



▶ operationally ready 24/7 ▶ lab on a ship ▶ human resources 101 ▶ women on board



# 16<sup>th</sup> Singapore International Bunkering Conference and Exhibition

27 – 29 October 2010, Resorts World™ Sentosa, Singapore

## Forging Ahead – A New Era for Marine Fuels

### Keynote and Industry Addresses



**Pek Hak Bin**  
Country President  
BP Singapore



**Dr Kyuho Whang**  
CEO  
SK Shipping



**Vincent Chong**  
Global Director  
ExxonMobil Marine Fuels

### Visionaries in Shipping Forum



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DNV



**G. S. Choi**  
Executive Vice President  
and Chief Executive  
Hanjin Shipping  
(Terminal Business Unit)



**Peter Borup**  
Managing Director, Singapore,  
Group Senior Vice President  
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Chairman and CEO  
World Fuel Services



**Tore Morten Wetterhus**  
Managing Director  
DNVPS



**Adrian Tolson**  
Vice President,  
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### Fuel Standard and Emissions Policy Experts



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ISO 8217 Convenor;  
International Fuel Executive  
Intertek



**Sveinung Oftedal**  
Senior Advisor  
Norwegian Ministry  
of Environment



**Christian Breinholt**  
Deputy Director General  
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Authority

### Guest of Honour Raymond Lim

Minister of Transport and Second Minister for Foreign Affairs,  
Republic of Singapore

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- Industry Think Tank on managing ISO 8217 implications
- Meeting challenges of Sulphur Legislation and Measurement Integrity
- Marine Fuels Market Watch – Supply / demand trends, and changing procurement practices
- Market Based Measures for Emissions control – options, scenarios, implications

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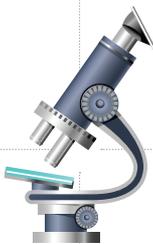
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PEOPLE IDEAS  
OPPORTUNITIES

## Singapore Maritime Week 2011

Singapore Maritime Week (SMW) is the leading maritime event in Singapore. Driven by the Maritime and Port Authority of Singapore (MPA), SMW gathers the international maritime community in Singapore for a week of conferences, dialogues, exhibitions and social events in celebration of all things maritime. The range of activities and events organised by MPA, the industry, and research and educational institutions, as well as the cosmopolitan profile of participants, reflect the vibrancy and diversity of Singapore as a major international maritime centre.

Participants can experience something new every year as eminent speakers share their insights and participate in dialogues on topical maritime issues. Events lined up for SMW 2011 include the 5th Singapore Maritime Lecture, Sea Asia 2011, the Singapore International Maritime Awards, the International Chemical and Oil Pollution Conference & Exhibition and the International Maritime-Port Technology and Development Conference.

The dynamism and good range of issues discussed during SMW are major draws for maritime decision-makers, as are the many business networking platforms. This is why Singapore Maritime Week is all about **PEOPLE, IDEAS** and **OPPORTUNITIES** for the maritime community.

11-15  
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6th SINGAPORE MARITIME WEEK

Visit [www.smw.sg](http://www.smw.sg)  
Email [smw@mpa.gov.sg](mailto:smw@mpa.gov.sg)

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The Maritime  
and Port Authority  
of Singapore

# One step ahead

As a former army officer, I was trained to be operationally ready at all times. This meant preparing for the worst and knowing that anything can go wrong, despite having the most comprehensive plans. The phrases “expect the unexpected” and “plan for success” were deeply etched in my mind.

Since joining the Maritime and Port Authority of Singapore (MPA), I’ve realised that these mantras are equally applicable to MPA’s work, where crisis management is concerned. Collisions, groundings, oil spills and various incidents do occur at sea. Hence, we need to be prepared at all times.

The recent collision just off Singapore’s Changi coast is probably freshest in our minds. As you will see in our main feature this issue, a quick response was critical in containing the resulting oil spill. Much work was done behind the scenes as MPA rallied support from

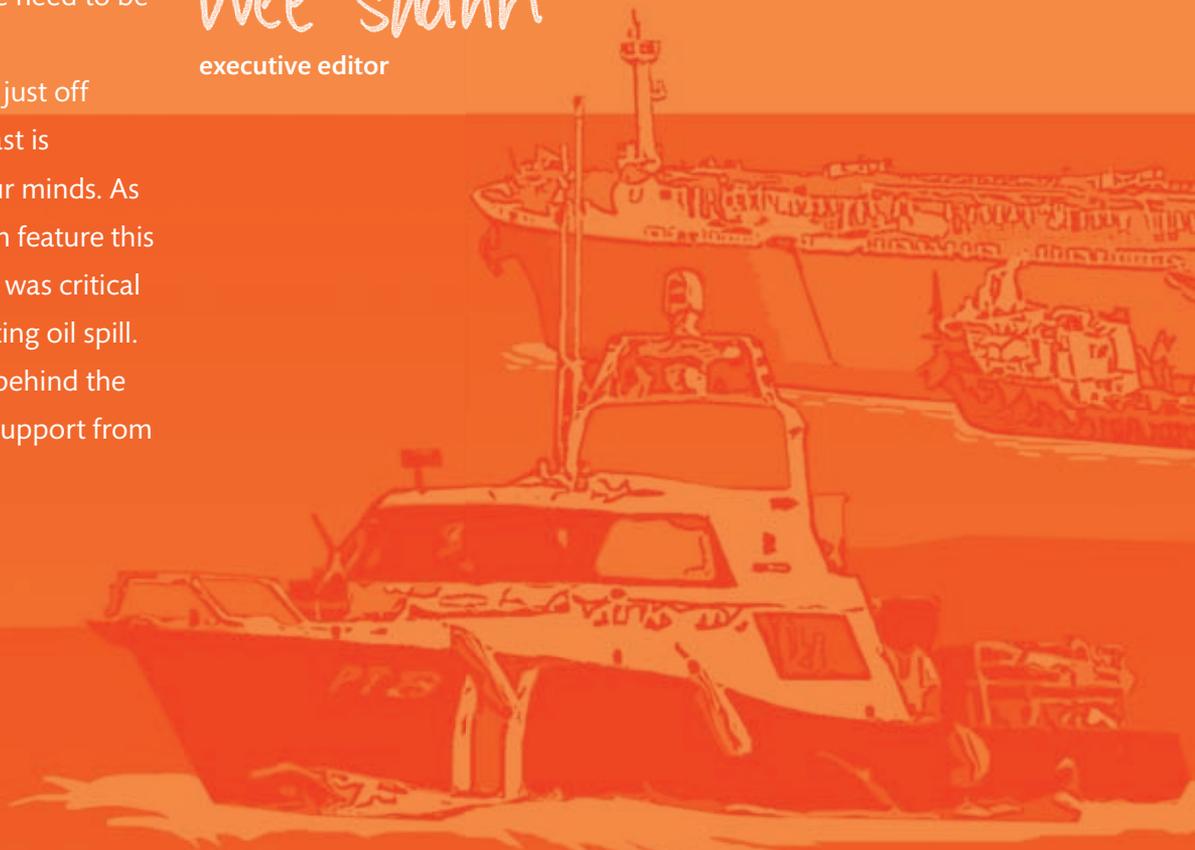
related agencies, and mobilised personnel and resources within a short time to contain the oil spill and carry out cleaning operations.

As with any major setback or incident, there are many lessons to be learnt. The standard operating procedure will be refined, innovative and effective solutions will be developed, and our plans will be beefed up.

While Murphy’s law can kick in at any time, take heart that MPA, our partners and the maritime community are ready to respond.

*Wee Shann*

executive editor



## Sea Asia 2011 set to be largest ever



► Sea Asia, the iconic event for the global maritime industry held in Singapore, will return with a record-breaking edition in 2011. Organisers Seatrade and the Singapore Maritime Foundation (SMF) revealed that Sea Asia 2011 will boast more exhibition space and more exhibitors, and a greater number of participants than ever before are expected to attend.

Sea Asia 2011 will take place at Marina Bay Sands in Singapore from April 12-14 as part of the Singapore Maritime Week (SMW) organised by the Maritime and Port Authority of Singapore

Sea Asia 2011 seeks to be the region's pivotal business conference that unites maritime leaders and projects the Asian voice.

(MPA). Several global companies are expected to make significant corporate announcements during Sea Asia.

"Through this show, we hope to elevate Singapore's status as a leading international maritime centre and make Singapore the focal point for maritime leaders to discuss pertinent issues and challenges faced by the industry, in particular, those of Asia," said Mr Michael Chia, Chairman of SMF.

The three-day event boasts a host of attractions featuring a unique mix of conferences, social and sporting events, corporate announcements, press conferences and technical presentations.

The show is guided by an international advisory panel comprising some of the foremost Asian leaders in the industry. These include Capt Wei Jia Fu, Group President & Chief Executive of COSCO, Mr Choo Chiau Beng, Chief Executive of Keppel Corporation, Mr S.S. Teo, Managing Director of Pacific International Lines and Mr Koji Miyahara, Chairman of Nippon Yusen Kaisha (NYK).

Chairman of Seatrade, Mr Chris Hayman, hailed the importance the maritime sectors in Asia are placing on Sea Asia as "a significant commitment from a highly diverse collection of companies and individuals".

"One of the strengths of Sea Asia has been its ability to draw in a vast cross-section of interests across the maritime sector, from the financiers, through to the offshore sector, charterers, ship repairers and builders. They come from across Asia, and many are global companies," he said.

## General insurance industry sees upturn in overall gross premium income



► The General Insurance Association of Singapore announced its FY2009 earnings results on March 17, 2010, reporting a healthy rise of 1.6 per cent in gross premium income for the whole industry, as well as a 273 per cent increase in underwriting profit.

While hull insurance registered a rise of 7 per cent in net earned premium, claims rose by more than 60 per cent due to the depressed global economy. On the other hand, cargo insurance showed fewer claims in 2009 than 2008, bringing the incurred loss ratio down by 10.6 per cent to 18.7 per cent.

Although the global economy has shown early signs of recovery, the International Union of Marine Insurance has cautioned that decreased cargo volumes and declining vessel values are likely to continue. This is likely to impact insurance premiums this year.

## 8<sup>th</sup> Bunkering Forum

► The Maritime and Port Authority of Singapore (MPA) held the 8th Bunkering Forum on May 3, attended by some 270 representatives from 126 companies and associations in the bunkering industry.

In his opening address, Capt M. Segar, Group Director (Hub Port) and Director (Port), MPA, set the forum off on a positive note. "Over the years, Singapore's bunkering industry has grown substantially, seeing a steady increase in bunker volume from 25 million tonnes in 2005 to 36.4 million tonnes last year. This is a remarkable report card for us and the industry, considering the global recession last year," he said.

He also launched the Bunker Masterplan 2010-2015 and pro-enterprise initiatives that streamline the process of obtaining

bunkering licences.

One initiative is a Single Renewal Process for Bunker Supplier and Bunker Craft Operators, thus reducing the renewal efforts by licensees that are holding both bunkering licences. Taking effect from October 1 this year, this pro-enterprise initiative will also see licensing fees reduced by 33 per cent, from \$300 to \$200 for the concurrent renewal of the two bunkering licences.

Another initiative announced was the introduction of a longer three-year licensing period for eligible Bunker Supplier and Bunker Craft Operators that meet certain criteria. This will reduce the administrative workload due to annual renewals. Similarly, fees are effectively reduced because MPA will not charge more for a longer licensing period.



