

Efficiencies in Coastal Zone Mapping

Hawk Eye II, the unique airborne laser technology from aerial imaging specialist Blom, is flying high at Ocean Business with a high speed upgrade delivering faster, more efficient data gathering and imaging for shallow water and coastline surveys.

The only technology able to capture accurate data simultaneously from both land and seabed terrain, gathering bathymetric, topographic and photographic imagery all in one pass, Hawk Eye LiDAR is already proving a valuable tool for enhancing the feasibility, quality and speed of coastal and nautical mapping, operating at typically 60% of the cost of traditional hydrographic survey methods and with greater levels of functionality. Now with the ability to perform at higher altitudes, so capturing a wider band of data, as well as supporting higher speeds, it is even more accessible as a tool for improving understanding and decision making in key application areas such as environment, conservation and habitat management as well as coastal engineering and exploration.

Explains Director of Laser Scanning at Blom Aerofilms, Dan Schnurr, "Tools that enhance and integrate our understanding of the physical processes affecting the coastal zone and shoreline are now essential for governments, marine conservationists and environmental agencies across the globe. Systems that improve our knowledge, safety and efficiency in the transition zone and other shallow water engineering projects are key in enhancing navigation and supporting the expansion of off-shore engineering, both for renewable energy projects as well as the pipelines and cables to aid in the discovery and extraction of carbon-based fuels.

"High speed Hawk Eye is a timely development and has now flown effectively for our customers at enhanced heights, improving our knowledge and understanding of complex inter-tidal zones more quickly and efficiently than ever."

Achieving accuracies in excess of +/- 25cm in seaward areas, and in depths of between 3m and 55m, Hawk Eye II laser data can also be used to determine and analyse the geology and vegetation at the sea bottom, providing valuable insights for marine biologists and other specialists involved in habitat mapping. It can be employed to accelerate the availability and accuracy of nautical charting, identifying the shape of the seabed as well as pinpointing the position and exact size of any man-made structures or obstructions.

Analysing information from both the topographic and hydrographic regions, Hawk Eye II is unique in its ability to present seamless data and imagery, an accurate simulation of geology, contours and habitat that bridges the gap between land and sea.

Information gathered by Hawk Eye II can be delivered in a range of formats, including raw data, digital terrain models, graphics showing seabed reflectivity or alternatively pieced into one single oblique mosaic, to give a continuous projected oblique perspective which can be viewed from all four compass points.