

9 April 2019

Marina Bay Sands®
Singapore

DAY 1



Focusing on innovation and key issues in maritime



Sea Asia 2019 opens today with a focus on innovation and debate on the most important issues facing the industry.

More than 15,000 people from over 80 countries are expected to pass through the doors of the exhibition and conference between 9 -11 April at Marina Bay Sands in Singapore.

Technology will be a key focus at Sea Asia this year with a new maritime start-up focused platform, the Innovation Arena, an additive manufacturing showcase in collaboration with Nanyang Polytechnic and a virtual reality welding demonstration.

The strong international nature of the show is reflected in some 13 national pavilions including Oman, Poland and Turkey, all of which are new to Sea Asia.

Kenneth Chia, executive director of the Singapore Maritime Foundation, commented: "With regulations and external trends set to transform the way the industry traditionally

operates, we are excited to continue building Sea Asia 2019 as a strong knowledge and networking platform to tackle industry-specific challenges."

The conference, which is situated on level one of the show floor, will feature debate from industry leaders on key issues such as the environment, regulation and the future of the markets.

On the first day the Sea Asia Global Forum will tackle the macro-issues facing shipping and maritime today. Returning from 2017 is the highly successful parliamentary debate, which will see six leading executives and officials debating the motion 'This House believes that too much is expected of the shipping industry on environmental matters'.

The afternoon sessions of the conference will provide a more in-depth look at issues and developments including the future of the maritime workforce, digitalisation in fleet management and blockchain.

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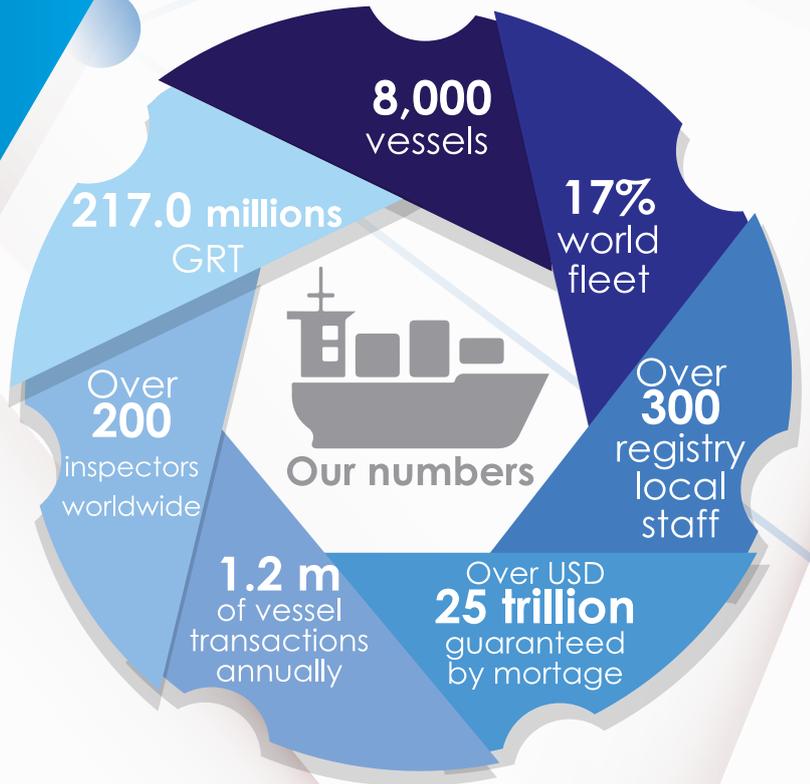
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- SINCE 1917 -



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Singapore Maritime Week 2019 opens with an eye to the future



Singapore Maritime Week (SMW) 2019 was officially launched on Sunday afternoon at Marina Square central atrium by Khaw Boon Wan, Singapore's Coordinating Minister for Infrastructure and Minister for Transport.

This year's SMW is themed around "Driving Connectivity, Innovation, and Talent" as the Maritime & Port Authority of Singapore (MPA), that drives the week as whole, looks to address the future challenges the shipping and maritime industries face.

