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We want to hear from you Send your feedback and letters to singaporenautilus@mpa.gov.sg



Technical knowledge and practical experience are the pillars that support maritime safety.

Setting the Standard for Service.



Got it

omeone once said that a small idea is the birthplace of great accomplishments. Everything begins with an idea, a sudden flash of thought that spurs action, culminating in a phenomenon. Such is the power of ideas.

It follows that in a knowledge-based economy, ideas command a premium. And Singapore is increasingly establishing itself as a thought capital for the international maritime community.

Singapore's staple diet of international conferences, dialogues and forums generates ideas that draw the attention of maritime stakeholders, as well as stir the curiosities of others. People congregate here for the cut and thrust of debates, exchange of perspectives and overall pursuit of discourse.

On the research front, Singapore is the catalyst, incubator and test-bed for future maritime technologies. Indeed there is much food for thought all year round.

Ideas, people and opportunities define Singapore's maritime ecosystem. Such synergy manifests as the iconic Singapore Maritime Week, when the Secretary-General of the International Maritime Organization shares his insight into the challenges to shipping, and BIMCO's returned honcho zeros in on the need to groom the next generation of shipping talent.

In this issue, NOL, Mizuho and Mercator chiefs wax lyrical about Singapore's thriving maritime sector, while Krystallon leads a clean revolution, and the bunker industry awaits the launch of BunkerNet.

The good professor from the BI Norwegian School of Management best sums up Singapore's aspirations – from maritime centre to maritime cluster to a global maritime knowledge hub – at the 12th Maritime Forum.

As we salute 2008 and greet 2009 with expectations, I recall a quote from Ralph W Emerson: Thought is the blossom; language the bud; action the fruit behind it.

So let a hundred ideas bloom – now that's a timeless thought.





THE RE-OPENING of the Singapore Mariners Club (SMC) apartments at the Maritime House building in the port district, Cantonment Road, marks the completion of a S\$5 million upgrade by the Maritime and Port Authority of Singapore (MPA) that has improved the standards of these dwellings.

"MPA has been working very closely with seafarer unions and seafarer missions," said SMC manager Lee Kin Fong. "In 2003, MPA, together with the Singapore Maritime Officers' Union (SMOU) and the Singapore Organisation of Seamen (SOS), initiated the practice of distributing hampers to ships calling at our port to mark the annual World Maritime Day. It's a gesture that is unique to Singapore."

MPA also provides an annual S\$100,000 grant to seafarer missions in Singapore.

"We are delighted that the SMC Apartments and Maritime House have been given a new lease of life. I am sure seafarers will feel welcome in this home away from home," said SOS General Secretary Leow Ching Chuan.

The 20-year-old building re-opened on 1 July 2008, and has since received 1,600 seafarers. The new apartments boast a brighter colour scheme, with the former maroon carpeting changed to a pleasing beige. Although the basic layout remains the same, the '80s-style furniture has been upgraded for a more modern feel.

The 46 apartments have an 87 per cent occupancy rate, and house around 6,000 people a year. They are between 520 to 630 square feet each and have a bedroom, dining room, bathroom and living room equipped with a 32-inch LCD TV. They are also close to the Central Business District.

MPA launches new bunkering standard

THE MARITIME AND PORT AUTHORITY of

forces with SPRING Singapore for the bunkering industry

Singapore's maritime cluster, and bunker quality and quantity

the correct quality and quantity of bunkers are being delivered safely and efficiently. By enhancing the procedures and

SS600 will be enforced by MPA for all bunkering operations Singapore. This standard will

port to lift bunkers, SS600 will foster further development of the BG (NS) Tay. 🛢

Dispersant-spraying aircraft used in oil spill exercise



"PREPAREDNESS" IS A WORD that the Maritime and Port Authority of Singapore (MPA) is all too familiar with, and, as its recent Joint Oil Spill Exercise (JOSE) demonstrated, nothing is left to chance.

JOSE was designed to demonstrate and test Singapore's readiness to deal with large-scale oil spills effectively and efficiently.

This multi-agency exercise took place out at sea, about 2.8 kilometres from Raffles Lighthouse, and involved 16 anti-pollution craft, including a dispersant-spraying aircraft.

"As the world's major hub port, it is vital that Singapore remains vigilant at all times," said Captain M Segar, MPA's Group Director (Hub Port).

About 100 participants from MPA, Shell Eastern Petroleum, Singapore Armed Forces (SAF), Police Coast Guard (PCG), Agri-Food Veterinary Authority of Singapore (AVA), National Environment Agency (NEA), National Parks Board, oil spill response companies, and six oil terminals were involved in the full-scale exercise.

MPA, as Singapore's government agency responsible for responding to all maritime-related issues, is committed to protecting the environment. The exercise's objectives go towards further developing the city as a major shipping and petrochemical hub.

"Since 2000, JOSE has been a biennial affair, reflecting our strong commitment to protect the environment," said Segar. "This year's exercise demonstrates the close coordination between the aircraft and vessel-based dispersant-spraying systems in the busy waters of the port and Singapore Straits," said Segar.

MPA and A*STAR sign three-year MoU

THE MARITIME AND PORT AUTHORITY of Singapore (MPA) has singed an MoU with the Institute of High Performance Computing (IHPC), outlining a S\$3.4 million collaboration that would enable maritime companies to leverage IHPC's Computational Science and Engineering capabilities through a three-year Maritime Research Programme (MRP).

The IHPC is a research institute under the Agency for Science, Technology and Research (A*STAR).

The MoU was signed by BG (NS) Tay Lim Heng, Chief Executive, MPA, and Yena Lim, Managing Director, A*STAR, at MPA's 12th Maritime Forum.

The long-term goal of the MoU is to further enhance Singapore's status as a maritime research and development (R&D) hub, ensuring it stays a world leader in the industry.

"MPA has been actively promoting maritime R&D and innovation development over the past few years. Today's MoU brings on board the involvement of a national research institute in the areas of port, shipping, and offshore and marine engineering," said BG (NS) Tay, adding that MPA welcomes the participation of maritime companies in the programme.

Research topics under the MRP will include the



development of advanced designs for semi-submersible jackup rigs and the application of large-scale computational fluid dynamics.

"Since its inception 10 years ago, IHPC has collaborated with the maritime industry through specific industry-oriented research projects," said Lim. "Over the past three years, IHPC has undertaken over 150 collaborative projects with various industry partners to leverage IHPC's visualisation facilities and its multi-disciplinary R&D manpower."

Singapore Nautilus presents
Singapore Nautical Run 2008

Singapore Nautical Run 2008





Mr Raymond Lim, Minister for Transport and the Second Minister for Foreign Affairs, flags off the inaugural Singapore Nautical Run.

Minister Raymond Lim and BG (NS) Tay Lim Heng present the money raised from the Run to representatives from the President's Challenge and The Straits Times School Pocket Money Fund.



Lloyd's List Asia Awards and Gala Dinner



ABOVE

Adm E E Mitropoulos, Secretary-General, International Maritime Organization (IMO) and Mrs Lim Hwee Hua, Senior Minister of State for Finance and Transport, at the Awards and Gala Dinner.

RIGHT

Ms Tan Beng Tee, Group Director (International Maritime Centre) [centre], receives a Lifetime Achievement Award.



SSA 23rd Anniversary



Guest-of-honour Senior Minister Lim Hwee Hua delivers her speech at the gala event.

2nd Singapore Maritime Lecture

Mr Miguel Palomares. Director, Marine Environment Division, IMO: Mr Andreas Chrysostomou, Chairman, MEPC: and Adm E E Mitropoulos.

BELOW

Distinguished guests at the 2nd Singapore Maritime Lecture, delivered by Adm E E Mitropoulos Ininth from left].



Ambassador Mrs Mary Seet-Cheng, Specialist Advisor, Ministry of Foreign Affairs, chairs the dialogue session with Adm E E Mitropoulos.

BG (NS) Tay Lim Heng; Mr Peter Ong; Adm E E Mitropolous; BG (NS) Choi Shing Kwok, Permanent Secretary, Ministry

Mr Peter Ong and BG (NS) Tay Lim Heng, Chief Executive, MPA, being shown an exhibit of Raffles Lighthouse by Dr Parry Oei, Chief Hydrographer, MPA [left].

