



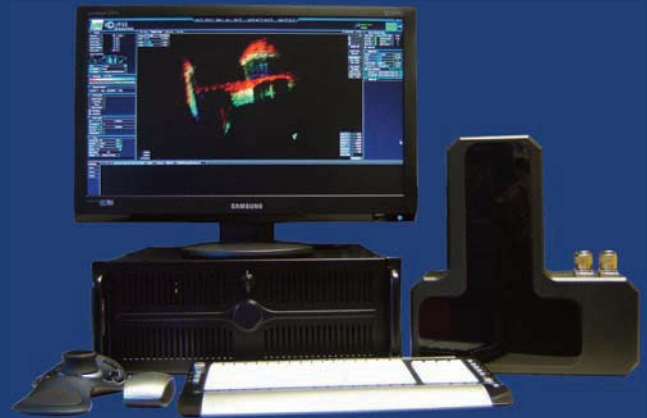
NEW ECLIPSE MULTIBEAM SONAR

Features

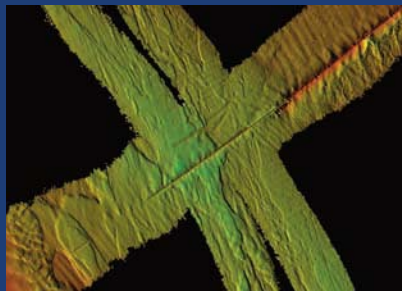
- High resolution bathymetry
- Obstacle avoidance - forward looking mode
- Not affected by poor visibility
- True time-delay beamforming
- Electronic beam steering
- High speed data acquisition
- Up to 140Hz scan-rate
- 2500m depth rated
- ROV or vessel deployed
- Real time 3D imaging & measurement

Applications

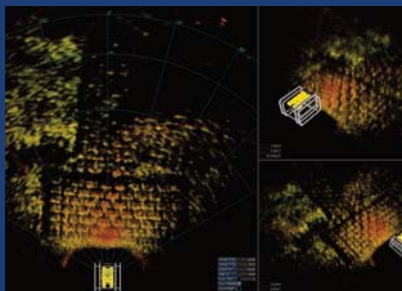
- Bathymetry survey
- Mattress laying in zero visibility
- Construction support
- Search and salvage operations
- Pipeline inspection
- Pipeline touchdown monitoring
- Dredging and rock dumping
- Harbour wall inspection



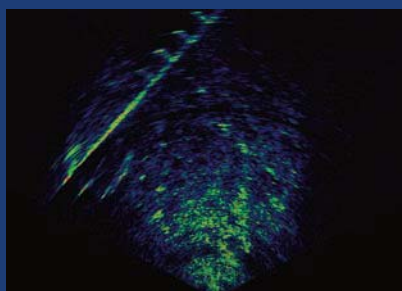
System comprises Eclipse sonar, surface control unit, cables, keyboard, mouse and 3D pointer. (Monitor not included)



Seabed Bathymetry data collected using Multibeam EchoSounder mode.



Mattress laying in bad visibility displayed clearly using 3D Volume Visualisation



Forward Looking Navigation toward target of interest for further inspection.

With true time-delay beamforming and electronic beam steering technology, Eclipse is the most flexible, cost-effective multibeam sonar available today.

Not only is Eclipse a very capable Multibeam EchoSounder, it can also be deployed on an ROV at depths down to 2500m in Forward Looking Navigation and 3D Volume Visualisation modes.

Multibeam EchoSounder

Utilising 256 focused receive beams across a 120° wide swathe, Eclipse Multibeam data can be visualised as a real-time, 3D motion corrected waterfall display. It can also be interfaced to industry standard survey software to obtain geodetically correct, high resolution, hydrographic bathymetry data.

3D Volume Visualisation

By electronically sweeping the 1.5° profiling beam, a 120° by 45° volume can be imaged ahead of the Sonar. At 10m range and 1° sweep steps, Eclipse can scan a complete volume in less than 1 second.

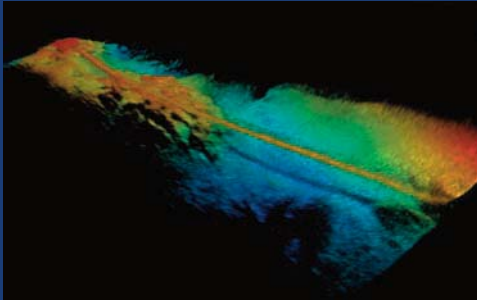
The 3D Volume can also be digitised into a points cloud and embedded tools allow measurements to be taken in 3D including range, bearing, horizontal and vertical distance and slope angle between any two points of interest.

