A day in the life at OTC

By Neil L. Benton

It was apparent from the second the doors opened on Monday morning that every single person here at OTC is on a mission. Some are here to prepare the event space, assemble booths or organize conference materials to be distributed. Others are here to meet with current clients, sit down with new ones or even train sales staff. Regardless, there is no doubt that every single person that crosses the parking lot onto the Reliant Park premises is very much in the mood for business.

Planning for OTC means something different to everyone attending the show. For some attendees, pre-conference planning means arranging travel and coordinating with details of the trip with a project team at home. While some spend months planning logistics, others focus on the message that they want to share with others at OTC. Press conferences, brightly-lit LED screens and larger-than-life samples of equipment attract animated groups of people throughout the day, even piquing the curiosity of bystanders and leading them to join the crowd and find out what all the buzz is about.

Behind each of these crowds, is a group of people who have spent months planning exactly what their company’s message will be and how they will get that message across to their target audience. Whether representing a global company or a nation itself—these communications specialists know that the 96 hours they’ve been waiting for are here and it is “go time.”

For Cathrine Tjessem, marketing and information assistant for Offshore Northern Seas (ONS), OTC 2010 is a different experience from last year’s show. At 2009’s OTC show, Tjessem had stand space to sell for the annual ONS conference. She is here at OTC promoting ONS’ annual conference, exhibition and festival being held in August of this year. She admits that with the passing of a year, the atmosphere of uncertainty felt at last year’s show—and the goals established for the show—have changed.

While the general atmosphere of the show is more optimistic and forward-looking, Tjessem explains that in roles like hers, the amount or scope of planning for the show didn’t change. In fact, because of the recent travel freezes around the world due to the pandemic, the policy, environmental and political ramifications of this incident will likely have a direct correlation with the duration and impact of the actual discharge of oil. The first concern of all of us—industry, government, public or opponent—must be to staunch the flow of oil, and protect and rescue fragile environments dominated by fourth and fifth generation units. What are the differences between conventional subsea and surface BOPs (SBOPs) and what does the future hold for SBOP designs being used on rigs drilling in deep water?

The industry began drilling with SBOPs in about 100 ft of water in early 1996 but quickly moved into every in- creasing water depths. A special panel of SBOP technology experts, Thursday panel to examine surface BOP technology

By Diane Langley

There is never a more necessary component of a drill rig than a BOP and there is never a more immediate need to ascertain how they work and how they can be improved than now following the Deepwater Horizon incident. What are the differences between conventional subsea and surface BOPs (SBOPs) and what does the future hold for SBOP designs being used on rigs drilling in deep water? A special panel this afternoon will examine SBOP technology. Many deepwater development projects in operators’ portfolios require lower costs to meet internal economic thresholds. As pressure increases to reduce deepwater well costs, technical trends are surfacing that could revolutionize the industry, resulting in improved rig availability, lower day rates and reduced development time. Use of surface BOP technology in deepwater is one of the most promising trends. It is already a highly regarded enable for driving well costs down in some deepwater applications and driving drilling rig-based surface BOP is more readily adapted to other emerging drilling methods than a conventional subsea BOP configuration. General industry focus has been to apply SBOPs to third generation moored rigs, allowing them to operate in the deepwater environments dominated by fourth and fifth generation units.

A panel of SBOP technology experts, in addition to discussing drivers and barriers to SBOP technology, will offer a range of perspectives from operators, drilling contractors, consultants and regulators. These diverse experts have one thing in common: they all are actively engaged in surface BOP designs being used on rigs drilling in deepwater.

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By Randell Luthi, President, National Ocean Industries Association (NOIA)

Traditionally, the Offshore Technology Conference is a time to tout and show off the latest in technology, re-acquaint ourselves with friends and competitors, and rejuvenate the spirit of the offshore industry. This year, the technology still amazes, the booths still tantalize and the sessions inform, but the mood is far more somber and introspective.

In the last 16 days, we have faced what we fervently hoped would never happen; an uncontrolled discharge of oil in the Gulf of Mexico and the tragic loss of 11 lives. We mourn their loss and pray that their families find comfort. We also thank all those who have worked, and continue to work 24 hours a day, in response and rescue efforts, as well as in environmental impacts mitigation and oil spill cleanup.

Our industry strives for safety—safety of our personnel and safety for the environment. It is personal to us when the oil, and protect and rescue fragile environments dominated by fourth and fifth generation units. A special panel of SBOP technology experts, Thursday panel to examine surface BOP technology

By Diane Langley

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Kozic, Transocean; Gavin Humphreys, Shell, East Shanks, senior engineer, Deepwater Offshore Co.; John Kozic, Transocean; Gavin Humphreys, new business and technology manager, Stena Drilling; and David Bond, general manager, Drilling, Ophir Energy...
Jubilee is a huge new multi-field project offshore Ghana – one of the largest developments ever in the region. Jubilee’s Integrated Project Team (Kosmos Energy, Anadarko Petroleum and Tullow Oil) and the Ghanaian government are eager to bring Jubilee into production as soon as possible. That’s because it is a very high-quality asset with estimated recoverable reserves of between 600 million and 1.8 billion barrels of light, sweet crude oil. The fast-track schedule required accelerated delivery of subsea equipment. FMC’s Subsea OnDemand™ service delivered.

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Critical components delivered on schedule. For Jubilee, FMC Technologies is supplying a complex array of technology: 19 trees, 8 manifolds, 2 riser bases and 3 mudmats. We are also supplying topside and subsea distribution controls and an Installation and Workover Controls System (IWOCS) and tools.

All in short order. We received our first order in August 2008, and delivered the majority of the hardware ahead of schedule. Project installation started in January 2010, and first oil is expected by the end of the year, right on schedule.

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Hywind turbine spins Statoil, Techinop into wind energy

By Pramod Kulkarni

As the world seeks a greater role for renewable energy, oil and gas operators and service companies are discovering new opportunities for their technical expertise. A recent example of such a transition is wind energy.

Shell, a leading international oil and gas company, launched itself into wind energy last September by installing a 2.3 MW pilot wind turbine in the North Sea, 10 km off the town of Karmøy. Hywind is the world’s first full-scale offshore floating wind turbine. The project draws on Statoil’s offshore experience, Siemens’ turbine technology and construction skills in building floating structures.

After assembly in the Åmøy Fjord near Stavanger, Techinop towed the 120-m tower 10 km offshore to 220-m depth in June 2009. The spar floating structure extends 100 m beneath the ocean surface and is attached to the seabed by a three-point mooring spread. Subsequently, Nexans Norway installed the submarine power transmission cable to the southern end of Karmøy, where local electric power company Haugaland Kraft operates a receiving station. The pilot turbine is expected to generate 9 GW/h/y.

Statoil has invested $80 million in the construction and further development of the pilot, and in research and development related to the wind turbine concept. The R&D phase involved the testing of a 3-MW-high model at Marseilles’ Snorre wave simulator. Enova, a Norwegian public corporation promoting the transition to environmentally friendly energy, has provided $11.5 million.