Capt M. Segar delivered the opening address for the forum, which was also a great platform for networking.

## The Singapore Stranded Seafarers' Fund

► The Singapore Stranded Seafarers' (SSS) Fund was started on August 16, 1999 with the aim of reducing the hardships faced by seafarers who were stranded on board Singapore ships in Singapore and overseas while waiting for repatriation or settlement of their claims.

Although there have been no cases of seafarers of Singapore ships being abandoned by their employers, it is still a possibility, especially in times of economic crisis. For example, in 1995, *MV Syabas Singapura*, which was owned by Syabas Oil Singapore Pte Ltd, was stranded in Honolulu as the company became insolvent. After intervention by the Maritime and Port Authority of Singapore (MPA), the mortgagee agreed to bring the ship back to Singapore to have it arrested and sold. Similarly in 1998, *Sea-Bliss (S) Pte Ltd*, which owns *MV Wan Ling*, was experiencing financial troubles and was unable to fulfil its obligation to the ship and its seafarers.

Even though it is the employers' duty to pay for crew wages and repatriation as well as provide fuel, food and water, the SSS Fund was set up by MPA as a means

to reduce the hardships of seafarers in the event that their companies are unable to discharge their duties. The Fund could be drawn upon to provide humanitarian aid to the stranded seafarers when the owners, who are facing bankruptcy or insolvency, do not have the financial means to provide maintenance of the ships and seafarers.

The SSS Fund began with contributions of \$200,000 from the MPA and \$50,000 each from the local unions – the Singapore Officer's Maritime Union (SMOU) and the Singapore Organisation of Seamen (SOS). A mechanism has also been put in place to replenish the SSS Fund once the amount drops below 50 per cent of the original sum of \$300,000. The Fund is administered by the SSS Fund Committee, which consists of MPA, the maritime unions, and the seafarers' mission, and members of the Singapore shipping community. The Committee decides on the appropriate sum to allocate to stranded seafarers, taking into account the needs of the situation, like the number of seafarers and the cost of living at the location where they are stranded.

# SINGAPORE MARITIME WEEK



The 5th Singapore Maritime Week (SMW) was launched by Mr Raymond Lim, Minister for Transport and Second Minister for Foreign Affairs, alongside representatives from MPA and key maritime associations.

Top photographs from the inaugural SMW Photography Competition 2010 were displayed in a unique lighthouse-themed exhibition.



This year, SMW reached out to the community at large by showing and sharing what Maritime Singapore is all about through interactive land- and sea-based outreach programmes.



MPA clinched the Port Authority Award at the Seatrade Asia Awards 2010.



Maritime thought leaders, such as Mr Robert Lorenz-Meyer, President of BIMCO, spoke at various SMW events.



The week was filled with conferences and events for maritime decision-makers. Mrs Lim Hwee Hua, Minister in the Prime Minister's Office and Second Minister for Finance and Transport, was the guest-of-honour at Lloyd's Register's 250th anniversary celebration, and Capt Wei Jia Fu delivered the Singapore Maritime Lecture.



# LAB ON A

# SHIP



ON-THE-GO TECHNOLOGY  
CHANGES THE FACE OF FUEL  
TESTING BY MANAGING USAGE AND  
QUALITY OF OIL VIA NANONORD'S  
AUTOMATED OIL ANALYSIS SYSTEM  
BY VINCENT WEE



▶ Residual fuel oil, or bunker, provides the shipping industry with relatively low-cost fuel. While low-cost fuel is a boon for ships (a container ship requires 1,000 to 2,000 tonnes of bunker on average), bunker comes in varying quality and energy content, and could contain elements potentially damaging to a ship's propulsion system.

For over 25 years, the industry has been using shore-based laboratory analyses of small samples of bunker deliveries to help manage the risk of using poor-quality bunker. While this system has served the industry well, one area of uncertainty has not been addressed: On board the vessel, the condition of the fuel cannot be easily monitored from storage through treatment to its use.

Current on-board fuel quality management capabilities available in the market have limitations and can pose problems. A prime concern is the time taken to receive the results. They are typically available anywhere up to a week after bunkering, so the ship may already be using the fuel before receiving the analysis results.

In addition, elements from previous bunkerings such as catfines and extraneous dirt can accumulate in fuel tanks, where an increase in catfines concentration can cause rapid cylinder wear. Rough seas may also stir these into the fuel in large enough concentrations to overload the treatment plant.

Other problems include human error in the manual sampling process during bunkering and an inability to test the entire supply flow.

Bunker drip sampling, while well recognised by the industry as an effective way of providing an overall indication of the fuel supplied, lacks the capability to address any inconsistencies of the total supply of the bunker. The samples collected may not easily verify any poor blend practices or non-homogenous supply.

### Enter LOAS

These are the problems which Danish technology company Nanonord A/S' at-line automated oil analysis system Lab-On-A-Ship (LOAS) aims to resolve. LOAS enables the pro-active management of the risks in using oil residues of the

refining industry. The system can also be used for lubricant analysis to enhance on-board condition monitoring capability. Nanonord worked together with Lloyd's Register Fuel Oil and Bunker Analysis Service (FOBAS) in the development of the system.

Ultan O'Raghallaigh, Nanonord's Business Development and Sales Director, says: "We believe that by combining our innovative LOAS technology with Lloyd's Register's FOBAS software and consultancy support, it will meet the needs of the ship operating community. With this solution, you will be able to know immediately what are the core quality attributes of a fuel throughout the bunkering process and as the fuel enters the engine. You can then take appropriate action if needed. This represents a significant advance in effective vessel management."

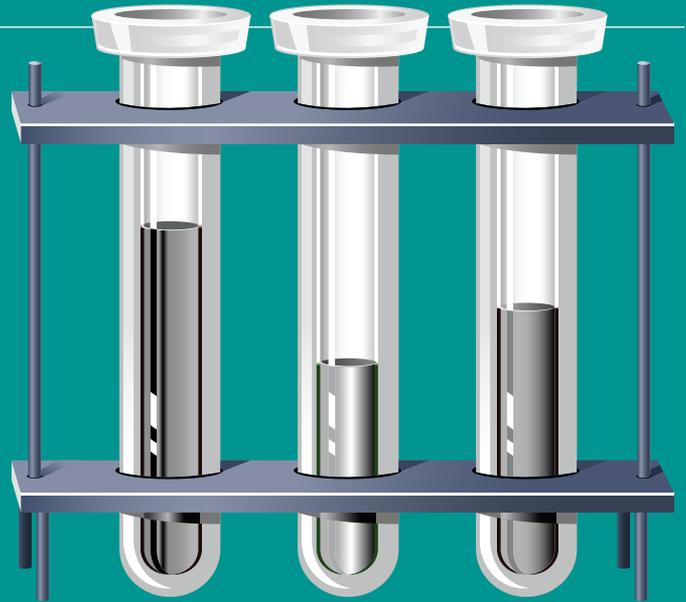
Nanonord launched the LOAS system in early 2009 on a pilot basis with a small group of customers, which include DFDS, J. Lauritzen, Torm and BP Shipping. Nanonord has also been working closely with Lloyd's Register FOBAS. The system was installed on five

vessels – two tankers, two bulk carriers and a passenger ferry.

Among the parameters that can be analysed are density, viscosity, water content, sulphur, silicon, aluminium, vanadium, potassium, calcium, calculated sodium and oil temperature at 12.5cSt. The system can also analyse additional elements in lubricants such as iron, chromium, nickel, copper and zinc.

Already, Nanonord is expected to launch an exhaust gas analyser module this year to complement the LOAS system, which will measure nitrogen oxide, carbon dioxide and oxygen emissions. The system's current oil analyser already provides analyses of sodium oxide and calculated carbon dioxide emissions based on fuel mass consumed.

Timothy Wilson (pictured above), FOBAS Product Manager, says: "Lloyd's Register is responding to the call from ship owners and operators for a more immediate verification of fuel quality during bunkering and in-line monitoring to reduce the operational risks associated with poor-quality fuels and ineffective treatment systems. We believe the



future of effective machinery operation and environmental compliance lies with in-line monitoring, and we would expect shore-based analysis to reduce significantly by up to 90 per cent within five to 10 years, eliminating the need for routine analysis as we know it.”

### Features and benefits

The system will provide both the ship’s crew and shore-based management with a powerful tool to optimise operations and prevent expensive damage to ship equipment. Features include real-time monitoring of fuel quality during bunkering, which will mitigate the likelihood of expensive de-bunkering that result in delays, provide greater confidence to use bunkered fuel without delay, and alert crew on the need for extra treatment in the event of receiving poor-quality fuel.

LOAS also enables fuel quality monitoring during ship operations by alerting crew on important changes in fuel characteristics such as increased catfines concentration and increased water entering the fuel system, which can be caused by condensation through sea water leakage (the system can differentiate between salt water and fresh water) or steam leakage.

Changes in density and viscosity resulting from non-homogenous blends and stratification of the fuel can also be detected. This enables monitoring of purifier efficiency (monitoring before and after purifying). In fact, purifier inefficiency has been the most commonly observed problem on LOAS installations over the past year.

With environmental regulatory compliance becoming an increasingly

important issue, continuous monitoring of both fuel and exhaust gas emissions characteristics provides the crew with the capability of managing and demonstrating compliance. This is important in the context of growing anxiety among seafarers with regard to possible prosecution for breaches of environmental regulations.

LOAS can also be used for monitoring lubricant characteristics. This can be done either by automatic sampling or by inputting samples manually into the analyser.

The regular and systematic monitoring of lubricants, without the delay of waiting for sample results from shore laboratories, enables early corrective action. Otherwise, water leakage could cause oil film breakdown, and wear metals could result in excessive component wear and possible failure. Lubricant analysis using LOAS can also form a key part of a condition-based maintenance programme.

Poor-quality marine fuel continues to present a

significant risk to ships by way of engine damage and potential non-compliance with environmental legislation. By monitoring the quality of fuel on a virtually continuous basis, the system alerts the crew on quality parameters that exceed normal safe operational limits and gives advisory information based on the prevailing situation, allowing conditions to be brought back under control. In this way, it will assist in attaining maximum fuel efficiency, protecting the engine from abrasives, assessing separator/purifier efficiency, monitoring fuel energy values and exact sulphur content for the optimum cylinder oil feed rate and base number content.

“Knowing the sulphur content of the fuel being used is extremely important, especially now that ships can carry up to seven different grades of fuel on board, with the requisite change-over procedures, in order to comply with international environmental regulations.

**With this solution, you will be able to know immediately what are the core quality attributes of a fuel throughout the bunkering process and as the fuel enters the engine. You can then take appropriate action if needed. This represents a significant advance in effective vessel management.**

## HOW LAB-ON-A-SHIP (LOAS) WORKS

Having the sort of information that FOBAS Onboard provides enables crews to reduce the risk of inadvertently exceeding prescribed sulphur limits and optimise cylinder oil consumption," says Wilson.

The customer experience has been positive. Ejner Boderup, President of Lauritzen Bulkera, says: "As a cargo vessel operator, we can't make advance arrangements with port suppliers and have to bunker at many different locations where bunker oil might be of lower quality. We are delighted with the technology that can alert us to the presence of low-quality bunker."

The year has also been a learning experience for Nanonord and its customers. The former has gained practical experience of what is important to ship engineers and technical managers, as well as considered how they wish to use the system. A second-generation system is being developed and is expected to be made available to the market later this year, once rigorous trials and tests have been completed.



