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When tragedy strikes and lives are on the line, every second counts. Precious time wasted using outdated technology could mean the difference between life and death. Choose Humminbird's exclusive Side Imaging™ technology for your professional Search & Rescue team. With picture-like views of the bottom you can see exactly what's down there, pinpointing your target and minimizing your divers' time in the water. For the ultimate in emergency preparedness, faster, more efficient evidence recovery and increased safety and security, there's simply, clearly no better choice.

Humminbird's Side Imaging Sonar is revolutionizing Search & Rescue.

1. See high-quality picture-like images of the bottom (comparable to those from units costing thousands more) in water up to 150 feet deep.
2. Capture screen snapshots with the GPS location, then view them on-screen or download them to a PC.
3. Quickly and easily mark the GPS location of objects viewed on-screen.
4. Change the range of scan from six to 240 feet to either side of the boat, to optimize images based on conditions.
5. View up to 480 feet of bottom at once.
6. Minimal training time required to quickly become a proficient operator, thanks to Humminbird's intuitive controls.



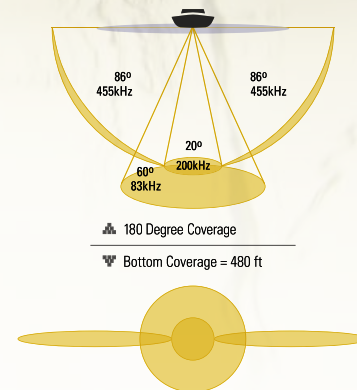
See picture-like images of the bottom and submerged objects.



How Side Imaging Sonar Beam Technology Works

Humminbird's Side Imaging™ Sonar incorporates multiple sonar beams with varying frequencies and beam "shapes" to provide maximum flexibility.

- Two 86° Side Imaging beams look left and right to cover all the water around the boat with 180° coverage. The beams are wide from "surface to the bottom" but are extremely narrow "front to back" so the bottom is imaged in thin slices for maximum detail.
- The Side Imaging beams can be operated at 455kHz for widest coverage or 800kHz for the greatest level of detail.
- Down-looking 20° and 60° sonar beams operating at 200kHz and 83kHz provide traditional 2D sonar capability in shallow water to depths as great as 1,500 feet.

