

oceanbuzz!

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

This FREE OF CHARGE newsletter is brought to you by the organisers of the Ocean Business event www.oceanbusiness.com. It is FREE to subscribe to and FREE to include your articles. Simply send us your news, job postings, info on events and we will help spread the word to the Ocean Technology industry. To add your colleagues to the Oceanbuzz circulation list simply email info@intelligentexhibitions.com or go to the new Oceanbuzz website www.oceanbuzz.org where you can download past issues as well.

Oceanbuzz Issue No. 106 – 7th July 2009

INDEX

1. GENERAL OCEAN NEWS

- a) Deepwater Measurement Contract Off Norway Extended By 1 Year
- b) Marport Awarded Contract for Autonomous Underwater Vehicle
- c) SEACON[®] Phoenix, LLC
- d) Fugro Chance Completes Acoustic Jumper Metrology on World's Deepest Field at Shell's Perdido Development
- e) Ireland launches New Submersible and Subsea Technologies
- f) PHINS reaches ultimate depth
- g) World's first through-ice location and communication system
- h) AXYS Technologies Inc. (AXYS) signs Metocean Services International Pty. Ltd. (MSI) as its Australian Agent
- i) Trelleborg Offshore companies renamed TRELLEBORG
- j) Another half dozen makes it twenty five !
- k) Thirteen movers and shakers in the oceanographic and water industries attended FASTtracka Workshop at Chelsea Technologies
- l) Submarine Rescue and Recovery at MATE Underwater Robot Competition

2. EVENT, TRAINING AND DEMONSTRATION NEWS

- a) 'Integrated marine operations in challenging times' – IMCA annual seminar programme published

3. JOB POSTINGS

- a) Hydrographic Surveyor, Hull, UK
- b) National Oceanography Centre, Southampton seeks two seagoing technicians
- c) RBR Ltd is looking for a Scientific Sales Engineer

1. GENERAL OCEAN NEWS

1.a) Deepwater Measurement Contract Off Norway Extended By 1 Year

Metocean Services International (Pty) Ltd (MSI) is pleased to announce that, following a highly successful initial contract period, they have received a 1 year extension to the deep water current measurement programme north of Trondheim, Norway in the Luva field for StatoilHydro. The Luva field is located about 240 kilometres west of Bodø and the licence was awarded in 1996. The water depth in the area is around 1,300m and the reservoir is 2,800 metres beneath the seabed. Recoverable reserves in the field are estimated at some 38 billion cubic metres of gas.

The mooring, which extends from seabed to about 50m below the surface, was deployed in August 2008 and comprises a TRDI 300kHz ADCP, 14 Nortek Aquadopp current meters and 15 RBR Ltd XR420 CTD loggers. During the initial period of this deployment, an excellent data return has been achieved.

The measurement programme was initially planned for 1 year with service visits at 2 monthly intervals. As a result of the extension the service interval has been extended to 3 months and the offshore operations will be conducted from the MV Ocean Prince.

For additional information visit www.metoceanservices.com

1.b) Marport Awarded Contract for Autonomous Underwater Vehicle

Marport, a leading subsea acoustics technology company, announced today that it has been awarded a contract valued at approximately C\$1 million to supply its SQX-1 Autonomous Underwater Vehicle (AUV) to an international geodetic survey company.

Marport's SQX-1 AUV is a hydro-dynamically stable platform designed for reliable performance and low life-cycle cost. Employing a unique propulsion and control system based on thrust vectoring, the SQX-1 is passively stable in pitch and roll, and features high manoeuvrability with capabilities such as hovering and a zero-turning radius. The vehicle will be equipped with Marport's Software Defined Sonar platform – which will include advanced sensors, sounders and imaging sonar. The modular payload architecture can also be configured to include a wide variety of custom sensors to meet unique mission requirements.

For more information, visit www.marport.com

1.c) SEACON® Phoenix, LLC

The former management team of SEACON® Phoenix Inc. have reunited to start a new manufacturing entity called SEACON® Phoenix, LLC.

This new company will be dedicated to the manufacturing of military, aerospace and other products suitable for use in harsh environments such as glass sealed electrical connectors, feed thru connectors · Mil spec approved connectors, Neoprene and Polyurethane cable assemblies, harsh environment connectors and military fiber optic cables and assemblies.