Speaking at the opening, Minister Khaw said: "Shipping industry is being disrupted by digital revolution and business transformation. Political pressures brought

about by globalisation and income inequality add immense challenges. What will the shipping industry be like in 20 years' time? Who will be the new mega players? What about the incumbents? How could policy makers facilitate orderly transformation? How should workers prepare themselves for the future?"

"SMW gathers the thought leaders in the maritime industry to share insights on these issues, so that we can all seize new opportunities. Together, we can ride the tide and shape the future."

Introduced back in 2006 SMW is now its 14th year and has grown to a be packed nine-day schedule that embraces both industry events and outreach to

the general public. The maritime week expects to receive 40,000 delegates, including industry professionals, business leaders and government officials, this year.

The single largest industry event is Sea Asia 2019 co-organised by UBM (Seatrade) and the Singapore Maritime Foundation. In its seventh edition at Marina Bay Sands (MBS), Sea Asia expects to attract more than 15,000 visitors and conference attendees. MBS also plays host to TOC Asia on 9 – 10 April, an exhibition and conference focused on container ports and handling.

On the public outreach front, events include the SMW 2019 – Bicentennial from 8 – 14 April at the Marina Square central atrium. As Singapore celebrates 200 years of its modern founding, the exhibition brings to life the Lion City's maritime heritage taking on journey through, past, present and future. The exhibition features both archival photos of the Port of Singapore and looking to the future a multi-touch "Next Generation Port" exhibit.

Sunday morning also saw the annual Amazing Maritime Challenge, which saw 900 contestants race around the island to discover more about its maritime centre and global hub port.

Korean Register shares cyber security expertise



Korean Register (KR) is inviting Sea Asia delegates to attend a free cyber security technical seminar, which will run on Tuesday and Wednesday, on their stand L1-E01.

The classification society established its cyber security certification process last year in accordance with international security standards, IMO and Bimco's cyber security guidelines. KR has industry-leading expertise in the field of cyber security and is working on a wide range of specialist cyber security projects across the maritime industry.

KR's expert cyber certification team will be running the seminars on Tuesday 9 April and Wednesday 10 April. Two presentations are available, with one offering a detailed overview of the key issues relating to cyber security while the second presentation provides a more specialised examination of cyber security system type approval.

KR will be explaining its detailed gap analysis for both company and ship cyber security which forms part of the KR cyber security checklist and covers security policy, security organisation, risk management, asset management, human security, physical security, technical security and incident response.

The cyber security team will also be able to discuss their training courses which look in detail at cyber asset management, understanding the many cyber threats, managing human security and keeping an organisation cyber secure in an environment where the threat is ever changing and increasingly sophisticated.

The KR cyber security technical seminar will take place on stand L1-E01.

Conference Programme Day 1

Tuesday, 9 April 2019

09:00 **Opening Ceremony**

10:00 **Welcome Coffee & VIP Tour of the Exhibition**

11:00 **Sea Asia Global Forum**

The Sea Asia Global Forum brings together industry leaders, representing both shipowners and cargo interests, to discuss the key issues facing the industry. In a complex business environment influenced by geopolitics, technological disruption and regulatory pressures, this opening panel will draw on the perspectives of seasoned veterans to reflect on where the industry is headed.

Session sponsor:



Moderator:



Teymoor Nabili
Journalist and Broadcaster,
Managing Editor
[Thesignal.asia](#)

Panellists:



Erck Rickmers
Chairman
[E.R. Capital](#)



Andreas Sohmen-Pao
Chairman
[BW Group](#)
Chairman
[Singapore Maritime Foundation](#)



Tan Chong Meng
Group Chief Executive Officer
[PSA International](#)



Søren Toft
Member of the Executive Board
and Chief Operating Officer
[A.P. Møller – Mærsk A/S](#)

14:00 **Future of the Maritime Workforce**

Attracting future talent to the maritime industries, both onshore and offshore, is a key concern. How will the shipping and maritime industries attract the best young talent given the allure of the technology sector and others that have acted quickly to modernise. Today's speakers will discuss what skills will be required by future maritime executives onshore, as well as seafarers, as the Industrial Revolution 4.0 reshapes the industry.

