



Issue Four
Autumn 2004

Underwater Solutions

Leaders in the supply of marine survey equipment

Providers of:

- Acoustics
- Geophysical Systems
- Flotation
- Subsea Tracking/
Location
- Hydrophones
- Oceanographic Systems
- Mooring Systems
- AUV/ROV
- Cameras
- Consumables
- Software Packages

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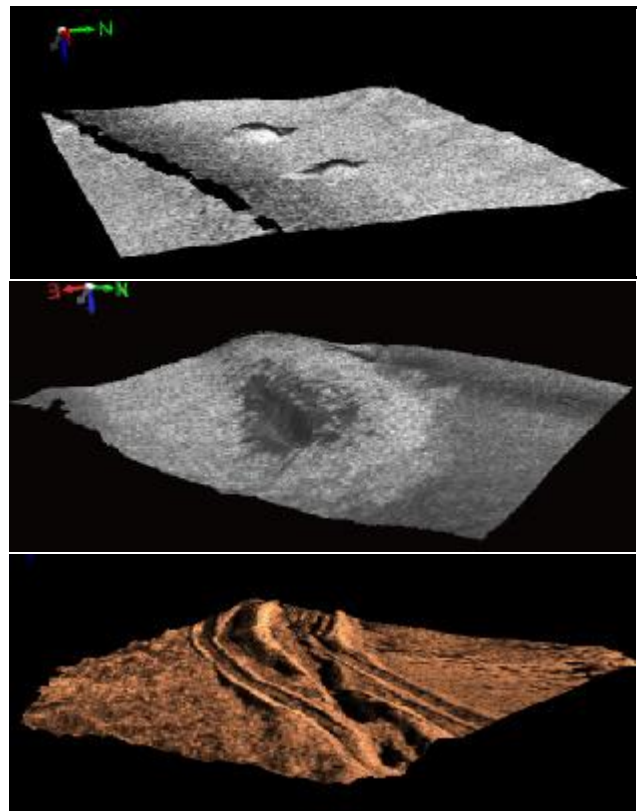
New C3D Swathe Bathymetry System UK Demo A Success

Together with Benthos Inc, MK Services recently held the first UK demonstration of the C3D in Stonehaven, Scotland.

The C3D is the latest introduction in Benthos' expanding Geophysical product line. Using a unique method called CAATI, the C3D produces a 3-dimensional sidescan image of the seabed.

The demonstration itself was very well attended, with 4 separate deployments over two days. Collected data was acquired and displayed using the topside Triton Isis package. Data has now been Post-processed, and is available from MKS for viewing. Examples of demonstration data are shown opposite.

The UK demonstration marked the end of an extremely successful tour across Europe, including visits to France and Denmark. Discussions are now underway with several interested parties who are keen to introduce a rental system into the area.



Diffusers in Stonehaven, data from Denmark and a buried pipeline in Boston Harbour all glorious 3D

Kongsberg Single Beam Echo-Sounders Now Available!

Kongsberg Simrad have recently appointed MKS as sole UK re-seller of their range of single beam echo sounders. The addition of this quality product line to MKS' evolving portfolio was greatly received by all within the company. Director Nick Lawrence explained "Kongsberg Simrad have always been associated with quality, and that is something we are continually trying to strive for in the scope of products that we offer. We are delighted with this appointment and we hope that we can be a successful

representative for Kongsberg."

The EA400 and EA600 single beam products offer flexibility and accuracy, from shallow water to full ocean depth hydrographic operations. Modular design allows for integration of multiple transducers, which gives the customer freedom to choose from a variety of different frequencies dependent on the application.

For further information regarding these products please don't hesitate to contact us.

Introducing The New NXIC CTD From Falmouth Scientific Inc

Representing one of the most exciting advances in CTD technology for the past decade, Falmouth Scientific have officially unveiled their new NXIC CTD product line.

The new sensor incorporates a patented conductivity cell, which eliminates the problems associated with previous fragile ceramic rings. The NXIC cell is extremely rugged in design and can withstand very high impact shock. This sensor provides the basis of an entirely new generation of extremely durable precision measure-

ment instruments.

Designing the NXIC has also allowed FSI the opportunity to look at all aspects of their existing CTD product range, in order to improve in all areas.

The result is a highly modular design, which uses simple plug and play technology to make the new CTD as versatile as possible. New electronics mean that the NXIC range will now draw a staggeringly low amount of power compared to its competitors. Combine this with the large 128MB internal

memory, and the result is a unit whose deployment life and data gathering capability is greatly increased.

Other features include faster sample rates (from 5–20 Hz), USB data download and user friendly software for acquisition and post-processing of data.

As with previous FSI CTDs numerous additional 3rd party oceanographic instruments can be integrated into the unit, which makes the NXIC a versatile sensor platform.



The new CTD Standard....NXIC

CEFAS Place Order For New Benthos Sidescan

MK Services Ltd recently received an order from the Centre for Environment Fisheries & Aquaculture Science (CEFAS) for a new Benthos SIS-1624 Sidescan Sonar System. The new Sidescan will be a valuable survey tool for seabed mapping. CEFAS already own a SIS-1500 system and have been impressed by the data significantly enough to choose a Benthos system for a second time.