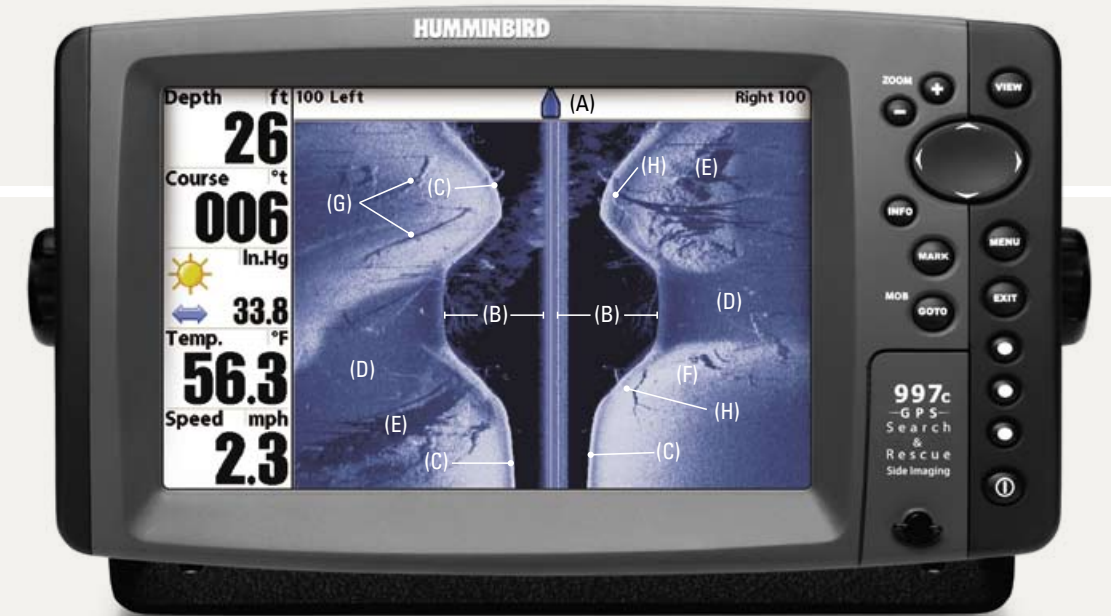


Understanding Humminbird's Side Imaging On-Screen View

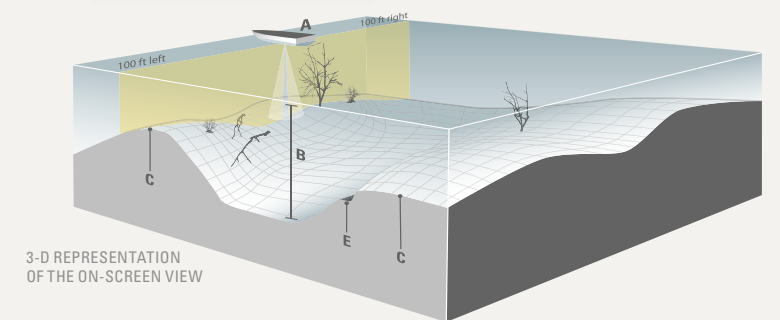
With its picture-like views of the bottom, the image you see on your Humminbird Side Imaging™ unit is dramatically different than conventional sonar. More definition. More information. More "real" than anything you've ever seen. That's what makes it a "must-have" tool for Search and Rescue.

Here's what you'll see: The view on-screen is from beneath your boat looking straight down into the water. Because Side Imaging scans to both sides, the position of your boat on-screen is centered at the top (represented by a boat icon). Sonar returns coming from the left and right sides of the boat are shown on the corresponding sides of this icon. The most current sonar information is at the top of the

screen, and then scrolls toward the bottom. When the sonar ping is first emitted, it travels through the "water column" that is represented by the dark symmetrical band down the middle of the screen. This band will show returns from fish, trees and other objects directly below and slightly to sides of the boat. The left and right edges of the water column vary as the depth changes, much like traditional sonar, but turned 90 degrees. Once Side Imaging profiles the bottom below the boat, it continues to look further and further to the sides of the boat to define the bottom contour out to a maximum of 240 feet, using a topographic-style shaded image. Remember, Side Imaging uses sonar, so sonar returns that are strong appear bright, while weaker returns appear dark.



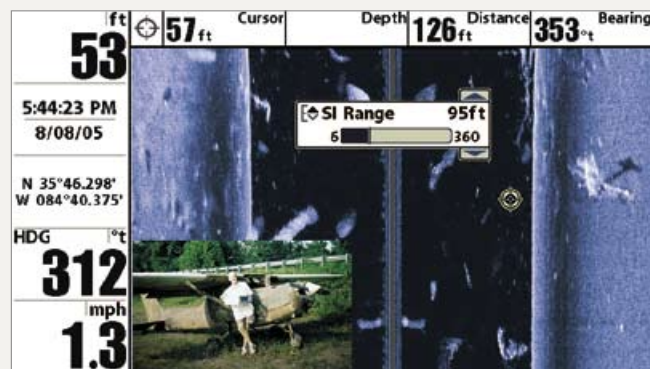
- (A) BOAT LOCATION
- (B) WATER COLUMN
- (C) BOTTOM PROFILE
- (D) FLAT TERRAIN
Neutral shades of blue represent flatter terrain.
- (E) DESCENDING TERRAIN
Dark shades of blue represent descending terrain.
- (F) RISING TERRAIN
Lighter shades of blue typically represent terrain rising from the bottom. Sometimes, very hard bottoms appear as a whiter shade.
- (G) FALLEN LOG WITH SHADOW



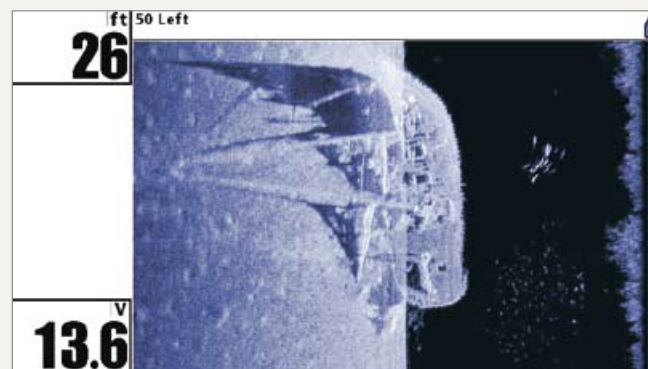
- (H) STANDING TIMBER WITH SHADOW
Objects standing off the bottom typically appear as a bright spot, or a clearly defined bright shape with an adjacent, dark sonar "shadow." This shadow is not caused by light; rather it's the lack of sonar return because the object has already reflected the sonar energy. Generally, long shadows indicate the object is tall, and small shadows indicate something short. It's important to note the shadow will often tell you more about the object than the primary sonar reflection.