Moderator:



Guy Platten
Secretary General
[International Chamber of Shipping](#)

Panellists:



Capt. Nicholas Hall
General Manager, Marine Manning
[Swire Pacific Offshore](#)



Elsie Ng
Head of Talent Solutions – Singapore
[LinkedIn](#)



Oyvind Stordal
Vice President Digital
[Wilhelmsen Ship Management](#)

15:00 **Delegate Coffee**

15:30 **Will Economic Concerns Trump Improving Fundamentals?**

Just when the market fundamentals were showing real signs of improvement, the outlook for global trade appears to be deteriorating, with concern about a potential slowdown in China and other worries. Consolidation is being seen across all market segments – is this set to continue and is bigger always better? Will worsening trading conditions trump the effects of better looking fundamentals? Will shifting trade patterns be positive or negative for shipping? A panel of industry experts will discuss the outlook for the major shipping markets.

Moderator:



Marcus Hand
Editor
[Seatrade Maritime News](#)

Panellists:



Keith Denholm
Chief Executive Officer
[Caledonia Maritime Services;](#)
Director
[J&J Denholm Ltd](#)



Ralph Leszczynski
Head of Research
[Banchemo Costa](#)



Jorge Luis Quijano
Administrator – Chief Executive Officer
[Panama Canal Authority](#)

16:30 **Delegate Coffee**

The World's Port of Call





Strong presence from Panama as two top officials bid farewell

Once again, Panama returns to Sea Asia Exhibition Conference 2019 with a pavilion that will gather a large delegation from the country. This has been a tradition since Sea Asia was created in 2007 as the 'rendezvous' of the international maritime industry.

The exhibition and conference has become a favourite gathering of the Panamanian maritime sector which would not miss being present at Sea Asia. Panama Pavilion has received numerous awards in previous years for the interest it always draws from the assistance and the quality of its presentations.

The private sector will be present under the umbrella of Panama Ministry of Trade and Industries with several Panamanian companies from maritime auxiliary services, legal firms and logistics companies. Meanwhile the Panama Canal Authority will explain the latest developments of the expanded waterway which now transits neo-panamax vessels of up 14,000 teu as well as a

new customer segment - the vessels transporting LNG that many ship owners, operators and managers view as the fuel of the future.

The renowned Ship Registry, overseen by the Panama Maritime Authority, is entering its 102th year of activity and continues to top world registries in tonnage and number of vessels, the world registries.

This year, however, will mark a special date for two Panamanian officials.

One is Panama Canal Administrator Jorge Quijano who will be participating on Tuesday at 15.30 in the panel discussion "Will economic concerns Trump improving fundamentals", moderated by Marcus Hand from Seatrade Maritime News.

Quijano is to retire in September after being at the helm of the waterway for 7 years and presiding over its expansion. "We have learnt that we must continue to develop a close relationship with our customers. This is the most important task ahead because we have work with them

listening to their issues and identifying their needs to address them adequately and in a timely manner," says Quijano who has spent more than 40 years working at the waterway.

It will be also the last engagement of Jorge Barakat in his position of Minister of Maritime Affairs and Administrator of the Panama Maritime Authority. Barakat, a well-known litigation lawyer, will leave the Panama Maritime Authority in July. "We now offer an efficient service to all international and local clients thanks to substantial improvements in IT with the creation of an integral platform of services for the ship registry, seafarers and inspections."

"We have integrated and legalised the brokers and even incorporated direct discounts on line," he says, reflecting on the five years of his tenure.

Both of them have promised they will return to the next Sea Asia conferences as it is likely they will remain in the maritime private sector.

JRC and Alphasatron showcasing Proline range

JRC and Alphasatron Marine are showcasing the latest navigation and communication solutions and products at Sea Asia 2019 on stand B2-D01.

The stand presents the newly launched Proline range of products specially designed for the small and medium range workboats and fishing vessels ranging from less than 500 gt up to 10,000 gt.

"Because of the unique strengths of key manufacturers JRC and Alphasatron Marine, we are able to unburden ship owners or shipyard by offering them a proven, complete and one-stop-shopping equipment line-up," the company said.

The ProLine package consists of a full range of mandatory or non-mandatory equipment, and an upgraded radar system is available from a non-SOLAS 2 feet radome scanner with a 21-inch display up to a MED type approved radar with 19-inch display with various selectable scanner units.

