

# Health & Safety **Drones & UAVs Policy**

Version	2.0
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Authorised signature	Sean Hughes, Health & Safety Manager

 $<sup>^{\</sup>mathrm{1}}$  or earlier if change in legislation or on risk assessment

#### **Amendment Control**

Version	Date	Amendments
1.0	Nov 2019	
2.0	Oct 2022	Full review

Health & Safety Office Finance & Operations

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# **Policy Summary**

Essentially your responsibilities are:

- Get the relevant permissions prior to planning the use of a drone (Health and Safety, Property & Facilities and Dean of School or Director of Service).
- Have the correct licenses in place prior and during the operation of the drone.
- To know how to fly your drone safely, and do so within the law.
- To understand that the operator is legally responsible for every flight.
- To keep your drone in sight at all times and stay below 400ft.
- Not to fly your drone over a congested area, never fly within 50 metres of a person, vehicle or building not under your control.
- Ensure any images you obtain using the drone do not break privacy laws.
- Avoiding collisions, you should never fly a drone near an airport or close to aircraft. It is a criminal offence to endanger the safety of an aircraft in flight.
- If using a company to carry this out on behalf of the School/Service then ensure that they have the correct licenses, risk assessment and flying paperwork in place prior to undertaking the task.

If in doubt, contact the Health and Safety Team for advice.

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# 1. Flying unmanned aircraft system (UAS)

This Health and Safety policy and guidance establishes the framework for the risk assessment, the risk controls and the health and safety measures to be adopted and implemented for the purchase, use, storage and disposal of drones and unmanned aerial vehicles (UAVs) for Edinburgh Napier University staff and students, and also for others who may be affected by Edinburgh Napier University activities. The objective of the policy is to reduce, so far as is reasonably practicable, the risk of harm, injury or damage, enable legal compliance and promote best practice.

The policy and guidance defines drones/UAVs and considers their use in the context of Edinburgh Napier University activities; identifies the roles and responsibilities for Deans of School/Directors of Services and for staff, students and others who may be affected, and notes the key legal and compliance requirements.

Guidance on practical measures (including training, supervision and competencies) for Edinburgh Napier University and resources for the risk assessment of the use of drones/UAVs are provided or linked.

This policy covers the flying of unmanned aircraft vehicles (e.g. drones or model aircraft) on Edinburgh Napier University's campuses or prior approved locations.

Unmanned aircraft come in a variety of shapes and sizes, including fixed wing, rotary winged, or a combination of both. They all share the common characteristic that the person responsible for piloting the aircraft is not on board it. However, just like any other aircraft, an unmanned aircraft must always be flown in a safe manner.

The main changes are that all 'pilots' need to have completed an on-line test, all drone operators need to be <u>registered with the CAA</u>, and all drones need to have the <u>registration number attached</u> from the end of November 2019 with the Civil Aviation Authority. The mandatory requirement to register covers owners of drones or model aircraft weighing more than 250g (8.8oz). Owners of unregistered drones could then face the threat of a fine. Anyone who wants to fly a drone, including children, will also have to pass the test, which can be taken as many times as required.

UAS can be used for both:

- **Commercial purposes:** To provide a service to the University (e.g. aerial photography for promotional purposes)
- Private/non-commercial: Where it can be demonstrated that it is necessary for research purposes or as an integral part of a course of study (CAA categorise these as Private / Noncommercial)

Recreational use by staff, students and members of the public is not permitted.

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## 2. Commercial use

The commercial use of UAS is controlled by the Air Navigation Order 2016 and permission from the CAA is required for any commercial work with a drone. If you want to arrange for a commercial operator to fly a UAS over one of the University's campuses, you must seek permission first by completing an <u>unusual event form</u> found on Edinburgh Napier University Property & Facilities website.

You will also need to provide the following information before permission can be given:

- A copy of the operator's CAA standard or non-standard permission (dated within 12 months of the proposed flight date).
- A copy of their public liability insurance to a minimum of £10 million. This should specifically cover the flying of UAS for the purpose it is intended (e.g. aerial filming).
- Evidence of competence: current CAA permission and examples of other clients they have worked for will suffice.
- Confirmation of an approved operations manual for the type of flight being proposed, detailing key people, responsibilities and operational procedures in line with CAA requirements.
- A location specific risk assessment and method statement (i.e. a description of what they intend to do).
- Confirmation of compliance with the University's requirements for ensuring privacy.