Their products are suitable for different applications such as defense, energy, security, geophysical and telecommunications. We also offer in house inspection capabilities for electrical, mechanical, hydrostatic and fiber optics.

SEACON® Phoenix, LLC is an ISO 9001:2000 Certified Manufacturer. For more information contact www.seaconphoenixllc.com

1.d) Fugro Chance Completes Acoustic Jumper Metrology on World's Deepest Field at Shell's Perdido Development

Offshore survey company Fugro Chance Inc. recently completed an acoustic jumper metrology on the world's deepest field in the Gulf of Mexico on Shell's Perdido Development. This work was done on behalf of Oceaneering International Inc., Shell's jumper installation contractor.

Shell has set a water depth world record in drilling and completing a subsea well 9,356 feet (1.77 miles) below the water's surface. Once completed, the Perdido spar will be nearly as tall as the Eiffel Tower. The Perdido Development, located approximately 200 miles south of Freeport, Texas, is operated by Shell on behalf of partners BP and Chevron.

A regional Direct Vertical Access (DVA) host spar in Alaminos Canyon 857 will be the central processing center for various subsea tiebacks. Perdido comprises three main development fields: Great White, Silvertip, and Tobago. The regional DVA spar will be the deepest drilling and production facility in the world and the first of its kind in the ultra deepwater of the Gulf of Mexico.

The Marine Construction Survey Division of Fugro Chance performed the acoustic jumper metrology using a Wideband Medium Frequency (MF) acoustic positioning system, providing a high-accuracy, highly repeatable solution. The jumper spanned two pipeline sleds in a water depth of 9,625 feet.

The Wideband Medium Frequency (MF) acoustic positioning system was chosen for a number of reasons: reliability at water depth, ease of use, accuracy and noise immunity of the system, and efficient and cost effective use of hardware. The selection of the Wideband Medium Frequency (MF) acoustic positioning system allowed for the latest integrated acoustic hardware to be used, along with orthodox ROV sensors. This resulted in the minimum of hardware (two acoustic beacons) being required to perform the acoustic jumper metrology. For further information contact Dixie Poche dpoche@fugrochance.com

1.e) Ireland launches New Submersible and Subsea Technologies

The Mobile & Marine Robotics Research Centre at the University of Limerick performed trials and demonstrations of their new Remotely Operated Vehicle, ROV_{LATIS}, along with new mission support technologies in Limerick Dock today. This underwater robot has been developed for ocean exploration and commercial operations in inshore waters and as far as the edge of the continental shelf at depths of 1,000m or more. At a cost of over €1 million, the submersible is the first of its kind designed, built and tested in Ireland.

The development of this vehicle represents a large investment by state agencies in subsea survey platform technologies for testing and trialling new instrumentation and sensors. It further builds on the existing capability for survey and inspection operations within the state.

Investors and prospective partners from industry and ocean research eagerly listened on the deck of the Shannon 1 (Shannon Foynes Port Company's multi cat) as they were given demonstrations of cutting-edge technologies in Vehicle Control, Sonar Systems, Real-time Simulation and Remote Visualisation of the underwater world.

The Mobile & Marine Research Centre is forging commercial partnerships both in Ireland and internationally to introduce innovative new underwater technologies to the marine sector.

For further information <http://www.ul.ie/~rescisg/C&ISGRobotics>

1.f) PHINS REACHES ULTIMATE DEPTH

IXSEA's PHINS INS made history onboard *Nereus*, Woods Hole Oceanographic Institution's deep sea robotic vehicle, which reached depths of 10,902 m in the Marianas Trench in the Western Pacific Ocean on 31 May. This makes *Nereus* the world's deepest diving vehicle.

PHINS Inertial Navigation System outputs position, heading, roll, pitch, depth, velocity, and heave. Its high accuracy inertial measurement unit is based on IXSEA's Fiber Optic Gyroscope (FOG) technology coupled with an embedded digital signal processor that runs an advanced Kalman filter. PHINS is used as a primary navigation system on *Nereus* and other WHOI vehicles such as *Sentry* AUV and *Alvin* DSV. PHINS is well suited to *Nereus*' long endurance missions to the bottom of the earth's oceans due to its low power draw which saves critical battery energy. Moreover PHINS accepts multiple aiding sensors which are part of the complete suite of tools used in the navigation of AUVs, these include: DVLs, Pressure Sensors, USBL and LBL acoustic positioning, and CTDs.

