



Unmanned Aerial Systems - Drones

FAQs

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PRSG32.3		WELLBEING, SAFETY AND HEALTH MANAGEMENT SYSTEM					
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1 Why is the “drone code” not sufficient for University UAS work?

The “drone code” is designed for recreational flights. The University has deemed UAS flights as commercial and, therefore, the drone code is insufficient. It is a general information guide for hobby use. See <http://dronesafe.uk/> for info.

Note that the drone code requires flights to take place at least 50m away from people and property. There are no locations on campus that meet this requirement, therefore, all flights on campus require CAA Licence and University Flight Permit.

2 Why has the University of Leeds decided to class all UK UAS flights as “commercial”, thus requiring CAA licensing, and is there a possibility of exemption?

The CAA defines aerial work as “any purpose (other than public transport) for which an aircraft is flown if *valuable consideration* is given or promised in respect of the purpose of the flight...”.

Valuable consideration is any work which has economic value.

If there is anything which a reasonable person might consider to be “*valuable consideration*” for the pilot, the institution, or any collaborator associated with the purpose of any flight someone may undertake on behalf of the university, then the flight is of valuable consideration and is considered commercial.

At the University, valuable considerations include:

- Publishing
- Grants
- Industrial partners looking to commercialise
- Staff paid to use UAS
- UAS incorporated in degree programmes with students paying fees
- Commercial positions as consultancy for industry
- Students paying fees to be taught

To comply with this, all flights are being classed as commercial. See <https://www.caa.co.uk/Commercial-industry/Aircraft/Unmanned-aircraft/Small-drones/Regulations-relating-to-the-commercial-use-of-small-drones/> for more info.

Exemptions will be considered by the UAS Administrator on a case-by-case basis.

The CAA does not have jurisdiction outside the UK. You will need to ascertain the requirements of the country’s aviation laws where you will be flying and fulfil their requirements in advance. Be aware that the definitions of types of work (e.g. research/commercial/non-commercial) may be different.

3 How does this affect collaboration with other Universities?

If the UAS flights are owned or flown by University of Leeds staff/students, then University of Leeds Procedures must be followed.

Where collaborators own or fly, they must provide proof to the Project Lead of how they are working to the requirement of aviation and data protection regulations pertinent to the jurisdiction in which they are flying. The Project Lead may discuss this with the UAS Administrator if any further clarification is needed.

4 How much prior notice does the UAS Administrator require?

You should submit your application as far in advance of your proposed flying date as possible. This allows time to gather the documentation you will need to carry out your flight. Documentation may be a simple risk

assessment or a full submission to the CAA for a Commercial Licence (note that CAA alone requires at least 28 days to process applications).

5 What is the role of the UAS Administrator?

The UAS Administrator is a Health and Safety Manager and is the main point of contact for all UAS work at the University of Leeds regarding health, safety, and permits. The UAS Administrator's duties are:

- Advising UAS users on the Procedures
- Reviewing completion of Operational Safety Case for CAA Applications
- Signing CAA Applications on behalf of the University
- Keeping records of landowner permissions to fly on their premises
- Giving permission for outdoor UAS flights on University premises on behalf of the University as landowner.
- Carry out periodic audits of UAS Operational Safety Cases, risk assessments, procedures, and licences.

6 How do I contact the UAS Administrator?

If you need any help, guidance or assistance please contact the UAS Administrator Kevin Meloy and his team on:

Kevin Meloy: 0113 34 37395 k.j.meloy@leeds.ac.uk

Faculty of Engineering Safety Office engineering.safety@leeds.ac.uk

7 What is the role of the UAS Accountable Manager?

The UAS Accountable Manager is the person named on the CAA Commercial Licence as the accountable person for all flights to be carried out under that licence. The named UAS Accountable Manager is responsible for detailing the operational requirements for all flights that are carried out under that licence.

The CAA does not have jurisdiction outside the UK. You will need to ascertain the requirements of the country's aviation laws where you will be flying and fulfil their requirements in advance.

8 Why do I need a University of Leeds Premises Flight Permit to fly from the UAS Administrator when I have CAA approval?

The University Premises Flight Permit is a permit to fly on University of Leeds premises. Each individual flight, taking place on University premises, including test flights, requires this.

This is specifically required for outdoor flights on University of Leeds premises and enables us to ensure there is no conflict with other work activities or events that may be taking place.

9 Can I get a University of Leeds Premises Flight Permit before having CAA Permission?

No the University of Leeds Premises Flight Permit is the last element of the approval process.

10 Which CAA permission do I need?

The UAS Administrator may be able to put you in contact with a UAS Accountable Manager at the University under whose licence you could fly.