Forward Looking Navigation

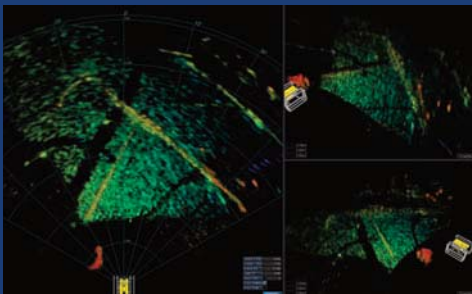
By mounting the sonar looking ahead of the ROV in either profile (120° x 1.5°) or forward-looking (120° x 45°) mode, the Eclipse can be used to measure and aid navigation towards targets requiring further detailed inspection. Eclipse can then be switched to 3D Volume mode for advanced visualisation of the target of interest.



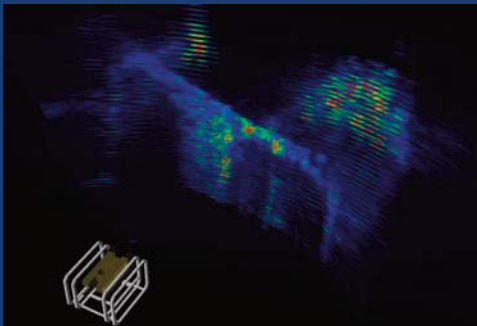
Specifications



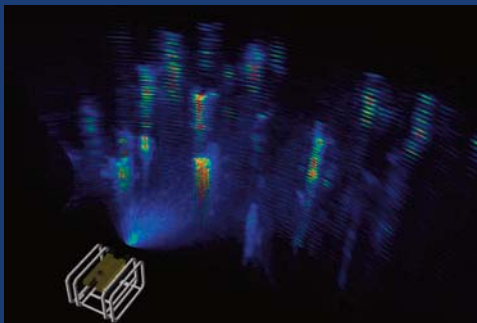
Real-time 3D Bathymetry waterfall display in Multibeam EchoSounder mode.



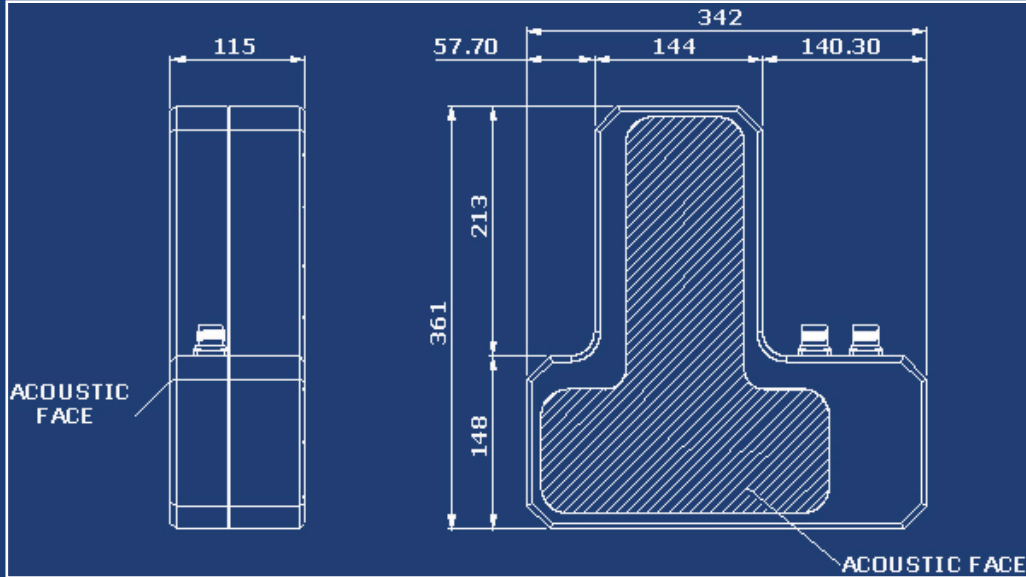
Subsea structure inspection using 3D Volume Visualisation.



3D Volume Visualisation of archways during a harbour wall inspection.



3D Volume Visualisation of underwater pilings



Acoustic Specifications

Operating Frequency	240 kHz
Beam Width	120°
Number of Beams	256
Acoustic Angular Resolution	1.5°
Effective Angular Resolution	0.5°
Depth/Range Resolution	2.5cm (0.98")
Maximum Range	120m (393ft)
Minimum Focus Distance	0.4m (1.31ft)
Scan Rate	140Hz @ 5m, 7Hz @ 100m

Physical Specifications

Width	342mm (13.5")
Height	361mm (14.2")
Depth	115mm (4.53")
Weight Wet / Dry	9kg (19.8lb) /19kg (41.9lb)
Depth Rating	2500m (8202ft)
Power Consumption	60W
Supply Voltage	Nominal 20-28 VDC
Connectivity	Ethernet (100baseT)

Surface Control Unit

Eclipse is provided with a powerful multi-processor PC with advanced graphics. The PC contains dedicated hardware required to communicate with the Eclipse sonar head and run the Eclipse software package.

All specifications are subject to change in line with Tritech's policy of continual product development.

Ref: EDS-MLT-001.0



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