



OPERATION CATEGORIES

DRONE PILOT COURSE

OPERATION CATEGORIES



OPEN

Low risk
No need of
authorization nor
declaration



SPECIFIC

Higher risk
Need to declare the
Standard Scenarios
(STS) or authorization



CERTIFIED

High risk
Similar regulations to
manned aviation

OPEN CATEGORY

Operations in the “open” category will not be subject to any prior authorization or operational declaration from the UAS operator.

UAS operations in category “open” are divided into three subcategories A1, A2 and A3. For each of the subcategories, the UAS that can be used, the training required for pilots and the particular flight conditions are defined.

However, certain general flight conditions are applicable for the three flight subcategories within the “open” category. These conditions are as follows:

1. The remote pilot will always fly in VLOS mode (with the aircraft within visual range), except when flying in follow me mode or using an unmanned aircraft observer, in which case he may use first-person vision devices («FPV», for its acronym in English of «First Person View»).

OPEN CATEGORY

- Flight at a height greater than 120 m from the closest point on the surface is not allowed. If an unmanned aircraft is flying within 50m, measured horizontally, of an artificial obstacle higher than 105m in height, the maximum height of the UAS operation may be increased up to 15m above the height of the obstacle upon request of the entity responsible for the obstacle.

The height of 120m above the ground (with one exception) should not be exceeded as the lower limit for general aviation is 150m, therefore there is only 30m separation between manned aviation and UAS. To avoid situations of conflict with other aircraft, manned or unmanned, as a general rule, never exceed 120 m in height.

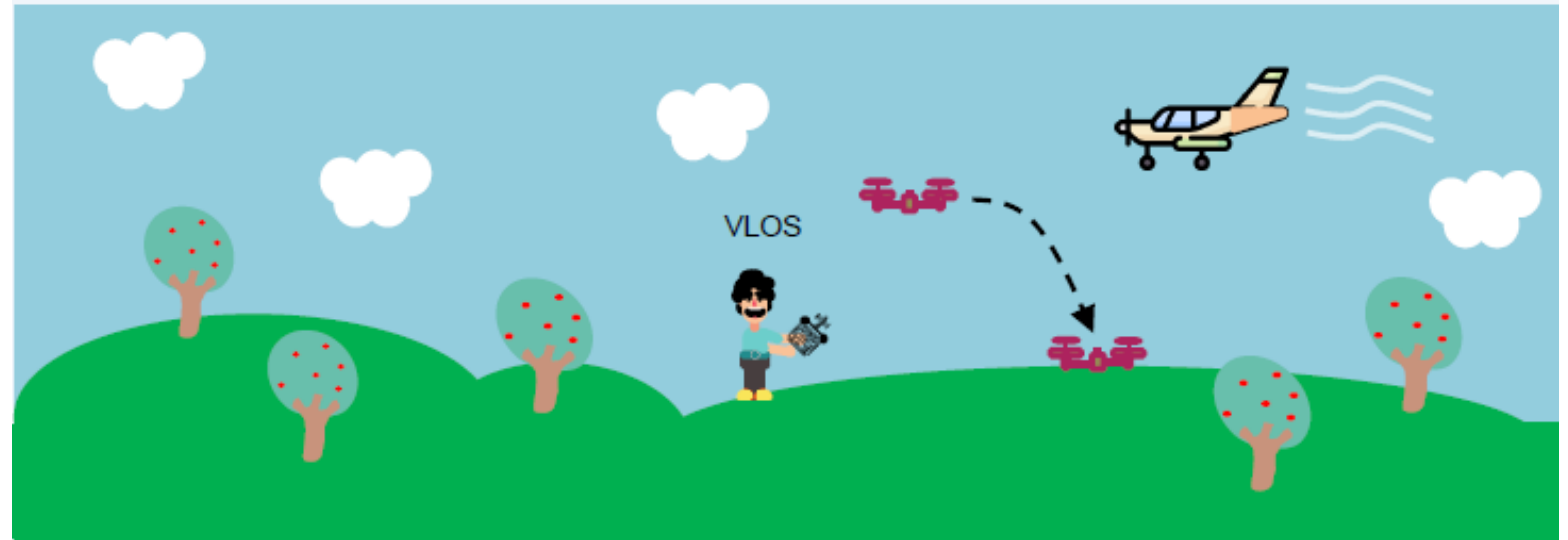
This maximum height may be less than 120 m if the UAS geographic area defined by the authority (AESA) so indicates in the flight area.



