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publisher



MPA
SINGAPORE

**MARITIME AND
PORT AUTHORITY OF
SINGAPORE**

460 Alexandra Road
#19-00 PSA Building
Singapore 119963
Tel: +65 6375 1600
Fax: +65 6275 9247
www.mpa.gov.sg

executive editor

Au Kheng Sheng

advisory committee

Andrew Tan
Tan Beng Tee
M Segar Abdullah
Khong Shen Ping
Toh Ah Cheong
Ong Seok Bin
Parry Oei
Tan Cheng Peng
Angela Png
Tan Suan Jow
Bernice Yeoh
Alan Lim

managing editor

Kate Tan

publishing agent

SPHmagazines

Caroline Ngui
GROUP EDITOR-IN-CHIEF

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editorial & creative

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SENIOR EDITOR
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ASSOCIATE EDITOR
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CONTRIBUTING SUB-EDITOR
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ART DIRECTOR

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Christopher Chan
GENERAL MANAGER

**sales & client
management**

Kaz Lim
ASSOCIATE ACCOUNT DIRECTOR
Charmaine Soh
GROUP ACCOUNT MANAGER
Christine Chionh
**ASSISTANT MANAGER CLIENT
MANAGEMENT**



publishing services

Nurin Farah Adam
COORDINATOR

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M P A
SINGAPORE

maritime vision

As a premier global hub port and an international maritime centre, Singapore places great emphasis on supporting regional and international efforts that take the maritime industry forward. In this regard, the Maritime and Port Authority of Singapore (MPA), the driving force behind Singapore's port and maritime development, plays a pivotal role.

MPA works closely with regional platforms, international organisations, as well as industry partners, to enhance navigational safety and security, promote environmental sustainability and bolster training for personnel in the maritime industry. It has also committed resources to research and development to ensure that the industry is well equipped to meet future challenges.

On the regulatory front, MPA is Singapore's maritime representative overseas. It has ensured that Singapore has acceded to several key international maritime conventions, including all major International Maritime Organization conventions on ship safety and the prevention of pollution from ships. Read more about Singapore's role in advancing the maritime industry in this issue's main feature.

With manpower an important component of the maritime industry, MPA runs several initiatives to develop the maritime talent pool, both local and international. In the

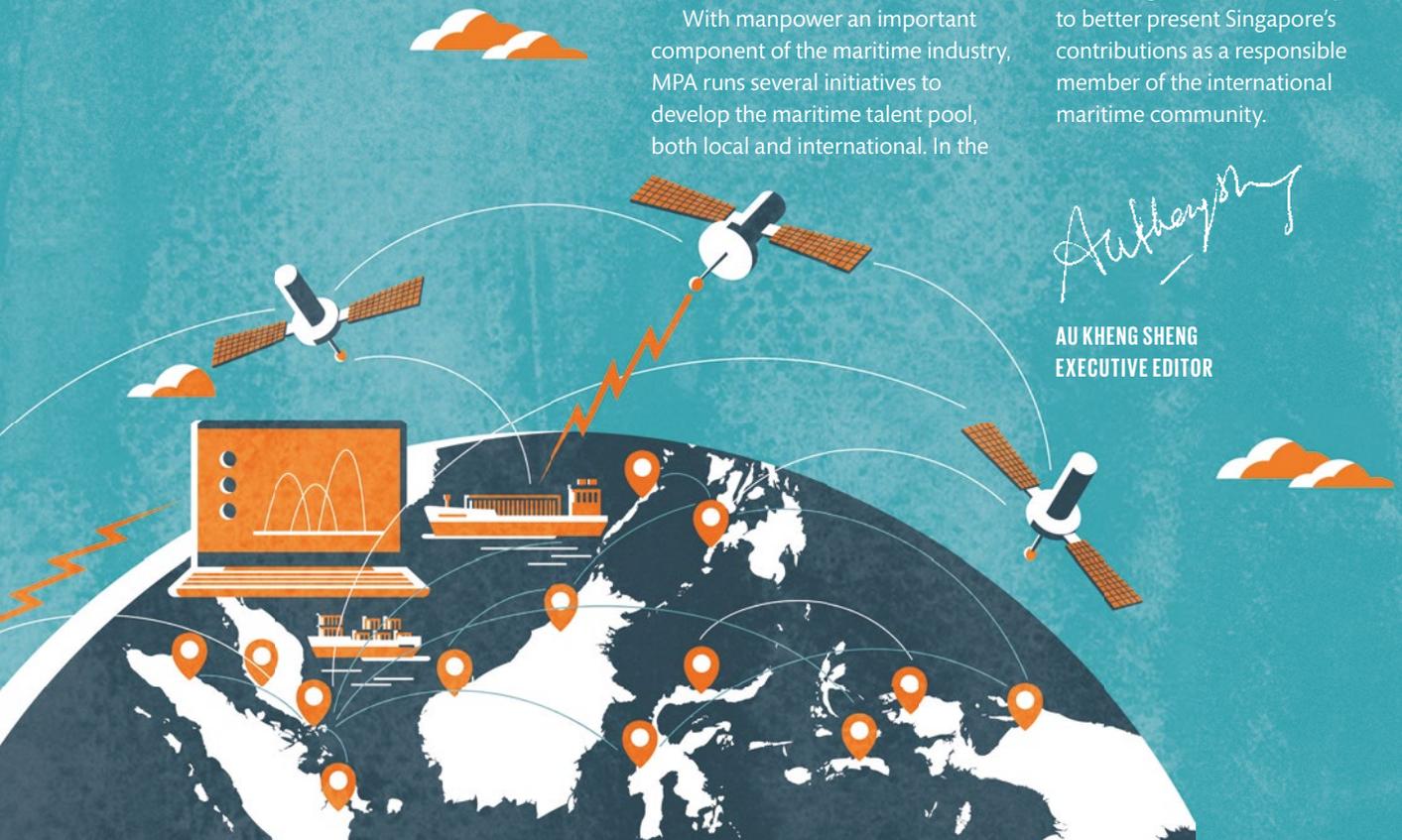
Port & Starboard section, find out how the MPA Global Internship Award provides tertiary students in Singapore an opportunity to learn more about the different components of the maritime industry. MPA Academy, the training arm of MPA, also offers various leadership programmes that further raise the quality of maritime leadership globally. Get up to speed with these efforts in the Maritime Services section.

To improve navigational safety and traffic efficiency, Singapore has taken a proactive approach to developing tools such as a Ship Traffic Simulator. Turn to the Technology section, and discover how this system will lead to safer and smoother passage as well as cost savings for ships sailing through the Straits of Malacca and Singapore.

Through this issue, we hope to better present Singapore's contributions as a responsible member of the international maritime community.



**AU KHENG SHENG
EXECUTIVE EDITOR**



MARITIME SAFETY GETS A BOOST



Singapore is one of the busiest ports in the world, with an estimated 1,000 vessels calling at the Port of Singapore at any one time.

To safeguard its status as a global hub port, the Maritime and Port Authority of Singapore (MPA) has consistently placed great emphasis on the safety of its port waters. It does so by ensuring that regulations on marine safety and environmental protection are enforced effectively.

Together with industry partners, MPA has also introduced a slew of initiatives aimed at promoting maritime safety, such as the Safety@Sea Week. It was launched in November 2014 as part of the Safety@Sea Singapore campaign, an industry-wide collaborative effort to promote safe practices and inculcate a safety-first culture at sea.

Continuing this drive for maritime safety on a national level and to ensure the sustainability of its efforts, MPA announced

the formation of a National Maritime Safety at Sea Council during the launch of Safety@Sea Week 2015. Its first priority is to address issues on navigation safety and raise maritime safety standards. In the long term, the council plans to collaborate with other organisations and countries to promote a culture of maritime safety in the region.

As part of Safety@Sea Week 2015, held from Aug 17 to 21, MPA also kicked off the 2nd Maritime Safety Forum on Aug 19 to share and promote safety practices within the maritime community. During the forum, various industry experts spoke on navigation and shipboard safety, passenger ferry and cruise safety, as well as the legal and insurance aspects of shipping.

At the forum, Mr Andrew Tan, Chief Executive of MPA, also presented certificates of commendation to 10 PSA Marine harbour pilots who displayed exemplary effort in safe practices.

Other efforts by the MPA under the Safety@Sea campaign include: organising regular briefing sessions for the shipping community to spotlight safe practices at sea, forming working groups with different sectors of the industry to discuss safety issues and brainstorm new ideas to enhance navigational safety in port waters, and implementing a voluntary safety reporting and suggestion framework in April this year for ships plying Singapore's port waters and the Singapore Strait to report good practices and near-miss incidents.

MPA is also investing in technology to improve its safety standards. It has signed a Memorandum of Understanding with tech giant IBM to collaborate on developing and offering a test bed for new analytics-based technologies. This aims to improve maritime and port operations and cater to increasing vessel traffic in Singapore.

To reinforce navigation safety and situational awareness, MPA is also in the midst of replacing the Harbour Craft Transponder System with enhanced Automatic Identification System-B transponders and Electronic Chart Systems on all small harbour and pleasure craft. This is expected to be completed by December next year.

On the passenger ferry front, MPA is working on a joint project with the Association of Regional Ferry Operators to develop an innovative under-seat life jacket receptacle on board ferries, so that life vests can be easily accessible in times of emergency.

These efforts have paid off. In 2014, the incident rate was one of the lowest ever, with 0.005 incidents per 1,000 vessel traffic movements, compared to 0.008 in 2013. For the first six months of 2015, the incident rate was 0.003 incidents per 1,000 vessel traffic movements.



ENHANCING LOCAL MARITIME LAW EXPERTISE

To further strengthen Singapore's expertise in maritime law research and thought leadership, the National University of Singapore (NUS) Faculty of Law and the Maritime and Port Authority of Singapore (MPA) announced on Sept 3, the establishment of the new Centre for Maritime Law (CML) and the MPA Professorship in Maritime Law.

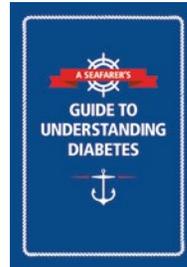
With a focus on commercial maritime law, CML, NUS Law's sixth research centre, was set up with funding from MPA and the Ministry of Law. The centre will spearhead maritime law research in Singapore and the region, as well as increase the knowledge and expertise of the shipping community in Singapore. It will also support and enhance the teaching of maritime law among undergraduates and postgraduate students. MPA, through the Singapore Maritime Institute, has set aside S\$2 million to support the running of CML over five years.

Building on the S\$4 million MPA visiting professorship programme set up in 2003 at NUS Law to enable overseas academia to conduct courses for NUS Law students and members of the Singapore maritime community, the MPA Professorship in Maritime Law has been enhanced to bolster the development of resident teaching expertise and anchor maritime legal research activities at NUS Law. For this, MPA has contributed an additional S\$1 million to launch a permanent professorship.

Said Mr Andrew Tan, Chief Executive of MPA: "A strong pool of maritime legal expertise will reinforce Singapore's development as a leading maritime legal and arbitration centre. This partnership with NUS will strengthen our efforts to position Singapore as an international maritime centre."

FACING PAGE, TOP LEFT Mr Andrew Tan (sixth from left), Chief Executive of the Maritime and Port Authority of Singapore (MPA), with MPA officials and PSA Marine harbour pilots who were commended for exemplary effort in safe practices. **LEFT** Professor Richard Lim (left), Chairman of the National Maritime Safety at Sea Council (NMSSC), and Mr Lucien Wong, Chairman of MPA, at the launch of NMSSC.

