

News in brief

3D training programs for offshore industry



Allan Frikke Hansen, CEO of Virtual Lab, and Lars Christian Zöhner, managing director of SVITZER Safety Services, have partnered together to offer a new virtual training solution.

Svitzer Safety Services has partnered with Virtual Lab to develop 3D emergency response training for the maritime and energy industries. Based on more than 175 years of experience working in the offshore environment, Svitzer and Virtual Lab have designed and developed a new virtual training program called Svitzer 3D Simulator. This unique program is designed to be as close to the real world as possible, and has the further advantage of allowing participants to take the courses locally at their own PCs at time that suits each individual. The new virtual training solution allows clients to train in lifesaving routines regardless of weather and location.

"More training improves safety," said Lars Christian Zöhner, Managing Director of Svitzer Safety Services. "Besides already developed programs, we have several more on the drawing board, and I look forward to more collaboration in the future, and to developing solutions that will set new standards for safety training."

"This is a strong partnership with Svitzer," said Allan Frikke Hansen, CEO of Virtual Lab. "Their many years of experience in the field of safety training, combined with Virtual Lab's interactive 3D expertise, will create major value for the energy and maritime industries. We are delighted that Svitzer had the courage to be a first mover for this line of business. In a time when most employees are familiar with 3D, with it becoming more commonplace in cinema and other entertainment facilities, we are pleased that we can use our expertise to make 3D products for serious, lifesaving purposes."

Next generation riser management system

SeaFlex Riser Technologies, a business unit of Kongsberg Oil & Gas Technologies, has developed a new riser man-

agement system (RMS). The Kongsberg RMS is a highly flexible advisory and monitoring system for optimum operation of drilling risers and completion/workover risers, and features numerous advances to benefit riser operations. The system enables users to quickly configure operational parameters for a new well location, such as tallies and operational limits. The configuration and riser planning tool substantially increases the flexibility of the RMS. It is easy to learn, and reduces the time required to set up a well operation or plan future operations. Additionally, risk of error and the time required to perform calibration are significantly reduced through the introduction of automated calibration and verification testing, which is made possible by enhancements to the mathematical models.

A number of add-ons have been developed for the RMS, including a forthcoming Riser Joint Tracker, which tracks the usage of each individual riser joint. Already available is a Riser Shape & Clearance tool including optimum vessel heading advice, which improves parallel operations for rigs operating with a drilling riser and top-tensioned production riser by monitoring both riser strings in real time during various operations. By installing cable-free, hydro-acoustic instrumentation along the riser, the RMS keeps track of the actual shape and clearance between the risers from the surface to the seabed. Based on the data from the position transponders and resulting riser shapes, optimum vessel heading advice, maximizing the clearance between the two riser strings, will be calculated, displayed and continuously updated.

AMEC wins Angola contract

AMEC, the international engineering and project management company, has been selected by Chevron subsidiary Cabinda Gulf Oil Co. Ltd. (CABGOC) to perform front-end engineering design (FEED) for a significant portion of the Mafumeira Sul development project, offshore Cabinda Province, Angola. The contract is expected to run until mid-2011. The project will include a central production platform complex of three platforms, two bridges and a flare tower. Oil and liquefied petroleum gas will be exported to the Malongo Oil Terminal and the Sanha FPSO vessel, respectively. The project is located in the Mafumeira field, Block 0, in water depths ranging from 150 to 160 ft, and will provide for future development of additional fields in the southern Malongo area.

"We are pleased to continue our seven-year collaboration with Chevron and CABGOC," said Terrance Ivers, President of AMEC's Houston-based oil and gas business, which will manage the work executed in both Luanda and Houston through Paragon Angola. "Our previ-

ous and existing experience working on the Area A Gas Management and Sanha Condensate projects proved valuable in securing the pre-FEED and FEED work for this project." He also noted that the new contract will boost AMEC's recent commitments to sustainable local content for Angolan oil and gas projects.

DEME Group launches new fallpipe vessel



A new next-generation fallpipe vessel has been launched at Sembawang Shipyard in Singapore. The *Flintstone* was built on behalf of Tideway, the offshore oil and gas subsidiary of Belgium's Dredging, Environmental and Marine Engineering (DEME) Group. The *Flintstone* has a carrying capacity of 19,000 t, and can place rock with high accuracy at absolute record depths of up to 2,000 m (6,500). The *Flintstone* is Tideway's third and biggest fallpipe, after the 11,500-t *Rollingstone* and the 17,500-t *Seahorse*.