BELOW

Mr Peter Ong and Mrs Chantal Mitropoulos.





a Maritime Week 2008 montage

Guest-of-honour Mr Raymond Lim,

and Second Minister for Foreign Affairs, Mr Peter Ong, BG (NS) Tay Lim Heng and industry leaders at SIBCON 2008.

15th Singapore International **Bunkering Conference** (SIBCON 2008)

BIBCON EXHIBITION 2

Minister Raymond Lim delivering the opening address.

Official Re-opening of SMC **Apartments**



Gala Dinner



SINGAPORE

8th Maritime Technology (MARTECH) Conference and Exhibition



ABOVE

Mr Lim Swee Say, NTUC Secretary-General & Minister, Prime Minister's Office, and BG (NS) Tay Lim Heng officiate at the re-opening of the SMC service apartments.

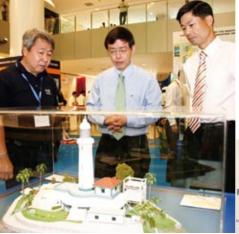
RIGHT

BG (NS) Tay Lim Heng presents a cheque to the Mission to Seafarers.



Mr Teo Siong Seng, President, Singapore Shipping Association, presents a gift to Adm E E Mitropoulos.

From Lighthouses to **Electronic Charts –** An Exhibition



Mr Peter Ong, Chairman, MPA, sharing Singapore's maritime and hydrographic heritage in his opening address.

SMF Networking Reception



Mr Lucien Wong, Deputy Chairman, MPA; Mr Simon Rose, Chief Executive Officer, Dahlmen Rose; and Mr Ron Widdows, Group President & CEO, Neptune Orient Lines Limited at the SMF networking function.

RIGHT

Mr Surajit Kumar Das, Managing Director, Emirates Shipping Lines Agencies; Dato Jude Benny, Managing Partner, Joseph Tan Jude Benny; Mr Christopher Hall, Vice President, Skuld; and Mr Akao, Orange Maritime.



Mr Jeremy Penn, Chief Executive, Baltic Exchange; Mr Peter Swift, Managing Director, INTERTANKO; BG (NS) Tay Lim Heng; Mr Ron Widdows; and Capt Khong Sheng Ping, **Assistant Chief** Executive, MPA.



Joint Oil Spill Exercise (JOSE) 2008



MPA's Api-Api is deployed during JOSE 2008, an exercise that demonstrates Singapore's preparedness to respond to oil spill incidents.

The Commemorative Event of IMO's 60th Anniversary



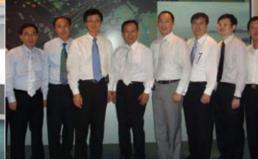
MPA, represented by BG (NS) Tay Lim Heng, Chief Executive [standing, fourth from left], attends the Commemorative Event of IMO's 60th Anniversary in Tokyo.

Dr Chang Yung-Fa, Group Chairman, Evergreen Group, calls on Mrs Lim Hwee Hua, Senior Minister of State for Finance and Transport [left] and Mr Peter Ong, Chairman, MPA [right].









Delegation from Dubai Maritime City, headed by Mr Ali Aldaboos, Chief Operating Officer [third from right].

Delegation from South Korea, headed by Mr Jeong Chang-weon, Chief Executive, Ulsan Regional Maritime Affairs and Port Office.

ABOVE

Delegation from Australia, headed by Mr Anthony Albanese, Minister for Infrastructure, Transport, Regional Development & Local Government [fifth from left].

RIGHT

Delegation from Abu Dhabi MSEC, headed by Major Sultan Al Kaabi, Rapporteur, Maritime Security Executive Committee [sixth from left].



RIGHT

Visit by the Vietnam Ministry of Transport, headed by Mr Trinh Viet Loc, Vice Chief Inspector [right].



MPA's Distinguished Visitors Programme



Prof John Tzoannos, Secretary-General, Ministry of Mercantile Marine, Aegean and Island Policy, Greece, calls on [left to right] Senior Minister Lim Hwee Hua and BG (NS) Tay Lim Heng.

ABOVE RIGHT

Prof John Tzoannos and BG (NS) Tay Lim Heng witness the signing of the minutes of discussion for the Singapore-Greece Bilateral Maritime Negotiations for Maritime Transport Agreement by Commodore Michailidis Stavros, Director-General, Shipping Policy and Maritime Safety, Ministry of Mercantile Marine, Aegean and Island Policy, Greece; and Mr Yee Cheok Hong, Group Director, Policy and Planning, MPA.



Prof Tzoannos visits MPA's Port Operations Control Centre 2.

MPA Chief Hydrographer receives honorary doctorate



Dr Parry Oei, Chief Hydrographer, MPA, receiving his Honorary **Doctorate of Science** from the University of Plymouth, UK.

Learning Journeys Appreciation Ceremony



Capt Khong Shen Ping, Assistant Chief Executive, MPA [left], receives the plaque of appreciation from Ms Grace Fu, Senior Minister of State for National Development and Education.

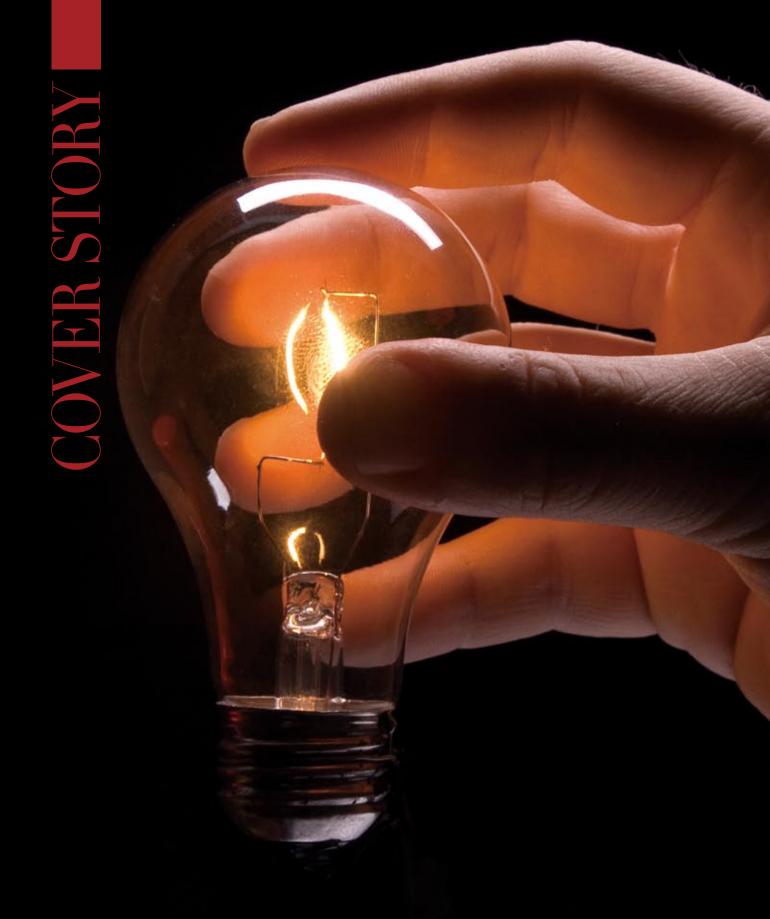
MOT Awards Ceremony 2008

MPA wins the Minister's Innovation Awards for [from left]: use of alternative fill materials for PPT phases 3 & 4 reclamation; WISEPORT for Wireless Broadband Connectivity within the maritime community; and Private Public Partnership Initiative - MaritimeONE.

