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STS

DRONE PILOT COURSE

STANDARD SCENARIOS

- Standard scenarios are category-specific types of UAS operations defined by the competent authority

- They represent an advantage for the operator since AESA has carried out the security study and has defined the mitigations that the operator must apply

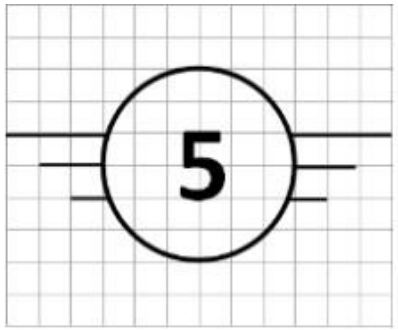
- The operator must ensure that it can comply with the requirements and mitigations defined before carrying out an operation under any STS

- There are currently two national STS:
  - STS-ES-01: VLOS operations over a controlled area on ground in a populated environment
  - STS-ES-02: BVLOS operations with airspace observers over a controlled area on ground in a sparsely populated environment

STS-ES-01

CHARACTERISTICS

- VLOS
- C5 UAS
- Flight over a populated area



REQUIREMENTS

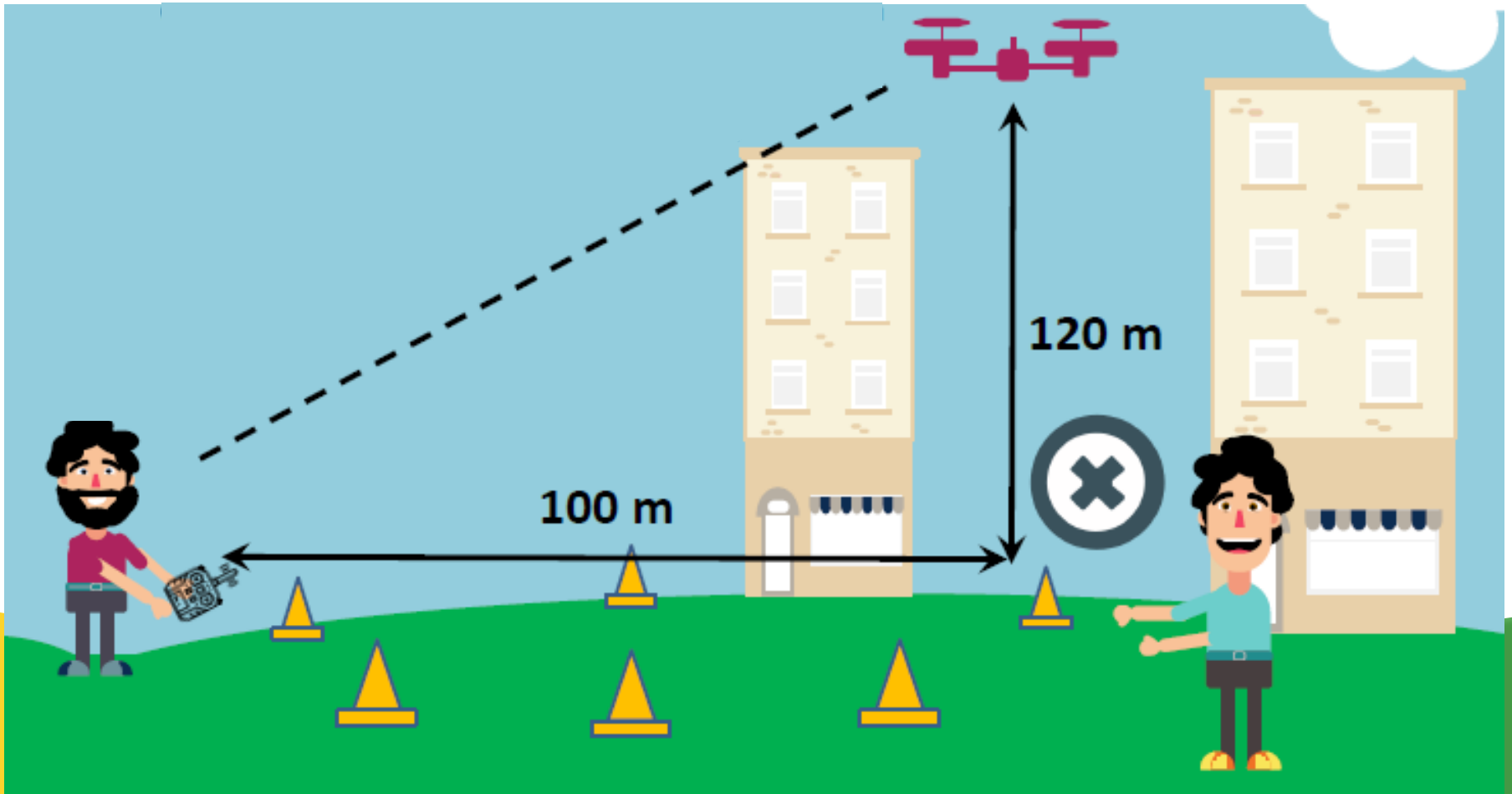
- Operator Registration
- STS-ES-01 Declaration
- Operator's Manual
- STS-01 Pilot license
- Coordination with Miniesterio del Interior
- Coordination with Air Traffic Service Porviders (ENAIRE, SAERCO, FERRONATS) if necessary
- EARO + FPL if necessary