# 3. Dean of School/Director of Service

Deans of School/Directors of Service are responsible for:

- a) Ensuring all drone operators within their School/Service are competent and registered with the CAA. All drones/UAVs are required to have the registration number attached.
- b) Ensuring consideration is given to the use of drones/UAVs within their area of operation prior to being put into use.
- c) Ensuring that an appropriate <u>risk assessment</u> for use of drones has been carried out, along with any permissions or permits required, and ensuring that the required health and safety control measures have been implemented.
- d) Ensuring the local use of drones/UAVs procedures and arrangements (including training and competency of those piloting them) are clearly and explicitly laid out in School/Service safe systems of work/procedures and/or on their websites.
- e) Ensuring anyone using drones/UAVs are aware of the relevant arrangements and are adequately trained and supervised.
- f) Ensuring that any required permits are up to date and suitable for the intended work.
- g) Periodically reviewing arrangements for the use of drones/UAVs to ensure their continued effectiveness.
- h) Taking appropriate corrective action when non-compliance is brought to their attention.

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<sup>\*</sup>Responsibilities cannot be delegated, although tasks associated with a particular responsibility can be delegated to a competent person.

# 4. Line manager

Line Managers (Academic Supervisors, Managers/Supervisors, Hosts of Visitors/Contractors)

All line managers are responsible for:

- a) Conducting and approving a risk assessment for the use of drones/UAVs for the person/s they line manage, supervise, instruct or host. If responsibility is delegated, they should ensure that the person carrying out the risk assessment is competent to do so.
- b) Where **significant** risks or any operations involving drones/UAVs in excess of 7kg are involved, permission is required to be obtained and granted from their Dean of School/Director of Service for themselves and/or the persons they line manage, supervise, instruct or host.
- c) Ensuring any regulatory permits necessary for the intended work are in place. If a drone/UAV is to be used out with the United Kingdom, consideration and compliance must be given to any laws, aviation regulations, permits or requirements specific to that country.
- d) Ensuring that all flight missions have been thoroughly planned and that plans have been approved before the activity is undertaken.
- e) Ensuring that any identified health and safety control measures are fully implemented, that risks are reduced to negligible levels and controls are monitored for effectiveness.
- f) Ensuring that the person piloting the drone and all participants in the flight team are competent and fully aware of and adhere to all the health and safety control measures.
- g) Ensuring that any person involved in the use of drones/UAVs has full knowledge of all emergency procedures.
- h) Ensuring that all drones/UAVs are maintained in good working order with all necessary checks undertaken.
- i) Report any non-compliance of procedure to their Dean of School/Director of Service.
- j) Ensuring any accidents or near miss incidents are reported as per Edinburgh Napier University accident/incident reporting procedures.

#### 5. All drone users

Anyone working with drones/UAVs (staff, student or other)

Anyone using a drone is responsible for:

- a) Ensuring that they are registered with the CAA. All drones/UAVs are required to have the registration number attached.
- b) Ensuring that they have obtained prior permission for the use of the drone/UAV from their line manager, supervisor or host, and where significant risks are involved, their Dean of School/Director of Service.
- c) Ensuring any regulatory permits necessary for the intended work have been obtained. If a drone/UAV to be used out with the United Kingdom, consideration and compliance must also be given to any laws, aviation regulations, permits or requirements specific to that country.

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- d) Unmanned aircraft operators should also be mindful of 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 relevant UAS operating regulations.
- e) Unmanned aircraft should be flown at a height over the property of another person which is 'reasonable' in all circumstances. Failure to do so could amount to trespass if the flight interferes with another person's ordinary use and enjoyment of land and the structures upon it.
- f) Informing their line manager/supervisor and Dean of School/Director of Service if they have any existing health condition or disability that may increase risk from using the drone/UAV. (For guidance on when disclosure may be appropriate for health conditions, consult Edinburgh Napier Occupational Health Service (OHS) and for students, Student Wellbeing & Inclusion.)
- g) Ensuring that a suitable and sufficient risk assessment has been completed with any identified control measures being implemented and followed.
- h) Ensuring that they have agreed the mission plan and the plan has been approved by their line manager/supervisor.
- i) Ensuring that any personal protective equipment (PPE) which may have been identified in the risk assessment is used and worn correctly.
- Checking all equipment and PPE for any signs of damage or defects prior to use, ensuring any checklists are completed and shortcomings reported.
- k) Adhering to agreed protocols for emergencies, such as:
  - Awareness of first aid provision arrangements.
  - Having access to communication and all relevant emergency contacts.
- I) Informing their line manager immediately if there are any problems, issues or changes to the agreed arrangements.
- m) Ensuring that they and all members of the flight team are competent and have undertaken all relevant training.
- n) Ensuring accidents and incidents are reported as per the Edinburgh Napier <u>accident/incident</u> reporting procedures.