The SIS-1624 series was launched 3 months ago and, despite the relatively short time it has been on the market, 4 systems have already been delivered.

The new design incorporates a new ADSL communications link, which allows for data transmission rates to 6 Mbps over longer cables. This marks a significant improvement over the SIS-1500.

The towfish mechanical design and appearance remains the same as the SIS-1500, however, the electronics have been modified and improved transducers have been installed. The towfish can also take two magnetometers with data through two RS-232 ports.

The topside is simply a power supply and ADSL modem with an Ethernet I/O to an off the shelf user PC.



In Profile: The XT-6001 Transponding Acoustic Release

The Benthos XT-6001 provides an ideal solution for acoustic recovery of lander platforms from the seabed.

The XT-6001 fires a burnwire release mechanism upon reception of the correct command from the surface.

The unit is positively buoyant, lightweight in air and rated to full ocean depth. At approxi-

mately a quarter of the cost of an equivalent in-line release, the XT-6001, offers a cost effective asset recovery solution.

Performance Specs.
<i>Operating Frequency:</i> 7-15 kHz Transmit & Receive
<i>Depth Rating:</i> 6700m

<i>Range:</i> Upto 10 km slant range
<i>Weight:</i> In air—15kg In water—8kg +tve
<i>Release Mechanism:</i> Benthos burnwire.
<i>Deployment Period:</i> 2 years



Global Marine Use GIB To Track ROV in Shallow Water (4-20m)

Do you find tracking Underwater vehicles in very shallow areas difficult? The GIB (GPS Intelligent Buoy) has proved an ideal solution for this problem recently, just ask Global Marine.

Traditional USBL technology often gives unreliable results in shallow operations when tracking at large horizontal offsets from the surface vessel. Noise and multipath are the main sources of tracking errors.

The GIB offers a complete vessel of opportunity solution to

subsea tracking in shallow water. The system offers an inverted long baseline type solution that is very simple to operate and requires no calibration.

Global Marine chose this system to meet positioning requirements for a tracked ROV survey of buried power cables. The survey took place off the coast of Blackpool in water depths of 4-20m. Despite this shallow depth, the vehicles position was tracked continuously with an accuracy of +/- 1.5m.

The floating GIB Buoys were

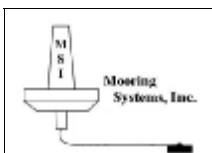
deployed and recovered at the start of each day with ease, and within minutes accurate positions of the GIB Pinger were relayed to the operations room.

Global Marine are amongst a growing number of major operators, including Fugro Denmark and NATO, who have been pleased with the GIB performance this season.



A Complete GIB System, including buoys, Pinger and deck unit.

Companies Represented By MK Services Ltd



General Response Form

Please indicate, by ticking the relevant boxes below, as to which line of products you would like to receive more information.

Comments:

- | | |
|---|--|
| <input type="checkbox"/> GPS Intelligent Buoy (GIB) | <input type="checkbox"/> Oceanographic Instrumentation |
| <input type="checkbox"/> Telesonar Acoustic Modems | <input type="checkbox"/> REMUS AUV & SAUV |
| <input type="checkbox"/> Geophysical Equipment | <input type="checkbox"/> Flotation/Mooring Systems |
| <input type="checkbox"/> ROVs | <input type="checkbox"/> Geophysical software packages |

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**FIND US ON THE WEB AT
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M.K. Services are specialists in the provision of marine survey equipment to meet the precise needs of geophysical, hydrographic, surveying positioning and underwater inspection applications.

Representing some of the worlds leading manufacturers, M.K. Services is uniquely placed to provide a wide range of proven systems and services.

Above all we have developed a very close knit team of experts whose contribution to a client's operation goes far beyond expediting orders, since their expertise can help with choosing the correct combination of equipment for successful operation in the field.

For more details on any of the items listed in this newsletter, or for any general enquiries, please contact Sean Arnold or Nick Lawrence and we will be happy to provide you with all the information you require.

Autumn Sale:- Benthos 17" Glass Flotation Ex-Stock

Due to a bulk purchase, M.K. Services is pleased to offer a discounted price on 17" glass flotation spheres. The offer will run on a 'first come first serve' basis, due to limited availability, so HURRY WHILST STOCKS LAST!!

This offer price represents a 30% reduction on our list price.

Deep sea glass spheres are a unique, reliable, and cost-effective alternative for flotation. Benthos is the world's leading manufacturer of deep sea glass spheres and instrument housings.

Benthos patented VacuSealed® glass floats are manufactured from precision-moulded hemispheres to exact

specifications. The edge of each hemisphere is ground flat to extreme tolerances. When used for flotation, the hemispheres are matched, mated, and then evacuated to an absolute internal air pressure of less than 0.3 atmospheres. After evacuation, a sealant and protective tape are applied around the equator.

Benthos spheres are pressure tested to full ocean depth *individually* after they have been sealed. Versions of the spheres are also available in 10" and 13" diameter.

Benthos also provide instrument housings, which, can be configured with penetrators and vacuum ports.

30% Off!
Whilst Stocks Last



Benthos Glass spheres with ribbed hard hats