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Arbitrary Top Ten OTC Tchotchkes

10 Your company here
9 Haggards—Combination keyboard/thumb opener
8 China Highland—cowboy hat
7 Louisiana Recruitment—teddy bear
6 HFS—Texas-shaped pad containing bluebonnet seeds
5 University of Houston—flashlight/key ring
4 Weidmüller—pen and screwdriver set
3 Mustang Engineering—Color-changing "Magic Ball" that changes from blue to white if you throw it with just the right spin
2 Brooksbank Valves—Monte Blanc pen
1 Boskalis Offshore—Cardboard luggage with wheels and extendable handle to carry your tchotchkes around the show and onto your flight home

Schedule of Events

For more detailed information about each day’s sessions and events, pick up an official OTC program or visit www.otcnet.org.

Thursday, May 6

Registration .................................................. 7 a.m.–2 p.m.
Topical Breakfast, Industry Breakfast........... 7:30–9 a.m.
Energy Education Institute: Teacher Workshop 7:30 a.m.–3 p.m.
Energy Education Institute: STEM Event ....... 8:30 a.m.–3:30 p.m.
Exhibition ...................................................... 9 a.m.–2 p.m.
Technical Sessions ....................................... 9:30 a.m.–12 p.m.
Technical Sessions ....................................... 12:15–1:45 p.m.
General Panel Session .................................. 2–4:30 p.m.
Technical Sessions ....................................... 2–4:30 p.m.
Closing Reception ......................................... 4–5 p.m.

Shell VP outs frontier deepwater successes

By David Michael Cohen

Close collaboration with project partners and suppliers, as well as among staff engineers, was a key element in the safe and successful startups of Shell’s BC-10 and Perdido projects, said John Hollowell, the company’s executive vice president of deep water.

At a topical lunch Wednesday, Hollowell said teamwork was essential at Shell’s BC-10 and Perdido projects, among staff engineers, was a key element in the safe and successful startups of Shell’s BC-10 and Perdido projects.

Similarly, close coordination with suppliers helped save the BC-10 project after a wrench malfunction while trying to pull a riser into the FPSO.

“We had the riser hanging below the FPSO about three weeks while we were trying to figure out how in the world we were going to recover it from the bottom,” Hollowell said. “First we had to figure out how to safely secure the FPSO from any further damage. Then we had to figure out how to safely transfer the load back to the installation vessel and where we had to lay the riser down before we could start to repair the winch itself.”

In addition to the contributions of Shell personnel including one engineer recovering from surgery and another who flew in from India to help, suppliers SBM and Subsea 7 “quickly mobilized their global experts to collaborate on options and solutions,” he said.

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Hywind turbine spins Statoil, Techinop into wind energy.

Statoil and Techinop are applying the offshore expertise gained in oil and gas projects to build a pilot floating wind turbine.

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Burst! What is it?

By Buddy Ives

When asked what burst was, John Bomba of Technip, the moderator for the Wednesday pipeline session, provided a straightforward answer: “When your pipeline blows up.”

One of the principle criteria for the design of a deepwater pipeline is the selection of the proper wall thickness needed to satisfy installation, test and operating conditions. The definition of the term “burst” impacts the selection process.

Over the past year, researchers have devoted significant time looking into the ramifications of the several equations for determining burst failure of a pipeline. During the Wednesday session a knowledgeable high-level panel discussed the implication the “burst” term has on the design of submarine pipelines and risers in deep water in the Gulf of Mexico and worldwide. The panel consisted of Bomba; Paul Stanton, also of Technip; Carl Langer, Carl Langer & Associates; David Garrett, Stress Engineering Services, and Kim Mork, DNV.

As the leadoff session panelist, Langer set the stage for discussing the developments of codes that tackled the pipeline “burst” concerns of the industry. He said during his days with Shell Development Co. there was a continuing program studying the strength in pipe the relationship to pipe collapse and buckling.

From this early work, API RP 1111 was developed to fill in the offshore gaps that were not addressed in the pipeline code B 31. “With the industry moving to deeper waters with higher pressures on flow lines it became evident that B 31 did not represent the strength of pipe for such situations,” he said. “What we needed to start doing was design lines to the best pressures instead of a code. RP 1111 modified the offshore pipeline portions of the code to address areas not initially addressed.”

During the early development work, he said there were seven different formulas that were considered by the committee working on the code. From those seven, three fit the data gathered by the committee, which included MMS representatives.

Stress Engineering’s Garrett touched on the burst question from the ductile burst angle focusing on the theory behind the formula, test data and the selected formula. He touched on the question of why use 0.45 as the coefficient? The theory was based from data based on nominal dimensions or higher if accounting for minimum “wall.” He also said the coefficient fits the theory and data and fits the current practice for high D/t.

Garrett said the burst test data was based on 267 tests with ranges for diameter from 2.65 in to 20 in; D/t of 6 to 32; burst pressure of 6 ksi to 43 ksi and yield of 48 ksi to 138 ksi. In the discussion, he accounted for actual properties with a flow stress factor that gives a best fit factor to reach a point that determines burst data.

DNV’s Mork focused on pressure containment in his brief remarks on the “burst factor.” He observed that even though the work on RP 1111 took one approach and the DNV approach for ISO took another direction the conclusions ended up at the same point.

Which is the best hoop stress formula? “In limit state based design, the formula that best represents the burst capacity,” he answered.

As for establishing a design criteria, using a best scientific design formula that considers statistics and industry practice.
While it may seem like a difficult pill to swallow, companies that plan ahead can weather the severest of recessions without having to go on life support, Mustang Engineering President Steve Knowles told a topical luncheon yesterday.

During the lunch, Knowles said the key is changing the mindset of an organization during upbeat times filled with exhilaration, anticipating and a healthy dose of satisfaction.

"Change is hard during the boom times, but mandatory in the tough times. I contend that what we need to change is our approach to change and look at it during the boom times when we have the resources to make change," he said.

He pointed to a recent Harvard Business Review survey of 4,700 public companies that studied the last three recessions of 1980, 1990 and the most recent one. The results, he said, showed 9% of the companies surveyed emerged from the recession stronger than they were before. "The good news is, from this data we will not see another 10 years, but the bad news is more than 90% of the companies surveyed came out worse than they were before the downturn," he said.

What is also surprising, he said, was that 85% of the pre-recession market leaders were dislodged from their dominate peaks when the recessions ended. "This might spell bad news if you were a market leader before the recession, but is good news if you were aspiring to be a market leader," he said.

The keys to surviving a major downturn in business is to look at reducing costs, but also function under a healthy mix of continuing to invest in the future, especially when it comes to R&D spending.

"You can't save your way to prosperity. During the downturns, you have to take both a defensive and offensive approach. That is when you must really concentrate on continuous improvement – to do better to get better," he said.