OPEN CATEGORY

3. In the event of a conflict or encounter with a manned aircraft, the remote pilot must reduce flight height, perform evasive maneuvers in the event of a possible collision with the manned aircraft, and land as soon as possible.

In any case, the remote pilot must always interrupt the flight with UAS when its continuation could pose a risk to the manned aircraft.

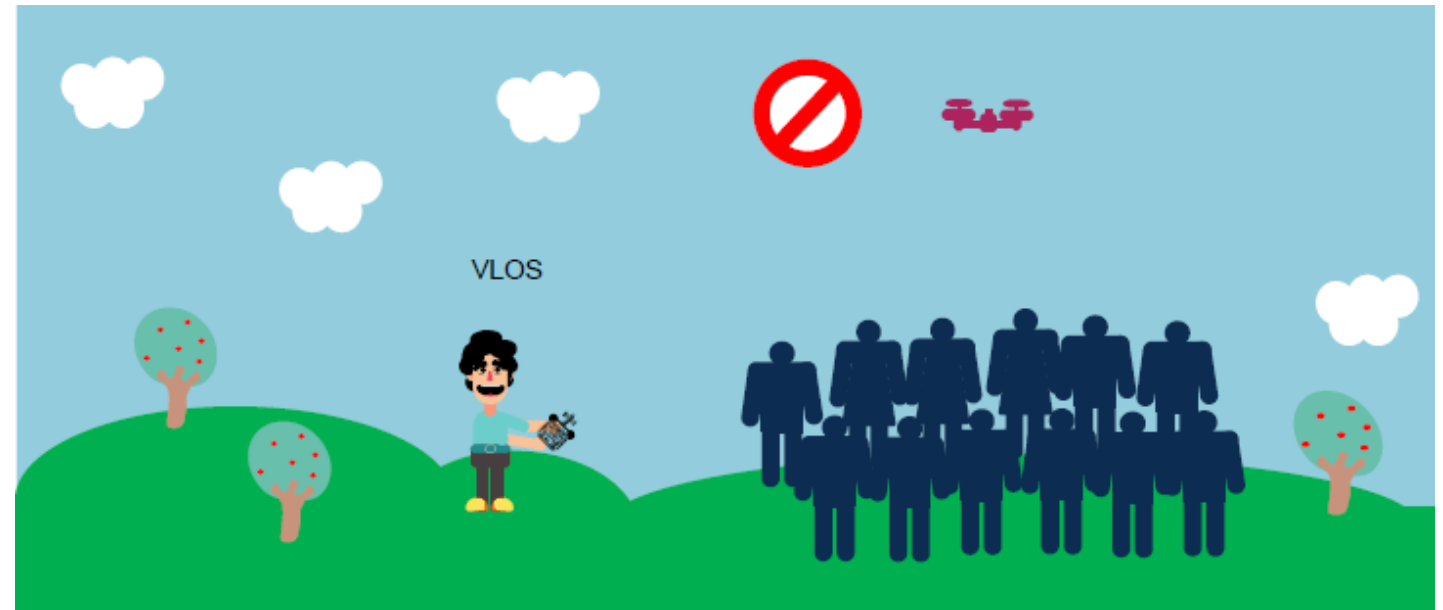


OPEN CATEGORY

4. Overflight of concentrations of people is not allowed and a safe distance must be maintained with people not participating in the operation.

