

### **Using Drones to Monitor and Maintain Facilities**

Over the past few years, the FM sector has seen an increase in the use of UASs (unmanned aircraft systems), or drones, to carry out aerial work for monitoring and maintaining facilities. As UAS technology has advanced, these services have become increasingly cost effective and the range of applications they are suited to has grown wider and wider.

Aerial surveying and photography specialists, Sky Revolutions, already provide a wide range of UAS services and believe that drones are set to become an essential tool for FM service delivery. Director, Ben Gorham, commented:

“Using UASs just makes jobs like surveying so much quicker and easier. The technology is getting better all the time and there are services we can provide now that would have been completely beyond the means of most companies in the past.”

UASs are already being widely used for facility maintenance including roof, property and site surveys. Thanks to their size and manoeuvrability, the drones are able to fly close to structures and capture high quality images or videos, which can then be analysed by inspectors or engineers. This is ideal for carrying out damage assessments and monitoring for signs of wear like rust or corrosion. Certain types of UAS can also be flown indoors to conduct surveys of building interiors.

UAS surveying is not only much more cost effective than hiring a plane or helicopter to capture aerial images but is also a much quicker and simpler solution than using scaffolding. These surveys can also be conducted without inspectors ever having to leave the ground, thereby eliminating the health and safety risks associated with working at height on scissor lifts or similar.

UASs can also be combined with various types of sensors and mapping programs to allow them to carry out more specialised FM services. For example, Sky Revolutions’ can fit a UAS with a Lidar (Light Detection and Ranging) sensor which allows it to fire rapid pulses of light at the ground in order to calculate the distance between itself and the objects below.

The data collected can then be used to build a Digital Elevation Model (DEM) or surface model of the terrain. This is particularly useful when assessing potential development sites. The prohibitive cost of hiring a lidar-equipped aircraft, pilots and lidar-trained engineers to operate the equipment has always limited the use of lidar systems in the past. Using a UAS makes this far more achievable.

The flexibility of this technology makes UASs ideal for a range of specialist tasks, for example, capturing thermal images to analyse sites for photovoltaic panels. However, one of the most beneficial UAS services remains one of the simplest - the ability to capture incredible shots from above, something which would have been prohibitively expensive in the past. UAS technology makes this accessible for everyone so that you can use fantastic aerial photographs and videos to market and promote your facility.

For more information about Sky Revolutions UAS services, please call 01778 560929 or visit [www.skyrevolutions.co.uk](http://www.skyrevolutions.co.uk).

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