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OCEANBUZZ ISSUE 234 – 24th January 2012

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1. GENERAL OCEAN NEWS

1.a) EMU LIMITED'S EXPANDED GEOTECHNICAL SERVICES PASS TEST IN GERMANY

EMU Limited's newly expanded geotechnical services were put to the test recently when the company successfully completed more than 1000 cone penetration tests along the cable routes of a number of proposed offshore wind farms in Germany.

Equipped with the most up-to-date marine soil investigation technology on the market, EMU's geotechnical offering includes three and six metre variable frequency vibrocorers, Datem Neptune 5000 heavyweight CPTs, gravity and piston corers and a number of various sediment sampling grabs.

EMU's technical director Richard Cooke said that the company's continued investment in equipment, as well as its commitment to research and design in both geotechnical and geophysical survey techniques, means that the most innovative solutions are available to offshore developers for investigating and quickly progressing their developments. More information about EMU's geotechnical services can be found at www.emulimited.com

1.b) MONITORING FRACKING – A LOCAL SOLUTION TO GLOBAL ENERGY PROBLEMS

Globally, shale gas is seen as an ever more increasingly important source of energy. However, the process of extraction, hydraulic fracturing has come under intense scrutiny.

Recently, Lichfield-based Cuadrilla Resources announced the presence of significant shale gas resources in Lancashire, UK. If extracted on a commercial scale, domestically produced natural gas could increase the UK's energy security. As part of Cuadrilla's exploration operations, it has commissioned GasClam to monitor background gas concentrations prior to operations, with the monitoring device left in the ground to measure, record and transmit gas concentrations throughout Cuadrilla's operations.

Cuadrilla's commission of GasClam is part of its commitment to being a responsible company within the communities it operates in. Since operations began in 2010, Cuadrilla has robust safety measures in place to ensure the surrounding environment and communities are not affected by its exploration activities.

GasClam was developed by Salamander, a University of Manchester, UK, spin out company and is a previous winner of the North West Innovation Environment Technology prize and is a local solution to the needs of a global industry. For more information visit www.ionscience.com

1.c) LIGHTHOUSE R & D ENTERPRISES, INC. 4000-M-RATED PHYSICAL OCEANOGRAPHIC MONITORING SYSTEM REACHES TWO-YEAR MILESTONE

This month, the Lighthouse Ocean Research Initiative II (LORI II) completed two years of operation. The system is rated to 4000m and the three deployed moorings lie along the 3000m contour line off the coast of Ras al Hadd, Sultanate of Oman. This is a very dynamic region where several bodies of water converge. The cutting-edge cabled observatory provides physical marine environmental information on a real-time basis.

Throughout the water column, current speeds and directions, temperature, pressure, derived salinity, dissolved oxygen contents, and turbidity are recorded hourly and instantly transmitted to an unmanned shore station. From the shore station, both the physical oceanographic data and system health information is relayed immediately to Lighthouse headquarters in Houston, Texas. Full duplex capability allows for sampling rates or instrument settings to be modified remotely; troubleshooting can also be carried out remotely. Another benefit of the system is that it is not exposed on the water's surface, eliminating the possibility of weather damage, theft or vandalism.

The real-time data delivery allows for decision makers to rapidly respond to transient conditions and events. The two-year operational history of the project means that scientists have a long, continuous time series of oceanic data – this helps them to differentiate natural seasonal or annual fluctuations from unusual events. Easier identification of unusual events leads to faster, more appropriate action being taken

to mitigate the often harmful consequences of inaction. See <http://www.lighthousehouston.com> for more information.

1.d) FUGRO INVESTS IN APPLIED ACOUSTICS' S-BOOM TECHNOLOGY

Fugro Survey (Middle East) Ltd has become the latest offshore company to endorse Applied Acoustics' S-Boom sub bottom profiling system, after purchasing the equipment for their geophysical survey operations based out of Abu Dhabi.

Developed for shallow water, ultra-high resolution surveys, the S-Boom system had been undergoing extensive trials with Fugro during the late summer of 2011 before being accepted and selected at the end of the year.

S-Boom sub bottom profiling systems combine the power of three modified boomer plates to provide a single pulse, driven by a single source power supply. The fusion of these three transducers delivers a source level high enough to significantly increase sub-bottom penetration without loss of data quality.

