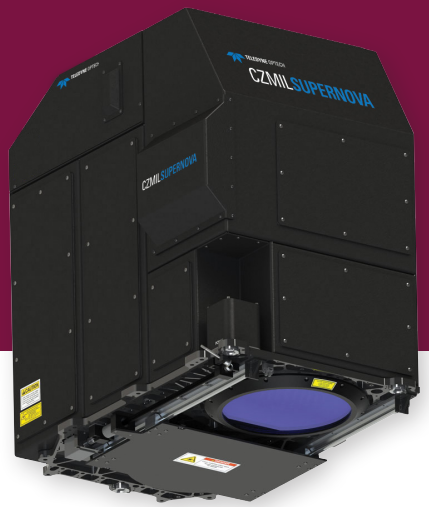
TELEDYNE OPTECH CZMIL SUPERNOVA

TOPOBATHYMETRIC LIDAR SENSOR



Advancing our role as a leader in the airborne remote sensor community

We take pride in our role as a leader in the field of remote sensing by offering the Teledyne Optech's CZMIL SuperNova lidar sensor, equipped with the most powerful green laser on the market to provide maximum depth penetration and superior coverage in turbid waters. The addition of this sensor to our service offerings provides our clients with the most innovative technology to deliver the highest caliber data and the ability to produce seamless topography and bathymetry in coastal, lacustrine, and riverine environments with significant cost savings for our clients.

We are the first private company in North America to own the CZMIL SuperNova sensor. This sensor uses high-energy green and near infrared (NIR) wavelengths (532nm and 1064nm) to map the topographic surface and penetrate the water's surface to map the bathymetric bottom in shallow and moderately turbid waters and achieve depths of up to 80 meters in clear waters. It can seamlessly integrate with shipborne hydrographic data and is typically operated at altitudes of 400 meters/1200 feet AGL to produce U.S. Geological Survey's Quality Level 1 (QL1) data for topography and QL0b for bathymetry. It collects data to exceed QL specifications, leading to high-density data and resolving above ground and underwater features in greater detail.

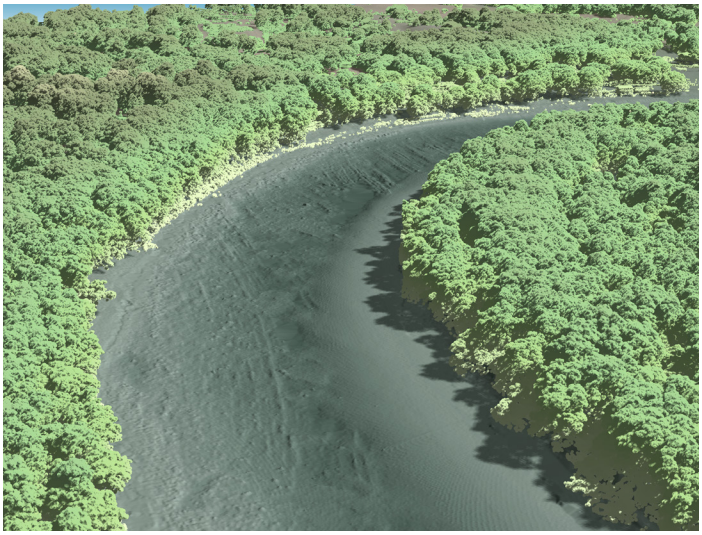
Highlights

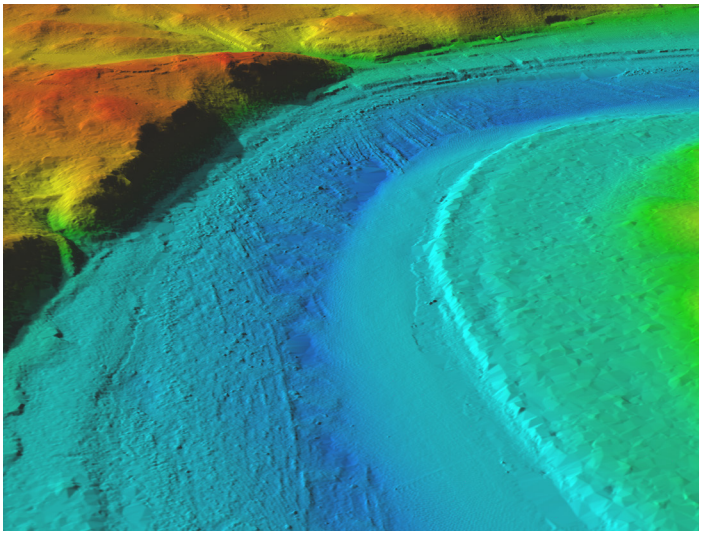
- Powerful topographic/ hydrographic mapping
- Unique green-wavelength lidar with QL1 topography, bathymetry from seven shallow channels and one deep channel
- Capable of modeling ~3.5 x Secchi depth
- Best performance in turbid waters: Kd.Dmax = 4.4
- Co-acquired imagery from 150 megapixel RGB camera
- Field-programmable for maximum performance in wide range of environments
- CARIS BASE Editor for processing data using artificial intelligence/ machine learning techniques