This “safe distance” will depend on the subcategory of the operation. As a general rule, the heavier the unmanned aircraft, the farther it should be flown from non-participants to make the operation safer:

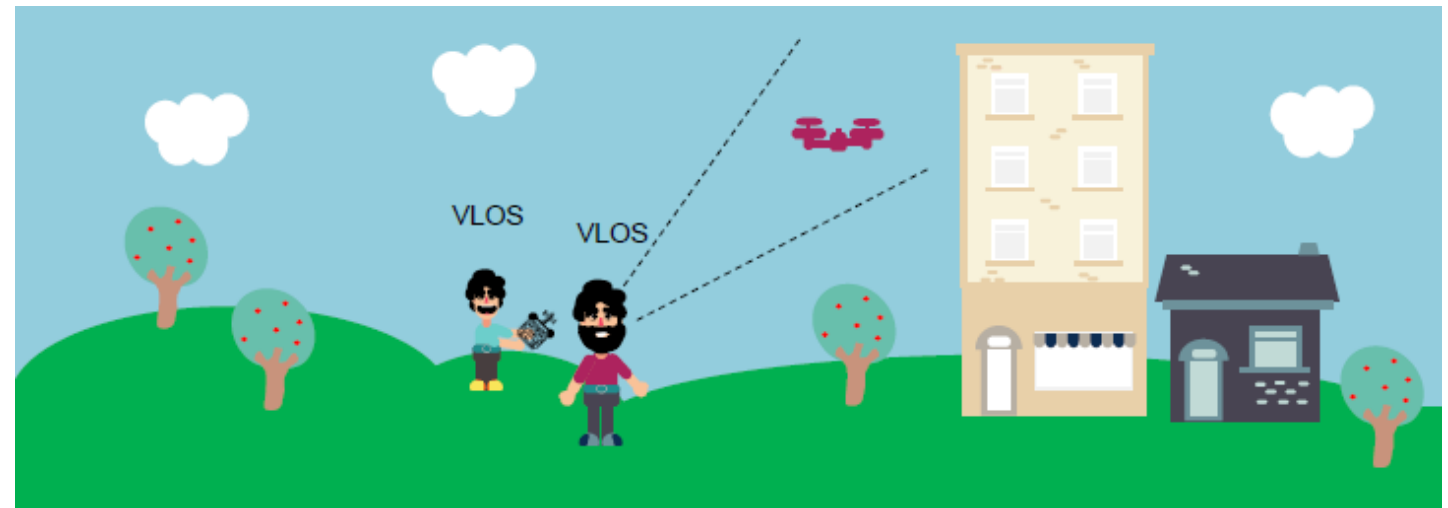
(↑Weight → ↑Distance → ↑Safe)



OPEN CATEGORY

5. The pilot can be helped by an observer from the unmanned aircraft if he deems it appropriate. In no case is the objective of the observer to extend the flight range of the UAS beyond the visual range of the remote pilot. The observer will stand next to the pilot and will support him in circumstances such as:
- Help the pilot to maintain the distance to obstacles and warn him in case it is reduced.
 - Help the pilot maintain situational awareness and warn of potential hazards.

In any case, the remote pilot is always ultimately responsible for maintaining the safety of the UAS operation.



OPEN CATEGORY

6. It is prohibited to transport dangerous goods with the UAS or to drop or project any material or object.



OPEN CATEGORY – Subcategory A1

PARTICULAR CONDITIONS

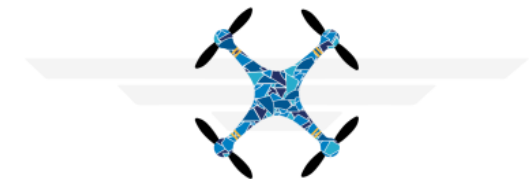
In addition to the general conditions described for the "open" category, in subcategory A1 the following condition must be met:

- Flight over non-participants is allowed, without infringing the privacy and data protection of these people, except for operations with class C1 UAS with which it will not be possible to fly over non-participants. Note: The flight ban on concentrations of people is maintained

PILOT REQUIREMENTS

Remote pilots who want to fly in the A1 subcategory of the "open" category must:

- Be familiar with the instructions provided by the manufacturer of the UAS.
- Complete the online training course A1/A3 and pass the subsequent online exam to obtain the "Proof of completion of the online training", to operate with class C1 UAS, or with MTOM > 500 g UAS without class identification tag (from 1/1/2023 with MTOM > 250 g UAS).



