



Unmanned Aerial Vehicles (UAVs)

With the ability to cover large areas and access hard-to-reach locations, Plowman Craven is now offering a range of Aerial Surveying and Inspection Services, using advanced technology to deliver highly-accurate aerial survey data across the property, construction and infrastructure markets.

Fully licensed by the Civil Aviation Authority, our team of fully trained, qualified and experienced personnel deploy the latest Unmanned Aerial Vehicle (UAV) technology.

What are UAVs?

UAV stands for Unmanned Aerial Vehicle, but they are sometimes known as Drones or referred to as Remotely Piloted Aircraft Systems (RPAS).

Plowman Craven's aerial division operates in the same manner that a commercial charter airline would operate a fleet of aircraft, with full maintenance schedules, pilot training, procedures and checklists.

Our Certification

Plowman Craven is fully certified by the Civil Aviation Authority (CAA), permission No.2703.

All pilots possess a Remote Pilot Licence from a CAA-approved training provider as well as a Class 2 medical certificate from the European Aviation Safety Agency (EASA).

When are UAVs used?

Whilst we will only ever utilise the most appropriate technology to deliver your projects, the scope of UAVs has grown exponentially in recent years as technology develops and the many benefits are harnessed.

Highly-maneuvrable, ultra-reliable and fitted with the latest HD cameras, UAVs can represent a much quicker and more cost-effective way of surveying inaccessible, hazardous or large sites.

Our Capabilities

From roof inspections and condition surveys to rail track measurement and topographical mapping, our UAV capabilities provide clients with a wide range of measuring and surveying solutions, including 3D point-clouds, textured meshes and aerial mapping. This unique method of data capture is then seamlessly integrated into existing services and workflows at every stage of the project lifecycle, perfectly complementing and supporting traditional data delivery.



Plowman Craven are holders of a CAA Permission for Commercial Operation (Licence No: 2703)

What equipment is used?

Safety is of utmost importance to Plowman Craven, and all UAV equipment must pass through a comprehensive risk assessment before it is considered for procurement.

Our principal 'copter is a 'Falcon 8 Trinity' made by the German company, Ascending Technology. It features the latest navigational safety techniques and live in-flight footage can also be monitored. Among industry professionals it is widely regarded as one of the best aircraft in the world.

What safety features are in place?

The equipment we use provides the level of quality and redundancy expected from a professional system:

- Triple redundant autopilot - in case one fails, two more provide redundancy
- Redundant power – with eight rotors, up to three can fail whilst maintaining stability
- Dual communication links - to ensure a reliable transmission to the aircraft during flight

The aircraft also provides several safety features including:

- Return to home – in the case of a communication failure or pilot incapacitation, the aircraft will return to the take-off location and land itself automatically
- Low mass – weighing just 2.3kg, the aircraft is inherently much safer
- Quiet operation – with smaller blades than a traditional remotely piloted aircraft, it makes very little sound during flight

Where can we fly?

Plowman Craven has permission to fly UAVs in a range of different environments and all projects are conducted in strict observation of required public safety standards. Wherever we operate, we always undertake a full site survey, an airspace survey and a thorough risk assessment, adhering strictly to the stringent rules that apply.

Who is in charge of Plowman Craven's UAV activity?

James Dunthorne heads up our UAV operation. An experienced pilot with more than 150 hours of flying experience, James holds a Masters degree in Aeronautical Engineering and has been designing, building and flying UAVs for over seven years. He has more than five years' experience researching the safety of UAV systems.

What are the benefits of UAVs?

With less manpower required – and greatly reduced levels of risk – UAVs collect comprehensive data in a fraction of the time, to an accuracy level that is comparable with traditional laser scanners.

- Rapid data capture
- Survey grade accuracy
- Ability to reach inaccessible or hazardous locations

Our UAV capabilities offer a wide range of measuring and surveying solutions:

- High Resolution Photography including 360° panoramas
- 3D Point-Clouds
- Textured Meshes
- Aerial Maps



About Plowman Craven

Plowman Craven provides integrated measurement and consultancy services to the property and infrastructure markets, pioneering the use of technical innovation to deliver proven expertise and trusted results throughout the project lifecycle.

Operating worldwide, our highly skilled and motivated teams make a difference by providing timely, collaborative and accurate solutions to meet your project requirements.