- The LOAS system draws samples from various points on the ship, such as the bunkering line, before and after fuel oil purifiers, engine inlets and before and after system lubrication oil. effect and possible solutions for such alerts is also provided by Lloyd's Register's FOBAS and incorporated in the LOAS system supported by remote monitoring and consultancy support.
- Samples are taken through automated valves at these points and transported through 25mm diameter tubing to the analyser. The elemental analysis is done using X-ray fluorescence. Water content is determined using a small distillation unit, while density and viscosity is measured by a coriolis meter. Each test cycle takes approximately 15 to 20 minutes.
- Lloyd's Register's Fuel Oil and Bunker Analysis Service (FOBAS) provides the value limits for parameters measured by the system. When the system measures a parameter in excess of these limits, an alert is generated with guidance notes. A help menu advising on the cause, Measurement data from the LOAS system is stored on a dedicated server on board the ship. The system also links with other measurement devices on board such as fuel flow meters, torque meters, anemometer, GPS and the ship's clock. This database provides comprehensive information on ship performance. The data is also transmitted via satellite to a shore-based server. Reports on ship and fleet performance can be generated by the LOAS system and automatically e-mailed to clients.
- Monitoring at the engine inlets provides a final check for dangerous catfines and information on energy consumption as a basis for engine efficiency measurement. Sulphur content in the fuel provides data for the optimisation of cylinder oil dosage and for ensuring compliance.

► People are the heart of the maritime industry. So in order to grow the business, one will need to grow the people. There is no lack of opportunities for personal growth and development in Maritime Singapore: Local polytechnics and universities run comprehensive maritime courses, and international institutes and organisations organise programmes to develop manpower to its full potential. We discover how two such institutes, involved in different areas of the industry, are building a talent pool for one of Singapore's most successful industries.

### Building maritime professionalism

"Our word is our bond" – that is the motto of the Singapore branch of the Institute of Chartered Shipbrokers (ICS), the only internationally recognised professional body representing shipbrokers, managers and agents in the world. This commitment to raise the level of professionalism and integrity among local shipbrokers is all the

more pertinent in the current climate.

Capt Subhangshu Dutt, Chairman of the Singapore branch, says: "We believe our motto – which we instil in our members – is the most important principle. This motto, combined with the high standards of professionalism which the ICS maintains, provides an element of stability, particularly in today's volatile shipping environment."

With the shipping industry going through one of its most trying times, some may feel a strong temptation to renege on deals. As Capt Dutt points out: "In these troubled times, there is always a strong urge to try and back out of contracts. We believe the standards of the ICS do moderate the situation, particularly when the people involved on opposite sides of the table are from ICS."

"Our role is to try and get the shipbroking community together in a non-competitive environment to discuss issues of common concern without

compromising business confidentiality," he adds.

ICS is also a major provider of training and education. In Singapore, it is doing its part to enhance the professionalism of shipbrokers here through its education programme. Its comprehensive range of courses allows aspiring brokers to gain the knowledge, expertise and qualifications they need. "The well-rounded syllabi provide a great foundation," says Capt Dutt.

Enhancements are being made to the syllabi. For instance, the ICS is finalising its syllabus for the ship finance paper. "We can now make available specific subjects which staff at a shipping bank can relate to. They don't have to take a general paper such as Sale & Purchase or Dry Cargo Chartering in order to learn about just one aspect they're interested in," explains Capt Dutt, who is a shipping veteran who started out in the shipping industry as a seafarer in 1971.

# SCALING

SINGAPORE NAUTILUS DISCOVERS HOW TWO INSTITUTES ARE BRINGING TOGETHER AND DEVELOPING PROFESSIONALS TO TAKE THE MARITIME INDUSTRY TO GREATER HEIGHTS

BY RAHITA ELIAS AND VINCENT WEE



## Our role is to try and get the shipbroking community together in a non-competitive environment to discuss issues of common concern without compromising business confidentiality.

Capt Subhangshu Dutt, Chairman of the Singapore branch of the Institute of Chartered Shipbrokers

To prepare students for the ICS exams, the institute runs its own educational programme called Tutorship, which is administered by distance learning centres worldwide. The local branch entered into a partnership with the International Trading Institute at the Singapore Management University (ITI@SMU) in 2009 to jointly develop and deliver shipping-related courses to boost professional standards across the

shipping industry.

Capt Dutt says: "Each of us brings our respective strengths to the table. For the ICS, the goal is to deliver our Tutorship programme using SMU's infrastructure and tap into SMU's pool of tertiary and working students engaged in related sectors.

"For example," he explains, "the students on the trading track would find taking the ICS qualification a

logical choice. At the same time, the ICS students perceive greater value in this partnership. The more enterprising ones could look at the higher-level courses offered by SMU."

Under the partnership, the ICS-ITI Professional Shipping Programme and ICS-ITI Foundation Shipping Programme are being offered. Both are modelled after Tutorship, which provides certification. Eligible participants who attend and successfully complete the programmes can enjoy a course fee subsidy of up to 60 per cent from the Maritime and Port Authority of Singapore (MPA)'s Maritime Cluster Fund.

Capt Dutt adds: "This joint initiative would make the professional qualification more accessible to residents of Singapore and the region. It will be a step in the right direction in building up Singapore's status as an international maritime centre."

The growth of the shipbroking industry here reflects the country's rise as a global

# HEIGHTS



maritime hub. It also helps to add both depth and breadth to the membership base of ICS Singapore. Capt Dutt says: "Many foreign companies – branch offices of shipping, broking or ship management firms – set up office here seven to eight years ago. Many of these companies had ICS members on their staff, and when they moved here, they opted to transfer the membership to the Singapore branch. This resulted in greater diversity in our membership base."

Today, the Singapore branch has 82 members. About 60 per cent are Singaporean or Singapore permanent residents. Capt Dutt adds that the ICS here is getting an infusion of new blood as an increasing number of younger people are joining. "While the current membership is tilted towards those over 40, we are seeing a lot of younger ones taking the exams and seeking membership," he explains.

The future for the Singapore branch therefore looks bright. Its next step is to try and attract more company members. "We believe that to bring the ICS to the next level, we need to look at company membership, where companies do not just become members but also encourage their staff to get the qualifications. This way, the talent pool would be built up."

### Maritime law abridged

Singapore's strength as an international maritime centre has been recognised by leading lights of the maritime industry, such as the University of Southampton's Institute of Maritime Law (IML). Although the institute's links with Singapore go back about 25 years, with periodic short courses held in Singapore over the years, the idea to bring in the two-week Maritime Law and Practice Course was a fairly recent one, with the inaugural course held last year.

This came about due to the increasing demand for more in-depth courses and knowledge among the maritime community here as the industry developed. "What we're trying to do is to bring the expertise we have to a place (like Singapore) which has been very welcoming to us," says IML Director Filippo Lorenzon.

"From what I have seen of the people in the course this year, they are extremely interested, with a thirst for knowledge and a genuine passion for shipping law," says Lorenzon.

He also notes that the participants this time come from both legal and non-legal shipping-based backgrounds. "This makes for interactive practical discussions rather than sometimes somewhat arid

legal discussions," adds Professor Charles Debattista, one of the course lecturers.

The course, jointly organised by IML and the Singapore Maritime Foundation (SMF), has gone from strength to strength since last year, with a 25 per cent increase in the number of participants. Prof Debattista points out that its appeal and popularity is growing not only in Singapore but in the region as well, with increasing numbers of participants from outside the country. While the intake was largely from Singapore last year, this year's course has about half coming from overseas.

"This highlights the important role Singapore is acquiring as a centre for shipping law, as can be seen also from how more and more shipping disputes are being settled at its arbitration centre and facilities," adds Prof Debattista. "All this means there is room for growth. We very much hope to be a part of that and contribute to it where we can." Similarly, Lorenzon is confident about future growth and predicts a positive trend for the next two to three years.

Prof Debattista notes that it would also be useful to diversify the range of courses brought to Singapore for local discussion, so there are "other arrows to our bow".



These include areas such as international trade and international arbitration law and practice. "These are all areas which we cover within the personnel of IML and, given the role Singapore wants to play in the wider context of international trade, we could usefully collaborate on them," says Prof Debattista.

Going forward, Lorenzon says they have also had increasing interest to do more short courses for the oil, gas and shipbuilding sectors. Prof Debattista believes these could be offered as additional short courses to the core two-week course.

Lorenzon is grateful to all the sponsors and organisers, especially MPA which provided support for course fees through its Maritime Cluster Fund, and SMF, for helping to make the course possible.

"The students have been fantastic, and Singapore has been very welcoming indeed. I am confident that this course would happen again next year and that we will be back with new and different products, such as bespoke training consultancies and more specialised one- or two-day courses on recent developments of particular interest for the region," concludes Lorenzon.

## INSTITUTE OF MARITIME LAW

### FOUNDED: 1982

- Part of the School of Law at the University of Southampton.
- To give focus to an existing interest in maritime and international trade law.
- A large variety of courses and seminars are run by the Institute both in the UK and occasionally overseas. These range in length from the residential three-week Maritime Law Short Course, to shorter seminars on points of particular interest.

## INSTITUTE OF CHARTERED SHIPBROKERS

### FOUNDED: 1911

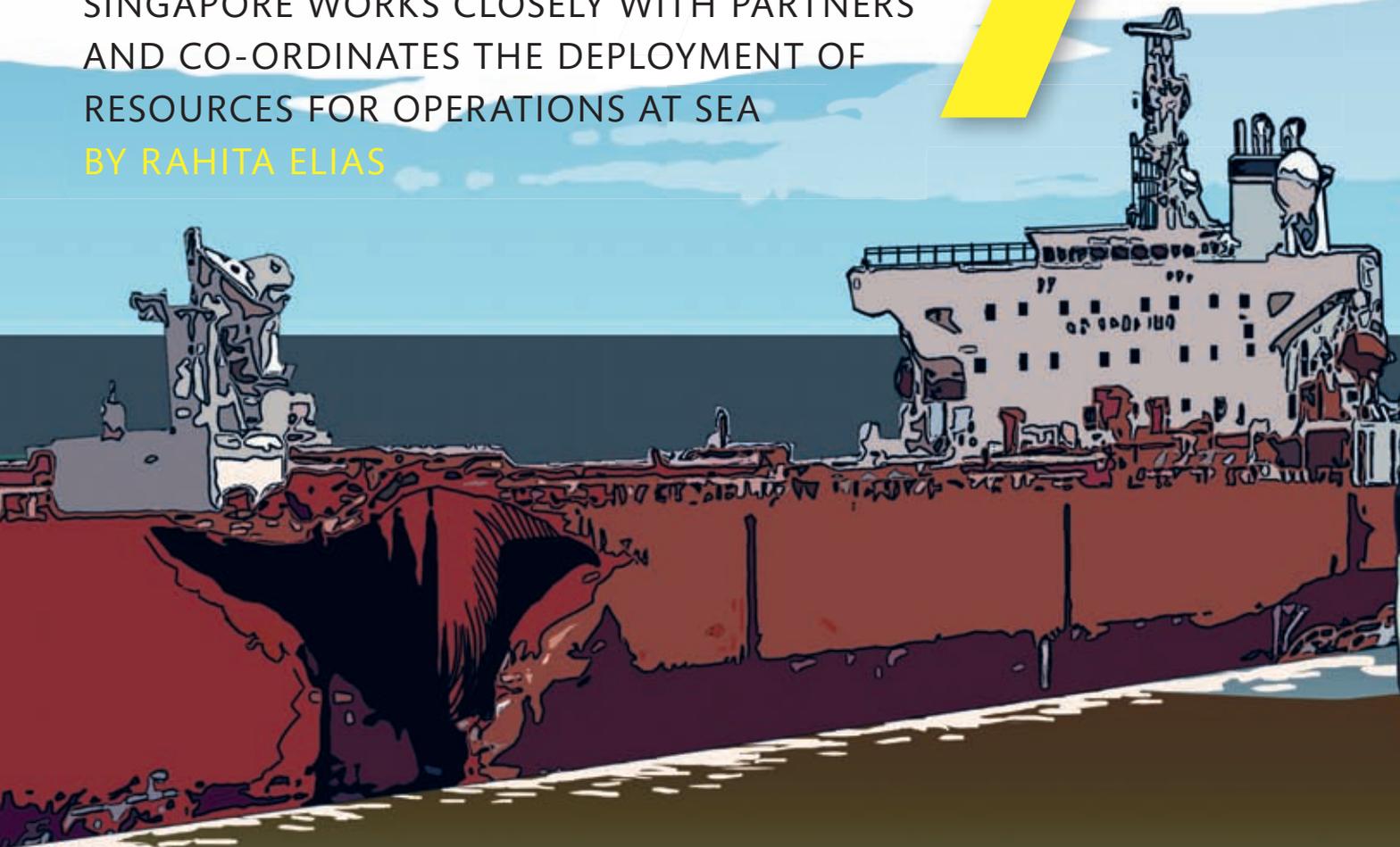
- Internationally recognised professional body, representing shipbrokers, ship managers and agents throughout the world.
- A major provider of education and training, ICS sets and examines the syllabus for membership, providing the shipping industry with highly qualified professionals.
- There are currently 16 distance learning centres run by ICS around the world offering Tutorship courses.