GOBIERNO DE ESPAÑA
MINISTERIO DE DEFENSA

STS-ES-01

FLIGHT ZONE

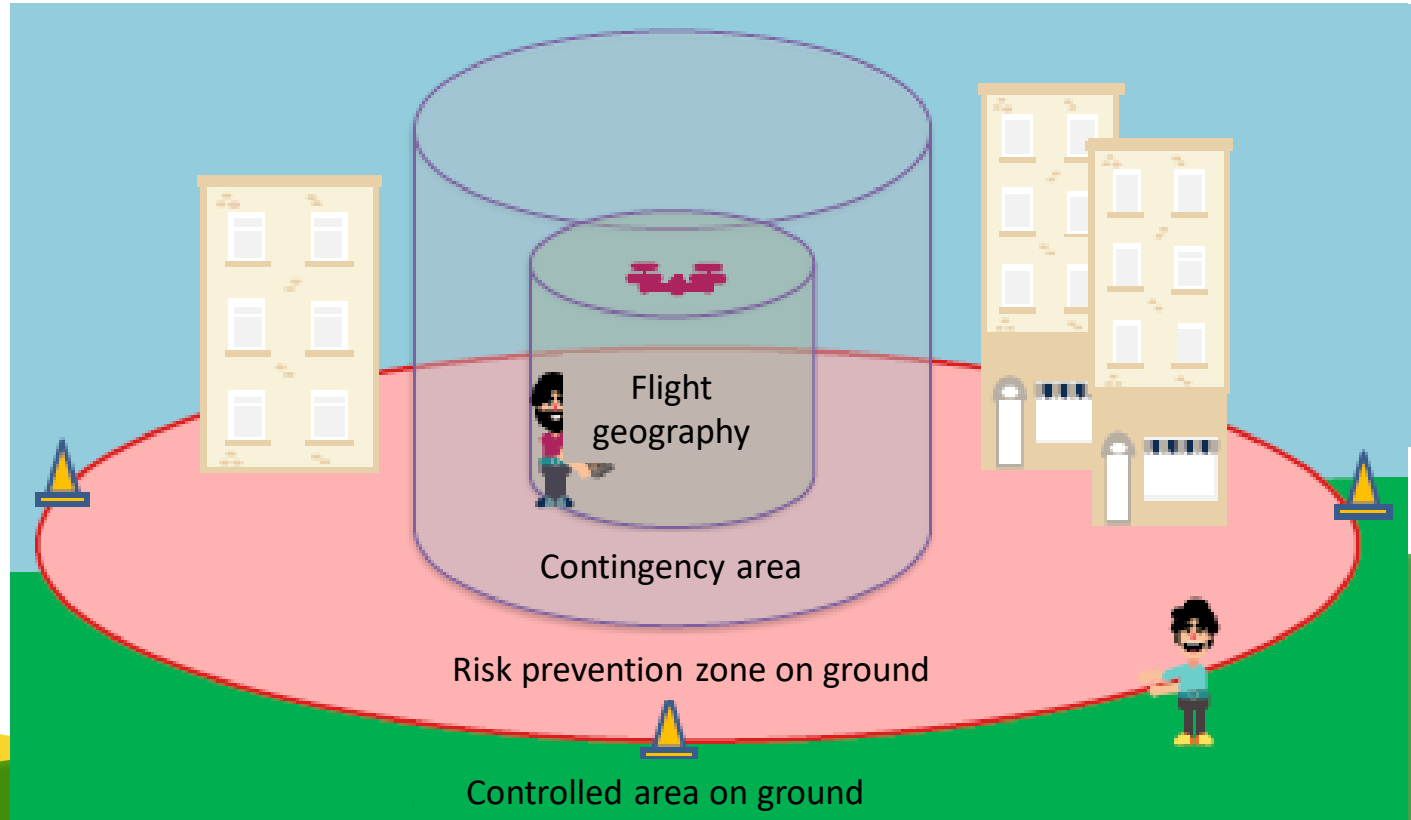
- As a general rule, do not fly more than 120 m high
- Do not take the UA more than 100 m away.
- The entire flight must be carried out in a controlled land area where outsiders cannot access