If you cannot fly under a current licence, you will need to apply for one of the following CAA Licences:

CAA Standard Application: This enables a person to conduct commercial operations with a small-unmanned aircraft. It permits UASs weighing 7kg or less to be operated within a congested area. See guidance CAP722 <https://www.caa.co.uk/cap722> and application form SRG1320 <https://www.caa.co.uk/SRG1320>

CAA Non-standard Application: This covers all other categories of flight and addresses operations that contain a greater element of operating risk. See guidance CAP722 <https://www.caa.co.uk/cap722> and application form SRG1321 <https://www.caa.co.uk/srg1321>

10.1 Which CAA licence do I need?

Anyone flying a UAS on University business needs a CAA Licence

To get this Licence, you will need to provide evidence of:

- Remote Pilot Competence
 - Demonstrate a sufficient understanding of aviation theory (airmanship, airspace, aviation law and good flying practice).
 - Pass a practical flight assessment (flight test).
- Develop basic procedures for conducting the type of flights you want to make and set these out in an Operations Manual.
- If CAA Non-Standard Application is required, you will need to provide an Operating Safety Case to demonstrate that the intended operation is appropriately safe.

See guidance CAP 722 <https://www.caa.co.uk/cap722>, which includes requirements for pilot competence. A template for the CAA Operational Safety Case is available from the UAS Administrator.

11 Why do I need a pilot licence?

As all UAS operations for the University are classed as commercial, a pilot licence must be obtained. This is a requirement of the CAA.

A UAS Accountable Manager will need to hold a pilot's licence issued by a National Qualified Entity (NQE). Some concessions from the full remote pilot competence requirements are available to those who already have suitable aviation (piloting) qualifications such as previous model aircraft flying qualifications or a licence or certificate that allows you to fly in non-segregated UK airspace.

A typical NQE full-course involves:

- pre-entry/online study
- 1-3 days of classroom lessons and exercises
- a written theory test
- a flight assessment

After successfully completing the theory element, applicants will:

- develop their own operations manual
- practice aircraft operation/flying skills for the practical flight assessment.

Flight assessments are normally arranged and completed at your own pace:

- they are usually arranged separately, but may be available on the last day of the course
- they have no structured syllabus or sequence of numbered exercises, but the test will be based on testing the procedures that have been described within the applicant's operations manual

It is possible to fly without a full NQE qualification, if the UAS Accountable Manager, under whose licence the flight is carried out, agrees, and that piloting competency is proven through other formal training and supervision. Pilots may want to obtain NQE qualifications to become UAS Accountable Managers in the future or for their own personal development.

12 Do I need to be a qualified pilot to fly indoors?

You do not need to have a formal qualification, but you will need some recorded training. This would be in the form of an online course with simulation, and some one-to-one training and supervision from an NQE qualified pilot, who will be able to deem you competent to fly UASs indoors.

13 What is a spotter, and why are they required?

A spotter assists the pilot to fly safely and points out any hazards that may be missed.

A spotter is required when hazards may be out the pilot's direct line of sight. This requirement should be evaluated as part of flight risk assessment.

14 Why do I need to report accidents, incidents, and non-conformances to the flight plan to my supervisors?

The CAA requires all accidents, incidents, and non-conformances to a flight plan to be recorded. This is also a University requirement.

With this procedure, it is possible to learn from mishaps and to make improvements. The University operates a no-blame culture, and all information from incidents is used to improve safety and operations.

15 What regulations do I need to observe during a flight?

Regulations are contained within the Air Navigation Order 2016; there are specific additional steps that must be taken if a UAS is being flown for commercial operations. Anyone using a UAS needs to be aware of these articles in particular:

Article 241 - endangering safety of any person or property

Article 94 - small unmanned aircraft

Article 95 - small unmanned surveillance aircraft

Refer to guidance CAP722 <https://www.caa.co.uk/cap722>.

The aviation regulations only address the flight safety aspects of the flight and they do not constitute permission to disregard the legitimate interests of other statutory bodies such as the Police and Emergency Services, the Highway Agency, local authorities or any other statutory body.

As the range and scale of UAS flights continues to grow, statutory bodies are increasingly aware of how UAS operations will affect their areas of responsibility and are developing specific policy and guidelines. In addition to aviation-specific legislation, it is already apparent that UAS use, or the effects of UAS use, may be within the remit of existing national and local legislation (e.g. public-order offences, ensuring pedestrian and vehicle rights-of-way, security and safety in public places and at schools, limits on recreational activities in public parks etc.).

