

# Offshore Marine

Keppel

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**Offshore  
Entry into  
decommissioning market**

**Enhancing leadership  
position in jackup rigs**

**Marine  
First FSO newbuild**

**Ice-class AHTS  
completed**



**Keppel wraps up 2006 with  
timely deliveries**

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# Contract for first FSO

**K**eppel Singmarine has clinched a contract to build a Floating Storage and Offloading (FSO) unit for LUKOIL – NIZHNEVOLZHSKNEFT (LUKOIL-NVN), a subsidiary of the Russian oil company, LUKOIL Oil Company.

This 28,000 tonnes (dwt) ice-class FSO is a new design by Marine Technology Development Pte Ltd, the design arm of Keppel Singmarine.

Hoe Eng Hock, ED of Keppel Singmarine, said, "This is our first FSO newbuild. She is a follow-through of our strategy to enhance our design and construction capabilities and expand into related product lines in sync with the demand in the offshore logistics market.

"This FSO is designed for operations in cold temperatures up to minus 20 deg Celsius and in ice thickness of 60cm. As the development of oil and gas fields in harsh environments such as the Caspian Sea and the Arctic Circle gathers pace, we are allocating resources and expertise to become the provider of choice for customers seeking innovative solutions in specialised ice-class vessels to operate in difficult weather conditions."

The MTD13028FSO-IC FSO is designed with provisions for forecastle deck structure for single point mooring, with double bottom and double sides, with habitable deckhouse and Cargo Oil Control Station, machinery space and helipad in the aft of the vessel.

Due to its heavy weight and size, the FSO will be built in two halves in Singapore.

The two halves will then be transported through the 101 km long Volga-Don Canal into the Caspian Sea and then assembled at the Caspian Shipyard Company (CSC), Keppel Singmarine's sister shipyard in Baku.

The work to be carried out in Baku includes the hull integration of the two halves, erection of the accommodation blocks, helideck, piping systems, installation of rigid arm, testing and commissioning.

The FSO vessel is meant for uninterrupted services in receiving crude oil from a stationary production platform through single buoy mooring system, storage of oil on board and finally offloading of oil to shuttle tankers.

The growing demand for oil and gas worldwide has encouraged the Russian energy sector to expand its oil and gas development, production and exports.

Scheduled for delivery in the first quarter of 2009, the non-propelled FSO unit will be deployed in the Yuri Korchagin field in the Caspian Sea where it will receive and store incoming crude oil and offload it to shuttle tankers.

CSC and Keppel FELS, another sister company, have collaborated on similar projects before, specifically for a Transocean-consortium jackup rig, *Trident 20*, in 2000 and for a Maersk semi, *Maersk Explorer*, in 2003.

With an integrated network of shipyards around the world, Keppel is able to offer effective and valuable solutions for its customers worldwide, living up to its strategy of "near market, near customer."

The FSO contract is the latest in a series of five vessels that Keppel Singmarine has secured from LUKOIL in under two years.

The first vessel, an ice-class AHTS, *M.V. Svetlyy*, was delivered ahead of schedule to LUKOIL in December 2006 (see page 11).

The other three vessels include a 60-tonne bollard pull AHTS and two ice-breaking supply vessels. These vessels are scheduled for delivery between mid-2007 and the first quarter of 2009.

LUKOIL is a leading Russian oil company with main activities in oil and gas exploration and production, and in the production and sale of petroleum products.



**M.V. Svetlyy** is the first vessel Keppel Singmarine has delivered to LUKOIL

# Entering the market for decommissioning in North Sea

Keppel Verolme to build world's first concrete heavy lifter

This innovative first-in-the-world heavy lifter of its class was awarded by MPU Offshore Lift ASA (MPU), a subsidiary of the Norwegian design and development company, MPU Enterprise AS.

The semisubmersible platform is expected to be completed by early-2009.

Keppel Verolme will execute the marine outfitting works and build the accommodation block as well as fabricate and carry out steelwork and install equipment for lifting topsides and jackets. It will also lease its facilities for the construction of the concrete substructure to the owner's appointed civil contractor.

Harold Linssen, MD of Keppel Verolme, said, "We are glad to be entrusted with the task of building this multi-purpose heavy lifter for MPU, primarily to support the decommissioning of redundant platforms in removing topsides and steel jackets.

"The project is the result of four years of partnership with them in developing an innovative, safe, robust and cost-efficient single lift solution for the lifting operations required to remove oil and gas platforms in the North Sea and globally."

Decommissioning is required when an operational rig reaches the end of its productive life or when a reservoir is depleted. With the design life of most of the world's platforms reaching their retirement at 20 to 25 years, the market for decommissioning is set for growth.

The process in decommissioning includes engineering and planning for the plugging and abandonment of wells, the removal



Keppel Verolme will build the innovative first-in-the-world heavy lifter of its class for the decommissioning of offshore structures

of platforms and the cleaning out of hydrocarbons and other contaminants from lines, tanks and equipment.

One of the world's largest decommissioning projects is the Ekofisk project, which is located in the North Sea. Contracting work on this project has already started for the removal of more than 10 platforms by 2013.

Linssen commented, "Decommissioning in the North Sea is a very new market. In this segment of the offshore market, one of the challenges has been to come up with new lifting techniques which can perform the tasks quicker, safer and at less cost."

Developed by MPU, the heavy lifter distinguishes itself from other removal vessel designs by its use of concrete technology which gives the heavy lifter greater robustness and less motion on the sea. The other differentiating factors are the cost-effectiveness in the construction and operation of the platform, as well as the additional functionalities. The heavy

lifter may also be used for installing topsides and jackets.

Said Kolbjørn Høyland, CEO of MPU Offshore Lift ASA, "For MPU, this concludes eight years of conceptual development, model tank testing, design and verifications. Hence we are now very pleased to have raised the necessary funding to enter into a building contract with Keppel Verolme.

"The response from the market as well as potential clients and the investors have been very enthusiastic. We are now looking forward to seeing the vessel ready for operation in 2009 as there is a great demand for new lifting capacity in the offshore decommissioning and installation market.

"We are pleased to see that the vessel is going to be built at Keppel Verolme. The yard is a well reputed European yard with an excellent track record and they have been a supportive partner in the process of developing this new technology."



Keppel O&M continues its strong track record of delivering on time and on budget despite its exceptionally heavy work load.

# Keppel wraps up 2006 with timely deliveries for all its projects

Keppel O&M completed and delivered 26 newbuilds and conversions totalling about S\$2 billion, on time or ahead of time and within budget in 2006.

This reflects its excellent project execution in an exceptionally busy year.

## Timely deliveries

Tong Chong Heong (CH Tong), Managing Director of Keppel O&M, said, "At present, many shipyards worldwide are faced with high level of activities, and Keppel is no exception.

"The on-time and ahead of time deliveries demonstrate that the Keppel O&M group remains on track in delivering profitability and growth with the strong and effective execution of our projects.

"We are pleased to announce that our current projects for the year ahead are also progressing well. We will strive to maintain our track record and deliver them to our customer's satisfaction. By delivering our projects on time and on budget, our customers benefit from the value propositions that we bring to them."

## Bonuses

Keppel O&M has received in total, about S\$2.6 million in safety and early-delivery bonuses from the owners of the various projects completed and of the current works in progress for 2006.

CH Tong added, "I am glad that our customers recognise our excellent performance amid the high volume of work. The bonuses are a way of expressing their appreciation for our personnel's commitment to ahead-of-time deliveries, quality workmanship and excellent safety records."

## Better safety records

Despite its exceptionally heavy workload, the Keppel O&M group has maintained its impressive safety track record with an Accident Frequency Rate (AFR) of 1.31 for the first 11 months of 2006 compared to the previous year's overall score of 1.62. The AFR is a measure of the total number of reportable accidents per million manhours worked.

Commenting on Keppel's ability to execute each and every project in a safe and timely manner, CH Tong said, "This is due to the commitment and teamwork of our people, our understanding of customer needs and the relentless pursuit of innovative solutions.

"Effective utilisation of our global network of shipyards, planned expansion of our facilities and careful execution of our near market, near customer strategy have also played an important role in the success.

"Support from our vendors, subcontractors and business associates like classification societies have also contributed to our achievements."

## Record completions in 2006

In the past year, Keppel FELS delivered six jackup rigs, one semisubmersible drilling tender (SSDT) and one upgraded semisubmersible (semi), the *Ocean Endeavor* which was delivered in December 2006.

The yard also delivered its last jackup for the year on 27 December 2006. *WilCraft*, a KFELS B Class rig, was delivered ahead of time and named on 13 January 2007.

At Keppel Shipyard, despite more than 300 vessels being docked intermittently throughout the year for repairs and conversions, the yard also saw the delivery of two major Floating Production Storage and Offloading (FPSO) conversion projects.

2006 also saw Keppel Singmarine accomplish on-time deliveries for three tugs and 11 Offshore Support Vessels (OSV) including its first ice-class AHTS. The latter, *M.V Svetlyy*, was delivered ahead of time on 20 December 2006 (see page 11).

Meanwhile, Keppel Phillipines Marine, completed the construction of two tugs during the year.

**OffshoreMarine highlights**  
recent deliveries at Keppel O&M  
(see pages 6 – 11).

# Another Sinvest rig ahead of time

On-time on-budget execution of high quality projects is a hallmark of Keppel O&M. Drawing on the knowledge and expertise of its experienced people, Keppel tops its own benchmark to deliver *Deep Driller 3* to repeat customer, Sinvest ASA, ahead of time.

## Celebrating excellence for Sinvest

Keppel FELS has delivered another KFELS Super B Class jackup drilling rig to Sinvest one day ahead of contractual schedule on 6 November 2006.

*Deep Driller 3* has been contracted to Shell, demonstrating Shell's confidence in the rig and in Premium Drilling.

Evelynn Worum, Lady Sponsor and wife of Geir Worum, Chairman of Sinvest, named the rig *Deep Driller 3* at a ceremony on 14 October 2006 at Keppel FELS.

Bill Rose, President and CEO of Premium Drilling, shared at the ceremony that *Deep Driller 2*, which is currently operating for Brunei Shell Petroleum, is now on its fourth well with zero down time and no loss time incidents.

*Deep Driller 3* is the second of five KFELS Super B Class rigs that Keppel FELS is building for Sinvest. The first rig, *Deep Driller 2*, was delivered on time in April 2006.

Said Tomas Norrby, MD of Deep Drilling Invest, "The Super B Class was developed by Keppel FELS to meet our tailored

needs of reaching targets that lie much deeper than what we have experienced in the past.

"The enthusiasm and competence displayed by Keppel FELS in developing this unique design is remarkable. It also meets our expectations with regards to technical solutions and workmanship."

Said Keppel O&M Chairman & CEO, Choo Chiau Beng (CB Choo), "The naming of *Deep Driller 3* is also a celebration of a milestone in our successful partnership with our valued customer, Sinvest.



Lady sponsor (centre) Evelynn Worum, with key executives from Keppel FELS, Aban Offshore, Sinvest, Deep Drilling Invest and Premium Drilling, names *Deep Driller 3*

"I am proud to share that she will be yet another on-time and on-budget delivery, just like *Deep Driller 2*, when it was delivered six months ago. Construction of the other three rigs is also progressing well, according to schedule."

The KFELS Super B Class rigs are equipped with cantilever skid-off capabilities and a high capacity hook load of two million pounds for operations in high-temperature high-pressure wells.

Hailed as one of the world's deepest drilling rigs, they are capable of operating in water depths of up to 350 ft and high-pressure high-temperature deep drilling of down to 35,000 ft.

This design has been developed to meet the requirements of drillers for more powerful jackups as the search for hydrocarbons moves into harsher environments and deeper underground.

Bill continued, "From ensuring excellent safety standards to equipping the rig with leading edge technology, Keppel FELS has proven itself to be a world class designer and builder of rigs.

"Premium Drilling is extremely proud to operate *Deep Driller 3*. I believe that we have the best crew to operate the most technologically advanced rig."

### Topping its own benchmark

"The early delivery of *Deep Driller 3* affirms my belief that Keppel FELS is an organised shipyard with full facilities and very qualified workers.

"I am extremely satisfied with the project and I expect the same high quality standards, if not higher, for the next few rigs," said Tom Mikkelsen, Project Director of Deep Drilling Invest (DDI).

Sharing his deep impression of working with the experienced personnel from



**Thumbs up to a job well done – Tom Mikkelsen, Project Director of Deep Drilling Invest and Wong Fook Seng, GM of Projects, Keppel FELS**

Keppel FELS on *Deep Driller 2* and 3, Tom added, "When we first embarked on the *Deep Driller 2* project, we faced various challenges such as equipment availability and technical issues. The project teams from Keppel FELS and DDI worked well together and exchanged ideas to find the necessary solutions and overcome these challenges. We were impressed when *Deep Driller 2* was delivered."

With the high standards of quality and expertise set by the first rig, the task of building *Deep Driller 3* became substantially more challenging.

Even so, the Keppel FELS team performed to expectations as Mikkelsen shared, "Keppel FELS had an uphill task of maintaining the high standards it had set for itself after delivering *Deep Driller 2*. Despite being a repeat of *Deep Driller 2*, the Keppel FELS engineering team made significant operational improvements to *Deep Driller 3*'s safety features.

"Such is the emphasis on functionality by the Keppel FELS engineering team that sets Keppel FELS apart from being a simple yard that builds, to one that designs and provides solutions."

### Registering DD3 in Singapore

*Deep Driller 3* will be the first offshore jackup drilling rig to be registered in Singapore since the Maritime and Port Authority of Singapore (MPA) opened its Singapore Registry of Ships (SRS) to include offshore industry mobile units in January 2005.

Captain Khong Shen Ping, Director (Shipping) of MPA, shared the significance, "We are certainly pleased that Sinvest has chosen to flag *Deep Driller 3* with Singapore. This is a strong testimony to the confidence of the international maritime community in the SRS as a quality flag."

"Keppel FELS played an instrumental role in the registration process. It served as an expert intermediary that clearly understood the needs and concerns of its customer, as well as the high quality standards required by the SRS. Keppel's established global reputation for quality workmanship and strong technical know-how provided added reassurance on the rig's safety standards."

*Continued on page 8 ►*

# Interview with Bill Rose

Bill is President and CEO of Premium Drilling. He shares his thoughts with *OffshoreMarine*.

**Q: Both Deep Driller 2 and 3 have been contracted by Shell for drilling operations. What do you think is the winning combination between Keppel and Premium Drilling that has attracted Shell as a repeat customer?**

Shell is a very informed buyer; they are knowledgeable of both drilling equipment (including complete rigs) and drilling services. Shell knows how great equipment, safely and properly operated, adds value to their well construction programmes. The integration of top tier equipment and premium services is very attractive to Shell.

**Q: How would you describe the partnership between the project teams of Deep Driller 3?**

To understand the dynamics during the construction, you need to look at the three project teams from Keppel, DDI and Premium Drilling. The tripartite partnership between these organisations is the secret to the success we enjoy at delivery. The system of continuous improvement that all three parties has developed provides real time implementation of changes (reducing or eliminating adverse schedule or commercial impacts) that benefit everyone.

