

Filming with drones in the UK - Guidance for Productions

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Overview

This document is intended for guidance when it comes to planning your flight of an unmanned aircraft. The responsibility lies with you as the operator to seek the official guidance from the Civil Aviation Authority (CAA), to ensure that you are operating legally within the UK and that you comply with the regulations based on the category that your operation falls within.

When filming with a drone, as with any other kind of camera, a production requires permission from the landowner to carry out commercial filming activity. As a Drone Operator or Pilot you should seek permission to take-off and land the drone, as without permission, you could be guilty of (**civil**) trespass. The Operator and Drone Pilot are responsible for proper use of the airspace. Outside of take-off and landing of the drone, prior to conducting any flight it is recommended that you assess the risk and plan your operation well in advance. These are the key factors you should consider before planning your flight.

Distance from uninvolved persons

The regulations are primarily based on the distance from persons rather than vehicles vessels and structures, however vehicles and buildings will normally contain people, so the operator must take this into consideration and not cause or permit the aircraft to endanger them. "Distance from persons" should therefore be taken to include vehicles and buildings unless these are known to be unoccupied, to ensure safety and best practice.

The minimum required distance is determined by the weight and type of aircraft. These rules vary depending on the specific category requirements or if you, as a Drone Operator or Pilot hold an Operational Authorisation the basic rule is to not fly within 50m from assemblies of people – subject to the 1:1 rule (unless in the A1 sub-category) and no overflight when operating in the open category. Overflight is only allowed in A1 sub-category, or when operating within the boundaries of a CAA Operational Authorisation. Please [see table](#) for further details.

If your aircraft has no minimum distance required from persons, we would recommend that 5m distance be observed as an absolute minimum to help ensure safety. Operators should also observe the 1:1 rule for separation distances to allow a safe flight - this is a rule of thumb which states that you must remain equal distance horizontally and vertically, e.g. 100m high requires 100m horizontal separation.

Overflight of uninvolved persons

You should assess the area to ensure that no people are put at unnecessary risk from the aircraft, you should also ensure that you are not overflying uninvolved people. In most cases it is illegal to overfly uninvolved people unless you hold an Operational Authorisation with the CAA or are operating with a smaller aircraft. Please [see table](#) for further clarification.





Congested areas

A congested area is defined as a Town, City, Industrial or Recreational area. To fly within a congested area you must fall into the correct criteria and this requires further training in most cases. It is illegal to fly your drone in these areas if it does not meet the standards of pilot competency, or the weight limitations fall outside of what is deemed to be safe.

Assemblies of people

Assemblies of people can be thought of as any situation where people cannot easily or quickly move away in case of danger - e.g. commercial streets, beaches, concerts, play parks, rallies. Assemblies of people should be avoided whenever possible and it is illegal to overfly any assembly of people in the majority of cases ([see table](#) for requirements for each category).

Airspace near airports

It is illegal to fly your drone in or around an airport which has a flight restriction zone without permission. You must obtain permission from the relevant air traffic control or airfield operator if you wish to fly in this area. Some airfields do not have these restrictions in place, but you must identify them in the planning process to ensure that you do not endanger manned aviation at these sites. Restricted areas mapped at [NATS website](#) (National Air Traffic Services).

Risks around roads

There are many risks to flying around busy roads, and this should be avoided wherever possible. Any possible loss of control around a road could potentially cause a traffic accident, and anything that may distract a driver is a significant hazard also.

As vehicles contain people, you must not overfly them at any height when operating your drone within the open category unless your aircraft falls within that criteria or you hold a CAA Operational Authorisation, in which case you must ensure that a safe flight can be made, which is your personal responsibility.

We do not recommend the overflight of roads. To reduce risk, if necessary, it is best practice to treat roads as if you were crossing them on foot, i.e. to fly over only if there is a sufficient gap between cars that would allow you to cross over safely if on foot.

