

# Surveying with drones

UAV mapping to survey small areas using micro-drones has quickly replaced the expense and impracticality of full-size aircraft. Aerial inspection drones are designed to survey small areas and provide geo-referenced, high-resolution aerial photogrammetry surveying from low altitude.



## THE Applus+ SOLUTION

Applus+ has extensive experience in delivering services in drone topographic surveys and drone inspection in many industry sectors, and we can offer professional-grade UAV survey services.

We are able to provide UAV mapping for areas of up to thousands of hectares, and our equipment and personnel can be transported anywhere in the world and be fully operational at short notice.

The systems for aerial mapping drone from Applus+ utilise some of the quietest multi-rotor platforms in the world, making them perfect for stealth and silent surveillance missions. Our drone-survey pilots can pre-programme the UAV to follow GPS-guided flight paths to automatically capture the required imagery (including the necessary overlap and height requirements). The data from each flight is recorded, making it possible to repeat the same flight at regular intervals to create time-lapse photography. Combine all of this with industry-leading flight times and the ability to have multiple payloads such as night vision, thermal imaging and long-range high-definition zoom cameras, and it is clear that Applus+ can provide the necessary equipment for most surveillance operations.

Applus+ can also offer bespoke solutions in UAV surveying and mapping, such as ground-based tethering systems that allow a drone to hover for 24 hours a day without the need to land. We also utilise encrypted digital-video downlinks for added privacy and security.

Our UAV surveying and mapping systems are fully autonomous with advanced waypoint mission capabilities that can be activated 24 hours a day with or without human involvement.

## Target customers

UAV aerial mapping and surveying techniques have a wide variety of possible applications, which include, but are not limited to, the following:

- UAV pipeline inspection and patrols
- Prison security
- Wildlife protection
- UAV search and rescue operations
- Oil spill and clean-up operations
- Major event security
- Law enforcement applications/support