**Q: You mentioned how the yellow anti-slip strips on the steps of Keppel-designed rigs as one of the safety details that Keppel paid attention to, had impressed you. What are the other built-in safety features of the rig that you feel make a difference to ensuring crew safety during drilling operations?**

The range of safety details runs from proactive development of rig technology jacking and leg system instrumentation to providing fall protection, anti-skid surfacing, and removing trip hazards. Even seemingly minor details such as clear and resilient labelling of valves and

gauges are critical to our safe operation of the rigs.

**Q: How much real difference do these small details make?**

The difference between success and failure. With up to 120 rig personnel onboard, we are involved in literally thousands of small operations everyday. Each of these operations has the potential to cause injury or even damage the equipment. By continuously focusing on details, we eliminate hazards in the vessel (Keppel and DDI) and eliminate hazardous behaviours in the personnel on board (Premium Drilling).

**Q: What other features of the KFELS Super B Class rig impress you?**

The integration of a thoroughly modern drilling system into a very practical hull design is its most impressive attribute. While the capacity of the drilling system (2 million pound drilling load) speaks for itself, the less obvious features are how this system is designed and installed within the hull to be very workable.

**Q: What do you think are the current and future challenges facing the industry, especially for drilling contractors?**

Personnel issues will be one that everyone talks about. But, this is only a piece of the challenge. Today, E&P companies are drilling in ever more challenging (and expensive) wells through the use of very sophisticated well construction technology and tools. These tools are typically deployed via the drilling rig. The challenge facing drilling contractors is to develop the personnel and systems to control the work onboard. This requires sophisticated management systems and intellectually capable personnel to operate them.

**Q: How do you think rigs like the KFELS Super B can help drilling contractors meet and overcome these new challenges?**

The technical capability of the rigs is a clear benefit and one that is easily

measured. However, the construction quality and attention to detail are more subjective and difficult to measure. The Super B is a crew friendly design that allows the Premium Drilling personnel to focus on serving our customer and drilling the well safely without having to "work around" construction issues.

**Q: Why is it important for technology used in offshore drilling to be leading edge?**

That is so important, but rather than "leading edge", I would use a term like "modern, capable and appropriate". At Premium Drilling,

- 1) we have a responsibility to everyone on our rig that they have a safe place and system of work that will allow them to complete their job injury free.
- 2) we have a responsibility to our host communities to operate in a 100% environmentally responsible manner with the smallest possible environment footprint.
- 3) we have a responsibility to our customers to execute their drilling programmes in an error free and cost effective manner.
- 4) we have a responsibility to our owners to create a return on their investment.

Without modern, appropriate and capable technology, we cannot deliver on those responsibilities.

**Q: Why is on-time delivery so critical in today's market?**

We have made huge investments in the rig. If it is delivered late, we will have trouble delivering on our economic plans. Our customers make commitments to their government and people that they will deliver their energy needs on a specific date. The rig is a critical part of meeting that date, and it must be ready and completed on time.



(From left) CB Choo, Lim Boon Heng and Mohammed S Al-Shirrawi inaugurated the jackup drilling rig, *Al-Khor*, on 24 November 2006



# Sterling start to a long term relationship with Gulf Drilling

**K**eppel FELS has delivered its first jackup drilling rig to Qatar's national drilling company, Gulf Drilling International Ltd (GDI), ahead of time on 7 December 2006.

Speaking at the delivery ceremony for the *Al-Khor* offshore jackup rig on 24 November 2006, Mohammed S Al-Shirrawi, Chairman of the Board of Directors of GDI and Finance Director of Qatar Petroleum, said, "This achievement would not have happened without the high commitment, deliberation and dedication from all parties involved in this project."

He said his company plans to increase its fleet of jackups in the next 10-15 years.

"We are hoping to have a long-term arrangement with Keppel," he added. "We already have an excellent impression of their achievements. I think it is worth having a long-term relationship with them."

CB Choo said, "Keppel is proud to partner GDI on its quest to provide premium

drilling services to the oil and gas industry in Qatar and the region.

"The early completion of *Al-Khor* reflects Keppel's commitment to play a part in the development of Qatar. It represents our promise to deliver high quality products and services on time and on budget."

Lim Boon Heng, Minister, Prime Minister's Office of the Republic of Singapore, who graced the rig's inauguration ceremony, said, "This event marks Keppel's completion of this premium rig for GDI, the first major Singaporean project to be accomplished successfully for Qatar.

"It showcases Singaporean companies' dedication and commitment to deliver quality products and services. This is significant in further strengthening the warm relationship that is growing between companies in Singapore and Qatar.

"We hope that with GDI and Keppel FELS' sterling example, more companies from both countries will be encouraged to engage each other in business."

Built to Keppel's proprietary KFELS B Class design, the rig is named *Al-Khor* after one of Qatar's historical cities, which has contributed to the development of Liquefied Natural Gas (LNG) in the country in recent years.

*Al-Khor* has been built to GDI's specifications for operations in water depths of up to 300 ft and drilling depth of down to 30,000 ft. The rig can accommodate up to 110 men and is readily upgradeable for higher drilling capabilities in water depths of up to 400 ft.

When delivered, it will contribute to the development of Qatar's LNG industry, as the state strives towards being the world's largest LNG exporter by 2012.

Qatar is ranked the most competitive country in the Arab world, according to the World Economic Forum. The country's trade with Singapore has risen 14 per cent to \$4 billion in 2005 from \$3.6 billion in 2004. Minister Lim said, "We expect this to further grow in the years ahead as ties between Qatar and Singapore continue to deepen."

# Fifth drilling tender completed

**K**eppel FELS has successfully delivered the semisubmersible drilling tender (SSDT), *West Berani*, on time to SeaDrill Asia in December 2006.

With the completion, Keppel has also divested its entire 72% interest in the rig.

In May 2005, Keppel FELS entered into an agreement with SeaDrill Asia, formerly Smedvig Asia, to own and operate the SSDT. SeaDrill Asia had the option to acquire Keppel FELS' interest in the rig upon completion.

*West Berani* is the fifth deepwater tender drilling rig that Keppel has built for SeaDrill Asia since 1994. The first of the series, *West Pelaut*, was the world's first purpose-built SSDT for tender-assisted drilling.

*West Pelaut* has been voted platform rig of the year out of a fleet of 13 such rigs working for Shell. The key performance indicators were records for safety, successful operational performance and consistent long-term performance.

Drawing from the initial design of *West Pelaut*, three more state-of-the-art SSDTs, *West Menang*, *West Alliance* and

*West Setia*, each with increased variable deckloads, were subsequently built.

Developed by the Deepwater Technology Group (DTG), a R&D arm of Keppel O&M, under the KFELS SSDT design, this series of tender rigs has been operating successfully in Asia Pacific and West Africa.

Conventionally, drilling tenders are only deployable next to fixed platforms. The KFELS SSDT series has been enhanced to provide drilling contractors and operators the flexibility to operate in deepwaters alongside Spars and Tension Leg Platforms (TLP).

A typical SSDT carries a Drilling Equipment Set (DES) and has high capacity cranes of up to 200 tonnes to deploy this DES onto the platforms within 12 hours. It also provides storage and accommodation facilities for up to 140 men.

*West Berani* has been contracted by the consortium of Esso Production Malaysia Inc, Newfield Malaysia and Nippon Oil, for a period of two years. It will be deployed off Kuantan, in East Malaysia.

The rig was named by Cory Robinson,

Lady Sponsor and wife of Mr Kevin Robinson, Country Manager of Newfield Malaysia and Guest-of-Honour, on 9 December 2006.

Said Robinson at the ceremony, "We are pleased that *West Berani* is delivered on-time despite current market conditions so that she can be deployed as planned. Our fields in Malaysia may have shallow wells, but they are not easy and certainly need a good rig to do this job."

Attributing the project's success to SeaDrill and Keppel's good relations, Kjell Jacobsen, CEO of SeaDrill Management, said, "Although the level of activity in the yard is the highest ever, it is with pride that we are able to bring a new rig to the market as planned, within budget, to the agreed quality and with the highest safety standards.

"Things are generally easier with the people you know and have learnt to trust. Trust and confidence is something that we only can earn and build over time and that is the case between Keppel and SeaDrill."

Keppel FELS had earlier delivered one KFELS B Class jackup, which is gainfully deployed in West Africa, to SeaDrill.



# Svetlyy sweetly delivered



M.V. *Svetlyy* bids a sweet farewell to Keppel Singmarine, its home for the last 17 months. Seen here are Hoe Eng Hock; Cherkasov Gennady, Marine Inspector of Lukoil Kaliningradmorneft; Charles Foo, Chairman of Keppel Singmarine; CB Choo; Lady Sponsor Rozhkova Alina Yuryevna; Victor Velikov; H.E. Rozhkov Andrey Nicolaevich; Mr Levintas Georgy Mikhailovich, Director of Technological Fleet Department, Lukoil Kaliningradmorneft; and Teo Soon Hoe, Group Finance Director of Keppel Corporation

The AHTS, M.V. *Svetlyy*, was completed ahead of schedule for Lukoil Kaliningradmorneft (Lukoil), a subsidiary of Russia-based LUKOIL Oil Company, and to their satisfaction.

Keppel Singmarine celebrated the naming of its first ice-class AHTS vessel on 18 December 2006.

Rozhkova Alina Yuryevna, wife of His Excellency Rozhkov Andrey Nicolaevich, Russia's Ambassador to Singapore, had the pleasure of becoming the godmother and sponsor of the vessel at a ceremony at Keppel Singmarine yard.

The vessel is named after a town in Kaliningrad where many of Lukoil's employees come from.

CB Choo said, "This demonstrates how much Lukoil regards and appreciates its people, a value that we at Keppel also share."

CB Choo added, "Our relationship with Lukoil started a couple of years ago when they were looking for a shipbuilder for its new ice-class AHTS vessel. Keppel Singmarine's extensive track records and capabilities proved suitable to meet their requirements, and the discussions soon led to the award of the first contract in end-March 2005.

"Through the success of this project, Lukoil ordered another AHTS, two ice-breakers and a FSO unit. The series of orders clearly demonstrates the trust and confidence Lukoil has in Keppel Singmarine."

Victor Velikov, Deputy General Director of Lukoil, said, "Keppel Singmarine and LUKOIL have been good friends and strong partners and we certainly have a long road ahead in our cooperation. I am absolutely sure the vessels built by your shipyard for our company will be plying the seas for many years ahead."

Jointly designed and developed by Robert Allan Ltd of Canada and Keppel's design arm, Marine Technology Development, M.V. *Svetlyy* will be deployed in the Northern Caspian Sea region to service Lukoil's offshore projects. She will be able to operate in cold weather conditions of minus 20 degrees Celsius in ice thickness of up to 70 cm.

M.V. *Svetlyy* is the first in a series of five vessels that Keppel Singmarine is constructing for Lukoil. The other four vessels include a repeat order of the 60-tonne bollard pull AHTS, two ice-breaking supply vessels and a FSO unit that was recently awarded (see page 3). These vessels are scheduled for delivery between mid-2007 and the first quarter of 2009.

# Steady progress on Petrobras projects

Excellent project execution is a top priority at all Keppel yards. In doing so, we keep to the promise of on-time on-budget deliveries. Here are updates on two mega projects that Keppel O&M is undertaking for Brazilian national oil company, Petrobras, in Singapore and Brazil.

## P-53: LIFTING OF TURRET

**R**unning like clockwork over three separate days, the lower turret, bogie and upper turret of the Floating Production Unit (FPU) unit, P-53, were installed successfully, after many calculations and precise measurements by the project teams from Keppel Shipyard and Petrobras.

In a feat of lifting the 1,650 tonne lower turret on 29 November 2006, the Keppel Shipyard team gave no let-up in keeping the project on schedule, even in the midst of a threatening storm which gave way to clear skies eventually.

The same procedure was followed the next day in the lifting and installation of the 750-tonne bogie. The production unit's upper turret, weighing 1,466 tonnes, was installed eight days later, amidst cheers from both project teams.

Previously known as VLCC Settebello, P-53 is undergoing a hull conversion, which includes the installation of a marine system as well as the fabrication and integration of the internal turret on the 322,446 dwt tanker.

With 75 risers, the P-53 turret will be the largest ever fabricated and installed in the world and will be due for the Marlim Leste field in the Campos Basin.



Excellent execution during the lifting and installation of the upper turret for P-53



Representatives from Keppel Shipyard, Petrobras and Bureau Veritas during the installation of the lower turret

## P-51: MATING OF 'C' SECTIONS

With a splash and at a click, the lower hull of *P-51* became one.

This magnificent feat took place on 28 November 2006, when the two 'C' sections were successfully integrated.

Tay Kim Hock, President of Keppel FELS Brasil, shared, "The integration of the two sections is an important milestone for the BrasFELS yard and Brazil's offshore industry.

"It also marks the success in the transfer of technology between Singapore and Brazil."

When Keppel FELS undertook the mating of the two sections for sister vessel, FPU *P-52*, in Singapore in July 2005, the Brazil team was on the ground to observe and understudy the integration process.

Adopting the same concept of temporary cofferdams, planning for *P-51*'s integration started almost immediately. A plan was developed and tested virtually before actual execution.

And so it was on 12 and 23 November 2006 that the two 'C' sections were launched respectively from the slipway, before the much-anticipated integration on 28 November 2006.

It was a sight to behold since this was the first time such an operation was executed in Brazil.

In a press report, Brazil's Secretary of Energy, Marine Industry and Petroleum, Wagner Victer, revealed that the mating of the two structures was an unprecedented first in the history of the Brazilian naval and offshore industry. It also demonstrated the technical skills and capabilities of the shipyard.

With the participation of Keppel FELS Deputy Shipyard Manager TT Low, who worked hand-in-hand with the Brazilian operations team in accomplishing this milestone, the mating took place with clock-work precision.

Low shared, "My main role in Brazil was to assist our Brazilian colleagues in the integration of *P-51*, since I was part of the team that saw through the mating of the *P-52* lower hulls. Together with my Brazilian counterparts, we had to anticipate problems before actual execution, so as to ensure that the entire operation was carried out effectively and efficiently.

"To the team at BrasFELS – Parabens! (Congratulations in Portuguese)"



The lower hull of *P-51* becomes one

# First PEMEX integrated offshore hotel completed ahead of schedule

The Keppel SLP Consortium has completed the onshore construction of two 220-crew accommodation platforms for PEMEX Exploración y Producción, a subsidiary of Mexican national oil company Petróleos Mexicanos (PEMEX), ahead of contractual schedule.