Weather

You must ensure that you assess the weather well in advance of any planned flights and then re-assess prior to take off. Considerations for wind and rain should be made and most aircraft are not waterproof (unless specified by the manufacturer) so flights in wet conditions should be avoided.

You should check the manufacturer's maximum wind resistance on the aircraft that you are flying to avoid the risk of catastrophic failure if it is flown outside of the aircraft's recommended limits or "flight envelope".

Insurance

If you are flying for a commercial purpose, then you must have valid insurance. This insurance has to comply with the regulations [EC 785/2004](#) regardless of any other insurance you may





have. If the flight is recreational then no insurance is legally required, however we recommend having public liability insurance as an absolute minimum.

Visual Line of Sight (VLOS)

All flights must be conducted within VLOS all times to a max of 500m (unless the Operator or remote pilot holds an exemption). The 500m limit is not a factor in the open category, but the drone must within VLOS at all to the naked eye to monitor its path and maneuver it clear of obstructions and avoid collisions.

From the 1st January 2023, all remote pilots must hold a General Visual Line of Sight Certificate (GVC) which is a qualification required for Operational Authorisation and allows pilots to operate in the Specific Category.

Drone Categories

The rules for each aircraft are dependent on the weight of the aircraft, or mass when it is in flight (Maximum Take Off Mass or "MTOM"), and when the drone was manufactured and thus whether it meets certain new safety standards.

Which Category is right for your project?

If your operation involves any of the following:

- Flying within a congested area
- Flying near live roads
- Flying close to persons or crowds
- Flying near or around airports
- Flying near railways
- Flying an aircraft over 2kg
- Flying within controlled airspace

We would generally recommend that you hire a suitably qualified drone operator or pilot for your production. This will ensure that they understands the regulations and will save time, whilst maintaining safety.

Where you are using a smaller aircraft and are not flying close to uninvolved persons, this is generally a suitably low enough risk for flights in the Open Category.

UK Drone Categories

Drone categories and sub-categories (that determine what Pilots are allowed to do) are based on the estimated risk associated with that category of drone, which is determined by the weight of the drone. These regulations are split into three categories:

****Note** All commercial activity requires insurance compliant to [EC 785/2004](#)**

Every flight carried out under the remit of an operational authorisation, commercial or otherwise, must be covered by insurance





OPEN CATEGORY	Little to No Risk
SPECIFIC CATEGORY	Medium / Special Risk
CERTIFIED CATEGORY	Same regulation as manned aviation.

Note: This document will not give information on the 'Certified Category' and production companies or operators should not be concerned about this and focus on the Open and Specific Category Rules **ONLY**.

OPEN CATEGORY

Overview

The Open Category is designed for the use of aircraft that pose little to no risk and usually consist of drones that weigh less than 25kg. The Open Category is divided into three sub-categories

In all A1 sub categories: Max height 120m/400ft - No dropping of articles - No carriage of dangerous goods.

All flights must be within visual line of sight of the operator / remote pilot.

Anyone operating in the Open Category is not subjected to an operations manual requirement and therefore is not in the oversight of the CAA. Within the Open Category there is no requirement for paperwork, but you should still check take off and landing permissions, airspace and abide by the terms of the Open Category and drone code in which you intend to operate. Varying levels of training and demonstrations of competency are required for the different sub-categories a list of which can be found here: [The Drone and Model Aircraft Code](#).

A1 This sub-category allows the flight of aircraft weighing up to **250g**, close to people and over people, but not over assemblies of people with the requirement of an Operator ID only.

It also allows flights of aircraft up to **500g**, but **without any overflight of uninvolved people or assemblies of people. For this the** the pilot requires their Operator ID, Flyer 1D and A2 Certificate of Competency documentation

For more information see here [CAP2012](#)

A2 This sub-category allows the flight of aircrafts weighing up to **2kg** ' Within this sub-category the pilot can fly close to people (50m horizontal subject to 1:1 rule) but no overflight at any height

The documentation for this sub-category includes Operator ID, Flyer ID and A2 Certification of Competency.

