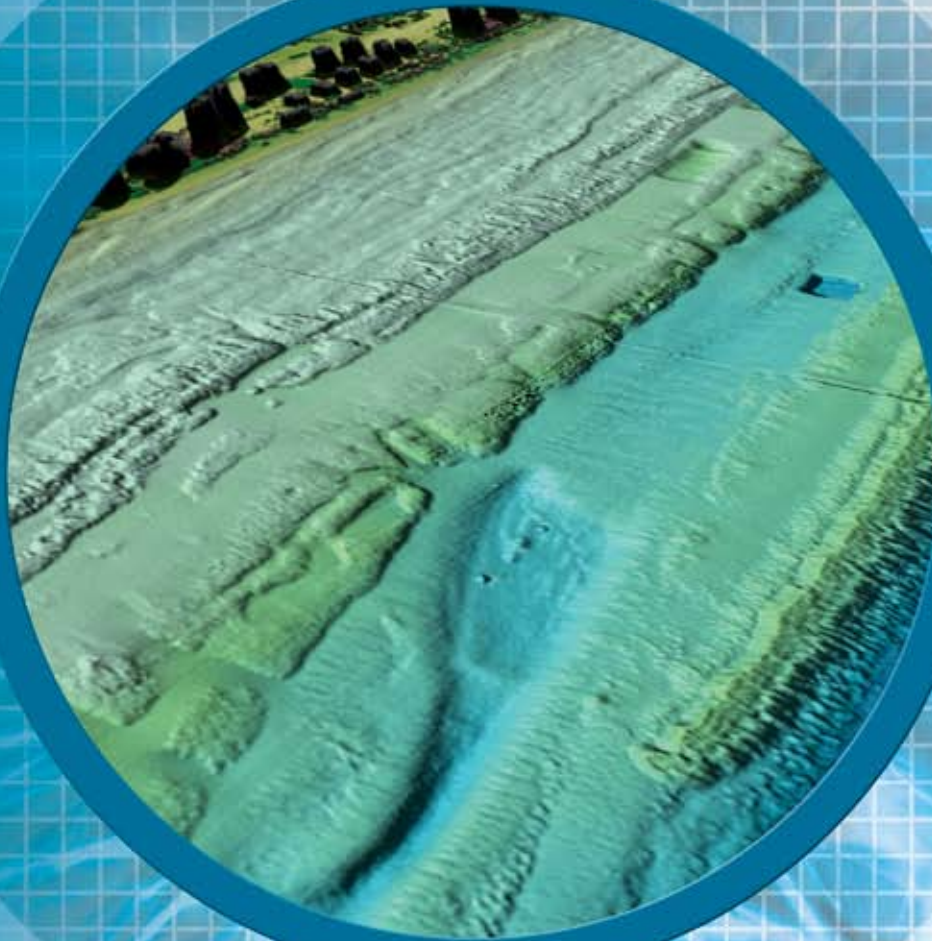


Optech 

SHOALS-1000

HYDROGRAPHIC CHARTING and MORE...

Challenging scientific limits to meet future needs



Hydrographic Mode

| | |
|----------------------------|---|
| Measurement rate | 1,000 Hz |
| Operating altitude | 200 – 400 m (for maximum depth) |
| Depth measurement accuracy | IHO Order 1 (25 cm, 1 σ) |
| Horizontal accuracy | IHO Order 1 (2.5 m, 1 σ) |
| Minimum depth | 0.2 m |
| Maximum depth | 50 m |
| Sounding density | 2x2, 3x3, 4x4, 5x5 m |
| Swath width | Variable, up to 0.58 x altitude |
| Typical swath width | 215 m (@ 4x4 m) |
| Typical aircraft speed | 125 – 180 knots |
| Eyesafe altitude | 150 m |
| Power requirements | 60 A @ 28 VDC |
| Operating temperature | 5 – 40°C |
| Storage temperature | -20 – 60°C |
| Humidity | 0 – 95% non-condensing |
| Laser classification | Class IV laser product (US FDA 21 CFR 1040) (IEC 60825-1 Ed. 1.2) |
| Compliance | Airworthiness certified to RTCA DO-160D standard |

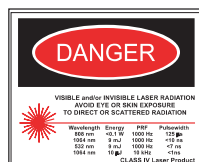
Optional Topographic Mode

| | |
|---------------------|--|
| Measurement rate | 10 kHz |
| Operating altitude | 300 – 700 m |
| Horizontal accuracy | 2.0 m, 1 σ , DGPS 2/1,000 x altitude, KGPS |
| Vertical accuracy | 25 cm, 1 σ |

Airborne System Dimensions and Weights

| | |
|----------------|---------------------------------|
| Sensor | 70 W x 60 D x 60 H cm; 72 kg |
| Operator rack | 53 W x 73 D x 62 H cm; 55 kg |
| Chiller rack** | 53 W x 65 D x 44 H cm; 40 kg |
| Laser rack** | 53 W x 60 D x 44 H cm; 42 kg |

Eyesafe for operators
and surface observers
with system at standard
operational altitude.



SHOALS-1000 System Hardware

- Sensor sub-system
- Operator rack
- Spare laser head
- Transport cases
- GPS and DGPS aircraft antennas
- Laser racks
- All interconnect cables
- Spare sensor computer
- Planning and diagnostic laptop

SHOALS-1000 System Software

Ground Control System (GCS) data processing software (two permanent security keys or licenses) including:

MAPS - Management and Planning Software: GCS module for creating flightlines, establishing data collection attributes for these lines and allocating flightlines to a SHOALS-1000 lidar mission

DAVIS - Downloading - Autoprocessing - Visualization Software: GCS module for downloading, processing, viewing, cleaning, and editing data collected by SHOALS-1000

- **Fledermaus®** Embedded 3D, area-based data visualization and editing system

- **POS Post-Processing Package (POSPac)** including:
POS Proc
POS GPS

STARS - Statistical Tracking and Reporting Software: GCS module that generates project, mission, and flightline reports to track survey progress and system maintenance

Specifications subject to change without notice.

** Chiller and laser racks can be stacked.



Leader in Bathymetric Lidar Solutions for Shoreline Mapping

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