Apart from the earlier ex-yard delivery, the Keppel-led Consortium accomplished three significant achievements for PEMEX in the design, engineering, procurement, construction and offshore commissioning of this first Mexican project for Keppel O&M. They are:

1. The HA-KU-M and HA-KU-S platforms will be the first fully integrated accommodation units in offshore Mexico. The entire living quarters and the machinery decks were built as a single unit at Keppel AmFELS yard instead of two separate modules as was traditionally carried out in Mexico. This construction method reduces the offshore commissioning time, therefore saving considerable time and cost for PEMEX.
2. The design is very well optimised and weight control has been very successful. Each platform has achieved an efficient weight of about 3,300 metric tonnes, which is more than 100 metric tonnes below the contractual weight.
3. The builder of the platforms, Keppel AmFELS, registered sterling safety record of zero loss time, zero incident for the total of one million manhours in the construction of each platform.

Chow Yew Yuen, President of Keppel O&M (USA) and head of the Consortium,

said, "This project reflects the Keppel SLP Consortium's commitment to add value to PEMEX."

"The construction of these two accommodation platforms has provided Keppel a better understanding of the Mexican offshore market and of our customer, PEMEX. I am confident that the experience gained from this project and Keppel's strategic location in the Gulf of Mexico, will give us a good foothold in this very important market."

Mexico is the world's third largest

producer of crude oil, and its national oil company, PEMEX, ranks the eighth largest integrated oil company in the world. Oil reserves and production in its shallow water fields have been on the decline for PEMEX in recent years. The company is now actively seeking to work within the country's strict legal framework to engage in more deepwater play.

Chow added, "The recent scenario in Mexico presents an opportunity for Keppel Offshore & Marine to build up our credentials with PEMEX as a choice solution provider in the design and construction of rigs to meet their needs



for more offshore exploration and production."

Platforms HA-KU-M and HA-KU-S were loaded onto their carrier barge from Keppel AmFELS on 13 October 2006 and 29 November 2006 respectively. They are due for the Ku-Maloob-Zaap (KMZ) field in the Bay of Campeche, Gulf of Mexico, for hookup and commissioning, which is expected to be completed by early-2007. Production in the KMZ is on the rise, and PEMEX is focused on increasing its output by around 100% by the end of the decade.

Manuel Diaz Lara, "Residente" (Project Manager) of PEMEX, "Our experience with the Keppel SLP Consortium is very good. They are a very professional and committed team. We are extremely pleased with the quality of the platforms delivered by them. Both units were completed and tested to our satisfaction."

The contract for the two platforms was secured in end-2004 by the Consortium led by Keppel O&M USA.

**At every stage from construction to departure and installation of the accommodation platforms, the Keppel SLP Consortium delivered on its promise of a quality project, on time and on budget**

Other partners are SLP Engineering Ltd, Gulf Island LLC and Keppel AmFELS Inc. Keppel O&M has a 60% share of the consortium through its wholly-owned subsidiaries, Keppel O&M USA and Keppel AmFELS. Keppel AmFELS has also built a jackup drilling rig, TONALA, a KFELS B class, for Perforadora Central for service with PEMEX, in early-2004.

Based in the UK, SLP Engineering Ltd is a market leader in selected energy and utilities markets. Its main activities are in accommodation platforms and minimal facilities platforms for offshore oil and gas operations. SLP Engineering has undertaken the EPC contract of the last seven accommodation platforms in Cantarell Field for PEMEX.

Based in Louisiana State, Gulf Island LLC is a world leader in the fabrication of jacket and drilling & production platforms, as well as other specialised structures used in the oil and gas industry.

◀ Continued from back page

## Launch of innovative KFELS N Class

CB Choo commented, "Keppel's decision to have an equity stake in the rig demonstrates our confidence in the KFELS N Class design, as well as the current jackup rig market. We believe that the design is a technically advanced rig that can meet customers' needs in harsh offshore environments."

Bjarne Skeie, Chairman of Skeie Group, said "New technologies and more innovative rig designs are making development of marginal fields in the North Sea commercially viable. We are glad to be able to engage Keppel O&M right from the on-start of our concept development."

"Our partnership with Keppel has borne fruit in the development of the KFELS N Class rig, which we believe will set new benchmarks for the next generation of jackup rigs. This rig can drill deeper and drill more wells, with easily added on production functions."

"Keppel FELS' ability to develop innovative solutions and to consistently deliver on its promise through excellent project execution in the current tight construction capacity situation makes them second to none in their market."



Expert project execution is key in ensuring milestones are achieved as scheduled and projects are delivered on time, amidst a bustling yard



## Charting key milestones

When the going gets tough, the tough gets going. This aptly describes the tenacity of Keppelites at Keppel FELS working in the yards to keep Keppel's promise of on-time and on-budget deliveries, notwithstanding an unprecedented order book.

In the two months of November and December 2006, six projects achieved their respective milestones of strike steel and keel laying on schedule.

Adding to the list of milestones attained, three other projects earned their two million manhours without any loss time incidents (LTI).

Strike steel is the beginning of physical work on a project after the initial engineering phase.

Following the strike steel milestone is keel laying. It is symbolised by the placement of the rig's first structure on keel blocks, marking the start of hull assembly phase.

### STRIKE STEELS

*Deep Driller 6, Discovery I and Maersk semi no.2* struck steel, all in a span of two weeks.

*Deep Driller 6* struck steel on 1 December 2006. When completed, it will be the fourth KFELS Super B Class jackup rig Keppel FELS has built for customer, Sinvest.

Holding a similar ceremony on the same day, was *Discovery I*, a KFELS B Class jackup rig for customer Discovery Drilling

Pte Ltd, a wholly-owned subsidiary of Jindal Drilling & Industries Ltd. *Discovery I* was the first Indian contract Keppel FELS secured.

On 15 December 2006, *Maersk semi no. 2* struck steel. The rig is the second of three semis Keppel is building for Maersk.

### KEEL LAYINGS

GlobalSantaFe's (GSF) MSC-DTG DSS 51 semi laid keel on 25 November 2006 followed by Diamond Offshore's *Ocean Shield* and Awilco's *WilBoss*, on 5 December 2006.

On achieving this milestone, Pete England, Awilco's Project Manager for *WilBoss*, commended, "This is a



Congratulating each other on a milestone achieved are Keppel FELS Senior Project Manager, Keith Teo (right) and GSF's Project Director, Bob McKechnie



Celebrating a record safety achievement are Keppel FELS project team, led by Senior Project Manager, KC Kwok (centre), and the Maersk project team led by Kaj Kristensen, Senior GM (left – in blue) and Erik Madsen, Site Manager (right – in blue)

remarkable achievement considering the ever increasing pressure of today's rig building programmes.

"With longer lead times required to receive various equipment for the rig, it is more difficult to deliver the necessary milestones on time.

"Congratulations to the Keppel FELS team who made it happen despite the odds."

Sharing the same sentiments is Bob McKechnie, GSF's Project Director for MSC-DTG DSS 51 semi. He said, "From the project outset, Keppel FELS has

demonstrated their ability to maximise yard capacity and keep progress on track despite the huge workload that is presently underway in the yard.

"Together with Keppel FELS, we have worked hard to achieve a single team approach and share a common alignment to the project. This is what gives us the confidence to say that the outcome of the project will be a success."

safety excellence are the three safety awards that were presented to various projects.

*Maersk semi no.1* and *Maersk jackup no.1* each received an award for two million manhours without LTI. These milestones came shortly after they each achieved its first million in September 2006.

Kaj Kristensen, Senior GM for Maersk Contractors, said, "Keppel FELS took up the challenge of being committed to safety and is successful in doing so in its yards worldwide. You have managed to achieve a total of four million manhours without any LTI on two projects. Well done!"

Also achieving two million manhours without LTI is *West Prospero*, for customer SeaDrill.

As the project moves into its final phases of construction, SeaDrill Project Manager John McMullen urged everyone to stay vigilant and keep safety top priority despite the heavy workload.

He said, "It is not an easy thing to maintain high safety standards when we are moving at a pace like this. Moving into the final phase of the project, we must take care and take time to step back and observe safety despite the pressures of delivering on time."



Project teams of Keppel FELS and Discovery Drilling place flowers on Discovery's steel plate to herald blessings for a smooth project

# Making safety tops

"Safety first!" is a key practice across the Keppel Group. We strive for all our people – staff, partners, customers, vendors and contractors – to go home safe and sound everyday.

## Good safety, good business

A global business requires a world-class safety culture.

This message was emphasised at the workshop, "Creating a safety culture", held for the board of directors, senior management personnel and safety managers across the Keppel Group.

The seminar was initiated by Keppel Corporation's Board Safety Committee, and conducted by external consultant, DuPont, which is reputed for their safety culture and rigorous training.

The DuPont motto is 'good safety equals good business' as they engage in their day-to-day business. DuPont's research and experience revealed that up to 96% of process and personal accidents and injuries are caused by unsafe acts and behaviour, and not by conditions and equipment.

DuPont communicated on how they focused on preventive best practices and proven technologies to protect people, property, operations and the environment.

The DuPont trainers methodically drilled down on different levels of safety consciousness, beginning by igniting each participant's passion for a safety culture to encouraging all to take part in the culture change.

Taking participants on a journey to a safety culture, DuPont exposed our human instinct for safety and demonstrated how we can move on from there to become an interdependent team, each caring for other's safety.

At the end of the workshop, Keppel Corporation Executive Chairman, Lim Chee Onn, who participated in the full day's programme, said that he had put himself on the Safety Board Committee, which underscored the importance he placed on developing a safety culture across the Keppel Group.

Expressing his appreciation of the trainers, he said, "The ideas and content shared with us showed that much thought had been put into them. You have prompted us to think deeper on what we can do for safety."

"You have helped us understand what our role is as individuals, and as a collective what it means to cultivate a safety culture."

"We shall be relentless in promoting the culture of safety. We will do whatever it takes to implement safety regulations."

## Safety benchmarks by Keppel yards

A safe and healthy workplace translates into good and profitable business.

Lee Tzu Yang, Chairman of the Workplace Safety and Health Advisory

Committee (WSHAC), shared this at the inaugural WSH Awards ceremony on 24 November 2006.

The annual event, co-organised by the Ministry of Manpower and WSHAC, gives recognition to companies that have achieved excellent performances through sound and effective management of WSH issues at their workplaces.

This year, 133 companies from major industry sectors, including oil and gas, construction, manufacturing and academia were honoured. Dr Ng Eng Hen, Minister for Manpower and Second Minister for Defence, graced the ceremony, aptly themed 'Celebrating the Best'.

At the ceremony, Keppel bagged seven out of nine Silver awards in the Marine category. The awards are for:

- Keppel FELS – TPG 500 (Production rig)
- Keppel Shipyard (Tuas) – FPSO Berge Helene (FPSO conversion)
- Keppel Singmarine – SMIT Nicobar (AHTS)
- Keppel Singmarine – HADI 20 (AHTS)
- Keppel Singmarine – Maju Star (Tugboat)



- Keppel Singmarine – Maju Sun (Tugboat)
- Keppel Singmarine – Bourbon Astyanax (AHTS)

Congratulating the award recipients, Dr Ng encouraged companies to remain vigilant. He said that each accident or death is preventable, and that the safety mindset needs to be inculcated in every employee and worker.

Indeed, safety tops the agenda at Keppel O&M, as CH Tong shared, "We want everyone who comes to work to go home safe. Fatality is a waste of resources. That's why we aim for zero accidents, zero loss."

In the last 10 years, safety standards at Keppel O&M have improved significantly. At end-2005, its Singapore shipyards recorded a 10-year low of 1.62 and 39 in accident frequency and severity rates respectively. This was lower than the industry rates of 2.8 and 175 respectively. These rates measure reported accidents per one million manhours worked.

Organised in conjunction with the ceremony was the Innovation for Occupational Safety & Health Awards, which encourages the development of creative ideas that help improve workplace safety and health.

*Juggernaut*, from the Electrical division of Keppel Shipyard (Gul), was recognised for their innovation, 'Electrical Continuity & Polarity Test'.



## Taking ownership of safety

Employees of Keppel Shipyard have taken safety in their own hands with the launch of the Workforce Safety Council (WSC).

Comprising entirely of employees at the workers level, the Council formed on 13 November 2006 is a safety initiative "for the workers, by the workers".

With that as its motto, the council's objective is to create a safe and healthy workplace for each personnel in the yard through the provision of a communication platform for feedback, dissemination of management's expectations and encouragement of positive work behaviour.

"This workforce safety initiative where employees on the ground level share best practices for safety and a communication proxy between workers and management was initially on trial in Keppel Shipyard (Benoi) about a year ago. It has taken off extremely well and thus, the WSC was launched with management's support," shared Chin Sze Kiong, HSE Manager of Keppel Shipyard.

Showing their support to the WSC, Abu Bakar, GM (Operations) of Keppel Shipyard; Zulkifli Mohamed, Advisor to Keppel Employees Union (KEU), and Mohamed Yusop Mansor, President of KEU officially launched the WSC.

Abu Bakar said, "For safety to succeed we need ownership and support from workforce. This initiative by the workers speaks volume of their ownership, dedication and commitment to safety."

**For the Keppel O&M project teams, it's Can Do! to safety and innovation**

Highlighting the importance of the WSC, Zulkifli said, "The WSC must continuously monitor and ensure that safety is adhered to at the workplace. Safety is everyone's business."

With 8,000 employees working within the Keppel Shipyard group, the WSC provides extra reinforcement to the ongoing vigilance over safety.

CH Tong said, "I am excited and happy that workers are taking the initiative and ownership to set up this council to further improve safety in their workplaces. I am looking forward to seeing the initiatives they come up with."

## Model for safety

Keppel O&M's unwavering commitment to achieving the best of industry standards in safety has once again been recognised.

"Keppel, being a large conglomerate, should serve as a role model for other companies. After today's visit, it is obvious that this is being done and Keppel is clearly a leader in Health, Safety and Environment (HSE) programmes for its industry", shared John Henshaw, former Occupational Safety and Health (OSH) Administrator for the US.

Henshaw is also one of six members of the International Advisory Panel (IAP) for OSH invited by Singapore's Ministry of Manpower (MOM) to evaluate and enhance the ministry's strategies for OSH, so as to achieve the standards of European nations where there are zero accidents.

As part of their three-day programme in Singapore from 31 October to 2 November 2006, the advisors toured Keppel FELS to gain an insight into the working environment in local shipyards. They also visited Keppel O&M's training centre for specialised trades.

*Continued on page 20 ►*



Exchanging pointers on safety are, (from left) Dr Jukka Takala, Director, International Labour Office and IAP Member, John Henshaw, Ho Siong Hin, CB Choo and Dr Walter Eichendorf, Deputy Director-General, German Federation of Institution for Statutory Accident Insurance and Prevention and IAP Member

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Prior to touring the yard, Ho Siong Hin, Divisional Director, OSH, MOM, addressed members of the panel as well as Keppel O&M's senior management and HSE Managers.

He shared, "Although Singapore has been able to maintain very low accident frequency rates, it is never low enough until we achieve zero accidents."

He also thanked Keppel for accepting the invitation to host the shipyard visit and he felt that it was the most appropriate to do so as the group has been very forward looking in the area of OSH and sets a good example for the rest in the industry.