The new Proline range also cover GPS, gyro, autopilot, echo sounder, searchlight sonar, and even a newly designed command chair.

On Tuesday at 16:00 hrs, visitors to the stand can enjoy drinks and a bite to eat while learning more about the pro-line range and other products.



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at Sea Asia 2019

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ABS launches Global Sustainability Center in Singapore



As decarbonising shipping becomes mission critical for the industry, classification society the American Bureau of Shipping (ABS) has launched a Global Sustainability Center in Singapore.

Shipping faces a major challenge from the International Maritime Organization (IMO) to reduce its Greenhouse Gas emissions by at least 50% by 2050 - widely acknowledged as a target that cannot be reached without the introduction of new technologies, propulsion systems and fuels.

The new centre located in Singapore will be ABS' (B2 – E01) flagship for its sustainability activities worldwide.

"Decarbonizing shipping is a challenge that will compel the industry to reach new technology frontiers. At the same time, it

is an opportunity to transition to a more sustainable world economy enabled by efficient, low-carbon transportation," said ABS chairman, president and ceo Christopher J. Wiernicki.

"To facilitate the journey toward decarbonization targets, ABS established its Global Sustainability Center to coordinate initiatives that advance innovation and technology development focused on safety, practicality and the commercial viability of proposed solutions."

The centre will be headed by Gurinder Singh, ABS global director sustainability, backed by an experienced team of professionals and the worldwide organisation of ABS.

The centre will bring together various

sustainability projects from the classification society. These include – studying the viability of new energy sources and fuel for shipping, the use of digital technology to increase efficiency and simplify transactions, certifying and validating new technologies, and analysing decarbonisation pathways.

Singh commented: "Today's world is quickly changing, and the shipping industry is navigating a complex regulatory landscape and rapid technology changes. The IMO Green House Gas reduction targets will present an unprecedented challenge to the industry—as the targets cannot be achieved with today's technology. The Center has a vital role to play in helping the industry manage the transition safely."

ABS is aiming to find solutions that are both safe and practical and are also commercially viable.

With the scale of the task that faces shipping, the new ABS Global Sustainability Center plans to work collaboratively with other institutions in the same field in Singapore.

"Singapore is an ideal location for the Center as we build upon our strong collaboration with leading Universities and Sustainability Centers of Excellence here. The Center is a home for innovation and creativity that brings together industry and academia working hand-in-hand toward a sustainable future," Singh added.

The centre will also hold an industry education programme, seminars and lectures, designed to raise awareness of maritime sustainability technologies.

Thousands of seafarers benefit from The Mission to Seafarers Singapore



Seafarers spend much of their lives thousands of miles from family, friends and support networks most of us rely on.

Charity The Mission to Seafarers (MTS) provides an invaluable support role for

seafarers that can be anything from simply being a friendly face on board ship, to helping to cope with family issues back home, to dealing with serious issues such as hospitalisation and abandonment by owners that have hit the rocks financially.

As one of the world's busiest ports, it is little surprise to learn MTS Singapore (MTSS) Port Chaplain Toh Soon Kok is a very busy man. Statistics of the work carried out by MTSS last year make for impressive reading. Last year the charity in Singapore visited some 1,013 ships, transported 1,058 seafarers, and 3,459 seafarers attended its drop-in centre at Jurong Port.

We are pleased to hear that Port Chaplain

Toh will be joined by two new assistants this year, which will help make the Mission's services available to an even wider number of seafarers.

As a charity, MTSS is reliant on the goodwill of the industry and individuals to keep up its valuable work

"Singapore is an active and expanding maritime port and we need to expand with it to ensure that we maintain our services to cope with the demand. We cannot do this alone, we need your help and continued support so that we can continue to provide for the seafarers for many years to come," said MTSS chairman Rob Walker.



Japan's Fujitsu Limited (B2 – S01y) is showcasing its Artificial Intelligence (AI) technology on prevention of ship collision and other maritime safety solutions at Sea Asia 2019 in Singapore.

Developed by Fujitsu Laboratories, the AI technology 'Fujitsu Human Centric AI Zinrai' can detect ship collision risks and predict areas where collision risks are concentrated as dynamic risk hotspots.