# 6. Property & Facilities

Property & Facilities is responsible for:

- a) Agreeing permission, only after the user has completed an <u>unusual event form</u> and a full risk assessment including exact location, dates and times for use of drone/UAV.
- b) Working with Deans of School/Directors of Service and external Edinburgh Napier University premises users in order to control access to buildings/areas under their control or remit, both during normal and outside working hours where drones/UAVs may be used.
- c) Assisting the Deans of School/Directors of Service in assessing any access control requirements and implementing any suitable control measures deemed essential to the use of drones/UAVs on Edinburgh Napier University premises.

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# 7. Managers and supervisors of contractors

Managers and Supervisors of Contractors are responsible for:

- a) Ensuring that any contractors using drones/UAVs on behalf of Edinburgh Napier University are competent in their use. Managers should be satisfied that contractors can demonstrate the appropriate level of knowledge, experience and training required to undertake the required task.
- b) Obtaining and ensuring the contractor's risk assessments and safe systems of work are suitable to ensure that the activity has been planned and will be undertaken safely.
- c) Ensuring that Property & Facilities and Health & Safety are contacted where appropriate.
- d) Ensuring that contractors have the appropriate insurance cover in place.
- e) Ensuring that the contractor has obtained the appropriate permission levels from the CAA if they are undertaking activities that do not fall under the standard CAA permissions.
- f) Ensuring permission has been obtained from the land/property owner.
- g) Ensuring that contractors have an emergency plan in place and are aware of their responsibilities.
- h) Ensuring that contractors are inducted and aware of the areas and locations they are permitted to access, any site specific or location hazards, how to report incidents etc.

## 8. Contractors

Contractors are responsible for:

- a) Providing all relevant completed risk assessments, procedures and safe systems of work (including emergency procedures) prior to undertaking any work/activity.
- b) Providing any other relevant documents such as insurance certificates and permits where required.
- c) Complying and cooperating with Edinburgh Napier University procedures and information provided.

# 9. Safety Co-ordinators

School/Service Safety Coordinators are responsible for:

- a) Assisting their Dean of School/Director of Service to develop and implement local procedures and arrangements for the purchase of and use of drones/UAVs.
- b) Assisting their Dean of School/Director of Service to periodically monitor and review the arrangements for the use of drones/UAVs.
- c) Assisting their Dean of School/Director of Service to take any appropriate corrective action when non-compliance is brought to their attention.

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# 10. Health & Safety Team

The Health & Safety Team is responsible for:

- a) Providing Edinburgh Napier University management, staff and students with advice, guidance, tools and templates for the assessment of risk in relation to the use of drones/UAVs and the implementation of both effective and adequate control measures.
- b) Monitoring the local arrangements and procedures for the use of drones/UAVs, by proactive and reactive measurements (auditing compliance with this guidance, ensuring the guidance remains robust and up to date).
- c) Investigating incidents, accidents and significant near misses arising from breaches and non-compliance of this guidance and recommending corrective actions.
- d) Reporting to Senior Management on the effectiveness of Edinburgh Napier University's use of drones/UAVs procedures and arrangements and recommending improvements.

# 11. Monitoring

The compliance by Schools and Services with this guidance is monitored by the regime of health and safety inspections, audits and School/Service annual health and safety reports.

#### Other conditions:

- a) The operator is required to visit the site prior to any proposed flight in order to carry out the location specific risk assessment.
- b) Some pre-planning may be undertaken using research of Google and campus maps.
- c) If the site specific risk assessment cannot be provided until shortly before the event, an example of a risk assessment for a similar flight (suitably anonymised) can be provided by the operator beforehand, so that advice can be given on whether it meets our requirements. This would save time when we come to approve the site specific risk assessment.
- d) If the drone/UAV is likely to be operated over non-university owned land, the land owner's permission will be required.
- e) Specific times and days for any intended flights should be intimated and liaison with Marketing & External Relations and the Students' Union sought to ensure there are no events taking place on the day that may be adversely affected. You may be restricted to quiet times (e.g. early Sunday mornings).

Note: The CAA has a list of <u>current holders of the CAA permission</u> which is updated monthly. The <u>DroneSafeRegister</u> can also be used to source CAA approved and insured UAV pilots.

