

**ESSENTIAL
STANDARD
no.28**

Working with Drones

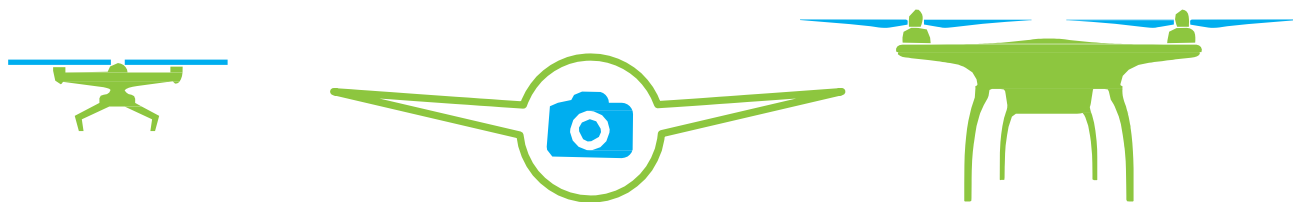


KEY MESSAGES

- Ensure drones are airworthy and the operators are licenced by the Civil Aviation Authority.
- Have the correct permissions in place before flying.
- Operators must be trained and competent to fly drones.
- Operators must have visual line of sight of their drone at all times – don't fly further than 500m horizontally away (from the operator) or higher than 400 feet.
- Never fly near aircraft, helicopters, airports and restricted airspace.
- Always follow the drone manufacture's instruction when flying.
- Drones used for Thames Water company business will require a Thames Water Operational Safety Authorisation (TWOSA) approved by the Thames Water Maintenance Projects Team prior to flight. All flights undertaken on Thames Water's behalf must be logged.

1. Introduction

Drones, also known as remotely piloted aircraft systems or unmanned aerial vehicles, come in a variety of shapes and sizes, ranging from small handheld types up to large aircraft, a similar size to airliners. Their usage is rapidly increasing due to their myriad of applications, such as taking still images or videofootage using conventional, zoom or even thermal imaging cameras.



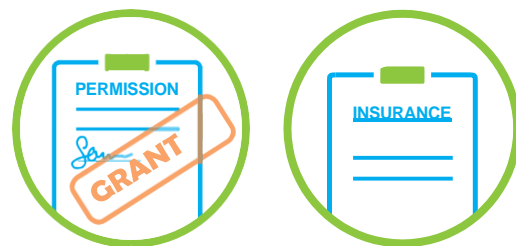
Just like any other aircraft, an unmanned aircraft must be flown in a safe manner, both with respect to other aircraft in the air and also to people and properties on the ground.

2. Permissions to Fly a Drone

Before flying a drone, you must obtain the following:

- Operation Authorisation (previously known as PfCO) from the Civil Aviation Authority
- public liability insurance (minimum of £2 million)
- permission to take off and land from the landowner
- permission from the National Air Traffic Services when flying in any restricted airspace

It is also good practice to notify the National Air Traffic Services.



Drones used for Thames Water company business will require a Thames Water Operational Safety Authorisation (TWOSA) approved by the Thames Water Maintenance Projects Team prior to flight. Thames Water is also required to maintain a log of all flights undertaken on their behalf.

3. Training and Competence

Operators flying the drone must hold a certificate of competency from a recognised National Qualified Entity approved by the National Air Traffic Services and have passed a flight assessment. Without this, the operator will not be able to obtain the relevant permissions. This should include ensuring any medicals are in date.



4. Planning the Flight

Carry out a **pre-site risk assessment**, taking into account:



- weather



- geographical locations



- airspace



- all necessary permissions

Carry out an **on-site risk assessment** and do not fly if it is unsafe to do so.

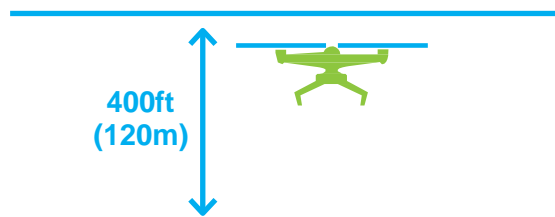
To keep safe, always follow the Civil Aviation Authority drone code:

D Don't fly near restricted airspace – remember this is not always an airport



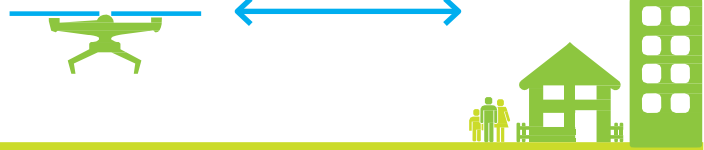
R Remember to stay below 400ft (120m)

400ft
(120m)



O Observe your drone at all times and stay 150ft (50m) away from people and property

150ft (50m)



N Never fly near aircraft



E Ensure that you fly safely and legally

