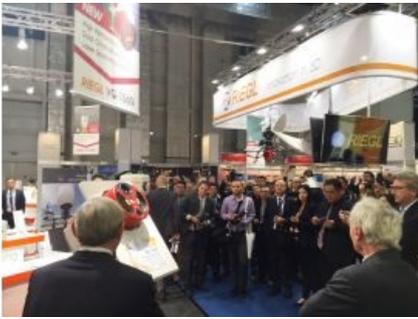


# RIEGL Product Presentations at Intergeo 2016



RIEGL traditionally uses the Intergeo platform to give an insight into and an overview of its comprehensive Lidar sensors and systems product range. This year, on the first day, RIEGL introduced current developments and unveiled latest products to the Intergeo audience at booth C3.059 in hall A3. They included the RIEGL VQ-1560i Dual Lidar Channel Airborne Laser Scanning System, the

entry-level miniVUX-1 UAV Lidar Sensor and the BathyCopter for hydrographic surveys.

The RIEGL VQ-1560i Dual Lidar Channel Airborne Laser Scanning System is the consistent advancement of the ultra wide-area, high altitude airborne mapping system LMS-Q1560 that is in current operation at renowned institutions, service providers, and research organisations worldwide. The VQ-1560i is a tool with integrated high performance Applanix IMU and GNSS receiver, suited for a variety of airborne surveying missions from ultra-wide area, high altitude mapping to mapping of complex urban environments and city modelling. Two linear Lidar channels, each enabling the recognition of several targets per laser pulse, provide a radically increased laser pulse repetition rate of up to 2MHz and deliver up to 1.33 million measurements per second on the ground. The

system allows data acquisition at a wide range of point densities from 2pts/sqm up to more than 60pts/sqm at operating flight altitudes of up to 15,500ft AGL. The VQ-1560i is the first RIEGL Lidar System that provides online data processing as well as smart and full waveform recording similarly and enables Multiple-Time-Around (MTA) processing the incredible amount of up to 20 pulses in the air simultaneously! Additionally, the optional system configuration consists of a fully integrated, easy accessible Phase One medium format camera and is prepared for the integration of a secondary camera, e.g. monochrome or infrared.

## Very Compact Lidar Sensor

Another announcement is the entry-level RIEGL miniVUX-1 UAV LiDAR Sensor, a very compact miniaturised 360 degrees field of view Lidar sensor with only 1.6kg and especially developed for the implementation of emerging survey solutions by small UAS/UAV/RPAS. The sensor offers multi-target capability and accuracy using echo digitisation and online waveform processing for data acquisition, RIEGL said. The sensor is capable of 100,000 measurements per second and offers an operating altitude of 100+ metres. Its size and weight make it suited for mounting under limited weight and space conditions. This device allows UAV-based acquisition of survey-grade measurement data from agriculture & forestry, archaeology and cultural heritage documentation, to glacier and snowfield mapping and landslide monitoring.

## Bathymetric UAV for Inland Water Bodies

RIEGL's BathyCopter, the UAV-based surveying system for hydrographic applications has been presented as a proof of concept at last year's INTERGEO and after a year of intensive developing and testing, RIEGL announced serial availability. The BathyCopter is equipped with the RIEGL BDF-1 compact and lightweight bathymetric depth finder optimised for UAV-borne operation. It is suited for generating profiles of inland water bodies. The topo-bathymetric depth finder comprises tilt compensation, an IMU/GNSS unit with antenna, a control unit, a data storage unit and can be equipped with up to two external digital cameras. RIEGL's new hydrographic full waveform processing delivers accurate, reliable and informative data; pre-detection averaging allows essential performance improvement at adverse conditions.

The latest RIEGL single and mobile laser scanning systems, as well as the RiCOPTER and the terrestrial scanning portfolio are displayed at the booth, accompanied by several renowned RIEGL partner companies showcasing their special solutions directly at the RIEGL booth C3.059.