



**Sound Metrics Corp.**  
Using sound to make sound measurements

## Inspection & Security with DIDSON™

### INTRODUCTION

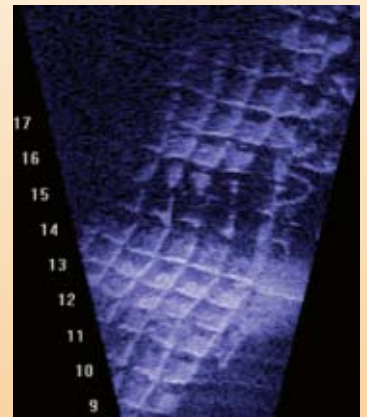
DIDSON (Dual-Frequency Identification Sonar) saves money and time because work needing "visual feedback" can continue in turbid water environments where optical systems are ineffective. DIDSON uses acoustic lens technology to generate almost video-quality images and movies. Its clarity allows inspection of underwater structures and equipment, hulls, berthing areas, and bridge footings. The sonar is small enough to mount on ROVs and provides feedback for driving the ROV, operating its manipulators, and making detailed inspections.

### APPLICATIONS

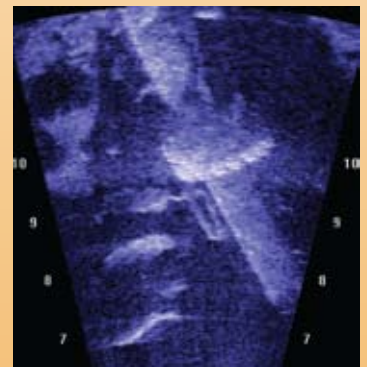
• Harbor Security • Inspection • Search and Rescue

### FEATURES

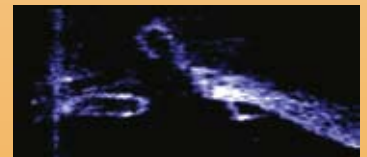
- Easy to Use
- Users can identify objects and determine structural damage
- Measurement tool allows measurement of size or distance between objects in the DIDSON image.
- Recorded "movies" can be easily converted to AVI files for presentations
- Images can be converted to JPGs for reports and presentations
- Audio files can be recorded in the field along with video files
- Optional sensor for sonar heading, roll, and pitch
- Links to your Laptop for DIDSON data display and control via Ethernet Port
- Rugged construction
- 3000 m depth rated system is made with titanium
- 300 m and 1000 m depth rated systems are made with anodized aluminum