Citing an example to Ho's observation, CB Choo shared that the group's effort in HSE was not confined to Singapore. The drive to achieve high HSE standards was communicated and enforced in overseas yards such as the Keppel FELS Brasil yard, where it recently achieved more than six million manhours without lost time incidents on the two Petrobras projects, P-51 and P-52.

"This achievement is testament to Keppel's dedication to continuously improve safety standards not only in Singapore, but all our yards across the world", CB Choo shared.

## One Keppelite, double kudos

In recognition of his contributions to the nation and industry, Senior HSE Manager of Keppel Shipyard, Mohd Aliffi Ismail was conferred two awards by SPRING Singapore and the Association of Singapore Marine Industries (ASMI).

The Standards Council Merit Award 2006 was awarded to him by the Standards, Productivity and Innovation Board, otherwise known as SPRING Singapore, for his significant contributions to the national standardisation programme.

In a letter to Aliffi, Teo Nam Kuan, Group Director, Quality and Standards, SPRING Singapore wrote, "The success of the national standardisation programme is due, in

no small measure, to the strong support and contribution of many professionals and technical experts like you, who have volunteered time and service tirelessly for the development of standards and promotion of the standardisation programme to help enterprises in your industry be more competitive."

The second award from ASMI was the Meritorious Silver Award presented to Aliffi in recognition both of his contributions to the ASMI Safety Committee and of his support to the Association since 1996.

"Achieving these awards is very heartening as it recognises the efforts of the contributors and encourages more members to make contributions to improve systems and processes within the industry", shared Aliffi.

He received the awards from SPRING Singapore and ASMI on 19 and 20 October 2006 respectively.



Aliffi (left) receives the ASMI Meritorious Silver Award from Michael Chia, President, ASMI and ED, Keppel FELS during ASMI's 38th anniversary dinner

# On-track with *Offshore Courageous*



*Offshore Courageous* takes to the water at Keppel AmFELS

**K**eppel AmFELS is expected to deliver the first of its five jackup rigs on time and within budget for Bermuda-based Scorpion Offshore.

The premium rig, *Offshore Courageous*, was successfully launched on 4 November 2006 at Keppel AmFELS. The launch marked the completion of the hull works, a major milestone in its construction of the jackup.

Jon Cole, CEO of Scorpion Offshore, said, "The launch of *Offshore Courageous* is highly significant in the development of Scorpion Offshore. Thanks to the efforts of the entire Scorpion team, particularly our Brownsville construction office, as well as our shipyard, Keppel AmFELS, and our major suppliers, LeTourneau, National Oilwell Varco, Cameron and Lewco. We remain on track for an on-time on-budget delivery."

The *Offshore Courageous* will now undergo final outfitting, including the installation of drilling equipment and remaining leg sections and commissioning, prior to the rig's delivery in May 2007.

Ho Cheok Yuen, President and CEO of Keppel AmFELS, said, "We are committed to our delivery schedule for *Offshore Courageous*, and I am pleased that we are progressing as planned for our first rig for Scorpion Offshore.

"Fabrication of the other four Scorpion rigs is also on course as scheduled. We expect to begin progressive delivery of the five jackup rigs beginning with the second quarter of 2007."

The other four Scorpion rigs are named *Offshore Defender*, *Offshore Resolute*, *Offshore Vigilant* and *Offshore Intrepid*.

All five rigs are built to the LeTourneau Super 116 design, with leg lengths of 477ft. Suited for both international operations as well as deep gas drilling in the Gulf of Mexico, the rigs are capable of drilling wells down to 30,000ft in water depths of 350ft.

Apart from the five Scorpion rigs, Keppel AmFELS is also constructing a sludge vessel for the City of New York; a KFELS Super B Class jackup rig *Ocean Scepter* for Diamond Offshore; and a LeTourneau Enhanced S116 jackup rig *Atwood Aurora* for Atwood Oceanics.

# Keppel Batangas delivers first offshore project ...

Keppel Batangas charts another milestone with the on-time delivery of its first offshore project, the lower pontoon of the semisubmersible drilling platform, ENSCO 8500, on 15 December 2006. This is also the first offshore project to be undertaken by a Philippine shipyard.

The project, which commenced in January 2006, was launched into Batangas Bay during a ceremony witnessed by project teams and representatives of ENSCO International (ENSCO), Keppel FELS, Keppel Batangas and the local government and unions.

"ENSCO congratulates Keppel Batangas shipyard. We want to emphasise the importance of these pontoons being built on-time. This is very important for ENSCO as we go forward, in being one of the big operators in the world," said Alex Wilberger, GM of ENSCO.

Kok Boon Heng, President of Keppel Batangas, added, "We salute all the teams

that worked on this project because of the extreme challenges due to its planning, engineering and material requirements. Not only did we finish the project on time, we also completed it without any loss time incident (LTI)."

The lower hulls of this ultra-deepwater semisubmersible (DPS2) drilling platform arrived in Singapore on 30 December 2006 and 7 January 2007 respectively. The lower hull pontoons will be joined with its upper blocks by Keppel FELS.

**... and achieves safety milestone for another**

Meanwhile, Keppel Batangas has also achieved a significant safety record in the construction of the lower hull pontoons for semi *Development Driller 3* for GlobalSantaFe Corporation (GSF).



The project teams from ENSCO, Keppel Batangas and Keppel FELS celebrate the moment

The achievement is for 100,000 manhours without any LTI.

"Congratulations on surpassing the 100,000 manhours milestone! That is a terrific achievement and one that does not come easily," commended Jason Montegut, Senior Project Manager of GSF.

Attributing this to the strict safety culture in the shipyard, John added, "In looking

back and seeing the strides the yard has taken over the last few months, it is no wonder the safety record was achieved.

"Since my last visit to Keppel Batangas, I have noticed significant improvement in the level of commitment to safety and am encouraged that this will continue."

Construction and fabrication of the portside lower hull pontoon sections for *Development Driller 3* started in August

2006. The next stage will involve completion of erection, vacuum and air testing, internal grit blasting, followed by piping and outfitting installation.

Shared Boon Heng, "This achievement is made possible by the collective efforts and safety consciousness of the project teams of GSF, Keppel FELS and Keppel Batangas. We shall continue to work closely in ensuring a safe and clean working environment and an incident-free culture in the organisation.

"We endeavour to deliver the project on-time in mid-April 2007 to the highest safety and quality standards."

The yard is also undertaking the construction of another semi, *ENSCO 8501*. Keppel Batangas has earlier embarked on a yard facility upgrade in order to take on more offshore work. This included the construction of two panel line systems, a block assembly facility with mobile sheds, two blasting halls and acquisition of heavy-lifting equipment and transport systems. It has also been increasing its workforce and enhancing its training programmes for offshore-related work.



Keppel Batangas is not resting on its laurels as it strives to deliver the semi, *Development Driller 3*, on-time and safely

## Charting new waters

**K**eppel Singmarine set new milestones with two vessel launchings and two strike steel ceremonies in October 2006.

Hadi H. Al-Hamman Establishment (Hadi) saw the ninth out of their 13 orders with Keppel Singmarine since 2001 enter the water on 26 October 2006. The *H304* vessel is a 60-metre anchor handling tug and supply boat.

On the same day, two of Lukoil's multi-purpose auxiliary ice-breaking vessels struck steel as Keppel Singmarine

kept on track with their turnkey projects.

One of the Lukoil's vessels, the *H328*, measures 100 metres long and is able both to work in temperatures down to -40°C and to proceed through 1.7 metres of level ice with 20 cm snow cover.

*H327*, the other Lukoil vessel, is 81 metres long and can proceed through landfast ice of an unbroken thickness of up to 1.5 metres with 20 cm snow cover.

Just a day later on 27 October 2006,

another milestone was achieved when the *H297*, a 50-tonne Azimuth Stern Drive tug belonging to Keppel Smit Towage made a splash as it hit the water for the first time.

Designed by Marine Technology Development, Keppel Singmarine's R&D arm, the tug boasts two powerful Niigata 6L26HLX marine engines generating a combined force of 4,078 PS.

These milestones achieved at Keppel Singmarine reinforces its commitment to on-time delivery of all its newbuildings.

# Passion for performance

Keppel reaps the rewards of its drive for innovation and perfection with top accolades for its *P-51* and *P-52* projects. For the second consecutive year, Keppel FELS Brasil has its excellence recognised by Petrobras, Brazil's national oil company. On 18 December 2006, Petrobras awarded Keppel FELS Brasil the top prize for the Program of Development and Execution of Projects of Exploration and Production (PRODEP).



1 & 2: Applauding the workers of BrasFELS for their commitment to safety

3: The Keppel FELS Brasil team receives the award from Petrobras for excellence in project execution

## PRODEP awards

Keppel FELS Brasil's on-going project, the *P-51*, was awarded the best-in-class in its category for "good practices of project administration in the execution of Exploration and Production contracts" from all the current nation-wide projects by Petrobras, one of the world's most innovative national oil companies.

One of the world's largest floating production units (FPU), *P-51* achieved the highest indicators in all disciplines, from management performance and quality to health, safety and environment (HSE).

Its sister FPU, the *P-52*, also received accolades from Petrobras. It was presented with an "Award Honor" plaque for excellence in project execution by Keppel FELS Brasil.

Standing tall at 34 storeys and with a main deck size of 10 Olympic swimming pools, both the *P-52* and *P-51* is being constructed using cutting-edge construction engineering techniques.

As Gilberto Israel, President of BrasFELS yard, recalled, "The challenges of building, for the first time in Brazil, an accommodation module completely in aluminum for 200 people was due to the passion of the staff. Combined with a culture of technological innovation, we successfully accomplished the deck-mating operation and record zero loss time incidents for the yard."

President & CEO of Keppel FELS Brasil, Tay Kim Hock, said, "It is a great honour to receive these prizes from our customer Petrobras. We are happy that our good corporate management and administration practices as well as our concern with HSE have been recognised."

The PRODEP award was created with the purpose of promoting excellence in the application of concepts, best practices and project administration tools within both the Petrobras Oil Exploration and Production segment and their subcontractors.

### Safety distinctions

On 27 October 2006, workers at Keppel FELS Brasil's BrasFELS yard were given an award by Petrobras for their noteworthy achievement of six million workhours with zero loss time incidents on the construction of P-52 and P-51.

Presenting the awards were Petrobras' Antonio Carlos Alvarez Justi, P-52 Project Director and Roncador Fields Asset Manager (Engineering), and Marina Fachetti Barbosa, P-51 Project Director and Marlim Sul Fields Asset Manager (Engineering).

### PREMIO citation

Next, on 7 November 2006, Keppel FELS Brasil was accorded the Premio Top Award for 2005/2006 in the Offshore & Marine construction sector in Brazil.

A poll was conducted amongst readers of the publications *Petro & Química* (*Petro & Chemistry*) and *Controle & Instrumentação* (*Control & Instrumentation*), where corporations were judged on how well they fared in three key areas: corporate, business and social. Keppel FELS Brasil came out tops in all three sectors.



The BrasFELS yard bustling with activity while delivering quality products and services

## Best shipyard in Asia

Keppel Shipyard was conferred the Lloyd's List Maritime Asia Award for being the best shiprepair yard in Asia for the second year running.

In this annual event, winners were chosen through a three-part process consisting of a general ballot by readers of Lloyd's List Maritime Asia and Lloyd's List Daily. The top three companies then contended for the award by presenting their own assessments of their yards. The assessments were finally reviewed by

a panel of industry specialists who selected the winner of each category.

Spencer Leong, Yard Manager (Operations) of Keppel Shipyard Gul, received the award at the ceremony on 2 November 2006 at the Sheraton Imperial Hotel, Kuala Lumpur, Malaysia.

The ceremony was attended by key industry players, partners, media and authorities of the offshore and marine community.



Spencer Leong receives the award on behalf of Keppel Shipyard from Ian Rogers, MD of Aggreko Asia, sponsor of the award

# Hands up for core values



**Can Do**  
“Passion and vigour”



**Customer Focus**  
“Forge value-added partnerships”



**Commitment to HSE**  
“Zero accident, zero loss”



**Accountability**  
“Meet stakeholders’ expectations”

They say many hands make light work. At Keppel O&M, hands also communicate clear messages.

This was the key objective behind the adoption of hand symbols to illustrate Keppel O&M's core values.

Employees of Keppel O&M marked the birth of the new icons for the group's core values in a ceremony on 6 November 2006.

Eight core values, represented by individual icons, were designed to bring out the essence of their messages.

Explaining the concept of using hands as symbols, CB Choo said, “Keppel O&M works like a large family. Personal touch and good harmonious relationships are key to our current success. Moreover, given the nature of our business, we depend on manual and specialised manpower. Hence, the concept of “Hands” is very strong and integral to Keppel O&M. “Hands” symbolise harmony, productivity, unity and strength.”

A common set of core values was embraced by the Keppel O&M group in 2003. As enduring tenets of the

organisation, these values serve as a set of guiding principles that profoundly impact how everyone in the organisation thinks and acts.

In its continuous efforts to communicate and reinforce these core values, Keppel O&M's Group Human Resource (GHR) coined the apt slogan “Strong Values, Strong Results”.

A video production was also specially commissioned for the launch of the icons involving staff, subcontractors and customers. The video also covered various yard activities.

Emphasising its importance, CH Tong said, “I believe the core value icons and video will be widely applicable in all Keppel O&M's yards worldwide. They will be effective communication tools for the company, helping us achieve ‘Strong Values, Strong Results’.

“With each and everyone adopting and internalising these values in their day-to-day conduct, we are ready to face any challenge, forge ahead, and deliver strong results. This is what makes us distinctive.”

A cast member of the video production, Valerie Mae Adea San Antonio, Marketing Officer from Keppel Shipyard, recalled,

“It was an experience that made me appreciate the production and people involved in it. It helped me identify more with the company's values and examine my attitude towards challenges, especially the “Can Do” value.”

Assistant Engineer Tang Wei Aun of Keppel FELS also felt proud to be part of the company core values cast and said, “This has motivated me to be more committed to the core values. As part of the engineering team, we need to have an innovative and creative mindset to handle some of the design and safety issues.

“This video is a brilliant idea and allows the company to showcase our commitment to the public and future customers.”

## Breathing it

As an affirmation of management's recognition of employees who embody the core values and exhibit them in their daily work, the Best Employee STellar (BEST) Awards were given out at the ceremony to recipients who were nominated by their peers and superiors.

One of the recipients, Yeoh Ah Fock,



**Integrity**  
“Act with ethics and honesty”



**Innovation & learning**  
“Create value and improve”



**Global mindset**  
“Think globally”



**People & teamwork**  
“Work hand-in-hand”

Security Officer from Keppel Shipyard Tuas championed the core values, saying, “Core values send the message that we work as a team. Every morning, we have a ‘Take 5’ meeting to remind and reinforce amongst our workers the “Can Do” spirit. When dealing with customers, we have the necessary guidance to assist them. With this more visual representation of the core values and use of the video, new workers can better understand the core values.”

