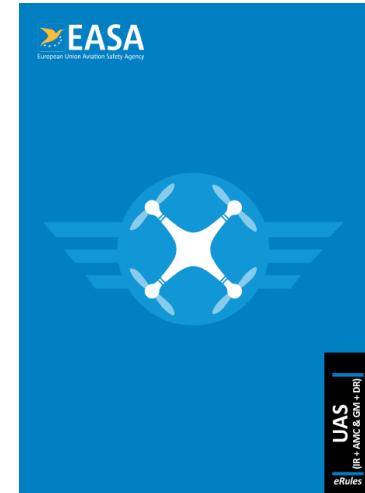
<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020R1058>

Regulatory Framework and related activities

- Regulation of UAS operations in the ‘open’ and ‘specific’ categories
- AMC & GM to Reg. (EU) 2019/947

(<https://www.easa.europa.eu/document-library/agency-decisions/ed-decision-2019021r>)

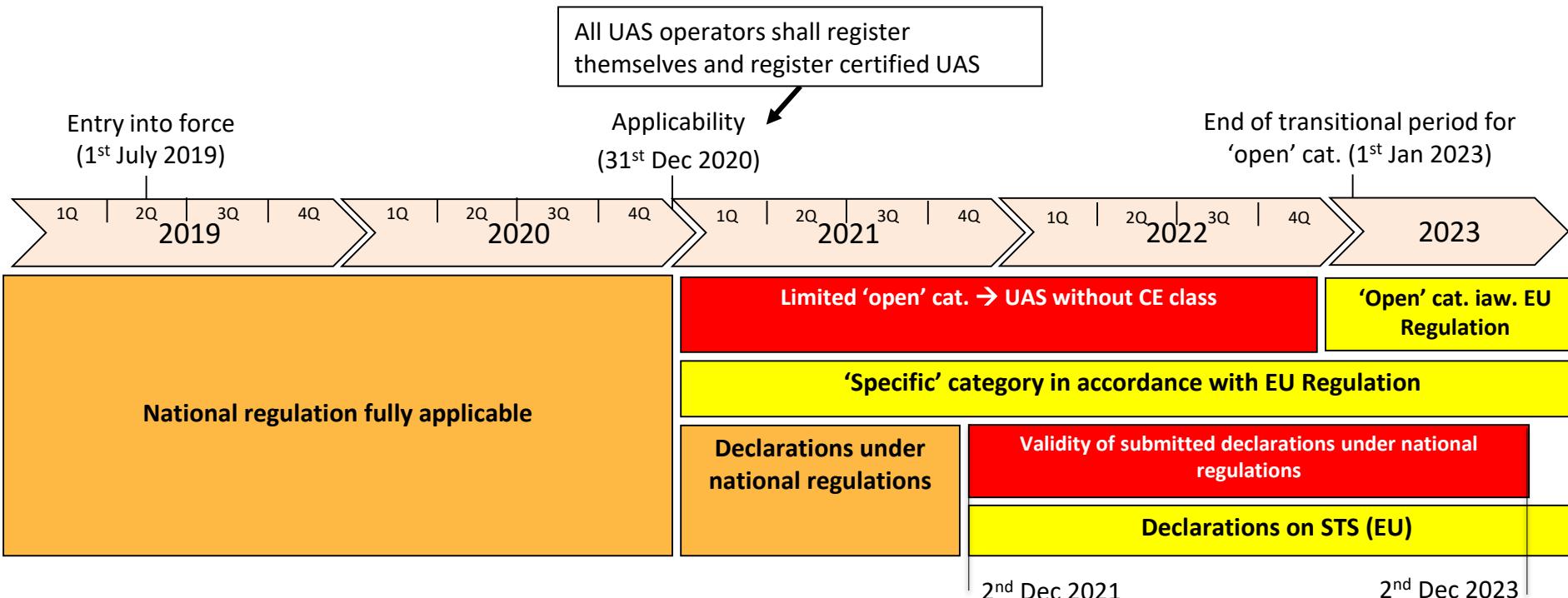
- Includes a number of AMC & GM for several articles and requirements in Reg. 2019/947.
- Among them: AMCs to art. 11 (risk assessment) including SORA and PDRAs
- Easy Access Rules for Drones
 - It bundles conveniently the UAS regulations and the AMC & GM to Reg. 2019/947 (including hyperlinks)



