

# New Airborne Lidar Sensor: Orion H300

Optech, the Canadian manufacturer of Lidar survey products, has announced the latest addition to its line of ALTM airborne laser terrain mappers, the Optech Orion H300.

Built on the Orion sensor platform, the H300 adds high-altitude capability to a model line that already provides low- and mid-altitude 3D laser scanning solutions for corridor and engineering applications. With a maximum effective ground sampling rate of up to 300kHz, the Orion H300 delivers high-density point cloud data with industry-leading data precision and accuracy. Now even with ground sample rates of over 100kHz at altitudes above 4,000mAGL(>13,000 feetAGL).

According to Michael Sitar, Optech's airborne products manager, the Orion H300 also comes standard with a real-time point display capability that features in-air, true-coverage verification. This migration of the field validation process into the airborne environment means less time is spent on the ground qualifying data for subsequent post-processing, Sitar continues. It moves decision-making into the air so changes and adjustments can be made at the time of collection. Optech expects this new capability to be a tremendous advantage to their clients, maximising their production efficiency and collection confidence, the airborne products manager adds.

Coupled with its OmniSTAR-capable GPS receiver, the new Optech Orion H300 is also the first commercial airborne Lidar sensor to produce high-resolution, real-time, point cloud files in LAS format during flight. This feature will be immensely valuable to emergency and rapid response applications, for which the fast delivery of accurately geo-referenced 3D data is critical. It opens up new possibilities for Lidar where immediate, on-demand geospatial information is required.

The Optech Orion H300 includes the same productivity-focused features associated with other Orion models, including multipulse technology; sensor roll compensation for nadir-focused data collection; solid state disk drives; and an effective ground sampling rate of 300kHz at any scan field of view (FOV). Incorporating the latest in narrow-pulse-width lasers and advanced timing electronics, the Orion H300 provides clients with data quality via high precision and accuracy to all target surfaces, while maintaining enhanced small target detectability at high altitudes. Additional enhancements include increased scan frequencies for improved point distribution; full compatibility with the latest Optech IWD-2 12-bit Intelligent Waveform Digitizer; and compatibility with Optech's ever-popular multi-station sensor platforms, which enable scalable, tightly integrated, peripheral sensor options from Optech's diverse camera product line.

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