

RIEGL Launches Waveform-Lidar Sensors and Systems



Austria-based RIEGL once again introduced a new range of Lidar products at this year's Intergeo, varying from laser scanners to various software solutions. At the geospatial industry's leading international trade fair in Berlin, Germany, the company displayed airborne mapping and mobile mapping systems as well as crossovers with other hardware and software manufacturers.

For terrestrial laser scanning, RIEGL introduced the NEW RIEGL VZ-2000i 3D laser scanner. This long-range, very high-speed 3D laser scanner captures up to 1.2 million measurements per second, and covers ranges up to 2,500m with 5mm accuracy and 3mm precision. RIEGL's Waveform-Lidar technology enables high-speed, long-range, high-accuracy measurements even in poor visibility and demanding multi-target situations, and

delivers reliable data even in harsh environments.

Advanced data acquisition

In software-related news, also for this addition to the VZ-i series, RIEGL announced the new and automatic on-board registration as a key feature. Two on-board processors enable the scanner to perform different processes in real time, facilitating automatic registration of the scan data during acquisition in the field. The company also released an app to remotely control their VZ-i series of scanners from anywhere in the world. RiPANO software allows for fast and easy visualisation of terrestrial laser scan projects where the user can explore 360° panoramic views in their browser.

In airborne scanning, major news is the NEW RIEGL VQ-780i Waveform Processing Airborne Laser Scanner for ultra-wide-area mapping. This advancement of the well-proven RIEGL LMS-Q780 is a high-performance, rugged, lightweight and compact airborne sensor that provides up to 666,000 measurements per second at a 60° scan angle. This versatile system is designed for highly efficient data acquisition at low, mid, and high altitude, covering a variety of different airborne laser scanning applications from high-density to ultra-wide-area mapping and to provide crisp, clear point clouds by actively suppressing atmospheric clutter.

Simultaneous measurements

RIEGL also introduced the RIEGL VQ-1560i-DW Dual Lidar Channel Airborne Mapping System. This new type of the VQ-1560i offers enhanced target characterisation by simultaneous measurements with both green and infrared laser wavelengths. For bathymetric laser scanning, RIEGL introduced the RIEGL VQ-880-GH. This topo-hydrographic airborne laser mapping system now has an optimised form factor with reduced height for helicopter integrations and flexible camera options.

In the UAV segment, RIEGL announced the NEW RIEGL miniVUX-1DL, a downward-looking UAV Lidar sensor. This newest member of the VUX series is perfectly suited for applications such as power-line or pipeline mapping.

UAV Lidar sensors

The RIEGL RiCOPTER-M is a multi-purpose type of the RiCOPTER octocopter for commercial UAV missions. It has an increased 30kg maximum take-off mass (MTOM) and a payload capability of up to 10kg. The RIEGL VUX-1UAV and miniVUX-1UAV with APX20 are new versions of the popular VUX-1UAV and miniVUX-1UAV Lidar sensors, integrated with the new APX20 IMU/GNSS system by Applanix.

The RIEGL miniVUX-1UAV Integration Kit has been released for selected multi-rotor UAV types, such as the DJI M600.

Mobile mapping

In the mobile segment, the new RIEGL VMX-2HA was announced. This high-speed, high-performance dual-scanner mobile mapping system is an evolution of the proven VMX engineering-grade mobile mapping suite. A new streamlined carbon-fibre form factor, flexible camera options, extremely high-speed data transfer and storage are just some of the key features of this latest high-performance mobile mapping system.

For an overview of RIEGL products visit [Geo-matching.com](https://www.gim-international.com/content/news/riegl-launches-waveform-lidar-sensors-and-systems).