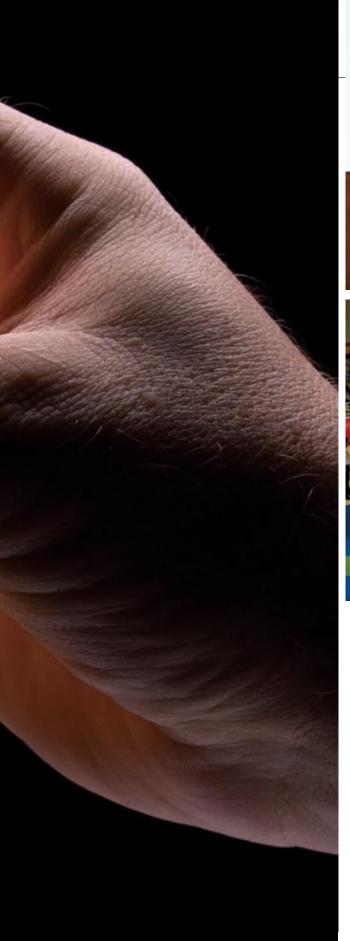








City of Eureka







In the maritime world, Singapore is the City of Eureka, where people and opportunities come together to create an abundance of aha! moments

hey came from all four corners of the globe. The best and brightest minds in the international shipping community. Port and shipping executives, bankers, brokers, regulators, academic luminaries - they gathered in the thousands in Singapore for a convention that is fast distinguishing Singapore not only as a thought leader but as a thought capital of the maritime world.

"There is no question in my mind that the Singapore Maritime Week has become one of those events you just must attend," said Torben Skaanild, Secretary-General of the Baltic and International Maritime Council (BIMCO).

Voted Convention of the Year at last year's Singapore Business Events Awards, the Singapore Maritime Week was conceived in 2006 by the Maritime and Port Authority of Singapore (MPA) as a platform to develop and promote the island nation as an international maritime centre.

The variety and range of events reflect and showcase the diversity of Singapore's maritime cluster, establishing it as a choice venue for international maritime activities. The buzz generated during the Singapore Maritime Week not only adds to the lure of Singapore as a hub for the international maritime community, it also raises local awareness of the dynamism and importance of a career in the maritime industry.

The third Singapore Maritime Week held from 10 to 17 October 2008 was an exciting array of international conferences, seminars and dialogues The Singapore Maritime Week is fast distinguishing the island nation not only as a thought leader but the thought capital of the maritime world.

on topical issues; business networking activities; community events; and a public exhibition.

When the inaugural Singapore Nautical Run kick-started the week-long event, it was the realisation of an idea – that of the maritime community coming together in a rally for charity, eventually raising S\$333,000 for the President's Challenge and The Straits Times School Pocket Money Fund.

The 10-day affair also attracted a record number of 6,800 local and international participants, which was a 51 per cent increase

Mark Your Diaries For Singapore Maritime Week 2009!



20-24 Apr 09

Highlights:

- International Chemical and Oil Pollution Conference and Exhibition (ICOPCE) 2009
- 3rd Singapore Maritime Lecture
- Singapore International Maritime Awards (IMA) Gala Dinner

from last year's 4,500 - and we have not even begun to count the 12,000 who turned up at VivoCity for the weekend exhibition on aids to navigation, From Lighthouses to Electronic Charts.

The number of foreign-based delegates making a pit stop in Singapore for this event also increased to 1,100, which was a 47 per cent jump from last year - a fact not lost on Neville Smith, Deputy Editor of London-based shipping daily Lloyd's List, who noted: "I think the Singapore Maritime Week brings some balance to the roster of industry events, with European and US participants coming to Singapore in greater numbers."

And it will only get bigger and better because Singapore Maritime Week 2009, running from 20 to 24 April, is well in the works. Participants may look forward to an impressive lineup, which includes anchor events Sea Asia 2009, the 3rd Singapore Maritime Lecture, Singapore International Maritime Awards Gala Dinner, and International Chemical and Oil Pollution Conference and Exhibition (ICOPCE).

Till then, however, the international maritime community has got plenty from Singapore Maritime Week 2008 to keep it going - the groundbreaking ideas, the new business networks and the lifelong friendships. The wide range of views and opinions expressed and the insights taken away by key decision-makers attending the event have given the world's maritime leaders a chart with which to navigate the many complex issues that lie ahead.

In a thoughtful frame of mind, naturally, Singapore Nautilus looks back at some of the Eureka epiphanies throughout the memorable week.

The buzz generated during the Singapore Maritime Week not only adds to the lure of Singapore as a hub for the international maritime community, it also raises local awareness of the dynamism and importance of a career in the maritime industry.

Eureka moment #1

There is a Need to Develop a Global Regime to Combat Climate Change



At this year's Maritime Lecture delivered by International Maritime Organization (IMO) Secretary-General Efthimios Mitropoulos, the message was largely green. Addressing the need to reduce the emission of greenhouse gases, or GHGs, he argued that there has to be "the development and adoption of a robust regime that will regulate shipping at the global level". The IMO seeks to reduce greenhouse gas emissions from the entire shipping industry, and "not a small fraction thereof - and in doing so, make sure that the special needs of developing countries are fully and comprehensively addressed".

Eureka moment #2

The World Has its First National Bunkering Standard for Both Bunker Suppliers and Surveyors

15th Singapore International Bunkering Conference



Here's another thought: times are changing and customers demand more. As the world's largest bunker market straddling some of the most important shipping lines, Singapore must continuously design incentives and initiatives

to address the needs of bunker suppliers and surveyors. On 14 October, Singapore's Minister for Transport announced the launch of Singapore Standard 600, or SS600, the world's first national standard for both bunker suppliers and surveyors. Acknowledging Singapore's importance to Chemoil Energy, Chairman and CEO Michael Bandy noted that there must be "a driving commitment and the will to invest in a full spectrum of assets and services for marine customers".

Eureka moment #3

It's Time to Let the Capital Know Where the

7th Annual Marine Money Asia

It is about time that ship owners should be tipped on "where the money is," said Christian Loken, Senior Vice-President of the Pareto Group, adding that "the Singapore Maritime Week 2008 and Marine Money Asia were "great venues for people across the industry to meet and discuss the current challenges and opportunities in the shipping and offshore markets". After all, said A R Balaji, Associate Vice-President of Finance at India-based Goodearth Maritime, "we are meeting at a time when everybody is impacted by the crisis. People are trying to understand the outlook on financial markets more than [they are trying to understand the outlook] on shipping because, ultimately, the economy drives shipping."

Eureka #4

We Cannot Escape the Truths of the Global **Energy Challenge**



According to Shell Marine Products CEO Isabella Loh in her SIBCON keynote address, there are

The inaugural Singapore Nautical Run was the realisation of an idea - that of the maritime community coming together in a rally for charity.

three realities: accelerating energy demand; the increasing difficulty as well as cost of finding oil and gas; and greenhouse gas issues arising from the use of fossil fuels. Advocating a Blueprints approach to the dilemma, she said: "This is a world where people recognise shared interests and collaborate to develop new opportunities for profitable business. They can see the benefits of taking action before it is forced on them." This, she explained, has resulted in a wide range of technologies and many ways to pursue energy efficiency.

Eureka #5

The Cost of Delaying Action to Reduce GHG emissions Will be More if We Don't Act Now



Think about it, said Mohammad Souri, Chairman and CEO of the National Iranian Tanker Company. who also argued that CO2 ship indexing might play an important role in the future. Defining "sustainability-focused" businesses as those that "merge social, environment and business objectives," Jesper Praestensgaard, the Chief Executive for Maersk Line Line Asia-Pacific, contended that "significant" shipping lines can and should invest in energy-reducing measures, "given that 90 per cent of world goods are carried by sea".

ASIANORIGINS GLOBALLEADER

With a fleet of just five vessels, Neptune Orient Lines sailed into the competitive world of international shipping as Singapore's national carrier in 1968.

Today, our roots remain in Singapore and the wider Asia region, but we are a Singapore success story of truly global proportions.

Through our APL and APL Logistics businesses, we have forged a reputation as a global leader in container transportation, terminal management and logistics.

Our collaborative approach means our customers, our partners, our people and our shareholders are able to share in our worldwide success.





As the lightering and ship chandling business in Singapore grows, the new purpose-built Penjuru Terminal reflects the country's accelerating efforts to develop as a one-stop centre to meet shipowners' every need

ingapore's position as a comprehensive one-stop centre for the shipping industry received a shot in the arm with the opening of a landmark lighter terminal at Penjuru last October.

Located previously at Pasir Panjang Lighter Wharves (PPLW), and operated by Jurong Port, the new and bigger Penjuru Terminal has 150 metres

of berth and 10,000 square metres of land area. To enhance efficiency and convenience, it is purposebuilt with dedicated onsite facilities such as office units and parking lots as well as a state-of-the-art biometric-based security system.