Applications

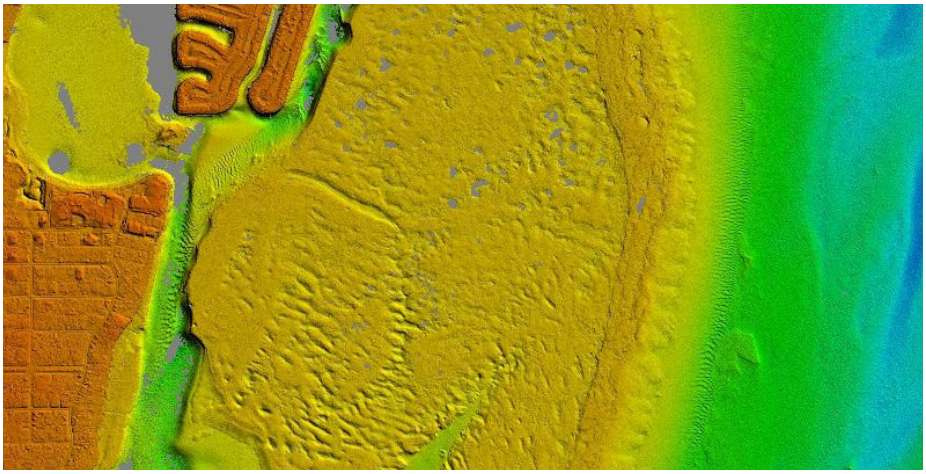
- Seamless capture of topography and bathymetry, and integration with hydrographic data
- Coastal and shoreline mapping
- Riverine systems
- Shallow lake bathymetry
- Submerged habitat detection
- Estuarine wetland mapping
- Change detection
- Flood risk management
- Hydrology and hydraulics modeling
- Dredge cut/fill analysis
- Coastal storm surge modeling

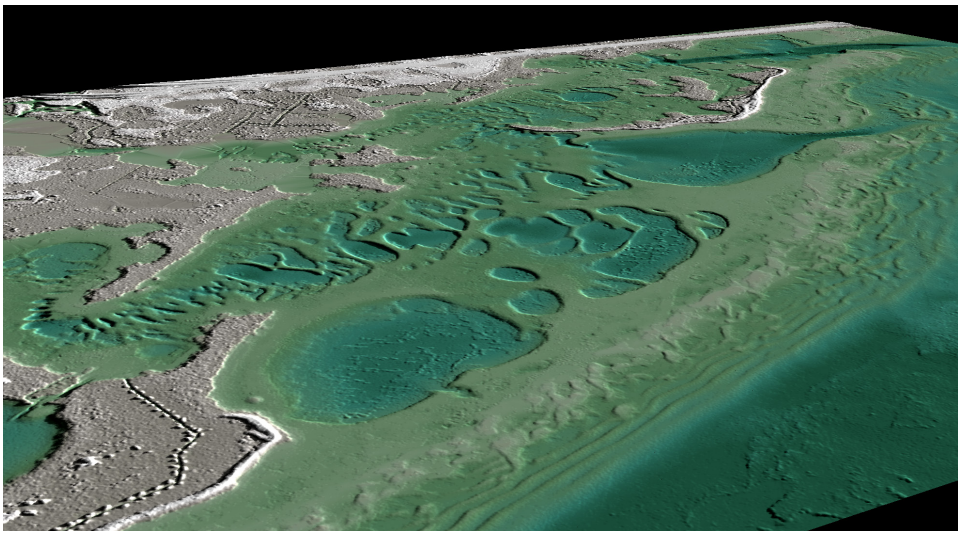
CZMIL SuperNova enables high-density mapping of complex riverine and coastal environments with integrated topography, bathymetry, and high-resolution imagery.

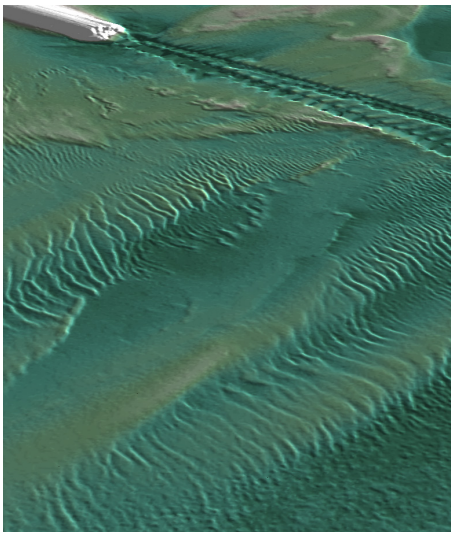




Our clients have access to the highest caliber data on the market







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