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Data Sheet
SSS 600K
Side Scan Sonar

- **Low Cost**
- **500ft. Depth Capability**
- **Displays Sonar Images on Laptop Computer**
- **Easy to Operate System**
- **Store Files (XTF Format)**
- **Comes standard with a hard carry case and underwater connector**

J.W. Fishers Exclusive
2 Year
Unconditional Warranty

System Information
- Standard Laptop - Win10, 15.6" wide screen, 320GHD. R/W DVD burner, 4GB RAM.
- Splash-proof input power - 12 vdc, 120/220 vac at 60 w.
- File format - XTF (industry standard).

Towfish
- Frequency - 600Khz
- Resolution (long track & cross track) - 25cm x 4cm x 2cm
- Beamwidth - horizontal x vertical - 1.5 degree by 40 degree
- Transducer tilt angle - 20 degree downward
- Pulse length - 0.1ms.
- Power Output - 1,000 watt per channel.

Max range
- 600 KHz - 75m (250 feet per channel / 500 feet swath).
- Max depth - 500 feet (150 m).
- Recommended tow speed (for best image) 1-3 kt.

Dimensions and Weights
- Sonar Processor - 14"Lx11"Wx6"D 8 lbs.
- Sonar Processor input power - 12 vdc, 120/220 vac at 50 w.
- Standard Laptop computer - 14"L x1 1"W x 11/2"D - 7 lbs.
- Cable - .375"x150-1000' -15 to 100 lbs.
- Fish - 4"D x 48/53"L - 38/48 lbs.

Options
- Cable up to 1,000 feet (~300m)
- Cable reel with slip rings (CMS)
- Sonar Coverage Map software
- Microsoft Surface ® Tablet
- DDW1-1 deep dive wing
- GETAC ruggedized, splash proof laptop

Side scan sonars are one of the most sought after, and effective tools for underwater searches. The reason; they can cover large areas quickly and "see" what's on the bottom regardless of water visibility. A side scan finds things by sending out a sonar beam which sweeps over the bottom, reflects off any object laying on the bottom, and returns to the towfish. The received signal is sent through the tow cable to a topside display. The displayed image is a highly detailed two dimensional picture of the ocean, lake, or river bottom and any objects lying there. The sonar beam is transmitted and received by transducers mounted on each side of the towfish. How the transducer is constructed determines the frequency of the sonar beam. Side scans with low frequency transducers have excellent long range capability, but low resolution at shorter ranges. High frequency systems have higher resolution, but very short range. A dual frequency side scan has high and low frequency transducers in the same fish to give the best of both systems; long range and highly detailed images at the shorter ranges.

JW Fishers sonars represent a major price/performance breakthrough in low-cost side scan systems. The SSS-600K has high resolution from 10m to 75m.
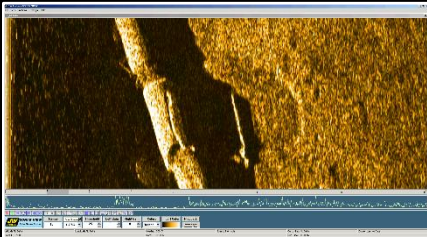
The SSS-600K is ideally suited when high resolution is needed. It is ideal when searching for small or soft targets. Applications for the 600K include: searches for old wooden wrecks, scattered debris fields, ghost nets, logs, drowning victims, mine countermeasures (MCM) by the military, and a variety of other targets. It can also locate larger targets such as sunken vessels at ranges of up to 250 feet. The SSS-600K is in use by law enforcement agencies, dive rescue groups, and military units worldwide.

Fisher's side scan towfish is designed for maximum stability, so surface waves and rocking of the boat will have very little impact on the signal being transmitted and received. The fish can be towed at any speed, however, 1 to 3 knots allows for maximum information gathering to produce the highest quality images.

THE SIDE SCAN SONAR DISPLAY
The display area is split down the center with each channel making up half of the screen. The right side of the display is a picture of the bottom on the right side of the tow vessel, and left side of the display is a picture of the bottom on the left side of the tow vessel.

HOW THE DISPLAY IS GENERATED
The transmitted sonar signal is made of high-energy pulses which form a very narrow (1 degree) beam. This beam sweeps across the bottom resulting in a continuous stream of returning echoes. The echoes return to the transducer and are sent topside to the Sonar Processor which produces evenly spaced samples. The samples are displayed in a horizontal line on the computer, where each line is series of tiny dots. What dot color is displayed depends on the strength or amplitude of the returning echo. When the complete line is printed, the transducer sends out another signal and the process repeats. As the towfish moves forward through the water each new line is laid down beside the previous line, creating a picture.

View more sonar images on the website - www.jwfishers.com

COMPUTER
Fishers SONAR VIEW software (included with side scan, see separate data sheet) give the operator complete control. Most of the operating parameters are selected through easy to use pull down menus on the screen.

Optional Microsoft Surface Tablet mounted in control box

Sonar Coverage Map can be exported and overlaid on other mapping programs

The computer displays real time color images of the sonar data. The operator can change colors, ranges, amplifier gain and various other system controls during operation. Side Scan data can be stored (XTF format) in memory for playback and additional post-processing. Small file sections including screen shots can be copied for emailing. A sizing tool allows the operator to determine the size of targets and a zoom feature makes it easy to enlarge targets. The operator can determine the height off the bottom and annotations can be added and saved. Printouts of side scan data can be made on any standard printer from stored data.

An optional Microsoft Surface ® tablet can be mounted in the control box lid, eliminating the need for a separate laptop computer making it a "sleeker" package. Another option is a GETAC ruggedized, splashproof laptop. The XTF format and output signals allow for interfacing with 3rd party software (Hypack, Chesapeak, etc.) for mosaicking and additional post processing

The optional Sonar Coverage Map Software window (above) shows the path of the boat as it travels over the search area and displays the width of the scanned area. Annotations and waypoints can be added to the map and saved. The Tracker map can be exported as an image with a KML file to allow it to be easily overlaid on other mapping programs (as shown above).

All data can be stored on the PC hard-drive or disk. When the GPS (supplied) is connected to the computer, the position coordinates are captured and stored with the sonar data. When the cursor is pointed at a target on the computer screen, the GPS coordinates for the target are automatically displayed.