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# 12. Operating drones/UAVs in controlled airspace and aerodrome traffic zones

Flights of unmanned aircraft around aerodromes that are designated as 'protected aerodromes' are restricted. Unmanned aircraft of any size must not be flown within the Flight Restriction Zone (FRZ) of a protected aerodrome, without appropriate permission.

The Flight Restriction Zone consists of the following three elements:

- A zone with the same dimensions as the Aerodrome Traffic Zone: A 2 or 2.5 nautical mile radius 'cylinder' around the aerodrome, extending 2000ft above ground level, centred on the longest runway.
- Runway Protection Zones: A rectangle extending 5Km from the threshold of each runway away from the aerodrome, along the extended runway centreline, and 500m either side - also to a height of 2000 ft above ground level.
- Additional Zones: In the case where a line that is drawn 1Km beyond the boundary of an aerodrome extends beyond the Aerodrome traffic zone, and so would not be protected by it, the flight restriction zone will include a 'bump' (the airfield boundary + 1KM) to protect this part of the aerodrome.

The exact shape of the Flight Restriction Zone varies depending on the specific aerodrome that it protects. Prior to flight, remote pilots should check to ensure that they are operating well outside these areas. This may be obtained from official sources:

- Civil Aviation Authority where you can fly
- <u>Civil Aviation Authority airspace restrictions</u>
- The UK Aeronautical Information Publication
- The UK Military Aeronautical Information Publication

The restriction zone for Edinburgh airport is a 2.5 mile radius zone. It is now illegal to fly a drone at any time within the restricted zone unless permission has been obtained from the air traffic control.

All three campuses are inside Class D airspace which means flights above 120 metres must obtain approval from the CAA. There are no separate regulations regarding flights below 400ft but you must also refer to stipulations in the <a href="Drone Code">Drone Code</a> prior to use.

# 13. Categories of operations

UAS operations are divided into three operating categories and every flight will fall into one of these, depending on the level of risk. The first and most essential point to address is to determine the category that your flight will be conducted under. The three categories are:

#### **Open category**

- This covers relatively simple operations that present a low risk to other people or property.
- Flights are subject to a set of basic, pre-determined rules, within which there are some further sub divisions.

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- In most cases, the UAS operator needs to be registered and the remote pilot needs to pass a simple test, but apart from this there is no requirement for any authorisation from the CAA.

#### **Specific category**

- This covers medium risk operations, or operations that fall outside the boundaries of the Open category.
- All flights must be conducted in accordance with an operational authorisation, that has been issued by the CAA.

#### **Certified category**

- This covers high risk operations, where the overall risk requires the same approach that is taken for manned aviation in order to maintain safety.
- The UAS must be certificated, the UAS operator must be certified and the remote pilot must hold a suitable licence.

# 14. Use for research and study purposes

Use of UAS for research and study purposes is covered by the Air Navigation Order 2016 (ANO) and subsequent Air Navigation (Amendment) Order 2020. By following the guidance below you will be complying with the ANO as well as the University's requirements.

You must first seek permission by completing an <u>unusual event form</u> found on the Property & Facilities website.

You will need to ensure a <u>risk assessment</u> is completed and a description of what you intend to do.

Your risk assessment should include the following areas:

- a) Registration of drone/UAV.
- b) Competence to fly the UAS.
- c) Area(s) permission of where you intend to fly.
- d) Planning: take off, landing, area of flight, site specific hazards, potential for collision, weather conditions, wind speed parameters (taking account of the operator manual for the UAS).
- e) Confirmation that the CAA's Drone Code will be followed.
- f) Equipment maintenance.
- g) Fail safes to deal with loss of the control signal and testing of fail safes.
- h) Emergencies.
- i) An example risk assessment is provided (See Appendix A).
- j) You must have public liability insurance (see below).

You must follow the Civil Aviation Authority's **Drone Code**. This includes the following:

- You must maintain direct, unaided visual contact with the UAS to monitor its flight path in relation to other persons, vehicles, or structures.
- The UAS must be flown below a height of 120m (400ft) at all times.
- The UAS must not be flown over or within 50m (150ft) of any people and property and 150m (500ft) of crowds and built up areas.

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Note: If you need to fly outside of the above limits, you will need to apply for CAA permission and commercial use criteria will apply.

#### 15. Insurance

Only drone/UAS owned and operated by the University are covered by the University's Public Liability Insurance. For this reason drones/UAVs used in teaching or research activities must preferably be University owned. If drones/UAVs are not owned by the University, owners must then provide evidence that public liability insurance to a minimum of £10 million is in force. Finance Services must be provided with details of any UAS owned by the University, so that it can be ensured and confirmed that they are covered by the insurance.