# 24/7

ALWAYS READY TO RESPOND TO INCIDENTS, THE MARITIME AND PORT AUTHORITY OF SINGAPORE WORKS CLOSELY WITH PARTNERS AND CO-ORDINATES THE DEPLOYMENT OF RESOURCES FOR OPERATIONS AT SEA

BY RAHITA ELIAS



It is a quiet early morning in the Port Operations Control Centre 2 (POCC 2) at PSA Vista. The sun has barely risen, and the sky outside is still dark. Inside, it is also dark – kept that way to minimise any distractions. Light mainly comes from the glowing consoles. Eleven operators are on duty at the centre, which is fully manned 24 hours, seven days a week.

At about 6.10am, the quiet is broken when the VHF radio at operator Bernard Tan's station crackles. An urgent voice reports the fateful news: The master of the AET tanker, *Bunga Kelana 3*, informs Tan that a collision between the

Malaysian-registered tanker and *Waily*, a St Vincent and The Grenadines-registered bulk carrier, had occurred and that crude oil was pouring into the sea.

In such marine emergencies, a ship's captain, agent or owner is required to report the incident. Operators like Tan will then gather a host of information, including the vessel's name, type and location, the nature of the incident and the nature of assistance, if required.

After the necessary information was gathered, Port Master, Capt Lee Cheng Wee, received the call. He recalls: "I was at home getting

ready for work when the call came. I could immediately tell from the tone of the supervisor's voice that things were not looking good.

"We can get calls like that any time of the day. In this case, it was the extent of the damage that got the heart pumping. Because the master was reporting that a lot of oil was leaking, the red flag came up. We knew something serious had happened."

Capt Lee adds that he felt deeply concerned because the collision had occurred in the middle of the busy Traffic Separation Scheme (TSS) along the Strait of Singapore.

"The TSS lanes here are busy.

With 130,000 vessels calling at the port annually, on average there is one vessel movement every two minutes. There are also many vessels that transit through the Singapore Strait without calling at the port. We have to be alert to any potentially disastrous situations, so when a call comes, we are most concerned about two things – whether anybody was injured and the extent of the damage. Fortunately, in this case, there were no injuries."

His first call was to Capt M. Segar, the Maritime and Port Authority of Singapore (MPA)'s Group Director (Hub Port): "After discussions on the extent of the damage and the



possible implications of the oil spill, I recommended that we activate the Emergency Operations Committee (EOC) immediately, and he agreed." The MPA EOC manages all serious maritime incidents. Depending on their nature and scope, they may also involve representatives from other agencies. For this incident, the efforts to contain and clean up the oil spill at sea were headed and coordinated by MPA.

**Cleaning up**

Without delay, MPA dispatched four patrol and emergency response craft to the affected area, and activated oil spill response companies to deploy their craft. That signalled the start of efforts to mop up some 2,500

tonnes of crude oil that leaked out of the *Bunga Kelana 3* after the collision 13 km south-east of Changi East.

Over the next 10 days, a total of 42 craft, six skimmers, one lightweight shallow water boom, a harbour buster, 140 imbibitor-beads absorbent pads, three vacuum trucks, over 30 tonnes of dispersant, 3.3km of containment boom and more than 170 seaward personnel would be deployed. Another 25 MPA officers were deployed at MPA's Emergency Operations Control Centre at POCC1 in Tanjong Pagar Complex to co-ordinate the efforts.

Capt Lee says: "We worked with several agencies to combat the oil spill, including the Agri-Food & Veterinary

**MPA dispatched four patrol and emergency response craft to the affected area, and activated oil spill response companies to deploy their craft.**

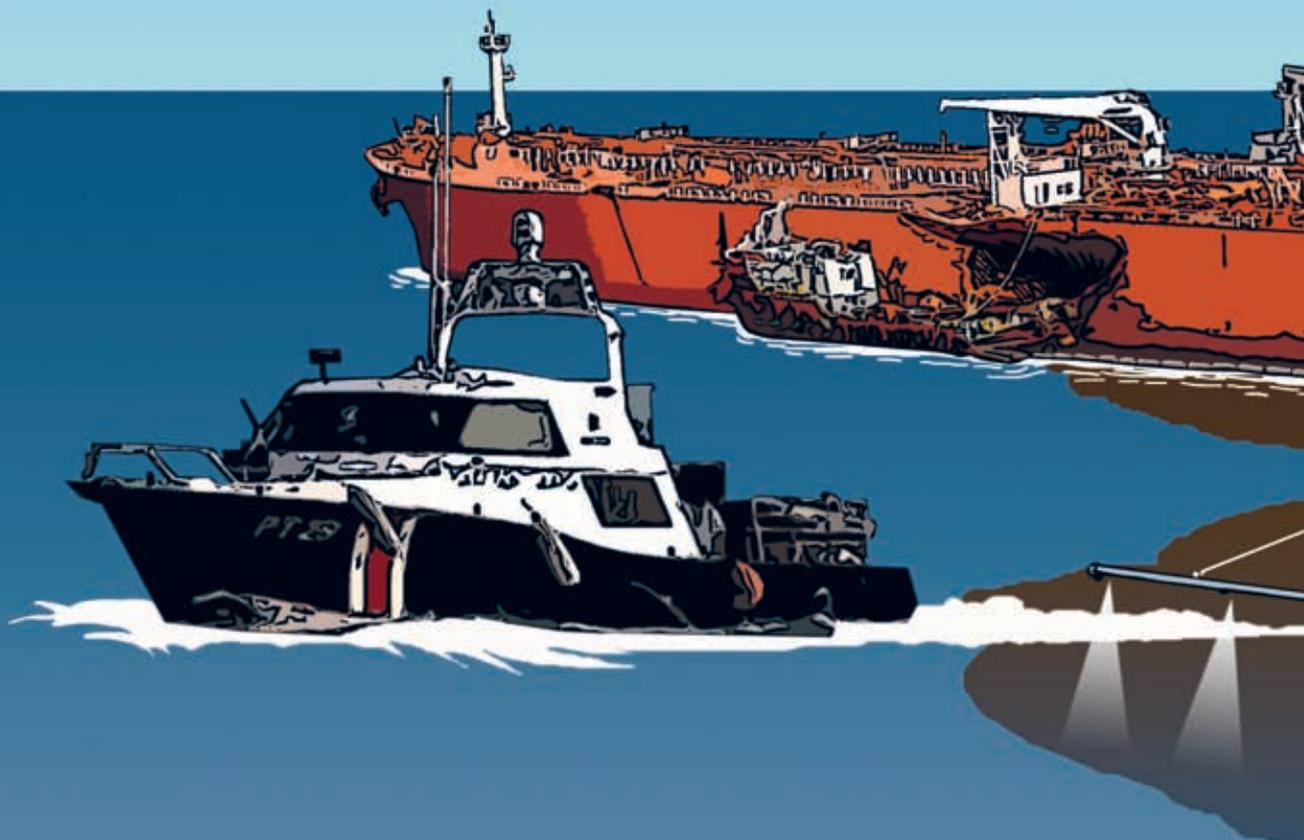
Authority of Singapore, National Environment Agency (NEA), National Parks Board, Police Coast Guard and the Ministry of Defence (MINDEF). Each played a vital role."

The Indonesian and Malaysian authorities were also informed in line with the Standard Operating Procedure (SOP) for Joint Oil Spill Combat in the Straits of Malacca and Singapore, which is part of

the trilateral Revolving Fund Committee.

"We brought them up-to-date on the situation and Singapore's efforts to manage the oil spill, so their countries can take the necessary actions if required," says Capt Lee.

As soon as MPA's plans swung into action, another important call had to be made to the International Tanker Owners Pollution



Federation Limited (ITOPF), which has experts to advise on oil pollution.

Capt Lee says: "Among the first calls we made was to ITOPF to seek advice on how to handle the type of crude oil that was spilt. There are many types of crude oil with different characteristics. How we were to handle the spill would depend on the characteristics of the oil. In this case, it was 'bintulu crude', which is very waxy and gets emulsified very quickly. This meant that the window for using dispersants would be between 30 and 36 hours.

"Dispersants break the oil into smaller globules so they sink and biodegrade, which means that naturally occurring bacteria in the water can then digest them," he says.

Containment booms were also used to restrict the spread of the crude oil. Skimmers were deployed to skim the oil off the water and then sent to an oil reception facility.

"While we have detailed plans to tackle a spill of this magnitude, we remain flexible and try to innovate as we go along. By using the harbour buster, we got very encouraging results," says Capt Lee.

### Search and rescue

In January this year, a Singapore-registered tugboat *Ocean Lark* capsized 16 nautical miles east of Horsburgh Lighthouse at about 5am. MPA learnt of the incident from Swire Pacific Offshore, whose workboat

had picked up two survivors. The 11 other crew members were still missing then.

Spearheading the efforts was Singapore's Maritime Rescue Co-ordination Centre (MRCC) as that part of the South China Sea is under its purview.

"Within port waters, MPA and Police Coast Guard craft are deployed. Beyond our port waters, MRCC will get assistance from MINDEF's Joint Operations Centre to deploy craft for sea and air searches," explains Capt Lee.