Using Mustang as an example, he said there is a new normal in the worldwide economic picture today. "We were a 5,000-employee company and now we have 3,500 employees, so that's our new normal. We're working our way back to 5,000, but how long will it take?" Knowles said.

With that, he said it behooves companies to keep its core talent during a recession to help it better respond to the business environment when it improves. He said it is critical to do whatever possible to limit attrition, be it voluntary of involuntary, by giving key employees new and perhaps unfamiliar assignments and always being consistent in delivering the company message.

"Employees have been through a lot in a recession. It is up to us as managers to convince them that while the grass may appear brown now, it will definitely turn green. It is vitally important that you leverage the talent you have," he said.

Knowles added that one of the actual benefits of a slowdown in business is exposing the strengths and weaknesses of a corporation. "That's the silver lining, because when we have a recession what is working and what is not working are clearly exposed."

Returning to the Harvard survey, Knowles said respondents were asked what measures they feel should best be followed in a recession and their respective odds of beating the competition by 10%. The majority sentiment, he said, included a mixture of cost cutting and progressive approaches for planning for the future.

As the economic world is shifting, he said it behooves companies to remain firm to their vision, mission and values, while readjusting for the realities of today.
Egypt, the ancient cradle of civilization, now offers a cradle of oil and gas investment opportunities, according to a panel of experts at an OTC industry breakfast on Wednesday. Organized by the US Department of Commerce and OTC, the panel consisted of Abdel Alim Taha, first undersecretary for production affairs in Egypt’s Ministry of Petroleum; Rod Eichler, president of international operations for independent oil and gas company Apache; Mark Richard, vice president for business development and marketing for Halliburton’s oilfield service company; and Susan Farrell, senior director of upstream and fas for strategic consulting company PFC Energy. The panel moderator was Dr. Arnis Judzis, member of the OTC board of directors and vice president of testing services for Schlumberger.

“Egypt’s oil production is declining,” Dr. Judzis said in explaining the country’s rationale for seeking additional investment in the oil and gas sector. “While Egypt’s proven oil reserves stand at 3.7 billion barrels, production has declined from 950,000 b/d in 1995 to 664,000 b/d to 2007, according to the US Energy Information Administration. The potential for reversing this decline represents an opportunity for investors in Egypt’s oil and gas projects.”

Under secretary Taha said a total area of 2,230 km² in Egypt was suitable oil and gas operations of which approximately 33.3% was still open acreage. “In a March 2009 report, energy consultant Wood MacKenzie lauded Egypt for having the second highest level of oil and gas hot spots with an average success rate of 27%.”

Potential oil and gas regions in Egypt include offshore Mediterranean, Nile Delta, Western Desert, Upper Egypt and the Red Sea.

“Egypt’s investment assets include political and economic stability, fiscal capital, transparent regulations and reliability as an exporter,” Mr. Taha explained. “These factors make Egypt a potential energy hub.”

Halliburton’s Mark Richard, delineated the company’s long history in Egypt. “We started our activities in Egypt through cementing and stimulation services for international oil companies in the 1950s. In subsequent decades, we added logging and geophysical surveys, directional drilling and now we provide reservoir focused technology and solutions instead of just ‘you call, we haul’ type of hardware products.”

Richard lauded Egypt’s human resources. “As much as 98% of our staffing in Egypt is nationalized. Additionally, more than 500 Egyptians work for Halliburton in international locations outside Egypt.”

Apache Energy, the largest independent oil company with international E&P operations, is the leading producer of hydrocarbon liquids in Egypt and the number one natural gas producer in the Western Desert. In 2009, Apache produced 33.6 MMb of oil, 134.4 MMscf of natural gas, and achieved revenues of $2.5 billion.

“Egypt presents highly repeatable opportunities that are similar to the Permian Basin,” Rod Eichler said. “While the area is geologically complex, we’ve been able to achieve a 90% success rate in the 1,500 wells we’ve drilled.”

PFC Energy’s Susan Farrell lauded Egypt’s growing gas demand, but she cited potential risks as a moratorium on gas exports and the government’s financial weakness.
Azurite field boasts first FDPSO

The Azurite field offshore the Congo came on stream in August 2009, employing the industry's first floating, drilling, production, storage and offloading (FDPSO) vessel to develop the field. The FDPSO, a former VLCC with its moonpool in the center of the vessel and located directly over the subsea wells, helped field operator Murphy Oil to fast track the field, which was discovered in January 2005. The lease block covers 1.9 million acres, an area equivalent to 300 blocks in the Gulf of Mexico. Water depths across the field range between 1,100-2,000 m.

Murphy had considered and evaluated four concepts: subsea tiebacks to a third party facility; subsea tiebacks to an infiel FPSO; a dry tree unit producing to an FPSO; and an infiel FDPSO.

"Faced with deepwater rig shortages and subsequent high dayrates, and the desire to make a step-change improvement in project economics, the FDPSO alternative was chosen," said Harry J. Howard with Murphy West Africa. The versatility of the FDPSO is significant. Economics favor the concept when reserves can be produced from a single location while it also has application for fields with multiple drilling centers. The FDPSO can be located over the drill center containing the majority of a field's reserves and other wells can be tied back to the FDPSO. However, while the FDPSO can be considered a game changer, it employs no new technology.

For example, both wet and dry tree solutions were evaluated. Murphy opted for a wet tree development because it represented less of a technological step-out. The moonpool is located in the center of the former VLCC in order to minimize rig motion, a modular platform drilling rig was installed and the wells drilled from the vessel completed subsea.

The FDPSO is a unique system but it is not limited to the particular field in which it is installed, Howard noted. Among the applications are marginal fields, as an early production system used as part of a phased development, and in fields where other storage and offloading infrastructure are already available.

"There are several key variables to determine the suitability of an FDPSO in a particular application," Howard said. "Its technical and commercial viability (for the application) must be established first."

Some of the key variables include water depth. Competition to an FDPSO includes jackups that could be used as production facilities suitable in water depths up to about 300 ft. Beyond that depth, and less than 1,000 ft, a fixed structure could be an alternative with either wet or dry trees, and with or without an FPSO used in conjunction with the development scheme. Howard noted that 7,000 ft of water roughly corresponds to the maximum water depth for which flexible risers have been qualified, which also would limit the FDPSO to about that depth. However, FDPSOs still could be a viable application by qualifying the flexible risers on a case-by-case basis. One possible solution would be to use a riser tower with flexible jumpers in the shallow part of the water column to accommodate vessel movement.

A key enabler of an FDPSO in West Africa is the relatively benign sea state. Swells emanate from the southwest, effectively serving to fix the FDPSO bow heading in order to minimize roll during drilling and production operations.

Subsurface characteristics also are key variables to determine the applicability of an FDPSO in a particular field. Parameters considered for use of an FDPSO include reservoir depth, areal extent, degree of compartmentalization, reservoir permeability and directional drilling operations.

