

# oceanbuzz!

The weekly ocean technology e'Newsletter everyone's talking about

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## 1. GENERAL OCEAN NEWS

### 1.a) NEW C3 SUBMERSIBLE FLUOROMETER FOR *IN SITU* OPTICAL CHARACTERIZATION OF WATER SAMPLES

Turner Designs, Inc. announces the new C3 Submersible Fluorometer designed to incorporate up to three optical sensors, temperature and depth. Sensors can be selected to detect *in vivo* Chlorophyll *a*, blue green algae, rhodamine WT dye, crude oil, CDOM, optical brighteners as well as turbidity. The C3 can be used in freshwater, coastal and open ocean applications. The versatility of the C3 allows customers to use the C3 during profiles, long-term moored deployments as well as discrete sampling.

The C-Soft Windows™ based user interface allows for intuitive calibration, data logging, and data management. Digital data output allows for easy integration with existing water monitoring systems such as CTDs, dataloggers, vessels of opportunity and buoys. Turner Designs has been supplying customers with fluorometers for more than 30 years. The Product Line includes field, submersible, handheld, lab and online fluorometers as well as units designed for OEM applications. Turner Designs is ISO 9001:2000 certified, and sells their products directly in the USA, and through distributors in the rest of the world. For more info email [cdonovan@turnerdesigns.com](mailto:cdonovan@turnerdesigns.com) or visit [www.turnerdesigns.com](http://www.turnerdesigns.com)

### 1.b) TRITECH'S CAMERA TECHNOLOGY HELPS TO MAP ROMAN SHIPWRECK SITE OFF THE COAST OF SICILY

A 3<sup>rd</sup> century AD Roman shipwreck site, off the coast of Sicily has been inspiring archaeologists with its array of historical treasures. RPM Nautical Foundation has worked in partnership with the Superintendent's Office of Maritime Archaeology of Sicily for several years exploring the waters of the Egadi Islands off the North West coast of Sicily.

The wreck site was first discovered in May 2006 under 92 meters of water during a survey of the Sicilian coast. It was an enormous find with an artefact distribution suggesting it was once a vessel 15 - 20 meters long, possibly larger. Objects recovered from the wreck site included ceramics, concretions and possibly hull timbers. These artefacts are currently undergoing extensive study to identify the date and further detail of the ship and its final journey. It is thought that the ships last port was in North Africa but it failed to ever reach its destination in Italy. The merchant ship carried a mixed cargo probably including foodstuffs such as olive oil and grain, along with architectural building materials.

Dr. Jeff Royal, Archaeological Director of RPM commented: "As these waters are deeper than can be effectively investigated by divers, RPM is constantly seeking the best technologies to accomplish archaeological surveys and excavations at such depths."

"One of our primary tasks this season was to make a high-quality photo-mosaic and subsequent site plan of the shipwreck. For this we experimented with the Trittech Typhoon Video Measuring System. The system incorporates a colour video camera and a laser measuring capability to obtain precise frame grabs which allowed us to build a mosaic. In this way we were able to successfully map the entire site."

The archeologists were able to start their analysis and interpretation work as soon as the Typhoon images and data was received and this work will continue for several months. RPM Nautical Foundation will present preliminary results on its website [www.rpmnautical.org](http://www.rpmnautical.org) and detailed reports will be published by Dr. Royal and Dr. Sebastiano Tusa, Superintendent of Underwater Archaeology for Sicily, in archaeological journals. For more info email [lisa-mann@tritech.co.uk](mailto:lisa-mann@tritech.co.uk) or visit [www.tritech.co.uk](http://www.tritech.co.uk) or [www.rpmnautical.org](http://www.rpmnautical.org)

### 1.c) L-3 KLEIN ASSOCIATES, INC. SECURES MAJOR AWARD FOR SIDE SCAN SONAR IN CHINA

L-3 Klein Associates, Inc. is pleased to announce that it has secured another major award in China. L-3 Klein is finding that the business climate in China has grown to the point whereby multiple sales are not uncommon in the Side Scan Sonar business market. While many companies are importing goods from China, L-3 Klein finds that exporting to the Chinese underwater image market is increasing.

Recent orders are being driven by the added need for oil exploration in waters off China's coast. L-3 Klein has secured orders from some of the largest oil exploration and underwater survey and pipe laying companies in this market. It is anticipated that this market will continue to grow in the following years. In addition, L-3 Klein has received Side Scan Sonar orders for performing under water bottom surveys in and

around major dam and water retention projects. China is investing heavily in its infrastructure and Klein Side Scan Sonar systems are assisting in understanding what lies beneath the water's surface prior to the start of major construction.