Prueba de superación de la formación en línea

PROOF OF COMPLETION OF THE ONLINE TRAINING

Nombre (First name)
Nombre del piloto
Número de identificación (Identification number)
NNN-RP-123456789ABC

Apellidos (Last name)
Apellidos del piloto
Fecha de caducidad (Expiration date)
dd.mm.aaaa



OPEN CATEGORY – Subcategory A1

UAS

Flights in subcategory A1 of the "open" category may be carried out with UASs without a class identification label, which meet any of the following conditions:

- Be of private construction, with a maximum take-off mass (MTOM) of less than 250 g and a maximum speed of less than 19 m/s;
- Have a MTOM of less than 250 g, without a class identification label and placed on the market before January 1, 2023;

OPEN CATEGORY – Subcategory A1

UAS

Flights in subcategory A1 of the "open" category may be carried out with UASs that comply with:

- Have a class C0 identification label, which implies meeting the following requirements:

DO	DO NOT
 Make sure you are adequately insured	 Do not make changes to the drone, unless approved by the manufacturer
 Check your drone before each flight	 Do not fly higher than 120 m from the ground ¹
 Before each flight, check the limitations of the area where you want to operate, as defined by the National Authority of that country, and respect them	 Do not fly near manned aircraft
 Keep the drone in sight at all times	 Do not fly in the proximity of airports, helipads, areas affecting public safety or where an emergency response effort is ongoing
 Maintain a safe distance between the drone and people, animals and other aircraft	 Do not fly over sensitive or protected sites (prisons, military bases, power plants, etc.)
 Operate your drone within the performance limitations defined in the instructions provided by the manufacturer	 Do not fly over large groups of people
 Inform your national aviation authority immediately if your drone is involved in an accident that results in a serious or fatal injury to a person, or that affects a manned aircraft	 Do not take photographs, videos or sound recordings of people without their permission. Respect people's privacy

OPEN CATEGORY – Subcategory A1

UAS

Flights in subcategory A1 of the "open" category may be carried out with UASs that comply with:

- Have a class C1 identification label, which implies meeting the following requirements:

DO	DO NOT
 Make sure you are adequately insured	 Do not make changes to the drone, unless approved by the manufacturer
 Check your drone before each flight	 Do not fly higher than 120 m from the ground ¹
 Make sure the electronic identification and geo-awareness system of your drone is up-to-date	 Do not fly near manned aircraft
 Before each flight, check the limitations of the area where you want to operate, defined by the National Authority of that country, and respect them	 Do not fly in the proximity of airports, helipads, areas affecting public safety or where an emergency response effort is ongoing
 Familiarise yourself with the area where you want to operate your drone	 Do not fly over sensitive or protected sites (prisons, military bases, power plants, etc.)
 Check the weather conditions	 Do not use the drone to carry dangerous goods
 Keep the drone in sight at all times	 Do not fly over large groups of people
 Maintain a safe distance between the drone and people, animals and other aircraft	 When flying over other people's property, do not fly less than 20 m above the property without their permission
 Operate your drone within the performance limitations defined in the instructions provided by the manufacturer	 Do not take photographs, videos or sound recordings of people without their permission. Respect people's privacy
 Inform your national aviation authority immediately if your drone is involved in an accident that results in a serious or fatal injury to a person, or that affects a manned aircraft	

OPEN CATEGORY – Subcategory A2

PARTICULAR CONDITIONS

In addition to the general conditions described for the "open" category, in subcategory A2 the following condition must be met:

- Flight is permitted at a safe horizontal distance of at least 30 m from non-participants, which may be reduced to a minimum of 5 m when the low speed mode function is activated, and the height will be reduced in the same proportion as the safe horizontal distance to non-participants is reduced (1:1 rule)

Note: The flight ban on concentrations of people is maintained

PILOT REQUIREMENTS

- Be familiar with the instructions provided by the manufacturer of the UAS.
- Complete the A1/A3 online training course and pass the subsequent exam to obtain the “Proof of completion of the online training”.
- Complete a practical self-training in an isolated area, where non-participants are not put at risk and 150m away from residential, commercial, industrial or recreational areas (subcategory A3 operating conditions).
- Pass an additional theoretical knowledge test to obtain the “Remote Pilot Certificate of Competency” for subcategory A2.