Reservoir depth, areal extent and directional drilling capabilities will impact the well count and subsea tree locations. The degree of compartmentalization and reservoir permeability also impacts the well count. Shallow and large reservoirs are difficult to drain from a single drill center so in some cases a conventional FPSO development with subsea trees is economic. However, Howard said, if a critical mass of reserves can be produced from a single drill center, then the FDPSO still has merit as a development tool. Remaining reserves can be produced via tiebacks to the FDPSO.

The Azurite field boasts first FDPSO
184 Years Of Operating Experience, A 99 Percent Uptime Average And The Largest Floating Production Fleet In The World.

That’s Confidence. That’s SBM.
Digital imaging detects corrosion

By Steven Henderson, RBG USA

A real-time digital imaging system was successfully used to detect corrosion under insulation on a platform process piping system for a major deepwater Gulf of Mexico operator. The technology halved the expected project time, from eight weeks to four weeks, and led to significant cost savings.

The advanced radiation technology was recently introduced to the non-destructive examination service offering of RBG, a leading fabric maintenance and construction support firm serving the energy industry. The service is a non-intrusive method of checking insulated pipe work and associated equipment for corrosion. Traditionally, operators would have to identify and sample areas within the piping circuit where insulation had to be removed and inspections carried out, which can be time-consuming, costly and ineffective, since potential defects are not always identified.

RBG’s versatile process allows technicians to quickly scan large areas of piping circuits and identify problem sections without shutting down production. On detection, these problems can be addressed effectively and efficiently with a targeted maintenance plan. This in turn, helps to maintain long-term asset integrity by avoiding issues associated with selective testing, such as water ingress.

The lightweight system uses a low-curie source of radiation to identify the corrosion area without the need to remove insulation. A real-time digital imaging system projects digital video images onto a handheld LCD and a head-mounted display in real time, at 30 frames per second. Unlike previous X-ray systems, the image is presented continuously, allowing rapid in-motion scanning of pipes through a range of material densities. The high-resolution images can be recorded and stored onto a digital video recorder. The system is operated by a two-person team (see figure); one operator inspects the pipe work while the other is able to act as a guide, analyzing results in real time, with options for additional displays that can be viewed live by a third party.

The system can be combined with RBG’s expert rope access capability, allowing for easy access to elevated pipe lines and connections on offshore platforms, as well as petrochemical plants, without the need for scaffolding.

RBG was contracted to undertake inspection of a carbon steel piping system in the Gulf of Mexico to determine the location of internal and external corrosion or water ingress. Using the advanced radiation technique allowed the operator to identify the defects and prepare a maintenance plan, without the associated cost of removing sample sections of insulation. The system’s portable nature also allowed it to be used in tandem with rope access, meaning the project was completed four weeks ahead of schedule.

The success of the project has led to contracts being secured for several of the operator’s other offshore platforms.

RBG was formed in 2005 through the merger of Mach-ten, MacGregor Energy Services and Rigblast Group. Headquartered in Aberdeen, UK, the company operates in the UK and internationally and employs more than 4,500 people.

The real-time digital imaging system is operated by a two-man team.
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Extreme subsea excavation challenges

By Jason Holvey and Joe Coleman, Wild Well Control

While conducting platform recovery and permanent abandonment operations in the Grand Isle lease block of the Gulf of Mexico, Wild Well Control (WWCI) encountered a single platform that required extensive excavation to gain vertical access for wellhead installation. As the debris removal phase ended and the excavation phase progressed, it became apparent that mass excavation of the entire well bay would be required. Scrutinizing multiple options, WWCI decided to pursue the option of a modular cofferdam system.

A proven philosophy is challenged. Initially, WWCI utilized existing marine excavation technologies to remove the soft and intermediate layers of material from the excavation site. Over a four month period, WWCI removed approximately 240,000 cubic feet of material utilizing these methods. Tubular deformation at depths greater than anticipated led WWCI to estimate additional excavation requirements to exceed 25–30 ft below mudline, requiring an additional 601,000 cubic feet of material to be removed. This additional excavation requirement prompted WWCI to begin investigating methods to increase excavation rates, while at the same time develop a method to reduce footprint and maintain safety standards for diving operations.

The Jetting Air Lift. WWCI Marine Engineers trouble shot the existing excavation technologies and identified their shortcomings in an effort to develop a more productive excavation tooling. The result is the WWCI Jetting Air Lift. The tool has no mechanical parts to jam and provides approximately 800 psi of water pressure at –100 fsw. It is capable of cutting through soil strata with undrained shear strengths of 1.0 ksf at an approximate rate of 20–25 cubic feet per hour. Although the Jetting Air Lift was a great improvement from existing marine excavation technologies, a greater rate of excavation was desired.

Limiting Excavation Scenarios. WWCI possesses self jetting cofferdams in its inventory for use in limiting excavations and insuring the highest standards for diver safety. These units can be utilized to isolate 3–5 wellbores in a single installation depending upon spacing. However, repetitive recovery and installation of the units would be required and the effective utilization of these units at this site was not seen as a viable option. The driving of 5 round steel cofferdams with a diameter of 10–12 ft and height of 25 ft was the second option proposed. These units would be installed in an offset pattern in 2 phases to isolate as many as 5 wells in the first phase, and 4 in the second phase. Again, the repetitive installation of this solution in order complete single work phases of wellhead installation and well P&A during separate mobilizations prompted this solution to also be seen as a less viable option.

The solution is installed. Thirdly, based on gaining the most efficient cofferdam design, WWCI began looking at driven pile options to create a cofferdam that would encompass the entire well bay. BOH Bros. Construction was approached with the idea and, working with WWCI Engineers to determine the full scope of needs, provided a driven pile system that utilized a series of interlocking 48-in OD piles driven around a subsea template. This option was chosen over a sheet pile version due to the final durability reduced diver exposure during installation.

Once driven pile system was installed at the site, localized excavation activities were implemented, utilizing WWCI’s jetting air lift conveyed from a 4 pt. dive vessel, to gain access to the conductors at a depth up to –140’ (+/– 49’ below natural bottom). This cofferdam design was able to eliminate the need to reposition systems and also alleviate future excavation activities in order to gain access to the wells for abandonment. Once all wells were properly P&A’d the cofferdam piling could be removed and available for reuse at another location, if deemed financially practical. The removal process would be a reverse installation in which the piles are vibrated out.
DOE’s knowledge management database

Over the course of the last four decades, the National Energy Technology Laboratory (NETL) has conducted extensive research and development of technology for oil and gas exploration, drilling and production. The results of this impressive program are now publicly available in the NETL Knowledge Management Database (KMD) at www.netl.doe.gov/kmd.

The online database contains nearly 20,000 reports and papers on R&D projects, in addition to an extensive library of CDs covering topics ranging from geologic characterization of major producing basins in the U.S. to primers on topics such as CO2 EOR. The KMD also contains a wealth of visual material, including resource and basin maps, Gulf of Mexico activity maps and illustrations of the NETL’s (and the oil and gas industry’s) contributions to science and the environment. The database of material includes R&D carried out under both historical and ongoing DOE oil and gas R&D programs funded through Congressional appropriations, as well as work that is currently underway as part of the Energy Policy Act of 2005, Title IX, Subtitle J, Section 999 R&D program.

