

senseFly Launches eBee RTK Mapping Drone



Swiss UAS manufacturer senseFly has announced the eBee RTK, a fully integrated, fully compatible survey-grade mapping system. The eBee RTK, which will be available in Q3 2014, will offer surveying and engineering professionals a highly accurate and flexible mapping solution that works alongside their existing base stations and does not require any third-party software.

This new survey-grade version of the eBee is the missing link that customers have been waiting for said Jean-Christophe Zufferey, CEO of senseFly. The eBee RTK offers surveying and engineering professionals the very highest positional accuracy, without the need for ground control points. It is compatible with customers' existing base stations, and each mission's entire workflow – including the transmission of GNSS corrections to the

drone – is integrated within the system's software, Zufferey continued.

Integrated workflow

The ebee RTK is developed to offer orthomosaic / Digital Elevation Model accuracy of down to 3cm (1.2in) without the need for GCPs – meaning less time spent in the field and high precision in even the most inaccessible areas.

The UAS supplied flight planning & control software (eMotion 2) connects to the base station and broadcasts correction data to the rover (eBee RTK), which means that no additional logger or third-party software is required. Furthermore, the minidrone is compatible with most leading brands of base station, working seamlessly alongside a surveyor's existing portfolio of instruments.

The Bee RTK features an integrated GNSS receiver with RTK functionality. It flies, acquires images and lands autonomously. The entire eBee RTK aircraft weighs 0.7 kg – minimising its power usage (optimising the drone's flight time), allowing the drone to be hand launched (no accessories required), and ensuring the safety of people and objects on the ground.

Software packages

The eBee RTK is supplied as standard with two software packages: eMotion 2 flight planning and control software; and Postflight Terra 3D professional photogrammetry software (powered by Pix4D).

With its maximum flight time of 40 minutes, the eBee RTK can photograph areas of up to 10 km² in a single flight. Its 16 MP still camera is capable of shooting aerial imagery at down to 2cm pixel resolution. Once imported into Postflight Terra 3D, these images can be used to generate orthomosaics with accuracy of down to 3cm and digital elevation models of down to 5cm.

The eBee RTK can be used in either of three different ways to suit a particular user's preference and access to in-country correction data networks: Real Time Kinematic (positioning the base station on a known position), virtual base station (requires internet connection & VRS/Ntrip network subscription), post processing (on-site or in the office later).