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Key benefits of our UAV Imaging Services



Affordable

Our fleet of unmanned aircraft are inherently unaffected by climbing fuel prices, quickly deployed and offer competitive running costs.



Rapid Deployment

Due to the portability of our equipment, we can deploy rapidly on-site and be airborne within minutes.



Physical & Cloud Data

We provide you with a hard copy of survey data and maintain cloud copies for 3 years for 24/7 access by login with 99.9% guarantee uptime.

We know aerial imaging

Beacon Consulting utilise the latest technology including ultra-lightweight aircraft and high resolution camera equipment to provide commercial, government and research based clients with a range of aerial mapping, imaging and cinematography services in Australia and Papua New Guinea.

- Aerial Surveying Mapping and GIS
- Aerial 3D Mapping, Modelling and Earthworks Computation
- Aerial 3D Point Cloud Mapping
- Aerial 3D Building and Infrastructure Modelling
- Aerial Digital Imaging and Cinematography

For uses in the following sectors:

- Surveying
- Mining
- Urban & Regional Planning
- Infrastructure Management
- Emergency and Disaster Management
- Farm and Agriculture Management

Our fixed wing and multi-rotor flying platforms collect aerial photography of 1-10sqkm in a single flight at down to 5cm precision.

About our UAV Air Fleet

Our fixed wing aerial craft has a flight time of up to 45 minutes allowing coverage of areas up to 10km² in a single flight. With its 16MP camera it can shoot aerial imagery at down to 3cm/pixel resolution. The images can then be used to create maps, elevation models and 3D point clouds with a precision of 5cm. A typical UAV based survey will produce up to 500 high quality images per sq. kilometre, at 1cm to 5cm resolution (photogrammetry). The detail gained from the individual imagery or orthorectified mosaics generally surpasses anything else currently available either from satellite or conventional aerial imagery.

UAV mapping presents a viable alternative to costly and unreliable manned aerial surveys, giving the user greater control over what they map, when they map it and the accuracies they wish to achieve from a flight. While the technology will not replace traditional land-based surveying methods, UAV can add another dimension to a surveyor's tool kit and for some applications, such as stockpile volume measurements, provide a safer solution that removes survey crews from operating near heavy machinery and on hazardous terrain.

These systems also offer an easily deployable and cost effective solution for mapping and monitoring large areas quickly and efficiently,

with a high level of accuracy. Our propeller-based systems also enable detailed inspections of difficult to reach areas.

Beacon Consulting provide an end-to-end service: the complete workflow from flight planning and image acquisition through 3D processing and geo-registration is completed in house.

Aerial 3D Modelling

Our 3D models are generated using advanced acquisition and photogrammetry techniques that extract accurate geometric information from aerial and ground photographs. Extremely dense 3D point clouds are generated prior to being transformed into a fully-textured mesh object. To generate geographically accurate data, precise ground control points are integrated into our processing chain.

Special care and quality control systems are implemented at all stages of the process. The end result is a photo-realistic, high-resolution, geographically accurate 3D model which includes all man-made and natural features present in a scene.

Our 3D models are available in the most common 3D formats such as .obj, .3ds, 3max

as well as LiDAR LAS files and 3D files which can be used for directly importing into all Autodesk products including, Revit, Infravorks, Map3D etc.

Aerial Digital Imaging

Whether it's for real estate, agriculture, marketing, or event management, we make aerial film production affordable. Our super quiet aerial cameras provide high resolution still photos and videos. We can provide you with the raw footage or provide a full service video production service. We provide aerial footage in real time full 1080 HD and will soon support 4K video capture.