What you're seeing is real.

These images shown here were captured during actual, on-the-water use of Humminbird Side Imaging™ Sonar, and saved using our Screen Snapshot feature.



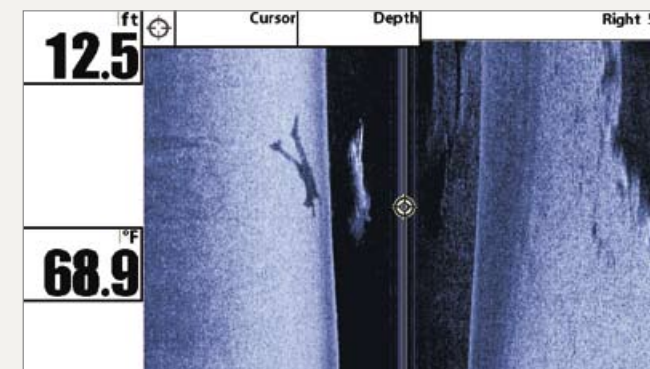
Using Humminbird Side Imaging™ Sonar, this Cessna aircraft was located in the Tennessee River after nearly two years of searching using conventional sonar. The aircraft can be seen clearly on the right side of display. The inset shows author Jon Jefferson with the recovered aircraft and the Humminbird unit used to find it.



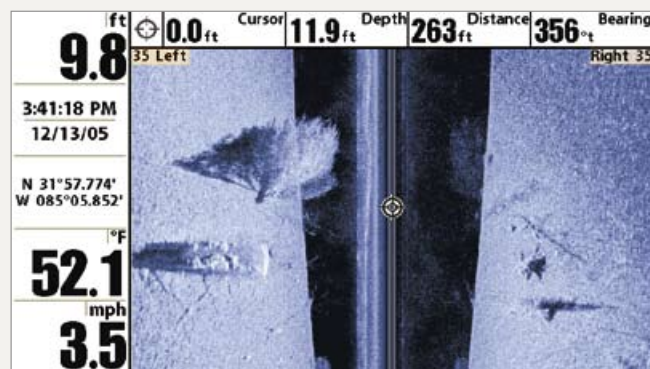
Side Imaging Sonar clearly shows the mast, sails, and even open hatches of this 65' sailboat that sank in St. Andrews Bay near Panama City Beach, Florida. This image also illustrates how well Humminbird's Side Imaging Sonar works in saltwater as well as fresh water.



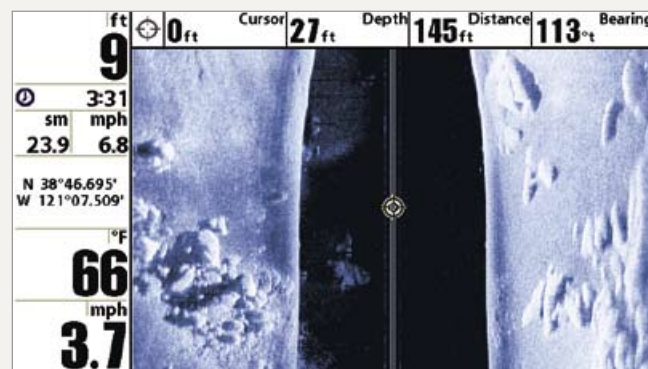
When an angler near Alton, Illinois saw this image of a vehicle while using Side Imaging, he recorded it to his SD card and marked the GPS location on-screen. This led to the recovery of the vehicle and the body of a woman who had driven off a nearby bridge three years earlier. Searchers had been unable to locate them using traditional sonar. The inset shows the vehicle after recovery.



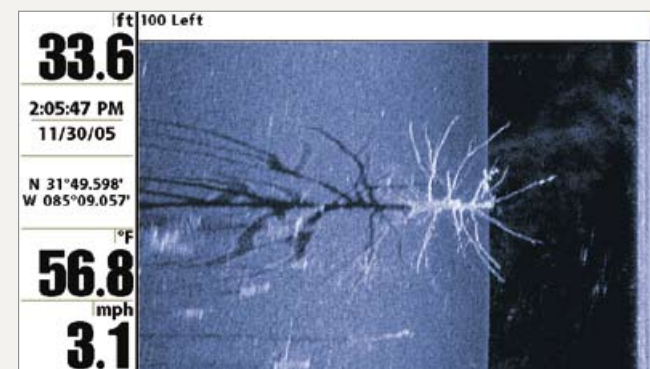
Human bodies are often the main target of recovery operations. The clarity of Side Imaging Sonar not only shows you a body suspended off the bottom, you can also plainly see the diver is wearing fins.