SPOTLIGHT ON SEAFARERS' HEALTH



Some 387 million adults suffer from diabetes, according to estimates in 2014 by the International Diabetes Federation. This number is expected to rise to 592 million by 2035. In 2014, the disease caused 4.9 million deaths, equivalent to a rate of one death every seven seconds.

Of particular concern for the maritime industry is that multiple studies have shown that seafarers face a higher risk of developing diabetes compared to the general populace. This is due to challenging working conditions, a hectic lifestyle, prevalence of smoking, lack of exercise and poor diet within the group.

To address this, offshore marine company Swire Pacific Offshore (SPO) and its sister company, The China Navigation Company (CNCo), partnered The Mission to Seafarers, a non-profit organisation dedicated to supporting seafarers worldwide, to produce a free health guide for seafarers. The aim is to raise awareness about diabetes and to encourage seafarers to pursue a healthy lifestyle.

The guide explains the dangers of the disease in the context of seafaring and suggests practical lifestyle adjustments that seafarers can make to minimise their risks. Since its launch, the guide has been distributed in over 50 shipping companies, including among SPO and CNCo's seafarers.

To download the guide, visit www.goo.gl/OKBCdN.

NURTURING MARITIME LEADERS

As part of its mission to become a centre of excellence in global maritime leadership training, the Maritime and Port Authority of Singapore (MPA) Academy, the training arm of MPA, organised the second Port Management Programme (PMP) for 17 maritime officials from Africa, Asia, the Caribbean, Latin America, the Middle East and Oceania.

Held from Aug 17 to 21, the five-day programme was specially developed for port masters, harbour masters and middle managers from maritime and port authorities

around the world. As a flagship programme, the PMP covers a wide spectrum of topics, from master plan development for container terminals to port security and crisis communications.

Aside from classroom-based learning, PMP participants visited facilities such as PSA Singapore Terminals and MPA's Port Operations Control Centre. In a first for the programme, they also observed an annual ferry rescue exercise, witnessing first-hand how an emergency response exercise is conducted in Singapore.

MARITIME SINGAPORE REACHES OUT TO STUDENTS

Expanding on the efforts of the Singapore Maritime Dialogue to generate awareness and interest in educational and career opportunities in the Singapore maritime industry, the Singapore Maritime Ambassador Programme was launched at the second Singapore Maritime Dialogue on Aug 4.

The programme, for which students and professionals from various maritime sectors volunteer as Singapore Maritime Ambassadors, is designed to inspire more Singaporeans, especially the young, to work in the maritime sector. It is spearheaded by the Singapore Maritime Foundation, and supported by the Maritime and Port Authority of Singapore. To date, 30 Maritime Ambassadors have been identified, with more to be appointed in the coming months.

Meanwhile, about 280 students from various junior colleges, polytechnics, and ITE College Central took part in the 2015 event held at The Star Performing Arts Centre. Activities included a panel discussion around the theme of "Maritime Singapore in 2030", as well as an exhibition on the futuristic technology that features at upcoming mega developments like Tuas Port.

For the first time, the students also participated in an inter-school Maritime Quiz. The team from ITE College Central (pictured below) emerged victorious out of the 16 teams from across various educational institutes. Innova Junior College and Victoria Junior College came in second and third respectively. Mrs Josephine Teo, Senior Minister of State, Prime Minister's Office, Ministry of Transport and Ministry of Foreign Affairs, presented each of the three winning teams a team plaque along with cash prizes ranging from S\$200 to S\$1,000.



NEW INITIATIVES TO MEET MANPOWER NEEDS

To address key manpower challenges in the maritime industry, fresh measures to attract Singaporeans and help strengthen their skills and advance their careers in seafaring and shore-based sectors are being introduced.

Announced by Mr Teo Chee Hean, Deputy Prime Minister and Coordinating Minister for National Security, at the Singapore Shipping Association's 30th anniversary gala dinner on Sept 25, these initiatives were drawn up by the Sectoral Tripartite Committee for Transport (Sea) led by the Maritime and Port Authority of Singapore (MPA).

Firstly, a Maritime Singapore Connect (MSC) Office will be established under the Singapore Maritime Foundation to work closely with maritime employers, schools as well as relevant government agencies and industry associations to raise awareness and public interest in job opportunities in the maritime sector. An MSC Portal will also be launched in 2016 to give Singaporeans easier access to maritime job openings, and information on maritime education and training options.

Various SkillsFuture programmes will also be introduced in the maritime sector. These include SkillsFuture Earn and Learn for fresh polytechnic graduates, as well as SkillsFuture Study Awards and SkillsFuture Credit for those currently working in the maritime sector to improve specialist skills.

More focus will be given to training Singaporeans in seafaring jobs so that they can develop good careers in the sector. MPA has committed S\$4 million over the next three years to subsidise three programmes that cover training costs for employers and offer study awards to Singaporean seafarers.

The first is Cadet Allowance Reimbursement. MPA will reimburse companies up to half the monthly allowance that they pay Singaporean cadets who attend training for Certificates of Competency (CoCs).

The second is Achievement Award, which offers monetary awards to those who complete shipboard training to work as junior deck and engineering officers. To encourage locals to go for further training, it is also eligible to those who achieve higher-class CoCs.

The third is Up-skill Allowance Scheme, which seeks to encourage Singaporeans to attend upgrade courses that will qualify them for senior shipboard positions.

With these and other initiatives, the tripartite committee hopes to draw more than 1,200 Singaporeans to join the maritime industry as seafarers and port operations officers over the next five years.

Further measures to target other maritime sub-sectors, such as ship operations, shipbroking and ship management, will be rolled out in the future.

SHIP'S LOG HAPPENINGS

8TH CO-OPERATION FORUM



The 8th Co-operation Forum, held on Oct 5 and 6 at the Resorts World Convention Centre in Singapore, was opened by Mrs Josephine Teo, Senior Minister of State, Prime Minister's Office, Ministry of Transport and Ministry of Foreign Affairs.

OPENING OF NEW TRAINING FACILITY AND START OF 5TH MARITIME PUBLIC LEADERS' PROGRAMME (MPLP)



A new dedicated training facility at the Maritime and Port Authority of Singapore (MPA) Academy was launched by Mr Pang Kin Keong, Permanent Secretary for Transport, on Oct 19. The day also marked the commencement of the 5th MPLP, reinforcing MPA's commitment towards global maritime leadership development.

SHIP'S LOG HAPPENINGS

FEREX 2015



To test the readiness of various agencies in responding to ferry mishaps in the Port of Singapore, more than 350 personnel from 10 agencies and companies took part in MPA's annual emergency preparedness exercise, code-named FEREX 2015, on Aug 21.

SMART PORT HACKATHON 2015



Organised by MPA, Smart Port Hackathon 2015 saw a total of 120 participants from 21 teams producing 21 maritime-related technology prototypes with the potential to enhance productivity, efficiency and sustainability in the Port of Singapore.

SHIP'S LOG HAPPENINGS

FUTURE-READY SHIPPING 2015



Co-organised by MPA and the International Maritime Organization, the inaugural Future-Ready Shipping 2015 conference was held in Singapore on Sept 28 and 29. It saw maritime leaders and professionals gather for a global dialogue on removing barriers to energy-efficient technologies and measures.

CONSERVING OUR CORALS VOLUNTEER APPRECIATION EVENT



An event was held on July 25 to thank volunteers who had helped in the relocation of 2,300 hard coral colonies from Sultan Shoal to three southern sites at St John's and Sisters' Islands. The move aims to protect the corals from the impact of the Tuas Terminal development. Mrs Josephine Teo attended the event.

FEATURE

Singapore has firmly established itself as a global maritime hub, complete with a thriving and vibrant maritime community.

Today, over 5,000 shipping companies and maritime ancillary service providers call the Lion City home. Esteemed shipowners, managers and operators and other reputable maritime service providers are drawn to Singapore for its strategic location, sophisticated port facilities, world-class shipyards and diverse maritime cluster.

Its ship registry is the world's fifth largest, with a merchant fleet of more than 4,000 vessels that totalled 82.2 million gross tons last year. As a major hub port along the busy Straits of Malacca and Singapore, the Port of Singapore is one of the busiest in the world. In 2014 alone, 33.9 million twenty-foot equivalent units (TEUs) passed through its maritime gateways.

As a result, Singapore is an International Maritime Centre in every sense of the term.

And to ensure its continued growth in this aspect, the Maritime and Port Authority of Singapore (MPA) works closely with maritime enterprises and industry professionals at home and abroad to further extend the breadth and depth of maritime services available here.

As the national maritime representative, MPA represents Singapore internationally on sea transport, marine and port matters, and safeguards and advances Singapore's maritime interests. It has secured the Republic's accession to various international maritime conventions. In particular, as a responsible and committed member state of the International Maritime Organization (IMO), Singapore has acceded to all major IMO conventions



From enhancing navigational safety to promoting sustainable shipping and training global maritime leaders, Rahita Elias highlights Singapore's efforts in advancing the maritime industry

championing the maritime cause



FEATURE

relating to ship safety and the prevention of pollution from ships.

On the environmental front, the island state adheres rigorously to international laws that protect the marine environment, such as the United Nations Convention on the Law of the Sea (UNCLOS). At home, meanwhile, MPA proactively promotes environmentally friendly and sustainable shipping practices through the Maritime Singapore Green Initiative.

VITAL COLLABORATION

Given the global nature of the maritime sector, MPA is firmly committed to both regional and international cooperation to enhance the safety, security and environmental performance of international shipping. All this is in line with the IMO's overall mission.



FEATURE

In April this year, MPA launched the inaugural Advanced Maritime Leaders Programme (AMLP). Held over five days, it is tailor-made for senior maritime officials who head the maritime or port administration in their respective countries. The event aims to equip them with the skills and knowledge needed to effectively lead and transform their organisations in an increasingly complex and globalised environment.

MPA Chief Executive, Andrew Tan, says: "We are excited and proud to introduce the AMLP, the first global maritime leadership programme of its kind that leverages peer-to-peer learning to enhance the leadership skills of senior maritime leaders to transform and take their organisations to the next level."

Participants gave the event an unreserved thumbs up. Rear Admiral Adel Yassin Mahmoud Hammad, President of Maritime Transport Sector, Ministry of Transport, Egypt, says: "The key to success in any organisation is to have a good leader. The AMLP is an excellent platform where I can network with other maritime leaders from around the world. It is a good opportunity to learn from diverse global practices."

Recently, MPA and IMO also co-organised the inaugural Future-Ready Shipping 2015 conference, which took place on Sept 28 and 29. It was the first of its kind to gather maritime leaders and professionals to discuss maritime technology transfer and capacity-building. The event served as a platform to encourage greater uptake, transfer and utilisation of maritime technologies, so as to facilitate international shipping's move to a more energy-efficient and low-carbon future.

PROMOTING SAFETY AT SEA

MPA is also fully committed to regional collaboration that raises the safety and security of maritime trade routes. Singapore belongs to the 20-member Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia (ReCAAP). It is the first regional government-to-government agreement that promotes and enhances cooperation against piracy and armed robbery in Asia.

Singapore is also host to the ReCAAP Information Sharing Centre, which facilitates the exchange of information on incidents of piracy and armed robbery among member states, supports their capacity-building efforts, and fosters cooperation with like-minded organisations.



FEATURE



FEATURE

Through the Co-operative Mechanism on Safety of Navigation and Environmental Protection in the Straits of Malacca and Singapore, the Republic has joined forces with Indonesia, Malaysia and other stakeholders to bolster navigational safety and protection of the marine environment in the Straits of Malacca and Singapore. Established in 2007, the Co-operative Mechanism is the key platform for the littoral states of Indonesia, Malaysia and Singapore, Straits users, and other stakeholders, to dialogue, exchange information and share perspectives on important Straits issues.

