

Side Scan Option for SES-2000 systems

Main Technical Parameters

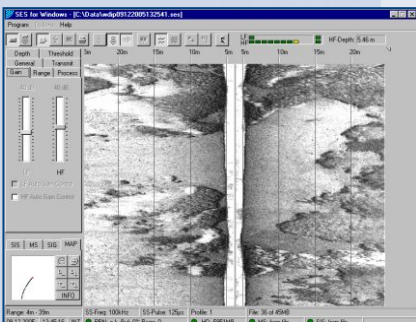
- ▶ Frequency: 100kHz
- ▶ Horizontal beam width: $\pm 0.9^\circ$
Vertical beam width: $\pm 35.0^\circ$ at each side
- ▶ Electrical pulse power: >4kW
Source level: >220dB/ μ Pa re 1 m
- ▶ Pulse width: 100 μ s to 250 μ s
Pulse repetition rate: up to 25 pulses per second
- ▶ Operating ranges: 20m ... 100m
- ▶ Multiple target resolution: 0.15m
Sampling resolution: 2cm
- ▶ On-line and Off-line heave compensation
ASCII output of depth values
NMEA and ASCII input for GPS and navigation systems
Trigger IN/OUT
- ▶ Real time digital signal processing with DSP's
Slant range correction, noise reduction, resolution enhancement, on-line colour and gray scale echo plots
- ▶ Digital online data storage to Hard Disk
Data Backup via Network and USB interface
Post processing software package ISE for signal processing and target digitisation
- ▶ On-line data stream via TCP/IP network to various third party survey software packages
- ▶ Transducer replaceable with parametric transducer (0.49m x 0.08m x 0.12m; 18kg) including 20m cable and stainless steel frame
Hull mounted or over the side mounted



Side Scan transducer for hull mounted or over the side mounted installations



Transducer mounted on a survey vessel



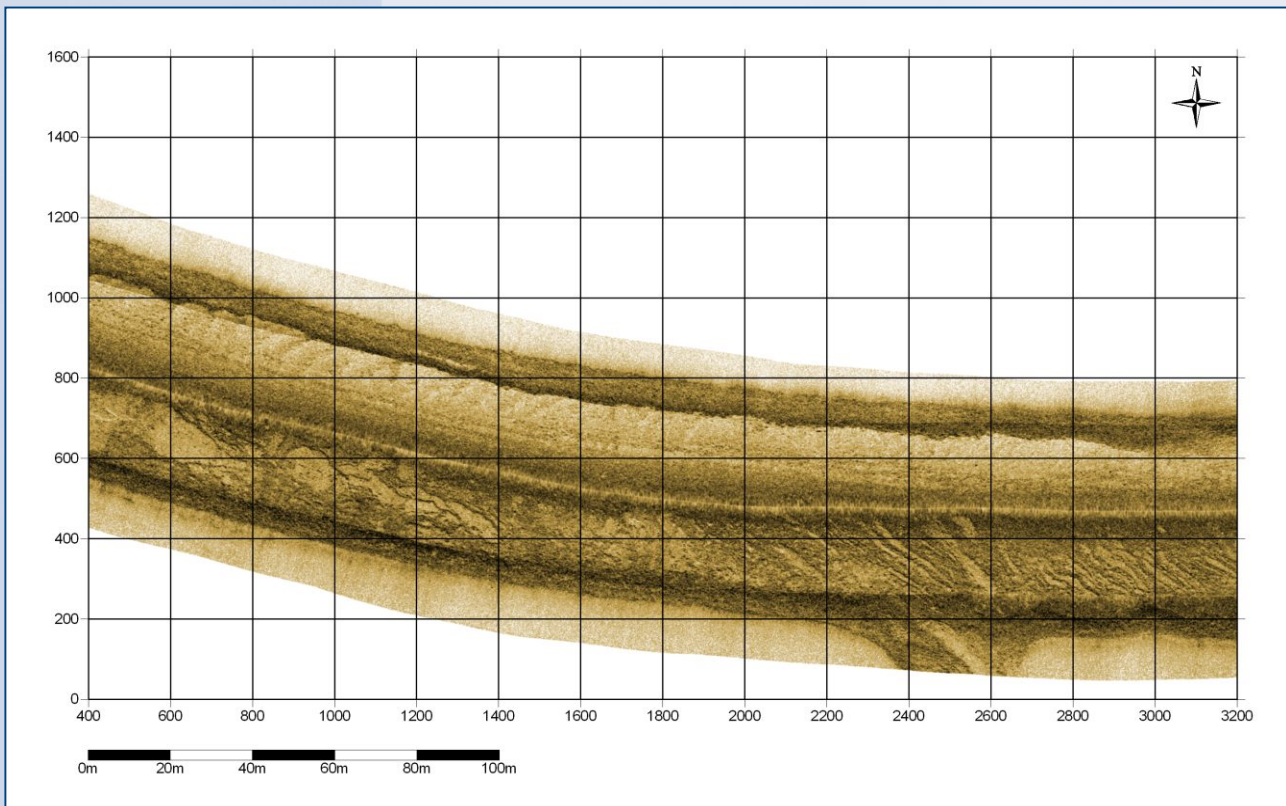
Online screen shot of SES for Windows with side scan data

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Echo plot sample of the SES-2000 Side Scan Extension from the river Elbe
(wreck located on the river bed and partly buried within the sand, water depth around 5m, small sand ripples at port side)
System parameters: frequency 100kHz, pulse length 125µs, operating range 2m - 32m



Georeferenced chart with processed data of the SES-2000 Side Scan extension
(three survey lines are put together to build a mosaic, several features are visible on the river bed)