Pleasantly surprised at receiving the award, Wilson Goh, Senior Project Manager of Keppel FELS, explained, “These values help to bind us as Keppelites, and serve to guide employees

in different situations of the way things should be done. As a representation of the Keppel O&M identity, it helps us to channel our energies in the right direction. The new core values icons are really creative and I think people will be able to embrace them quickly.”

“For myself, I have a lot of passion for this job and I think accountability is important in our line of work and whether you succeed or not, you need to be accountable to your customers for your actions.”

The ceremony was also attended by 16 young managers from Keppel O&M’s overseas business units, who took the

opportunity to learn more about the head office in Singapore.

Ronald Van Son, Senior Project Manager of Keppel Verolme, shared, “Coming from an overseas yard, we find it very helpful to be aligned to the same values. It helps us to establish close relationships, not just between the business units but also with our customers.

“I find that the core values help me to get a broad picture of our priorities. It guides me in upholding all aspects of the core values and reminds me not to neglect one for the other. So when we do our jobs,

*Continued on page 28 ►*



Backed by a strong set of core values, Keppel is committed to delivering quality products safely, on time and on budget



Wilson Goh (middle), one of the BEST award recipients believes that the core values are critical to helping Keppel achieve ‘strong values, strong results’

◀ Continued from page 27

we not only focus on the customer, but uphold safety and integrity at the same time."

Elshan Kurbanov, Head of finance and Accounts at Caspian Shipyard Company, identified with the core values. He said, "In finance and accounts, accountability is very important and is a vital value. As a global brand, it is good for Keppel to have a reputed culture and core values so that people all over the world can relate to them. This helps the company grow and provides a good guide when obstacles are faced."

"It is important to implement these values at the ground level and these icons can help workers in their day to day activities. It is also critical for us to impart these values to them as well."

Glaucia Carvalho, Senior Legal Officer from Keppel FELS Brasil, was impressed



Young managers from the overseas business units join in the launch of the core values icons

by the presentation saying, "The launch ceremony made all the employees feel like part of a team and part of a company with strong core values."

She added, "Everyday, in dealing with customers, we must preserve our integrity and "Can Do" attitude and this was most evident in the P-51 and P-52 projects that I worked on. With a great team, what seemed impossible at the beginning was

made possible with hard work, innovative ideas and strong values."

Through an opinion survey carried out amongst management and staff of diverse nationalities and ethnic groups, it was revealed that the icons were very well received and created a sense of pride. Employees at all levels were able to relate to and identify with the icons.

## Wearing the core values

Employees of Keppel FELS Engineering Shenzhen (KFELS Shenzhen), wore the Keppel O&M values on their sleeves to work on 5 January 2007, literally.

The company launched the hand icons for the group's core values that

day to encourage employees to embrace the corporate values that have contributed to continuing growth of the group.

Chong Woei Siong, Assistant GM of KFELS Shenzhen said, "This common set of core values is essential in forging a common Keppel culture across the group



Hailing from different nationalities, and yet sharing the same core values

especially for an overseas office like us."

Acting in the belief that a pictorial representation of the core values would naturally reinforce its message, employees of the China engineering office wore polo t-shirts with the eight unique icons embroidered on the sleeves to work. They also watched the core values video which premiered during the launch in Singapore.

Huang Zhong Yi, Section Head (Piping), KFELS Shenzhen wore the shirt with quiet pride. He asserted, "The icons help me remember the core values and also guide me on how I should carry myself."

# A stimulating exchange

Keppel's commitment to technology and innovation in paving its way for the future saw a spirited exchange of ideas and opinions between industry experts and the academia at the Keppel O&M Lecture.



The Keppel O&M lecture provided an excellent platform for the discussion and exchange of ideas

The Keppel O&M Lecture continued to pack the auditorium of the National University of Singapore (NUS) in November 2006.

In the lecture, entitled "Floating Production Systems for Oil and Gas in Harsh Environments", Keppel Professor Torgeir Moan spoke about the challenges of designing offshore production systems for operations in harsh ocean environments.

He attributed this to increased activity as the search and production of oil and gas move into deeper waters and more remote locations.

Prof Moan also discussed how some of the issues could be addressed with emphasis on the integrated design of floaters, risers and positioning systems. He further outlined design targets relating to serviceability and safety, as well as the

conceptual design of typical floating systems.

Into its fourth run, the Keppel O&M Lecture is attended by industry experts and the academia. Jointly organised by NUS and Keppel O&M under the auspices of the Keppel Professorship, it serves as a forum for exchange between academia and the industry.

"The interaction between the marine technology communities in Singapore has been a pleasant and rewarding experience. In particular, I have enjoyed the challenge of preparing and delivering four Keppel lectures for a broad, competent and responsive audience as well as participating in strategic research planning," commented Prof Moan.

This year's lecture also saw several visiting technical experts including Prof Andrew Palmer, an authority on pipelines; Dr John Halkyard, an authority on the design of deepwater vessels; and Dr Malcolm Sharples, an authority on technical risks on offshore structures.

An engaging session followed after the lecture. Subject matters ranging from the lack of skilled personnel to floating production structures to hurricanes were discussed.

Given the aftermath of the recent hurricanes which devastated the oil and gas infrastructure in the Gulf of Mexico, it was one of the most talked about topics.

Sharing his experience, Dr Sharples said, "In the aftermath, the industry joined

together and launched a Joint Industry Study programme.

"One of the key results from the studies showed that the current ageing fleet of floating production vessels in the Gulf of Mexico faces a greater than anticipated risk of being unable to withstand the harsh environment. The study also showed that there was a possibility the newbuilds might face an even greater challenge."

The Keppel O&M Lecture continues to play a key role in promoting study and research into offshore and marine technology.

As Prof Moan attests, "The Keppel Lecture continues to provide an excellent platform for technology discussions and exchange of ideas."

Prof Moan is a leading expert in offshore and marine structures and the first Keppel Professor in NUS since 2003.

With over 25 years experience, Prof Moan has been awarded several prestigious awards from international societies. He is also leading director at the Centre of Excellence for Ships and Ocean Structure at the Trondheim University of Science and Technology. Prof Moan was a key figure in the development of the Offshore Safety Case after being the Chief Investigator on the Alexander Kielland.



*The Peak* is set to kick up a storm in the offshore, marine and maritime industry

## Reeling in talents

**E**xcitement hit fever pitch for *The Peak*, one of the Singapore's largest and most anticipated drama serials.

This 21-episode Mandarin drama enjoyed the highest rating on MediaCorp TV since it premiered on 8 January 2007. Filled with bittersweet romance, friendship and passionate pursuit, the drama is set against the backdrop of the dynamic and global arena of the offshore, marine and maritime industry.

The TV serial is commissioned by leading industry stakeholders including the Maritime and Port Authority of Singapore (MPA), Singapore Maritime Foundation (SMF), Association of Singapore Marine Industries (ASMI) and Keppel Offshore & Marine (Keppel O&M). Other sponsors include the Workforce Development Agency, National Oilwell Varco, Wartsila, the American Bureau of Shipping, Nausch, Hogan & Murray (NHM) and Alpine Services.

Set primarily in Singapore's Keppel FELS, the span of this serial reaches to the picturesque Keppel FELS Brasil in Angra dos Reis, Brazil, and has a multinational cast from North and South America, the Middle East, Europe, and of course, Asia.

Drama aside, the uninitiated will gain good insights into the depth and scope of the industry and what makes Singapore the world's number one rig builder.

The passion of the hero in the drama serial was really a reflection of the passion that the fraternity in the Singapore offshore, marine and maritime industry feel for their chosen profession. It was also reflective of the need for talent to further stimulate this vibrant industry which currently employs over 80,000 people.

Said BG (NS) Tay Lim Heng, Chief Executive of MPA, "Although the maritime sector has been doing well in recent years, there remains a lack of awareness among the young, and the public in general, in the exciting career opportunities that are available."

"As Singapore continues to grow as a maritime cluster, and international companies set up their operations here, we will need fresh injections of dynamic and energetic manpower. Through this drama serial, we hope Singaporeans will view the industry more favourably and consider joining this multi-faceted industry, which offers attractive on-shore jobs in maritime services in addition to offshore and seafaring jobs."

Behind the scenes, industry partners have been tirelessly promoting the serial, leveraging network resources and strengths, as well as co-ordinating efforts for maximum synergy and impact.

At the launch event of *The Peak* on 28 December 2006, Michael Chia,

President of ASMI and ED of Keppel FELS, revealed, "We have been working closely with the government and fraternity to promote the marine and offshore industry. This TV drama serial is yet another step in the same direction.

"The serial will allow us to appeal to a wider target audience, giving them greater understanding of the technological leadership, the high safety standards and global reputation that our industry has achieved.

"Ultimately, we want to show young Singaporeans that there are challenging and rewarding careers in this industry."

SS Teo, Chairman of SMF added, "With Asia's increased dominance in world shipping and Singapore's strategic location at the crossroads of global trade, we are well placed to grow further as one of the world's important maritime hubs."

Singapore's strategic location has also contributed to the rise of the offshore and marine industry as the world leader in rig design and construction, and the front runner in sophisticated shiprepair and conversion.

Teo commented, "The drivers of growth in this industry are the talented and spirited locals who have the passion and determination to succeed."



## Snippets from *The Peak*

Fang Hongan is so deeply immersed in the mysterious reappearance of his lost love after a decade that he completely forgets to execute a major change during the construction of a jackup rig.

Thankfully, coming to the rescue of this talented and usually gung-ho senior project manager is a team of fiercely loyal colleagues, and together with their *Can Do!* spirit, they overcome all odds and deliver.

Before you go looking for Hongan in our yards, STOP as this is not real life but reel life as depicted in *The Peak*.

And Hongan is played by none other than swoon-worthy Christopher Lee who typifies the modern *Yang Guo*, hero of the famous novel, "Return of the Condor Heroes". Incidentally, Hongan's hair also turns white in the story and not surprisingly, Christopher still looks good with bleached hair!

Hongan's undying devotion to his first and only love, Shuang Hui, would not allow him to take another woman into his heart, whether it is his vivacious assistant Cai Zhen Ya (played by Dawn Yeoh) or his alluring wife-in-name-only, Xiu Ping (played by Ann Kok).

Is the sudden appearance and disappearance of Shuang Hui a figment of Hongan's imagination? Which lady love will Hongan choose in the end?

How will Hongan get himself back on track for his other passion – his work in the yard?

While Hongan is entangled in his own world of lost love, a triangular love affair involving him is developing between his two protégés, Zhen Ya and Chen Tianjun (played by Qi Yu Wu), an Assistant Project Manager who has returned to Singapore after completing his assignment in Brazil.

Tianjun is also good friends with Cai Zihang (played by Elvin Ng), Zhen Ya's elder brother who is training to become a Second Mate and Zhong Xiaoyang (played by Jeanette Aw), the gutsy daughter of a marine engineering contractor. However, when love gets in the way in a grossly tragic twist of events, can their friendship withstand the trial?

Other characters in the series, such as Uncle Tie Tou (played by Huang Wen Yong) who has 30 years of experience and the wacky project engineer Lucas (played by Ben Yeo), all come together to help the audience dispel misconceptions about the offshore, marine and maritime industry.

Through the drama serial, the audience can see how teamwork, technology, the spirit of *Can Do!* and safety amongst its members contribute to a thriving industry.

Missed *The Peak*? Catch your favourite stars behind the scenes in '*The Making of The Peak*', which premieres 10 February 2007 on MediaCorp Channel 8.



Fans packed the mall to catch a glimpse of their heroes from *The Peak*

Looks like all the hardwork is paying off as public perception, especially among the young and talented, is swinging towards the positive. No longer dirty, dangerous and demanding, the offshore and marine industry is fast becoming diverse, dynamic and desirable.

And *The Peak* is yet to come.

Clips of *The Peak*'s launch can be viewed at [www.kepcorp.com](http://www.kepcorp.com).

# Moving to the Keppel beat

Throw, shoot, jump, dance, or simply cheer. Sports not only improves one's health and well-being, but also brings people together and fosters teamwork. We take a look at how some Keppelites have fun with fitness.

## Pumped for action

Synchronised movements, pounding music and toned muscles. 3,200 employees from Keppel FELS together with some of the sub-contractors exercised to the beat in December 2006 at the annual Keppel FELS Active Day.

Standing on three different platforms

around the carpark, four fitness trainers led the participants in heart-pounding aerobics.

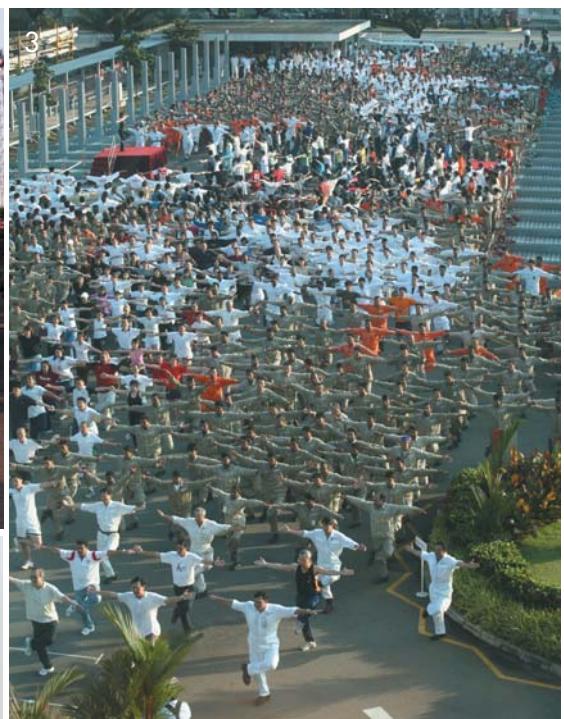
For Keppel FELS' Admin Officer, Betty Mok, this is the fourth time she is participating in the event. "This year's Active Day is slightly different because there are two extra stages for the trainers to lead the crowd," said Betty.

"Being 'part of the crowd' increases the

interactivity between the participants and the trainers," she added.

S. Jayakumar, GM (Marketing) of Keppel FELS commented that the annual Active Day is one event that has helped to bring everyone together and strengthened the bonding between employees and their superiors.

At the end of the event, staff were so pumped for more that they were already



1. Perfect work-life balance for good health at the annual Active Day

2. Belles of Keppel Batangas parading in colourful gear to cheer their teams on

3. Keppelites out in full force

# Shaping up the workplace

thinking of how to get ACTIVE next year. "It might be good if we can do line dancing or have a sports carnival!" said James Chia, Marketing Executive of Keppel FELS. "That would help us shed more weight and have fun at the same time."

## Fun at sports festival

It was as though a rainbow had painted the yard over at Keppel Batangas, a welcome sight from their usual white, red or blue coveralls, as a week-long Sports Festival was celebrated in the yard in October 2006.

At the opening of the festival, team captains led their respective teams in a parade while colleagues and friends cheered them on. All sections of the yard, from accounting to shipwrights, were represented in the games.

"Our people have all been working very hard, especially with the offshore oil rig and shipbuilding projects. The sports festival is a welcome break that allows us to enjoy one another's company and promote camaraderie between Keppelites," said Kok Boon Heng, President of Keppel Batangas Shipyard, as he officiated at the opening ceremony.

