PolyExplore Unveils High-Precision UAV Lidar Mapping System

PolyExplore has launched the Polyscanner LS1, a high-precision Lidar mapping system designed for UAVs and other aerial platforms. Based around advanced solid-state Lidar technology, the Polyscanner LS1 uses an innovative scanning pattern and focused field of view (FOV) to create a dense point cloud with a detection range of over 200 metres.

This latest addition to the Polyscanner family of aerial mapping platforms incorporates PolyExplore’s Polynav 2000 precision GNSS-aided INS (inertial navigation system) technology, featuring a dual-frequency, dual-antenna, quad-constellation PPK/RTK capable receiver with centimeter-level accuracy and a tactical grade IMU. Sensor fusion post-processing software is also included as part of the package, and drone adaptors with custom vibration dampers and high-performance dual antennas are available on request.

The Polyscanner LS1 is factory-calibrated, eliminating the need for user calibration. The high-precision system delivers precision geo- and time-annotated point cloud models, with – according to PolyExplore – results comparable to more expensive conventional systems.

The compact system, weighing in at less than 1.3kg and measuring 160mm x 120mm x 107mm, can be fitted to a variety of UAV platforms and is designed for a range of mapping and surveying applications, such as infrastructure, forestry, asset management and environmental erosion monitoring.