"The new Penjuru Terminal is custom-designed to address the needs of the industry and boost the efficiency of cargo-handling operations," said Manjit Singh, Deputy Director for Policy, Maritime and Port Authority of Singapore (MPA).

MPA, together with PSA Corporation, JTC Corporation, the Urban Redevelopment Authority, the Singapore Ship Chandlers' Association, and the Singapore Customs and Immigration, had assisted in the relocation of the lighter terminal.

The relocation from PPLW, where lighter operators and ship chandlers had been based since 1983, was necessary to ensure the higher standards of service and efficiency that the international shipping industry demanded.





Providing the essential services of delivering sea stores and ship spares to ocean-going vessels moored at the city's anchorages, lighter operations are an essential part of Singapore's maritime

According to a study of Singapore's maritime cluster conducted by the National University of Singapore Entrepreneurship Centre in 2002, ship chandlers contribute about S\$700 million of revenue and S\$93 million of value-add to Singapore's GDP, making this industry highly valuable to the local economy.

MPA and Jurong Port started the Penjuru Terminal project in the middle of 2006. It was completed in May of 2008, and was operational the following month. Singapore's other lighter facility is located at Marina Wharves, but is scheduled to move by December 2009 to the Penjuru Terminal.

Barry Desker, Chairman of Jurong Port, the developer and operator of the Penjuru Terminal, pointed out that Singapore is a major refuelling stop for the international maritime fleet.

"The growth of the ship chandling business in Singapore stems from efforts to develop and promote Singapore as a one-stop centre for all the needs of ships sailing through."

"Thriving smaller businesses support the bigger ones in Singapore's maritime cluster, forming a dynamic and symbiotic marine ecosystem, and contributing to Singapore's growth as a shipping hub."

"Not only do ships stop here for taking bunkers, but most ships transiting through Singapore also take the opportunity to top up on their daily requirements," he said. "These stretch from industrial machinery such as anchors, ropes, engine parts and lubricants to consumables and medical supplies."

BG (NS) Choi Shing Kwok, Permanent Secretary, Ministry of Transport, said: "As our port continues to grow, we can expect the scale of the lightering and ship supply operations to grow in tandem."

Within the first few months of operation, Penjuru Terminal had already handled about 15,000 lighter calls totalling over 365,000 metric tons. What is more, 11 of the Republic's 20 lighter operators call the terminal home, as do 225 of the city's 300 ship chandlers.

"The growth of the ship chandling business in Singapore stems from efforts to develop and promote Singapore as a one-stop centre for all the needs of ships sailing through," noted Singh.

In fact, said Desker, one may attribute it to the "solid tripartite collaboration among government agencies, terminal users and Jurong Port".

After all, complementing the endeavours of ship chandlers and lighter operators are the Singapore government's efforts to provide the required infrastructure to support the continued success of the Republic as a port.

"Thriving smaller businesses support the bigger ones in Singapore's maritime cluster, forming a dynamic and symbiotic marine ecosystem, and contributing to Singapore's growth as a shipping hub," said Singh. "An active, reliable and efficient lighter industry will continue to draw more ships to call at Singapore for supplies, and add to the maritime buzz."



Fuelling the future

Singapore's vibrant maritime community has joined hands to develop a new IT platform for the busy bunker supply chain

he world fills up in Singapore. Thousands of vessels call at the busiest port on Earth, offload their cargo, plug in their hoses and take on the tons of fuel needed to keep trade flowing.

The sheer volume of vessels arriving and

"The biggest benefit of BunkerNet is the easy and speedy communication between barge and office."

- Pai Kheng Hian

departing the port of Singapore has seen the maritime centre rapidly evolving into the region's most important bunkering stop.

But to keep pace with the changing needs of its port, the Maritime and Port Authority of Singapore (MPA) is constantly striving to improve its bunker service offerings.

In March 2008, Singapore's bunkering fraternity joined hands to form the BunkerNet Workgroup (BNWG), to look into how Infocomm Technology (IT) could be harnessed to further enhance the bunkering process.

BunkerNet is a revolutionary new IT platform that will automate processes and vastly improve the efficiency of Singapore's bunker supply chain.

"The improvements include better information flow, workflow automation, better accuracy, reliability and timeliness of operational data captured within the bunker supply chain," explained Goh Kwong Heng, Deputy Director for Research & Technology Development, and Chief Information Officer at MPA.

Nominated by the Singapore Shipping Association, BNWG is made up of representatives from across the bunkering industry, from the top 10 local bunker suppliers to smaller supply operations. It also includes bunker craft operators, the oil majors, MPA and the Infocomm Development Authority of Singapore.

According to BNWG participant Pai Kheng Hian, General Manager of Sentek Marine, the significant cost reductions and efficiencies that would be realised by the implementation of BunkerNet were what motivated him.

"Since Sentek Marine is both a barge operator and bunker supplier, we feel that we might be able to share some experiences with the Workgroup and contribute to developing a system that will benefit the industry and, of course, our company," he said.

By May 2008, BNWG had completed its initial task of identifying BunkerNet's requirements and functionalities. Currently, the Call-for-Collaboration (CFC) for the system's development



The sheer volume of vessels arriving and departing the port of Singapore has seen the maritime centre rapidly evolving into the region's most important

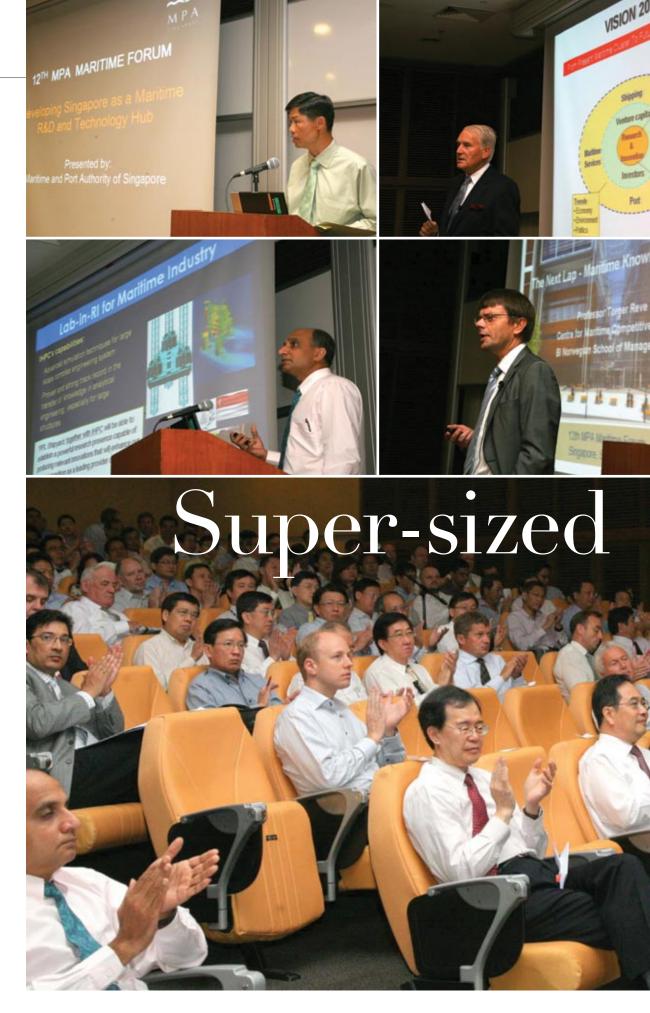
has been issued and awarded, and MPA is looking ahead to an automation platform that would eliminate manual processes and human error.

"The biggest benefit of BunkerNet is the easy and speedy communication between barge and office," said Pai.

This plus factor will not be long in coming. As Singapore's bunker supply chain embarks on the road to automation, new efficiencies will be introduced to a service vital to the carriers of global trade. 🛢

ABOVE: Goh Kwong Heng, Deputy Director for Research & Technology Development and Chief Information

Officer, MPA.









More than a leading maritime thought centre, Singapore's dedication to maritime R&D is helping the city to become a "super" maritime cluster

ne of mankind's most ardent pursuits throughout the ages, the quest for knowledge has kept the wheels of progress turning - a fact that Singapore understands well.

Not surprisingly, the Republic's 12th Maritime Forum last September came under the banner: Developing Singapore as a Maritime Research and Technology Hub.