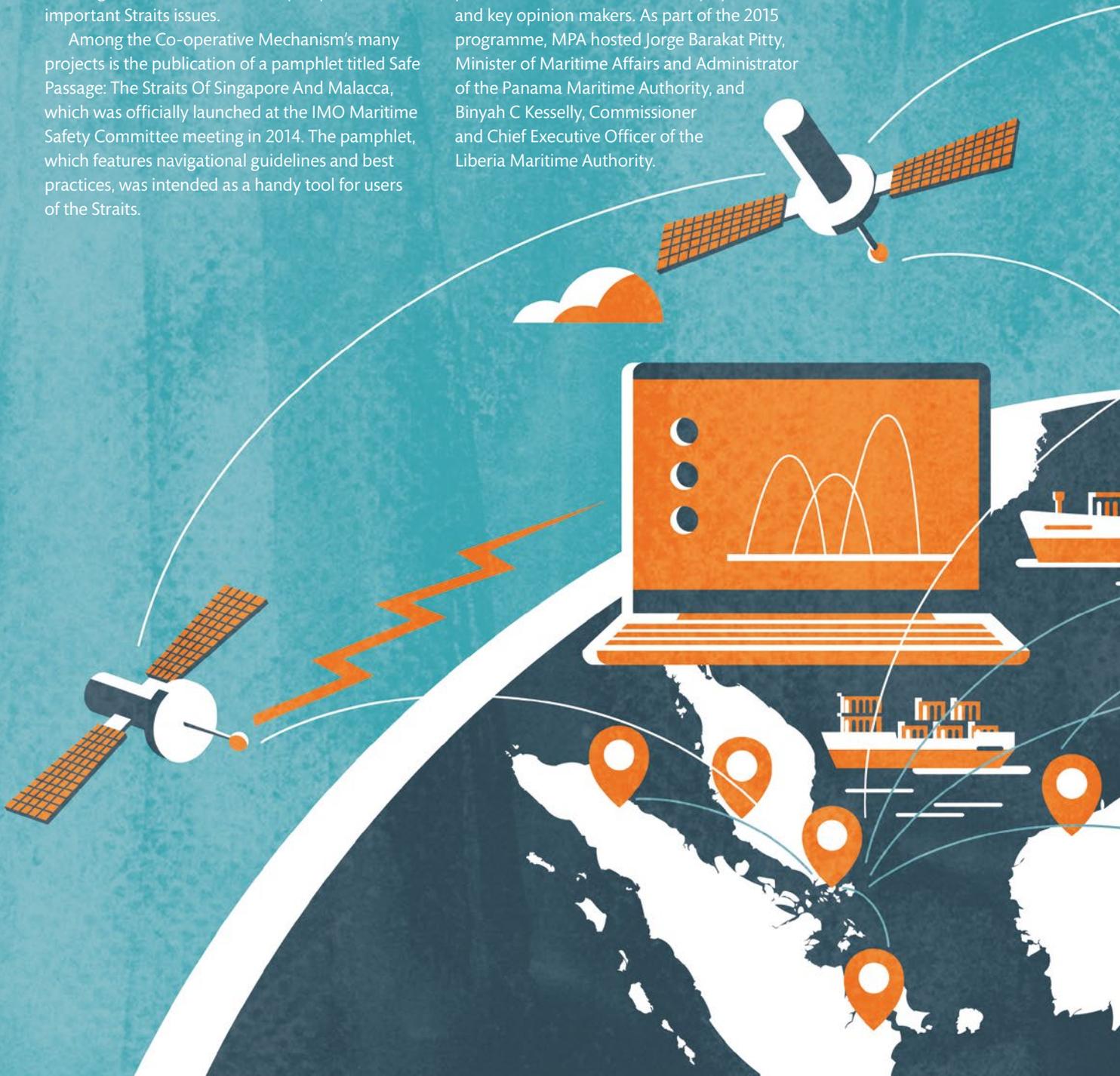
Among the Co-operative Mechanism's many projects is the publication of a pamphlet titled *Safe Passage: The Straits Of Singapore And Malacca*, which was officially launched at the IMO Maritime Safety Committee meeting in 2014. The pamphlet, which features navigational guidelines and best practices, was intended as a handy tool for users of the Straits.

ENGAGING THE INDUSTRY

As an active member of the maritime community, Singapore has established a slew of engagement platforms for the maritime fraternity.

The inaugural Port Authorities Roundtable was held in April this year to bring together port authorities from around the world to network, share insights on pertinent issues and best practices, as well as explore areas of collaboration.

Another initiative, the MPA Distinguished Visitors Programme, engages senior maritime personalities who are the industry's prime movers and key opinion makers. As part of the 2015 programme, MPA hosted Jorge Barakat Pitty, Minister of Maritime Affairs and Administrator of the Panama Maritime Authority, and Binyah C Kesselly, Commissioner and Chief Executive Officer of the Liberia Maritime Authority.



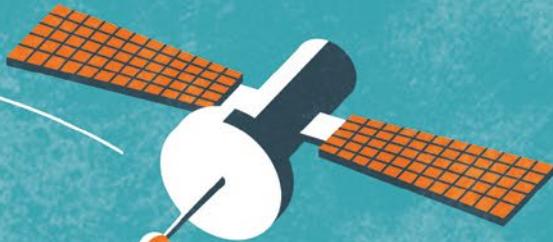
FEATURE



Together with Nanyang Technological University (NTU), MPA also organised the Maritime Public Leaders' Programme (MPLP). Held in October this year, it allows prominent senior maritime officials and members of the management to exchange ideas and network with other port and maritime stakeholders in the region. Now in its fifth edition, participants get to hear from professors from both NTU and the Lee Kuan Yew School of Public Policy at the National University of Singapore, as well as experienced practitioners from the maritime industry.

TRAINING AND R&D

To keep the industry ahead of the curve, MPA believes in investing in training and research and development (R&D). It not only leverages cutting-edge technology to offer the best training, but also actively pursues collaborations



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FEATURE



to develop new technologies to further build up the sector. The MPA Academy, the training arm of MPA, plays a crucial role in this regard.

In April this year, MPA signed a Memorandum of Understanding (MOU) with the Agency for Science, Technology and Research (A*Star) to collaborate in R&D in the maritime field. The five-year MOU covers R&D in diverse technologies including next-generation maritime communications technologies and robotics.

In October this year, the MPA Academy, together with the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) World-Wide Academy, conducted a training seminar on IALA Risk Management Toolbox in Singapore. It provided an international and regional overview of risk management to national administrations in waterway planning.

ACTIVE INVOLVEMENT

Singapore's commitment to the global maritime sector is evident. The country has been an IMO Council Member since 1993. It has served in various leadership positions in IMO, including Chairman of the IMO Council and the Sub-Committee on Bulk Liquids and Gases, as well as Vice-Chairman of the Marine Environment Protection Committee, the Maritime Safety Committee and the Sub-Committee on Standards of Training and Watchkeeping.

Singapore's membership on the IMO Council has enabled the island state to contribute significantly towards the efforts of the international maritime community to increase navigational safety, promote efficient and sustainable shipping, and protect the marine environment. For instance, it provides technical assistance to IMO member countries on maritime safety, as well as the prevention and control of marine pollution matters under the Singapore-IMO Third Country Training Programme (TCTP).

Singapore was the first state to sign an MOU for TCTP with the IMO, too. Since signing the agreement in 1998, the Republic has offered training to more than 1,700 participants from over 80 countries.

In all, Singapore enjoys the unique position as a major flag state, port state, and coastal state of a key waterway. This has enabled the country to appreciate the varied interests in international shipping and bring a balanced perspective to international maritime issues.

global ventures

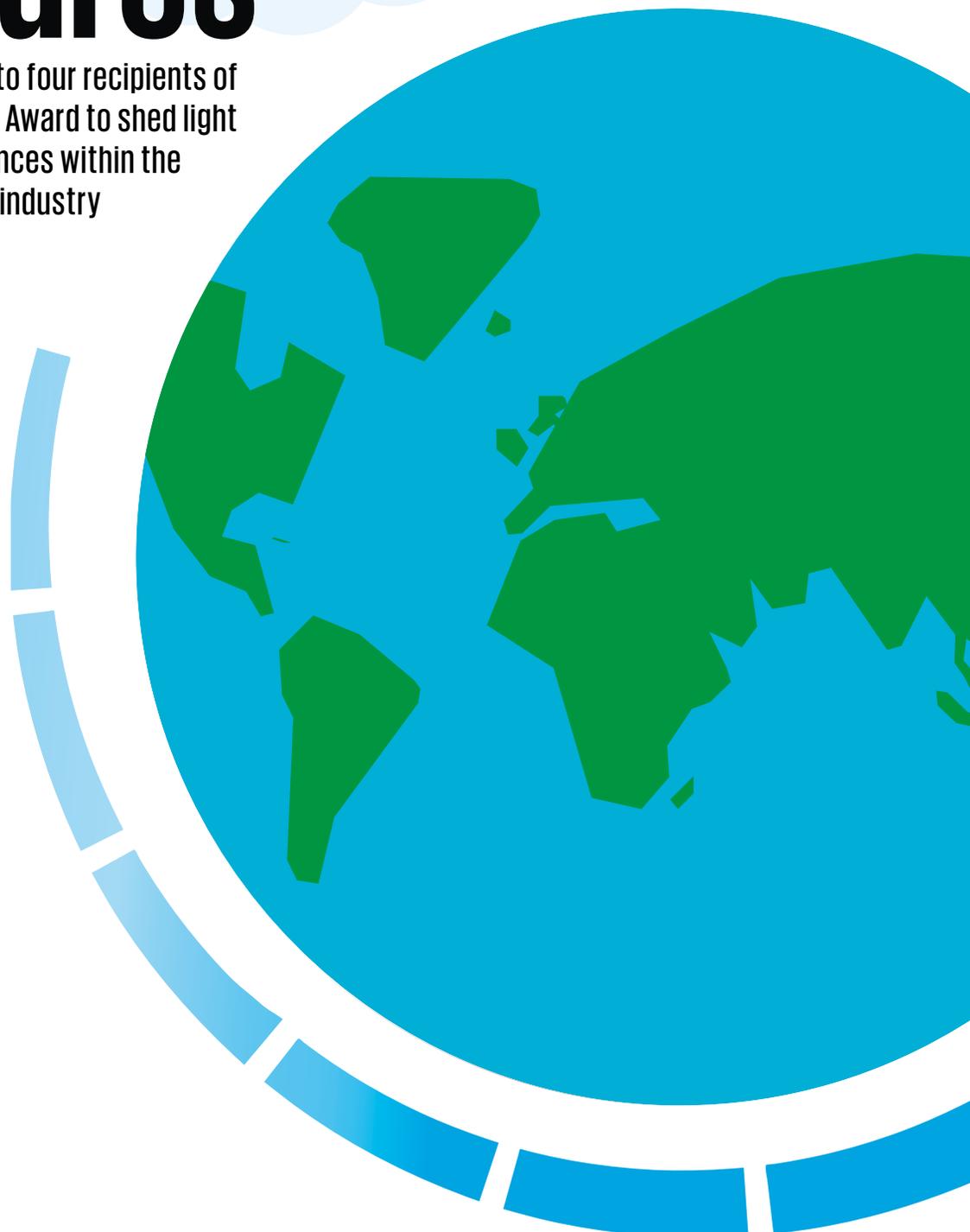
Low Shi Ping speaks to four recipients of the Global Internship Award to shed light on their experiences within the maritime industry

With a large part of Singapore's commercial success attributable to its origins as a port city, a career in the maritime industry can be a rewarding experience.