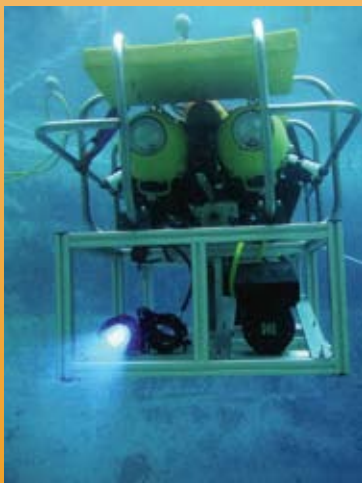
*Damaged concrete mats*



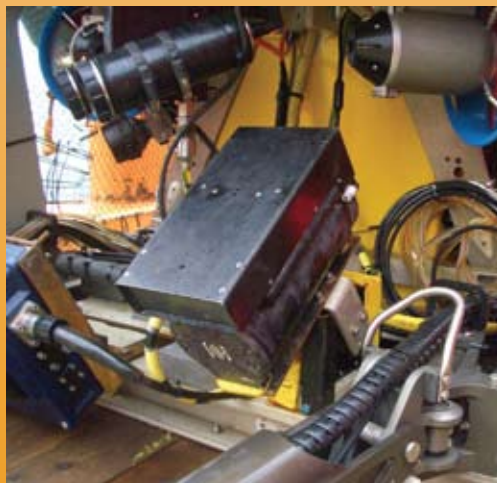
*Pipeline and flange*



*Hook and ring*



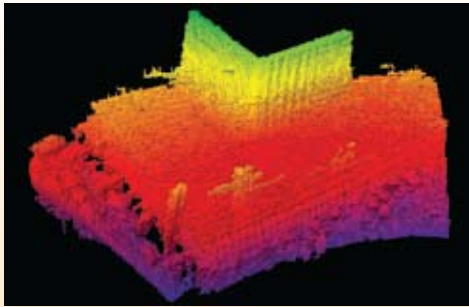
*DIDSON on RAUVER ROV*



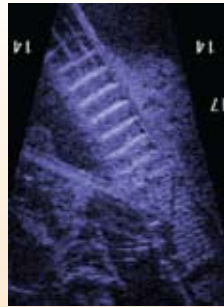
*DIDSON and instrumentation on the SSI Comanche*



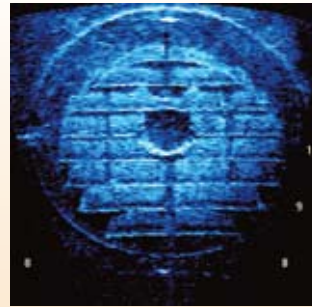
*DIDSON on a United States Coast Guard boat*



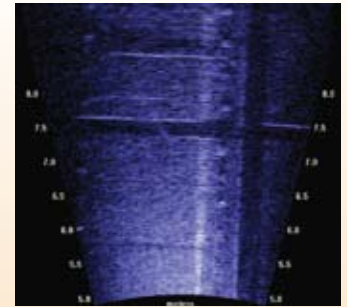
3D Imaging of DIDSON data.  
(Courtesy of Sonar Data)



Capsized Oil Rig



Hull Intake



Screen at dam

## Specifications of the DIDSON

### Identification Mode

- Operating Frequency 1.8 MHz
- Beamwidth (two-way) 0.3° H by 14° V
- Number of beams 96
- Range 1 m - 15 m

### Detection Mode

- Operating Frequency 1.1 MHz
- Beamwidth (two-way) 0.6° H by 14° V
- Number of beams 48
- Range 1 m - 35 m

### Both Modes

- Max frame rate 4-20 frames/s  
(window length dependent)
- Field-of-view 29°
- Focus 1 m to max range
- Sonar weight in air (300m) 7.7 kg (17 lbs)
- System weight in Water (300m) .60 kg (1.32 lbs)
- Sonar weight in air (1000m) 9.55 kg (21 lbs)
- System weight in Water (1000m) 1.65 kg (3.6 lbs)
- Sonar weight in air (3000m) 13.9 kg (30.5 lbs)
- System weight in Water (3000m) 6.1 kg (13.4 lbs)
- Sonar Dimensions 30 cm by 20 cm by 17 cm
- Depth rating 300 m, 1000 m, or 3000 m
- Data Transfer 100/10BaseT

The Long Range (LR) system uses lower frequencies (0.7 MHz and 1.2 MHz) and has a maximum range of 80 m.

## Scope of Supplies

- DIDSON
- 50-ft cable
- Topside Box
- Power Supply
- Manual
- Software CD for topside computer
- Transit Case for the sonar and accessories

Available cable lengths:  
50, 100, 150, 200, 500 feet

Optional sensor  
for sonar heading,  
roll and pitch



DIDSON 3000m  
titanium housing

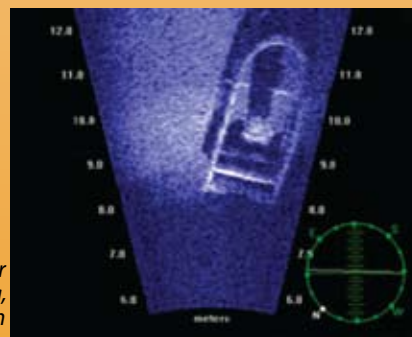


DIDSON 300m

RAL  
in place

RAL stored

The DIDSON 300 has an optional Remote Auxiliary Lens (RAL) for choosing two vertical angles to enhance bathymetry, 3D, and close-up inspection images.



Transit Case

Visit [www.soundmetrics.com](http://www.soundmetrics.com) for sonar movies and additional information



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