HR and Administration Manager, Carlos S. Patacsil, added, "Everyone had so much fun! This is the time when Keppelites trade their work tools and computers for rackets and balls. It was also a good opportunity for them to interact and meet other people in the organisation."



**Teo Khai Yang accepting the HEALTH Gold award on behalf of Keppel Shipyard from MP of Jurong GRC, Mdm Halimah Yacob**

**K**eppel Shipyard's workplace health promotion programmes have earned recognition with the Singapore HEALTH (Helping Employees Achieve Life-Time Health) Gold Award from the Health Promotion Board (HPB).

Its commitment to creating a successful workplace health programme (WHP) enabled Keppel Shipyard to score more than 85% on the criteria assessment for the award. The assessment was based on the organisation, planning, evaluation and comprehensiveness of the programme.

Keppel Shipyard's WHP comprises four components: diet and nutrition, ailments and diseases, work life balance and stress

management. Keppel Shipyard has also continued to focus on its anti-smoking campaign as well as employee awareness for common cancers and diseases.

The programme includes regular health and fitness screenings, seminars, sports and recreation activities and healthy cooking demonstrations. Regular checks at the shipyard's canteens also ensure that hygienic and nutritious food is provided for the employees.

Keppel Shipyard's senior management actively promotes good employee health and supports policy changes deemed necessary for a healthy workforce. These policies are reviewed regularly to ensure relevance and adequacy.

# Showcasing Keppel

As members of Keppel O&M present their expertise and know-how in exhibitions around the world, OffshoreMarine packs them into a spread to showcase Keppel's involvement at a global level.

## SINGAPORE

### OSEA

A marathon exhibitor at the Offshore South East Asia (OSEA) since 1976, this year was no different for Keppel O&M.

From 5 to 8 December 2006, the group presented its core products and services at this event, dubbed as one of Asia's biggest show for the oil and gas industry. It is also one of the best available platforms in Asia for international industry professionals to gather, discuss and share pertinent issues of the industry.

### MARTECH

Keppel was one of the sponsors and exhibitors at MARTECH 2006, an international Maritime Conference and Exhibition organised by Singapore Polytechnic's Singapore Maritime Academy on 12 and 13 October 2006.

Keppel O&M's MD (Special Projects), Charles Foo, shared key insights on the opportunities in the offshore sector and new technologies in the maritime industry.

He said, "When all other yards in the world gave up rigbuilding in the twenty years' lull previously, our yards plodded along with the stamina of a marathon runner. We continued to build cable laying ships, FPSOs, large barges and even floating docks to survive, but never giving up rigbuilding. Now, the offshore sector

is too busy enjoying the boom to even worry about the next downturn.

"But we should reflect on future possibilities and be concerned about new and especially disruptive technology, while also leveraging technology to improve cost-effectiveness."

MARTECH is organised with the objective of uniting members of the maritime world for exchange of views, experiences and innovative ideas towards gaining insights of new technologies, strategies and opportunities in the maritime and offshore industry.

### Maritime open house

Keppel O&M supported the Singapore Maritime Foundation when it held its "Singapore, Our Maritime City" exhibition at the National Library to woo young people into the industry.

Held from 17 to 31 October 2006, it attracted many attendees ranging from school leavers to mid-career changers. The exhibition aimed to reach out to the public and raise awareness of the maritime industry as well as educate the public on the contributions of the marine industry towards the progress and growth of Singapore.

## VIETNAM

### Vietnam oil & gas

Together with Singapore Petroleum Company (SPC), Keppel O&M also participated in the Vietnam Oil & Gas Expo in Ho Chih Minh City, Vietnam.

The three-day exhibition from 12 to 14 October 2006 saw some 95 companies from 23 different countries representing



(From left) Nelson Yeo, ED of Keppel Shipyard, CH Tong, Guest-of-Honour S Iswaran, Singapore's Minister of State for Trade and Industry and Kon Vatskalis, Minister for Mines and Energy of the Northern Territories, Australia

**The Keppel booth in Vietnam attracted key customers and business associates**

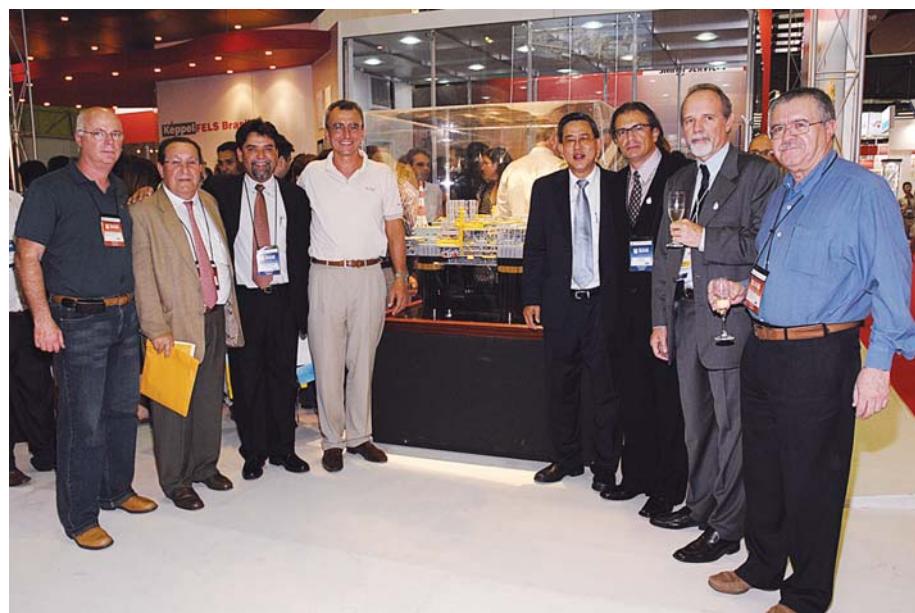
the Oil and Gas industry. It showcased a good mix of companies in the upstream and downstream businesses.

Visitors to the Keppel/SPC booth included valued customers, Vietnam Oil and Gas Group (PetroVietnam), vendors, suppliers, students and the general public.

Since 1992, Vietnam Oil & Gas expo has been a premier international exhibition attracting over 8,000 professional visitors.

Keppel has been an active partner in supporting both the growth of Vietnam's offshore and marine industry and property development projects.

Keppel FELS is presently constructing a jackup drilling rig for Petrovietnam Drilling & Well Services Company (PV Drilling), a subsidiary of PetroVietnam. Built to Keppel's proprietary KFELS B Class design, the rig will be completed in the first quarter of 2007 and deployed offshore Vietnam.



**BRAZIL**

**Rio Oil & Gas**

"The pioneer, the biggest, the best!" was Keppel FELS Brasil's bold message to over 27,000 people who visited the Rio Oil & Gas 2006 Expo and Conference from 11 to 14 September 2006.

The event, themed "Brazilian Oil Self-Sufficiency: A New Era of Opportunities and Challenges" was held at the Riocentro Convention Center of Rio de Janeiro.

The centrepiece at Keppel's booth was a model of the mammoth floating production platform, the P-52, which attracted much attention and awe from customers, business associates and even politicians. In addition, progress pictures

**The P-52 model was a major draw at the Rio Oil & Gas in Brazil. Keppel FELS Brasil is constructing this floating production unit, which when completed, will be the world's third largest**

and a video of P-52 gave an insight into the making of Brazil's iconic project.

Conversation and drinks flowed freely as Keppelites and their guests discussed the latest technical issues and exchanged information on recent industry happenings.

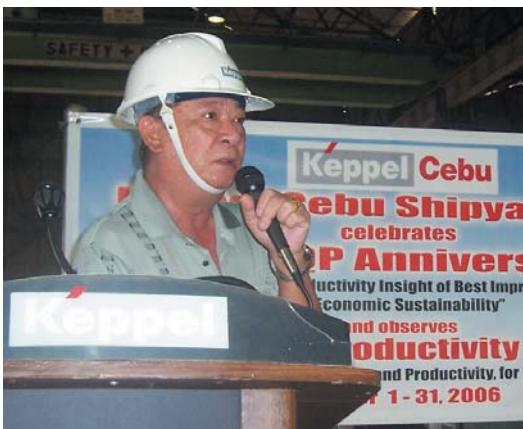
Tay Kim Hock shared, "The exhibition was an excellent platform for us to showcase Keppel and our latest achievement, the P-52.

"When completed, the P-52 will be the world's third largest FPU, and Keppel

is proud to partner Petrobras in this milestone project. We are glad for this opportunity to share with the Brazilians and international customers how Keppel helped make this Brazilian dream possible."

A biannual event since 1982, the Rio Oil & Gas Expo and Conference is today the leading oil and gas industry event in Latin America. The show is also the third largest in the world, attracting visitors from the local and international arenas.

# Productivity calls for celebrations



Fok Swee Yin (left) President of Keppel Cebu exhorts productivity values to Keppelites at Cebu

In conjunction with the Philippines' National Productivity Month, Keppel Cebu Shipyard held a month-long celebration to mark its seventh Total Quality Process (TQP) anniversary in October 2006.

The celebration saw a wide array of activities to promote commitment to quality and productivity. There were productivity challenges like a departmental trade competition which focused on work quality and a project exhibition organised to bolster productivity messages and practices amongst Keppelites.

At the opening ceremony, Keppelites participated in the ceremonial signing of the Quality Management Team pledge, which mirrors management's commitment to TQP.

"The main objective of the TQP anniversary and productivity month is to remind ourselves constantly that there is always room for improvement.

"With rising cost, the best way to improve the livelihood of the workers and the company is to raise the productivity of the whole yard. This calls for commitment from everybody," said Ng Teck Mong, Keppel Cebu's Treasurer/VP-Admin.

At the end of the celebrations, a Continuous Improvement Teams and Quality Action Teams Convention with a total of 14 project entries, was held on 4 November 2006. This was graced by Leonardo Alindajao, Executive Director of the Center of Quality and Productivity, a training arm of Visayas Association of Quality and Productivity (VIAQP).

Ben Goh Joo Leng, VP-Operations, said, "This convention is an opportunity for the employees to continuously innovate and improve their work processes in order to increase productivity. We must move out of our comfort zones and take on more challenges. This project competition is not about winning but on how we can learn the best practices of each department by sharing new knowledge and fostering team spirit."

The TQP is now a significant part of the company's quality and productivity standards. With management's commitment to productivity, Keppelites have the means to increase productivity through quality improvement.

# Working in good company

A *good and stable company. Practises frequent knowledge-sharing. Recognises contributions.* These phrases are used by long-serving employees to describe the big Keppel family.

Some 123 employees of Keppel Shipyard and Keppel Singmarine received their long service awards on 8 December 2006 from CB Choo and CH Tong. Of these recipients, 76 have served in the company for 10 years, 11 have served for 20 to 25 years and 36 have served in Keppel for 30 years.

"In Keppel, we work with and help each other like one big family. We look out for one another, especially in these busy times in all our yards. Safety and security is most important," said Yacob B. Ibrahim,

Security Officer of Keppel Shipyard (Benoi), as he received the 30-year long service award.

Addressing all the recipients at the awards ceremony, CH Tong noted, "Good and committed staff is one of the key elements of a successful company. Keppel O&M is fortunate to have with us people who have remained with the group through good and bad times.

"I would encourage all recipients not only to continue to contribute and excel in your areas of work, but also to serve as role models for your less experienced colleagues, including those in our overseas yards and offices.

"Safety is definitely one of the areas to stress on and cannot be compromised.

This is the commitment we give to all our employees and stakeholders. We are happy to see ourselves as the safest place to work in, besides being the world's number one and busiest yard."

Tay Chye Heng, Commercial Manager of Keppel Shipyard (Tuas), who joined Keppel Shipyard in 1967, rejoined the company after he left in 1992. He received his 10-year service award and revealed, "I am happy to be 'back' where I started. Our work is acknowledged and appreciated by our bosses.

"It is in our culture to share knowledge and our experiences with the younger and newer Keppelites, to continue the good service to our customers and partners. I want to keep sharing and serving in this family."



Keppelites proudly displaying their well-deserved long service award medals

# Brightening up community lives

Keppel has through the years supported various local community programmes, ranging from education and the arts, charities to technological improvements and international trade promotion. In recent months, many lives were brightened though the company's support of diverse community projects, which ranged from creating awareness of the environment to helping kids to pursue their dreams.

## New lease in yellow

**Y**ellow brightens up a person's day. It could not have been more true for the inmates of Changi Prison who were given the chance for a new lease of life at the third Yellow Ribbon Job Fair, held on 1 November 2006.

They were invited to fill out job application forms for positions available in various companies.

"At Keppel, we believe that everyone deserves a second chance. We are happy to participate in the Yellow Ribbon initiative to help some of the inmates reintegrate into society," shared Stanley Yong, HR Manager, Keppel Shipyard.

The jobs offered by Keppel O&M range

from welders to electricians to crane operators. Candidates will undergo in-depth training conducted by Keppel before starting on their new jobs.

## Green earth for all children

It is our duty to preserve and upkeep the resources of Mother Earth. This philosophy has guided Keppel Shipyard in their continued participation of the National Environment Agency's (NEA) annual Clean & Green Week Schools' Carnival.

NEA presented Keppel Shipyard, its industry partner, with a Certificate of Sustained Partnership at the Carnival. This certificate was given to Keppel Shipyard in recognition of their active participation with their adopted school,

Chung Cheng High School (Main), since 2004.

Corporations and schools in Singapore gathered on 14 November 2006 at the Singapore Expo to showcase their environmental projects. The event drew nearly 1,000 students from 135 schools.

Chung Cheng High School won the Merit Prize in the Enviro-Innovate Competition. Their project, entitled Eco-lovers, is a board game that showcases the myriad green spaces in Singapore. It was conceived by four friends who wanted to stimulate children's interest and awareness in environmental issues.

The group also won the 'Best Decorated Booth' competition held during the Clean and Green Week Exhibition on 14 and 15 November 2006.



**Left:** Stanley Yong (left), HR Manager for Keppel Shipyard (Tuas) receives the Certificate of Sustained Partnership by NEA from Dr Amy Khor, Senior Parliamentary Secretary, Ministry of the Environment and Water Resources (middle) **Right:** Towards a green earth for all. Seen here are students from Chung Cheng High School and Keppelites from Keppel Shipyard

## Reaching for the blue sky

Somewhere over the rainbow  
Skies are blue  
And the dreams that you dare to dream  
Really do come true

Eleven-year-old Justina Ravi belted the words to the song to an appreciative audience at the Child Aid Concert on 29 November 2006. Her performance was part of a charity concert held at the National University of Singapore's cultural centre, showcasing some of Singapore's young musicians in support of their less privileged peers.

Keppel O&M contributed \$50,000 to the cause and some 50 Keppelites turned up in support of the children.

Organised by Singapore Press Holdings, the concert was in support of The Straits Times School Pocket Money Fund and The Business Times Budding Artists Fund. Two Child Aid concerts were held and helped to raise a record of \$390,000.