STS-ES-01

CONTROLLED AREA ON GROUND

- Area in which the UAS is used and in which the operator can guarantee that only the participating persons are present
- A non-participant is an individual who is not involved in the UAS operation or who is not aware of the instructions and safety precautions given by the operator.
- The UAS operator must define the limit of the controlled area on ground and supervise the access of the people
- The controlled area on land comprises:
  - Flight geography
  - Contingency area
  - risk prevention zone on ground

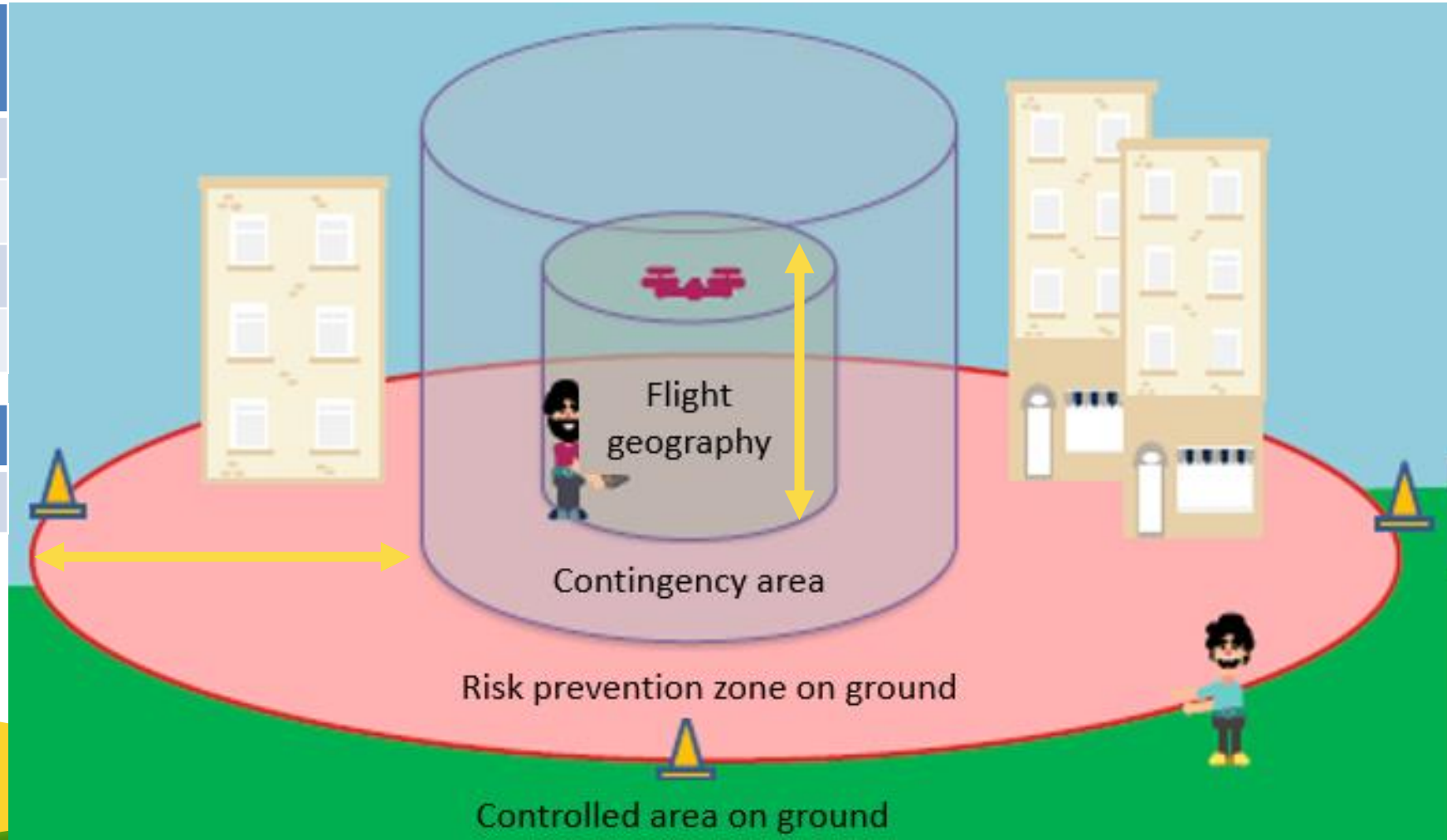


STS-ES-01

CONTROLLED AREA ON GROUND

Altitude above terrain	Risk prevention zone on ground
30 m	15 m
60 m	20 m
90 m	25 m
120 m	30 m