The Marianas Trench is the deepest known part of the world's oceans and reaches more than a mile further into the depths of the ocean than Everest reaches the sky. This is only the third vehicle to have reached the trench, and the first since 1998. With the successful completion of the *Nereus* dive to the deepest part of the ocean and unprecedented maneuverability, scientists now have the means to efficiently collect detailed data, images and samples from these unknown depths which will lead to a greater understanding of our oceans and planet.

Further information contact anne.berg@ixsea.com

1.g) WORLD'S FIRST THROUGH-ICE LOCATION AND COMMUNICATION SYSTEM

Pioneering Scottish communication technology company, Wireless Fibre Systems Ltd (WFS), has joined up with the Norway-headquartered international marine electronics leaders, Kongsberg Maritime, to develop a wireless system for location of and communication with the company's unmanned underwater vehicles in ice conditions.

The 1.8m€ TILACSys project (Through-Ice Location and Communication System) will run for 24 months and deliver a demonstrator system that will be the world's first of its kind. It is being supported with investment from the UK's Technology Strategy Board and the Research Council of Norway.

The use of Autonomous Underwater Vehicles (AUVs) is growing across the globe, due to their high levels of mobility and flexibility and capability of delivering high quality - and resolution - data from the underwater environment. In polar regions, AUVs offer the added advantage of being able to explore beneath the ice. But today sub-ice AUVs are seldom used because of the risk of loss of vehicle.

Traditionally, underwater connections have been made with AUVs via subsea umbilicals which, in polar regions, are not an option for establishing communications because of the obstacle caused by the ice. Conventional underwater wireless (acoustic) technology will not penetrate ice. The newly emerging underwater free-space optical systems are not an option either as a light beam will reflect off the surface of the ice. Due to the ice cap, surfacing for satellite communication is not an option.

The TILACSys will enable a surface vessel, a helicopter or an unmanned aerial vehicle to locate and communicate with the AUV through the ice. The system is seen as a key component for de-risking under-ice AUV operations. The resulting increased use of AUVs under ice to successfully collect data will greatly enhance human knowledge about topography, oceanography, marine life and marine systems in arctic areas.

For further information please go to www.wirelessfibre.co.uk

1.h) AXYS Technologies Inc. (AXYS) signs Metocean Services International Pty. Ltd. (MSI) as its Australian Agent

AXYS recently announced the appointment of MSI as its exclusive representative for marine environmental monitoring systems in Australia.

AXYS' Matt Robson, responsible for marine systems business development in Asia, South America and the Pacific, stated "our partnership with MSI will offer enhanced support to the growing number of Australian organisations that rely on the accurate, real-time data that AXYS systems deliver".

MSI Director Stefan Stimson added, "the need to better understand Australia's marine environment has never been greater. We're delighted to represent AXYS and continue to build on the relationships they have with leading Australian organisations such as the Port of Melbourne, Defense Science & Technology Organisation (DSTO), Carnegie Corporation and Oceanlinx. We believe, as users of AXYS instrumentation around the world ourselves, that we are well qualified to not only represent AXYS for sales, but to also fully support the end user here in Australia."

For further information please go to www.metoceanservices.com or www.axystechnologies.com

1.i) TRELLEBORG OFFSHORE COMPANIES RENAMED

The companies which make up Trelleborg Offshore, the global leader in polymer and syntactic foam-based products for demanding offshore environments, have been renamed to underline the manufacturing, marketing and product synergies within the group worldwide.

The five principal companies will now be identified as Trelleborg Offshore followed by their geographical locations, replacing the well-known industry names of CRP, OCP, Emerson & Cuming and Viking, and bringing them under the banner of a consistent Trelleborg Offshore brand.

The companies will be identified as follows, Trelleborg CRP Ltd. - Trelleborg Offshore UK Ltd, Trelleborg CRP Inc. - Trelleborg Offshore US Inc, Trelleborg OCP Ltd. - Trelleborg Offshore Barrow-in-Furness Ltd, Trelleborg Emerson & Cuming Inc. – Trelleborg Offshore Boston, Inc, Trelleborg Viking AS. – Trelleborg Offshore Norway AS.