A fallpipe vessel is a highly specialized ship that holds graded rock. The rock material is placed at an exact location on pipelines or the sea bottom through a fallpipe, at the lower end of which an ROV is fixed. This ROV is operated from the deck and controls the rock placement in three dimensions. Offshore, rock is applied mostly to stabilize and protect pipelines, flowlines and power cables.

The €115 million (\$148 million) investment will boost Tideway's oil & gas activities. DEME CEO Alain Bernard said that in the next few years the group will focus on oil and gas activities, the mining industry and energy utilities. *Flintstone* is equipped with Dynamic Positioning, an active heave-compensated ROV and state-of-the-art survey equipment. The vessel is fully certified to work in arctic conditions.

Jotron launches SatCom product group

Jotron Group has announced the launch of Jotron SatCom AS, which will be responsible for the group's new SatCom product group, joining Maritime Products, Phontech Communication Systems, Consultas Maritime Software and Ground to Air & Coastal Communication as the group's 5th product group. Jotron SatCom AS was formed in 2008 by main shareholder Jotron AS and two partners, Tronrud Engineering AS and Nerasat AS.

The Managing Director of Jotron SatCom AS is Ottar Bjåstad, a long-time veteran of the global SatCom business. The new group is primarily staffed with management and R&D personnel in order to focus on the development and industrialization of a new VSAT stabilized antenna product. The highly experienced members of the R&D team all have between 10 and 30 years of experience in developing and manufacturing maritime SatCom products based on stabilized antennas for the Inmarsat System, and from the development and engineering of other VSAT products. The main product will be a high-performance stabilized Ku-band antenna for broadband communication at sea, with global coverage. It will be introduced in the 2nd half of 2010.

Sealing solutions company features BMW sport bike at LKS product launch



Bill Nissim of Bal Seal (far right) shows some clients from GE why he likes the BMW S 1000 RR motorcycle.

In a move to rev up the launch of its new LKS Seal for high pressure/high velocity applications, Bal Seal Engineering, Inc., brought the newest and fastest BMW sport motorcycle to the 2010 Offshore Technology Conference. Bal Seal, a California-based provider of sealing solutions for the oilfield industry, featured an "Acid Green Metallic" BMW S 1000 RR in its exhibit at Reliant Park. The company said it chose to make the cycle a central element in its OTC booth to illustrate the premium quality and innovative design of the new LKS High PV Seal product.

A multi-component seal consisting of a canted-coil spring-energized, graphite-reinforced PTFE seal jacket, a PEEK anti-extrusion element and a metal locking ring, the LKS is engineered to provide increased service life in pump systems, top drives, rotary steerables and LWD/MWD tools. The LKS has been lab and field tested to outperform and outlast more costly, less efficient seal types, and its combination of materials and design can help OEMs significantly increase equipment uptime. •

Providing power for ultra-deepwater

By Jerry Greenberg

When it comes to powering the pumping capacity of deepwater and especially ultra-deepwater developments, the oil and gas industry is in the process of identifying and evaluating the optimal system to deliver the electrical power necessary. The technology in need of power includes oil pressure boosting, gas compression, seawater injection and water separation/re-injection.

"Today's offshore projects are in increasing water depths, and sometime producing from marginal reservoirs," said Cornelia Noel, a senior staff engineer with Shell. "In other cases, the power may be used in sensitive projects such as floating LNG or to mitigate emissions."

Some of the drivers for investigating powering deepwater and ultra-deepwater developments include

remote distances from a production hub; marginal reserves; increasingly deeper waterfields; a large deepwater production hub; projects sensitive to power outages; and stranded gas development. "Additionally, the industry is expected to meet societal and regulatory obligations such as mitigating emissions of greenhouse gases," Noel said.

Noel noted that the single biggest economic "drag" is the low realized efficiency of the power system value chain, including power generation, transmission and distribution and end load. Large power consuming applications exacerbate the situation while they also provide access to more reserves and accelerate production. Improving subsea power transmission and better distribution for the AC power transmission and distribution network are both works in progress by the industry. There are presently three competing power

system architectures: local micro-grid power, long-distance AC transmission and distribution, and long-distance DC transmission and distribution, which is an emerging solution.

However, Noel offers up another possible solution. "The door is open to revolution, where a single entity or a group can position themselves to own the power system value chain (fuel through end load) and provide the service to asset owners."

The win/win is improved power system efficiency, reliability, energy cost and smaller carbon footprint for asset owners and a new market for the service providers. National oil companies and independents would be the largest beneficiaries as preventing disruption in the offshore business model aids their ability to move into ultra-deepwater and take on subsea boosting and EOR projects, Noel noted. •