OPEN CATEGORY – Subcategory A2

UAS

Flights in subcategory A2 of the "open" category may be carried out with UAS that have a class C2 identification label and must meet the following requirements:

DO	DO NOT
 Make sure you are adequately insured	 Do not make changes to the drone, unless approved by the manufacturer
 Check your drone before each flight	 Do not fly higher than 120 m from the ground ¹
 Plan your flight	 Do not fly near manned aircraft
 Make sure the electronic identification and geo-awareness system of your drone is up-to-date	 Do not fly in the proximity of airports, helipads, areas affecting public safety or where an emergency response effort is ongoing
 Before each flight, check the limitations of the area where you want to operate, defined by the National Authority of that country, and respect them	 Do not fly over sensitive or protected sites (prisons, military bases, power plants, etc.)
 Familiarise yourself with the area where you want to operate your drone	 Do not use the drone to carry dangerous goods
 Check the weather conditions	 When flying over other people's property, do not fly less than 20 m above the property without their permission
 Keep the drone in sight at all times	 Do not take photographs, videos or sound recordings of people without their permission. Respect people's privacy
 Maintain a safe distance between the drone and people, animals and other aircraft	
 When flying close to people, activate the low speed mode and keep a horizontal distance from them of at least the height of the drone (1:1 rule), but never less than 5m	
 Operate your drone within the performance limitations defined in the instructions provided by the manufacturer	

Disclaimer: This document is a working document and is provided for

OPEN CATEGORY – Subcategory A3

PARTICULAR CONDITIONS

In addition to the general conditions described for the "open" category, in subcategory A3 the following conditions must be met:

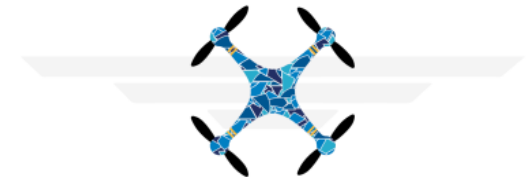
- Fly in areas where it is anticipated that no non-participating person will be endangered for the entire duration of the flight.
- Fly a minimum safe horizontal distance of 150 m from residential, commercial, industrial and recreational areas

Note: The flight ban on concentrations of people is maintained.

PILOT REQUIREMENTS

Remote pilots who want to fly in the A3 subcategory of the "open" category must meet the same requirements as for the A1 subcategory, that is:

- Be familiar with the instructions provided by the manufacturer of the UAS.
- Complete the online training course A1/A3 and pass the subsequent online exam to obtain the “Proof of completion of the online training”.



Prueba de superación de la formación en línea
PROOF OF COMPLETION OF THE ONLINE TRAINING

Nombre (First name)
Nombre del piloto
Número de identificación (Identification number)
NNN-RP-123456789ABC

Apellidos (Last name)
Apellidos del piloto
Fecha de caducidad (Expiration date)
dd.mm.aaaa



OPEN CATEGORY – Subcategory A3

UAS

Flights in subcategory A3 of the "open" category may be carried out with UAS that:

- Be of private construction, with a maximum take-off mass (MTOM) of less than 25 kg;
- Have a MTOM of less than 25 kg, without a class identification tag and placed on the market before January 1,
- Have a class C2 identification tag, which meets all the requirements previously defined for subcategory A2 aircraft;

OPEN CATEGORY – Subcategory A3

UAS

Flights in subcategory A3 of the "open" category may be carried out with UAS that have a class C3 identification label and must meet the following requirements:

DO	DO NOT
 Make sure you are adequately insured	 Do not make changes to the drone, unless approved by the manufacturer
 Check your drone before each flight	 Do not fly higher than 120 m from the ground ¹
 Make sure the electronic identification and geo-awareness system of your drone is up-to-date	 Do not fly near manned aircraft
 Before each flight, check the limitations of the area where you want to operate, defined by the National Authority of that country, and respect them	 Do not fly in the proximity of airports, helipads, areas affecting public safety or where an emergency response effort is ongoing
 Familiarise yourself with the area where you want to operate your drone	 Do not fly over sensitive or protected sites (prisons, military bases, power plants, etc.)
 Check the weather conditions	 Do not use the drone to carry dangerous goods
 Keep the drone in sight at all times	 When flying over other people's property, do not fly less than 20 m above the property without their permission
 Maintain a safe distance between the drone and people, animals and other aircraft	 Do not take photographs, videos or sound recordings of people without their permission. Respect people's privacy
 Operate your drone within the performance limitations defined in the instructions provided by the manufacturer	
 Inform your national aviation authority immediately if your drone is involved in an accident that results in a serious or fatal injury to a person, or that affects a manned aircraft	

OPEN CATEGORY – Subcategory A3

UAS

Flights in subcategory A3 of the "open" category may be carried out with UAS that have a class C4 identification label and must meet the following requirements:

DO	DO NOT
 Make sure you are adequately insured	 Do not fly higher than 120 m from the ground ¹
 Check your drone before each flight	 Do not fly near manned aircraft
 Make sure the electronic identification and geo-awareness system of your drone is up-to-date if mandated in the area where you want to operate	 Do not fly in the proximity of airports, helipads, areas affecting public safety or where an emergency response effort is ongoing
 Before each flight, check the limitations of the area where you want to operate, defined by the National Authority of that country, and respect them	 Do not fly over sensitive or protected sites (prisons, military bases, power plants, etc.)
 Familiarise yourself with the area where you want to operate your drone	 Do not use the drone to carry dangerous goods
 Check the weather conditions	 When flying over other people's property, do not fly less than 20 m above the property without their permission
 Keep the drone in sight at all times	 Do not take photographs, videos or sound recordings of people without their permission. Respect people's privacy
 Maintain a safe distance between the drone and people, animals and other aircraft	
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 Inform your national aviation authority immediately if your drone is involved in an accident that results in a serious or fatal injury to a person, or that affects a manned aircraft	