The Trelleborg Offshore group was formed following the acquisition of the CRP Group in 2006 and the addition of Trelleborg Viking. The move created a global market leader in solutions for offshore oil and gas projects with more than 30 years' industry experience. The group specializes in the development and manufacture of polymer and syntactic foam based solutions for surface, topside, subsea and seabed applications including buoyancy, cable protection, thermal insulation and fire protection. Trelleborg Offshore is part of the Trelleborg Engineered Systems Business Area of Trelleborg Group.

For further information go to www.trelleborg.com/offshore.

1.j) Another half dozen makes it twenty five !

Ocean Instruments Ltd have just delivered another six McLane Research Laboratories Parflux Mark 78H sediment traps to the National Oceanography Centre, Southampton. A quick look at the records shows this makes over 25 of these instruments delivered to NOCS over the last few years.

It is understood that these instruments will be used to continue studies of vertical fluxes on the Porcupine Abyssal Plain (PAP) site in the Atlantic South West of Ireland, and other sites.

McLane Research Laboratories Inc. have been making time series instrumentation for over 25 years during which time Parflux sediment traps have been produced for use by oceanographic researchers all over the world. McLane's President, Dr Susumu Honjo, Scientist Emeritus in Geology and Geophysics at Woods Hole Oceanographic Institution (WHOI), developed these sediment traps together with Engineer Ken Doherty, and since the 1970s they have been used to conduct experiments around the world to better understand the process, rates and volume of the transfer of carbon dioxide (CO₂) from the atmosphere to the ocean's interior and sea floor. Their use has successfully demonstrated that excess atmospheric CO₂ is removed by particles of organic carbon, commonly called "marine snow", that pass from surface waters to the ocean floor.

Further information from Ocean Instruments Ltd info@oceaninstruments.co.uk

1.k) Thirteen movers and shakers in the oceanographic and water industries attended FASTtracka Workshop at Chelsea Technologies.

Thirteen movers and shakers in the oceanographic and water industries joined Dr Kevin Oxborough (Senior Researcher) on 2nd July at Chelsea Technologies to learn more about the FAST^{tracka} FRRF technology. The FAST^{tracka} II is a high performance, Fast Repetition Rate Fluorimeter (FRRF), which is suitable for use in a wide range of applications from the assessment of primary production within the world's oceans to environmental monitoring within reservoirs and rivers.

The one-day workshop provided the scientists with an opportunity to gain hands-on experience with the FAST^{tracka} II sensor, in combination with the new FAST^{act} laboratory accessory and FAST^{pro} GUI. The day included talks on chlorophyll fluorescence and the Fast Repetition Rate (FRR) method, a practical demonstration of running automated Rapid Light Curves (RLCs) through the FAST^{act} system and a question and answer session with CTG scientists and engineers. Delegates also had the opportunity to run their own samples.

A second workshop is planned for later in the year. Please contact Ellen Keegan (0208 481 9019, ekeegan@chelsea.co.uk) for more details or visit <http://www.chelsea.co.uk/FASTtrackaWorkshop09.htm>

1.I) Submarine Rescue and Recovery at MATE Underwater Robot Competition

At the Marine Advanced Technology Education (MATE) Center's International Student ROV Competition, teams of students from five countries gathered around poolside workstations, working together to guide remotely-operated vehicles (ROVs) that they designed and built to function as submarine rescue systems.

Fifty-four student teams from five countries, including the U.S., Canada, China (Hong Kong), Scotland, and Russia, participated in MATE's International Student ROV Competition, held June 24-26 at the Massachusetts Maritime Academy in Buzzards Bay, Mass.

Explorer Class Winners - Veteran competitors Long Beach City College of Long Beach, Calif. won overall first place in the Explorer class. The team swept all of the Explorer class categories, earning the top awards for their engineering evaluation, poster presentation, and technical report. They were the only team that completed all of the pool missions under the allotted time. Second place went to Flower Mound Robotics of Flower Mound, Tex. Team member Luke Cragin earned one of three Explorer class "Engineering MVP" awards. Sea-Tech 4-H Club of Skagit County, Wash. won overall third place. The team also won the "Sharkpedo" award for innovation and originality, and was recognized for being the most safety-conscious team.

Ranger Class Winners - In the Ranger class, Dalbrae Academy of Mabou, Nova Scotia took overall first place and had the highest mission score. Heritage Collegiate of Lethbridge, Newfoundland won overall second place honors and had the top technical report. Monterey Academy of Oceanographic Sciences of Monterey, Calif. earned overall third place. Team member James Caress received one of three Ranger class "Engineering MVP" awards.