Organised by the Maritime and Port Authority of Singapore (MPA), these Maritime Forums serve as platforms to update the Singapore maritime community on new initiatives and developments. The roundtables also engage the latter in open discussion on topical issues and challenges facing the industry.

The 12th Maritime Forum was led by Professor Torger Reeve, Professor Chair at the BI Norwegian School of Management, and included Professor Sven Ullring from Norway's Fridtj Nansen Institute as part of the panel of experts, government agencies and professionals.

According to Reve, Singapore is already a leading maritime thought centre, and ready to graduate to the next level as a "super cluster".

He said: "In global business development, we can talk about a hierarchy, from maritime centre, to maritime cluster, to a global maritime knowledge hub. Singapore should reach for the top."

After all, Reve pointed out, Singapore is perfectly positioned to do so, based on the strength of its port facilities, shipping and maritime services, and offshore engineering.

A "super cluster" also requires robust maritime research and education, with a strong venture capital and banking system, he maintained.

Maritime training, insurance, brokerage and finance have gained pace in Singapore, but the academia must continue to play a significant role, Reve added, citing the recent launch of the Global



ABOVE: Goh Kwong Heng, Deputy Director for Research & Technology Development and Chief Information Officer, MPA.

Executive MBA programme in shipping, offshore and finance between Nanyang Technological University's Nanyang Business School and BI Norwegian School of Management as an excellent example.

The 12th Maritime Forum was also where a Memorandum of Understanding was inked between MPA and the Institute of High Performance Computing (IHPC), a research institute under the Agency for Science, Technology and Research, or A*STAR. This has paved the way for a S\$3.4 million collaboration to leverage IHPC's computational science and engineering capabilities through a three-year Maritime Research Programme.

Goh Kwong Heng, MPA's Deputy Director for Research & Technology Development and Chief Information Officer, said: "Singapore is an ideal place for maritime R&D, test-bedding and the commercialisation of maritime technology and

Not only is the city-state at a strategic location, he said, it is also a premier global hub port, a leading offshore and marine engineering centre, and an international maritime centre.

Goh noted that Singapore's maritime knowledge hub began to reach critical mass in 2002, when the first Maritime Research & Development Advisory Panel (MRDAP) mapped out the plan for Maritime Technology Cluster Development.

MDRAP's recommended cluster approach, said Goh, has raised Singapore's maritime R&D to a higher plane.

In 2003, a S\$100 million Maritime Innovation and Technology (MINT) Fund was established to help the Singapore government set this plan in motion. Since then, the MINT Fund has assisted local universities and research institutes to collaborate with industry bodies, and developed maritime R&D projects.

Given the growing global concern about the impact of greenhouse gases (GHG) emissions and the escalating costs of bunker fuel, future research, said Goh, will focus on clean and alternative energy sources as well as other marine environment issues.

"Being a major hub port as well as offshore and marine engineering centre, Singapore encourages research in these areas, especially in partnership with key stakeholders in these sectors," said Goh.

Taking a cue from the groundwork laid by the Singapore government to develop the country into a maritime knowledge hub, a host of maritime companies has set up research and technology centres in the city. One example is the Keppel Offshore and Marine Technology Centre (KOMTech).

As the 12th Maritime Forum drew to a close at NTU@one-north campus on 19 September last year, the 200-odd participants from Singapore's maritime cluster and government agencies might have left while pondering a few vital questions. What are the projects identified by visiting professors and renowned technology experts that would ante up Singapore's maritime R&D? The answers could take the city one step closer to 'superstar' status as a global maritime centre. 🛢

Singapore's maritime knowledge hub began to reach critical mass in 2002, when the first Maritime Research & Development Advisory Panel mapped out the game plan for Maritime Technology Cluster Development.



Clearly the way to go

When it comes to the massive task of reducing global shipping emissions, KRYSTALLON is one clear air technology company who says: I think I can, I think I can

ossibly the first company in the world to develop a practical and marketable solution for easing the environmental impact of ship sulphur and particulate matter exhaust emissions, Krystallon leads a growing band of true believers in clear air technology.

For the converted, using seawater scrubbing systems to remove sulphur particulates cuts emissions more efficiently than switching to Low Sulphur Fuel Oil (LSFO) and shore-side power, both which have cost and availability issues.

The Krystallon Seawater Scrubber enables vessels to reduce sulphur emissions without the need to change fuels or modify engine design.

The market for scrubbing technology could grow to US\$7 billion within the next seven years as new emissions-reduction regulations come into force, according to Chris Leigh-Jones, Krystallon's Managing Director.

Krystallon was formed in 2006 as a joint venture between BP Marine and Kittiwake Developments, a UK-based marine fuel-testing company, and is now owned entirely by Kittiwake.

Leigh-Jones and his team are the driving force behind this technology and its implementation. He founded Krystallon with the stated aim of developing innovative pollution abatement methodologies. He also founded Kittiwake Developments.

Kittiwake has been involved in marine

ABOVE Chris Leigh-Jones, Krystallon's Managing Director

MARITIM



ABOVE The Holland America Line (HAL) Zaandam has a Krystallon Seawater Scrubber successfully fitted onto one of its five diesel generators



legislation since 2004, said Leigh-Jones, when it first became obvious to many in the industry that a significant shift was going to take place in the way ships operated.

Leigh-Jones's vision is currently gaining momentum, and seawater scrubbers with it, due to the introduction of environmental legislation around the globe in the shape of Emission Control Areas (ECAs), EU and International Maritime Organisation (IMO) directives, as well as individual port controls to reduce the marine industry's impact on air quality.

What's more, Krystallon's scrubbers, which essentially cleanse the thick, asphault-like, highly viscous fuel used by ships, are fully capable of handling the task ahead. "The data from the Krystallon operational scrubber unit confirms 100

The market for seawater scrubbing technology could grow to US\$7 billion within the next seven years.

per cent sulphur oxide gas removal and 80 per cent particulate removal, an unrivalled reduction in harmful ship emissions," said Leigh-Jones.

The system has also been recognised by the IMO and EU as an acceptable and compliant solution to reducing emissions.

Indeed, the technology has come a long way in a short time. It was 2006 when Krystallon installed their first seawater scrubbing technology on a commercial vessel, a P&O's Pride of Kent passenger ferry, which sails the Dover to Calais route.

After working with leading clients in the marine industry to successfully demonstrate seawater scrubbing technology, Leigh-Jones said he is ready to market and distribute the Krystallon Seawater Scrubber via a global platform.

"With the scale and diversity of maritime businesses concentrated in Singapore, the citystate is the logical choice for such a global platform," he said, adding that Singapore's reputation for environmental innovation also works in its favour.

"For the last 16 years, we have used Singapore as a transit stop and sales office," said Leigh-Jones.



"For the next 16, I think this will change with an investment in much larger local involvement and technology transfer from our R&D facilities with regional manufacturing controlled from Singapore. We have started making these plans already."

Currently, Krystallon is working with notable shippards and retrofit yards in Singapore, such as SembCorp Marine and Keppel, to turn the technology into a market-ready reality.

In fact, a global network of shipyards is ready to install the company's technology. "We have successfully operated our systems in environments spanning from Atlantic to Pacific, tropical to Arctic and deep sea to closed estuary," said Leigh-Jones.

Despite having worked across the globe, there is only one place that Leigh-Jones would choose as his current base of operations.

"Singapore is an easy place to transact business," he said. "The city has an open outlook on opportunity, good banking, and a reputable legal structure."

The Maritime and Port Authority of Singapore (MPA), Leigh-Jones maintained, has been

"particularly helpful," aiding Krystallon to find venture capital investment when BP Marine announced their wish to divest.

In fact, it was through Toh Ah Cheong, Director for Technology at MPA, that Krystallon was also able to develop business relationships with companies such as Sembcorp Marine and Envipure.

"MPA has led developments in bunkering, so why not continue that great work and sustain the bunker and shipping sectors through environmental challenges?" asked Leigh-Jones.

After all, he said, most of the world's marine fuel analysis services such as DNV Petroleum Services and Lintec, as well as individuals like Douglas Raitt of the Fuel Oil Bunker Analysis and Advisory Service (FOBAS) offered by Lloyd's Register, are already headquartered in Singapore.

"The whole experience of Singapore has left a very favourable impression," Leigh-Jones said.

As Singapore takes the initiative to lead the way on shipping and the environment, that is clearly so.

