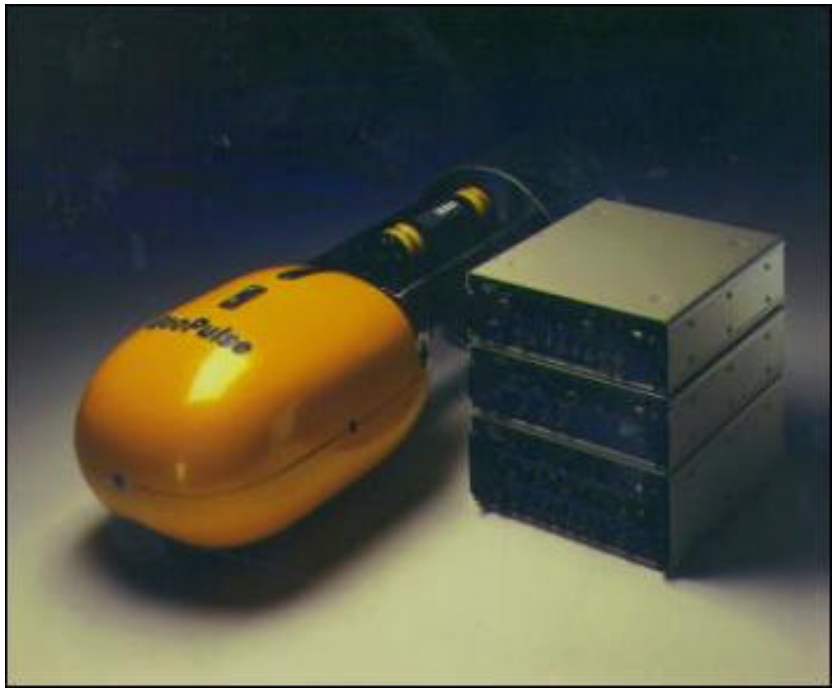
Geoacoustics Combined Sidescan Sonar/Subbottom Profiler



Data from the GeoPulse Receiver (Model 5210A) can be displayed directly onto a wide range of industry standard graphic recorders. The GeoPulse Profiler is often used in combination with our Dual Frequency Side Scan sonar.

GeoAcoustics has a long and successful tradition of manufacturing all types of seabed survey instruments. For many years these have been available as stand-alone systems or in combination on a single towfish, allowing simultaneous surveys to be carried out with the minimum of fuss in the most cost effective way possible. This field proven technology is extensively used world-wide by both commercial and research organisations.

Popular combinations include:

The GeoChirp Profiler and Dual Frequency Side Scan Sonar
The GeoPulse Profiler and Dual Frequency Side Scan Sonar
GeoPro Sonar Processor together with the Dual Frequency Side Scan Sonar
GeoPro Sonar Processor with any of the profiling systems

Dual Frequency Side Scan Sonar
These systems can be assembled at our factory ready for use, but many of our customers mix and match the systems according to their varying survey requirements.The GeoAcoustics Dual Frequency Side Scan Sonar system is the ideal tool for seabed feature mapping, offering flexibility and high quality results in a simple and reliable package. The system offers high resolution, switch selectable, dual frequency operation (100/410 kHz), which when combined with multiplexed data transmission enables a low drag co-axial tow cable to be used. This also facilitates simple installation onto remotely operated vehicles (ROV's) and combined systems towfish.

The standard system employs a lightweight towfish, which is easily deployed by one person and can operate to a depth of 1000 metres. There are separate controls for each channel, which makes the system very easy to operate. Optional extras include a deeper rated towfish, a towfish instrumentation package and a stainless steel towbody.

The basic system includes the following:

Transceiver (model SS941)
Towfish (model 159D), which houses the Multiplexer (model SS942) and Two Dual Frequency Transducers
(model 196D/Port and Starboard).

The multiplexed data transmission technique employed allows the system to be used with a wide selection of towcables,
including twisted pair and co-axial cables. Data from the Dual Frequency Side Scan Sonar can be input to many sonar
processing systems, including a GeoPro Sonar Processor, or it can be displayed on a wide variety of industry standard
graphic recorders.

The versatility, ease of operation and cost effectiveness of the system has made it a popular choice with commercial survey companies.

GeoPulse Sub-bottom profiler

The GeoPulse Sub-bottom Profiler is a tried and tested, industry standard sub-bottom profiling system for shallow geophysics. It is highly flexible allowing operation as
either a hull mounted deep water system, an "over-the side mount" system for small boat operations or as a towed system.

The basic system includes the following:

GeoPulse Transmitter (Model 5430A)
GeoPulse Receiver (Model 5210A)
Towfish (Model 136) containing
Profiling Transducers (Model 137D)

The four transducer Model 136 Towfish provides a stable sub-tow survey platform, which may be towed down to 600
metres using a standard 2000 metre armoured tow cable. Alternative deployment options for the profiling transducers are:

The Hull Mounted option can be configured with up to 16 transducers providing a narrow beam pattern for deep water operation, whilst still achieving good penetration.
With the Over-the side Transducer Mount (Model 132) it is possible to use the system in very small boats for river, harbour or shallow lake surveys and also bridge scour investigations.

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