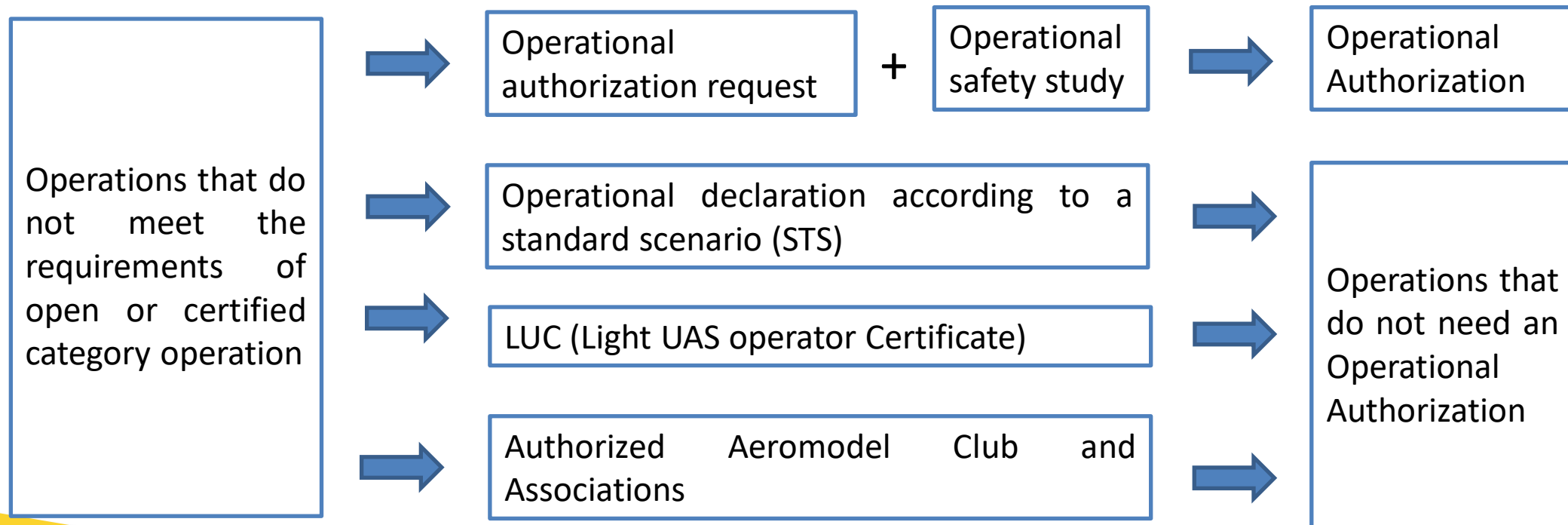
SPECIFIC CATEGORY

When the "open" or "certified" category requirements are not met, we would be within the "specific" category. Within this category there are the following options:

- An operational authorization will be requested from the authority of the Member State in which it is registered, including a risk assessment with mitigation measures.
 - Authorization may refer to:
 - One or several operations.
 - The approval of an LUC.
- If the operation conforms to a standard scenario, a responsible statement will be submitted through the UAS operator profile on the AESA website.

SPECIFIC CATEGORY

Operations in the "specific" category are those that do not meet the requirements of the open category and do not fall within the certified category. The possibilities of carrying out operations in this category are:



SPECIFIC CATEGORY

Remote pilots who want to operate in a "specific" category must have the following training, depending on each case:

Operational authorization request



Training is defined in the authorization granted

Operational declaration according to a standard scenario (STS)



- Pass the training and online exam A1/A3;
- Pass an additional exam of theoretical knowledge;
- Pass specific practical skills training for each STS.

LUC (Light UAS operator Certificate)



The training is defined in the authorization granted to the operator with LUC

Authorized Aeromodel Club and Associations



The minimum training level is defined in the authorization granted to the club

SPECIFIC CATEGORY – STANDARD SCENARIOS (STS)

Execution Regulation (EU) 2019/947 defines two standard scenarios in which certain requirements are indicated, some of which are not applicable today due to technical limitations.

For this reason, the European Commission gives the Member States the option to define national standard scenarios. These national standard scenarios will only be applicable in the territory of the State, may be presented by the operators until December 2, 2023 and will be valid until December 2, 2025.

In the case of Spain, two national standard scenarios STS-ES-01 and STS-ES-02 have been published with slight variations on the European standard scenarios.

National (Spanish) Standard Scenarios

STS-ES-01
STS-ES-02

European Standard Scenarios

STS-01
STS-02

PILOT AND OPERATOR AGES

OPERATORS MINIMUM AGE

The minimum age required of UAS operators who wish to register to fly in Spain is 18 years.

PILOTS MINIMUM AGE (in Spain)

The minimum age for remote pilots who want to carry out operations in the “specific” category or “open” category is 16 years.

However NO minimum age will be required for remote pilots when:

- Operate in subcategory A1 with class C0 UAS that is a toy;
- Operate privately built UAS with MTOM less than 250 g;
- Operate under the direct supervision of a remote pilot who is 16 years of age or older and has the appropriate skills according to the category of operation.