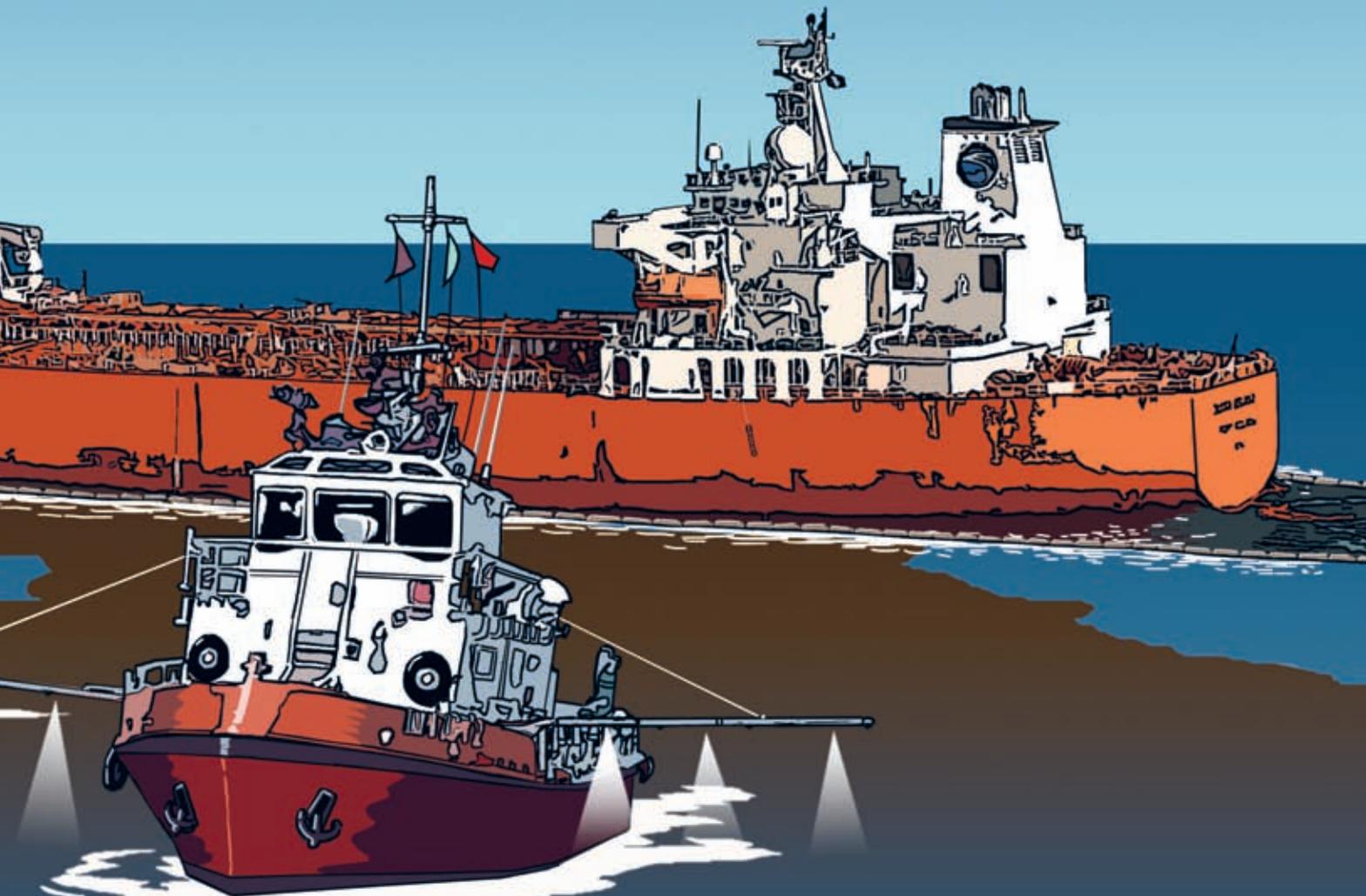
NEA's meteorological services, too, played a vital role in providing information on the weather and sea conditions. "Knowing the weather conditions is very important as it determines the method and assets we need

to use. For example, it would determine if and for how long the divers could dive."

Following SOP, a distress alert and safety broadcast were also issued, so passing ships would be aware of the dangers of the capsized vessel and keep an eye out for the missing crew in the waters.

"We also alerted our counterparts in Malaysia and Indonesia of the incident."

After seven days of search efforts involving more than 75 vessels and aircraft covering an area of over 1,000 sq km, MPA and Indonesia's Rescue Sub-Centre Tanjung Pinang ended the operation. Of the 13 crew, two were rescued and seven bodies were recovered. The remaining four remain unaccounted for.



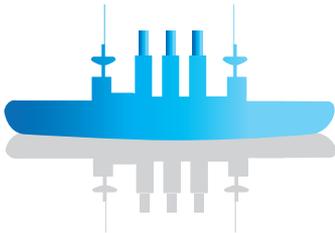
## BANDING TOGETHER

▸ Agencies and companies involved in the *Bunga Kelana 3* oil spill containment efforts



## WORKING TOGETHER IN NUMBERS

### Oil spill clean-up operation at sea



# 42 CRAFT

Plus six skimmers,  
one lightweight  
shallow water boom,  
three vacuum trucks  
and a harbour buster



# 30 TONNES OF DISPERSANT

Dispersants break the oil  
into smaller globules,  
so they sink and  
biodegrade



# 195 PERSONNEL

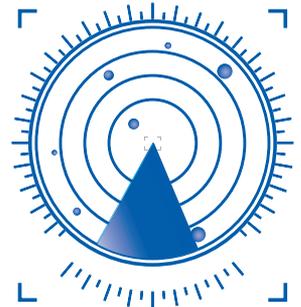
Comprising 170  
seaward personnel  
and 25 officers at the  
Emergency Operations  
Control Centre

### Ocean Lark search and rescue operation

# 07

## DAYS SEARCH AND RESCUE

Search efforts for the missing  
people from the tugboat  
*Ocean Lark* went on from  
January 6-12, 2010



# 64

## COMMERCIAL VESSELS

MPA and Indonesia's Rescue  
Sub-Centre Tanjung  
Pinang had help from 64  
commercial vessels that  
deviated from their voyages  
to provide assistance



# 05

## RSN VESSELS

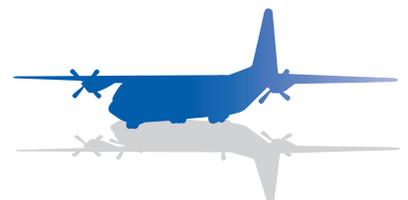
*RSS Brave*, *RSS Fearless*,  
*RSS Independence*,  
*RSS Resilience* and  
*RSS Vigilance* were  
deployed



# 02

## RSAF FOKKER 50

RSAF Maritime Patrol  
craft provided aerial  
surveillance coverage  
over a search area over  
1,000 sq km



## TACKLING EMERGENCIES

In general, MPA's strategy for handling emergencies is based on five principles, which are prevention, preparedness, response, recovery and review.

In terms of prevention, Singapore has invested in state-of-the-art technology such as radar-based and AIS tracking systems at the POCCs, and prediction modelling software which helps to determine search areas, or in the case of oil or chemical spills, how resultant slicks will move in order to aid in containment and preventive measures.

"In handling incidents, an important factor is our level of preparedness. This is achieved through regular training of our officers, table top and full deployment exercises which we conduct regularly to keep our response

parties fully prepared for any contingencies that may arise at any time. This helps us to react and respond swiftly," notes Capt Lee. Among them is the annual Joint Oil Spill (JOSE) and Chemical Spill Exercises. These drills are aimed at ensuring Singapore's readiness to respond to oil and chemical spills. They also ensure that the Oil Spill and Chemical Spill Contingency Plans are kept updated. A full scale deployment oil spill exercise will be conducted in October 2010 during the Singapore International Bunkering Conference (SIBCON) 2010. The exercise will take into consideration lessons learnt from the oil spill response and containment efforts of *Bunga Kelana 3*.

Another exercise held regularly is the Ferry Mishap

Exercise (FEREX), which aims to ensure that those involved in the Ferry Mishap Contingency Plan are familiar with their roles and responsibilities. Last year's FEREX was a partial deployment exercise where participants responded to the situation on the ground and exercise injects introduced by the Exercise Management Staff.

However, while comprehensive plans and SOPs mapped out for emergencies and operations for both were generally effective, previously unaccounted issues have surfaced. That is why a review is carried out after every major incident. The idea is to highlight and address such matters so that MPA and its partners can be more effective and efficient in managing future incidents.

As Capt Lee puts it: "From every incident, we learn something new. With that knowledge, we can continually improve on our plans."

"In our review arising from the *Ocean Lark* incident, we had inter-agency discussions with Police Coast Guard, Port of Health Office, Health Sciences Authority, and Immigration and Checkpoints Authority to address the repatriation of mortal remains. As a result, we have agreed to come up with SOPs for the repatriation of mortal remains. The procedures have been formulated, and we are fine-tuning the details."

Similarly, a review will be carried out on the clean-up efforts of the *Bunga Kelana 3* spill where lessons learnt from the operation will be used to refine the plans for tackling future spills.



## From every incident, we learn something new. With that knowledge, we can continually improve on our plans.

Port Master, Capt Lee Cheng Wee

### Working together

Looking back, Capt Lee says he is convinced that it was strong and close teamwork among all those involved that ensured things went smoothly. This spirit of cooperation and collaboration was evident not only among different agencies within Singapore, but also the authorities in neighbouring Malaysia and Singapore. Even the larger shipping community played a part.

In the *Ocean Lark* incident, for instance, a passing boat rescued the two survivors, while other ships kept a lookout for survivors.

“Managing these two incidents and others like them involve a host of different parties and different people, a whole team of people who work closely together. Therefore, while having a good plan is important, strong teamwork is vital. After all, it is the teamwork among

all those involved which keeps everything going smoothly.”

In addition, says Capt Lee, strong support from MPA management and the dynamism of MPA personnel proved invaluable in easing the way. “We are very fortunate that we are well supported by our senior management. For example, our Chief Executive and Group Director (Hub Port) were with us in the operations centre throughout the *Bunga Kelana 3* spill and the *Ocean Lark* SAR efforts. No matter how comprehensive the plan, a lot of things may not happen according to plan. There may also be some new issues that are unique to that incident. In these cases, an immediate decision from senior management is needed to

pave the way; having them on the spot really helped.”

He emphasises: “The dedication of the various MPA staff that came together to support the EOC and ground operations was vital. From spotting and cleaning up oil patches, to managing the media, and organising logistical arrangements, everyone played a key role in the operations.”