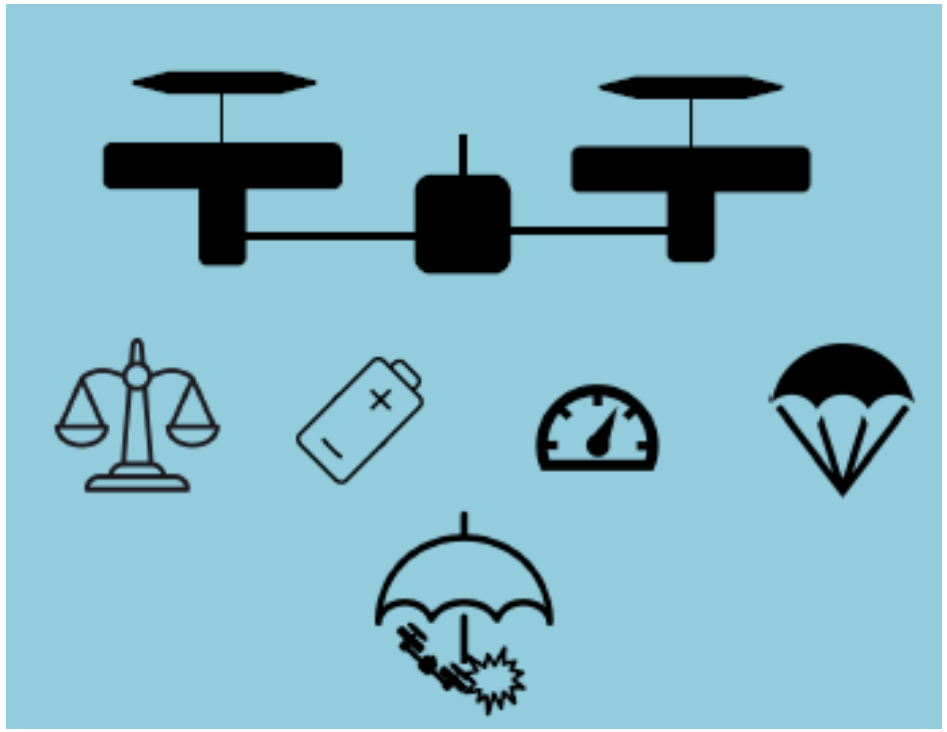
Contingency area
10 m



STS-ES-01

UAS REQUIREMENTS

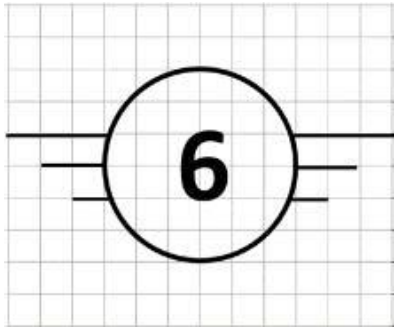
- NO Fixed-wing
- MTOM < 10 kg
- Electric
- Low speed mode (max speed 5 m/s)
- UAS insurance
- Means to reduce the effect of impact dynamics



STS-ES-02

CHARACTERISTICS

- BVLOS
- C6 UAS
- Flight over a non populated area
- Flight with Airspace Observers



REQUIREMENTS

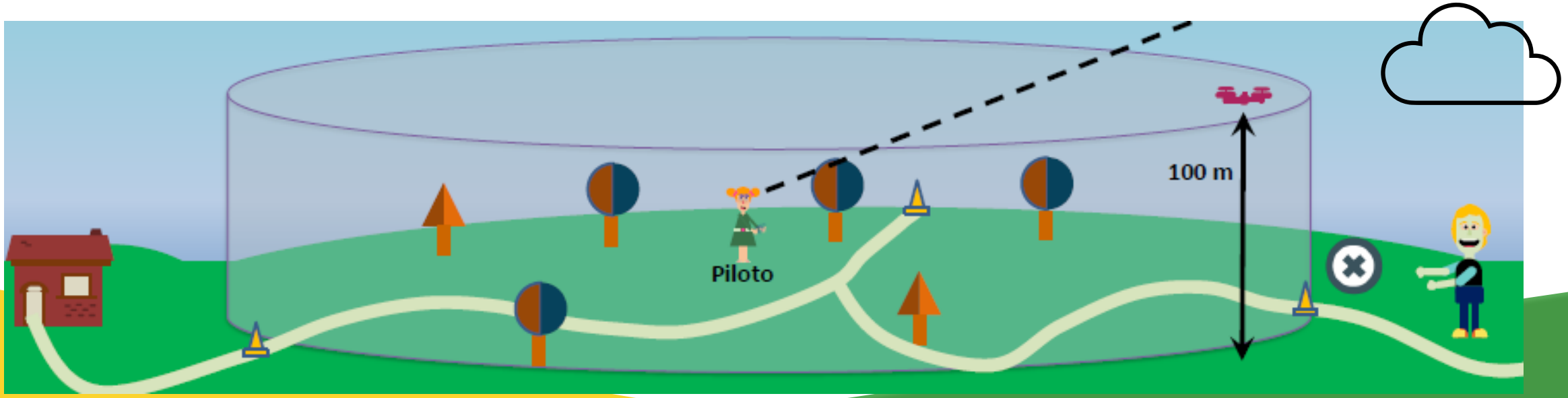
- Operator Registration
- STS-ES-02 Declaration
- Operator's Manual
- STS-02 Pilot license
- Coordination with Miniesterio del Interior
- Coordination with Air Traffic Service Porviders (ENAIRE, SAERCO, FERRONATS) if necessary
- EARO + FPL if necessary

