GM1 UAS.OPEN.030(1) UAS operations in subcategory A2

ED Decision 2019/021/R

SAFE DISTANCE FROM UNINVOLVED PERSONS

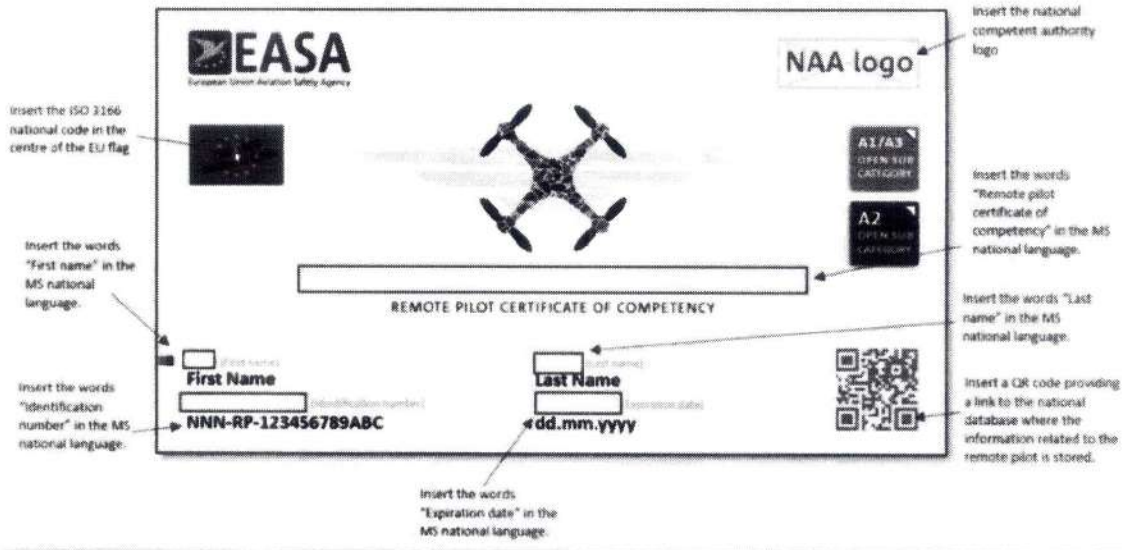
The safe distance of the UA from uninvolved persons is variable and is heavily dependent on the performance and characteristics of the UAS involved, the weather conditions and the segregation of the overflown area. The remote pilot is ultimately responsible for the determination of this distance.

AMC1 UAS.OPEN.030(2) UAS operations in subcategory A2

ED Decision 2022/002/R

REMOTE PILOT CERTIFICATE OF COMPETENCY

After the verification that the applicant has passed the online theoretical knowledge examination, has completed and declared the practical-skills self-training, and has passed the additional theoretical knowledge examination provided by the competent authority or by an entity recognised by the competent authority, the competent authority should provide a certificate of competency to the remote pilot in the format depicted in the figure below. An entity that is designated by the competent authority may issue the certificate on behalf of the competent authority. The certificate may be provided in electronic form.



The remote pilot identification number that is provided by the competent authority or the entity that is designated by the competent authority that issues the certificate of remote pilot competency should have the following format:

NNN-RP-xxxxxxxxxxxx

Where:

— 'NNN' is the ISO 3166 Alpha-3 code of the MS that issues the proof of completion;

— 'RP' is a fixed field meaning 'remote pilot'; and

— 'xxxxxxxxxxx' are 12 alphanumeric characters (lower-case only) defined by the competent authority or the entity that is designated by the competent authority that issues the proof of completion.

Example: (FIN-RP-123456789abc)

The QR code provides a link to the national database where the information related to the remote pilot is stored. Through the 'remote pilot identification number', all information related to the training of the remote pilot can be retrieved by authorised bodies (e.g. competent authorities, law enforcement authorities, etc.) and authorised personnel.

AMC1 UAS.OPEN.030(2)(b) UAS operations in subcategory A2

ED Decision 2022/002/R

PRACTICAL-SKILLS SELF-TRAINING

(a) The aim of the practical-skills self-training is to ensure that the remote pilot demonstrate at all times the ability to:

(1) operate a class C2 UAS within its limitations;

(2) complete all manoeuvres with smoothness and accuracy;

(3) exercise good judgment and airmanship;

(4) apply their theoretical knowledge; and

(5) maintain control of the UA at all times in such a manner that the successful outcome of a procedure or manoeuvre is never seriously in doubt.

