



BASIC CONCEPTS

DRONE PILOT COURSE

Terminology

UAS

Unmanned Aircraft
System formed by the
aeromodel + the
control station

RPAS

Remotely-
Piloted
Aircraft
System

Aeromodel

Small remotely-piloted
aircraft usually used for
recreational or
experimental flights

Drone

Word colloquially
used to refer
generally to all
unmanned aircraft



Terminology

DRONE PILOT

It is any person responsible for the safe conduct of the flight of a UAS through the use of its flight controls, either manually or, when the aircraft flies automatically, by supervising its flight (course, speed, height, environment ...), being able to intervene and change the flight parameters (heading, speed and/or height) at any time.

UAS OPERATOR

It is any person, physical or legal, who owns a UAS or rents it. One person can be both operator and pilot if that same person is the one flying the UAS. However, you can be a remote pilot without having to be an operator, for example if the pilot works for a company that offers UAS services.

Terminology

EASA



EASA is the European Union Aviation Safety Agency, whose main function is to unify common standards in all Member States to ensure the safety of civil aviation operations.

This standardization is achieved through the drafting of common rules applicable in all member states. For this reason, for the standardization in terms of UAS they have developed Regulations (EU) 2019/947 and (EU) 2019/945.

AESA



AESA is the state body that ensures compliance with civil aviation regulations in all aeronautical activity in Spain, promotes the development and application of aeronautical legislation in order to provide safety, quality and sustainability to the national civil aviation system.

In the event of non-compliance with civil aviation regulations in national territory, AESA is the one with the sanctioning power.

Delegated Regulation (UE) 2019/945

It establishes the requirements for the design and manufacture of UAS intended to be used in accordance with the conditions defined in the Implementing Regulation (EU) 2019/947. Definition of requirements for class C0, C1, C2, C3 and C4 UAS.

Defines the types of UAS whose design, production and maintenance are subject to certification.

It establishes rules relating to the marketing of UAS intended to be used in the "open" category (defined below), and remote identification accessories.

It establishes rules applicable to UAS operators from third countries (States not members of EASA), when they carry out operations with UAS within the airspace of the Single European Sky ("SES").

Implementing Regulation (UE) 2019/947

It sets out detailed provisions on the use of unmanned aircraft systems (UAS), as well as for personnel, including remote pilots, and organizations involved in UAS operations. This Regulation has been modified by:

- The Execution Regulation (EU) 2020/639, to, among other changes, introduce the requirements for operations in a "specific" category under a standard scenario (STS). In addition, it has also undergone modifications with regard to the postponement of the dates of application of certain measures:
- Execution Regulation (EU) 2020/746, regarding the postponement of the dates of application of certain measures due to the COVID-19 pandemic.
- The Execution Regulation (EU) 2021/1166, regarding the postponement of the date of application of the European standard scenarios (3/12/23), and the mandatory requirement of green night lights and the remote identification system (7/1/22).

All the modifications indicated above have been included in the consolidated text published on the website of the Official Journal of the European Union.

Terminology

Concentrations of people

Gatherings where people cannot avoid the impact of a free-falling UAS due to the density of people and the space in which they are gathered..

Situational awareness

It is the perception of oneself and their aircraft in relation to the dynamic environment of the flight, with the ability to predict what will happen based on the perception of the environment (knowing and understanding what is happening at all times in order to manage risks).

Critical infrastructure

They are the strategic infrastructures that provide essential services and whose operation is essential, so their disturbance or destruction would have a serious impact on these services (health, electricity, water, transport, etc.).

Checklist

Checklist consisting of a document indicating a set of preparatory tasks to be carried out normally before starting an operation.

Terminology

Dangerous goods

Any item or substance carried by the aircraft that could pose a danger to health, safety, property or the environment in the event of an incident or accident.

VLOS (Visual Line of Sight)

Those operations with UAS in which the remote pilot can maintain continuous visual contact with the aircraft without the aid of instruments, and can control the trajectory of the aircraft in order to avoid collisions with other aircraft, people and obstacles.

BVLOS (Beyond Visual Line of Sight)

Those operations with UAS that are not carried out within the visual range of the remote pilot.

Unmanned aircraft observer

A person standing next to the remote pilot who, by visual observation of the unmanned aircraft without the aid of instruments, assists the remote pilot in maintaining the unmanned aircraft in VLOS mode and in safely conducting the flight.

Terminology

Airspace observer

A person who assists the remote pilot by visual observation, without the aid of instruments, of the airspace in which the unmanned aircraft is being used to detect potential hazards in the air.

Non-participating person

Person who does not participate in the operation of the UAS or who is not aware of the instructions and safety precautions given by the operator.

Performance

Set of capabilities offered by the UAS in accordance with the main objective for which it has been designed.

Follow me mode

Mode of operation of a UAS in which the unmanned aircraft constantly follows the remote pilot within a predetermined radius.

Terminology

Geoawareness system

A function that, based on data provided by Member States, detects a potential violation of airspace limitations and alerts remote pilots so that they can take immediate and effective action to prevent such violation.

Direct remote identification system

System that ensures the local issuance of information on unmanned aircraft in operation, including the marking of these aircraft, so that this information can be obtained without physically accessing the aircraft.

UAS geographic area

Part of the airspace established by the competent authority that facilitates, restricts or excludes UAS operations in order to manage risks to safety, security, privacy, protection of personal data or the environment.

Terminology

Urban area

"Urban environments" are considered those that are confined to any of the following areas:

- a. Population centers with areas consolidated by construction;
- b. Residential, commercial or industrial areas whose lands have, cumulatively, at least, road access, paved public roads for pedestrian access, water evacuation and public lighting; and
- c. Recreational areas, which are publicly accessible and where there are constructions or facilities, permanent or temporary for leisure, recreation or sports, among which, in any case, are parks or gardens under the jurisdiction of local entities and beaches that meet both requirements.



Thanks for your attention

DRONE PILOT COURSE