CB Choo said, "We have a great passion in nurturing the communities where we operate. This is an excellent opportunity to support needy children and help them to pursue their dreams.

"Child Aid 2006 is a worthy cause and Keppel is proud to be part of this initiative. Our affiliation with helping the less fortunate goes back many years from supporting charitable organisations like the Association of Persons with Special Needs."

The concert saw child prodigies such as pianist Abigail Sin, jazz crooner Nathan Hartono, opera singer Janani Sridhar and drummer boy Ethan Ong, amongst others, who played, sang and danced their hearts out for the needy children.

## Red letter day for a national icon

On 8 December 2006, the 119-year-old National Museum of Singapore reopened its doors to the public after three years of refurbishment. Twice its original size, the



museum now boasts new state-of-the-art galleries.

As one of the key sponsors for the museum's opening festival, Keppel O&M is proud to be part of the rebirth of a national icon.

CB Choo attended a special dinner hosted by the museum which was graced by President SR Nathan.

The museum now showcases 11 significant national treasures and several never-before-displayed artefacts. Its renaissance will kick-off with a month-long festival featuring performances and special installations.

## Burning black rubber for a good cause

In aid of the Community Chest, Keppel Singmarine pledged donations of more than \$4,000 through the Standard Chartered Singapore Marathon held on 3 December 2006.

*Continued on page 40 ►*

**Top: Doing their bit for charity at the Child Aid Concert are children from Tampines Primary School**

**Bottom: History in the making as President SR Nathan and fellow dignitaries declare the National Museum of Singapore officially open**



**Top: Gifts from Keppelites pour in for children from the Canossian School**

**Bottom: Keppel AmFELS Project Manager Leland Salinger explains the tournament rules as VP of Human Resources Gilbert Elizondo, Solomon P. Ortiz, Eddie Lucio Jr., CH Tong and Ho Cheok Yuen listen on**

◀ *Continued from page 39*

Hoe Eng Hock, ED, and Tan Cheng Hui, GM (Engineering) of Keppel Singmarine, put on their running shoes and pounded the streets in the full 42-km marathon and 21-km half marathon races respectively.

### **Golden habit of saving**

Into its second year, the Singapore Health Foundation's "Savemoney, Savelives" campaign has yielded significant results over the period of three months, with Keppel O&M as its main sponsor.

Launched by Dr Vivian Balakrishnan, Minister for Community, Youth and Sports and Second Minister for Trade and Industry, the campaign aims to raise funds for supporting biomedical projects that could translate into better quality healthcare for patients in Singapore.

Members of the Keppel Recreation Club also joined staff from Keppel O&M on the day of the campaign launch to help sell "Savemoney Savelives" discount coupons.

Chew Mei Yong, Chairperson of the Keppelite Community Service Committee believes that there is always a part for us to play in caring for the community.

She shared, "We are happy to be involved in this good cause. There is always something we all can do to help others and what better way than contributing towards better healthcare for Singaporeans and the community at large."

### **Not a white Christmas for charity**

The Charity Gift Box donation drive held between 1 and 9 December 2006 collected some 285 presents from generous Keppelites across the Group. The gifts were delivered to Canossian School, a school for children with hearing impairment.

This effort was started last year by Keppelite Chew Mei Yong from Keppel FELS. She wanted to bring cheer during Christmas to the less fortunate, inculcate a spirit of community service and promote the spirit of caring and sharing among Keppelites.

Mei Yong divulged, "The concept is to share the joy of Christmas by giving a little present to the children who are less fortunate, to let them know that they are being cared for and they are not forgotten."

### **Charity golf at Fort Brown**

The children of Brownsville in the United States were the happy beneficiaries of Keppel AmFELS 2006 Charity Golf Tournament, which raised a total of US\$20,000.

Graced by Texas State Senator Eddie Lucio Jr. and U.S. Congressman Solomon P. Ortiz, the proceeds of the event went towards The Children's Museum of Brownsville and The Child Welfare Board of Cameron County.

Held on 29 October 2006 at the Fort Brown Memorial Golf Course and organised by the Keppel AmFELS Recreation Committee, the bi-annual event saw members of the Board of Directors, local and state dignitaries, Keppel AmFELS staff members, customers, vendors

and guests participating in the tournament.

Lucio Jr. and Ortiz expressed their appreciation for the invitation to play for a good cause and were grateful to Keppel AmFELS for their contribution to the local community.

Ho Cheok Yuen declared the tournament a success. He said, "We are pleased to bring our friends, customers and Keppelites together for a good cause and to have a good time as well. Our belief in

nurturing the future of the community is an important part of what Keppel stands for."

Keppel AmFELS is a regular contributor to the local community and recently received a Community Impact Award for being one of the largest donors in South Texas and the largest private donor in Cameron County.

The Child Welfare Board of Cameron County protects children from abuse, neglect and exploitation. They also assist

the children and their families with expenses for transportation, food, clothing and medication. They even help with funeral arrangements for children in foster care who die as a result of abuse or neglect.

The Children's Museum of Brownsville introduces children to a "World of Learning" through creative and interactive exhibits and activities which complement the educational system.

## Chest awards for sharing with the needy

In support of the needy, Keppel O&M employees have regularly contributed part of their monthly income to the SHARE (Social Help and Assistance Raised by Employees) Monthly Contribution Programmes.

This culture of sharing with the less fortunate was recognised by a string of awards from the Community Chest.

The Community Chest Awards yearly recognises corporations and individuals who reach out and help the disadvantaged in their community.

The award is based on the number of employees contributing to the

Community Chest from 1 April 2005 to 31 March 2006.

Having received the SHARE Gold award last year, Keppel Singmarine improved on their record by achieving the Platinum award with close to 90% of their employees participating in the programme.

Shared Hoe Eng Hock, "I think it is a good opportunity for our employees to show that they care for the less fortunate. They may not make very much, yet they still find it in their hearts to share with others. It is very heartening and we are pleased to have received this award."

The broad involvement of the yards in the programme also saw Keppel Shipyard (Gul) receive their 14th consecutive SHARE Platinum award since 1993, a testament to their passion for helping the underprivileged.

In addition, Keppel Shipyard (Tuas) and Keppel Shipyard (Benoi) were awarded

the SHARE Gold award while Keppel FELS received the bronze award.

Tan Yew Kee, Assistant HR Manager of Keppel Shipyard, received the Gold awards from Dr Vivian Balakrishnan, Minister for Community Development, Youth and Sports.

Teo Khai Yang, Human Resource Manager of Keppel Shipyard said, "Keppel Shipyard has always been a regular supporter of community work. By organising and participating in these community activities, we foster in our employees a culture of helping and sharing with the under-privileged.

"We are honoured to have received this award and will continue to increase our efforts in community work."

Hoe Eng Hock and Teo Khai Yang received the Platinum awards from President S.R. Nathan at the Istana on 10 October 2006.

**Hoe Eng Hock receives the Community Chest Award for Keppel Singmarine from President S.R. Nathan**



# Developing potential

Talent management is integral to the continued success of a company. Keppel O&M believes strongly in human capital development and uses tools such as workshops and courses to groom talent within the organisation.

## Talking with Prof Neo

As part of its talent management initiatives, Keppel O&M organised a session on "Management Competencies for High Performance" by Professor Neo Boon Siong, Independent Board Director of Keppel O&M. This talk was attended by senior and middle management.

Into its fourth run, the objective of this three-day session, held from 17 to 19 August 2006, was to hone the leadership, strategic thinking and business development skills of the participants.

Participants formed groups to work on a project. The results of the project had to be presented to Keppel O&M's top management six weeks after the course. The nature of the projects was tailored to meet the objectives of the session.

CH Tong commended the groups for their proposals of new ideas and their willingness to challenge conventional thinking. He also encouraged further studies to be done on the proposed ideas so that they could be shared and implemented across Keppel O&M.

## Getting to know you

To understand fellow colleagues better, the question, "What type are you?" was asked by the participants of the Myer Briggs Type Indicator (MBTI) Workshop.

The MBTI is the most widely used personality-profiling instrument worldwide. It reveals one's preference for attaining information, making decisions and orienting their lives. It also provides



No more blind spots when it comes to understanding personality types – CH Tong, observing the special MBTI activity involving senior management

a simple way of spotting the similarities and differences between individuals by grouping them into different categories based on their personality.

Too Lye, Engineering Manager of Keppel FELS, revealed, "I find the information useful even though we already know that there are many different types of personalities. The MBTI makes us more conscious of this and enables us to systematically analyse and understand others' behaviour."

Through the use of the MBTI, leaders in an organisation can better understand different individual types and are better informed on how to develop successful teams based on personalities that complement each other. It also aids in leadership and personal development as well as honing teambuilding and conflict management skills.

"It is a meaningful workshop as it helps us understand our colleagues better and improves our interpersonal relationships to get things done more efficiently", said Charles Foo.

A total of 31 senior management and 80 staff from Keppel O&M attended this workshop on 19 and 22 September 2006 respectively.

## Strengthening bonds

Strong men and one bold woman from Keppel Shipyard braved the rain and their own fears to climb up a seven-storey obstacle pyramid and navigate their way through it with only ropes for support.

Crazy bunch? Not really. It was part of a two-day teambuilding programme organised at Bintan Lagoon Resort for 24 Keppelites from Keppel Shipyard's management team.

Held on 23 and 24 September 2006, the programme aimed to strengthen camaraderie amongst the three yards – Tuas, Benoi and Gul.

Louis Chow, Assistant GM (Commercial) from Tuas yard, enthused, "The weekends were well spent together. Although most of us have known each other for many

years, an opportunity like this to put work aside and bond is fantastic!"

Star of the programme was the amicable 63-year-old Chan Chong Heng, Benoi's Yard Manager (Special Projects) who stole the show when he did the flying fox down the pyramid to thunderous applause and cheers.

### Reaching for the best

Keppel O&M recently embarked on a "University Outreach Programme" targeted at the top 20% of engineering students at the National University of Singapore (NUS) and Nanyang Technological University (NTU).

At NUS, Keppel O&M presented on career paths and development programmes at a talk on 14 September 2006 to an enthusiastic crowd of budding engineers.

Keppel O&M was the platinum sponsor at the NTU Networking Night on 21 September 2006. Some 350 graduating engineering students attended the event

and had the opportunity to learn more about the offshore and marine industry as well as interact with some Keppel scholars.

A specially designed "Outreach Mailer" which highlights Keppel O&M's Management Trainee Scheme, career development programmes and job rotation opportunities was also sent to top university students.

The encouraging response from the students reinforced the direction of Keppel O&M's Talent Management initiatives.

These initiatives will help both in the garnering of interest and successful recruitment of outstanding candidates upon their graduation.



Confronting their own fears, participants surmounted challenges like the seven-story high tower with the 'Can Do!' spirit

## Connecting with Singaporeans abroad

Keppel, a Singapore MNC with a presence in more than 30 countries, is a natural choice when it comes to connecting with and engaging overseas Singaporeans in macro-economic trends and developments in the marketplace, both at home and abroad.

CB Choo was keynote speaker in the Distinguished Business Leaders Series organised by the Overseas Singaporean Unit (OSU) in London U.K. held on 10 November 2006.

Led by the Prime Minister's Office, the OSU aims to connect the growing number of Singaporeans living

overseas with businessmen who have dealings with Singapore.

CB Choo captured the attention of over 100 students and professionals in the UK with his overview of the Keppel Group and his perspective on the outlook of Keppel's offshore, property and environmental engineering industries.

He also highlighted the latest developments of the Group, namely the S\$1.7 billion contract for the Integrated Waste-Management System for Qatar and the Marina Bay Financial Centre in Singapore.

In the light of Keppel's present efforts in

attracting talent, the talk provided a timely opportunity for CB Choo to challenge Singaporeans living overseas to consider the diverse and exciting career opportunities in Keppel.

Derek Tan, a post graduate student pursuing a Masters in Public Administration at the London School of Economics, said, "It was very interesting for me to learn about the other businesses that Keppel is in. I was only aware that Keppel was a leader in the offshore industry but did not know that Keppel was also in several other different industries. I have a better understanding of the Group now."

# An inspiring mentor

**A**s the saying goes, "Every person will meet a guiding star."

If you ask Lim Choon Hau, LIUP (Local Industry Upgrading Programme) Manager at Keppel Shipyard, he will readily tell you that one of his guiding stars is Daniel Chang, formerly Senior GM (Operations), of Keppel Shipyard.

But Daniel does not guide with a kid's glove. In his four years at Keppel Shipyard, Daniel has been known to be a perfectionist who challenges and stretches his peers and subordinates.

Seconded from Keppel FELS to assist Nelson Yeo, Daniel initiated changes and implemented a more systematic set of work processes.

Back then in 2002, Keppel Shipyard and the other business units had just been integrated under Keppel O&M. The group was undergoing a major refocusing of its key businesses.

The market was changing amidst the rising demand for shiprepair/conversion services. Competition was cut-throat with emerging repair service centres in China, the Middle East and Vietnam vying for larger slices of the pie.

There was a need to re-engineer work processes in order to remain relevant to customers. Daniel and his senior colleagues had to push through the needful changes.

Daniel explained, "The practice and mindset of the offshore sector are very different from marine. The skill sets are also different between shipbuilding and shiprepair/conversion work.

"Offshore requires you to be very systematic, organised and exacting. In marine services, especially in shiprepair/



**Making a difference in the lives of his team members is Daniel Chang (centre), with his leadership and ability to mould characters**

conversion, you have to be highly adaptive, flexible and fast."

Happily for Daniel, his persistence on changes at Keppel Shipyard has paid off. One of the managers, Wong Yee Keong, wrote in a send-off email to Daniel, "You have made the difference by leading us to challenge our conventional thinking and provide innovative solutions."

Many appreciate Daniel's tough leadership and his ability to mould character, expressing gratitude for his patience and guidance. Others have benefited from the opportunities Daniel had provided them to grow in their job scope.

Abu Bakar, who takes over Daniel's role in Tuas yard as GM (Operations), said, "I will always appreciate Daniel's mentoring and prompting, as well as his openness with me."

The gain has not been one way. The true-blue offshore and marine man who started out as an apprentice at Keppel FELS (then Far East Levingston Shipyard) in 1973 is also learning to think and act like a shiprepair/conversion man.

He is now advocating for more cross-pollination between the offshore and

marine teams, as well as between newbuilding and repair teams.

He shared, "I feel very privileged for the time I spent in Keppel Shipyard. It has not been easy but I have grown further to become a better person.

"I hope I have imbued the positive qualities and discipline required in shiprepair. I am now very convinced that Keppel O&M can become an even more formidable group by combining the best of offshore and marine."

Now at 51, Daniel is still taking on new challenges, this time in his appointment as Deputy President/Deputy CEO, Keppel FELS Brasil. He will assist Tay Kim Hock to run Keppel FELS Brasil's operations with facilities in Angra dos Reis and Niteroi. Chee Min has returned to Keppel O&M to take on the vital role of GM (HSE).

As Daniel sinks his teeth into the job, this engineering graduate from Newcastle upon Tyne (UK) and student of life-long learning remains focused on the task – to work with the Brazilian team to deliver on Keppel's promise of quality products and services, on time and on budget!