Capable of operating at a maximum energy setting of 1000 Joules per pulse, and firing at three pulses per second, the S-Boom has achieved penetration results of over 200ms through sand and limestone whilst delivering the high quality resolution records expected from boomer systems. For more information please visit www.appliedacoustics.com

1.e) SINGLE LARGEST SUPPLY OF TEMPERATURE RECORDERS FOR PLANET OCEAN & STAR-ODDI

Surrey, UK, based Planet Ocean Ltd and its Icelandic technology partner Star-Oddi are supplying a record breaking 234 Starmon-Mini temperature recorders to the National Oceanography Centre for use on the PAP (Porcupine Abyssal Plain) ocean observatory site. The site is located in the north Atlantic south west of Ireland in 4,900m of water and has been observed for more than twenty years providing key time-series datasets for analysing the effect of climate change on the open ocean and deep-sea ecosystems.

This is the one of largest single order for one instrument type ever received by Planet Ocean & Star-Oddi of Iceland and a real privilege to be selected by The National Oceanography Centre for use at the PAP site.

A mixture of deep (11,000 m) titanium devices along with the standard shallow (400m) plastic versions have been purchased and will be deployed to provide vital data for the deep ocean to boundary layer interaction experiment later this year. For more information please email graham@planet-ocean.co.uk

1.f) WINDSENTINEL COMPLETES FIRST PHASE OF WIND RESOURCE ASSESSMENT CAMPAIGN ON LAKE MICHIGAN

Grand Valley State University (GVSU) have successfully completed the first phase of their offshore wind resource assessment campaign on Lake Michigan.

The WindSentinel™ has been retrieved from its offshore deployment location and returned to its home base, where it will spend the next 3 months. During this time the MAREC joint project teams will complete their reviews of the initial system outputs ranging from wind speed and turbulence, to avian and bat information collected by the system.

This is the first time that a full production floating LIDAR has been deployed for this length of time, and the system performed according to the design specifications. This initial deployment has confirmed that the WindSentinel™ can supply hub height offshore wind resource assessment data at a fraction of the cost of a traditional offshore meteorological mast. AXYS looks forward to seeing a longer deployment by GVSU in the spring, and are also planning the next WindSentinel™ commissioning and deployment for Fishermen's Energy at the end of the month, which will be used in a financing campaign off the coast of New Jersey..

The WindSentinel™ was constructed at the AXYS facility in Sidney, BC Canada over the last several months. The core sensing technology is Catch the Wind's Vindicator®, which is a second-generation laser wind sensor that gathers data on wind speed, wind direction and turbulence at turbine hub-height and

across the blade span. For further information contact AXYS at info@axys.com or visit www.axystechnologies.com

1.g) SURVEYING THE VENETIAN LAGOON WITH GEOSWATH PLUS COMPACT

A world known estuarine lagoon not only has historical importance for sheltering the City of Venice but is a fascinating ever changing environment with only 8% covered by land, 12% by open water and the remaining 80% by mud flats, tidal shallows and salt marshes. This geographical setting, hosting complex ecosystems, is influenced by tidal cycles entering through three sea inlets and freshwater and sediment supplied by river influx.

Monitoring of changes to the environment is becoming ever more important with changing sea levels and as the human impact increases with the MOSE flood protection project enabling the closing of the sea inlets and dredging activities.

The Venice Institute of Marine Science (ISMAR-CNR) is engaged in research and monitoring projects of the lagoon. Kongsberg Geoacoustics was invited recently by the institute to demonstrate their technology for gathering high resolution bathymetry data with the aim of effectively covering large very shallow water areas with portable installation, providing highly repeatable data to allow monitoring of even smallest changes through time.

Kongsberg Geoacoustics GeoSwath Plus Compact was chosen due to its capabilities to gather data up to the waterline with a coverage of up to 12 times the water depth in shallow water environment. Repeat surveys were carried out and showed to be consistent albeit the difficult hydrological conditions with large tidal currents and fresh water mixing, leading to high temporal and lateral sound speed variations. In addition the system offers true co-registered and geo-referenced side scan data which can be used for seabed classification and textural mapping.

Natural salt march channel near Scanello, imaged in high resolution bathymetry and co-registered side scan data using Kongsberg Geoacoustics GeoSwath Plus Compact. The bathymetry shows coverage from the waterline down to maximum of 7 m depth which was achieved with only two passes in the 80 m wide channel. For more information please email martin.gutowski@kongsberg.com

1.h) MARINE ELECTRONICS LTD TO LAUNCH ADVANCED NEW SONARS

Marine Electronics Ltd the Guernsey-based manufacturer of scientific and technical sonars, will be launching two new competitively priced commercial products at the Oceanology International exhibition during March in London. The Pin-Point diver detection sonar and the WideView 3D interferometric side scan sonar are both products of the company's most advanced technologies. They will enable users to benefit from the latest developments in acoustic science and can be seen on Stand No E525.

