

Leica Geosystems Launches Linear-mode Lidar System



Leica Geosystems, an industry leader in measurement technology, has announced the launch of TerrainMapper, its next-generation linear-mode Lidar system. As part of the RealTerrain airborne Lidar mapping solution, the new sensor builds on Leica Geosystems' sensor technology and is supported by the HxMap unified multi-sensor post-processing workflow.

TerrainMapper enables users to increase point accuracy and deliver even point density across the swath, and accommodates more efficient flight planning in complex terrain such as those encountered in urban spaces and mountainous areas. The newest sensor increases both acquisition speed and processing productivity, providing efficiency and precision for any project.

Larger swath width and ultra-high point density

The TerrainMapper increases data collection efficiency up to 2Mhz measurement rate while operating with gateless Multiple Pulses in the Air (MPiA). Flying heights of 300 to 5,000 metres and adjustable field of view gives users the flexibility to fly higher for larger swath width or lower for ultra-high point density. A built-in camera collects information for point cloud colourisation with co-registered 3- or 4-band options.

TerrainMapper delivers United States Geological Survey (USCS) Quality Level 0 data at up to 500 square kilometres per hour collection rates. The 5cm accuracy, also at higher flying heights, offers a major efficiency improvement for complex and changing terrain.

Lidar processing

Through the integration of Lidar processing in the HxMap multi-sensor high-performance workflow, users can now process, calibrate and register Lidar point clouds while simultaneously processing auxiliary image sensor data and colourising the point cloud, increasing overall workflow productivity. With its unique distributed processing capability, processing speed can be scaled to customer needs, growing with their business.

"Having customer satisfaction as number one priority, Leica focuses on delivering reliable solutions that exceed expectations. The TerrainMapper is the company's latest innovation and brings unprecedented productivity to its customers' projects," said Anders Ekelund, Leica Geosystems vice president for Airborne Lidar. "With improved accuracy, increased productivity of the workflow and the highest data collection rate, Leica aims to give airborne system users a competitive advantage in their business."

For more information about the TerrainMapper [see here](#).