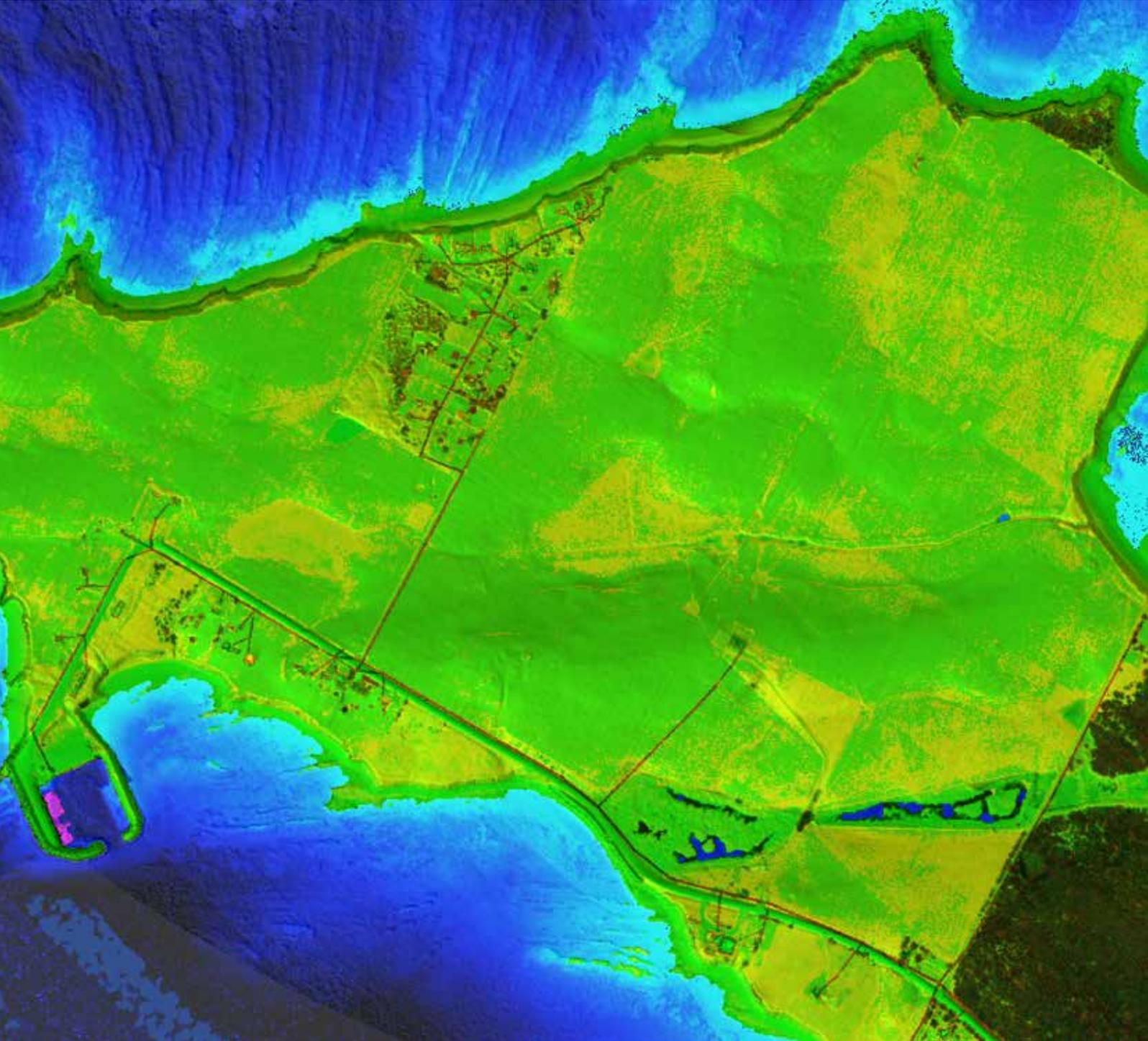


Airborne Bathymetric LiDAR Solutions

Proven productivity



Leica Chiroptera 4X & HawkEye 4X

– for high-resolution bathymetric surveys

The Leica Chiroptera 4X and HawkEye 4X is a combined airborne bathymetric and topographic multi-sensor LiDAR system providing seamless data from the seabed (bathymetry) onto land (topography). Both scanners use oblique LiDAR technology that illuminates seafloor objects from multiple angles, maximising coverage.

Finish your projects twice as fast at half the cost

With the new 4X product line, Leica Geosystems introduces an innovative high-resolution technology, increasing the point density by factor four compared to the previous versions. 4X offers an unrivalled bathymetric point density and depth penetration performance, at the same accuracy, turbid water performance and increased sensitivity, offering a productivity gain of >50% for most end user specifications.

Chiroptera 4X is equipped with one bathymetric channel for nearshore survey down to 25 metres depth and has one 500 kHz topographic channel for survey on land. Adding HawkEye 4X to the system doubles the performance with an additional bathymetric channel for water depths down to 50 m. Both systems include an 80 MP four-band (RGBN) Leica RCD30 camera.