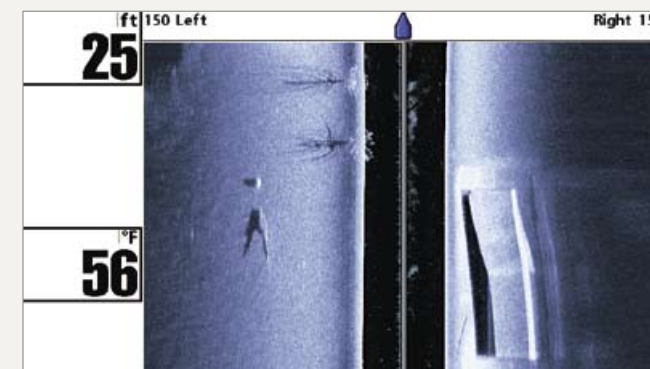
In this image, we find a submerged tree, stumps and even a sunken boat. The Side Imaging Sonar is scanning 35 feet to the left and right.



This image showcases the ability of Humminbird's Side Imaging sonar to display striking underwater detail, such as these rock piles and other debris.



This image shows fish suspended in the branches and around a submerged tree. The length of the sonar shadow indicates that the tree is quite tall.

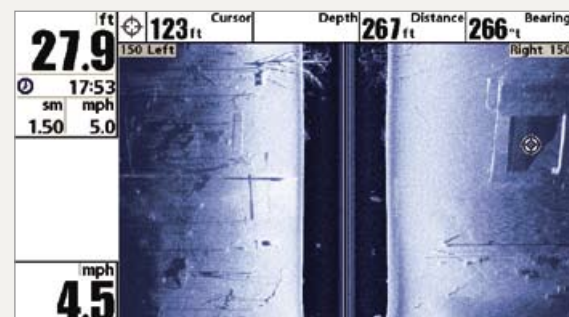


On the right side of the above image is a swimming pool that was submerged when Lake Walter F. George in Alabama was created. Look carefully in the upper left corner of the pool, and you can see the steps leading into it.

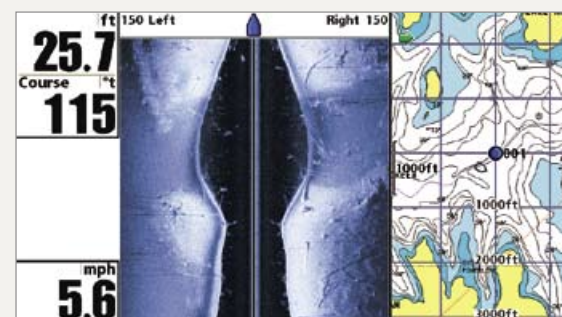
Humminbird's exclusive Side Imaging™ technology is also available combined with our powerful GPS Chartplotting technology, so you can place the unit's cursor over any object you see on-screen and mark its GPS location, without ever changing screens.

Advanced GPS and chartplotting complete the picture.

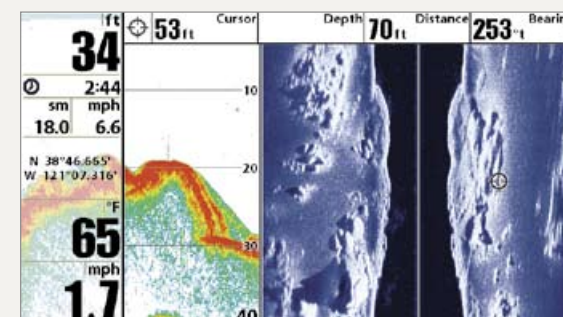
The 16-Channel GPS/WAAS receiver delivers incredibly accurate position fixes, and combined with the full chartplotting capability, you can quickly set up a search pattern, ensure you stay on course, mark locations and much more. The 1197c SI Combo and 997c SI Combo include a built-in UniMap™ covering the continental U.S. coastline and inland lakes and rivers at 30 meters per pixel resolution. On the coast, this clearly shows features as small as canals, and many coastal navigation lights. Inland, the UniMap features virtually all recreational lakes and rivers, plus hundreds of thousands of small lakes that don't appear on other charts. In other words, your lake is likely to be there!



Quickly freeze the screen for closer study and mark the GPS location of any object on the screen using the Sonar Cursor. Image above shows submerged swimming pool in Lake Walter F. George.