The KMD provides four options for searching the vast array of documents and data that NETL-managed oil and gas research has produced.

Document database. This search function allows the user to search all documents from past and current R&D projects. This database includes oil and gas documents from the CD/DVD library, the NETL Internet site, the NETL Project Management Information System (ProMIS), the Tulsa Project Office, and links to hardcopy documents currently available from the NETL library. Links to relevant offline documents from the Office of Science and Technical Information (OSTI) are also included. The search is conducted by author or key-word search of titles and document abstracts.

CD/DVD database. This search function allows the user to search all of the CDs and DVDs of oil and gas research reports compiled from past R&D programs as well as currently available documents from the NETL Internet site (i.e. SCNGO and Section 999). The user can download individual reports or order an entire CD or DVD.

Section 999 database. This search function allows the user to search only project summaries related to the Energy Policy Act of 2005, Title IX, Subtitle J, Section 999 R&D program by author or keyword. A variety of reports, publications, and presentations will be produced for each of the individual research projects during and after the research performance period. Each of these project documents, in addition to project summaries, which are updated regularly, contains links to all of the research products related to that specific project.

Section 999 tech transfer index. This index allows the user to search the KMD for Section 999 project summaries by program element, project name or project performer. The search then links to the product of interest. The data is updated regularly.

GIS and data visualization. In addition to the search options listed above, the user can access a compilation of geo-spatial data for oil and gas resources in the U.S. This map-driven feature allows the user to correlate KMD data to region, basin and/or play type. The user interface allows the user to relate resource size, technical issues and challenges, and associated national, regional and local benefits arising from industry supported research and development.

In addition to the features listed above, at least two “expert system” interactive, problem-solving features will be integrated into the portal. One of these, the Produced Water Information System, has already been added to the NETL website (www.netl.doe.gov). The other, the self-teaching expert system for the analysis and prediction of gas production from fractured shales, will be developed by Lawrence Berkeley National Lab under the selected R&D projects administered by the Section 999 Consortium.

For more information on the NETL KMD, please visit www.netl.doe.gov/kmd or contact Roy Long at roy.long@netl.doe.gov.
Every time Mustang Engineering closed a project in the oil and gas, chemical, and process industries, the question arose: How could it efficiently and effectively handover assets to owner/operators who might be using different and incompatible information management systems and formats? The engineering, procurement and construction (EPC) management company faced several data management issues in its search for a solution. First was its own diversification. Mustang’s Project Information Management (PIM) department supported six business units spread across 14 offices worldwide. Each unit had unique information management needs.

Second, each client Mustang contracted with had differing data requirements, with specific datasets and class libraries that must be adhered to in order to successfully transfer data electronically. Oftentimes, electronic data was stored in formats and applications which didn’t work with each other or with Mustang’s systems. Finally, scheduling had to be addressed. With ever-shortening project timelines, data cleanup was becoming a time-consuming, labious and expensive process. Mustang needed a way to better validate and share information internally and with customers, communicate with several different applications in often far-flung locations and streamline data cleaning and delivery of all types of data, regardless of application and format.

AVEVA NET solves asset handover issues

AVEVA NET provides a centralized digital information hub that acts as a secure, collaborative and application-neutral data manager. Data of any type, produced using any program, can be managed within AVEVA NET and be made accessible and useful to any application, whether built by AVEVA or from a third party.

The company chose AVEVA NET because it is application neutral, allows flexibility/scalability, doesn’t require special programming skills to support, and is fully configurable to fit into any working environment without forcing change. “Efficient data management and access to information have always been challenges to global project execution,” said Mustang Executive Vice President John Dalton. “With AVEVA NET, we are able to provide our global projects with an easily accessible, single source of project data, ensuring more efficient data management, consistency across deliverables and true global collaboration.”

Mustang sought a system that would work not only with their own/owner/operator clients’ existing asset management systems but could also utilize Mustang’s own applications. It needed to be a consolidation database, perform data checks, be application independent, quickly deployable, have open architecture, be easily configurable, be web-enabled and have an intuitive user interface.

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Mustang initially tested AVEVA NET on select brownfield assignments to expand deployment. The results? AVEVA NET has enabled Mustang to provide progressive, streamlined handover rather than a single end-of-project event. The company now enjoys improved interoperability, data quality and project execution. Mustang can now better respond to clients’ information needs, regardless of the clients’ technology platform.

Owners and operators have also enjoyed major cost-saving results from partnering with AVEVA. Australia’s Woodside Petroleum has seen a AUD $1.5 million cost reduction to date on its Angel platform and estimates AVEVA NET will save it AUD $16.8 million company-wide in handover costs in 2010.

To learn more about AVEVA NET, visit http://www.aveva.com/products_services_aveva_net.php.
The Delta State Government in partnership with Chevron Nigeria and The State of California invites you to the

DELTA STATE GREEN ECONOMY INITIATIVE INVESTMENT ROUNDTABLE EVENT

- Unveiling The Emerging Investment Opportunities Within The Delta State Green Economy Initiative
- In-Depth Information On The Delta State / NNPC Gas Based Industrialization Agenda
- The Warri Industrial Park Investment Opportunities
- Understanding The Delta State Global Partnerships in Developing A Green Economy
- Opportunity To Participate In High Level Engagement With Key Top Officials

Venue – Omni Hotels, Houston Galleria, Tx 77056, USA
Date – Wednesday, May 5, 2010
Time – 9.30am prompt (Registration starts at 8.00am)

To register, go to www.governoruduaghan.org

Round Table Panelists

Dr. Emmanuel Uduaghan
Delta State Governor

Mr Odein Ajumogobia (SAN)
Honourable Minister of Foreign Affairs, Nigeria

Ambassador Richard H Jones
Deputy Executive Director, International Energy Agency, Paris

Mr John Odey
Honourable Minister of Environment, Nigeria

Alhaji Shehu Ladan
Group Managing Director, Nigerian National Petroleum Corporation

Secretary Linda Adams
Secretary, California Environmental Protection Agency

Mr Andrew Fawthrop
Managing Director, Chevron Nigeria Limited

Mr Mutiu Summonu
Managing Director, Shell Petroleum Development Company

Mr Phillippe J. Najim
ED / Group Manager Projects, Shaw Energy and Chemicals Group

Anthony Lewis
CFO, Aquamation Inc

Sanusi Lamido Sanusi
Governor, Central Bank of Nigeria

organized by

The Delta State Green Economy Initiative

next possibilities...
Deeper drilling spurs top drive design

By Ryan Skinner, Aker Solutions

Aker Solutions invested countless development hours together with Transocean to design an award-winning drilling machine designed for 99.9% uptime and radically reduced time to repair and replace key components. The MH MDDM 1000 AC emerges at a crucial time, as many rigs are built or upgraded to requirements of deeper water and higher utilization.