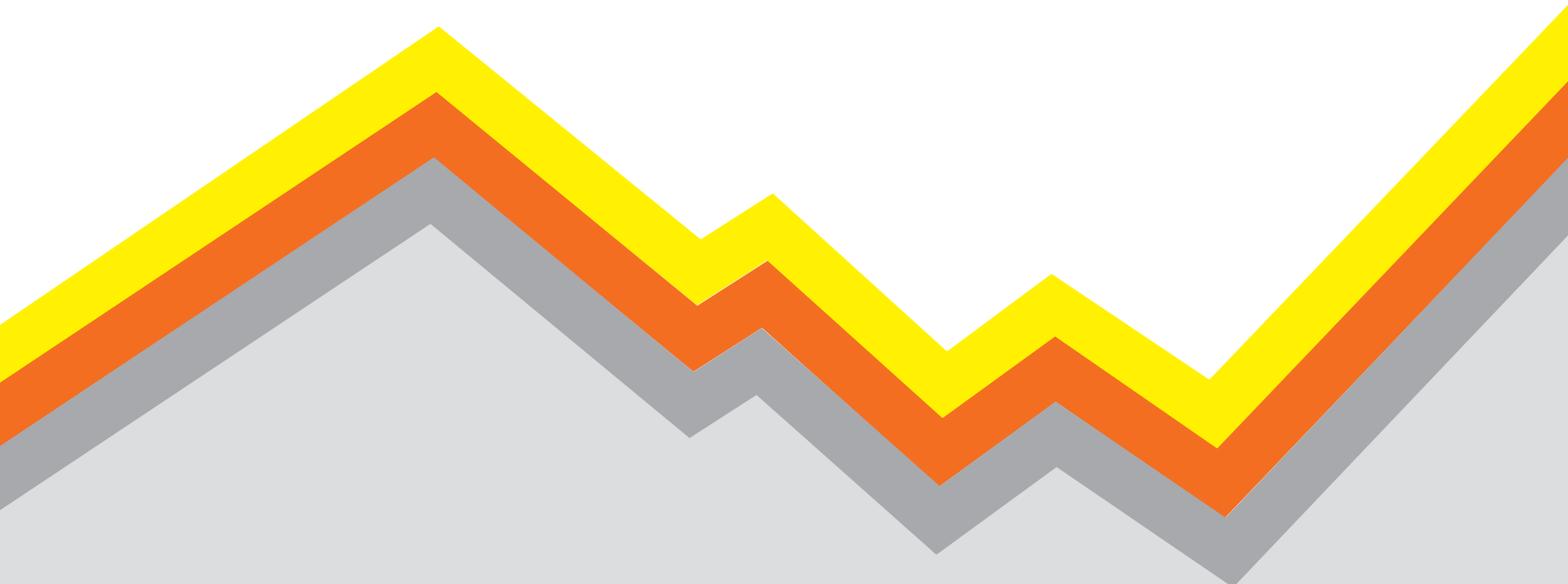
“A maritime incident can happen at any time, so we must be operationally ready,” notes Capt Lee. “With a rigorous system in place, and the strong partnerships we have with a host of agencies and organisations within and outside Singapore, as well as the larger shipping community, I am confident we are ready to tackle any incident head on.”



# FILLING IN THE BLANKS



FIND OUT HOW SPECIALISED INVESTMENT BANK, PARETO SECURITIES, IS USING ITS EXPERTISE AND DEEP DOMAIN KNOWLEDGE OF THE MARITIME INDUSTRY TO OFFER SERVICES THAT WILL PROPEL THE MARKET FURTHER **BY VISHWESH IYER**





► If you are looking for a possible indication of how established (or lucrative) an industry is in a particular locale, look for the presence of specialised or “boutique” firms. Boutique firms eschew the idea of mass markets and large chains, providing highly specialised and unique offerings instead. And testament to the growth and success of Singapore’s maritime cluster is the burgeoning presence of specialised firms catering to the industry’s diverse needs.

A key contributor to the specialist landscape is Norwegian investment bank Pareto Securities, which came to Singapore in 2006 and has made rapid strides in serving its large global clientele base as well as adding to the growth of the maritime industry here.

Founded in 1986 as a project finance arranger for the shipping and real estate industries, Pareto is today a

leading independent player in Norway for financial services in a whole range of business sectors in the maritime industry, such as IPOs, bond issues, mergers and acquisitions (M&A) and secondary trading. Growing steadily over the past 24 years, it now has offices in Singapore and New York too.

As the investment banking arm of the Pareto Group, Pareto Securities offers a wide range of services, including raising equity and debt capital through public and private capital markets, advisory services for mergers & acquisitions, divestitures, restructurings and valuations

as well as brokerage of shares, bonds and maritime assets.

"The arrival of niche firms like Pareto Securities helps complete the maritime cluster. Pareto Securities, along with other specialist firms, have been able to bridge the increasing requirements of companies that seek an international approach to their business by helping them seek out global investors." says David Palmer, Chief Executive of Pareto Securities Asia, who was instrumental in setting up

Pareto's operations in Singapore.

**Pareto efficiency**

Gone are the days when analysts may have just parroted company numbers and viewpoints without much grounding in industry knowledge. With companies such as Pareto Securities around to offer industry-focused research and insight, investors can make well-informed and better decisions. Palmer is proud of the domain-based and research-led approach that Pareto Securities has brought to the market. "We are raising the quality of research and analysis for maritime companies listed on the Singapore Stock Exchange

(SGX). The quality of analysis is rapidly improving," he says.

"Although we are a boutique firm, we are not a small company by any standards," says Ng Ee Shen, Managing Director of Pareto Securities Asia. According to a Bloomberg ranking in February 2009, Pareto Securities was the leading underwriter in the oil and gas sector, with a global market share of 15 per cent and 8.7 per cent of the shipping sector, far ahead of many large global investment banks.

In fact, in the four years since it established

its presence in Singapore, Pareto Securities has already originated deals worth in excess of US\$6 billion (\$8.24 billion). The offshore and shipping industry has registered significant growth over the past few years, and many companies have grown multifold. According to Palmer, aside from the recession, there has been a big growth phase for Singapore-based maritime companies.

Ng is very clear about the differentiating strategy that has worked for Pareto Securities in the region. "Our industry focus and presence, especially within the offshore,

Partners of Pareto Securities Asia (from left): David Palmer, Chief Executive; Ng Ee Shen, Managing Director; Arild Valland, Managing Director.



**A unique aspect about Pareto Securities that differentiates it from many of its competitors is its ability to not just be an investment bank for the shipping industry, but also to identify and purchase ships.**

oil and gas and shipping sectors, set us apart. Pareto Securities' research base, supported by substantial primary information fed through five asset brokerage companies within the shipping and offshore industry, also gives us an edge. In addition, our placement power for equity and bonds and the firm's cultural mix help us stand out from the rest."

"A unique aspect about Pareto Securities that differentiates it from many of its competitors is its ability to not just be an investment bank for the shipping industry, but also to identify and purchase

ships. We are 'brankers' – not just brokers but also bankers," says Palmer with much elation.

And it is this thrust on being a "branker" that helped the company grow even through the recession. The company could lean on its asset brokerage, M&A advisory, debt restructuring and research consultancy deals, while revenue from equity capital markets and M&A activities dried up.

"While many investment banks were retrenching staff, Pareto Securities in Singapore actually hired more people," Ng notes.

**The next frontier**

Looking into the crystal ball, Palmer says that M&A and

helping companies to raise equity and debt capital would be the core focus areas for Pareto Securities in Singapore. In addition to producing high-quality industry-based research, introducing high yield bonds in the market as well as sale and leaseback will be the other key pillars of business in the Asia Pacific. "The shipbroking business is constantly evolving, and the future lies in asset trading and finance, rather than pure shipbroking," says Palmer.

Pareto Securities has plans to grow its research team and sales and trading business of equities and bonds, as well as assist shipping and oil services companies in their listing plans in Singapore, Norway and the US.

There are also plans to bring new products to the

Asian market. By offering efficient dual listings, Pareto Securities aims to help build on the complementary relationship between SGX and the Oslo Stock Exchange.

The time difference between Singapore and Oslo is also likely to find favour with hedge funds, since it will give investors an almost 24-hour trading time on commonly listed securities, feels Palmer.

"Pareto Securities has definitely benefited from its presence here. Investors too have started to better understand the global maritime industry, and we are playing our part for this cluster," he says. In the long run, it is not just about having shipping companies set up shop in Singapore. Specialised companies like Pareto Securities will also further strengthen Singapore's reputation as a premium maritime hub.



▸ As a young boy, Yoshikiyo Ono loved trains. And what better place to love trains than Ono's native Japan, where *shinkansen* (bullet trains) criss-cross the country, utilising advanced technologies, achieving high speeds and even higher degrees of success. This love of trains grew into a deep appreciation of the importance and complexity of transport and communications, so it was only natural for him to embark on a career in this sector.

Ono joined Japan's then Ministry of Transport in 1977 and went on to spend equal amounts of time in the air and land transport units, as well as the sea transport division, before his current job at the maritime bureau.

He assumed his current position as Director-General of the Maritime Bureau in Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) in July 2009.

Ono's appreciation of the importance of the maritime industry to Japan is clear. "Japan is surrounded by the sea, so shipping and shipbuilding are vital industries," said Ono. He added that Singapore is a very important country to Japan because almost all vessels going

to the country pass through the Straits of Malacca and Singapore, and "in this connection, Singapore plays a very important role in ensuring the safety of navigation and security of ships".

### Visiting Singapore

His two-day visit to Singapore under the Maritime and Port Authority of Singapore's (MPA) Distinguished Visitors Programme (DVP) gave Ono the opportunity to see first hand the port operations and Traffic Separation Scheme control systems at the world's busiest container port and one of the busiest waterways. While in Singapore, Ono called on Minister in the Prime Minister's Office and Second Minister for Finance and Transport Lim Hwee Hua, where they exchanged views on areas of bilateral cooperation.

According to Ono, one of these areas related to the International Maritime Organization (IMO). "The relationship between Singapore and Japan on IMO matters is very important, so it was a good chance for me and my government to understand Singapore's policies and explain Japan's policies in relation to the

shipping industry," he said.

During his DVP visit, Ono met with MPA Chief Executive Lam Yi Young and MPA's senior management, and was hosted at MPA's Port Operations Control Centre 2, where he was introduced to Singapore's Vessel Traffic Information System. Ono expressed his admiration of the high level of advanced technology. He was also in awe of the redundancy systems for contingencies – something that Japan has yet to put in place.

He remarked that he was impressed by the scale and efficiency of the port's operations as well. "Even though I knew Singapore is a very busy port, when I saw the actual operations, I was still surprised," said Ono. He commended MPA's plans to introduce improved systems in anticipation of increased seaborne traffic too.

As part of the DVP, a key vehicle for engaging and developing relations between MPA and leaders in the international maritime community, Ono also visited the Integrated Simulation Centre at the Singapore Polytechnic and the Information Sharing Centre of the

# MOTION MAN

FROM AIR TO LAND AND NOW THE SEA, YOSHIKIYO ONO'S  
PASSION FOR TRANSPORT COURSES THROUGH HIS VEINS  
BY VINCENT WEE

Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP), which is located in Singapore.

### Strong relations

Ono's visit underscored the strong bilateral maritime relations between Singapore and Japan. Japan has been an avid supporter of the Co-operative Mechanism on the Straits of Malacca and Singapore since its inception in 2007 and has contributed regularly to the Aids to Navigation Fund, which is one of the pillars of the Co-operative Mechanism.

He related that almost all of Japan's commodities are imported or exported by sea, so "safety and security are very

important, in particular around this area", which is a vital route for Japan's trade. Singapore has played a key role in the development of the Co-operative Mechanism, and Japan is grateful for the work it has done, he said.

Both countries are members of ReCAAP and work closely together to provide a more secure environment for merchant shipping in the Straits of

Malacca and Singapore, and beyond. Ono pointed to ReCAAP, the first government-to-government initiative to enhance cooperation against piracy and armed robbery against ships in a region, as an example of a successful solution to the piracy problem.

Japan and Singapore are also long-standing members of the IMO Council, a testament to the importance that both countries place on international maritime issues, including safety of navigation, environmental protection, technical cooperation and maritime security. Noting greenhouse gas emissions as one of the biggest issues in shipping currently, Ono said he had discussions with his counterparts here on how to act jointly to solve the problem as well as to cooperate at international forums such as the IMO.