16 Why do I need written permission from the landowner/local authority to take-off and land on their property?

Firstly, we need to be respectful to the landowners. Secondly, activities may cause safety-related problems or interfere with other activities taking place on the site. Thirdly, other activities on the site could compromise your own work or safety. Such conflicts of work could also affect the insurance cover, in the case of changes in risk.

UAS operators should bear in mind the requirements of Section 76(1) of the Civil Aviation Act 1982 in relation to trespass and nuisance, noting that they must comply, at all times, with the requirements of the Air Navigation Order.

17 Can I take photos/videos/sound recordings in flight?

In the UK, CAA permission does not give the right to fly unhindered and you will require permission from the owner, manager, or authority for the land from which the UAS will be taking off and landing. The conditions outlined in the CAA Licence will require you to have control over the area in which you intend to use the camera-UAS; this includes any people or vehicles in the area over which you intend to fly the aircraft. The minimum distances will be stated on the CAA Licence.

In order to exercise the necessary “control” over a nearby public environment, it will often be necessary to contact the local authority to make suitable arrangements, such as road-closures or other restrictions of access. This is a normal part of ground-based filming in urban areas and the same procedures should be followed in the case of camera-UASs. Due to the lead times advisable for making such arrangements, staff should start this process as early as possible. Specifically, the Information Commissioner’s Office has guidance on Data Protection and Privacy.

The ICO does not have jurisdiction outside the UK. You will need to ascertain the requirements of the country’s privacy laws where you will be flying and fulfil their requirements in advance.

The ICO public site has helpful information <https://ico.org.uk/for-the-public/drones/> . The CCTV code of practice has a section on UASs which is suited to organisations <https://ico.org.uk/media/for-organisations/documents/1542/cctv-code-of-practice.pdf> . This code of practice is especially relevant where cameras have capabilities such as face recognition or licence plate recognition.

Code of practice to create Privacy Impact Assessments <https://ico.org.uk/media/for-organisations/documents/1595/pia-code-of-practice.pdf>

Guidance for filming in the UK:

Filming in public spaces <http://www.britishfilmcommission.org.uk/crew-facilities/locations/filming-in-public-spaces/>

Filming support across the UK <http://www.britishfilmcommission.org.uk/crew-facilities/locations/uk-agencies/>

Northern Ireland: www.northernirelandscreen.co.uk

Wales: www.walesscreen.com

Scotland: www.creativescotland.com

England (outside London): www.creativeengland.co.uk

London: www.filmlondon.org.uk

Detailed guidance on UAS flying in UK towns and cities can be found in CAP722 <https://www.caa.co.uk/cap722>.

The new GDPR (General Data Protection Regulation) will have an impact on UAS flights. This regulation became enforceable on 25 May 2018. Further information from Secretariat.

18 What is required to fly in restricted areas on campus?

Proof that the work cannot be carried out elsewhere at all. For example:

- Structural surveys on our buildings by Facilities Directorate
- Promotional and/or artistic material of our campus by third parties

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19 I am designing a UAS, what standards do I need to abide by?

The Provision and Use of Work Equipment Regulations 1998 are followed in the University of Leeds Work Equipment Protocol available from <http://wsh.leeds.ac.uk>

The CAA requires proof of airworthiness in applications for licences for UASs over 20kg (including fuel). You will find guidance on airworthiness and certification in CAP722 Section 4 <https://www.caa.co.uk/cap722> . Proof of airworthiness will need to be documented in the risk assessment (Safety Assessment as referred in CAA guidance)

Independent certification by an expert (e.g. CE marking) is often required when designing and building in house.

20 What is required to fly outside the UK?

The CAA does not have jurisdiction outside the UK. You will need to ascertain the requirements of the country's aviation laws where you will be flying and fulfil their requirements in advance. Be aware that the definitions of types of work (e.g. research/commercial/non-commercial) may be different.

For record keeping, the University will expect you to provide documentation to a similar standard for work carried out in the UK in addition to the documentation required by the destination authority, (for example: risk assessments, operational safety case, flight plans, proof of training).

For further information on the health and safety documentation required for fieldwork, see the Health and Safety Protocol on Fieldwork: http://wsh.leeds.ac.uk/info/131/health_and_safety

21 Other useful resources

Navigation and Charting website: <http://www.skydemonlight.com>

NOTAM map: <http://notaminfo.com/nationalmap>

Official Aeronautical Information Services: http://www.nats-uk.ead-it.com/public/index.php%3Foption=com_content&task=blogcategory&id=1&Itemid=2.html

Detailed Weather Forecast: www.meteoblue.com