GOBIERNO DE ESPAÑA
MINISTERIO DE DEFENSA

STS-ES-02

FLIGHT ZONE

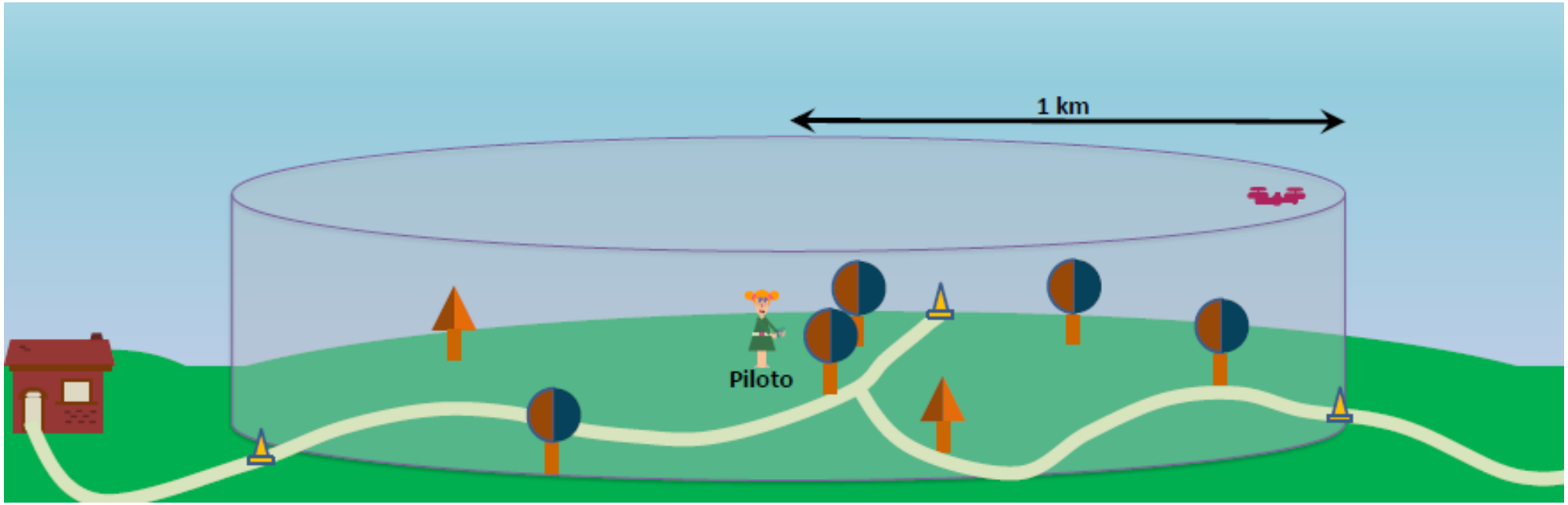
- Do not fly more than 100 m high
- VLOS Takeoff and Landings
- All the flights will be carried out over a sparsely populated area
- The flight will take place in a controlled land area in which it is guaranteed that only the participating persons are present during the