

Irish Aviation Authority The Times Building 11–12 D’Olier Street Dublin 2, Ireland www.iaa.ie Safety Regulation Division	Údarás Eitlíochta na hÉireann Foirgneamh na hAmanna 11–12 Sráid D’Olier Baile Átha Cliath 2, Éire Rannán na Rialachán Sábháilteachta	ADVISORY NOTICE No. U.08 ISSUE 01 DATE 04.02.2021	
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National Standard Scenario (STS) – for Unmanned Aircraft Systems (UAS), Visual Line of Sight (VLOS) Operations – No. NS-01

1. Introduction

This UAS National Standard Scenario may be selected for use for a :

- a) A UAS Operational Declaration, made in accordance with the IAA’s published UAS Operational Declaration procedures; or,
- b) UAS Operations in accordance with a National Specific Operating Permission (SOP) issued prior to 1st January 2021.

2. Purpose

NS-01 is as an intermediate arrangement to assist UAS operators transitioning from the National UAS requirements to the new European rules and procedures for the operation of unmanned aircraft¹. Training for these new STS operations¹ is available at the Recognised UAS training entities listed on the Irish Aviation Authority’s website (UAS DUTOs).

3. UAS VLOS Operations

General provisions:

- a) During flight, the unmanned aircraft (UA) shall be maintained within 120 m from the closest point of the surface of the earth. The measurement of distances shall be adapted accordingly to the geographical characteristics of the terrain, such as plains, hills, mountains;
- b) When flying an UA within a horizontal distance of 50 m from an artificial obstacle taller than 105 metres, the maximum height of the UAS operation may be increased up to 15 m above the height of the obstacle at the request of the entity (owner, landlord, custodian) responsible for the obstacle;
- c) During flight, the UA shall not carry Dangerous Goods (DG) without explicit written authorisation from the Irish Aviation Authority;
- d) During flight, the UA shall be flown in accordance with an Operational Declaration in compliance with National Standard Scenario NS-01, within designated Geographic Zones and where required with permission by Air Traffic Control;

4. Operational Conditions:

UAS operations in NS-01 shall meet all the following conditions:

- a) be conducted in VLOS at all times with an UA of maximum characteristic dimension of 1m and a maximum take-off mass (MTOM) less than 25kgs;
- b) be conducted in accordance with the (owner/operator) UAS operations manual;
- c) be conducted while maintaining a minimum horizontal distance from ‘uninvolved persons’ comprising:

¹ COMMISSION IMPLEMENTING REGULATION (EU) 2019/947 of 24 May 2019 on the rules and procedures for the operation of unmanned aircraft

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- d) for the operation of untethered Unmanned Aircraft (UA):
- i. 10m contingency area;
 - ii. the ground risk buffer, which shall cover a distance beyond the external limit(s) of the contingency area that meets at least the following parameters:

	(Minimum horizontal distance to be covered by the ground risk buffer for untethered UA)	
<u>Maximum drone height above ground <25kgs</u>	<u>MTOM up to 10kg</u>	<u>MTOM between 10kg</u>
30m	10m	20m
60m	15m	30m
90m	20m	45m
120m	25m	60m

- e) for operation of a tethered UA, a radius equal to the tether length plus 5 m and centred on the point where the tether is fixed over the surface of the earth;
- f) shall be conducted so as not to fly over or any closer than 120m horizontally from assemblies of people as defined by EASA regulation.be conducted at a ground speed of less than 5 m/s in the case of the UA;
- g) be conducted by a Remote Pilot (RP) who holds a valid Remote Pilot Certificate of Competency (RPC) for operations in the Specific category issued by the Irish Aviation Authority.

5. Responsibilities of the UAS Operator:

Responsibilities of the UAS Operator are defined in Regulation (EU) 2019/947 UAS.SPEC.050, and include:

- a) defining the minimum horizontal distance, contingency area and ground risk buffer for the intended operations;
- b) ensuring the adequacy of the contingency and emergency procedures;
- c) develop an effective emergency response plan (ERP), including:
 - i. a plan to limit any escalating effects of the emergency situation;
 - ii. the conditions to alert the relevant authorities and organisations;
 - iii. the criteria to identify an emergency situation;
 - iv. a clear delineation of the duties of the RP(s) and any other personnel in charge of duties essential to the UAS operation;
- d) ensure that the level of performance for any externally provided service necessary for the safety of the flight is adequate for the intended operation;
- e) define the allocation of the roles and responsibilities between the operator and the external service provider(s), if applicable;
- f) upload updated information into the UAS geo-awareness function if installed and when required by the UAS geographical zone for the intended location of operation;

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- g) ensure that, before starting the operation, minimum horizontal distances from 'uninvolved persons' can be maintained, are effective and compliant;
- h) ensure that, before starting the operation, all persons present within the minimum distances from 'uninvolved persons':
 - i. have been informed of the risks of the operation;
 - ii. have been briefed or trained, as appropriate, on the safety precautions and measures established by the UAS operator for their protection; and,
 - iii. have explicitly agreed to participate in the operation, (this should be recorded for legal mitigation) and form part of the operational risk assessment;
 - iv. Have permission from the landowner/occupier, local council, Gardai (where necessary) and any other custodian/stakeholder who has a shared interest in the property, public or private, where the take-off and landing location is intended.
- i) ensure third party liability insurance is in place for the size, scope and range of intended UAS operations.

6. Responsibilities of the Remote Pilot:

Before starting an UAS operation, the RP shall verify that the means to terminate the flight of the UA are operational during the flight; and,

- a) shall keep the UA in VLOS and maintain a thorough scan of the airspace surrounding the UA in order to avoid any risk of a collision with any manned aircraft. The RP shall discontinue the flight if the operation constitutes a risk to other aircraft, people, animals, environment or property;
- b) for the purposes of point (a), may be assisted by an unmanned aircraft observer(s) (AO). In such case, clear and effective communication shall be established between the RP and the AO;
- c) shall have the ability to maintain control of the UA, except in the case of a lost command and control (C2) link;
- d) shall operate only one UA at a time;
- e) shall not operate the UA from a moving vehicle;
- f) shall not hand over the control of the UA to another command unit;
- g) shall perform the contingency procedures defined by the UAS operator for abnormal situations, including when the RP has an indication that the UA may exceed the limits of the contingency area;
- h) shall perform the emergency procedures defined by the UAS Operator for emergency situations, including triggering the means to terminate the flight when the RP has an indication the UA may exceed the limits of the ground risk buffer.

NOTE 1 : Remote Pilots who have received training on the basis of the National syllabi shall require further theoretical knowledge and practical skill training assessment for the award of a RPC in the Specific category for operation in accordance with the National Standard Scenario or EASA Standard Scenarios.

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NOTE 2 : Theoretical knowledge subjects for Remote Pilot training in the Specific category are found listed in the guidance material in EU Regulation 2019/947, Part B, GM1 UAS.SPEC.050(1)(d).

Training, assessment and verification are provided by the DUTOs as Recognised Entities for this purpose.

This arrangement is valid until January 1st, 2022.