The show will see the launch of the new MEL Pin-Point Diver Detection Sonar that has been developed to provide a precise 3D presentation of intruders active in the water column. This new security sonar not only locates underwater intruders but also enables users to establish the depth at which they are swimming. Security personnel equipped with this knowledge can then provide a more carefully structured reaction and interception strategy. Despite the advanced nature of the 3D sonar technology, the Pin-Point system is expected to prove attractive to organisations with a more restricted security budget yet a requirement for the best technology.

Marine Electronics Limited will also be adding an advanced new tool to the armoury of hydrographic surveyors with the introduction of its WideView 3D interferometric side scan sonar at Oceanology. For more information visit; www.marine-electronics.co.uk

1.i) TELEDYNE TSS TO LAUNCH IMPORTANT NEW PRODUCTS

Visitors to the Teledyne TSS stand at Oceanology (Stand No D100) will be among the first to view the launch of yet another addition to the company's comprehensive product range. The DMS-535RP will be seen for the first time at the show as the latest addition to the company's new DMS-500 group of products. These have all been developed specifically to meet the needs of users who require a top-quality motion

sensor with Ethernet connectivity, but do not require the subsea-rated housings that typify Teledyne TSS products.

The company is now steadily unveiling a range of conservatively-priced sensors in the DMS-500 range that incorporate a number of advanced and innovative features for applications such as Dynamic Positioning (DP), wave height and structural stress monitoring. For many visitors to Oceanology it will also be their first opportunity to see the new OrionPLUS inertial navigation system which was launched in November last year. For more information visit: www.teledyne-tss.com

1.j) NOVACAVI DELIVERS A BESPOKE SUBSEA FO COMPOSITE INSTRUMENTATION CABLE

Novacavi has just delivered a subsea FO composite instrumentation cable for use with a latest generation work class ROV engaged in deep water operation in the Mediterranean Sea. Single mode fibre optics in metal tube, side scan sonar coaxial cables together with power, communication and other coaxial cables are the principal elements of this customized composed cable.

In a deep collective collaboration together with different departments of the same company from concept to delivery the goal was reached with satisfaction..This new cable provides one more example of Novacavi' expertise in acting as a reliable bespoke cable maker and a service supplier. For more details about this cable and Novacavi you can visit stand D530 at Oceanology International 2012, London Excel 13th - 15th March 2012

1.k) MAJORITY BELIEVE THAT A SAFER PORT ENVIRONMENT DIRECTLY REDUCES COST

An exclusive market report by Trelleborg Marine Systems has shown that an overwhelming majority (81%) of port owners, operators and consultants surveyed believe that having a safer port environment directly contributes to reducing costs.

Conversely, only 9% of those surveyed actually expect future port investments to be made specifically in the area of safety, suggesting that integrated or full service docking & mooring equipment solutions are what the market is asking for.

As suggested by the data, a safer port environment means fewer incidents, less downtime and ultimately, less avoidable expenditure. By implementing bespoke, fully integrated solutions, it's possible to maximise operational efficiencies without compromising safety. Where possible, design and specification of mooring and monitoring systems should be developed and agreed between supplier, contractor and owner to ensure operational requirements are fully addressed. The second edition of Trelleborg's Barometer Report is now available, as a free download, from www.takesthepressureoff.com/barometer2

1.l) IDRONAUT PRESENTS A NEW MULTIPARAMETER CTD

IDRONAUT, on the occasion of OI2012, adds to its line of products the OCEAN SEVEN 305Plus CTD multiparameter probe which can be also equipped with the following optional sensors: DO2, pH, Fluorometer, Turbidity meter and others, upon request. This CTD is provided with lightweight POM shock-resistant 200 bar housing (Ø75mm 3.3Kg) and an internal NiMH rechargeable battery pack which allows up to 60 hours of real-time continuous data acquisition. The internal Flash memory stores up to 8,000,000 dataset. The optional IDRONAUT telemetry module can be integrated in addition to the standard RS232C (max 200m) interface and allows real-time communications over standard oceanographic cables up to 2 Km long. The RS422/485 (1Km) and Wireless Bluetooth interfaces are optionally available too. The Conductivity and Temperature preamplifiers present negligible temperature drift over the years because of the very advanced ICs and reference resistors selected. Conductivity measuring range is software selectable: 0..70mS/cm and 0..7000 µs/cm. For more information, please visit www.idronaut.it

2. EVENT, TRAINING & DEMONSTRATION NEWS

2.a) RENEWABLEUK WAVE & TIDAL 2012 WORKSHOP

Unique Challenges of Site Characterisation in Wave & Tidal Projects
14:00 – 17:00, 14th March 2012, EICC, Edinburgh, UK

Site characterisation is imperative when developing wave and tidal energy projects. Project managers must understand the types of site survey required for marine energy developments, manage risks and conform to data standards whilst delivering on project requirements.