operation. In particular, access to the area must be controlled.
- The minimum visibility must be more than 5 km
- When NOT using observers, the maximum distance between the pilot and the aircraft will be 1 km



STS-ES-02

FLIGHT ZONE

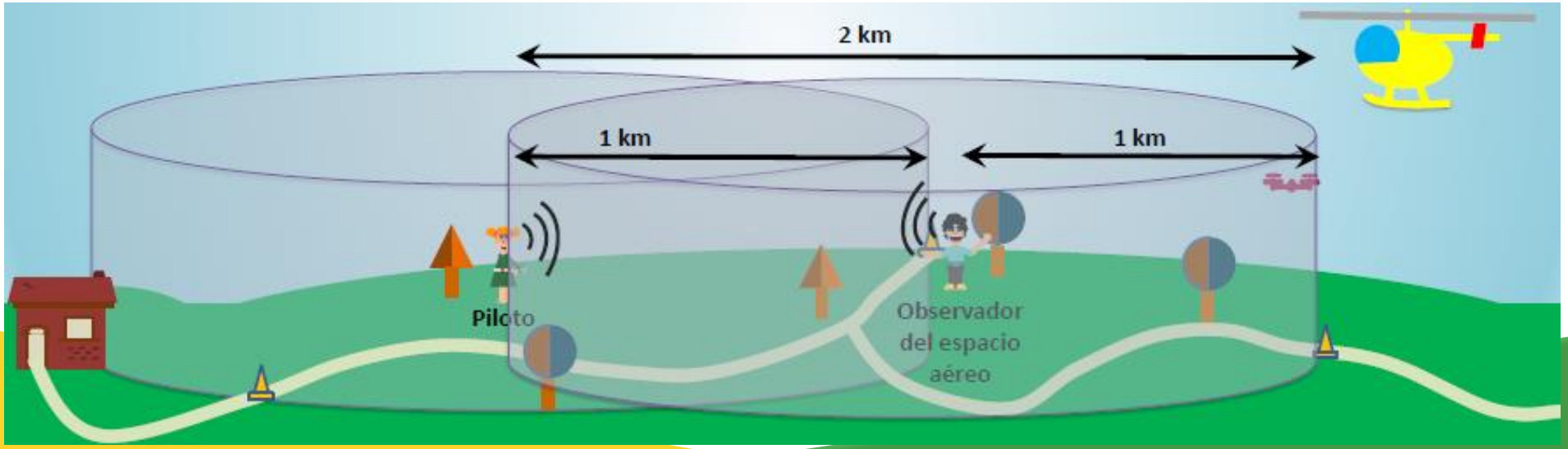
- When NOT using observers:
  - The maximum distance between the pilot and the aircraft will be 1 km