UK drones/UAVs regulations have been constantly developing over the last few years and there have been major changes over the last 12 months. The main changes are that all 'pilots' need to have completed an on-line test, all Drone/UAV operators need to be <u>registered with the CAA</u>, and all drones/UAVs need to have the registration number attached.

# 16. Accident, incident or dangerous occurrence reporting with drones

Report any incident, near miss, accident or dangerous occurrence to the Health & Safety Office. It will then be determined if the occurrence requires to be reported to the authorities.

<u>Mandatory Occurrence Reporting – Article 16 requirements – Model Aircraft & Drone Flying – Be</u> Lawful – Be Safe – Be Responsible (bmfa.uk)

The definition of what constitutes an **occurrence** should be considered to determine whether a report must be submitted:

An **occurrence** is any safety-related event which endangers or which, if not corrected or addressed, could endanger an aircraft, its occupants, or any other person. **Accidents** and **serious incidents** are classifications of **occurrence**.

#### Mandatory reporting to the Air Accident Investigation Branch (AAIB) and CAA

The following **occurrences** must by law be reported to the AAIB as soon as possible by telephone on 01252 512299 (manned 24 hours/day) and to the CAA (this can be done via the BMFA's online reporting portal);

**Accidents** - defined as an occurrence which takes place between the time the aircraft is about to take off until it comes to rest at the end of the flight with its propulsion system shut down, in which

- a person is fatally or seriously injured;
- the aircraft sustains damage or structural failure in operation which results (or may result) in endangering;

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 the aircraft goes missing or becomes completely inaccessible in manner which could result in endangering;

**Serious incidents** – defined as an occurrence where there was a high probability of an **accident** associated with the operation of the aircraft.

#### Mandatory reporting to the CAA

In addition to accidents and serious incidents, it is a legal requirement to report any occurrences involving manned aircraft to the CAA (this can be done via the BMFA's online reporting portal). Our Article 16 Authorisation also adds the requirement to report to the CAA any serious incidents or other occurrences which involve:

- Operating above 400ft
- Operating less than 50m from uninvolved people

It is also a requirement to report any instances of flights which go beyond the visual line of sight of the remote pilot.

# 17. Privacy

You must not film people unless you have their permission. You must comply with the University's requirements (Appendix B).

# 18. Definitions

The CAA use the following definitions:

**Small unmanned aircraft:** any unmanned aircraft, other than a balloon or a kite, having a mass of not more than 20 kg without its fuel but including any articles or equipment installed in or attached to the aircraft at the commencement of its flight.

**Commercial operation:** any operation of an aircraft other than for public transport; which is available to the public or which, when not made available to the public, is performed under a contract between an operator and a customer, where the latter has no control over the operator, in return for remuneration or other valuable consideration.

Within the Visual Line Of Sight (VLOS) of the person flying the aircraft: This means that the unmanned aircraft must be able to be clearly seen by the remote pilot at all times when it is airborne. By doing this, the remote pilot is able to monitor the unmanned aircraft's flight path and so manoeuvre it clear of anything that it may collide with. While corrective spectacles can be used to look at the aircraft, the use of binoculars, telescopes, or any other image enhancing devices are not permitted.

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**Congested area:** means, 'in relation to a city, town or settlement, any area which is substantially used for residential, commercial, industrial or recreational purposes'.

**Standard Permission:** This enables a person to conduct commercial operations with a small unmanned aircraft (drone) and also permits drones/UAVs weighing 7kg or less to be operated within a congested area. Potential operators are required to provide evidence of pilot competence and an Operations Manual which details how the flights will be conducted. Valid for 12 months.

**Non-Standard Permission:** This covers all other types of flight and addresses operations that contain a greater element of operating risk. In addition to the requirements for a Standard Permission, applicants are also required to prepare and submit an Operating Safety Case (OSC) to the CAA. Valid for 12 months.

A list of CAA approved organisations can be found on their website.

# 19. Further information

The <u>CAA website</u> contains information on use of UAS's for commercial, recreational and provide use.

The <u>Drone safe register</u>

A list of CAA approved organisations can be found on their website

Register to fly a drone or model aircraft | Civil Aviation Authority (caa.co.uk)

The Air Navigation (Amendment) Order

Civil Aviation Authority: CAP1627: Drone Safety Risk: An assessment

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# **Appendix A: Sample Risk Assessment**



# **Edinburgh Napier University** DRONE/UAV RISK ASSESSMENT FORM **EXAMPLE ONLY**

SCHOOL/SERVICE:	LOCATION:	DATE:					
Description of event/activity: (Please include as much detail as possible)							
Operations Manual and will only be operated by an approved competent remote pilot.							
Prior to any flight, the completion of relevant documentation and checklists as detailed in the operations manual must be followed.							
PPE required for task: Hi-Viz jacket for pilot and observers, eye protection, footwear.							

