

GeoSwath Plus

GeoAcoustics Wide Swath Bathymetry



KONGSBERG

Shallow Water Multi-Beam and Side Scan System

Description

GeoSwath Plus offers very efficient simultaneous swath bathymetry and side scan seabed mapping with accuracies that have been shown to exceed the IHO Standards for Hydrographic Surveys. The applied phase measuring bathymetric sonar technology provides data coverage of up to 12 times the water depth, giving unsurpassed survey efficiency in shallow water environments.

System Components

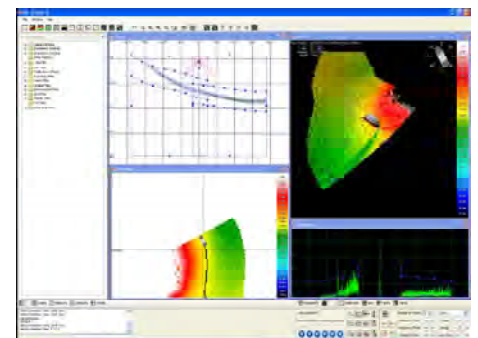
The GeoSwath Plus turn-key solution comprises a dual transducer head with versatile mounting options as well as a deck unit containing the complete sonar electronics together with a high spec PC, running the GeoSwath Plus software. The software provides full acquisition, calibration and data processing capabilities for producing the final bathymetry map and side scan mosaic data products. All customary ancillary sensors can be directly interfaced.

Dual Transducer wet end

The rugged port and starboard transducers, available in three frequency options (125, 250, 500 kHz), can be attached to a supplied sonar head assembly for boat over-the-side or bow-mount options, which also can accommodate a range of ancillary sensors. Alternatively they can be deployed on bespoke boat hull mount, as well as bespoke ROV and AUV assemblies.

Deck Unit

The compact workstation contains the complete system electronics as well as a high spec PC. All peripheral sensors (position, motion, heading, transducer face sound velocity, sound velocity profiler and tide) are



Features

- Ultra high resolution swath bathymetry
- IHO SP-44, special order
- Co-registered geo-referenced side scan
- Frequency versions: 125, 250, 500 kHz
- Up to 12 times water depth coverage
- 240° view angle
- Dual transducer set-up with versatile mounting options
- Full software solution included: data acquisition, processing, presentation
- Interfaces to all customary peripheral sensors
- Interfaces to all customary software packages

interfaced directly.

Software

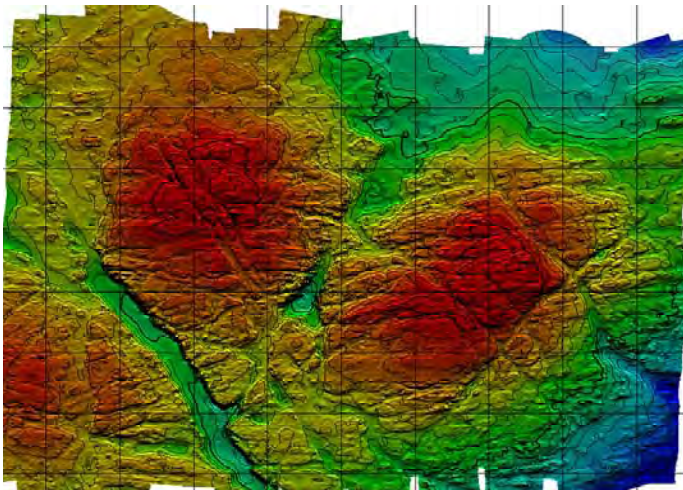
Operating on Windows XP, the GeoSwath Plus software package provides a complete project based solution, including acquisition, storing and editing of sonar and ancillary data, grid-based patch test calibration, data processing with audit trail, advanced bathymetry data gridding and side scan mosaicing, data visualisation including 3D fly-through capability

Options

- AUV and ROV versions
- compact transducer head for small boat operations
- cost effective frequency upgrades
- range of transducer mounts including underwater housing for peripheral sensors
- GeoTexture Side Scan Sediment Classification software
- range of cable options
- special rates on third party software

Technical specifications

| GeoSwath Plus | 125 kHz | 250 kHz | 500 kHz |
|-----------------------------------|---------------------------------------|--------------------------------------|--------------------------------------|
| max Water Depth Below Transducers | 200 m | 100 m | 50 m |
| max Swath Width | 780 m | 390 m | 190 m |
| max Coverage | up to 12 x depths | | |
| Depth Resolution | 6 mm | 3 mm | 1.5 mm |
| Two Way Beam Width (Horizontal) | 0.85° | 0.75° | 0.5° |
| Transmit Pulse Length | 128 μ S to 896 μ S | 64 μ s to 448 μ S | 32 μ s to 224 μ s |
| max Swath Update Rate | 30 per second (range dependant) | | |
| Transducer Dimensions | 540 x 260 x 80 mm | 375 x 170 x 60 mm | 255 x 110 x 60 mm |
| Transducer Weight | 11.6 kg (in air) 3.3 kg (in water) | 3.8 kg (in air) 1.8 kg (in water) | 1.5 kg (in air) 0.5 kg (in water) |



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GeoAcoustics Ltd is engaged in continuous development of its products, and reserves the right to alter the specifications without further notice

GeoAcoustics Limited

Shuttleworth Close
 Gapton Hall Industrial Estate
 Great Yarmouth NR31 0NQ
 United Kingdom

Telephone +44 1493 600666
www.geoacoustics.com
sales@geoacoustics.com

GeoAcoustics
 A KONGSBERG COMPANY