A field trial leveraging on Artificial Intelligence (AI) in predicting near misses between vessels conducted in the busy waters of the Singapore Strait has yielded positive results.

The trial, conducted with the assistance of the Maritime and Port Authority of Singapore (MPA), analyses marine traffic risks in the Singapore Strait by using the AI ship collision risk prediction technology.

This technology has the potential to be deployed in a Vessel Traffic Service (VTS) system to assist maritime traffic

controllers to manage marine traffic proactively with the aim of improving the safety of navigation.

"Fujitsu aims to deliver services incorporating this technology for maritime traffic controllers and ship operators by 2020," Fujitsu said.

Globally, especially in busy waterways, VTS centres that manage marine traffic rely on anti-collision warning in VTS systems - which use closest point of approach techniques - to detect and notify ships when vessels get unusually close to one another. As vessel operations and interactions become more complex, the ability to detect and predict vessel movements in advance, especially in high density vessel traffic areas like Singapore, is key to managing and reducing collision risks.

The field trial was conducted with the assistance of about 10 MPA officers from the Vessel Traffic Management

Department and Port Systems Division over 24 month.

Drawing on past traffic data for the Singapore Strait provided by MPA, Fujitsu leveraged its collision risk prediction technology to extract information such as examples of collisions or near misses involving multiple vessels, as well as examples of developing dynamic risk hotspots.

The prediction technology was benchmarked to human operators.

Based on benchmarking studies, the detection technology was able to flag potential risks approximately 10 minutes before the near-miss, and in doing so, would theoretically provide approximately 5 minutes lead time for human operators to execute the necessary follow on action. Fujitsu's technology was also able to pick out scenarios where the collision risk could be overlooked and raise the alert to a possible collision incident.

Separately, the dynamic risk hotspot detection technology could detect risks up to 15 minutes in advance, enabling staff to take specific measures to avoid an incident.

"Fujitsu's risk detection technology demonstrated the possibility of quantifying risk in more detail in advance of the detection by human operators," Fujitsu said.

"Based on the results of this development, Fujitsu will continue working with Singapore to improve the technology, and deliver a solution supporting safe navigation for maritime traffic control and for ship operators by 2020."

ClassNK launching Internet of Ships platform at Sea Asia

ClassNK (B2 – T01e) has chosen Sea Asia 2019 to announce the launch of its global data utilization platform IoS-OP (Internet of Ships – Open Platform), by its wholly owned subsidiary Ship Data Center Co Ltd (ShipDC) .

With many shipowners, managers and services keen to access the power of big data, the IoS-OP is a platform for data distribution and utilization under common rules.

The IoS-OP aims to create what ShipDC characterises as a "new maritime cluster for the digital age". The IoS-OP will establish a cooperative domain where users will collect and safely store data at ShipDC and the data will be distributed under common rules agreed by the stakeholders.

Ship data is shared among stakeholders without compromising the position of the data providers such as shipowners and ship operators allowing for data driven innovation which can lead to new business models and services.

Yasuhiro Ikeda, president of ShipDC said: "We have prepared a platform where everyone could have a win-win relationship under the agreed rules. Now, it is time to invite everyone to join the initiative to create innovation in the maritime industry."

Find out more about IoS-OP in the Sea Asia Seminar Theatre in Basement Two at 12:30 – 13:00 hrs on Tuesday April 9 in the presentation – 'Maritime Innovation Using Digital Technology – ClassNK Activity and Big Data Open Platform.

IEC Telecom unveils attractive broadband connectivity solution

Leading global communications solutions provider IEC Telecom (B2-R22) has launched a new satellite voice and data communication solution which will provide reliable and cost effective broadband connectivity amid ever increasing calls for internet access for crew while at sea.

Called Orion Edge+, it offers flexibility as the data plans are on monthly basis with no long-term commitment and should be ideal for offshore support vessels, tugs, and oil and gas contractors.

“This is a brand new optimised voice and data solution, engineered by IEC Telecom and powered by Thuraya

Telecommunications, that enables small boats to enjoy the high bandwidth that was previously available only to VSAT users,” Nabil Ben Soussia, vice president maritime at IEC Telecom, said.