Keen to help undergraduates make an informed decision in that direction, the Maritime and Port Authority of Singapore (MPA) launched the MPA Global Internship Award (GIA) in 2013.

The award, which is open to high-achieving undergraduates from the National University of Singapore (NUS), Nanyang Technological University (NTU), and Singapore Management University (SMU), offers them a more in-depth understanding of the maritime industry through internships in different sectors such as shipping, maritime services and offshore.

Each award recipient undergoes a 10-week internship stint with a



SHIPBROKING SECTOR • WANG WENHAO

DURATION May - July 2015



SINGAPORE NAUTILUS (SN): CAN YOU SUM UP YOUR INTERNSHIP EXPERIENCE?

WANG WENHAO (WWH): I made it a point to introduce myself to colleagues in my assigned department at the beginning of the week. At the end of the week, I thanked them before moving on to another division – such is the nature of the programme. I think that getting out of my comfort zone in the hope of getting to know people and improving my internship experience, helped build on my soft skills. I believe this is way more precious than all the knowledge I have gained.

SN: WHAT WAS IT LIKE WORKING IN THE UK?

WWH: It was awesome. Networking with different colleagues allowed me to better understand the nature of the job, as well as their experiences.

SN: WHAT DID YOU LEARN ABOUT SHIPBROKING DURING YOUR INTERNSHIP?

WWH: I learnt that there is no standard definition of what makes a good broker. Individuals respond to each other differently; so long as clients are comfortable with the broker's personality, he or she will be successful. The perception that a broker must be very sociable and outgoing is true, but not accurate. On top of hard work and perseverance, support from your colleagues, market conditions and luck play a part too.

participating international maritime company, where up to four weeks is spent in one of its overseas offices, from Australasia to Europe. The MPA has set aside S\$2 million over a five-year period from 2013 for the programme. The award covers each recipient's internship allowance for the duration of the internship, overseas allowance for the period that he or she is overseas, as well as the cost of return airfare and travel insurance.

In May this year, 30 undergraduates – the largest number since the programme started in 2013 – were awarded the MPA GIA from a pool of more than 170 applicants.

We profile four students who experienced four different sectors of the maritime industry under the GIA to find out what they learnt about the different components of the dynamic industry.

WHO CAN APPLY?

The MPA GIA is open to students from the National University of Singapore, Nanyang Technological University, and Singapore Management University.

TO QUALIFY, YOU MUST:

- Be a Singapore citizen or Permanent Resident;
- Be in the penultimate year of study in any of the following disciplines: Maritime Studies, Economics, Business, Accountancy, Law or Engineering;
- Possess good academic record.

Visit www.maritimecareers.com.sg/MPAGIA.php for more information.

PORT & STARBOARD

SN: WHY DID YOU APPLY FOR GIA?

UMAR ABDULLAH (UA): I saw it as a great opportunity to learn more about maritime legal practice, especially in an in-house role. I was also attracted by the possibility of an overseas attachment.

SN: TELL US ABOUT YOUR EXPERIENCE IN THE SHIPPING SECTOR.

UA: It was about people, processes and learning experiences. Throughout the internship, I met, interacted and learnt from many amazing people and mentors from the BP Shipping offices in Singapore and the UK, and other professionals working in the maritime industry.

The internship gave me a rare glimpse and better understanding of various processes in the maritime industry, such as the operations of the shipping arm of an international oil and gas major.

My attachment with BP was filled with learning experiences – from working on my main project and assisting the shipping lawyers in legal research, to participating in global emergency exercises and attending conferences.

SN: WHAT WAS WORKING IN LONDON LIKE?

UA: It was a very refreshing experience working in a different environment and office culture. As the main headquarters of BP's global operations, the offices, processes and work were on a much larger, global scale. Among other things, I also learnt about protection and indemnity insurance club operations (which is a mutual maritime insurance association that provides risk pooling, information and representation for its members), and issues that arise in the trans-boundary movement of waste cargo.

SN: WOULD YOU CONSIDER PURSUING A CAREER IN THE MARITIME INDUSTRY?

UA: Yes. I am very keen to pursue a career in the maritime industry. More than 90 per cent of the world's cargoes are transported by sea. Until there is a cheaper alternative, this is unlikely to change. It will be wonderful to be able to contribute to it.

**SN: WHAT WERE THE HIGHLIGHTS OF YOUR INTERNSHIP?**

SERENE ONG PEI WEN (SOPW): The visit to Lloyd's building in London, where I was fulfilling the overseas part of the internship, was the main highlight as it was where marine insurance started. I also enjoyed the cross-cultural experiences working with colleagues from all over the world. Finally, I experienced personal growth as being in the UK pushed me beyond my physical and mental comfort zones.

SN: WHAT ARE YOUR KEY TAKEAWAYS ABOUT MARINE INSURANCE?

SOPW: Building networks with people is essential – probably as important as knowing your job well. Within the marine insurance sector, we get connected with people from different areas of specialties, such as insurance brokers and shipowners. Essentially, we need one another to function.

INTERESTED TO OFFER INTERNSHIP PLACEMENTS?

If you are a company interested in offering internship placements to students under the Maritime and Port Authority of Singapore Global Internship Award, please contact imc@mpa.gov.sg for more information.

PORT & STARBOARD



OFFSHORE SECTOR - LIM KAI LIANG • DEGREE NTU Maritime Studies • HOST COMPANY Pacific Radiance • LOCATION Mexico • DURATION May - July 2015

MARINE INSURANCE SECTOR - SERENE ONG PEI WEN • DEGREE NTU Maritime Studies • HOST COMPANY The Shipowners' Mutual Protection & Indemnity Association (Lombard) • LOCATION UK • DURATION May - July 2014

SN: CAN YOU SUM UP YOUR INTERNSHIP EXPERIENCE?

LIM KAI LIANG (LKL): It has been a real eye-opener. This internship strikes a balance between the technical and the commercial aspects of the offshore industry. The great mentors I had made this internship different. I know it was a teaser to the working world but I am excited to move on to the next phase.

SN: WHAT WAS WORKING IN MEXICO LIKE?

LKL: What was unique about this experience was that this overseas office was a joint venture between Pacific Radiance and its partner, Consultoria y Servicios Petroleros, SA de CV, a Mexican shipping company. So beyond the marine aspect, I was involved with the start-up of the company. The office was fairly new, hence processes and systems were in the infancy stage. My role was to assist in the upcoming ISO 9001 quality management system certification, and help smooth the processes. Much of my time was spent in our operations office in Paraiso town on the Gulf of Mexico. It is a small home office with about six employees, and we became quite close.

SN: HOW DID THE OVERSEAS STINT GIVE YOU A CLEARER UNDERSTANDING OF THE MARITIME INDUSTRY?

LKL: It showed me how globalised the maritime industry is, and the importance of being on the ground with local knowledge to address and solve problems. The time difference between Singapore and Mexico, language barriers, and difficulties with culture and communication can also slow down the resolution of issues.

SN: WHAT WAS WORKING IN LONDON LIKE?

SOPW: The experience was great! It was an eye-opener to see how the work culture of an overseas branch is different from the Singapore office. I also had informal conversations with several key personnel in the office, including the chief executive officer.

SN: WOULD YOU CONSIDER A CAREER IN THE MARITIME INDUSTRY?

SOPW: Yes. Since I was exposed to the maritime industry in my polytechnic days, I have never looked back. I have found my passion within the maritime industry in marine insurance and I foresee that I will never drag my feet to work.



commanding knowledge

Audrina Gan finds out how the MPA Academy trains maritime leaders to manage uncertainties and deal with challenges in a demanding operating environment

With its status as a leading international maritime centre and a global hub port, Singapore places strong emphasis in ensuring that its maritime workforce is well-skilled and ready for future challenges. As the

Maritime and Port Authority of Singapore (MPA) continues to build a core team of local maritime talent, its commitment to manpower development also extends beyond Singapore's shores.

The MPA Academy, the training arm of MPA, was repositioned last year as a full-fledged academy, with

a dedicated premise and a focus on global maritime leadership training.

"A key motivation behind the repositioning was our desire to play a greater role in contributing to the international maritime community through training. So we

MARITIME SERVICES

incorporated the term 'global centre of learning' into our vision and also committed greater resources to run the academy," says Captain Khong Shen Ping, Dean of MPA Academy.

GREATER ROLE

The academy was set up in 2012 to be a leading training institution for maritime and port administration. At the time, it focused on conducting technical training for MPA officers to enhance their specialist skills and knowledge in areas such as marine surveying, cartography and vessel traffic management.

"To conduct these courses, we tapped the wealth of knowledge of our MPA technical officers who have many years of working experience. This approach helped to improve knowledge management and retention in the organisation," Capt Khong explains.

The academy also conducts various short workshops for foreign technical officers.

The core subjects identified for these technical assistance programmes reflect Singapore's strengths as a safe, efficient and reliable port, flag and coastal state.

Since 1998, maritime training for foreign maritime officers has been conducted under the Singapore-International Maritime Organization (IMO) Memorandum of Understanding (MOU) on Third Country Training Programme (TCTP). Such cooperation was the first of its kind then.

"We also provide technical assistance for our maritime counterparts under other bilateral and regional cooperation platforms, such as the Indonesian Directorate General of Sea Transportation-MPA Training MOU and the Japan-Singapore Partnership Programme for the 21st Century," says Capt Khong.

Looking ahead, Capt Khong sees a growing need for maritime leadership training as there are currently very few programmes at the senior leadership levels that address some of the most pressing contemporary leadership challenges facing maritime organisations around the world.

To meet these needs, MPA Academy has developed flagship programmes, including the Maritime Public Leaders' Programme targeted at officials

who are at least of the director level, and the Port Management Programme for port masters, harbour masters and middle management officials in port and maritime administration.

In April this year, it also pioneered another flagship programme, the Advanced Maritime Leaders Programme (AMLP), for senior officials and their deputies who head the maritime or port administration in their respective countries.

INTERACTIVE LEARNING

As programme participants are experienced maritime practitioners, the academy also believes that a classroom setting can better encourage sharing of experience and promote networking.

"The discussions generated in class will greatly enrich their learning experience. The classroom setting is also complemented by relevant technical visits," says Capt Khong.

"Such visits lend a practical experience to the classroom presentations and are often invaluable to the learning journey of participants."

For instance, the AMLP incorporates peer-to-peer learning,

case studies, strategic communications exercises and technical visits, with panel discussions with key experts and industry leaders to share on their leadership and transformative efforts.

To prepare for changes and challenges within the maritime industry, Capt Khong notes the need to consider various scenarios while planning for the future.

"Senior maritime officials have to stay ahead and manage the increasingly complex and rapid shifts in the industry and the regulatory environment," he says.

"For instance, the shipping industry has seen rapid consolidation through the formation of mega alliances, which impacts port regulators.

"We are also witnessing the advent of mega container vessels calling on and exerting pressure on port infrastructure globally. On the regulatory front, a key challenge is to effectively implement the increasing IMO regulations on safety, the environment, and emissions control."

In times of crisis and incidents, Capt Khong says maritime officials must lead effectively in crisis management





and strategic communications. This is especially important in view of the recent spate of high-profile maritime incidents worldwide.

Through its flagship programmes, MPA Academy aims to equip maritime leaders with the necessary skills and mindsets to lead transformative efforts within their maritime organisations and to turn challenges to their advantage.

