

Safe Use of Drones on University Premises

There is an increasing use of drones for aerial filming work and inspection work at the University. Drone is the common name for a class of aircraft known as Unmanned Aircraft Systems (UAS). The small (i.e. less than 20kg) aircraft used for civilian purposes are categorised by the Civil Aviation Authority (CAA) as either: Small Unmanned Aircraft (SUAs) if they do not have cameras or other sensors, or Small Unmanned Surveillance Aircraft (SUSAs) when cameras or other sensors are fitted. However, in this guidance the word 'drone' is used throughout.

This guidance only refers to drones operated by a third party provider on behalf of the University. There is separate (draft) guidance covering in-house Design, Build and Flying of Drones by University Schools (email bb-safety-office@exmail.nottingham.ac.uk)

The following outlines the checks that must be made by the individual commissioning such work on behalf of the University or their School/Professional Service, i.e. the Organiser.

1.1 Responsibilities

The Organiser is responsible for ensuring that the third party has obtained 'Permissions for Aerial Work' from the CAA and checking that their Operations Manual includes adequate health and safety precautions for the type of work to be undertaken. Advice may be sought from their School/Dept Safety Officer or the University Safety Office (bb-safety-office@exmail.nottingham.ac.uk).

[The list of CAA approved commercial operators of SUA can be viewed at: (publicapps.caa.co.uk/modalapplication.aspx?appid=11&mode=detail&id=7078)]

The Organiser must provide, to the third party, site information to assist the third party in their risk assessment. This should include a campus plan that indicates roads, car parks and buildings plus information relating to the likely presence of pedestrians (staff, students, visitors, members of the public), animals (e.g. nesting birds such as geese, dogs off the lead), nearby power lines, railway lines, etc.

The Organiser is responsible for ensuring that the [**Authorisation to Fly Drones on University Premises form**](#) has been completed. This includes the checks and permissions as detailed in sections 1.2 and 1.3 below and also requires the pilot-in-command of the flight to formally accept the authorisation.

The organiser must ensure that anyone within the flying area has been informed of the work to be carried out, and that adequate observers are in place to advise pedestrians and vehicles of the presence of drones.

1.2 Due Diligence Checks

As the representative of the University, the Organiser must confirm that:

1. The work will be undertaken by trained and competent operators - the paperwork from the third party should state exactly who this is for the proposed flight.
2. The company has provided their CAA (Civil Aviation Authority) Permission for Aerial Work which will include their name and the period of validity. The validity must cover the dates when the flight(s) is/are proposed. See **Appendix 2** for a typical CAA Permission for Aerial Work document. You will see that it includes a list of conditions that the pilot must comply with, these include distances to be maintained in terms of flight height, distance from roads, gatherings, pedestrians, etc.
3. The third party has provided a suitable risk assessment, method statement and plan concerning the proposed flight(s). Often generic paperwork is sent to the University. The Organiser must ensure that the third party produces a site specific assessment prior to agreeing that flight(s) may take place.
4. The third party provider has adequate and valid public liability insurance (see Insurance section below).

The Organiser must only agree a contract with the third party once they are satisfied the above are in place and that the health and safety aspects of the flight(s) have been attended to.

1.3 Permissions

1. Organisers must request permission to have drone flights in a particular area of campus (include map of flight zone) from
 - a. University Estates (email estatesadmin@nottingham.ac.uk for the attention of Gavin Scott) and
 - b. University Security (contact Security (security@nottingham.ac.uk, copying in stuart.croy@nottingham.ac.uk).

Please allow at least 7 working days' notice for them to respond to your request.

2. Organisers must ensure that any intended take-off and landing sites do not take place over land that is not owned by the University unless permission has been given by the landowner. For example, the Lake and much of the surrounding parkland at University Park is owned by Nottingham City Council.
3. Organisers must check that the third party has informed relevant parties external to the University such as local Air Traffic Control, the Police and/or Local Authority.

1.4 Insurance

The third party must provide evidence of valid public liability insurance to the minimum value of £10m. If this is not forthcoming, the flight(s) must not be permitted to take place. If the value is less than £10m, inform the third party that a higher level of cover is required and/or discuss with the University Insurance Manager.

1.5 Data Protection

If a drone carries a camera, its use has the potential to be covered by the Data Protection Act and therefore this must be taken into account when considering the flight location and what images are gathered of people that might be disrespectful of their

privacy. This must be taken into account when considering the flight location and should be stated in the third party's site specific risk assessment if applicable.

Advice on the requirements of the Data Protection Act 1998, including University Policy and expectations can be obtained from data-protection@nottingham.ac.uk.

Appendix 1

Useful references:

1. [CAA Drone Safety](#)
2. [CAA Quick Start Flying Guide](#)
3. [Information Commissioner's Office](#) – Data Protection issues for the Public in connection with the use of Drones.
4. [UoN Authorisation to fly Drones on University Premises](#) Form

Appendix 2

CAA Air Navigation Order 2009 Permissions for Small Unmanned Aircraft/Small Unmanned Surveillance Aircraft

See overleaf for a sample Permission document, issued by the CAA. You should check that this document clearly states the company/person it applies to and that the period of validity is appropriate for when the flight(s) is/are planned.