NO	HAZARDS IDENTIFIED	PEOPLE AT	EXISTING CONTROL		RISK		FURTHER	RESI	DUAL R	ISK	ACTION BY WHOM	ACTION BY	COMPLETED
	Hazards identified : Something which has the potential to harm (Consult help sheet)	People at risk from hazards: Staff, Students, Visitors, Contractors, etc.	Existing control : What controls are already present	Н	M	L	ACTION/RECOMMENDATIONS  Further action / recommendations :  Additional controls that could be put in place to lower the risk	Resid H	dual Ris M		Action by whom :  Who is carrying this out	Action by when : date	Completed : Sign off when all controls in place and task ready to start
1	Compliance	All in vicinity	All drones/UAVs registered.     The remote pilot must not fly the aircraft in any of the circumstances described below except in accordance with a permission issued by the CAA.     Don't fly near airports or airfields without permission from air traffic control.     Observe your drone/UAV at all times – stay 150ft (50m) away from people and property.     Drones/UAVs with surveillance cameras must not be flown within 50 metres of any person unless approval has been permitted.     Comply with Operation Manual				<ul> <li>Follow all additional rules when applicable to the specific site.</li> <li>Never fly while taking medication, prescribed or otherwise that may impair the pilot.</li> <li>Comply with drone code.</li> <li>The European Aviation Safety Agency have a drone safety video: www.youtube.com/watch?v=5Xs_eVx4nuw</li> </ul>				Remote Pilot and crew	Ongoing	

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NO	HAZARDS IDENTIFIED	PEOPLE AT RISK	EXISTING CONTROL		RISK		FURTHER ACTION/RECOMMENDATIONS	RESI	DUAL F	RISK	ACTION BY WHOM	ACTION BY WHEN	COMPLETED
	Hazards identified: Something which has the potential to harm (Consult help sheet)	People at risk from hazards: Staff, Students, Visitors, Contractors, etc.	Existing control : What controls are already present	Н	M	L	Further action / recommendations :  Additional controls that could be put in place to lower the risk	Resid H	dual Ri: M	k L	Action by whom : Who is carrying this out	Action by when : date	Completed: Sign off when all controls in place and task ready to start
2	Competence	All in vicinity	<ul> <li>All drone operators need to be registered with the CAA and all drones/UAVs need to have the registration number attached.</li> </ul>				All operators must have evidence of their competence: Current CAA permission, and examples of other clients they have worked for.				Remote Pilot and crew		
3	Permission / Compliance	All in vicinity	<ul> <li>The pilot will seek permission in advance in line with the University procedure.</li> <li>Off campus, permission to fly is required from the property owner.</li> <li>Where required notification to air traffic control.</li> <li>Approval of location and risk assessment to area must be completed.</li> </ul>				<ul> <li>Planning, administration and operating checklist to be completed.</li> <li>Equipment tested carefully before the flight.</li> <li>Remote pilot to have NQE approved training.</li> <li>Emergency procedures in place.</li> <li>Record and report incident in line with CAP382.</li> </ul>				Remote Pilot and crew	Ongoing	
4	Weather	All in vicinity	<ul> <li>Accurate weather forecast checked prior to flight.</li> <li>Weather to be monitored at all times during flight with a view to landing should weather deteriorate.</li> </ul>				Poor visibility or weather condition, no flights permitted.				Remote Pilot and crew		
5	Pedestrians and traffic	All in vicinity	<ul> <li>Tape off exclusion zone where possible.</li> <li>At least one spotter is dedicated to supervising access to zone.</li> <li>Flying in the middle of the field and away from pedestrians and traffic.</li> </ul>				<ul> <li>P&amp;F/H&amp;S informed.</li> <li>Wearing of appropriate Hi-Viz jackets.</li> </ul>				Remote Pilot and crew		
6	Emergency	All in vicinity	<ul> <li>Local emergency arrangements in place.</li> <li>Campus induction leaflet communicated.</li> </ul>				<ul> <li>Where off-campus consider emergency arrangements.</li> <li>P&amp;F/H&amp;S informed.</li> <li>Safely land UAS and record/report incidents.</li> </ul>				Remote Pilot and crew		