■

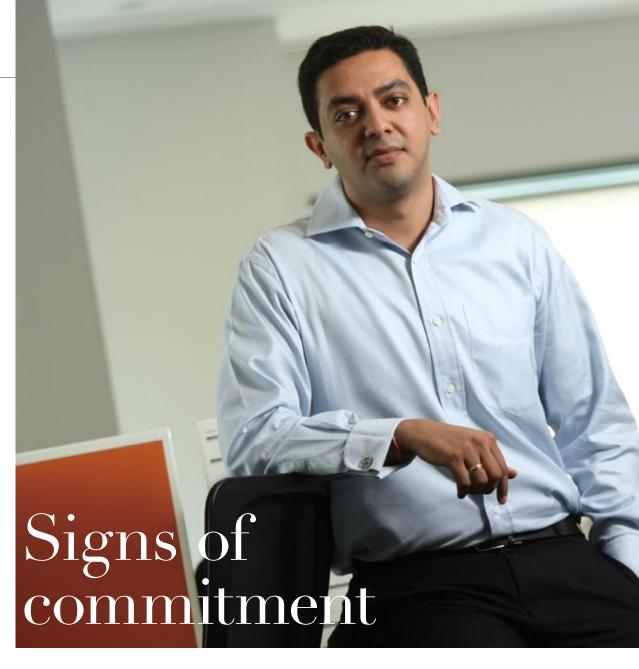


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How does the Singapore government let MERCATOR LINES LIMITED know they are in a long-term relationship? Managing Director and CEO Shalabh Mittal counts the ways

t was not chance that brought a team of senior officers from the Maritime and Port Authority of Singapore (MPA) to India's Mumbai three years ago. Rather, it was a well-placed sense of commitment and, surely, the pleasure of making some new friends.

The commitment, of course, was from the Singapore government, to do all it could to provide the best possible support for companies which choose to set up office in the city. And the friends were the good people at Mercator Lines

Since then, the dry bulk shipping company had picked the island nation as the base from which to expand their international operations. Growing quickly, the Singapore outfit is now a listed company with about 3,000 shareholders.

"Singapore has been a wonderful place to work in," said Shalabh Mittal, Mercator's Managing Director and Chief Executive Officer. "People are warm, hospitable and supportive. It is geographically well-positioned and has a fine infrastructure to support the shipping industry. Above all, the encouraging incentives and friendly



"Singapore has been a wonderful place to work in. The encouraging incentives and friendly business environment make it a preferred choice."

business environment offered by the government make the country a preferred choice."

For example, MPA has a Block Transfer Scheme, which offers an 80 per cent discount on registration fees. Shipping income derived from the operations of Singapore-flagged ships in international waters are exempted from tax.

"Singapore is a hub not only for shipping, but also for ship broking, ship financing, risk management and marine insurance."

In addition, said Mittal, Singapore's rules and regulations are "simple and effective", and the government machinery is "super-efficient". Little wonder that Mercator pegged the international maritime centre as the ideal locale for a second home outside India.

"We already had a strong base in India, but we wanted to diversify and reach out to other Asian and international customers," recalled Mittal. "We saw Singapore as the best place for us to raise our profile, as Singapore is a hub not only for shipping, but also for ship broking, ship financing, risk management and marine insurance."

A 25-year-old veteran in the shipping industry, Mercator is one of the fastest-growing companies in India. Touted as the only provider of end-to-end customer solutions in Singapore, Mercator serves the needs of industry players such as Tata Power, Cosco, Cargill and Arcelor Mittal.

Its biggest challenges at the moment are the volatility in freight rates and the recent slowdown in the global dry bulk shipping business. "The Baltic Dry Index (BDI), which saw a peak in the middle of 2008, showed a major slide in September 2008," he commented. "The global economic crisis has spread its ill-effects so widely and intensely."

But, helmed by a management team with in-depth understanding of the industry, extensive experience and a proven track record with a wide network of customers, Mercator is taking such mood swings of the economy calmly in its stride. In addition, Mittal said, the company has a "prudent business model," deploying a large portion of its fleet in long-term contracts with reputable

"The shipping industry plays a vital role in the global supply chain and world trade," said Mittal. "It's a dynamic and challenging industry whereby the business environment can change very quickly, and the company has to be agile enough to adapt to these changes."

In other words, you have to stay committed.



One of the largest banks in the world, MIZUHO has a strong relationship with the shipping industry, and holds a commanding presence in Singapore's shipping finance sector

ith more Japanese firms setting up shop in Singapore during recent years, the wealth of business generated is eagerly embraced by Mizuho Corporate Bank.

According to Kosuke Nakamura, Executive Officer and General Manager of the bank's Singapore branch, not only have many shipping companies entered the city's biz-scape, a number of existing ones have expanded their business, or have chosen Singapore as their regional headquarters.

Little wonder that Mizuho believes Singapore, which is located at the epicentre of the shipping industry for ASEAN and India, is "an ideal place" for the bank to provide shipping finance, in addition to a wide range of financial and banking services.

"As more Japanese companies establish a presence in Singapore, there is more business generated, producing a chain reaction," Nakamura explained.

Traditionally seasoned players in the shipping industry, Japanese shipping companies began operating on a global scale as far back as a century ago, when its trading vessels began exploring the high seas beyond its surrounding islands.

To cater for the needs of the Japanese shipping industry, Mizuho launched its shipping finance business in 1918, establishing its presence in Singapore more than 30 years ago.

"Singapore is well known as a strategic maritime location and financial hub," said Nakamura. "It also offers an excellent and transparent pro-business environment."

According to him, Mizuho's customers recognise Singapore as a global hub port and international maritime centre, with a proenterprise government. And, like any wise businessman will tell you, the customer is always right.

"The Maritime and Port Authority of Singapore (MPA) is supportive of maritime companies who plan to establish a business, or operate an existing business, in Singapore," he said. "MPA also plays a significant role in helping our clientele gain a better understanding of Singapore's maritime industry and the various support channels available to ship owners, charterers, ship management companies, and shipping funds or trusts."

Mizuho Corporate Bank is the core corporate banking entity of the Mizuho Financial Group, which was established in 2000 from the merger

Not only have many shipping companies entered the city's biz-scape, a number of existing ones have expanded their business, or have chosen Singapore as their regional headquarters.

— Kosuke Nakamura

MPA plays a significant role in helping Mizuho's clientele gain a better understanding of Singapore's maritime industry and the various support channels available to ship owners, charterers, ship management companies, and shipping funds or trusts.

of Dai-ichi Kangyo Bank, Fuji Bank and the Industrial Bank of Japan.

One of the largest financial institutions in the world, it has total assets worth over US\$1.5 trillion, as of March 2008. Clients range from listed companies to financial institutions, public sector entities, global corporations, and overseas subsidiaries of Japanese companies.

To enhance its Asian shipping finance network, Mizuho has set up a Tri-Branch Structure that bridges its Singapore branch, Hong Kong branch and head office in Tokyo.

In five years, said Nakamura, Mizuho strives to be a clear leader in Singapore's shipping finance industry. And, perhaps as an indication of its faith in both the Singapore economy and society, the bank signed a Memorandum of Understanding (MoU) with the National University of Singapore's Business School last July, to sponsor scholarships, bursaries and internships, as well as joint research projects.

Mizuho is very proud of the MoU, said Keizo Ohashi, Managing Executive Officer, Head of Asia and Oceania. "It will lay the foundation for an important partnership that underlines our firm belief in the value of quality education," he explained at the signing ceremony. "With [such initiatives], we hope to enhance our contribution, not only to the Singapore economy, but also to Singapore society."

And it seems Mizuho couldn't have chosen a better partner. "Singapore is a well-established base for sourcing talent from all around the world, and renowned for its working and living environment," said Nakamura. "[These attributes] are essential for business development."



For RON WIDDOWS, Group President and CEO of NOL, the maritime industry is about connectivity - and how Singapore has a way of connecting the dots that forms the big picture

started off sweeping the floor and then graduated to running the telex machine - because I could type faster than any of the ladies. That's [how] I began my maritime career."

Ron Widdows was 17 years old. Thirtyseven years later, the Group President and CEO of Neptune Orient Lines (NOL) now runs global transportation company NOL Group, which operates three lines of business: the 160-year-old liner shipping company APL, logistics company APL Logistics, and the latter's marine terminal business.

