



Swedish Sonar Services AB

The SH systems

Exceptional high resolution underwater imaging

The company was founded in 2003. Since then many sea beds have been documented and a great number of objects have been indentified with our systems. Clients are provided with easy-to-use systems that will render objects under water with tremendous resolution.

The Sub Sea Imaging System SH is developed, manufactured and sold by Swedish Sonar Services AB.

Swedish Sonar Services also provides consulting services in marine enviroments such as sea bed scanning, finding shipwrecks and missing objects, marine inspections, cable and pipe planning, entreprenurial projecting, documentation diving, photographing and salvaging of objects and sonar data post processing.

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Swedish Sonar Services AB

We offer exceptional high resolution in underwater imaging

Our system has such a high resolution that even the thinnest threads in the fishing net is visible!

The SH systems performs:

- Sea floor surveys
- Search for objects on the sea bottom and in the water e.g. wrecks, lost or dumped equipment, mines, human bodies etc.
- Inspection of underwater equipment and constructions.
- Documentation of wrecks
- Search for sunken timber
- Documentation of dams, rivers and creeks
- Surveys for cable and pipe laying
- Documentation and inspections of harbors
- Surveys for pre-engineering and feasibility studies
- Diving and photo and film documentation
- Mapping (requires extra software), even with several parallel vessels (raking)
- Surveillance of suspicious underwater activities with mobile or fixed equipment.

A System consists of:

- Electronic box for signal detection
- Sonar fish/AUV/ROV/underwater body for ultra sound
- Cable (70 m std – up to 300 m) with tremendous bendness, strength and flexibility
- Software for image generating
- PC for image handling and storage
- GPS-receiver compatible
- 4.000 metre standard depth rating

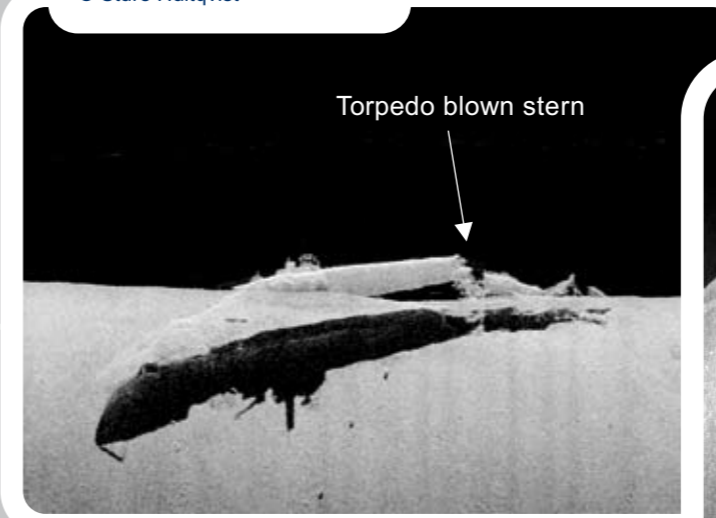
Total weight < 15 kg



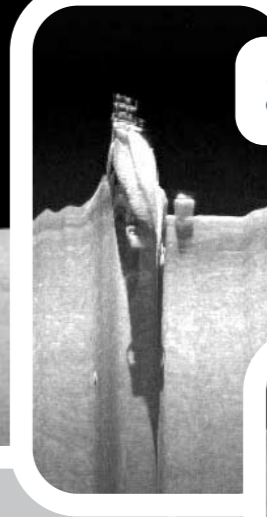
The SH Systems is supplied with separate transducers for integration into underwater Imaging systems.
Allowable depth up to 4.000 metres.

With our system we have done some amazing discoveries!