Equally important are orders for Side Scan Sonar equipment received from Chinese Universities and Institutes. One project for the evaluation of navigable water way reclamation became a priority after severe flooding and the need to understand the downstream effects. L-3 Klein Associates is pleased to support educational and research projects that are undertaken by students. It is these students who will be knowledgeable of L-3 Klein products when they enter the commercial work force and are seeking the utmost in Side Scan Sonar use.

#### **1.d) LINKQUEST ROLLS OUT LOW-COST ACOUSTIC FLOW METER**

LinkQuest Inc., San Diego, California, recently rolled out the FlowScout 2000 acoustic flow meter based on innovative acoustic Doppler technology. The FlowScout 2000 acoustic flow meter is capable of reaching up to 18 meters in range with an accuracy of up to 0.5% +/- 2.0 mm/s. The operating frequency of the FlowQuest 2000 system is 2 MHz. The standard depth rating of the system is 100 meters. The FlowQuest system is typically used to precisely measure water velocities in water channels and pipes. It can be easily installed on an irrigation channel bank, a bridge abutment, a river bank or inside a pipe. LinkQuest has invested extensively in state-of-the-art R&D and production technologies to reduce the overall system cost, and has ensured high cost effectiveness of the FlowScout 2000 system for very large scale deployments for water resource and waste water management. With its highly competitive cost and high accuracy, the FlowScout 2000 system is a perfect choice for long-term real-time monitoring of water flow and velocities in water channels, water pipes, rivers, ports, harbors and estuaries. For more info contact [nxiao@link-quest.com](mailto:nxiao@link-quest.com) or visit [www.link-quest.com](http://www.link-quest.com)

#### **1.e) FUGRO PROVIDES SOLUTIONS FOR DEVON ENERGY DO BRASIL**

The decision to combine the teamwork of Fugro companies from Brazil and the USA will give Devon Energy do Brasil Ltda optimum services in oceanographic current measurement in deepwater, on their offshore Block BM-BAR-03, approximately 120 miles off the northern Brazilian coast.

"The dynamics of the oceanography in this region can be challenging," explains Rosemary Smith, Senior Oceanographer. "The North Brazil Current (NBC) and its subsurface component, the North Brazil Undercurrent (NBUC), transport oceanic waters north westwards along the northern coast of Brazil. Once north of the equator these currents feed a system of zonal counter currents which flow eastwards. Large, anti cyclonic eddies (NBC rings) can form from the North Brazil Current and propagate northwards. They are thought to transport up to half of all the surface waters north westwards. The NBC rings are of concern to drilling operations, as they are known to cause strong currents that can lead to down time during drilling operations."

Devon identified a need to monitor these currents over a 12 Mont period and the data provided by Fugro Brasil Ltda (Rio de Janeiro and Macae, Brazil) and Fugro GEOS Inc (Houston, USA) will primarily support operational planning for an exploration drilling program. Current measurement configurations will also provide data to support the derivation of design criteria should the oil and gas prospect develop further.

"A deep water mooring with multi oceanographic instrumentation has been deployed in 2,525 meters of water. To date, the mooring is one of our longest with service visits occurring once every four months," adds Paul Williams, Operations Manager. With the approval of Devon, Fugro GEOS Inc ran the ultra long mooring requirements through design software using a current profile based on existing data near the north of the BM-BAR-3 location. The analysis identified potential problems with mooring 'knockdown' due to the impact of the currents on the mooring string. To mitigate the chances of knockdown, the use of plasma rope was selected to support the mooring.

An additional component to the study program requested by Devon Energy do Brasil was a vessel mounted ADCP (VMADCP) currents survey and CTD profiles over the study area. Visit [www.fugro-br.com](http://www.fugro-br.com) and [www.geos.com](http://www.geos.com) for more info.

## **2. EVENT, TRAINING AND DEMONSTRATION NEWS**

### **2.a) SEAZONE LOCAL GOVERNMENT REGIONAL WORKSHOPS - THE OFFSHORE ENVIRONMENT AND MARINE SPATIAL INFORMATION - 30 SEPTEMBER – 9 OCTOBER 2008**

Increasing public awareness, calls for greater accountability and emerging legislation such as the UK Marine Bill, are changing the way that the coastal zone and marine environment are managed. In particular, legislation is indicating increased involvement by Local Government in marine spatial planning and regulation. In response to these drivers SeaZone is pleased to announce a series of six Local Government Regional Workshops throughout England this autumn. The workshops will examine Local Governments' roles within the coastal zone and marine environment, focusing on requirements for marine spatial information and use of Geographic Information Systems (GIS) to assist in project planning and implementation to help secure better business efficiencies and improved decision making.

The events follow a Local Government Survey commissioned by SeaZone and undertaken with officers involved in marine and coastal protection related activities within 92 coastal Authorities in England. (Scotland and Wales are being addressed independently of this campaign). The feedback has provided some interesting results and will help inform the workshops. A Survey Results Report published July 2008 is available direct from SeaZone.