The MH MDDM 1000 AC was designed to accommodate pretty much any of Transocean’s more than 50 drilling rigs, which means it is appropriate for the upgrading of hundreds of rigs worldwide (see figure).

Deeper drilling programs are taking many top drives to the edge of their operational limits and beyond, with a deleterious effect on failure rates. With day rates climbing up to and over $500,000, those failures were increasingly costly. The new top drive was designed around this new operational logic, stepping up the power available on the drillstring while enabling rapid replacement of wearing parts without downtime.

“...The operating environment of many drillers is different than it was only a decade ago; legacy top drives are struggling to maintain satisfactory levels of performance,” said Arnt Aske, the Aker Solutions project director who coordinated the top drive’s development. “The MH MDDM 1000 AC was designed specifically to change that, and launch a new paradigm for top drives in this market.”

The machine’s size makes it available to the vast majority of drilling rigs today. Operational efficiency is improved by a pipe handler that swivels freely 360°. Flexibility is improved by a mud intake that can come in directly behind the top drive, or from either side.

Of greatest interest to most rig owners, however, will be how the machine performs on site. The top drive has already logged thousands of hours operating in the US Gulf. These initial experiences have shown to be positive, and logged downtime is on a par with that demanded by Transocean.

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The first units, installed on Discoverer Luanda, were commissioned in South Korea late last year, and the ship is headed for West Africa to drill its first well. The top drives, however, have already been through extensive tests at what Aker Solutions calls the world’s most extensive top drive testing facility.

“The MH MDDM 1000 AC was pull-tested, run continuously for 96 hr, and the IBOP mechanism was tested in an operating environment,” said Aske. “The full-scale pull test put the top drive into a mechanical frame and tested it. It didn’t make one sound. As an engineer, you love that. It was perfectly designed and assembled.”

The 96-hr continuous operation test involved connecting the main shaft to a dynamic braking table, including a torque measuring device, to study the full operational power and torque it will experience in the field.

In mid-March, Aker Solutions’ new top drive was selected by OTC organizers as a recipient of a Spotlight on New Technology award.

The R5 quality, developed by Vicinay Cadenas, is the result of our commitment with the offshore industry to develop top quality products with innovative solutions.

This quality has a 16% higher resistance than chains in R4 and its weight is more than 15% less. The new R5 quality offers a range of possibilities for the design of mooring lines dependent on the specifics of each project.

The mechanical properties obtained with this product are:

<table>
<thead>
<tr>
<th>Mechanical Properties</th>
<th>R5 (Minimum Values)</th>
</tr>
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<tbody>
<tr>
<td>Ultimate Strength</td>
<td>1000 MPa</td>
</tr>
<tr>
<td>Yield Strength</td>
<td>760 MPa</td>
</tr>
<tr>
<td>Reduction in Area</td>
<td>59 %</td>
</tr>
<tr>
<td>Elongation</td>
<td>12 %</td>
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<tr>
<td>Impact Test at -20°C</td>
<td>58 Joules</td>
</tr>
<tr>
<td>Base</td>
<td>62 Joules</td>
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The R5 is a standard recognized by the principal Classification Societies since 2008. First R5 product delivered by VCSA with ABS certificates was in 2006.
Predictive models for Gulf storms

By Buddy Ives

With the Gulf of Mexico storm season just around the bend, OTC attendees had the opportunity to hear updated reports on various predictive models for Gulf storms and design criteria for offshore structures during the Metocean technical sessions.

Tuesday morning’s session featured five presentations on similar, but different modeling approaches for hurricanes, cyclones and tropical storms in the Gulf of Mexico (GOM) and North West Australia. Eight companies, organizations and educational research groups took part in preparing the five papers presented at the technical session.

Each presentation looked at the background for developing the models and the methodology used to validate the model results. Past hurricanes, such as Katrina/Rita, Ike, Frederick and Camille, were studied to provide historical data. Also, it was noted that a storm’s impact did not necessarily correspond to the storm’s category rating.

In the first discussion, it was noted that the immense impact of Hurricane Ike on the Gulf of Mexico infrastructure and production was clearly not anticipated considering it was a Saffir-Simpson Scale (SSS) Category 2 hurricane.

In his presentation, V. J. Cardone of Oceanweather described the comprehensive “hindcast” of the surface wind and sea state fields generated by Ike. He said the storm showed the extreme ocean response was mainly caused by expansion of the wind circulation after the storm’s eye crossed the western tip of Cuba.

This led to a storm with a large radius of maximum wind speed and a shelf-like radial wind speed profile. The modeling for these attributes required the description of the radial pressure distribution in the boundary layers to be represented in terms of a double exponential analytical formulation.

“Fitting that functional form utilized all conventional meteorological, high-temporal density flight level measurements from reconnaissance aircraft and remotely sensed satellite meteorological data within analyst-assisted workstation,” Cardone said. “This allowed the fitting of, either the classical single exponential form, or if appropriate, the more complex form. The surface wind field is specified by solutions of a new, environment librated primitive equation mesoscale boundary layer model augmented by available kinematic analyses of the inner core wind structure derived directly from measuring wind data.”

The presentation noted the wave response is hindcast for a third generation spectral wave model adapted to GOM at high resolutions that include shallow water effects and incorporated a saturated surface wind drag formulation consistent with recent hurricane inner core measurements of the same.

“Hindcast and available measurements support the fact that Ike generated significant peak wave heights of about 45 feet in the north central GOM,” he explained. “The hindcast is compared to public domain wave measurement currently available.”

In near term, these results are valuable in evaluating causes, along with the damaged platforms and other structures, to assess suitability of related design. For long term significance, the hindcast methodology applied to Ike has been used to incorporate the lower ranked SSS hurricanes, as well as all hurricanes that exhibit the non-classical radial pressure and wind structure on the specifications of extreme metocean criteria derived by either the direct historical or deductive approaches.

S. A. Frolov, WeatherPredict Consulting, reported on his group’s investigation of ocean’s response to hurricanes in presence of the loop current (LC) or a loop current eddy (LCE). He told the group that the ability of the ocean model to simulate adequately hurricane-generated currents has been thoroughly validated.

The model’s ability to simulate hurricane generated currents in absence of any mesoscale features was tested using data collected during hurricane Katrina. The ocean response in the vicinity of the instrument buoys was unaffected by the LC and/or LECs. Consequently, validation experiments used a horizontally uniform ocean to simulate hurricane generated currents.

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deepwater and ultra-deepwater developments include projects such as floating LNG or to mitigate emissions. Gas compression, seawater injection and water separation of deepwater and especially ultra-deepwater developments are saving purposes.

News in brief

Providing power for ultra-deepwater

By Jerry Greenberg

When it comes to powering the pumping capacity of platforms in ultra-deepwater environments, the oil and gas industry is in the process of identifying and evaluating the optimal system to deliver the power and energy required to the offshore business model aids their ability to move some clients from GE why he likes the BMW S 1000 RR motorcycle.