View Side Imaging and a chart split-screen. Display a Trolling Grid (shown) around any marked GPS location to run an efficient search pattern. Image above shown with optional Navionics® charts.



Combine traditional down looking and Side Imaging Sonar together on the same screen to simultaneously evaluate an obstruction's depth and orientation. Image above shows boulder covered bottom.





Humminbird's Side Imaging™ Sonar is already making its mark in the field.

“I’ve spent 50 years in the field of forensic science, and during that time, technology has advanced tremendously. The Humminbird Side Imaging Sonar is a perfect example. I’ve used this remarkably powerful system to image bodies and search for missing aircrafts (it easily spotted a Cessna 152, which had been missing for three years, in a 50-foot deep stretch of the Tennessee River). In a body-imaging experiment we performed at a depth of 10 feet, the Humminbird held its own against sidescan systems that cost ten times as much. It’s simple to mount, it’s easy to operate, and it captures amazing images of underwater structures, hazards, vehicles and objects. This would be a great tool for law enforcement and search and rescue teams.”

— Dr. Bill Bass, world-renowned forensic anthropologist and the founder of “The Body Farm” at the University of Tennessee, regarding his experience with Humminbird’s Side Imaging Sonar.

“Ten minutes after we had the unit powered, we were on the lake with divers in the water near submerged targets. We had very usable scanned images saved on the 16MB MMC card. In no time, we were showing the 20 divers that arrived early for the conference. They were beyond impressed with the system. Your product, at its price point, is a monumental change in what we do as dive rescue/recovery specialists. These units will save lives, give closure to families that have lost, aid in evidence recovery like never before, and protect our own in that we will now have amazing amounts of information on the hazards our divers may see prior to entering the water. I hope you and your company understand how much your product can change our black, cold and dangerous world.”

— Shawn L. Connery, Assistant Chief, Little Egg Harbor Fire District #2

“On 04/03/06 we were dispatched to the Ohio River to search for four possible drowning victims. They were missing from a sport utility vehicle that drove into the river with seven people in it. One victim survived and two others were recovered in the vehicle. The four other victims were presumed drowned. Only having our Humminbird Side Imaging Sonar for a short time we had no time to practice with it before being called to use it in a search. We were able to locate the victims and later recover them. Not only was the Side Imaging useful in locating the drowning victims but we were able to identify potential underwater hazards for our divers. We even located a sunken barge that we didn’t know was there. The Side Imaging has very detailed images and is very easy to use. I would highly recommend the Humminbird’s Side Imaging Sonar for any search and rescue team. It has proven to be a very valuable tool, not only will it cut down the time we spend searching but it makes our jobs much safer and more effective.”

— Michael Daws, Dive Team Captain, Marrs Township Fire Dept.

1197c SI SAR Combo



Display:

10.4" Diagonal, 600V x 800H
4:3 Color TFT, 65,000 Colors

Sonar:

HD Side Imaging	DualBeam PLUS
455kHz / (2) 86° @ -10db	200kHz / 20° @ -10db
800kHz / (2) 55° @ -10db	83kHz / 60° @ -10db
180° total coverage	

Power Output: 8000 Watts (PTP); 1000 Watts (RMS)

Power Input: 10-20 VDC

Depth: 150 ft (SI), 1500 ft, 3000 ft'

User Features:

- Audio / Video Output
- Screen Snap Shot to Memory Card
- Sonar Recording
- Split Screen Zoom
- Split Screen Bottom Lock
- 3D Chart View
- Large Digits View
- Wide/Narrow Cone Split Screen
- Custom View Selections
- Custom Digital Readout Selection
- Selectable Display Colors
- View Preset Keys
- Temperature Graph
- Temperature Alarm
- Freeze Frame
- Instant Image Update
- Mark Structure on Sonar
- Real Time Sonar
- Sonar Echo Enhancement
- Triplog
- X-Press™ Menu System

GPS Features: 16 Channel GPS | GPS Trackplotting | GPS Chartplotting | GPS Speed | Humminbird UniMap

Optional Features: Navionics® Gold/HotMaps™ | Navionics® Platinum | QuadraBeam PLUS™

997c SI SAR Combo



Display:

8" Diagonal, 480V x 800H
16:9 Color TFT

Sonar:

HD Side Imaging	DualBeam PLUS
455kHz / (2) 86° @ -10db	200kHz / 20° @ -10db
800kHz / (2) 55° @ -10db	83kHz / 60° @ -10db
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