Local Government officers and associated stakeholders such as Sea Fisheries Committees, Wildlife Trusts, Coast/Estuary Forums, Emergency Services and Central Government Marine and Fisheries Agencies and other regional offices are encouraged to attend the events. The events will include updates on the Digital National Framework, the Atlantis Initiative and key Government initiatives promoting best practice use of geographic information. The events are being sponsored by British Geological Survey, Ordnance Survey and the United Kingdom Hydrographic Office. For more info on the content of the workshops and details on how to register please contact [info@SeaZone.com](mailto:info@SeaZone.com) or visit [www.SeaZone.com](http://www.SeaZone.com).

## **2.b) IMarEST LECTURE FOCUSES ON THE NEW MARITIME ARCTIC**

The spotlight will fall on the 'New Maritime Arctic' on 8 September 2008 when Dr Lawson Brigham, Chair, Arctic Marine Shipping Assessment (AMSA) and Deputy Director of the US Arctic Research Commission (Anchorage, Alaska), USA delivers the next Stanley Gray Lecture at the headquarters of the Institute of Marine Engineering, Science and Technology (IMarEST).

Dr Brigham will explore how a reduction in Arctic sea ice during the melt season and rapid technological advances have already combined, leading to rapid development in the circumpolar region and will provide an informative overview of the achievements of the Arctic Marine Shipping Assessment (2005-2008). He will introduce the social, economic and environmental impacts of shipping in the Arctic today.

He will also take a look into the future of shipping in this rapidly changing region of the Earth. The opportunities and challenges these changes in marine activities represent for governments and local Arctic communities will be discussed alongside a debate of the risks, both to human safety and the environment, of operating in this pristine and demanding region.

As a US Coast Guard officer for 25 years Dr Brigham sailed on expeditions to the Arctic and Antarctic aboard polar icebreakers and served in Washington, DC as chief of the Coast Guard's strategic planning staff. He has been a contributor to the International Northern Sea Route Programme (INSROP), the Arctic Climate Impact Assessment and to many polar environmental & policy studies. Captain Brigham received his PhD from Cambridge University in the UK and has been a long-term researcher on the Russian Arctic, polar affairs and Arctic climate change.

The Lecture will be delivered at IMarEST, 80 Coleman Street, London EC2R 5BJ. Attendance is free of charge to IMarEST members and non-members alike. The evening begins with tea and networking at 17.00; the lecture starts at 17.30 and the post-lecture reception is at 18.45. Reservations can be made online at [www.imarest.org](http://www.imarest.org), through direct contact with the IMarEST Events Department at +44 (0)20 7382 2655 or at [events@imarest.org](mailto:events@imarest.org)

## **2.c) IMCA's ANNUAL SEMINAR RETURNS TO ASIA-PACIFIC REGION**

With a host of challenges and opportunities lying ahead for the \$20 billion p.a. global marine contracting industry the 2008 International Marine Contractors Association (IMCA) Annual Seminar has the theme 'Global Alignment in Marine Operations'. It highlights the need for common approaches worldwide in marine construction covering operations, equipment and personnel.

Following recent successes in Paris, Copenhagen, Abu Dhabi and Singapore, the seminar, the 15th in the annual series, returns to the Asia-Pacific region, on 5-6 November at the Hotel Nikko in Kuala Lumpur,

Malaysia. In addition to the ever-popular marine and diving session, a new dedicated offshore survey/ROV strand has been added to this year's programme to better reflect the diverse range of operations carried out by the marine contracting industry. The seminar is endorsed by IADC and OGP.

Following the opening morning plenary session when senior industry speakers will address the 'Global Alignment in Marine Operations' theme, the seminar divides into three parallel sessions devoted to Marine, Diving and Survey/ROV issues, with three highly topical presentations in each. The seminar then moves into workshop mode with delegates having a choice of five different workshops on 'FMEAs for DP class I vessels'; 'Harmony in DP system design'; 'Diver training and competence'; 'Diving in the vicinity of pipelines, on wellheads and the need for isolations'; and 'ROV training'.

The second day opens with a joint plenary session before once again, moving to three parallel sessions on marine, diving and offshore survey/ROV. Then it's back to a plenary session with 'Health in the workplace'; and 'The search for HMAS Sydney – DOF Subsea's role in solving the mystery'; before the conference once again moves to workshops, this time devoted to Security issues – supply chain management and Transportation Worker Identification Credential (TWIC); Simulator training; Vessel assurance; Lifting; and Advances in safety-related diving equipment.