**Even though I knew Singapore is a very busy port, when I saw the actual operations, I was still surprised.**





NEWLY-APPOINTED CHAIRMAN OF THE SINGAPORE MARITIME FOUNDATION AND MANAGING DIRECTOR (OFFSHORE) OF KEPPEL OFFSHORE & MARINE LTD, MICHAEL CHIA, TELLS ANGELIA SEETOH ABOUT WORK, PLAY AND LIFE'S LESSONS

# STRIKING A BALANCE

**Why did you choose to study naval architecture, and how do you think your overseas education has been valuable for you?**

I went on my scholarship under the Colombo Plan in 1970, and at this time, the government was looking to support Singapore after its independence. So the courses were centred on engineering – such as mechanical and civil – and naval architecture. As I was interested in the sea, I decided to study naval architecture. Going overseas at that time was more

meaningful than it is today. It was my first plane trip, my first trip overseas, and I was travelling alone. It was a bit of a shock to my entire make-up. But I got over that quite quickly. I remember my first eye-opening trip in London, where I walked all the way from Kensington to Trafalgar Square and back.

The most important lesson I took away from studying abroad was that you have to adapt and plug into the environment wherever you are. You have to fend for yourself, accept that

things are different from what you're used to and make the extra effort to communicate with people who are not your compatriots. Tolerance is vital.

**How do you feel about your new role at the Singapore Maritime Foundation (SMF)?**

Being appointed as Chairman of SMF is a great honour. I feel I can now do my part – sometimes we call it national service – to contribute to the maritime industry. I think it's an important

**The first day I went to work was very memorable. I saw a shipyard, where things are so different, for the first time. There were gigantic structures everywhere.**

role I've been put in. It's essential that Singapore, with its rich maritime heritage, continues to project and promote itself as a maritime country. This is very much in line with what the Maritime and Port Authority of Singapore (MPA) and other government agencies are doing.

Also, with so many maritime activities such as shipping and shipbuilding now moving from the West to the East, Singapore would increasingly have a part to play as the Asian voice. We can act as the focal point of activities in Asia. SMF was set up as a private-sector-led initiative to serve as a bridge between government agencies and the private sector of the maritime cluster to raise the profile of Maritime Singapore, nurture talents and grow this sector. This way, we can synergise our efforts and harness our strengths, so Singapore can be recognised as a vibrant international maritime centre.

**What are the most memorable parts of your career?**

There are so many! The first day I went to work was very memorable. I saw a shipyard, where things are so different, for the first time. There were gigantic structures everywhere. I remember getting on top of a tanker, going into

the tank and thinking how big it was, walking on the scaffolding in safety gear and things like that. I think you'd always remember the first few moments as something you've never experienced before. I also remember the first time I delivered a project as a naval architect. The sense of achievement was great – that I completed a big project and was able to hand over a ship.

**Is there anything you'd do differently if you looked back?**

I never look back. I don't think there's much value in that, though I do think it's helpful if you learn a lesson from it – to say, well, this could have been done another way in similar circumstances. In order to move forward, you have to remain focused on the road ahead. Otherwise, you'll be regretting life all the time. And we shouldn't regret – we should live life to the fullest.

**How do you relax?**

I try to spend my weekends away from the office. Sunday is an important day for me, whether it's spent with the family or by myself. I try to play some golf, but not too much because it's very time-consuming. I read a lot, and I'm currently in the middle of a very interesting book called *Hot, Flat and Crowded* by Thomas L. Friedman.

I'm a self-taught musician, and I relax by playing music. I must have been about 10 years old when I started tinkling on the piano. I also learnt how to play the trumpet in the school band. Wind instruments are quite easy for me, especially the saxophone. I play light pop and contemporary music. I used to go for jam sessions sometimes, where I'd play the saxophone, but it's hard to find time to do so these days.

**What's your ideal holiday? And having been in the maritime industry for so long, do you own a boat?**

For holidays, I like new and varied experiences. I don't own a boat, but cruises are a great way to relax if you go with a group of people, and you get to visit little ports that are normally missed. I remember Kusadasi in Turkey, with its ruins of the ancient city of Ephesus, as one of the most picturesque ports I've visited. My ideal holiday is one where no one can reach me on the Internet or the phone. But the irony is that when I went on a five-day safari, where there was really no connection, I actually felt quite restless and cut off from the world.

**What's your favourite type of cuisine?**

I love all local food, especially mee pok and char kway teow without cockles. I also like Italian, Japanese and Indian cuisine. If I were to take a visitor around Singapore for a good meal, I would take him to Palm Beach at One Fullerton for seafood.

**And how do you keep fit?**

I play golf. I also do a bit of hatha yoga. It's very relaxing, and I love the part where you're allowed to sleep!



# WOMEN ON BOARD

GIVING WOMEN IN MARITIME THE SUPPORT THEY NEED

▸ Corporations are really becoming increasingly gender-balanced and women-friendly.

According to *The Corporate Gender Gap Report 2010* issued on International Women's Day by the World Economic Forum, that statement, like dragons and vampires, is a myth. Of 600 companies surveyed across 20 countries, fewer than five per cent had women chief executives. Plus, there has been no improvement in the pay gap, with women

paid an average of 18 per cent less.

Former British Prime Minister Gordon Brown has commented that when over half the graduates are women, it begs the question why some of the top 100 public companies do not have a single woman on the board.

Now for the good news: Women are making headway with some pressure from governments. Large companies in the UK may soon have to publish a report

on how they are progressing on the issue. That idea is backed by business commentator David Prosser in London-based newspaper, *The Independent*. "We cannot go on saying that promoting more women will take time," he chides.

Well-qualified female graduates have been flooding into the workforce for more than 30 years, yet the number of women in the boardroom has risen at a painfully slow pace, says Prosser.

### Where are all the women?

A shipping, financial, investment and banking hub, Singapore has been pushing women into the workforce for the past 20 years.

But where are the female university graduates in Singapore? For some, they have left the workforce to start families. In Asia, it is not uncommon for husbands to strive for their career while women stay home, held back by their duties, only to return to the workforce years later at the bottom of the



hierarchy, while the men may have climbed onto middle or senior management levels. Then where does that leave the non-university graduates? Do they even have the opportunity to touch the first rung of the corporate ladder?

For centuries, the majority of women in the workforce have been longing to obtain the same salary or at least the same opportunities as their male counterparts in order to be given a chance to prove their potential.

Thus the frustration, the insecurity about women's status at work, the argument of fairness, the strife, the disappointment, and the despair.

#### **Women in shipping**

Singapore women have carved a solid reputation for themselves in the maritime industry. Many Singapore women are better listeners than their male counterparts and able to command respect and authority, unlike in some Asian cultures,

where women are hesitant to give their feedback in fear of offending the men.

Diversity is becoming not just desirable but essential in the modern business world, declares Secretary-General of the International Maritime Organization (IMO), Efthimios Mitropoulos, in his keynote speech to the 2009 annual conference of the Women's International Shipping & Trading Association (WISTA). He said that there was no intrinsic reason women should not participate in and benefit from employment within the shipping industry. However, it is true that shipping has historically been regarded as a male preserve. Moreover,

the relevance of sea-going experience to many shore-based jobs within the industry means the number of women with appropriate skills is limited, and this has served to constrain the representation of women in the maritime sector as a whole. Mitropoulos notes that in the secretariat, three of the six directors are women, "and that sets the tone for the rest of the organisation".

All these underline the value of organisations for women. Another example is WISTA, an international organisation for women in management positions involved in maritime transportation business and related trades worldwide.

#### **Growing in numbers**

WISTA was formed in London in 1974 by a group of women working in shipping. Its Singapore arm was established in 1998 as a non-profit organisation, providing a networking forum for female professionals involved in shipping. It was the first national chapter of WISTA to be founded in Asia, and comprises women professionals in a diverse range of sectors in the industry - working for ship owners, as ship brokers and suppliers, in trading houses, bunkering houses, chartering, insurance and P&I Clubs, flag

## Singapore women are better listeners than their male counterparts and able to command respect and authority.

registries, the financial and legal sides, and such.

To date, there are 25 national WISTAs, with more than 1,200 members. Each year, somewhere between September and October, members from the 25 nations meet at the WISTA

annual conference. In 2009, the three-day conference was held in London at the IMO Building, co-sponsored by the IMO, Lloyd's Register, Fairplay Ltd, Tradewinds, Marshall Islands Registry, Blank Rome, the House of Lords sponsored by Lord

Ambrose and the Bahamas Maritime Authority.

This year, WISTA will be hosting its annual conference on the theme of "Achieving Sustainability – Paving the Way to Shipping Excellence" in Athens, Greece, at the Divani Apollon Palace in Vouliagmeni, from September 29 to October 1. More details on the conference can be found at [www.wista.net](http://www.wista.net).

WISTA also works towards facilitating and encouraging education (working closely with schools known for their shipping courses like London Metropolitan University,

the Copenhagen Business School, which offers the Blue MBA, and the BIMCO shipping school), mentoring and networking support for aspiring women. This is not a matter of giving special treatment, but of supporting women in the industry and helping them realise their potential for the benefit of their organisations and the wider community.

*This article is contributed by Caroline Lee, President of the Women's International Shipping & Trading Association.*

## The International Maritime-Port Technology and Development Conference 2011 or MTEC 2011 is calling for papers and participants to be a part of this maritime technology learning and sharing experience.

FOR FURTHER INFORMATION OR ENQUIRIES, VISIT [WWW.MTEC2011.ORG](http://WWW.MTEC2011.ORG), OR CONTACT THE CONFERENCE SECRETARIAT AT [MTEC2011@NUS.EDU.SG](mailto:MTEC2011@NUS.EDU.SG).

### DATES TO NOTE

● Submission deadline for abstracts	31 July 2010
● Notification of abstract acceptance	by 1 Sept 2010
● Submission deadline for full paper	31 Dec 2010
● Notification of paper acceptance	31 Jan 2011
● Early Bird Registration deadline	31 Jan 2011

*Authors must confirm their registration by 31 January 2011 in order to have their papers included in the conference programme/proceedings. There is no registration deadline for all other delegates.*

*Abstract Submission: For online submission, please visit the conference website, [www.mtec2011.org/abstract-submission](http://www.mtec2011.org/abstract-submission). Paper selection will be based on a one-page abstract of about 300 words in length.*



ATTRACTING AND RETAINING TALENT HAVE BEEN INCREASINGLY IMPORTANT CONCERNS FOR COMPANIES. WE SPEAK TO THE EXPERTS ON HOW TO CREATE – AND KEEP – THAT WINNING TEAM

# HUMAN RESOURCES 101

► The rest of the year is forecasted to be an employee's market, with Singapore's economy expected to grow up to 15 per cent. And with that come growing concerns from the maritime industry about attracting and retaining talent – a challenge compounded by the need to correct common misperceptions of the specialised industry and compete with other sectors for valuable human resources.

*Singapore Nautilus* speaks to three Human Resource (HR) practitioners in the maritime industry to better understand the talent conundrum. They are:

Janice Mah



● Janice Mah Ee-Ping, Human Resource Manager, Singapore Cluster, Exxonmobil Asia Pacific Pte Ltd

Dr Lee Chay Hoon



● Dr Lee Chay Hoon, General Manager, Organisational Development, Keppel Offshore & Marine

Jan Bille Jensen



● Jan Bille Jensen, Asia Pacific Human Resource Director, Maersk Line

**SINGAPORE NAUTILUS: What is your definition of a "talent"? What do you think talents look for in an employer?**

**MAH:** People are one of Exxonmobil's most important assets. Each brings with him or her unique talents and skills. While good grades and exceptional skills help to get talented employees through the door, once in, all the other qualities that are set out in our leadership framework, such as integrity, honesty, commitment to high standards, adaptability, interpersonal effectiveness, drive and perseverance, become necessary for an employee to be successful.

