

**Navigator Editorial May 9, 2007**

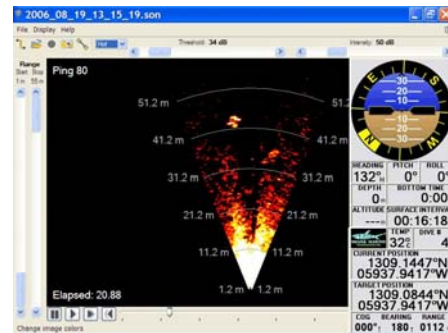
A product like no other.

The Shark Marine Navigator stands alone as the most versatile, diver tool available. The Navigator provides the diver with acoustic imaging of his surroundings up to a distance of 450 feet (140 metres), as well as precise underwater navigation. Used by several navies around the world, it's current applications include ship hull inspections; EOD operations; search and recovery; rapid beach profiling; tracking of divers, both underwater or from the surface; covert operations and more, and all in a small, lightweight, portable package. With it's optional head mounted display unit, it's ability to locate a target and to guide a diver through zero visibility conditions is uncomparable.

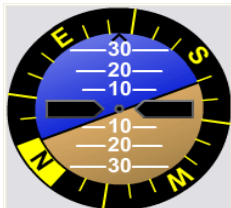


The Navigator  
Diver held sonar and guidance system

At the heart of the Navigator is a full Windows based computer, complete with ergonomic diver controls, a 5 inch daylight viewable screen and numerous wet-pluggable accessory ports. Standard acoustic imaging is provided by a Blueview, high-resolution multibeam sonar of which there are 2 units currently available. The 450 kHz covers distances up to 450 feet (140 metres), or the 900 kHz, for a higher resolution image up to 165 feet (50 metres). The images are realtime and produce a video like view of the area around the diver. These sonar units as well as most PC based sonars and other devices such as magnetometers, digital cameras, hydro phones, environmental sensors, etcetera, are quickly interchangeable for mission specific configurations.



Navigator screen capture showing sonar data and the DiveLog display



HEADING	PITCH	ROLL
127° <sub>M</sub>	1°	22°
DEPTH	BOTTOM TIME	
0 m	0:00	
ALTITUDE	SURFACE INTERVAL	
---	00:31:56	
TEMP	DIVE #	
33°C	4	
CURRENT POSITION		
1311.9648°N		
05937.9417°W		
TARGET POSITION		
1309.9582°N		
07937.9417°W		
COG	BEARING	RANGE
000° <sub>T</sub>	270° <sub>T</sub>	*OL <sub>M</sub>

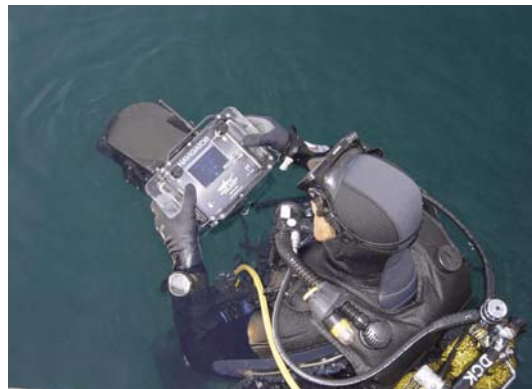
The Shark Marine "DiveLog" software provides the diver with a digital and graphical representation of all pertinent data, such as, depth, heading, pitch, roll, altitude, dive time, surface time, and geodetic position. DiveLog is also responsible for the interconnection between all sonar and navigation sensors, and provides a time synced log of this data. Rechargeable battery packs for the Navigator last an average of 2 hours, dependent on the amount of accessories attached, and are hot-swappable underwater for continuous, uninterrupted operation.

Underwater navigation is provided from 3 possible sources, shallow water GPS; Doppler Velocity Log (DVL); and Long Base Line positioning (LBL). The "DiveLog" software detects the presence of positioning data and determines the best to use for underwater navigation. DiveLog provides the range and bearing to a target point, as well as integration with mapping software which allows the diver to preplan routes or survey grids. It then tracks the divers position and records it, overlaying in onto navigational charts, satellite images, or any image you wish to import. This position data is time synced with the sonar and all other data acquired. Upon returning to the surface the recorded data may be easily transferred to any other computer, or copied to a CD or other media for archiving or distribution purposes.

Since the first unit appeared on the market in 2004, the Navigator continues to receive high acclaim from armed forces, law enforcement, port security, and search and recovery operations around the world.

After a demonstration at California's Lake Piru, Ventura County Sheriff's dive team member, Dominique Evans-Bye quoted fellow divers in a review for PS Diver Monthly, saying "it would really reduce dive time and manpower..." it would be an aid in avoiding underwater hazards..." and "it's lightweight, easy to move, practical in design, just point and shoot".

The list of complimenting accessories for the Navigator continues to grow. Items such as the previously mentioned underwater head mounted display (UHMD); GPS and tracking or positioning systems; quick release mounts for DPV's; pole mounts that allow separation of the sonar head from the Navigator for use from a surface vessel and more. No other single product on the market today, compares to the Navigator in both versatility and afford ability.



Diver with Navigator hand held sonar system

For more information check out the demonstration at [www.sharkmarine.com](http://www.sharkmarine.com)