

Sub-Bottom Profiler

AUV MODULE

Sub-Bottom Profiling That's AUV Ready

The sub-bottom profiling module, built for the Gavia AUV by Teledyne Benthos, is derived from field proven Chirp III technology. Teledyne Benthos are pioneers in Chirp Technology, which uses digitally produced acoustic transmission and matched-filter processing to achieve both high resolution and good penetration.

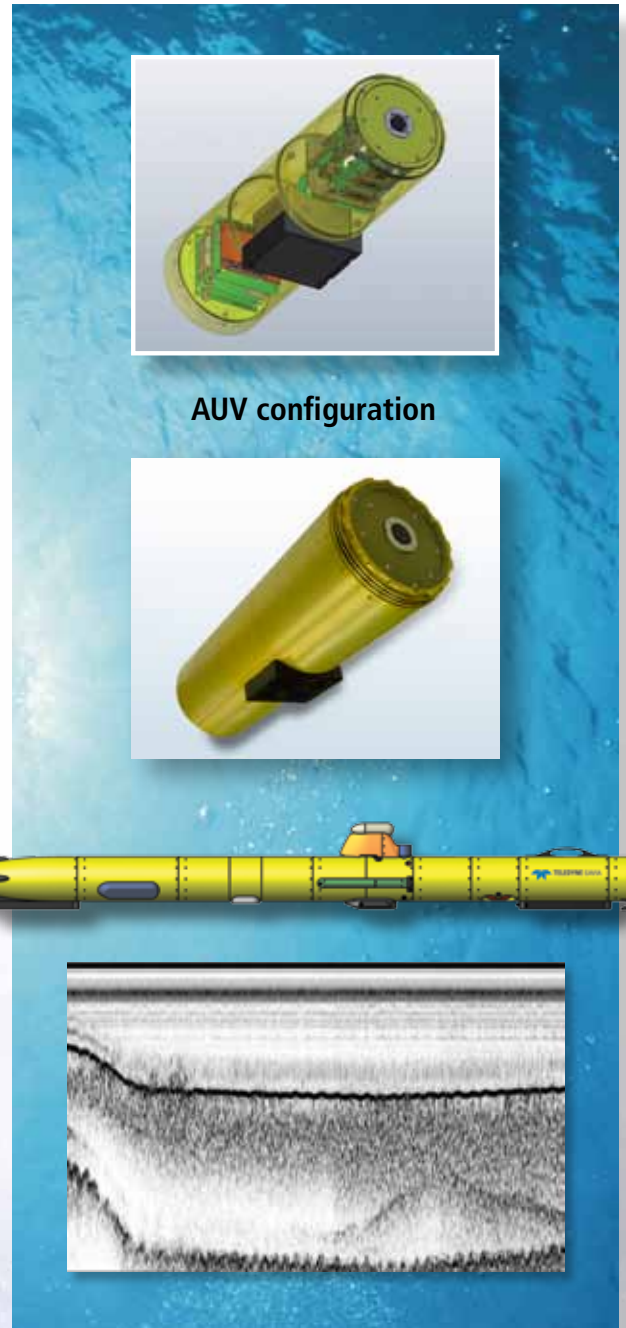
The SBP module for the Gavia AUV gives users the ability to quickly integrate sub-bottom profiling into their survey capabilities. The combination of the SBP module with the existing side scan and swath bathymetry on the Gavia AUV provides a true 3-dimensional look at the ocean floor and sub-bottom layers from a cost effective, man portable, self-contained survey solution.

Advantages of Chirp Sonar

- Greater dynamic range
- Enhanced resolution
- Repeatable transmitted waveforms
- Constant temporal resolution

Applications

- Rig debris clearance
- Buried pipeline surveys
- Environmental surveys
- Mining and dredging
- Pre-trenching surveys
- UXO/MCM surveys



AUV configuration



General Specifications

Signal Resolution:	16 bit
Data Storage:	Stores data in SEG-Y format
Ping Rate:	15 pings/second maximum
Pulse Length:	User selectable from 1 msec. to 15 msec.
Output Power:	1.8 kW Peak @ 16 kHz, or, 216 Watts Average at a 12% Duty Cycle @ 16 kHz
Transducer:	Chirp bands 14 to 21 kHz
Operating Depth:	Gavia AUV (1000m)
Controls:	HW gain (single channel) 0-42dB/channel; repetition rate control
Power Consumption:	35 watts
Weight:	19.4 kg (42.8 lbs)
Data Storage:	32GB
Dimensions of Module:	(200mm (7.8 in) diameter x 482mm (19 in) length, 1000m depth rating) Available as standard module on Gavia AUV

Software Features

- User defined ping rate
- On the fly Chirp/CW pulse
- Integrated data logger



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