"As tough as this business can be," he said, referring to the recent downturn of the global economy that has sent the shipping industry into choppy waters, "it's an industry that people come to and fall in love with."

You might even say it is the kind of passion that could cause someone to change his entire life's

With his sights on becoming a research chemist, a young Widdows decided to spend a summer on the Micronesian island of Guam before starting an honours chemistry degree at the University of Washington. Working nights as a chauffeur, he struck up a friendly conversation one evening with an elderly passenger while sending the latter from the airport to a hotel.

As karma would have it, their paths crossed again soon after - this time, during an interview for a job at a shipping agency, advertised in the local newspaper. "They ushered me into this office, and there was the guy I had picked up at the airport, who remembered me," Widdows recounted. "We talked for a while. Then he looked at me and

said, 'You're a nice kid, so we'll give you a chance."

Within 18 months, Widdows had gone from sweeping floors to taking on the role of an operations manager. "My parents thought I had truly lost my mind," he said. "But I guess it worked out okay in the end."

Surely that is an understatement. In 1980, Widdows joined APL, NOL's core container shipping business, becoming the company's CEO in 2003. During this time, APL recorded its best-ever financial results, and cemented its leading position in the industry.

In addition, Widdows held senior executive roles in Asia and North America, directing the development and subsequent divestment of APL's groundbreaking Stacktrain rail business in North America, where he was in charge of APL's gateway container terminal facilities.

In July 2008, he became the head honcho of NOL, Singapore's national shipping line for the past four decades. Structured into five regions - Asia and Middle East, Greater China, the Indian subcontinent, Europe and the Americas - the company continues to construct its network and services in ways that keep it in front of the competition.

"If you are in this business, then Singapore is one of the best places on the planet to be located," said Widdows. "If you look at the developments in not just our industry, but in terms of growth globally, so much of that has been oriented around Asia in the past decade or two. Singapore is in a strategic location from a shipping standpoint, and that makes it a fantastic place from which to do our business."

Which is why, according to Widdows, it makes perfect sense that he is sought for his views on global trade and maritime development in his office as the Chairman of the World Shipping Council, despite working and residing in a relatively small country like Singapore.

A board member of the Maritime and Port Authority of Singapore, Widdows said he

"If you are in this business, then Singapore is one of the best places on the planet to be located."

"What they do so well in Singapore is understand the need for connectivity. They have built the capability to do it better than anywhere else in the world."

appreciates the bird's-eye view he has of the efforts by the Singapore government to develop the city state as an international maritime centre.

"I get an opportunity to see the Singapore government's thought process at work, and it's quite a fascinating thing," he said. "There is such a robust process behind making Singapore absolutely the most attractive location from a maritime perspective."

This includes incentives for companies to use the port and surrounding facilities, reaching out to young people to stimulate their interest in pursuing careers in the maritime sector, and advancing Singapore's position as a thought leader by cooperating with institutions in Singapore and abroad on joint research and development projects.

Widdows believes that the way people view the maritime industry has changed in recent years - the industry is not just about ships operating between different countries, but about connectivity.

"Over the past few months, the degree to which economies are connected today and cannot be separated has become increasingly apparent," he said. "An event that starts in the United States has a global effect. Transportation is a global business, and you can't look at things in isolation - you have to look at them in terms of the whole network flow of a business.

And, he added, this business is about an integrated global transportation network and the way one manages that. Certainly, PSA Singapore Terminals has seen the explosion of business in Singapore as a consequence of that.

"What they do so well in Singapore is understand the need for connectivity," Widdows said. "They have built the capability to do it better than anywhere else in the world, and they can take advantage of that in a significant way."



39 and holding

et's say shipping luminary Torben Skaanild meets a Generation X-er at BIMCO39, an international networking platform for shipping professionals. And let's say they chitchat, maybe even tut-tut over the sorry state of the economy, and shoot the breeze about the way life was before the shipping industry weaved its spell on them.

Soon, however, the younger man starts to feel a tad puzzled. "I've not told you how old I am - why are you so certain all these happened before I was born?" he asked.

And why don't we just say Skannild replies with a twinkle in his eye: "Oh, a wild guess."

To those who know the Secretary-General of the Copenhagen-based Baltic and International Maritime Council (BIMCO), however, this is probably not a man who makes strange suppositions.

"I try to be professional about the things I do, whether it concerns my business, or other duties and responsibilities," said the top executive, who used to work for companies like World-Wide

As the Secretary-General for BIMCO, the parent organisation for BIMCO39, a network for shipping executives below 40, TORBEN SKAANILD knows the importance of grooming the next generation of shipping talent



Shipping in Hong Kong, and who has been described as a "dynamic and forceful shipping industry administrator".

But with 40 years of experience in the shipping industry, including the period between 1984 and 1991, when he did his first tour of duty as BIMCO's Secretary-General, Skaanild could safely say that life before he joined this business unquestionably "happened" before his new friend was born.

This is because BIMCO39 is a well-known international network for rising shipping executives below 40. A brainchild of BIMCO President Designate Robert Lorenz-Meyer, the organisation is linked to other associations for young shipping staff.

"We must do more to attract the attention of the younger generation," Skaanild said. Careerpath packages that fit the specific aspirations of potential maritime employees might be used to

When it comes to grooming the next generation of shipping talent, Singapore has been particularly successful.

MPA offers a range of financial incentives, a dedicated strategy and proactive leadership.

address the twin challenges of attracting and retaining young people. Public awareness of the industry could also be raised, with an emphasis on the many positive aspects of life at sea.

When it comes to grooming the next generation of shipping talent, said Skaanild, "Singapore has been particularly successful."

This is a consequence of several factors, such as "personal drive, vision and commitment from many individuals, and the significant support from the Singapore government," he said.

As the government agency which looks after Singapore's maritime interests, the Maritime and Port Authority of Singapore (MPA) offers a range of financial incentives, a dedicated strategy and proactive leadership.

These factors have come together to create a thriving maritime industry comprising more than 100,000 jobs. This sector has also helped Singapore rise to its status as a regional economic powerhouse.

In addition, Skaanild said he was "deeply impressed" by Singapore's commitment to maritime education over the past two decades.

BIMCO is currently on a global campaign to promote maritime education and job opportunities. During the Singapore Maritime Week 2008, BIMCO39 organised a networking session which drew 160 delegates, as a joint effort with the Singapore Maritime Foundation and MPA's Maritime Outreach Network (MaritimeONE), a key platform aimed at attracting quality manpower to the local industry.

BIMCO recently appointed Thomas Timlen as its Asia Liaison Officer. Based in Singapore, Thomas Timlen will work with regional regulators and shipping entities to ensure that the organization is kept abreast of developments and concerns in the region.

"Shipping is a truly global business," Skaanild said. "The market mechanisms of supply and demand are constantly in play and impact the industry's level of revenue, he said. "The most unique and fascinating aspect of our business is its complexity."



The global financial crisis has hit the shipping industry, however, EFTHIMIOS MITROPOULOS remains hopeful

he shipping industry is in for challenging times - faced with not just a global downturn in trade, but also problems such as marine pollution, piracy and a shortage of young people entering the industry.

The grim outlook was provided by the head of a global maritime body who was visiting Singapore.

"We must acknowledge that since 2004, we have had a boom in the world economy which had a most welcome impact on the shipping markets, where the dry cargo market and freight rates were extremely high for long periods of time," said Efthimios Mitropoulos, secretary-general of the International Maritime Organisation (IMO).

"So, sooner or later, there will be some kind

of a decline," he told The Straits Times in an interview.

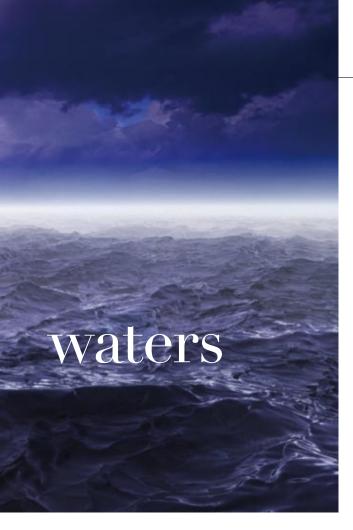
He said no sector will be unscathed by the financial crisis and that shipping will be affected to some extent. He was here for Singapore Maritime

However, Mitropoulos said that shipping, which accounts for about 90 per cent of world trade, will remain the preferred mode of transport due to cost efficiencies.