(b) The remote pilot should complete the practical-skills self-training with a UAS that features the same flight characteristics (e.g. fixed wing, rotorcraft), control scheme (manual or automated, human–machine interface) and a similar weight as the UAS intended for use in the UAS operation. This implies the use of a UA with an MTOM of less than 4 kg and bearing the Class 2 identification label.

(c) If a UAS with both manual and automated control schemes is used, the practical-skills self-training should be done with both control schemes. If a UAS has multiple automated features, the remote pilot should demonstrate proficiency with each automated feature.

(d) The practical-skills self-training should contain at least flying exercises regarding take-off or launch and landing or recovery, precision flight manoeuvres remaining in a given airspace volume, hovering in all orientations or loitering around positions when applicable. In addition, the remote pilot should follow the contingency procedures for abnormal situations (e.g. a return-to-home function, if available), as stipulated in the user's manual provided by the manufacturer. However, the remote pilot should only follow those contingency procedures that do not require the deactivation of the UAS functions that may reduce its safety level.

AMC2 UAS.OPEN.030(2)(b) UAS operations in subcategory A2

ED Decision 2022/002/R

PRACTICAL COMPETENCIES FOR THE PRACTICAL-SKILLS SELF-TRAINING

When doing the practical-skills self-training, the remote pilot should perform as many flights as they deem necessary to gain a reasonable level of knowledge and the skills to operate the UAS.

The following list of practical competencies should be considered:

(a) Preparation of the UAS operation:

(1) make sure that the:

(i) chosen payload is compatible with the UAS used for the UAS operation;

(ii) zone of UAS operation is suitable for the intended operation; and

(iii) UAS meets the technical requirements of the geographical zone;

(2) define the area of operation in which the intended operation takes place in accordance with UAS.OPEN.040;

(3) define the area of operation considering the characteristics of the UAS;

(4) identify the limitations published by the MS for the geographical zone (e.g. no-fly zones, restricted zones and zones with specific conditions near the operation zone), and if needed, seek authorisation by the entity responsible for such zones;

(5) identify the goals of the UAS operation;

(6) identify any obstacles and the potential presence of uninvolved persons in the area of operation that could hinder the intended UAS operation; and

(7) check the current meteorological conditions and the forecast for the time planned for the operation.

(b) Preparation for the flight:

(1) assess the general condition of the UAS and ensure that the configuration of the UAS complies with the instructions provided by the manufacturer in the user's manual;

(2) ensure that all removable components of the UA are properly secured;

(3) make sure that the software installed on the UAS and on the remote pilot station (RPS) is the latest published by the UAS manufacturer;

(4) calibrate the instruments on board the UA, if needed;

(5) identify possible conditions that may jeopardise the intended UAS operation;

(6) check the status of the battery and make sure it is compatible with the intended UAS operation;

(7) activate the geo-awareness system and ensure that the geographical information is up to date;

(8) set the height limitation system, if needed;

(9) set the low-speed mode, if available; and

(10) check the correct functioning of the C2 link.

(c) Flight under normal conditions:

(1) following the procedures provided by the manufacturer in the user's manual, familiarise themselves with how to:

(i) take off (or launch);

(ii) make a stable flight:

(A) hover in case of multirotor UA;

(B) perform coordinated large turns;

(C) perform coordinated tight turns;

(D) perform straight flight at constant altitude;

(E) change direction, height and speed;

(F) follow a path;

(G) return of the UA towards the remote pilot after the UA has been placed at a distance that no longer allows its orientation to be distinguished, in case of multirotor UA;

(H) perform horizontal flight at different speeds (critical high speed or critical low speed), in case of fixed-wing UA;

(iii) keep the UA outside no-fly zones or restricted zones, unless holding an authorisation;

(iv) use some external references to assess the distance and height of the UA;

(v) perform a return-to-home (RTH) procedure — automatic or manual;

(vi) land (or recover);

(vii) perform a landing procedure and a missed approach in case of fixed-wing UA; and

(vii) perform real-time monitoring of the status and endurance limitations of the UAS; and

(2) maintain sufficient separation from obstacles.

(d) Flight under abnormal conditions:

(i) manage the UAS flight path in abnormal situations;

(ii) manage the situation when the UAS positioning equipment is impaired (if the UAS used allows the deactivation of that equipment);

(iii) simulate the incursion of a person into the area of operation, and take appropriate measures to maintain safety;

(iv) manage the exit from the operation zone as defined during the flight preparation;

(v) simulate the incursion of a manned aircraft nearby the area of operation;

(vi) simulate the incursion of another UAS in the area of operation;

(vii) select the safeguard mechanism relevant to the situation;