

Use of Drones 1 (UAV's)

In Deer Management



The aim of this two-part guide is to explain how drone use in deer management must follow Civil Aviation Authority (CAA) rules and proper planning to ensure flights are carried out legally and safely.

Introduction

Understanding the regulations and “must-dos” when piloting a drone are necessary and this guide explains the basics for getting out and flying safely. While drones can provide deer managers with useful data, the technology and methodology are still in development. The regulations around owning and piloting drones are also continuously updated. The Civil Aviation Authority (CAA) oversees and regulates

all aspects of civil aviation in the United Kingdom, of which drone flying is included. The drone operator must ensure compliance with the CAA guidance and laws (CAP 722). The required tests and IDs depend on drone size and are a legal requirement. Failure to comply may result in a fine or imprisonment.

Things to consider

- What type of drone do I need?
- Thermal capabilities
- Camera quality
- Battery life
- What category is the drone in?
- Am I flying privately or commercially?
- Pilot and operator responsibilities

Category	Type of flying	Licence	Operator ID
Open A1 and A3	Basic, low-risk flying	<100 grams No Flyer ID necessary >100grams Flyer ID	Required if drone has a camera
Open A2	More risk than A1 and A3	• Flyer ID • A2 Certificate of competence	Required
Specific	Moderate-risk flying	• Flyer ID • GVC course	Required
Certified	High-risk, complex flying	• Flyer ID • GVC course	Required

The Drone and Model Aircraft Code

The Drone and Model Aircraft Code (visit the CAA website for further information) is a must-read and contains all information needed to pass the basic test and get a Flyer ID.

- Flyer ID is given upon successful completion of a theoretical test. A1, A2 and A3 subcategories of the Open Category are based on drone weight and how close to uninvolved persons the drone is allowed to fly.
- An Operator ID for drones is to allow third parties to know who is responsible for the drone. It is a legal requirement for drones with a camera or weighing over 100 grams. Each drone must be clearly marked with the Operator ID number.
- If flying commercially or flying in congested areas, at night or performing more complex counting then it is advised to fly under the specific category, which requires formal approval from the CAA. Detailed information of this more advanced drone licensing can be found on the CAA website.

Planning

Pre-operations planning should ensure that drone operators involved in the survey are appropriately qualified, trained, equipped and informed to carry out the specific role. The drone operator/group leader should:

- 1 Carry out a risk assessment.*
- 1 Ensure that all drone equipment has been checked over for any physical defects and that it is operating under the latest firmware.
- 1 Check NOTAMS (Notice to Air Missions) for any aerial activity taking place in the location you plan to operate the drone. NOTAMS are advisories alerting aircraft pilots to potential hazards that could affect the flight.**
- 1 Airspace alerting apps can be used to check for any site hazards, flight restriction zones or potential risks that need to be assessed.
- 2 Check the weather and plan around adverse conditions such as wind, low visibility, bright sunshine, etc.
- 3 If the purpose of the drone is to conduct a survey, ensure that adequate flight points have been plotted throughout the site map.

* See BPG; Risk Assessment
** See BPG; Use of Helicopters

Further Reading www.caa.co.uk/drones and notaminfo.com/ukmap.
Continued in Planning; Use of Drones 2 (UAV's).



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Procedure

During a flight, the following laws must always be observed by the drone operator:

- 1 Never fly more than 120m (400ft) from the earth's surface.
- Maintain visual line of sight (VLOS) with the drone. Drone direction must be known, max 500m horizontal distance depending on drone size. Flights over 500m need specific authorisation by the CAA.
- If flying at night you must follow the same CAA regulations as for the day. Familiarise yourself with the area during daylight hours to identify potential hazards. Consider extra lighting for your drone to help maintain VLOS when flying at night.
- Never fly within an airport's flight restriction zone unless permission is granted from the relevant authority.
- Do not fly closer than 50m to 'uninvolved people'.
- Keep at least 150m away from residential, commercial, industrial or recreational areas (unless operating within the Specific category and in accordance with a permission issued by the CAA).
- 1 Ensure you have permission to take off and land the drone in the designated flight point and use a flight mat to ensure the take-off/landing space is visible to everyone.
- 1 Practice good communication with neighbours.
- 1 Wear appropriate PPE or hi-vis when you are operating the drone from a public place.
- 1 The drone should be flown in a smooth and predictable manner and kept a safe distance from wildlife and livestock to avoid distress and disturbance.
- 2 Work alongside a 'spotter' or assistant who maintains VLOS with the drone, monitors the airspace for other aircraft, including other drones, and can notify uninvolved people who appear on site without prior notice.
- 3 The pilot must continue to monitor all aircraft parameters, including battery life and ensure the drone's 'Return to Home' function is set at a safe altitude on the controller to avoid obstacles.