

High-frequency Side Scan Sonar



JW Fishers, USA, has added a new high-frequency side scan system to its line. The 1,200kHz sonar produces detailed images of even small and soft targets such as old wooden wrecks, areas of scattered debris or a victim of drowning. The new sonar is available as a single-frequency system or a dual-frequency side scan with two sets of transducers in one towfish.

Putting two sets in one fish provides versatility, allowing the operator to switch between frequencies at any time during operation. The lower frequency is capable of scanning long ranges, but with less resolution.

When the 1,200kHz was towed over a bicycle that had been disposed of in a waterway (inset), the bike's frame and wheels were clearly visible, as well as the seat and other features.

The two frequencies available for coupling with the 1,200kHz in a dual-frequency system are the 600kHz and the 100kHz. The 600kHz provides a combination of range and resolution with a maximum scan of 200 feet per side (400 foot swath), yet with the capability of detecting small targets. The 100kHz has the longest range, up to 2,000 feet per side (4,000 foot swath), making it ideal for scanning large areas when searching for big targets such as downed aircraft or sunken ships.

An option for the Fishers side scan systems is Sonar Map Coverage software which shows the track of the boat as it moves over the search area and the size of the area being scanned, ensuring no part of the area is missed. The map can be displayed in a small window laid directly over the side scan track, or displayed alone, with GPS position coordinates automatically captured with the sonar data. During playback, the sonar track can be overlaid onto a nautical chart showing the precise location of the search operation.

Image: Side scan sonar is becoming a common sight in ports and harbours. Inset photo; 1,200kHz side scan image of bicycle on river bottom. Image Courtesy: JW Fishers.