Sealing solutions company features BMW sport bike at LKS product launch

In a move to rev up the launch of its new LKS Seal for high-pressure/high-velocity applications, BMW Motor Engineering, Inc. brought the newest and fastest BMW sport motorcycle to the 2010 Offshore Technology Conference. Bil Seal, a California-based provider of sealing solutions for the oilfield industries, 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 canali-coated 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 steerable systems 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.

DEME Group launches new falpipe vessel

A new next-generation falpipe vessel has been launched at Semhawng Shipyard in Singapore. The Flinstone was built on behalf of Tideway, the offshore oil and gas subsidiary of Belgium’s Dredging, Environmental and Marine Engineering (DEME) Group. The Flinstone has a carrying capacity of 17,500 m³, and can transport more than 1,500 tonnes of rock material at an exact location on pipelines or the sea bottom through a falpipe, 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.

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 processing platform, which will be connected to three satellite platforms, two bridges and a flare tower. Oil and liquefied petroleum gas will be exported to the Dalia Oil. Angola and the Sanha FPSO vessel, respectively. The project is located in the Mafumeira block, Block 0, in water depths ranging from 100 to 1,500 feet. The project is scheduled for completion in 2013.

The Managing Director of Jotron SatCom AS is Otar Bjaed, 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 team all have between 10 and 30 years of experience in developing and manufacturering marine SatCom products based on stabilized antennas for the Inmarsat System, and from the development and engineering of VSAT equipment. The main product will be a high-performance stabilized Ku-band antenna for broadband communication at sea, with a bandwidth of 12 MHz to be introduced in the 2nd half of 2010.

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Momentum in a downturn

By Diane Langley

Does your company have what it takes to maintain innovative momentum in challenging economic times? During a topical breakfast on Wednesday morning, representatives from independents and majors shared insights into how their companies approach research and development (R&D) today. The panel of six agreed that the traditional R&D funnel approach remains viable in these times of challenge. If anything, R&D budgets are increasing and further increases are projected. Fostering and sustaining innovation in the economic downturn requires commitment, talent, investment, balance and collaboration.

According to Darricarere, diversification of energy supply is a must, some- thing that is only possible through for- mation of partnerships across the oil and gas industry. The need to focus on objective, profitable strategic growth for Total E&P is developing existing and future positioning. The deepwater has been a new area for Apache, the company is involved in unconventional exploitation, result- ing in perhaps the largest frac job in an unconventional play. Apache is also in- volved in implementing an LNG plant using produced electric power. Therefore, the need for R&D has not diminished. “We do have a technical service budget (not named R&D) and research and service partnerships,” he said. Further, Apache sees importance in recruiting expertise from nontraditional disciplines and pur- suit of collaborative efforts with partici- pants outside of the energy industry. For example, the company has a partnership with Yale on mathematical research.

For Halliburton innovation takes place “not without angst.” For success, a real- time solid foundation is needed as inno- vation is ultimately a cultural change. For Halliburton innovation takes place in three areas: wellbore placement in unifying reservoir and drilling in the same platform, maximizing reservoir volume and beating the drilling curve.

According to Bradshaw, those business models that are increasing and further increases are projected. Fostering and sustaining innovation in the future scenarios requires commitment, talent, investment, balance and collaboration. A particular focus is on nurturing and seeding inventions. Commenting on collaborative relationships with nontradi- tional participants, Seiller said, “May- be the industry doesn’t do enough.”

Total E&P: strategic growth

It has become clear over the last de- cade that the future of oil supply — and energy demand — must be addressed by the oil and gas industry with immediacy and urgency. On Wednesday, Total E&P CEO Vees-Louis Darricarere addressed the issue of the future of oil reserves and the evolutionary future of inno- vation lies in new areas such as nano- technology, biotechnology technologies, energy efficiency technologies, CO2 capture and sequestration technologies, and water technologies.

Darricarere painted a snapshot of today’s world energy supply, emphasis- ing the fact that the oil and gas industry must make some challenging decisions that will directly affect the immediate and future progress of the energy indus- try. “Technology and investment are the key words,” Darricarere explained. “We need a strategic vision, objective, plan for growth.” In addition to this, he added that it is necessary to limit CO2 emis- sions to create a plan that is both strate- gic and sustainable.

According to Darricarere, diversifica- tion of energy supply is a must, some- thing that is only possible through for- cusing on high-potential segments and strengthening partnerships across the oil and gas industry. *
Energy future must include mix of renewable sources

By Jim Redden

Meeting ever-rising demand with hydrocarbon reserves that are becoming more difficult and expensive to exploit will require a makeover of the oil and gas industry over the next 40 years, a panel of operators and government officials told a general session Tuesday afternoon.

With even the most conservative mainstream forecasters showing energy consumption rising by more than 40% over the next 20 years, the pressure on identifying and developing new conventional and unconventional fossil fuel reserves will be intense, the panelists said.

At the same time, it also is incumbent on traditional oil and gas companies to help further the economical development of renewable resources.

Like many of this year’s technical and general sessions, the discussion quickly turned from the advertised topic of “What is the right global energy mix to the ongong Deepwater Horizon tragedy.”

“I was going to look at the future and discuss the priority for technology and science, but as I stand before you, my thoughts are in the Gulf of Mexico and the loss of our colleagues and the environmental challenge were are confronting,” said panel moderator Ahmed Hassan, BP vice president of technology management and finance. “It’s a challenging time for us and the industry. We are using the full resources of BP and the industry to deal with this challenge and take every measure to ensure it never happens again.”

Without mentioning the Gulf of Mexico catastrophe, an official of the US Department of Energy followed, saying the federal government will continue its research and development efforts for all energy sources, including oil and gas. She echoed the current administration’s battle cry that any energy mix must include alternative and clean technologies.

“Environmental stewardship and increased use of fossil fuels need not be mutually exclusive,” said Deputy Assistant DOE Secretary Phyllis Yoshida. “We in the Department of Energy believe firmly that technology and science are critical to maintain and enhance our standard of living. The decisions we make today can impact our world for a generation. Right now, the US is importing 60% of its oil, so to reduce uncertainties we must make investments for new energy sources here, including fossil fuels.”

Even though Saudi Aramco remains a powerhouse oil and gas producer, its executive director said real-world realities demand that it, too, look at renewable energy sources. “Energy is too important to have a future clouded by anxiety. Decisions cannot be made today based on over-heated emotions,” said Mohammed Al-Qahtani, adding that the kingdom aims to triple its 2011 proven oil reserves and well over 275 tcf of known gas.

“By all reliable standards of measurements, the world has enough reliable reserves for several more decades. However, we as an industry will be more dilettante in some schemes, desalinated water 100 years. We must constantly assess how we do our business. ‘We need to increase the investment in gas and we must maintain and increase our investments in renewable resources and environmental efficiency,” he said.