STS-ES-02

FLIGHT ZONE

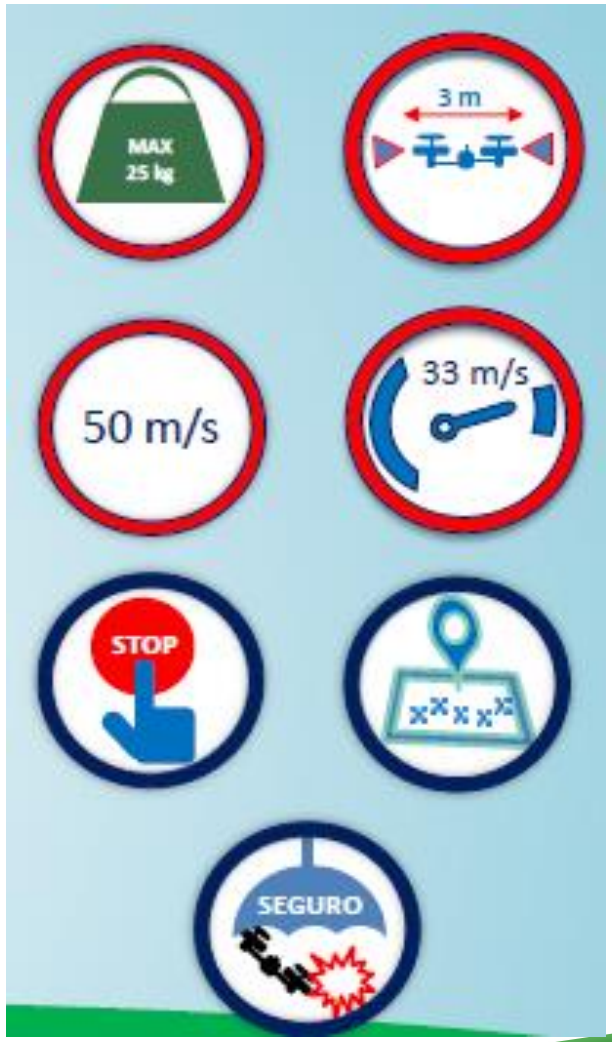
- When using observers:
  - The UAS will not be used more than 2 km away from the pilot
  - The UAS shall not be used more than 1 km from the nearest airspace observer
  - The distance between any of the airspace observers and the remote pilot is not more than 1 km
  - Strong and effective means of communication between the remote pilot and airspace observers are available
  - Airspace observers are positioned to adequately cover the operational volume



STS-ES-02

UAS REQUIREMENTS

- MTOM < 25 kg
- Max dimension < 3 m
- Max speed < 50 m/s
- Max cruise speed < 33 m/s
- Independent emergency shutdown system
- Means for programming the trajectory of the aircraft
- UAS insurance



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Thanks for your attention

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