Efficient method for coastal surveys

Perform topographic and hydrographic data collection at the same time. Chiroptera 4X and HawkEye 4X provide an unmatched combination of data density, object obstruction detection, accuracy and depth penetration for capturing seamless data in coastal zones and river environments. Use Leica Chiroptera 4X for nearshore and inland waters and HawkEye 4X for ultimate penetration in deeper waters.



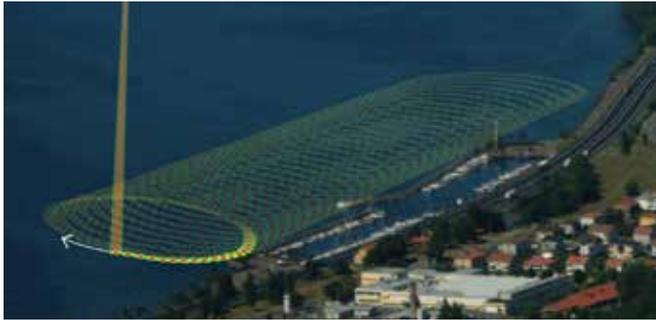
Poor visibility? No problem.

The Chiroptera 4X and HawkEye 4X provide industry-leading ability to punch through water with less than optimal visibility. The LiDAR sensor family is field-proven in applications around the world in a variety of water conditions, including nearshore, at sea and in turbid inland waters. Ultimate performance is possible through a combination of hardware and workflow to master the challenges of poor water clarity.



Most complete & competitive workflow

Increase efficiency with an easy-to-use workflow, from mission planning and execution to data delivery in a variety of formats, including fused images, classified point clouds and RGB/CIR images. Leica LiDAR Survey Studio (LSS) incorporates all bathymetric LiDAR functions like full waveform processing, automatic refraction correction, water surface classification, 4-band LiDAR colourisation, automatic calibration, registration and quality assurance.



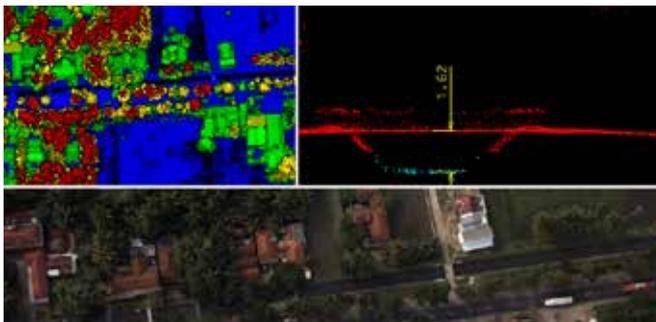
NEARSHORE CHARTING

- Charting according to S-44 standards
- Onshore, shoreline and seamless data down to the seabed
- Obstruction detection with oblique LiDAR
- Maximum depth penetration in turbid water conditions



COASTAL MONITORING

- Seabed and substrate classification
- Geology and geomorphology
- Coastal processes and erosion
- Reflectance and intensity data



RIVER SURVEYS AND INLAND WATERS

- Flood mapping and prediction
- Disaster management
- Geomorphology studies



ENVIRONMENTAL MONITORING

- Marine ecology
- Submerged vegetation and habitat mapping
- Aquaculture: area selection and monitoring
- Hydrodynamics

Cost-saving common sensor platforms

Leica Geosystems is the only provider offering imaging and LiDAR solutions based on a common sensor platform of system peripherals and software. Users can share components and common operator and pilot interfaces between systems for simple, consistent installation across all airborne sensors, providing synergies in ground handling and operator training regardless of the array of systems employed. Likewise, common mission planning makes it efficient for a small workforce to plan for a wide variety of missions, all from a familiar planning interface. This results in efficient workflow, reduced training and cost savings.



OC60 operator console and PD60 pilot display with FlightPro flight navigation and sensor control software



PAV100 gyro-stabilised mount



MissionPro mission planning software

Revolutionising the world of measurement and survey for nearly 200 years, Leica Geosystems creates complete solutions for professionals across the planet. Known for premium products and innovative solution development, professionals in a diverse mix of industries, such as surveying and engineering, safety and security, building and construction, and power and plant, trust Leica Geosystems to capture, analyse and present smart geospatial data. With the highest-quality instruments, sophisticated software and trusted services, Leica Geosystems delivers value every day to those shaping the future of our world.

Leica Geosystems is part of Hexagon (Nasdaq Stockholm: HEXA B; hexagon.com), a leading global provider of information technologies that drive quality and productivity improvements across geospatial and industrial enterprise applications.



Visible and invisible laser radiation, avoid eye or skin exposure to direct or scattered radiation. Class 4 laser product in accordance with EN/IEC 60825-1:2007.

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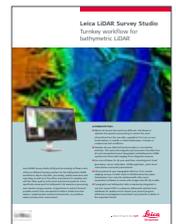
Leica Chiroptera 4X
Introducing super-resolution



Leica HawkEye 4X
Introducing super-resolution



Leica RCD30
80 MP camera multispectral RGBN imagery



Leica LiDAR Survey Studio
Turnkey workflow for bathymetric LiDAR survey

Leica Geosystems AG
leica-geosystems.com



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- when it has to be **right**