Chevron President Ali Moshiri agreed, saying all avenues must be on the table and that includes continued research and development of new oil and gas reserves.

“What is the proper energy mix between fossil fuels and alternative sources is not a right or wrong answer. No one size fits all, but it has to be decided by the marketplace and not government. Our industry has delivered reliable supplies for 100 years, often during some very turbulent times,” he said.

Acknowledging that energy use is expected to rise by as much as 40 percent over the next 20 years, Matthias Bichsel, director of projects and technology for Royal Dutch Shell, he said oil and gas must play the predominate role. “There is going to be even more pressure on oil and gas reserves, but at the same time we have to do all we can to reduce our footprint. Right now, the world’s content, for example, is way too high.”

Ocean thermal investment urged

Ocean thermal energy conversion (OTEC) could help meet the electricity needs of the state of Hawaii at a levelized cost of less than 0.18 per kilowatt-hour, a University of Hawaii research team reported at an OTC technical presentation.

The little-known renewable power source exploits the temperature difference between warm tropical waters near the sea surface and the colder water deep below to produce electricity and, in a desalination system, potential energy carriers such as ammonia and hydrogen.

Luis Vega, of the university’s National Marine Renewable Energy Center, urged government investment to build OTEC demonstration plants of about 5-megawatt capacity. He said operational records from such demonstration plants is necessary to attract the private investment that will be needed for the 50–100-megawatt plants required to make OTEC cost-competitive with traditional sources of electricity.

Several experimental projects over the last few decades have demonstrated that the technology works.
to the airborne volcanic ash from Iceland, some last-minute contingency plans had to go into effect. “We were worried about if the flights would be running on schedule and whether we would make it here, whether many other attendees wouldn’t be able to go,” she said. “But in the end, everything started to settle down and well, we were here and ready to go.” Her day-to-day duties at the show have stayed focused on promoting the ONS show and she admits, with a smile, that the positive energy from the crowds definitely makes her job much easier.

Danielle Biermans, media and promotion manager for Dockwise, hearkens back to a few challenges—when sitting down at the end of last year to plan this year’s OTC. Aside from tailoring a custom marketing plan for the show, Biermans admits that OTC is the ultimate platform through which to connect people with information. “Everybody is here at the same time, it’s all about networking and building rapport,” she said. “You come here to show that you’re still in it.”

For Dockwise, however, establishing a brand presence as a bridge for our nation and world as reliable and affordable energy. Dominoes fall, technology, equipment, vessels, aircraft and land-based and offshore staging bases and platforms. This is personal to us, and I believe that no one will look harder at why and how this happened than the industry itself. The presence of the personnel in the offshore industry are families, neighbors and friends. The Gulf of Mexico is our home. These oil, fish, boat and recreation opportunities in these very waters and submersed lands on which the oil is produced.

Through all this, the nation’s energy situation has not changed. A balanced energy policy that will lead us to greater national security must still involve oil and gas for the foreseeable future. Energy is energy, and we need all forms of energy. Everything from our micro-level economy to individual family livelihoods relies upon secure, reliable and affordable energy. Domestically produced oil and gas will serve as a bridge for our nation and world as they migrate toward the non-traditional energy sources, such as wind, biofuels and solar. There are risks, impacts and tradeoffs associated with the development of all energy sources. The element of risk—risk of accidental injury or death, or of an accidental discharge—can never be completely eliminated, particularly when exploring at great depths. Our industry operates using incredible technology that rivals the space program. This technology and the unprecedented cooperation of the Gulf of Mexico’s many stakeholders will be key to developing a solution that stops this accidental flow of oil and helps restore the faith of the American public in the offshore industry.

So, as we cautiously anticipate the future, recognizing that there will be political fallout, we stand committed to finding out what happened and why, and to making the necessary changes to prevent such a tragedy from happening again. Those who have sacrificed all must not be forgotten. The pioneering spirit of America has always asked that humans go to the extremes of the environment, be that hundreds of miles into space, thousands of feet below the ground in mines, or working on rigs 50 miles from shore in 5,000 feet of water.

All of these places can be dangerous. Sadly tragedies do happen. We will always seek to learn from them and to ensure that they do not happen again. These setbacks should not, however, overshadow the incredible progress these industries have made for our nation nor lessen the effort, dedication and sacrifices by those involved in these industries.

Randall Luthi is the current president of the National Ocean Industries Association (NOIA). An attorney and rancher from Freedom, Wyoming, and a former Speaker of the Wyoming State House of Representatives, Mr. Luthi most recently served as the director of the US Minerals Management Service from July 2007 through January 2009. He earned a BS in administration of justice in 1979 and his law degree in 1982, both from the University of Wyoming.

Gulf Publishing Company cordially invites you to attend the World Oil High Pressure High Temperature Drilling & Completions Conference to be held 29-30 September 2010 in Houston, Texas. In pursuit of reservoirs more than 16,000 feet below the earth’s surface in conditions with temperatures reaching beyond 350°F and unprecedented pressure levels, operators are confronted with unforeseen drilling and completion challenges. This conference will offer you a forum to discuss, share and learn about these types of drilling conditions.

HPT

Solidarity continued from page 1

peat in the future. Due to this terrible incident, the offshore industry will once again be closely examined in state and national political and policy spotsights. The members of NOIA welcome that review and stand ready to participate and assist as aggressively as we are in the response and clean up efforts. As you read this, a massive response and cleanup effort is underway by BP, the 16 federal departments and agencies comprising the National Response Team, and an army of volunteers, companies which brought brand new capabilities to the Gulf of Mexico.

Danielle Biermans, media and promotion manager for Dockwise, speaks with a client in Dockwise’s booth. 5235.
World Record Water Depth
Welltec® was part of the team that set several industry records in subsea well intervention in the Gulf of Mexico where two production gas wells were worked over.

The job was performed from a vessel as a Riser Less Well Intervention (RLWI) and was the first time wireline was run at a record water depth of 2,975 ft.

Multiple technologies were deployed to make this world’s first intervention a success. Welltec® was mobilized to open a sliding sleeve and perform perforations in the two wells by applying our wireline 2 1/8” Well Stroker® and Well Tractor®. In addition, the 2 1/8” Well Miller® was used for milling wax, asphaltene and paraffin in one of the wells.

Achievements
- Operator’s objectives were fulfilled
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- Need for workover rig was eliminated
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Welltec® is a multi-service provider to the oil and gas industry with an established track record. Our services cover all phases of a well’s life to enable optimal reservoir exploitation.

Please visit us at stand no. 2163 during the OTC or visit welltec.com for further information about our services.
Our VetcoGray DHXT is a next generation deepwater tree engineered for up to 15,000 psi and 10,000 ft. It’s also smaller and lighter, with final deployment configuration weighing in under 100,000 lbs. This highly flexible deepwater system delivers value, efficiency and reliability as standard.

See our new DHXT tree at OTC – Booth 1641, May 3–6, Houston, Texas
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