The IMO, which regulates the shipping industry on issues that include safety, environmental and legal issues, is working to reduce harmful emissions such as greenhouse gases and sulphur oxide from ships.

Shipping contributed about 3.5 per cent of global carbon dioxide emissions last year, but that figure is expected to rise.

Though affected to some extent by the financial crisis, it will remain the preferred mode of transport due to cost efficiencies.





He said the IMO is "working towards the development and adoption of a robust regime that will regulate shipping at the global level and contribute to the slowing down of climate change."

These include deciding on whether to impose a fuel levy to cut greenhouse gas emissions or use more complex market-based instruments such as emissions trading.

The IMO hopes such moves will be enough to prevent the United Nations from imposing its own emission rules at a Climate Change Conference in Copenhagen in December 2009.

The Kyoto Protocol, which expires in 2012, will be replaced by the outcome of the Copenhagen meeting.

Mitropoulos said that greenhouse gas emission reductions agreed by the IMO "should extend to all ships, no matter what flag they fly."

Under existing regulations, only 25 per cent of the world's fleet is obliged to comply with mandatory reduction measures.

"If reductions in carbon dioxide emissions from ships are to benefit the environment as a whole, they must apply globally to all ships in the world fleet.

"To me, it seems incongruous that two ships carrying similar cargo, loaded in the same port, The IMO is working to make the [maritime] profession a more attractive one and to retain talent. It also aims to solve problems such as mistreatment of seafarers and cut down on piracy.

sailing at the same speed and having the same destination, should be treated differently simply because they are registered under two different flags."

He is also "very concerned about the reluctance of promising young people to join the maritime organisation". He pointed out: "We have to act early to prevent a situation arising where we have state-of-the-art ships but there are not enough qualified professionals to man them."

The IMO is working to make the profession a more attractive one and to retain talent, he said. It also aims to solve problems such as mistreatment of seafarers and cut down on piracy.

Article courtesy of SPH - The Straits Times



Race for charity

Singapore Maritime Week 2008 hit the ground running, with a race for charity bringing the maritime sector deep into the community

e are here at the beginning of a new running tradition." And, perhaps in that sentence, Raymond Lim, Singapore's Minister for Transport and Second Minister for Foreign Affairs, summed up the Singapore Nautical Run.







"The run offers a fresh take on, and celebrates the coming-of-age of the Singapore Maritime Week."

Held last October, the inaugural event was the curtain-raiser for the much-anticipated Singapore Maritime Week. Not only did it garnered S\$333,000 for The President's Challenge and The Straits Times Pocket Money Fund, it also rallied

Singapore's maritime community together for a worthy cause.

More than 1,300 participants signed up as a competitive runner, non-competitive runner, or as part of a competitive team. From die-hard marathoners to weekend joggers - and surely an exercise-challenged maverick or two - they turned up in full force, bright and early, at East Coast Park.

For William Mew, a derivatives broker with shipbroking group Simpson Spence & Young, he and his colleagues had taken part for a simple reason.



"There was a big sense of camaraderie. All in all, this is an absolutely great way to spend a Friday morning."

"We thought we'd come out, represent our company, and do a bit of good for the community," he said.

For others like Peter Borup, Managing Director of Danish shipping company Norden and a selfprofessed non-golfer, the Singapore Nautical Run was right up his alley. "Most shipping industry events are related to golf, but I'm not into golf," he said, happily noting that there were "a lot of nongolfers out today".

But, as an event by the maritime community for the maritime community and society at large, the Singapore Nautical Run scored a hole in one, any way you look at it.

"There was a big sense of camaraderie," said Jorge Constante, Head of Business Performance at Maersk Singapore. "All in all, [this is] an absolutely great way to spend a Friday morning."

Basked in golden morning rays, against the backdrop of an ocean the shade of dark turquoise, shipping executives, bankers and managers bolted over the starting line to begin their physical odyssey on the winding tarmac next to the

pounding waves.

Jostling for position, runners kept mostly to their teams as lungs heaved and feet slapped the ground. However, by the end of the 6.6 kilometre route - or 3.6 nautical miles for the maritime hardliners among you - boundaries marked by company colours had dissolved as sweaty but satisfied participants mingled, networked and swapped stories.

"We've got everyone here, from our clients to our lawyers," said Jody Wood, a claims executive for Standard P&I Club, from where he sat resting under a tree after the race. "It's a good chance to see everyone out of their shirts and ties, and in a relaxed, informal surrounding."

In addition to forging friendship among companies, the Singapore Nautical Run also gave colleagues the opportunity to shoot the (sea)

"We've got everyone here, from our clients to our lawyers. It's a good chance to see everyone out of their shirts and ties, and in a relaxed, informal surrounding."

ABOVE Peter Borup, Eshen Poulsson and Richard Tan, Director (Corporate Services), MPA

breeze and get to know one another away from the maddening hum of copier and fax machines.

According to Pamela Pung, Maersk Singapore's Assistant General Manager for Communications and Branding, 41 runners from seven of Maersk's 14 business units had taken part. "This is a great way to interact with and get to know people from different business units," she said. "There should be more events like this bringing the shipping community together."

Her wish might just come true. The Maritime and Port Authority of Singapore (MPA), who organises the Singapore Maritime Week, had hatched the idea of the charity run to kick-start one of the region's most critical maritime events.

"The run offers a fresh take on, and celebrates the coming-of-age of the Singapore Maritime Week," said BG (NS) Tay Lim Heng, MPA's chief executive.

Named Convention of the Year at the last Singapore Business Events Award, the Singapore Maritime Week, which started in 2006, has turned three. From just a cluster of business activities, it has grown into a wide-ranging event which includes international conferences, seminars and dialogues on topical maritime issues.

With the Singapore Nautical Run, MPA introduced a new social element to Singapore Maritime Week 2008, which drew a record number of 6,800 local and international participants. This figure is up significantly from 2,900 in 2006 and 4,500 in 2007.

MPA did a "fantastic" job, said Esben Poulsson, President and Chief Executive Officer of shipping conglomerate Torm Singapore. And, with the next Singapore Maritime Week just months away in April 2009, the maritime community can certainly start marking their calendars.

Regardless of whether our runners will find another occasion to battle it out at the beach, one thing's for sure: this tradition rung in by the Singapore Nautical Run of engaging the maritime community and giving back to society will continue.



Ahead of time

he maritime industry owes much to 18th century English clockmaker John Harrison, who spent over three decades developing the marine

e Gen

Who Solved

de Greates

Scientific

Problem

J. Ho Ti

chronometer, a device capable of accurately registering the longitude of a ship. Previously thought to be an impossible task, it revolutionised marine navigation.

> Harrison's lifelong struggle to create the marine chronometer was the subject of one of the best-selling books ever on

the subject of horology - Longitude: The True Story of a Lone Genius Who Solved the Greatest Scientific Problem of His Time.

The word 'chronometer' is not only used to describe celestial navigation, it has also become the shorthand for the standard by which watches and clocks are tested for their accuracy by the Official Swiss Chronometer Testing Institute.

The Musée International d'Horlogerie in Switzerland has marine chronometers on display,

A Breuget tourbillion

PIC: MUSÉE INTERNATIONAL D'HORLOGERIE, LA CHAUX-DE-FONDS, SWITZERLAND.

showcasing the important role they played in the development of clocks and watches. These include marine chronometers from Ferdinand Berthoud, who is famed for the accuracy of his devices.

The exacting accuracy required for marine chronometers, on which sailors' lives depended, is a mark of today's high-end wristwatches. According to Omega, the 1974 Omega Marine Chronometer is still the most accurate wristwatch in the world.



The 'tourbillon', which is French for 'whirlwind', lies at the heart of modern high-end watchmaking. Tracing back to 18th century marine chronometers, it is a device designed to improve the accuracy of a watch by countering the effects of gravity.

While the National Maritime Museum in the UK has a collection of watches and chronometers related to marine endeavours, the importance of marine chronometers on everyday watches and clocks can be seen in the museum's growing collection of domestic clocks and watches.



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