

CHC Navigation Introduces AlphaAir 450 Lidar System



CHC Navigation has launched the AlphaAir 450 Lidar system. Featuring internal IMU, GNSS, 3D scanner and camera, the lightweight and compact AlphaAir 450 solution is widely used for power line inspection, topographic mapping, emergency response, agricultural and forestry surveys, and more. The unit allows for rapid deployment in the field.

"Despite the fact that the Lidar scanning is an efficient technology to capture 3D data, it still often remains costly and complex to operate," said Andrei Gorb, product manager of [CHC Navigation](#)'s Mobile Mapping Division. "Taking that into account, we introduce the AlphaAir 450 (AA450), a breakthrough Lidar scanner, that delivers user-friendly and high-accuracy capabilities at a reasonable price."

Advanced accuracy algorithms

With this new compact and lightweight solution that can be easily mounted on UAVs, data capture has become faster and more efficient. The Lidar's weight is a constraint for any drone. The AlphaAir 450 weighs 1kg, which is perfectly suited to the drones' payload requirements. The lighter the unit, the longer the operating time of the drone, and the greater the productivity.

By combining industrial grade GNSS with a high precision IMU, the AlphaAir 450 can easily achieve an absolute accuracy of 5 cm (vertical) and 10cm (horizontal) for small survey areas, which is typically adequate for the most use cases. To further improve precision and accuracy, users can apply adjustment algorithms in the CHC Navigation (CHCNAV) CoPre software.

Featuring IP64 high-level protection, the AlphaAir 450 extends its operating temperature capabilities, down to -20°C and up to $+50^{\circ}\text{C}$, in any field environment and increases users' return on investment by providing more field survey days in a year.



CHCNAV AlphaAir 450 airborne Lidar system.