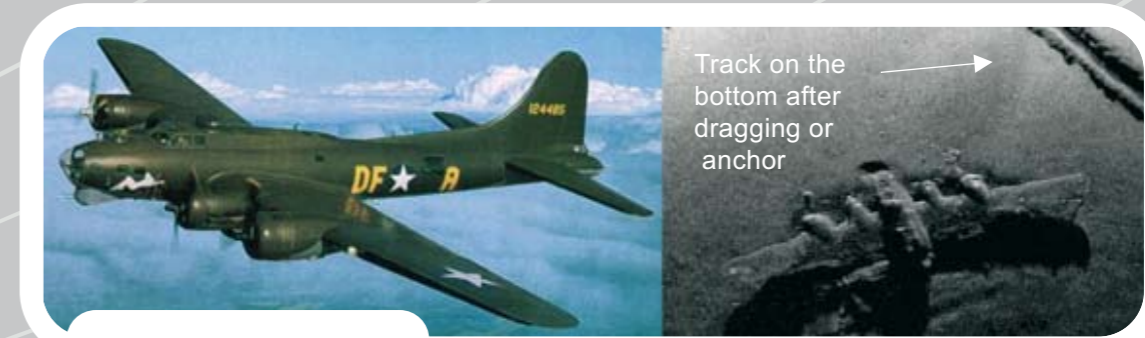
S7- Russian submarine
© Sture Hultqvist



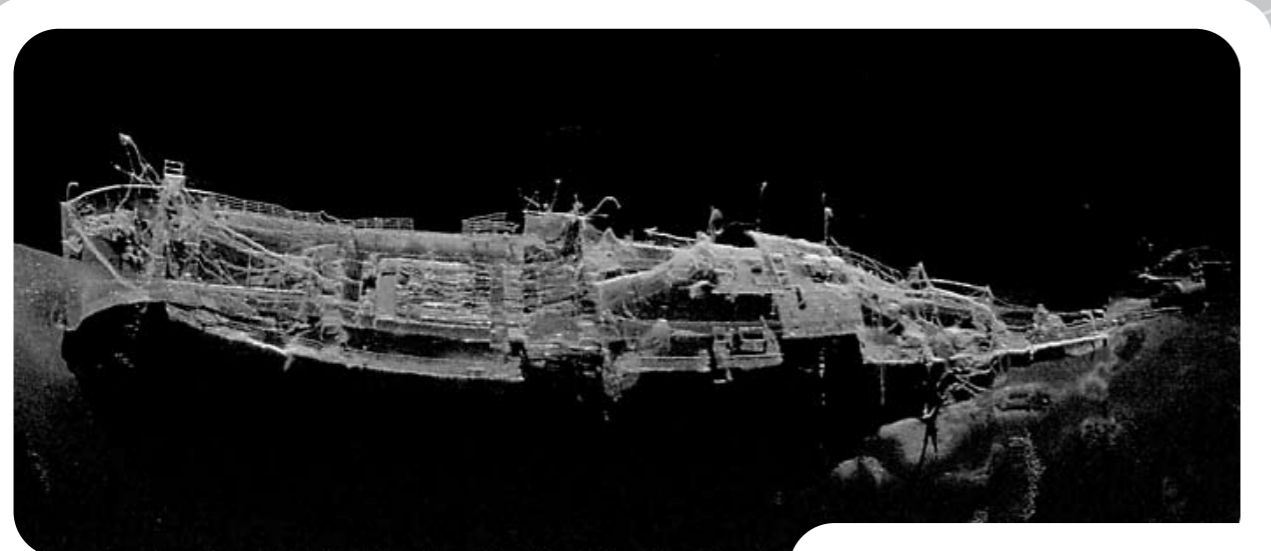
SC 305 - Russian submarine
© Björn Rosenlöf



Russian submarine S8
© Sture Hultqvist



B17 US bomber WW2



Jürgen Fritzen.
Note the details, the ship rests at 90 meters depth.

The SH 200, 500 & 800 series Technical specification.

1. Frequency 200, 500 or 800 kHz.
2. Beam width depending on freq: vertical 60° ; longitudinal direction perpendicular to towing <1°. The elements are angled 25° or 35° down.
The Aperture is 407x5 mm2 for short fish and 610x5 mm2 for long fish. 500 kHz has the same aperture length but is only 3mm wide. There is no shadowing from the sensors.
3. Sweep width: Normally 400 m. 600 m with less resolution.
4. Max speed with full bottom coverage: Typical towing speed is 3-6 knots. Maximum 8 knots.
5. Bottom resolution: <15 cm, less at higher speeds and larger distances.
6. The device can optionally measure the distance to the sea bottom (topographic mapping).
The water column and the surface reflex in the middle of the image give depth information etc.
7. Array: Linear (Separate elements are not accessible).
8. Synchronization of pings with parallel systems is possible.