Every employee is unique, and our goal is to develop employees to their highest potential as that helps the company to achieve premier business results.

The qualities that potential employees want in an employer will vary, but they commonly look out for:

- Industry leaders
  - employees want to be associated with leading reputable companies.
- Companies with exemplary business management, demonstrated in the areas of ethics, business controls and unwavering commitment to safety and operations integrity.
- Companies with the commitment to develop their employees through a broad range of experiences and offer opportunities for professional and career progression.

- Companies that promote and ensure a conducive and healthy work environment.
- Companies which offer fair and competitive pay packages.

**LEE:** Talents are people who can effectively contribute their skills and hard work to drive an organisation's success. At Keppel Offshore & Marine, our employees are our talents, as everyone plays an important role in creating value for the company and our stakeholders.

Today's talents hope to be in globally reputable organisations that are backed by strong fundamentals. Keppel O&M believes in enriching the work experiences of our employees. With operations across continents, we offer them extensive exposure and opportunities to challenge themselves and stretch their limits. The scale of our operations also offers depth and breadth of experiences and career progression to allow them to spread their wings.

**JENSEN:** A talent should have the ability to communicate effectively and collaborate with others, as well as high cognitive ability to grasp concepts and react quickly. The person must also have the passion and drive to succeed.

Talents look for winning teams, opportunities to climb the career ladder and a workplace that is stimulating and challenging.

## Talents look for winning teams, opportunities to climb the career ladder and a workplace that is stimulating and challenging. It is also important that most of their expectations of compensation and benefits are met.

Jan Bille Jensen, Asia Pacific Human Resource Director, Maersk Line

It is also important that most of their expectations of compensation and benefits are met.

**SN: What are the challenges in attracting talent to your company? How has the current labour landscape influenced your hiring strategies?**

**MAH:** Our strategies for attracting and retaining people look beyond the cycles of market swings. Recent independent studies here show that Exxonmobil is well perceived in Singapore [*The Business Times*, May 24, 2010: Exxonmobil is the second most sought-after employer among new graduates in the fields of engineering and natural sciences.] In the last couple of years, despite the ups and downs of the labour situation, we have had record levels of new hires due to the needs of our business.

Exxonmobil tends to recruit recent graduates, as we prefer to develop our leaders – to learn about our core values, such as our unwavering commitment to safety, operational excellence and high ethical standards, from the company. But we also recruit experienced people who bring with them the skill sets we need.

**LEE:** The expertise required in our industry is highly specialised and takes years of learning and training to perfect. Moreover, the industry is constantly in need of a new generation of talents to succeed the stalwarts.

Our sustained efforts in training and nurturing people during the good and bad times have helped develop a resilient and capable workforce at Keppel O&M.

Our experience with some top-performing graduates has also shown that these job seekers value career

prospects and exciting work challenges above remuneration. As such, we have been working closely with partners, including MPA, SMF, the local universities and polytechnics to develop training schemes and programmes for talents in the industry, as well as our own workforce.

**JENSEN:** The shipping industry may not seem as attractive as industries like banking, consultancy and technology. Thus, the challenge is to create ways for talents to see how interesting and dynamic it is.

At the A.P. Moller - Maersk Group, we are

determined to drive a performance culture in which we differentiate significantly between highly successful, successful and less effective performers.

Through a systematic review process, we create visibility of talents, followed by targeted development and deployment for maximum business impact and individual growth. We are determined to create a clear link between performance, reward and consequence.

**SN: Do you have a talent management scheme? What**

**strategies do you employ to attract and manage talent?**

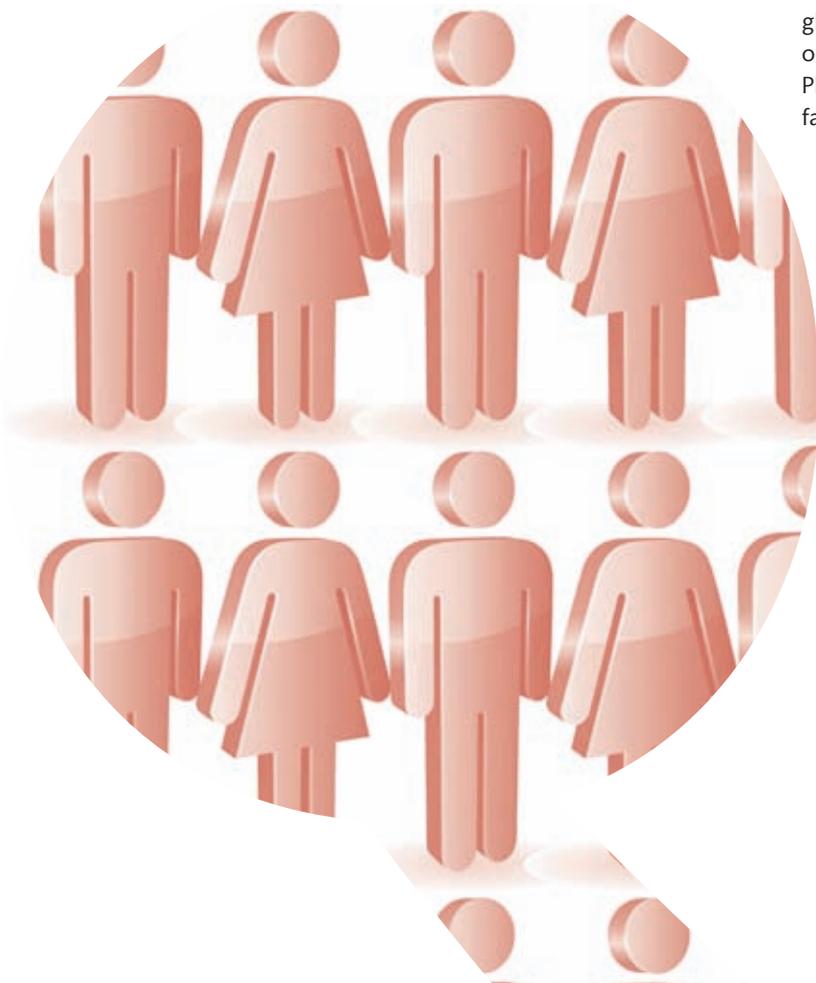
**MAH:** Exxonmobil takes a merit-based, long-term career development approach. We offer employees challenging opportunities and professional progression throughout their career. In fact, we always say we hire people for a career rather than a job.

To that end, we emphasise timely, objective performance feedback by supervisors to employees, based on development needs identified for each individual. We also provide employees with formal training and a broad range of other on-the-job experiences, such as opportunities to work in global organisations and take on overseas assignments. Plus, we ensure that we offer fair and competitive salaries

and flexible work practices for work-life balance. Exxonmobil's defined set of Standards of Business Conduct ensures a work environment that fosters mutual respect and allows employees to contribute to the best of their abilities and excel professionally.

In addition, we apply a more focused and globally-stewarded employee development planning process for employees who have been identified as potential successors for key leadership positions.

As Exxonmobil is a large global company, with operations across six continents, we are able to offer our employees opportunities for professional development and challenging careers across a variety of positions, in different parts of



the world and working with diverse teams.

**LEE:** We adopt a structured and sustained manner of developing talent to ensure that staff with high potential are given opportunities to prove themselves and be groomed for leadership positions. A key initiative of our talent development strategy is the Keppel College, which serves as a central platform offering leadership and professional development programmes to Educate, Empower and Energise our talent. We also offer sponsorships for outstanding employees to pursue further education.

Our mentorship scheme enables more experienced staff to effectively pass on their knowledge, skill sets and Keppel's core values to the newer generation of employees.

In our effort to groom well-rounded, holistic individuals who can contribute to the company and the communities in which we operate, we also field employees for various personal development platforms such as the Clipper Round the World Yacht Race.

**JENSEN:** Maersk Line has an entry-level programme for graduates called the Maersk Line Graduate Programme (MLGP). Aimed at developing a management

pipeline to deal with an increasingly challenging business environment, the programme gives talents a great start towards a career in the shipping and maritime industry. It is structured to give talents job rotations across different functions within the organisation to build their knowledge and understanding about how the company works. Experience provided by the programme can give the graduates an advantage to be "fast-tracked" to senior roles within the company.

We have been quite successful in attracting and retaining talents by providing opportunities and challenges through encouraging internal job rotations, either in different business units within the A.P. Moller - Maersk Group located here in Singapore or international deployments and assignments.

**SN: How does your company retain talent?**

**MAH:** All the elements of our employee development system work in a concerted manner to help us attract, retain and manage our talent. But the key part of the system is the role that managers play in retaining employees.

Managers, through the disciplined and regular use of the performance assessment and open feedback process, are able to fully understand

**In our effort to groom well-rounded, holistic individuals who can contribute to the company and the communities in which we operate, we also field employees for various personal development platforms such as the Clipper Round the World Yacht Race.**

**Dr Lee Chay Hoon, General Manager, Organisational Development, Keppel Offshore & Marine**

our employees' aspirations and goals, and hence ensure that employees' career paths are managed in a manner that takes into account their aspirations and talents. In addition, managers work closely with employees to communicate expectations of steady improvement and competitive performance and provide necessary developmental work experiences, supported by selected training, to help employees attain their maximum potential.

**LEE:** Talented individuals enjoy greater geographical and career mobility, so as the economy picks up, it will become more challenging to retain them.

Multinational companies like Keppel O&M, which can offer strong career

progression prospects, an exciting work environment, competitive rewards and opportunities to grow and learn, will continue to draw global talents.

**JENSEN:** Most people like to be part of a winning team, and we believe that a key enabler of talent retention in our company has been our ability to demonstrate that we are playing to win in the market.

Talent retention does not just happen by itself. It requires a lot of effort. The company needs to determine what the key motivators for each individual talent are, then follow up with tangible actions, supported by a compensation scheme that clearly shows the link between performance and remuneration.

► In this globalised world, it is marvellous to think of the sheer variety of food and products we are able to choose from. What is quite possibly an even greater marvel is that almost all that we consume has spent some time in the humble freight container.

Although there were various versions of it previously, it was

not until 1956 that the first container ship voyage took place, with "boxes" invented by Malcolm McLean, the owner of a small trucking company in North Carolina in the US.

Constructed with thick corrugated steel, it was 2.4m high, 2.4m wide and 3m long. It also had a twist-lock mechanism on all the

four corners, so it could be secured and lifted easily by cranes. Container shipping soon replaced the traditional breakbulk method of handling goods, where cargo is packed into the hold of a freighter. This brought with it huge reductions in port handling and freight costs, which in turn enhanced world trade.

More than 50 years on, approximately 90 per cent of the world's non-bulk cargo is moved by containers, atop transport ships. Containerisation has also improved cargo security, as what's inside a container isn't visible to the casual observer, and attempts to tamper with a container become more evident.

# CONTAINERISATION

TRANSPORTATION OF GOODS HAS NEVER BEEN EASIER,  
THANKS TO THE INVENTION OF THE CONTAINER





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- Application deadline: end November 2010