Since 2012, MPA Academy has trained a total of more than 110 senior officials from Africa, Asia, the Caribbean, Europe, Latin America, the Middle East and Oceania under its flagship programmes.

It has also shared its experiences with more

than 1,700 officials from over 80 countries under the Singapore-IMO TCTP since 1998.

STRATEGIC PARTNERSHIPS

The academy also partners local and foreign institutes of higher learning to develop new programmes and form strategic tie-ups.

In April, the World Maritime University (WMU), a postgraduate maritime university founded by IMO, and MPA Academy signed an MOU to cooperate on global maritime leadership training and capacity-building for the industry.

Under the MOU, the two partners will work together on leadership

development programmes, as well as exchange faculty members.

The MPA Academy will also continue to host study visits by WMU students and explore new areas of cooperation on maritime leadership.

Most recently, it hosted a visit by WMU students when Binyah C Kesselly, Commissioner and Chief Executive Officer of the Liberia Maritime Authority, visited Singapore under MPA's Distinguished Visitors Programme.

During the visit, the students heard first-hand Liberia's experience in handling the outbreak of Ebola at its ports and airports.

Capt Khong

foresees the identification of more training needs, especially with the adoption in 2013 of the IMO Instruments Implementation Code, which sets a global standard for member states' obligations and responsibilities as flag, port and coastal states.

Next year, too, will see the coming into effect of the IMO's mandatory audit scheme, to assess the states' performance in meeting obligations and responsibilities under the relevant IMO treaties.

Says Capt Khong: "We would be happy to work with the IMO and our training partners to develop new workshops that address these training needs."



ABOVE The inaugural Advanced Maritime Leaders Programme, which took place earlier this year, was attended by senior maritime officials from Africa, Asia, the Caribbean, Europe, the Middle East and Oceania.



TAP FOR VIDEO



tools for the future

Alywin Chew finds out why the Ship Traffic Simulator by SimPlus will be a key component to navigational safety and efficiency in the years to come

The Straits of Malacca and Singapore make up one of the world's busiest shipping routes. Vessels travelling through this bustling stretch transport about one third of the world's traded goods and 80 per cent of the oil bound for North-east Asia. According to a report published by

Oslo-based marine insurance company Skuld, the narrow straits accounts for more than 100,000 vessel movements every year.

With traffic in the Straits expected to double in the next decade, the risk of incidents and pollution will also increase. Hence

a more advanced traffic monitoring and management scheme is needed to ensure greater safety and efficiency in the Straits.

While there are Vessel Traffic Service (VTS) systems operated by the different maritime authorities in place, they usually do not

manage ships until they near the port, which means that vessels are largely unaware of the overall traffic situation along their route. This has inherently led to congestion and potential safety problems.

In 2012, the 5th Co-operation Forum on the Safety

TECHNOLOGY



International Maritime Organization, which aims to harmonise maritime navigation systems to improve the safety, security and protection of the marine environment.

A DECISION SUPPORT TOOL

As part of this STMS project, a Ship Traffic Simulator (STS) is needed to determine the feasibility of proposed traffic management plans before their implementation in the real world. Maritime personnel will also be able to use this STS as a component in the next-generation VTS when new e-Navigation services are introduced between 2015 and 2020.

SimPlus, a Singapore-based company that offers innovative modelling and simulation solutions for the shipping industry, handles the design and development of the STS. It is working closely with renowned maritime research company Norwegian Marine Technology Research Institute (Marintek) on the design, while Kongsberg Norcontrol IT, a Norwegian firm that focuses on maritime surveillance solutions, helps coordinate matters

of Navigation and Environmental Protection in the Straits of Malacca and Singapore was held in Singapore. It led to an initiative that aims to help boost navigational safety and traffic efficiency in the Straits.

The initiative involves developing a Ship Traffic Management System (STMS) that effectively provides vessels with recommended speeds and routes as they passage through the Straits or prepare to call at a port along it.

Spearheaded by maritime agencies in Singapore, Norway, Indonesia and Malaysia, the STMS project is part of the umbrella e-Navigation concept (see sidebar) by the

E-NAVIGATION & SESAME STRAITS

e-Navigation is an initiative led by the International Maritime Organization (IMO) to enhance navigational safety, security and protection of the marine environment through the harmonisation of marine navigation systems on board and ashore by electronic means.

In 2005, a strategy for this concept was ratified and three sub-committees of the IMO are responsible for developing the plan.

The concept aims to achieve three broad outcomes:

- Develop state-of-the-art on-board navigation systems;
- Better management of shipping traffic through an exchange of quality information between vessels and shore;
- An infrastructure to provide seamless exchange of data between sea and shore-based parties.

The SESAME Straits (Secure, Efficient, and Safe maritime traffic Management in the Straits of Malacca and Singapore) project, which seeks to develop a revolutionary Ship Traffic Management System to improve the safety and efficiency of navigation in the Straits of Malacca and Singapore, falls under this umbrella concept. The Ship Traffic Simulator and its groundbreaking computing processes will be a vital component that can provide valuable input to the SESAME Straits initiative, and in turn contribute to the development of the IMO's e-Navigation efforts.



between this project and a parallel STMS initiative known as SESAME Straits (Secure, Efficient, and Safe maritime traffic Management in the Straits of Malacca and Singapore). SESAME Straits is funded by the Research Council of Norway.

SimPlus has worked closely with the Maritime and Port Authority of Singapore (MPA) and the maritime industry on various projects involving sea space utilisation and terminal simulation.

The company's three founders, Stuti Nautiyal, Chen Chuanyu and Ye Rong, had worked on a High Capacity Terminal Simulation project with MPA and the Agency for Science, Technology and Research (A*Star) more than 10 years ago while they were at the Nanyang Technological University of Singapore. With support from MPA's Maritime Innovation & Technology (MINT) Fund, they set up SimPlus in 2006 and have since carved out a niche in simulation-based consultancy services.

HOW THE STS WORKS

While there are already ship traffic simulation systems

available, these are limited in their ability to take into account and harmonise multiple parameters, such as live traffic information from VTS and vessel arrival and departure information from port traffic management systems, which can affect the accuracy of simulation output that enables decision-making.

The STS being developed by SimPlus, however, will be a high-performance system that uses parallel computing to process numerous key factors, and with an exceptional level of detail. It then collates all the metrics from the simulation to quantify the effects on safety and navigation efficiency. These results in turn aid the assessment of potential traffic management strategies.

The elements that the STS can be configured to process include geographical information, local traffic situation, arrival and departure requirements, port resources, ship information, ocean data such as the strength of currents, waves, wind and visibility levels, and even human behavioural factors.

The last is a particularly important

addition to the analysis process. While the number of maritime incidents has decreased of late, the statistics are still a cause for concern. The global shipping community lost 1,563 ships between 2001 and 2012, with 106 in 2012 alone. Experts have concluded that most of these incidents occurred because of human error.

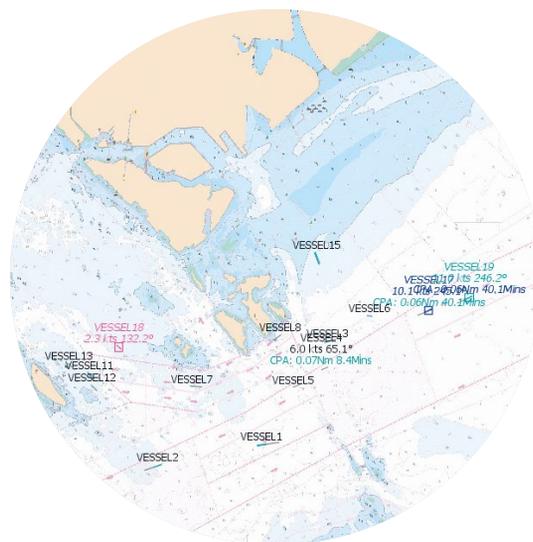
BENEFITS OF THE STS

Apart from the top priority of ensuring that ships can safely navigate through a channel, the STS, which is expected to be ready by the second quarter of 2016, will help boost savings for members of the global maritime community when in use with the new-generation VTS.

For a start, vessels can plan their journeys to avoid congestions, which translates into fuel savings. Reducing unnecessary movements will also lower the vessels' carbon emissions and environmental impact.

Ports, too, stand to benefit. With the STS providing detailed and accurate information regarding vessel movement, port authorities can now better manage their resources when planning to handle a ship's arrival.

A SHIP TRAFFIC SIMULATOR IS NEEDED TO DETERMINE THE FEASIBILITY OF PROPOSED TRAFFIC MANAGEMENT PLANS BEFORE THEIR IMPLEMENTATION IN THE REAL WORLD.



ABOVE A Ship Traffic Simulator snapshot, which shows vessels with potential conflict.

fostering closer collaboration

Jorge Barakat Pitty, Minister of Maritime Affairs and Administrator of the Panama Maritime Authority, shares with Audrina Gan his take on some key happenings in Panama's maritime industry

Jorge Barakat Pitty, Minister of Maritime Affairs and Administrator of the Panama Maritime Authority (AMP), was in Singapore for a one-week visit in April under the Maritime and Port Authority of Singapore's (MPA) Distinguished Visitors Programme. A key figure in Panama's maritime sector, he tells Singapore Nautilus about important developments in Panama, home to the world's largest ship registry, and how those developments will shape the industry in the years to come.

AS THE BIGGEST SHIP REGISTRY IN THE WORLD, WHAT ARE SOME EFFORTS BY THE AMP TO IMPROVE STANDARDS FOR THE PANAMA REGISTRY? WHAT ARE THE CHALLENGES?

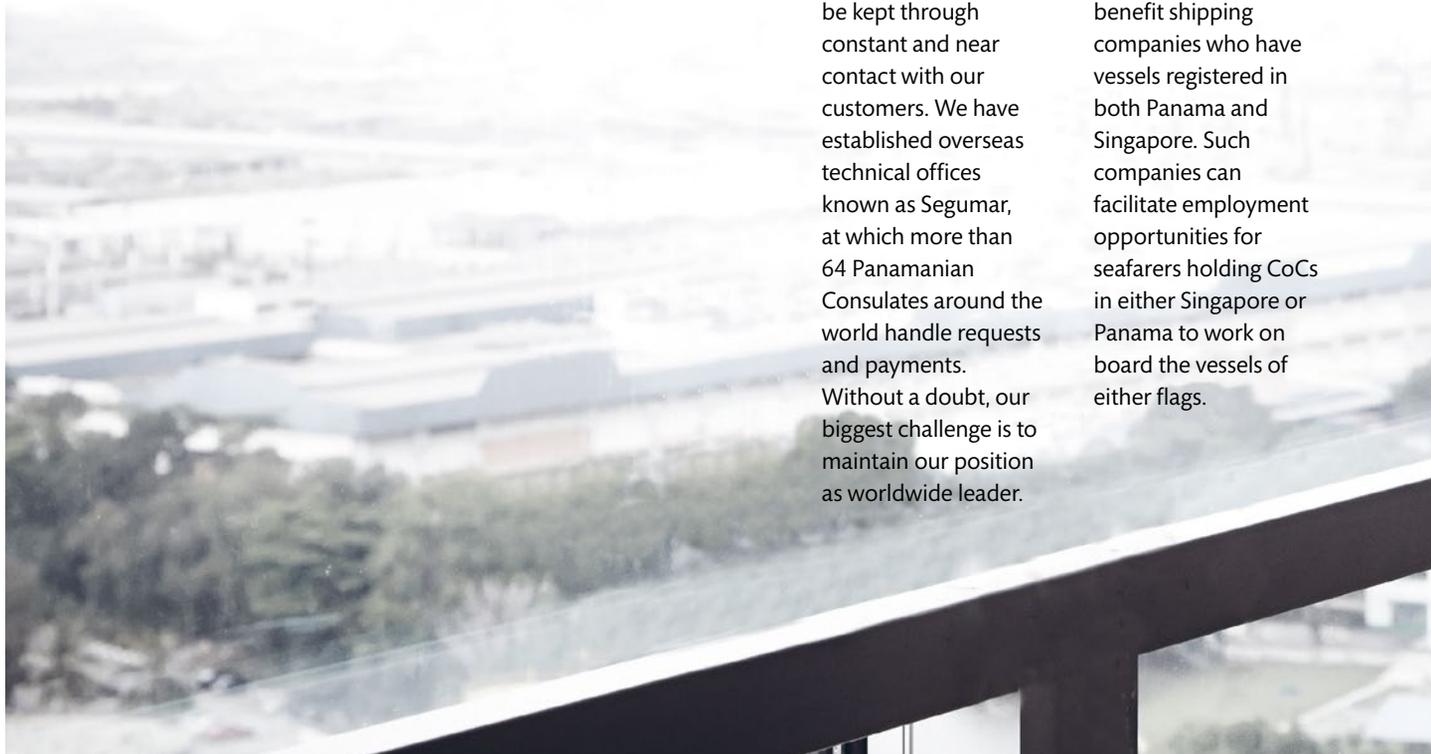
We are living in the digital era so as a first step, we have reviewed the electronic platform through which the enrolment of a vessel and the issuance of a seafarer's documents are completed. Our intention is to give our customers a friendly and efficient tool to request all kinds of documents from any place in the world.