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Version: 2.0

NO	HAZARDS IDENTIFIED	PEOPLE AT RISK	EXISTING CONTROL		RISK		FURTHER ACTION/RECOMMENDATIONS	RESI	DUAL	RISK	ACTION BY WHOM	ACTION BY WHEN	COMPLETED
	Hazards identified : Something which has the potential to harm (Consult help sheet)	People at risk from hazards: Staff, Students, Visitors, Contractors, etc.	Existing control : What controls are already present	Н	M	L	Further action / recommendations :  Additional controls that could be put in place to lower the risk	Resi H	M M	L L	Action by whom : Who is carrying this out	Action by when : date	Completed: Sign off when all controls in place and task ready to start
7	Wildlife, livestock, domestic pets etc.	All in vicinity	<ul> <li>Risk assess area prior to flight of risks to livestock or restrictions.</li> <li>Keep a responsible distance away from domestic animals, pets and working animals (e.g. assistance dogs).</li> </ul>				Appropriate permissions should be sought from the relevant bodies e.g. Scottish Natural Heritage, National Trust for Scotland, landowners, leaseholders etc.				Remote Pilot and crew		
8	UAS collision or near miss with other air users.	All in vicinity	<ul> <li>Activity in line with CAA legislative requirements and Operations Manual.</li> <li>Air Traffic Control will be informed.</li> </ul>				Follow drone code.     The full regulations can be found at: https://www.caa.co.uk/home/				Remote Pilot and crew		
9	Maintenance and servicing	All in vicinity	<ul> <li>The drone/UAV will be serviced and maintained in line with the manufacturer's instructions.</li> <li>Batteries will be stored within a fireproof bag whilst they are charging.</li> </ul>				<ul> <li>The batteries will be monitored whilst charging so that they are not overcharged.</li> </ul>				Remote Pilot and crew		
10	Crash into building/people	All in vicinity	The remote pilot has undertaken relevant training. The Pilot must ensure they are 50 meters away from people and property.				Restriction area set up.     Consideration where communication is required.     If the computer's link to the quadcopter is lost the hand controller always has the ability to take control and land the drone/UAV.				Remote Pilot and crew		
11	Security	All in vicinity	<ul> <li>No lone working when flying drone/UAV permitted.</li> <li>Staff will not leave any property unattended.</li> </ul>				Emergency contact number recorded.				Remote Pilot and crew		
12	Insurance	All in vicinity	The University's public liability and employer's liability insurances would respond where damage and/or injury to 3rd party property, assets or				Copy of insurance for Drone/UAV use available on request from Finance. The building and contents insurance would respond to				Remote Pilot and crew		

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			individuals was caused by flight of a drone/UAV and the University was found to be negligent.  Insurance stipulates NQE training required.				damage to University owned building and property.										
13	Data protection/camera	All in vicinity	Consideration must be given in relation to images gathered. This must be taken into account when considering the flight location and should be stated in the site-specific risk assessment if applicable.				Respect people's privacy at all times.     Send out communication notification when applicable.				Remote Pilot and crew						
14	Any other hazards/risks		•				•										

Review Date1:	Signature:	Job Title:	

<sup>&</sup>lt;sup>1</sup> 12 months following any of the following: Accident, Incident, Near-miss, Equipment failure, Change in legislation etc

Note: For you to produce a risk assessment you can use the template above but must also include anything not covered in <a href="Maintenance-CAP1627">CAP1627</a> Jan2018.pdf (caa.co.uk). Your assessment must be fully completed with risk ratings, responsible persons, signed, etc

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# Appendix B: Privacy requirements – drones and unmanned aircraft

All Drones/UAVs must have an 'Information Asset Owner' (IAO), who is responsible for dealing with any queries in the event of an incident (ICO data or CAA legislation breach) with the equipment. A log must be kept detailing all flights, area covered by the flight, pilot and the purpose of the flight. The IAO must ensure anyone using the equipment has read this guidance.

If you are using a drone or unmanned aircraft for filming on campus you must make sure that:

- people are aware of what you are doing
- you protect people's privacy
- if people are likely to be recognisable in your footage then you give them the opportunity to have their image, voice and/or geolocation removed

#### 1. Making people aware

- a) Put out a communication to let everyone know what the drone/UAV is doing, when it will be doing it, and reassuring people that there will not be any recognisable footage/images being taken.
- b) Privacy Notice signs must be placed at the entrance to and in the area where filming is taking place. Privacy Notices (napier.ac.uk)
- c) The drone/UAV operator must be clearly identifiable to people (through Hi-Viz/distinct clothing and ID badge/notice they can stand near).
- d) You must let people know what the purpose of the drone usage/flight is and what the data will be used for.
- e) The drone/UAV operator must be able to tell people how to find out if their image has been captured and to stop their image being used.

