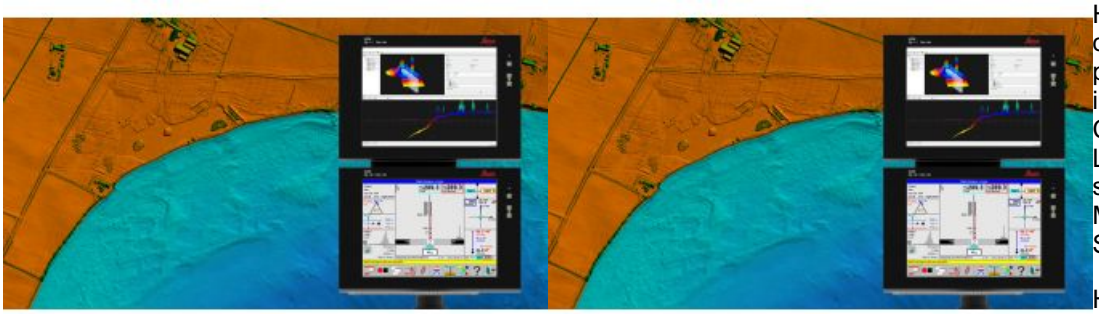
Hexagon and Airbus Enter Airborne Bathymetric Lidar Surveillance Partnership



Hexagon's Geosystems division has announced a partnership with Airbus to integrate two Leica Chiroptera 4X bathymetric Lidar sensors for maritime surveillance into the C295 MSA, Airbus' Maritime Surveillance Aircraft.

Hexagon's new technology enables detection of underwater objects in near real time, a significant innovation in the airborne bathymetry industry. The solution was developed to meet Airbus' requirements and will first be implemented in two C295 MSA purchased by the Irish Air Corps (IAC). The object detection feature enables real-time Lidar data visualization and analysis during the flight. Being able to locate the precise position of the object allows operators to preview and analyse information captured below water immediately.

Fast Bathymetric Object Detection

"We are delighted to announce the innovative application of the Chiroptera 4X sensor which now identifies small, submerged objects close to real time, making bathymetric object detection faster than ever before," said Anders Ekelund, vice president bathymetric Lidar sensors at Hexagon. "With this latest innovation, we are expanding our current system, adding significant capabilities for the maritime surveillance industry, and introducing new applications for airborne bathymetry."

"We are excited to install the Chiroptera 4X bathymetric Lidar sensor with the new object detection technology into our C295 MSA. The partnership with Hexagon enables us to provide a new, innovative and integrated Lidar solution to the Irish Air Corps," commented Alejandro Cabezas, mission system engineer at Airbus. "With the combined bathymetric and topographic Lidar, we see enormous potential in the Chiroptera 4X system to be an efficient application for our customers."

Combined Bathymetric and Topographic Lidar Sensor

"When we acquired the C295 MSA, we explored various sensors to be added to our fleet, including bathymetric and topographic Lidar. Airbus introduced us to the Chiroptera 4X, which now meets all our requirements," stated Stephen Connolly, captain of the IAC. "The combined bathymetric and topographic Lidar sensor will provide us with more details than ever before. Detecting objects close to real time and having a clear picture of underwater activities will allow us to report directly to the mission support centre on the ground and act faster to perform our duties more efficiently. The Chiroptera 4X will provide an overall better solution for the coastal maritime domain."

The IAC will be the first to utilize the new technology once both C295 MSA are equipped with the Chiroptera 4X Lidar sensor and with the near real-time detection application. The aircraft are due for delivery to Ireland in Q2 2023.

Leica Chiroptera 4X bathymetric data and Leica OC60 screen visualizing objects in near real time during the flight