We also believe that stronger relationships can be kept through constant and near contact with our customers. We have established overseas technical offices known as Segumar, at which more than 64 Panamanian Consulates around the world handle requests and payments. Without a doubt, our biggest challenge is to maintain our position as worldwide leader.

AMP AND MPA SIGNED THE CERTIFICATE OF COMPETENCY (COC) MUTUAL RECOGNITION AGREEMENT IN APRIL THIS YEAR. HOW WILL THIS PROMOTE MARITIME COOPERATION BETWEEN SINGAPORE AND PANAMA?

This bilateral agreement is about the mutual recognition of training and certification of seafarers. It would allow Panama CoC holders to be employed on board Singapore-flagged ships and for Singapore CoC holders to be similarly employed on Panama-flagged ships.

This will also benefit shipping companies who have vessels registered in both Panama and Singapore. Such companies can facilitate employment opportunities for seafarers holding CoCs in either Singapore or Panama to work on board the vessels of either flags.



PERSONALITY

**WHAT ARE YOUR
TOP PRIORITIES
AS MINISTER OF
MARITIME AFFAIRS
AND ADMINISTRATOR
OF THE AMP?**

Panama is a natural maritime port. In this regard, one of the key focuses of the government's strategic plan is the importance of shipping to our economy. We want to keep the long-term competitiveness of the ship registry, improve the technology platform and simplify the process of vessel registration. We also want to increase employment in the maritime sector for all Panamanians and foreign seafarers. At the same time, we want to improve our positioning as a hub port city.



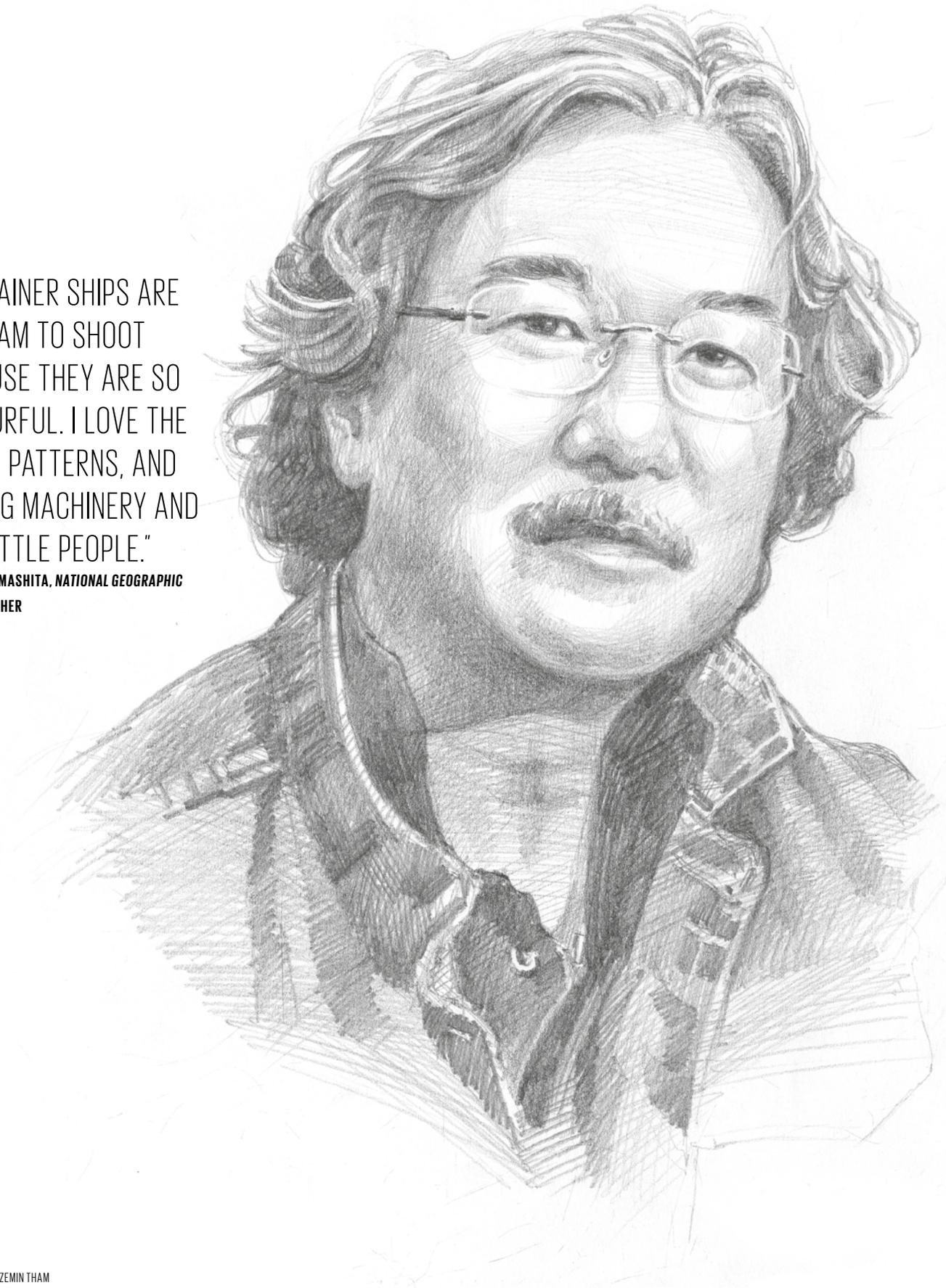
TAP FOR
MORE



PERSONALITY

"CONTAINER SHIPS ARE A DREAM TO SHOOT BECAUSE THEY ARE SO COLOURFUL. I LOVE THE GREAT PATTERNS, AND THE BIG MACHINERY AND THE LITTLE PEOPLE."

MICHAEL YAMASHITA, NATIONAL GEOGRAPHIC PHOTOGRAPHER



back in familiar waters

Acclaimed *National Geographic* photographer Michael Yamashita tells Celine Lim Su-Fen how he reconnected with Singapore's maritime industry through his photo shoot for a coffee-table book

Most people see a swanky hotel when they look at Marina Bay Sands, but New Jersey-based photographer and filmmaker Michael Yamashita gets transported back in time to 1978 when he first arrived here from Thailand by sea.

He recalls: "I was in my mid-to-late 20s. I remember rowing in from the schooner, which was anchored right about where Marina Bay Sands is now. Every day, we'd take the bumboat – flag it down, hop on it, go to Clifford Pier, walk up a set of stairs – to what is now the Fullerton Hotel."

As someone who has witnessed the spectacular transformation of Singapore's waterfront, it is fitting then that he was invited to capture the growth of its maritime industry for a coffee-table book to mark the country's

golden jubilee. Jointly produced by the Maritime and Port Authority of Singapore and the Singapore Shipping Association, the book was launched in September.

ASIAN CONNECTION

The Japanese-American, who was born in San Francisco and grew up in New York, credits Singapore with giving him his first big break as a photographer. He says fondly: "My photo roots are here. It's a joy to come back."

While here in 1978, he approached ad agency Batey Ads with a portfolio that he had built up over seven years of exploring Asia while teaching English. He ended up being hired to shoot Singapore Airlines' advertising campaign and he was sent to shoot its Asian destinations, such as Japan, South Korea, and Indonesia.

With this new portfolio, he returned to the US in 1979 and became a *National Geographic* photographer. But it was not long before a new commission for the then Singapore Tourist Promotion Board brought him back to Singapore, and many times after. Over the years, the country has become his base

and springboard for assignments throughout Asia.

He takes pride in the fact that he may have had a hand in upping Singapore's appeal as a travel destination through his photographs for its tourism campaign in 1980. He says: "Those photographs were used in countless brochures, advertisements, campaigns and posters."

THROUGH THE LENS

Unsurprisingly, a theme that emerged from the series of photographs taken for the book, as with the Singapore tourism campaign decades ago, was multiculturalism.

Wherever he went, from shipyards to trading floors to meeting rooms, the "variety of faces" was a constant in the maritime industry's diverse environments.

Yamashita was fascinated by the scale of the world's biggest port, which he captured in a series of dramatic photographs, especially those showcasing workers dwarfed by the hull of the ship they were spray-painting at a shipyard belonging to Sembcorp Marine. He says: "I found it very picturesque. Container ships are a dream to

shoot because they are so colourful. I love the great patterns, and the big machinery and the little people."

But his initial photo shoot last year was not without difficulties. He was constricted by a short time frame and limited access due to port safety regulations, musing: "Singapore is a tough place to shoot because there are so many rules."

He was invited back to Singapore for two days in July this year, and this time, he got his shots. He says: "I was able to get up-close to people and the book improved by 100 per cent."

Besides carrying a ladder with him on his shoot, he also hired a drone and flew it from the boat he was on for aerial views of the port. New toys aside, he relies ultimately on his photographer's instinct, which he has honed over decades.

He never checks the rear screen of his camera to see how his shot turned out, as most photographers do. He says: "If you spend time looking at the rear screen, you aren't seeing what's going on in front of you and you're likely to miss the moment. It's not what you shot, but what you're going to shoot that's important. Trust your camera and your eye."

on the crest of the training wave

Rahita Elias finds out how the Wavelink Maritime Institute works behind the scenes to grow the maritime talent pool



The Wavelink Maritime Institute (WMI) is on a mission – to boldly go beyond traditional training and be the maritime industry's regional centre of excellence for applied learning.

WMI executive director Captain Yeow Kok Kean notes a tendency within the shipping industry to accept training standards

and certifications based on the minimum standards set out by the International Maritime Organization's Standards of Training, Certification and Watchkeeping.

However, with ships becoming bigger and more sophisticated, he points out that the gap between relevant maritime training

and the practical demand of on-board operations is widening.

"The days of 'chalk and talk' are numbered, and more modern approaches to training, which incorporates more relevant and up-to-date curricula would be highly desirable," declares Capt Yeow.