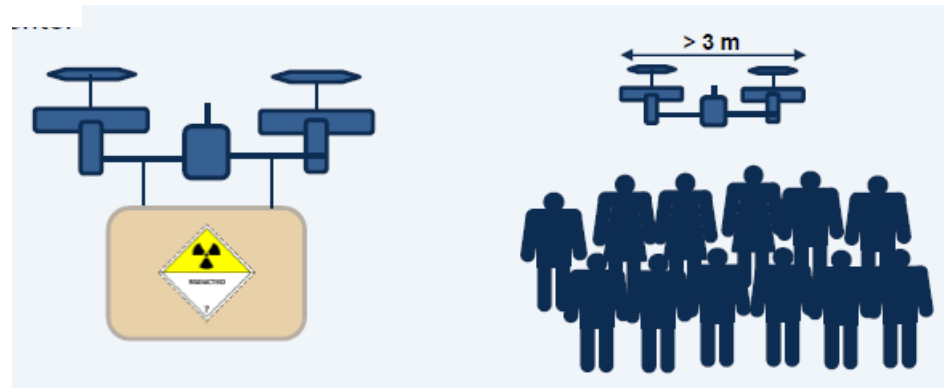
On the other hand, the Implementing Regulation allows the Member States, within their territory, to reduce the minimum age within established margins.

In the case of Spain, said age reduction will be included in the UAS Royal Decree, which has not yet been published. Until then the age limits are as indicated above.

CERTIFIED CATEGORY

The general requirements for operations in the “certified” category are defined in the Execution Regulation (EU) 2019/947 and are:

- Fly over concentrations of people with UAS of a dimension greater than 3 m.
- Transport people.
- Transportation of dangerous goods with high risk for third parties in the event of an accident.



It will also be a certified category, those operations in which, based on the necessary safety study, the risks of the operation cannot be mitigated without the certification of the UAS, the operator and require pilot licenses.

OPERATOR REGISTRATION

WHO HAS TO REGISTER AS OPERATOR?

A UAS operator must register whenever:

- Operate in the "open" category with any UAS that:
 - Has a MTOM greater than 250 g; or
 - Is equipped with a sensor capable of capturing personal data (cameras, microphones)
- Operate in a "specific" category, regardless of the UAS

HOW I CAN REGISTER AS OPERATOR

Through the AESA website, with the link:

https://sede.seguridadaerea.gob.es/SEDE_AESA/LANG_CASTELLANO/TRAMITACIONES/UAS/default.htm

The operator must provide all the information required during the registration process.

OPERATOR REGISTRATION

ADDITIONAL INFORMATION

- Can only be registered in an EASA Member State
- EASA will issue the operator a registration certificate indicating a unique registration number. Said number must be indicated on all UAS owned by the operator and kept private.
- The operator must register:
 - In the Member State where he resides, if he is a natural person; Or well,
 - In the Member State where it has its main place of business, if it is a legal entity



Registro de Operador UAS
UAS OPERATOR REGISTRATION

Nombre (First name)
Nombre del operador
Número de registro (Registration number)
ESP87astrdge12k8

Apellidos (Last name)
Apellidos del operador
Fecha de caducidad (Expiration date)
dd.mm.aaaa



OPERATOR RESPONSIBILITIES

The main responsibilities of a UAS operator to fly in the “open” category are:

- Prepare mitigation measures (or operational procedures) according to the risk (possible damage that the UAS may cause) and type of operation;
- Appoint a pilot for each operation, with control being non-transferable, and ensure that the pilot has adequate training;
- Update the UAS geo-awareness system when applicable depending on the place of operation (provided that the UAS has this function incorporated);
- For operations with UAS that have a class identification tag:
 - Have a declaration of conformity;
 - The UAS will have been marked with a UAS manufacturer class identification tag by the UAS manufacturer;
- For operations in A2 and A3 where there are people participating in the operation, ensure that these people have been informed of the risks and have explicitly agreed to participate.

PILOT RESPONSIBILITIES

The main responsibilities of a UAS pilot when conducting an “open” category operation are:

- The pilot must have the necessary training and carry proof during the flight;
- The remote pilot is fully responsible for the aviation safety of the flight;
- He will not fly under the influence of psychoactive substances or alcohol, or if he is not in adequate conditions to fly;
- He may not fly near or in areas where emergency operations are being carried out, unless expressly authorized by the responsible emergency service;
- It will not be possible to exceed the MTOM of the UAS, nor exceed the mass limit of the UAS class, nor modify the UAS against what is established by the manufacturer;
- The pilot must respect at all times the operational limits defined in the geographical area of the UAS of the planned place of operation.



Thanks for your attention

DRONE PILOT COURSE