For more information see here [CAP2012](#)





A3	<p>Can fly aircraft weighing up to 25kg.</p> <p>The drone must fly far from people (50m from uninvolved people, 150m from residential, commercial, industrial or recreational areas). for this reason A3 category drones cannot operate in most areas of city centres in the Open Category and must follow the Specific Category guidance)</p> <p>Documentation required includes Operator ID and Flyer ID.</p> <p>For more information see here CAP2012</p>
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SPECIFIC CATEGORY

Overview

The Specific Category is for operations that pose a higher risk than that of the Open Category, or where one of more elements of the operation fall outside of the boundaries of the Open Category

Operating in this category falls under the CAA's oversight and therefore requires the Operator to abide by their **CAA Operational Authorisation**

Flight specific paperwork is required for operations that fall within this category which includes risk assessment, on site survey form and pre-deployment form.

Can fly aircraft up to 25kg maximum take-off mass.

Must operate within the terms of the individual's CAA Operational Authorisation.

Can use the Predefined risk assessment process set out by the CAA

Distances from uninvolved people:

30m take-off and landing.

50m whilst in flight.

Can over fly uninvolved people if at least 50m above but only if safe to do so and must be kept to a minimum

Must remain 50m distance horizontally (subject to 1:1 rule) from assemblies of people

Operational Authorisation will establish how close the drone may be flown to buildings and to people, vehicles and vessels not under the control of the pilot – this may be closer than the usual / standard distances allowed.

Max distances Visual line of sight 500m.

Documentation required in the Specific Category includes; Operator ID, Flyer ID, GVC Certificate, CAA Operational Authorisation.

For further information please see; [CAP1789A](#); [CAP722](#); [CAP722A](#); [CAP722H](#)





Planning a flight in the Open Category - Step by Step Checklist

This check list is for the Open Category. If your operation falls within the Specific Category then please operate under your procedures that form part of your CAA Operational Authorisation.

If you are planning to fly a drone in the Open Category, we recommend the following as a basic level for good practice.

1	Apply for an Operator ID with the CAA, and Flier ID if required.
2	Check to see who owns the land, to avoid any issues with trespass.
3	Make sure you have appropriate insurance . Insurance is required for any commercial activity.
4	Check the aircraft's weight & category – see table
5	Check for any Airspace restrictions, Flight Restriction Zones (FRZ), Runway Protection Zones (RPZ), or No-fly zones to ensure that you are flying legally - link UAS restricted zones.
6	Check if you will be flying in a congested area - if you are, this will need to be properly risk assessed
7	Check if at any point you will be flying close to people – see table
8	Check to see if your operation may require flying over people at any time. Please note that overflight of assemblies of people is forbidden outside the A1 category.
9	Check if there are any local bylaws - check with the local authority website, this is your responsibility, and you could face prosecution if you fail to comply.
10	Check if there are any local permitting requirements - if there is a local film office you should contact them to discuss your flight and any local processes you may need to follow, or any guidance or restrictions regarding the area in which you intend to operate. Be aware that there are additional restrictions in the capital, for more information visit Film London .
11	Check that the risk is as low as reasonably practicable and create a risk assessment if the flight is within a congested area.
12	Send details to the local authority (or film office), including timings, map, risk assessment. Documentation may vary depending on the authority and your category/authorisation. Make sure you provide enough notice prior to your flights. (If you're applying for a flight in a restricted area, this normally requires 21 days' notice)
13	Check that the weather is suitable in advance of the operation.
14	Check that the aircraft is airworthy.

About [Osprey Drone Training](#)

Osprey Drone Training are a CAA approved drone training organisation providing a number of courses with qualifications to ensure safe drone flying.

For more info on the **Filming in England team**, please visit:
www.filminginengland.co.uk

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