WMI launched the Wavelink Maritime Simulation

Centre in mid-2014, incorporating simulations for navigational bridge, engine room and liquid cargo handling with a revised focus on applied learning and relevancy for current and future shipboard operations.

"Our challenge today is to get more maritime officers to be trained appropriately before more accidents

COMPANY SPOTLIGHT



diminish the fulfilment of meaningful employment," says Capt Yeow.

With this in mind, WMI seeks to help the maritime industry achieve ship safety and meaningful employment, and aims to develop a maritime manpower core in Singapore through competency training beyond the existing minimum standards

and enable the meaningful application of the knowledge and skills acquired.

GATEWAY TO BETTER CAREERS

Currently, WMI offers programmes for trainee cadets as well as officers who have attained their Certificates of Competency (CoCs).

WMI opens up opportunities

for Singaporeans, particularly those who have completed national service and those making mid-career switches. Upon completing their training, they can become seafaring officers on board Singapore-registered ships. So far, more than 200 Singaporeans have undergone pre-sea training at WMI.

Says Capt Yeow:

"This is their global gateway to a better career and better wages so that they can live better lives."

To help launch Singaporeans on their seagoing careers, the Tripartite Nautical Training Award (TNTA) programme was introduced in 2009. Conducted by WMI, the TNTA enables Singaporeans and Singapore Permanent

ABOVE The Wavelink Maritime Institute is well equipped with state-of-the-art training facilities, such as a Full Mission Bridge Simulator that allows students to apply and internalise their learning in a practical environment.

COMPANY SPOTLIGHT



PHOTO: SPH



Residents to join the maritime industry as CoC (Class 3) Deck Officers. It is funded and supported by the Singapore Workforce Development Agency, Singapore Maritime Officers' Union (SMOU), Singapore Shipping Association, Employment and Employability Institute, and various shipping companies.

WMI's recruitment process for TNTA cadets is among the strictest in the world to ensure that they are of a high calibre, says Capt Yeow. Through aptitude assessments, psychometric assessments, panel interviews and family engagement, it selects cadets prior to presenting

them to shipowners or managers for employment. During the pre-sea training phase, TNTA cadets undergo over 60 hours of ship simulation training – higher than many other pre-sea programmes around the world.

"This is very much in line with our greater vision of a maritime centre of excellence for applied learning. It prepares our future seafaring officers to be highly adaptable, with good decision-making skills when faced with the myriad of challenges at sea," says Capt Yeow.

A programme similar to TNTA is in the pipeline for marine engineers. WMI is working with tripartite

partners for funding support to deliver the Tripartite Engineering Training Award (TETA) programme.

Despite the shorter time required for marine engineers to become Chief Engineer than for deck officers to become Captain, the shortage of marine engineers is more acute than for deck officers, says Capt Yeow. The 31-month TETA programme hopes to attract more Singaporeans to pursue careers as marine engineers on board commercial ships by subsidising their training and secure placements with shipping companies even before they start training.

ABOUT THE WAVELINK MARITIME INSTITUTE (WMI)

WMI is the training arm of the Singapore Maritime Officers' Union. Through offering high-quality and cost-effective courses and programmes to members of both the local and international maritime communities, it aims to become the preferred world-class education and training institution for the maritime industry.

The Institute's programmes provide training and education to a wide spectrum of seafarers. These can range from new entrants to the industry and seafarers hoping to upgrade their skills and knowledge, to those hoping to make a mid-career switch. WMI also runs customisable training programmes for seafarers from around the region.

COMPANY SPOTLIGHT



WMI WORKS CLOSELY WITH THE MARITIME AND PORT AUTHORITY OF SINGAPORE, SHIPOWNERS AND MANAGERS, AND SMOU. THIS CLOSE TRIPARTITE ALLIANCE IS VITAL IN SOLVING KEY MANPOWER ISSUES FACED BY THE INDUSTRY AND DEVELOPING THE NEXT GENERATION OF SINGAPORE'S AGEING MARITIME TALENT POOL.

TRIPARTITE STRENGTH

One of the main issues faced by shipowners and operators worldwide is the shortage of quality crew, coupled with an expected growth in demand for seafarers. Shipping consultant Drewry's Manning 2015 report said that shipping will require another 42,500 officers by the end of 2019 to cope with the growth in the main cargo-carrying fleet, which is equivalent to 7 per cent growth over the five-year period.

To meet these challenges, WMI works closely with the Maritime and Port Authority of Singapore, shipowners and managers, and SMOU. This close

tripartite alliance is vital in solving key manpower issues faced by the industry and developing the next generation of Singapore's ageing maritime talent pool.

Through industry feedback, WMI is fully cognizant of the current and future requirements of the shipping industry. Capt Yeow says: "We enhance our curricula and training delivery for our seafaring officers so that they are highly competent and future-ready for the newbuildings in their fleet."

CONTINUING MISSION

WMI is also developing company- and equipment-specific training programmes

with its partners at home and abroad. "Through working with partners who have invested in good facilities and are able to provide quality training and share our vision of serving the maritime industry, we can strengthen our journey in relevancy and applied learning," says Capt Yeow.

Beyond Singapore, WMI also runs a programme for cadets from the Asian region to help prepare them to work on board ships manned by multinationals.

Looking to the future, Capt Yeow points out that WMI's biggest challenge is to provide relevant and quality training, and support talent

development for the maritime industry in a way that is sustainable. To address this, he adds, the Institute needs very good and passionate training facilitators. WMI is presently training young SMOU members, who are active maritime officers, to fill this gap.

For this to happen, a tripartite collaboration will be crucial. Capt Yeow says: "We will continue to work proactively on the tripartite partners' participation, funding and support in this area of talent management so that the maritime industry will continue to have the key resources for future manpower development."

FACING PAGE One of the Singaporeans who completed his cadet officer training under the Tripartite Nautical Training Award in 2013 is Mohammad Idris Yusop.

ABOVE The S\$4million Wavelink Maritime Simulation Centre was opened in May last year.

ON SINGAPORE'S CHANCES OF THRIVING AS A PORT CITY IN THE FUTURE

A thriving port does not necessarily make a thriving port city, nor does a thriving port city necessarily depend on a thriving port. Examples of both cases exist, so one needs to distinguish between the two.

What is a thriving port? It is basically a port that grows or, more to the point, increases market share. What is a thriving port city is more difficult to answer. One indicator could be growth of metropolitan GDP or GDP, but these are fraught with definitional complexities and difficult to compare. A thriving port city could also be considered a city that manages to

attract new people, especially talented people, and new businesses, particularly businesses with a lot of value added.

Singapore is both a thriving port and port city. As a port, it has a large market share that it continues to keep thanks to sustained growth. As a port city, it has become a global hub for talents in trade, finance and other high value-added services.

Will this still be the case in the future? Important determinants of a thriving port are maritime connectivity, port operational efficiency, hinterland connections and local support. A thriving port city, meanwhile, is determined by its appeal to people and firms. So, here is the challenge: how

to be attractive to talents that might in many instances not be charmed by side effects of ports, such as traffic congestion and pollution from oil refineries and big cargo ships?

ON SINGAPORE'S UNIQUE SITUATION OF SUCCESSFULLY COMBINING ALL THREE ECONOMIC POTENTIALS OF PORT CITIES - A TRADE AND SERVICES CLUSTER, A PORT-INDUSTRIAL COMPLEX AND A WATERFRONT ECONOMY

The challenge of each port city is to extract local economic value from its port. Cargo handling brings fewer jobs than before and moving boxes

port of opportunities

Olaf Merk shares his thoughts on Singapore's future as a global maritime city

Olaf Merk, Administrator for Ports and Shipping at the International Transport Forum (ITF) of the Organisation for Economic Co-operation and Development, gave a public lecture on "Shipping, Cities and their Interdependencies" in Singapore on June 18. The ITF, with 57 member countries, acts as a think tank for transport policy.

Merk's lecture examined the relations between ports and cities. Drawing from his session, he discusses how Singapore's role as a port city would be impacted by important trends in the shipping industry.



does not in itself add much value. We identified three options to do this: growing a trade cluster, encouraging port-industrial development, and developing a waterfront economy. In essence: developing a services sector and a manufacturing industry, and encouraging consumption of urban amenities.

The great port cities of the world have been more or less successful in pursuing these directions. London and Hong Kong are leading maritime, trading and finance clusters; Rotterdam and Shenzhen are important industrial areas; Barcelona and San Francisco are two successful urban waterfront economies.

Some cities are pursuing several of the development options in tandem or subsequently. Dubai has both a maritime cluster and an urban waterfront; Los Angeles has an industrial area and a

waterfront; Rotterdam developed both a maritime cluster and an industrial sector. However, the conditions required to develop each option are different and possibly difficult to combine. For instance, quality of life is important to attract talents for the maritime cluster, but large-scale industrial development that brings with it environmental problems and other issues could compromise this.

Singapore seems to have managed to pull this off: it is a leading maritime, trade and finance cluster; an important regional petrochemical hub, and an emerging waterfront economy. Another city that has achieved something similar, albeit to a lesser extent, is Hamburg.

ON ENSURING THAT THE PORT REMAINS IN THE CONSCIOUSNESS OF ITS CITIZENS AS SINGAPORE RELOCATES ITS PORT AWAY FROM THE CITY AREA

Make a concerted effort to mitigate negative impact and increase positive effects. Efforts to mitigate environmental impact include lowering air emissions, minimising

risks related to hazardous cargo, and reducing noise and waste production. Ways to instil positive feelings, even pride, for the port include providing transparent information, engaging in social media and educational programmes, setting up port visitor centres and free port visits, offering public access to some parts of the port, organising port festivals, giving out sponsorships, and other forms of community engagement.

ON THE IMPACT OF FUTURE DEVELOPMENTS ON SINGAPORE'S CURRENT POSITION AS A GLOBAL MARITIME CITY

Mega ships and mega alliances will lead to more port concentration. This is mixed news for successful and established ports such as Singapore. It needs to prepare to handle more cargo, and deal with more peak period and congestion effects related to the arrival of mega ships. This will have far-reaching effects on labour in the port and logistics sectors.

If trade is going to grow in the future, which is what we assume – possibly even a quadrupling

of maritime trade by 2050 – the Singapore Strait might become very congested. The Kra Canal or the Nicaragua Canal – if they ever see the light – might in that case be a threat to Singapore's port hub function. It will not affect Singapore's position as an important global port city, for which other factors such as urban attractiveness and business climate are more important.

ON WHY COMPETITION FROM HONG KONG AND SHANGHAI IS GOOD FOR SINGAPORE

Cities that become too successful often undermine their own success. Real estate prices will rise to such heights that only the super-rich can afford them. This means that it will be much more complicated to maintain the functions that make cities interesting, attractive and liveable. Who would like a city with only bankers?

This is also the case for ports. How does one sustain port functions in such cities when the opportunity costs of port acreage become astronomically high? It is better to have other great cities as well so that the city can keep a balanced set of functions.



ABOUT OLAF

Olaf Merk is Administrator for Ports and Shipping at the International Transport Forum (ITF) of the Organisation for Economic Co-operation and Development. He is also an assistant professor at Sciences Po, France's top social sciences university.