This workshop, sponsored by The Partrac Group, will act as a platform for project engineers, project developers, surveyors, consultants and device manufacturers to understand the constraints and respond to the demands of acquiring oceanographic, geosciences and environmental data in challenging and complex marine environments.

Representatives from a range of organisations will present on industry needs, best practice, national and international standards / guidance, and discuss the challenges of site characterisation. In addition there will be an interactive session at the end of the workshop for attendees to examine the site characterisation process and how it can be streamlined within the process of site development to reduce risk and provide timely data. For more information and to register for this workshop please contact Claire Kremeyer, Marketing & Communications Coordinator, by email: ckremeyer@partrac.com or by telephone: +44 (0) 141 552 3903.

2.b) TOMORROW'S SOLUTIONS TO TODAY'S OCEAN CHALLENGES

Event: Catch the Next Wave

Date: Monday 12 March 2012

Venue: The Royal Institution of Great Britain, Albemarle Street, London

Catch the Next Wave with its theme 'Tomorrow's solutions to today's ocean challenges', a one-day conference organised by New Scientist and Oceanology International on Monday 12 March 2012, is set to ensure readiness, and will get off to a flying start with a keynote address by Graham Hawkes of Deep Ocean Engineering and Virgin Oceanic.

The conference, aptly being held at the Royal Institution of Great Britain in London, home to two centuries of scientific and technological breakthroughs, and the oldest research body in the world, takes a long term view of the capabilities that will shape our future to explore, understand, predict and exploit the oceans. Catch the Next Wave includes presentations by leading world authorities on key disruptive and emerging technologies – power sources, sensors, nanotechnology, materials, robotics and cyber infrastructure. Their thoughts will be complemented by presentations from their counterparts working at the highest level in marine research and the ocean industries highlighting where these disruptive technologies, and their applications, are migrating to, and already emerging in the marine sector. Online registration is now open and the full programme is available at www.oceanologyinternational.com/catchthenextwave

2.c) 1ST EUROPEAN HUMAN-POWERED SUBMARINE RACES TO BE STAGED IN THE UK

Building and racing human-powered submarines may not be an Olympic sport, but the inaugural European International Submarine Races (eISR), being held at Gosport, Hampshire, UK during the week of 25 June 2012 is set to capture the imagination – and test the engineering expertise and stamina of enterprising university students from three continents.

The eISR will take place in QinetiQ's Ocean Basin, the largest freshwater tank in Europe, which at 122m x 61m and 5.5m deep has the capacity of 16 Olympic swimming pools, and is normally used to assess the manoeuvrability of scale ship and submarine models in different sea conditions. From 25-28 June it will be the setting for teams from Canada, France, Oman, UK, and USA. They will all have designed and built their own submarines and will then race them flooded, piloted and pedalled by a scuba diver, with the teams constantly modifying their craft during the week to perfect their performance. Typically the submarines range in length from 3m to 4m and travel at up to 7kts.

The challenge will run over a week, with a first day of final readying, ballasting, dry judging and diver checkouts. The races proper are planned to start on the second day, and run through to the end of the fifth morning. The final afternoon will be reserved for a playoff round, where the best boats will go head to head. Awards will be made for speed, manoeuvrability (the course includes a slalom element which has never been tried before), and design – the latter to encourage creativity and innovation.

The eISR is sponsored by the Institute of Marine Engineering, Science and Technology (IMarEST), the Society for Underwater Technology, and QinetiQ. The judging panel will be chaired by Vice Admiral Sir

Robert Hill, KBE, FIMarEST, and consists of experienced submarine engineers. Further information on all aspects of the Race Week is available at www.subrace.eu

3. WHO'S ON THE MOVE?

3.a) ROCKLAND SCIENTIFIC HIRES NEW DIRECTOR OF BUSINESS DEVELOPMENT

Rockland Scientific Inc (RSI) continues its growth with the hire of Jeremy Hancyk as Director of Business Development. The position was created in response to RSI's continued growth in product line, applications and demand for marine turbulence instrumentation in new geographic markets. Jeremy brings to RSI his extensive experience in providing monitoring solutions for various oceanographic and limnological applications. His understanding of RSI's core markets, combined with his business acumen, will benefit both RSI and its customers worldwide.