#### 2. Protect privacy

- a) Where possible, film at weekends and times when not many people are likely to be on campus.
- b) Filming should be done from a height that will mean that any people captured on film are not likely to be recognisable in any footage.
- c) Only film in your line of sight (and ensure you comply with all CAA\* requirements).
- d) Only film in a public area. Do not take footage through windows or in places where there is a higher expectation of privacy e.g. a private house and grounds or accommodation of any type. Permission should be sought for filming in these areas.
- e) Avoid filming number plates (or blur them out in footage/stills).
- f) Do not publish images/audio containing personal data on publicly accessible platforms e.g. social media, websites, etc.

#### 3. Removing images

Let people know how to object to their image being used. The process must be straightforward e.g. provide the pilot and supervisor details.

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#### Please don't:

- Ask people to complete a long form or write a letter.
- Ask for a fee for removal.
- Ask for reasons for removal.

If the footage contains identifiable images and audio then it is classed as personal data. If you do need to use recognisable images of individuals from the footage then you must get their permission.

#### 4. Security

Make sure personal data is stored securely, shared only with permission, and destroyed when it is no longer needed.

- Where images or other personal data are transmitted from the drone/UAV back to the pilot (e.g. a live feed of video footage over Wi-Fi to a smartphone app) then the data should be appropriately protected against interception by using an encrypted wireless communication link. Using an encrypted wireless communication link may also give some protection against potential hijacking of the vehicle.
- Where images or other personal data are stored on the vehicle (e.g. an on-board memory card) then the data should be appropriately protected in the event of loss or theft (e.g. following a crash). The data can be appropriately protected using encryption.
- You must also consider the security of footage once transferred from the device for longer-term storage.

Bear in mind that the police and other authorities, including campus security, could potentially ask to see your footage if they have reason to believe you have captured evidence of an incident or offence. Individuals also have the right to access their data and request rectification or deletion. Individuals can complain to the regulator if processing of their personal data causes harm and distress.

#### 5. Further information

- a) Registration Register to fly a drone or model aircraft | Civil Aviation Authority (caa.co.uk)
- b) Read the Regulator (Information Commissioner ICO) advice here: Additional considerations for technologies other than CCTV | ICO
- c) If you have any queries regarding data protection matters contact Governance Services dataprotection@napier.ac.uk
- Read the Regulator (Civil Aviation Authority \*CAA) advice here:
   Remotely piloted aircraft and drones | Civil Aviation Authority (caa.co.uk)

#### 6. Complying with the Data Protection Principles

1) Lawfulness, fairness and transparency: Must have a legitimate purpose for processing personal data, a legal basis, processing must be fair to the individual whose data is collected (protect privacy) and a Privacy Notice must be provided.

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- 2) **Purpose limitation:** must only be used for the purpose the data was collected, no other unrelated purpose either now or in future.
- 3) **Data minimisation**: only collect the personal data strictly needed for the purpose and destroy any collected inadvertently.
- 4) **Accuracy**: All data must be accurate, may not be an issue initially, but may be the longer data is kept (depends on what images/audio is recorded).
- 5) **Storage limitation:** Must only be kept as long as required for the purpose it was collected and destroyed as soon as possible afterwards.
- 6) **Security:** As above, ensure personal data is kept securely at all stages of processing encrypt storage card, Wi-Fi/Bluetooth transmission, transfer securely onto University network and delete from portable media asap, ensure securely stored on University network in restricted/password protected area (system, files), only processed by those with permission, destroyed securely asap.
- 7) Accountability: The 'Information Asset Owner' is responsible for keeping a log of all usage of the device (flights, pilot/s, area covered, purpose of flight and that pilot and any other users of the device and data gathered/processed have read this guidance).

# Additionally:

- Data must not be kept outside the European Economic Area (EEA) e.g. cloud storage, online hosting, website publication or any third party storage/processing.
- Rights: Individuals have the right to access their data, stop their data being used and ask for their data to be deleted – you must be able to do this if asked.
- Profiling: data must not be processed to make decisions about individuals.
- Incidents/Breaches: if there is a suspected or actual incident/breach report it to Governance Services: <a href="mailto:dataprotection@napier.ac.uk">dataprotection@napier.ac.uk</a> .

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