SENIOR DEPUTY DIRECTOR
PAMELA TANSEY

JOB SCOPE

1

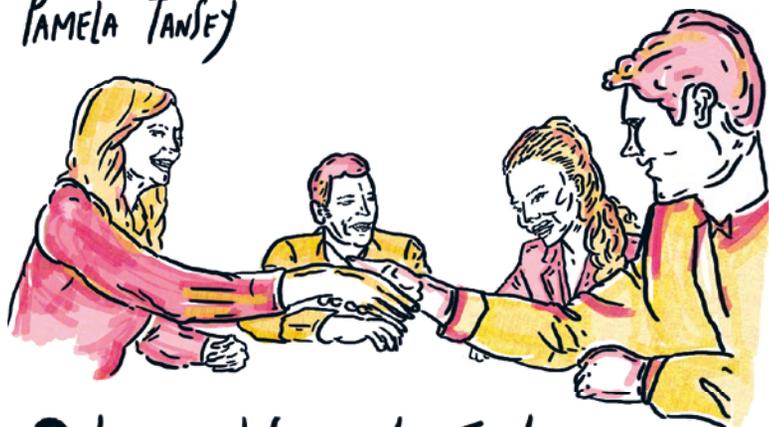
DEVELOP DONOR RELATIONS: TO FUND TECHNICAL ASSISTANCE PROGRAMMES IN DEVELOPING COUNTRIES.



2

ENHANCE TRAINING & EDUCATION:

TO IMPROVE THE INTERNATIONAL MARITIME ORGANIZATION'S CAPACITY-BUILDING ACTIVITIES.



3 INTEGRATE WOMEN INTO THE INDUSTRY:

SUPPORT THEM THROUGH TRAINING & FELLOWSHIPS.

levelling the playing field

As Senior Deputy Director of the Technical Cooperation Division at the International Maritime Organization, Pamela Tansey plays a key role in the advancement of developing countries and women in the maritime industry

Born to an English father and a Greek mother, two nationalities steeped in maritime tradition and history, Pamela Tansey's life was connected to the sea from the beginning.

Trained as an economist, she began her career working in the oil industry with British Petroleum before she joined the International Maritime Organization (IMO) in 1985. IMO is the United Nations' (UN) specialised agency responsible for the safety and security of shipping and the

prevention of marine pollution from ships.

She was drawn to the opportunity to work in the field of development economics through managing technical cooperation (TC) projects in Africa, the Caribbean and Eastern Europe. IMO runs an Integrated Technical Cooperation Programme (ITCP) to help these countries build up their capacity to comply with international rules and standards relating to maritime safety and the prevention and control of maritime

pollution. The nature of the job also meant that Tansey could put her linguistic talent to good use. She is fluent in five languages including English, French and Spanish, three of the six official UN languages.

In 2010, she assumed her current role as Senior Deputy Director of the

Technical Cooperation Division. Her work now focuses on developing donor partnerships to support the funding of IMO's ITCP and implementing global TC programmes in areas such as ship energy efficiency and marine environment protection.

She also works

WHY HER WORK MATTERS

- 1 HELPS THE IMO TO ENSURE SAFE, SECURE & EFFICIENT SHIPPING IN CLEAN OCEANS.
- 2 IMPROVES THE LIVES OF THOSE TOUCHED BY THE MARITIME SECTOR.
- 3 HELPS MITIGATE THE PROBLEM OF LABOUR SHORTAGE IN THE MARITIME INDUSTRY, ESPECIALLY IN THE SEAFARING SECTOR.

closely with the World Maritime University and the IMO International Maritime Law Institute, two global maritime training institutes set up by IMO to educate top maritime administrators. Both are key players in IMO's capacity-building activities.

Having joined the maritime industry when it was still largely male-dominated, Tansey was motivated to establish and lead a strategy to integrate women into the sector, support capacity-building and establish regional associations for women managers in the maritime sector. She now manages IMO's gender TC programme.

She says: "The maritime sector needs 'all hands on deck', both male and female, if it is to take on the

challenges of carrying the world's goods and fuel in an efficient, safe and clean manner. Translating this into action requires bold and forward-thinking administrations, and men and women prepared to break century-old sociocultural patterns."

MULTIPLE DUTIES

Given her various roles, days are never dull. She says: "Perhaps the best aspect of my job is that there is no such thing as a typical work day."

On any given day, she could be running a conference in Asia to foster discussions among regional participants to draft an achievable regional plan of action on domestic ferry safety, or meeting donors to negotiate new project funding or update them on the results of

sponsored TC projects.

"The diversity of my work means that my travel for IMO takes me right across the globe, to Africa, Asia, and Latin America in particular, where I am typically responsible for ensuring that our seminars and conferences have a lasting impact on the institutional development of the region," she explains.

Travels aside, one aspect of her work that is closest to her heart is the progress achieved by the IMO in gender integration since 1988. Back then, few maritime training institutes opened their doors to female students, but IMO was in the vanguard of UN's specialised

agencies that forged a global programme known as the Integration of Women in the Maritime Sector.

Carried out over several phases, it put in place an institutional framework to incorporate the gender dimension into IMO's policies and procedures, with resolutions adopted to ensure access to maritime training and employment opportunities for women in the maritime sector.

Today, the programme is going strong. Under IMO's auspices, seven regional maritime associations for women, covering some 70 countries and 230 participants, have

been established.

For her, more women on board will go a long way to solving challenges faced by the maritime industry, especially the shortage of skilled seafarers. Tansey says: "The way to alleviate this issue is to convince more young people, both men and women, to seek a long-term career in the maritime sector. How can this be achieved? By seizing their interest from a very young age; by providing safe working environments, particularly within the limited confines of a ship; and by using successful role models, both men and women, to motivate young people towards the maritime world."

TO WORK FOR IMO, ONE MUST:

1.



EMBRACE THE UN CULTURE OF INCLUSIVENESS & DIVERSITY.

2.

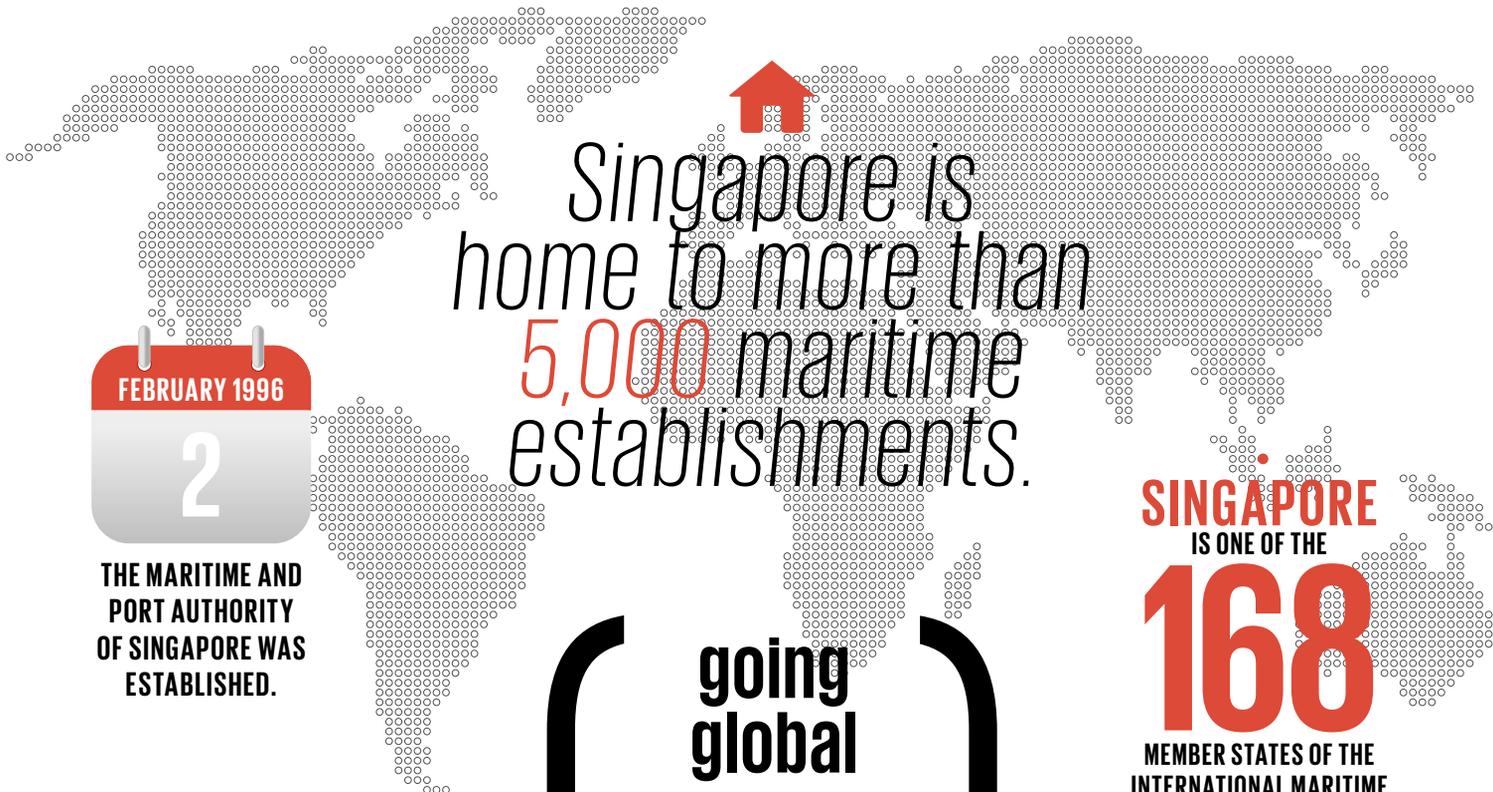
HAVE A SOLID MARITIME EDUCATION.



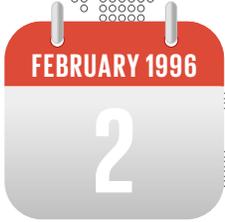
3.



HAVE CONSIDERABLE KNOWLEDGE & EXPERIENCE WORKING IN THE MARITIME FIELD.



Singapore is home to more than **5,000** maritime establishments.



THE MARITIME AND PORT AUTHORITY OF SINGAPORE WAS ESTABLISHED.

SINGAPORE IS ONE OF THE

168

MEMBER STATES OF THE INTERNATIONAL MARITIME ORGANIZATION (IMO).

going global

Singapore has been an active participant of the international maritime community since 1965 and has built an ecosystem of maritime and port services on its shores. Here are some milestones.

Jan 17, 1966

SINGAPORE BECAME AN IMO MEMBER.



SINGAPORE HAS SERVED ON THE IMO COUNCIL SINCE IT WAS FIRST ELECTED IN 1993.



THE MARITIME INDUSTRY CONTRIBUTES ABOUT 7 PER CENT TO SINGAPORE'S GROSS DOMESTIC PRODUCT.

*Singapore is a signatory to several key maritime conventions, including the **International Convention for the Prevention of Pollution from Ships (MARPOL)** and the **International Convention for the Safety of Life at Sea (SOLAS)**.*



The Maritime Youth Club programme is an outreach initiative targeting schools and institutes of higher learning to raise the awareness of Maritime Singapore and to introduce the varied career opportunities that the industry offers. Schools can use the funding to organise maritime-related activities that are of interest to the students and to create platforms for the youths to experience the various aspects of the maritime industry.



We would like to invite all interested schools and students to be a part of this outreach initiative. Successful applicants will receive funding support ranging from SGD1,000 to SGD12,000*.

To find out more about how to apply for Maritime Youth Club support, please contact Ms Fang Jiayun from MPA's Community Engagement Department at fang_jiayun@mpa.gov.sg.

*Terms and conditions apply.



The Maritime Youth Club is an initiative of the Maritime and Port Authority of Singapore



Singapore's Gateway for
General & Bulk Cargo

Innovative ■ Dynamic ■ Sustainable

Asia Pacific Multi-Purpose Terminal Operator
of the Year (2010 – 2014) by Frost & Sullivan
