

# BLUEVIEW THINKING

## SEATRONICS AND BLUEVIEW TECHNOLOGIES TO MARKET MINIATURE MULTIBEAM SONAR SYSTEMS OUTSIDE THE USA

Seatronics, the Acteon specialist marine electronics company, has reached an agreement with BlueView Technologies under which the two companies will work together to market BlueView's miniature multibeam sonar systems in countries outside the USA.

BlueView, based in Seattle, USA, introduced the novel systems, also called 2D forward-looking sonars, in 2005. Until now, the company has focused most of its sales efforts within the USA, particularly targeting the US Navy, the US Customs and several port authorities. Approximately 200 commercial systems have been sold for use on remotely operated vehicles (ROV), underwater vessels, surface boats and fixed surveillance platforms. The objective now is to exploit Seatronics' global marketing network, plus its excellent reputation in the marine electronics sales and rental field, to promote the product for a greater range of applications and in more countries.

Using between 256 and 512 separate sonar beams, the units provide a constant, real-time sonar image of what is in front of them; an image that is not degraded by the motion of the platform on which they are mounted. Often referred to as acoustic cameras, they form a perfect complement to optical cameras, as they can to "see" through murky water. Currently, there are four different units to choose from, which, depending on their technical specifications, offer imaging over a range of distances and at various resolutions.

The basic P450E-15 model operates at 450 kHz, can resolve two objects 5 cm apart and, although it can detect strong targets up to 140 m away, works best over a distance range of 5–50 m. Its principal application is for wide-area searching and open-water navigation. Operating at a maximum frequency of 2.25 MHz, the DF900-2250 model can resolve two objects 1 cm apart at a range of between 0.3 and 3.0 m. With this performance, it provides an effective replacement for a normal optical camera in zero-visibility conditions and may be used to navigate in cluttered surroundings or within complex structures.

From a practical standpoint, all the units are small, light and compact, and consume very little power (10–15 W). Hence, they are easy to mount on the smallest ROV or they can be used manually by divers. All the units can be used in water depths to 300 m; most are suitable for 1000 m, and one model, the DP900-90, is good for 4000 m.

The units have been used extensively by the US Navy and counter-terrorism organisations to check ships' hulls and berths for the presence of explosive devices. Customs authorities have also used them to counter the smuggling of illegal substances under water.

Seatronics managing director David Currie is looking forward to the prospect of marketing the BlueView units. He expects them to become essential items for ROV operators in the oil and gas industry



The BlueView units are easily fitted to ROVs or may be used manually by divers.

working in water with visibility problems. "They have a lot to offer users involved in structural inspection tasks," he says, adding, "One interesting application is the identification of pipeline leaks, as both gas and nonaqueous liquids strongly attenuate the sonar beam and so show up well on the sonar image."

Currie believes that the BlueView products are significantly ahead of the field in terms of imaging performance and practicality. He describes them as based on "winning technology," and points out that, even though thoroughly proven, they are still the subject of substantial research and development effort on BlueView's part.

"With the support that Seatronics can provide for the units in the field, I am confident we will see a rapid uptake of the BlueView products," Currie says. "Seatronics already has units available for demonstration, sale or rental in all of their bases."

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