<https://www.easa.europa.eu/document-library/easy-access-rules/easy-access-rules-unmanned-aircraft-systems-regulation-eu>

Regulatory Framework and related activities

→ Regulatory timeline – Open and specific categories

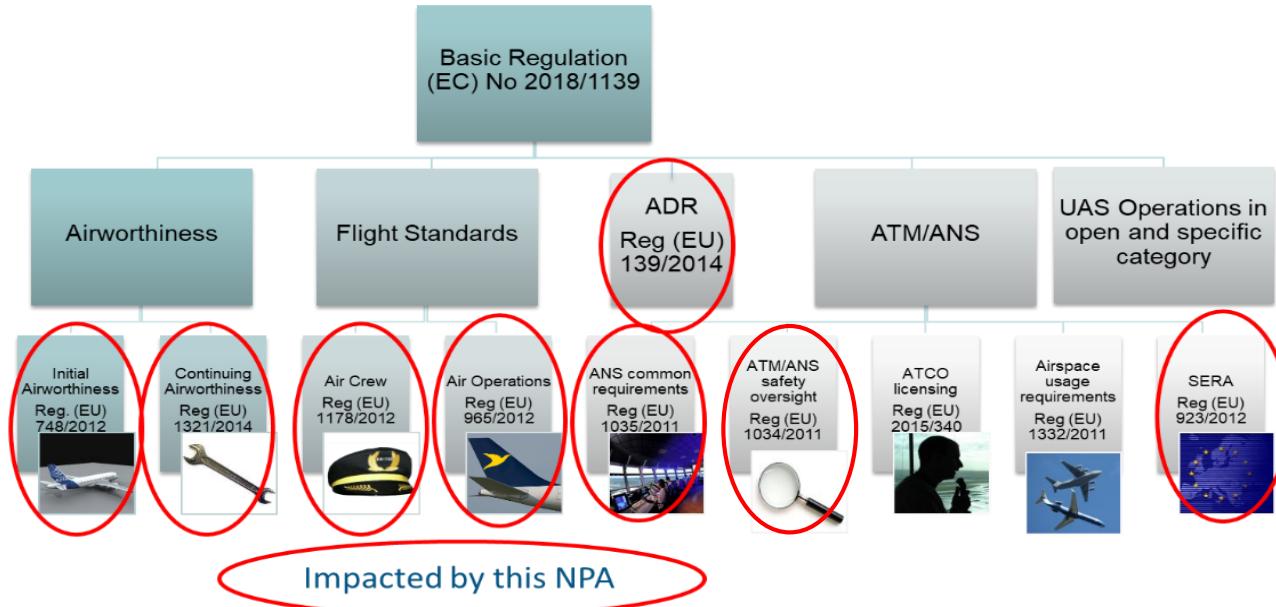


Regulatory Framework and related activities

- Regulation of UAS operations in the ‘certified’ category
 - EASA is developing a ‘Concept Paper’ in close cooperation with the affected stakeholders from the industry and with the competent authorities of EASA MSs.
 - The main elements of this paper are:
 - Introduction of 3 types of operations:
 - Type #1 – international IFR cargo in A-C airspace classes operating from aerodromes under EASA’s scope
 - Type #2 – UAS operations in congested environment in U-space airspace, including VTOL UAS carrying cargo or passengers
 - Type #3 – same as type #2 but with manned VTOL
 - Identifying the criteria and the assumptions for the amendment of the applicable regulations in all affected domains (IAW, CAW, OPS, FCL, ATM, SERA, ADR)

Regulatory Framework and related activities

- Regulation of UAS operations in the ‘certified’ category
 - EASA plans an NPA for Q2 2021 covering the elements defined in the ‘Concept paper’.
 - Regulations affected by this NPA are:



Regulatory Framework and related activities

→ Certified UAS

- UAS certification not only in the ‘certified’ category but it can also be expected in the ‘specific’ category for:
 - ‘high-risk’ OPS → process and level of requirements as in the ‘certified’ category
 - ‘medium-risk’ OPS → ‘lighter’ than in the ‘certified’ category and if required by the operational authorisation.
 - EASA published a draft **Special Condition for Light UAS**:
 - Interim, until CS-UAS and CS-Light UAS are developed
 - Scope:
 - Not intended to transport humans
 - Operated with intervention of the remote pilot or autonomous
 - With MTOM up to 600 Kg
 - Operated in the specific category of operations, medium and high risk, or in the certified category of operations