Submarine Rescue and Recovery Missions - MATE worked with OceanWorks International and the Deep Submergence Systems Office at Portsmouth Naval Shipyard to develop the mission scenarios, which focused on a submarine rescue training exercise. Student teams piloted their ROVs to inspect a simulated submarine for damage, deliver emergency supplies, and replenish the onboard air supply, among other tasks. For more information about MATE, please visit www.marinetech.org.

2. EVENT, TRAINING AND DEMONSTRATION NEWS

2.a) 'INTEGRATED MARINE OPERATIONS IN CHALLENGING TIMES' - IMCA ANNUAL SEMINAR PROGRAMME PUBLISHED

Challenging times call for innovative technological developments and operational experience, and that's just what delegates to the International Marine Contractors (IMCA) Annual Seminar with the theme 'Integrated Marine Operations in Challenging Times' will find on the agenda for this year's event – the seventeenth in the series – being held in Rio de Janeiro, Brazil on 4-5 November 2009. The full conference programme is available on the IMCA website at www.imca-int.com/events and

3. JOB POSTINGS

3.a) HYDROGRAPHIC SURVEYOR, HULL, UK

Associated British Ports is the UK's largest and leading ports group, handling about a quarter of the country's seaborne trade.

They have a vacancy for a Hydrographic Surveyor based in Kingston upon Hull.

The main duties of this role are the collection of single beam data and production of surveys in the form of fair charts for the Rivers Humber, Trent and Ouse. Other duties include the production of further related information, maintenance of an office database and sections of the Humber Estuary Services web site along with assisting with the sale and distribution of charts and data to external agencies.

In order to undertake the main duties, applicants will have a thorough knowledge of hydrographic survey techniques and equipment applicable to Ports and Estuaries. Good communication and the ability to work as part of a team are both fundamental for this role. Experience in the use of software used in hydrographic data acquisition and processing is essential along with a good understanding of C.A.D as is a relevant qualification in hydrographic surveying.

A full clean driving licence, excellent computer skills, a flexible approach to working hours and a willingness to undertake any other tasks assigned by the Hydrographer are also essential.

The successful applicant will receive a competitive rate of pay. Benefits include private medical insurance, life insurance and Company pension.

Please apply in writing enclosing your full CV to: Assistant Personnel Manager, Associated British Ports, P O Box 1, Northern Gateway, Hull HU9 5PQ, alternatively, send you CV via e-mail hfirmen@abports.co.uk
Closing date for applications is: 16th July 2009

3.b) NATIONAL OCEANOGRAPHY CENTRE, SOUTHAMPTON SEEKS TWO SEAGOING TECHNICIANS

You will work as part of a team of Science System Technicians providing continuous support to the NMF research vessel program. This will include responsibility for the configuration, maintenance and operation of scientific systems installed into the vessel, including (but not be limited to) computing and networking, acoustic instrumentation, communications, navigational systems, ocean/atmosphere measurement and sampling systems.

These are permanent positions and the salary is in the range of £19,540 to £23,150 per annum. Sea time of up to 90 days per year is required for this role, which attracts a daily allowance.

You can download an application pack at:-

<http://www.noc.soton.ac.uk/vacancies/> or alternatively contact Lorraine Gray, tel: +44 (0) 23 8059 6604 or e-mail: loraya@noc.soton.ac.uk. The closing date for completed application forms is 17 July 2009. Please quote reference number NOCS 81/09 on all correspondence.

3.c) RBR Ltd is looking for a Scientific Sales Engineer

RBR Ltd is a marine and freshwater instrumentation company who build sensors and systems that measure the state of the planet's oceans, lakes, and glaciers.

Do you like the idea of working with a small group of dedicated people in a unique facility and a great collegial atmosphere? Would you thrive in a fast paced reactive decision-making environment where the focus is on customers and employees to build long term business success? Do you want to use your scientific knowledge, ability to learn quickly and customer service skills to collaborate with customers? They offer compensation packages with unique benefits to match your experience and contribution. They support work life balance and hire people for the long term.

To apply, send a cover letter and resume to hr@rbr-global.com with the job title in the subject line. A complete job description will be provided upon request.