**CIVIL AVIATION AUTHORITY
Air Navigation Order 2009**



PERMISSION – Small Unmanned Aircraft / Small Unmanned Surveillance Aircraft

1. The Civil Aviation Authority, in exercise of its powers under Article 166(5) and Article 167(1) of the Air Navigation Order 2009, as amended, hereby permits [REDACTED], ("the person in charge") being the person in charge of a Small Unmanned Aircraft (SUA) / Small Unmanned Surveillance Aircraft (SUSA) ("the said aircraft") of the following class(es):

- (a) SUA multirotor with a Maximum Take-Off Mass (MTOM) not exceeding 7kg

to conduct aerial work with the said aircraft

2. This Permission is granted subject to the following conditions, namely, that the said aircraft shall not be flown:

Operational Conditions for all Classes:

- (a) other than by persons employed by or contracted to [REDACTED] whilst being holder(s) of an appropriate qualification issued by a UK National Qualified Entity for SUA/SUSA pilot competency, or an alternative pilot competency qualification acceptable to the CAA (IN 2015/008 www.caa.co.uk/in2015008 refers);
- (b) at a height exceeding 400 feet above ground level;
- (c) at a distance beyond the visual range of the person in charge of the said aircraft, or a maximum range of 500 metres unless a lesser radio transmission range has been specified by the manufacturer;
- (d) directly overhead or within 150 metres of an organised open-air assembly of more than 1,000 persons;
- (e) directly overhead or within 50 metres of any person, vessel, vehicle or structure that is not under the control of the person in charge of the said aircraft, except that during take-off and landing this distance may be reduced to 30 metres;
- (f) unless the permission of the landowner on whose land the said aircraft is intended to takeoff and land, has been obtained;
- (g) unless it is equipped with a mechanism that will cause the said aircraft to land in the event of disruption to or a failure of any of its control systems, including the radio link, and the person in charge of the said aircraft has satisfied himself that such mechanism is in working order before the aircraft commences its flight;
- (h) unless the person in charge of the said aircraft has reasonably satisfied himself that any load carried by the aircraft is properly secured, that the said aircraft is in an airworthy condition and that the flight can safely be made taking into account the wind and other significant weather conditions;
- (i) unless the flights are conducted in accordance with the current operations manual of the person in charge of the said aircraft and a site safety assessment has been completed. Site safety assessments are to be made available to the Authority on request;
- (j) unless the person in charge of the said aircraft maintains records of each flight made pursuant to this Permission and makes such records available to the Authority on request;

Additional Requirements for all Classes where the said aircraft has a MTOM greater than 7 kg but not exceeding 20 kg:

In addition to the conditions set out in paragraph 2(a-j) above, any SUA/SUSA with a MTOM greater than 7 kg but not exceeding 20 kg must not be flown:

- (k) in controlled airspace, except with the permission of the appropriate air traffic control unit;





(l) in any aerodrome traffic zone except with the permission either of the appropriate air traffic control unit or the person in charge of the aerodrome;

(m) directly overhead or within 150 metres of any congested area of a city, town or settlement.

SUA/SUSA can also be defined as small Remotely Piloted Aircraft Systems (small RPAS). In airspace control terms, operations of Small RPAS (SUA/SUSA) with a MTOM greater than 7 kg but not exceeding 20 kg are considered Unusual Aerial Activities. If the flight is to take place within controlled airspace, the person in charge of the said aircraft is required to seek prior approval from the relevant Air Traffic Control (ATC) unit.

Such flights will be processed for NATS-administered controlled airspace under either Non-Standard Flight (NSF) or Enhanced Non-Standard Flight (ENSF) approval procedures. These procedures are set out on the NATS website at: www.nats.aero/nsf/rpas.aspx. Further details of the NSF/ENSF procedures are published at AIP ENR 1.1, section 4, paragraph 4.1.8 www.ais.org.uk

If approval is granted, the person in charge of the said aircraft is to fly the said aircraft entirely within the limits of the stated lateral and vertical operating area. No safety assurance against other Unusual Air Activities taking place in the same area is given or implied. NATS approval to fly within controlled airspace or an Aerodrome Traffic Zone does not absolve the operator from the responsibility for avoiding all other aircraft.

3. Within the London Restricted Areas EG R157 (Hyde Park), EG R158 (City of London) and EG R159 (Isle of Dogs), the person in charge of the said aircraft, of any MTOM, is required to obtain an ENSF clearance as referred to in paragraph 2 (above). This is mandatory for all flights below 1400 feet AMSL and will involve authorisation by the Diplomatic Protection Group (DPG).
4. Further detailed guidance on SUA operations within London and other towns and cities is available at: www.caa.co.uk/in2014190.
5. This Permission shall have effect during daylight hours from 29 April 2015 until and including 20 October 2015 unless previously varied, suspended or revoked.

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for the Civil Aviation Authority

Distribution: [REDACTED]

NOTE:

Aircraft operators and pilots should be aware that the collection of images of identifiable individuals, even inadvertently, when using surveillance cameras mounted on a small unmanned surveillance aircraft, may be subject to the Data Protection Act. As this Act contains requirements concerning the collection, storage and use of such images, Small Unmanned Aircraft operators should ensure that they are complying with any such applicable requirements or exemptions. Further information about the Data Protection Act and the circumstances in which it applies can be obtained from the Information Commissioner's Office and website: <https://ico.org.uk/for-the-public/drones/>