<https://www.easa.europa.eu/document-library/product-certification-consultations/proposed-special-conditions>

Regulatory Framework and related activities

→ Certified UAS

- For some years now, several UAS certification projects at EASA, following:
 - Current Reg. (EU) 748/2012 (Part 21) → (R)TC process
 - E.Y013-01 – *Policy Statement Airworthiness Certification of UAS* (2009)
 - Current Certification Specifications (CS)
 - Special Conditions addressing UAS-specific aspects:
 - SC-RPAS.RPS-01 Remote Pilot Station
 - SC-RPAS.FC Flight Control System
 - SC-RPAS.ANC-01 RPAS Ancillary elements
 - SC-RPAS.ERC.01 RPAS Emergency Recovery Capability
 - SC-RPAS.CNS.01 Communication, Navigation and Surveillance
 - SC-RPAS.HF.01 Human Factors
 - SC-RPAS.C2.01 Command and Control
 - SC-RPAS.101.01 Electronic Equipment Fault Detection and Isolation
 - SC-RPAS.1309.01 Equipment Systems and Installation



[https://www.easa.europa.eu/
sites/default/files/dfu/E.Y013-01 %20UAS %20Policy.pdf](https://www.easa.europa.eu/sites/default/files/dfu/E.Y013-01 %20UAS %20Policy.pdf)

Regulatory Framework and related activities

→ Regulation of U-space

- U-space is the European equivalent to UTM.
- U-space establishes a set of services in volumes of airspace (which are UAS geographical zones)
- EASA published in March 2020 the **Opinion 01-2020** on *"High-level regulatory framework for the U-space"*
- European Commission prepared a draft implementing reg.
- Draft implementing reg. discussed at EASA Committee.
- Draft implementing reg. to be submitted to vote in Feb. 2021.
- Implementing reg. planned to be published by Q4/2021.
- Implementing reg. to be applicable 2 years after publication.



Opinion 01/2020
High-level regulatory framework for the U-space
13 Mar 2020
OFFICIAL PUBLICATION | PENDING

The objective of this Opinion is to create and harmonise the necessary conditions for manned and unmanned aircraft to operate safely in the U-space airspace, to prevent collisions between aircraft and to mitigate the air and ground risks. Therefore, the U-space regulatory framework, supported by clear and simple rules, should permit safe aircraft operations in all areas and for all types of unmanned operations.

This Opinion proposes an effective and enforceable regulatory framework to support and enable operational, technical and business developments, and provide fair access to all airspace users, so that the market can drive the delivery of the U-space services to cater for airspace users' needs.

This Opinion is, therefore, a first regulatory step to allow immediate implementation of the U-space after the entry into force of the Regulation and to let the unmanned aircraft systems and U-space technologies evolve.

<https://www.easa.europa.eu/documents/library/opinions/opinion-012020>

Regulatory Framework and related activities

→ Regulation of U-space

- First set of requirements that will launch the U-space;
- Minimum list of necessary U-space services;
- Mitigations means to manage traffic in U-space;
- Roles and Responsibilities of the U-space participants;
- Enabler for a competitive U-space services market
- Member States designate the U-space airspace(s)
- Segregation of traffic in the U-space airspace
- UAS operators contract services to U-space service providers
- Certification scheme for U-space service providers
- Manned aircraft to provide information to USSP in U-space airspace

EASA drone website

<https://www.easa.europa.eu/domains/civil-drones-rpas>

Documentation



The screenshot shows the EASA website's 'Domains' section for Civil drones (Unmanned aircraft). The sidebar lists categories such as Aerodromes, Air Operations, Air Traffic Management, Aircraft & products, Aircrew & Medical, and Civil drones (Unmanned aircraft). The main content area discusses the importance of safe and legal drone flying and provides links to regulatory framework timelines, background information, and National Aviation Authorities.

Videos and presentations



FaQ

The screenshot shows the EASA FAQ page for Drones (UAS). It features a 'POPULAR' section with links to 'Regulations on UAS (drone) explained', 'Registration requirements', and 'Training requirements'.





Thank you for your attention

www.eu-lac-app.org

www.easa.europa.eu

*This project is funded by the European Union and
implemented by the European Aviation Safety Agency*

easa.europa.eu/connect



Your safety is our mission.

An Agency of the European Union