Over 20 of IMCA's supplier members will be showcasing their latest products and services in the exhibition area alongside the conference hall. And, as is traditional there networking opportunities play an important role with social events on 4, 5 and 6 November. Full programme at <http://imca-int.com/events/seminar/>

### **3. WHO'S ON THE MOVE**

#### **3.a) NEW VP OF SALES FOR AMERICAS JOINS RESON**

RESON is very pleased to announce that Mr. Alan Kenny has joined RESON on 1st July as Vice President of Sales for the Americas working from the office in Goleta, California. Alan Kenny has spent the past 25 years serving in numerous capacities in the vibration and acoustics industry, focused at both test hardware and 3-D CAE engineering simulation software. Mr. Kenny brings a track record of growing sales and expanding business markets for the companies with whom he has served. In 2000, Mr. Kenny joined Vibro-Acoustic Sciences, later acquired by ESI, Inc., a world -leading provider of CAE engineering simulation software, where he served as Sales Manager and International Business Development Manager. . From 1989 through June 2000, Mr. Kenny worked with GenRad, Inc, Structural Test Products Division, later acquired by Spectral Dynamics, serving in numerous roles including International Sales Manager for Asia Pacific and South America, US Regional Sales manager, Account Manager, and Applications Engineer.

Mr. Kenny began his career as a test engineer in the environmental test lab at Honeywell Defense Systems Division in Hopkins, MN, in January, 1984, focusing primarily at vibration testing and modal analysis for the Mk-46 and Mk-50 torpedo programs and numerous Army, Navy, and Air Force weapon and munitions systems. Mr. Kenny's studies at the U.S. Naval Academy and the University of Minnesota's Institute of Technology bring a background in Mechanical and Electrical engineering, coupled to an extensive physics background, particularly in acoustics and vibration, acquired during his professional career over the past 25 years.

Alan Kenney will be responsible for the overall sales activities of RESON products in North and South America, where he will continue implementing RESON's growth strategy based on a number of new products and markets. For more info email [kim.christiansen@reson.com](mailto:kim.christiansen@reson.com)

### **4. JOB POSTINGS**

#### **4.a) CODAOCTOPUS SEEKS TECHNICAL SUPPORT ENGINEER BASED EDINBURGH, UK**

CodaOctopus is seeking an enthusiastic and self-motivated Technical Support Engineer to join its support team, serving a global client base of commercial survey companies, underwater construction companies, rental organisations, academic institutions and port authorities. The successful applicant will be responsible for all aspects of product technical support - this includes frontline help-desk support by phone or e-mail, product mobilization and training at client locations, development of technical documentation and internal product test and evaluation.

Effective interfacing with all company departments is required, offering advice and assistance on the technical delivery of CodaOctopus products. The position involves travel. Offshore OPITO recognized certification would be advantageous but not essential.

Reporting to the Operations Manager, working with the support team and liaising closely with the test and development teams, good communication skills are essential along with the ability to be a good team player. For more details and to apply, send an e-mail to [supportrecruitment@codaoctopus.com](mailto:supportrecruitment@codaoctopus.com) or visit: [www.codaoctopus.com](http://www.codaoctopus.com) and go to About Us – Employment

#### **4.b) FUGRO SEAFLOOR SURVEYS SEEKS SURVEYOR NAVIGATOR BASED IN THE USA**

Fugro Seafloor Surveys, Inc. (FSSI) is part of the Fugro Group of offshore, geotechnical and geoscience companies. Selected candidate will have the opportunity to become a team member in their AUV operations. Their Echo Mapper AUV is “state of the art” and complements Fugro’s AUV fleet as the air-transportable, full-function deepwater survey vehicle.

Will be responsible for performing geophysical surveys using AUV and towed equipment aboard U.S and foreign flagged vessels. Duties will include: set up, interface, test, operate, calibrate and maintain surface and subsurface positioning systems; Global position systems; Integrated navigational systems; Differential correction systems; Multi-reference station configuration; Heading sensors; Acoustic positioning system; Total Station; Support the positioning requirements and mission planning for AUV or towed system configurations for geophysical surveys; Plan, execute and report all the navigation mobilization, calibration and data acquisition functions; Responsible for terrestrial surveys to establish survey control as required to support gyro calibrations/DGPS checks; Independently develop, configure and analyze results produced by various positioning devices, aboard the vessel; Mobilize and demobilize various vessels for offshore projects

Specific Competencies of the ideal candidate: Mastery of marine survey; Experience with mission planning, mobilization of USBL and motion sensors, calibrations, positioning and directing bridge operations; Operate commercial and proprietary navigation systems to track towed equipment and AUVs. Ability to communicate in English and direct a Helmsman throughout survey operations. Minimum requirements of candidate are: BS/BA in Survey Engineering or a related degree in Earth Sciences and/or 3 years experience in marine surveying field; Extended, international, sea-going travel of approximately 160 days offshore, this is not an office based position. Some project related activity and training in our Seattle office is required; Must be able to legally work in the U.S. or be a current Fugro employee. For more info visit [www.seafloors.com](http://www.seafloors.com) or contact [j.rockas@seafloor.com](mailto:j.rockas@seafloor.com).