Jeremy's responsibilities at RSI include the coordination of sales and marketing activities at RSI, in particular the expansion of RSI sales activities into South America. In addition, Jeremy will introduce new and innovative turbulence measurement equipment designed for the ocean energy sector and for inland water monitoring.

3.b) VERIPOS SENIOR MANAGER APPOINTMENT

Aberdeen-based Veripos, a leading supplier of GNSS positioning services to the world offshore industry, has appointed Richard Turner as Global Business Development Manager responsible for continuing development of its worldwide operations, including acquisition of new business as well as commercial and contractual negotiations. Reporting to Managing Director Walter Steedman, his brief also includes sales strategy formulation, market research and analysis, brand management and promotional activities.

Holder of an Open University Business School MBA following a seven-year military career as a Royal Marines Commando and a surveyor within the Royal Navy's Hydrographic Branch, Mr Turner joins Veripos from Fugro Data Solutions in North Wales with whom he was Head of Commercial Operations. Earlier commercial posts included those with Racal Survey, Thales Geosolutions and as Navigation Manager for Fugro's Houston office. Veripos is at www.veripos.com

4. JOBS POSTINGS

4.a) FORUM ENERGY TECHNOLOGIES ARE SEEKING THREE NEW ROLES IN ABERDEEN & SINGAPORE

Internal Technical Sales – Aberdeen - They require an Internal Technical Sales person for the daily management of rentals and sales and to ensure that all customer needs are met within a timely manner. The role will involve servicing existing accounts, obtaining orders and establishing new accounts. The successful candidate should have a technical background, preferably electronics and have significant experience in the Offshore Survey or ROV Industry.

Technical Sales – Singapore - They require a Technical Sales person for the daily management of our rentals business and ensure that all customer needs are met within a timely manner. The role will involve servicing existing accounts, obtaining orders and establishing new accounts. The successful candidate should have a technical background, preferably in electronics and have significant experience in the Offshore Survey or ROV Industry. The role is primarily office based however travel within South East Asia and Australia will be required. A relocation and ex-patriate package is available for this post.

Sales & Operations Co-ordinator – Aberdeen - They require an Sales & Operations Co-ordinator to support the Operations team. The successful candidate will have previous administration experience, preferably working with customers. Full training on company systems and processes will be provided.

For full job descriptions of the above adverts please visit our website @ www.f-e-t.com To apply for any of these positions, please send a covering letter and CV to careerseh@f-e-t.com quoting the position applied for in the subject line.

4.b) UTEC REQUIRE: OFFSHORE SURVEYORS, DATA PROCESSORS & SURVEY ENGINEERS (ALL GRADES) & KEY ONSHORE POSTS

UTEC has become one of the fastest growing offshore survey contracting companies in the world. Armed with the tools and expertise to respond with confidence combined with a truly global operational footprint UTEC routinely help clients define both surface and subsurface infrastructure, assisting in the proper planning, installation and maintenance of subsea assets.

Specialising in:

- Construction Survey Services
- Industrial Measurement
- Geophysical Surveys
- AUV Surveys
- Geotechnical Investigations
- Hydrographic Surveys
- Inspection, Repair and Maintenance
- Metocean Services
- Rig Positioning Services

As part of UTECS ongoing global growth and recruitment strategy, applicants are currently sought for the following field positions to support ongoing projects:

Field Staff Positions

- Party Chiefs
- Senior Surveyors
- Senior Survey Engineers
- Survey Engineers (Grade 1 & 2)
- Surveyors (Grade 1 & 2)
- Senior Data Processors
- Data Processors (Grade 1 & 2)

Office Positions

- Survey Project Manager (Aberdeen)
- Project Surveyor (Aberdeen)
- Reporting and Data Processing Coordinator (Aberdeen)
- Commercial Manager (Aberdeen)

UTEC assess and progress their field staff using IMCA defined competencies, applicants will therefore be required to meet the minimum core competency criteria for grade they wish to apply for. Applicants are also required to satisfy the following:

- Successful completion of medical certification and offshore survival training course
- Survey / Marine Science / Engineering degree qualified and/or proven track record for grade
- HND / HNC electronic or mechanical qualification and/or proven track record for grade
- IT/Computer literate
- Software experience required:

- Navipac or Qinsy Navigation software
- Veripos or C-Nav GPS systems
- Autocad/Autochart
- Visualsoft Acquisition and Processing Systems

Applicants should forward their CVs to: recruitment uk.recruitment@utecsurvey.com

Application reference: HR20111201