# Succession transcends borders

With its global yard network, crossing business units within Keppel O&M's worldwide operations is part of the career development that employees embrace and cherish. *OffshoreMarine* highlights some of the recent people moves that transcend borders.



Lee Tai Kwee



Toh Ko Lin



Kok Boon Heng

**L**ee Tai Kwee, previously Senior General Manager (Commercial and Business Development) of Keppel Singmarine has moved to China as President of Keppel Nantong Shipyard.

Tai Kwee has been with the Keppel family for 26 years. He started off as a Project Manager and rose up the ranks to become GM (Operations) and GM (Projects) of Keppel Shipyard and Keppel Singmarine respectively.

Tai Kwee took up the challenge of leading a new team in an acquired yard in Nantong. With Tai Kwee's extensive experience, he is now

seconded to Keppel Nantong Shipyard to helm its operations.

Meanwhile, Toh Ko Lin, President of Keppel Philippines Marine, Inc, has returned to Singapore to double up as the Senior GM (Commercial and Business Development) of Keppel Singmarine. He was previously also the President of Keppel Batangas Shipyard.

Kok Boon Heng now leads the Keppel Batangas Shipyard team as its President. Boon Heng brings with him his rich experience of over 38 years in the offshore and marine industry.



The succession moves will bolster the specialised shipbuilding business, as it continues to build on its design and construction expertise to offer customers high value-added services and solutions

# Pandemic ready

**T**hree pandemic flu simulation exercises have been conducted in Keppel O&M's yards in Singapore and the Philippines in less than two months.

Keppel FELS successfully rolled out the first exercise on 29 September 2006 at Pioneer Yard, and was soon followed by Keppel Shipyard and Keppel Singmarine at Benoi Yard on 3 November 2006.

In the Philippines, Keppel Cebu Shipyard conducted its Avian Flu simulation exercise on 28 November 2006 with the full participation and support of more than 220 workers, subcontractors and management staff.

Prior to the drill, pre-exercise readiness checks were conducted to increase employees' awareness of the disease. These included briefings to review the necessary procedures,

information campaigns as well as bulletins on drill procedures.

On the actual day, workers found to have temperatures of above 38 degrees Celsius were immediately isolated in a designated hot zone near the yard gates where they had to fill in health declaration forms.

The workers were subsequently accompanied by security guards to the yard's clinic for further medical checkups. A standby company vehicle stood ready to ferry suspected cases to the hospital for further laboratory tests.

It is apparent from the subsequently collected feedback that employees are now more aware of the preventive measures that can be taken for the Avian Flu, and that they have learned how to prevent the spread of the virus with this exercise.

**Keppel Cebu Shipyard staff take the simulation exercises seriously**



# Mobility grants

For Mohamed Ghazali, 59, Store Assistant of Keppel Shipyard (Tuas), retrieving large boxes of equipment like nuts and bolts at the store will soon be almost an effortless routine. He will be relieved from the physical toil of climbing up the long ladders to the high shelf racks 400 times a day.

This is because a Work Assist Vehicle will soon be used in picking up boxes from heights in the store, making Mohamed's tasks easier without compromising his safety and that of his peers, and minimising the risk of tripping and falling off ladders.

This is part of Keppel Shipyard's initiative in enhancing work processes and to ensuring that identified jobs are made more suitable for our existing mature workers.

Keppel Shipyard was recently awarded a Job Redesign Grant under the Singapore National Employers Federation's (SNEF) Advantage! Scheme in September 2006. This will also enable the yard to actively hire more mature workers for suitable jobs in the yard.

The Advantage! Scheme is a programme developed by the Singapore Workforce

Development Agency (WDA) to encourage companies and organisations to employ mature workers who are Singapore citizens or permanent residents above the age of 40, and re-employ mature workers beyond the age of 62.

With new facilities in place to further improve work efficiency, yard resources can be optimised to provide our customers with quicker turnaround, on time and on budget, which translates to cost and time savings.

# Port of call for Nordic visitors

Mid the several ongoing rig projects from Norwegian clients being executed at the yard, Keppel FELS was recently the port of call for a delegation from the Norwegian Shipowners' Association.



Trygve Seglem (centre), flanked by Einar Schieffloe, head of special projects and Marianne Hage, advisor to the Director General

During the visit, the Association's President, Trygve Seglem, and his team of delegates held discussions with CB Choo, Michael Chia, and other senior management personnel.

They also exchanged views on the current issues, market trends and needs of the future in the offshore industry.

The Norwegian delegation also toured the yard, where they learnt about ongoing projects and witnessed first-hand the execution of projects, including rigs being built for Norwegian clients.

Trygve Seglem's visit to Keppel FELS was part of a series of meetings he had on Norwegian business interests in Singapore. He also gave a presentation to the Norwegian Business Association as part of his visit to the island state.



## Strength from collective knowledge

Keppel O&M's ground experience in rig building over the years has contributed to its strong collective knowledge, which sets the yard apart from other players in the industry.

This competitive advantage was shared by Michael Chia during a visit by investors from First State on 13 November 2006. The visit was co-chaired by Keppel O&M's CFO Sit Peng Sang and the yard tour led by Keppel FELS' Assistant Marketing Manager Quek Mong Song.

# Around our yards

OffshoreMarine tracks works at various Keppel yards.

## Singapore

### Keppel Shipyard Tuas

Name : **Diamond Jasmine**  
Owner : MOL Tankship Management Ltd  
Country : Japan  
Type : Oil Tanker  
DWT : 281,050  
GRT : 152,041  
Date : 3 – 25 November 2006  
Scope : General survey and repairs

Name : **Akrotiri**  
Owner : World Tanker Management Pte Ltd  
Country : Singapore  
Type : Oil Tanker  
DWT : 44,372  
GRT : 25,190  
Date : 25 August – 8 November 2006  
Scope : Gritblasting in cargo tank, hydroblasting in ballast tank, main engine overhauling, steel repair in various tanks, installation of new monorail crane

Name : **Robray T-7**  
Owner : Seadrill Offshore Singapore Pte Ltd

Country : Singapore  
Type : Drilling Tender  
DWT : 2,643  
GRT : 6,665  
Date : 15 September – 9 November 2006  
Scope : Upgrading and repairs, modification of mud centrifuge system

## The Netherlands

### Keppel Verolme

Name : **WHITE POINT**  
Owner : PB Tankers Srl  
Country : Italy  
Type : Tanker – Chemical products  
DWT : 49,474  
GRT : 29,982  
Date : 25 – 28 October 2006  
Scope : General survey and bottom steel repairs  
Remarks : Vessel was re-delivered to owners ahead of schedule. Previous repair and maintenance works were also carried out on the sister tankers, *Black Point* and *Red Point*

## Philippines

### Subic Shipyard and Engineering

Name : **MV "FERMITA"**  
Owner : Ugland Marine Services AS  
Country : Norway  
Type : Bulk carrier  
DWT : 52,292  
GRT : 30,053  
Date : 29 November – 11 December 2006  
Scope : Drydocking, general overhauling, hull preservation, blasting and painting of cargo holds, cleaning of fresh water generator heater and main engine air cooler, renewal of intermediate shaft bearing, propeller polishing, load testing of cranes in cargo room, engine room, provision crane, cargo grabs and lifeboats

Name : **MV "CHINA STEEL EXCELLENCE"**  
Owner : China Steel Express Corporation  
Country : Taiwan  
Type : Bulk carrier

*Robray T-7*



*MV "FERMITA"*





**WHITE POINT**



**M/V "CALA PICCOLA"**



**M/V "GIRALDA CARRIER"**



**FILIPINA PRINCESS**

DWT	: 159,900
GRT	: 91,051
Date	: 30 November – 9 December 2006
Scope	: Drydocking, hull preservation, calibration of water ballast tank and draft gauge level indicators, general overhauling, tailshaft survey, propeller polishing and dye checking, extend vent pipes from main deck to boat deck, partial renewal of engine room pipes, repair of incinerator castable refractory, servicing of main switchboard

#### **Keppel Cebu Shipyard**

Name	: M/V "CALA PICCOLA"
Owner	: Unifruitti
Country	: UK
Type	: Reefer carrier
DWT	: 6,723
GRT	: 8,962
Date	: 19 December 2006 – 4 January 2007
Scope	: Hull preservation works, full blasting of hull and application of silicone-based anti-fouling system using Sea Lion paints, anchor chain works, repair of compressor motors

Name	: M/V "GIRALDA CARRIER"
Owner	: Norbulk Shipping UK Ltd.
Country	: UK
Type	: Reefer carrier
DWT	: 4,963
GRT	: 6,553
Date	: 25 November – 12 December 2006
Scope	: General survey and repair, renewal of cargo derricks-eye plates, overhaul of main

engine works on governor and tanks, boiler safety valves and mounting, exhaust gas economiser cleaning

#### **Keppel Batangas Shipyard**

Name	: <b>MMM DAYTON</b>
Owner	: Malaysian Merchant Marine Sdn Bhd
Country	: Malaysia
Type	: Tanker
DWT	: 3,721
GRT	: 2,043
Date	: 10 October – 3 November 2006
Scope	: Hull blasting and painting, general survey and repair, pipe renewal, water ballast tank cleaning, repairing of anchor windlass, mooring winch, and lifeboat

Name	: <b>YUH FA 302</b>
Owner	: Yuh Yow Fishery Company Ltd.
Country	: Taiwan
Type	: Fishing
DWT	: 3,721
GRT	: 1,237
Date	: 11 – 24 November 2006
Scope	: Renewal of pipes in engine room, general survey and repair of shaft, renewal of bearings

Name	: <b>FILIPINA PRINCESS</b>
Owner	: Negros Navigation Company
Country	: Philippines
Type	: Passenger
DWT	: 4,277.55
GRT	: 13,705.23
Date	: 12 – 16 November 2006
Scope	: Hull cleaning, blasting and painting, replacement of propellers

# Keppel Group Newsbytes

## Keppel Land achieves new benchmarks with Marina Bay Residences ...

Keppel Land's premier development, *Marina Bay Residences*, set a new record price of S\$3,450 psf for a 99-year leasehold property. All 428 units were sold out in three days before the public launch.

*Marina Bay Residences* also scored another first when the developers introduced an unprecedented bidding system for its highly sought-after penthouses. The 11,000 sf waterfront uber penthouse which crowns *Marina Bay Residences* was sold in excess of S\$28 million.

Around 60% of the sales have been to Singaporean buyers and the balance to buyers from the region including Indonesia, Hong Kong, India, the Middle East and China.

## ... and unveils spectacular waterfront homes by master architect

Keppel Land also unveiled its spectacular seafront homes in master architect Daniel Libeskind's first Asian residential showpiece.

*Reflections at Keppel Bay* is a symphony of six glass towers and 11 villa apartment



Keppel Energy's power barges will support the rising power demand in Ecuador

blocks. It will house a total of 1,160 luxury homes along a 750-m shoreline all of which enjoy unparalleled views of the waterfront, golf course and lush surroundings. The towers are from 24- to 41-stories high while the villa blocks range from six to eight storeys.

*Reflections at Keppel Bay* is set to put Singapore on the world map for luxury waterfront living.

for a new phase of growth since becoming a subsidiary of Keppel Land a year ago.

Launched with a new corporate image and an initial pipeline of development across Changzhou, Jiangyin and Tianjin, Evergro is set to embark on a long-term strategy that will enhance the Company's operations, to deliver sustainable returns for its shareholders.

Meanwhile, Evergro has entered into a sale and purchase agreement to sell its seven-storey light industrial factory building, Dragon Land Building, to Ho Bee Realty Pte Ltd for an aggregate consideration of S\$11.2 million.

## Dragon Land is now Evergro

**Evergro Properties Limited**, previously known as Dragon Land Limited, is poised



Designed by master architect Daniel Libeskind, *Reflections at Keppel Bay* is set to put Singapore on the world map for luxury waterfront living

## Keppel Energy powers up in Ecuador

Keppel Energy's 150 MW power barges have commenced generation on 1 December 2006 in Ecuador following a successful redeployment from Brazil.

In January 2006, Keppel Energy's wholly-owned subsidiary, Termoguayas Generation S.A., had signed a 15-year concession contract with the National Council of Electricity to operate in Esclusas, in the southern part of the city of Guayaquil, Ecuador.

# Global Reach

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# Launch of innovative KFELS N Class

Keppel FELS has secured a contract for the first KFELS N Class jackup rig for ProdJack AS, member of the Skeie Group.

When delivered at the end of the first quarter of 2010, it will be the largest jackup rig ever to be built in Singapore. It will also be among the world's largest jackup rigs to be constructed for the North Sea.

Under the agreement, Keppel will have a 10% equity stake in the rig.

The KFELS N Class rig is the brainchild of Keppel's Offshore Technology Development, following Keppel's extensive experience in constructing rigs for the North Sea region since 1985.

This new design provides customers the flexibility of having a jackup unit that can undertake drilling and production activities concurrently. This state-of-the-art jackup drilling rig will have features that readily accept process modules for production activities.

Said CB Choo, "This is our second major partnership with a trend-setting customer to develop and build new products to meet the rising needs of the oil and gas industry.

"Three years ago, when we first cooperated with the Skeie Group, the offshore market was still lacklustre. Their market foresight and entrepreneurial spirit in searching for innovative solutions in challenging conditions has encouraged us at that time to develop and design the KFELS Super B Class jackup rig that can drill in deeper depths at higher temperature and pressure.



Keppel FELS and ProdJack senior management seal a new partnership

"We have since delivered two of five KFELS Super Bs, the *Deep Driller* 2 and *Deep Driller* 3, ahead of schedule to the highly satisfied customer.

"About a year ago, Keppel saw opportunities arising from the Norwegian North Sea sector. At the same time, the Skeie Group was also on the lookout for an innovative rig for the marginal fields in the North Sea.

"Our R&D arm assessed this demanding and technically challenging requirement and worked with Skeie Group to develop this innovative KFELS N Class self-elevating jackup solution."

The North Sea region is one of the world's harshest operating environments for offshore exploration and production, and comprises numerous marginal fields, each having relatively limited oil and gas reserves. Yet together, these fields contain Western Europe's largest oil and natural gas reserves, and is one of the world's key non-OPEC producing regions.

The KFELS N Class is suited for operation in harsh weather conditions, and with water depths of up to 400 ft and drilling depths of down to 35,000 ft. The design is in full compliance with the demanding and technically challenging requirements of rigs operating in the Norwegian sector of the North Sea. None of the jackup rigs on order today are specifically designed to meet these requirements.

CB Choo said, "The difficult weather and field conditions of the North Sea call for an innovative offshore rig solution that can maximise functionality in order to make searching and producing hydrocarbons in the marginal fields more time and cost effective. Our new design has been created to meet this need."

"The KFELS N Class rig has the KFELS Super B deep-well drilling capabilities and has sufficient deck space for production modules to be outfitted. The design of the rig allows it to undertake production activities without compromising the rig's drilling capability."

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