Orion Edge+ is equipped with Wan Optimizer, enabling TCP acceleration – which achieves better throughput on network connections - and bandwidth optimisation.

“This game changer is designed to meet the requirements of short-term projects with flexible data plans, no long-term commitment, and zero upfront cost,” he added.

Under the system, local Wi-Fi management enables vessel and offshore platform managers to provide crew with access to social media platforms and the internet, with safety maintained by high level security systems.

Access is granted via an advanced captive portal and consumption can be managed via vouchers or scratch cards for crew members.



Specialised hardware offered by IEC Telecom keeps upfront costs low and provides full visibility for management control, both onboard and onshore.

IEC Telecom has also teamed up with UAE-based mobile satellite services provider Thuraya Telecommunications to offer Thuraya VSAT+ across Europe, Asia-Pacific, Middle East and Africa. The solution ensures optimum flexibility of satellite service and is scalable to meet global and regional needs for essential communications such as voice calls, email and position reporting, and for high-bandwidth requirements.

“Together with Thuraya, we have the potential to transform the market of maritime communications,” said Ben Soussia.



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Seminar Programme

Seminar Theatre Sessions are **complimentary** for all participants to attend.

Tuesday, 9 April 2019

Time	Topic	Presenter	Booth No.
1100 – 1130hrs	WinGD X-DF: The Right Technology for 2020 and Beyond	Winterthur Gas & Diesel Ltd.	B2-A09
1130 – 1200hrs	Vesselink-200: Competitive Cost-Performance Solution on Maritime Location Tracking & Satellite Communication Onboard and at Sea	Vesselink Technology Limited	L1-E09a
1200 – 1230hrs	Disruptive Technology: Satellite & Drone Imagery, Uber for Ship Chartering	Ocean Freight Exchange Pte Ltd	L1-A10d
1230 – 1300hrs	Maritime Innovation Using Digital Technology - ClassNK Activity and Big Data Open Platform	ClassNK (Nippon Kaiji Kyokai)	B2-T01e
1300 – 1330hrs	Data Acceleration for the SMART PORT Revolution	SkyLab Services Pte Ltd	L1-A10g
1330 – 1400hrs	Oman Drydock – The Largest Ship Repair Yard in the Middle East	Oman Drydock Company	B2-T21
1400 – 1430hrs	Additive Manufacturing in the Maritime Industry	American Bureau of Shipping (ABS)	B2-E01
1430 – 1500hrs	Remote Vital Signs Monitoring for Better Crew Health	Aeras Medical Pte Ltd	L1-A10e
1500 – 1530hrs	Ballast Water Management System	Shanghai LEE's FUDA Electromechanical Technology Co., Ltd.	B2-125
1530 – 1600hrs	Aviation Technology Leads the Marine Survivor Locator Light Revolution	Lonako Industry & Trade Co., Ltd.	B2-B26
1600 – 1630hrs	Going Digital and the Intelligent Enterprise	Ovum	

*This programme may be subject to change without prior notice.

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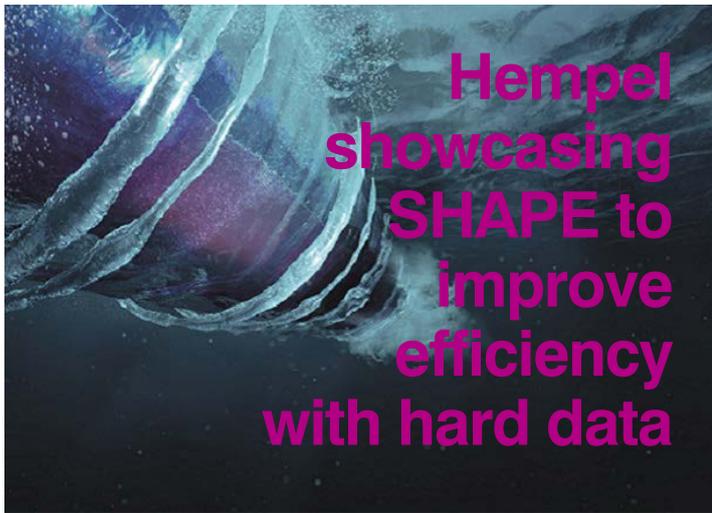


Wednesday, 10 April 2019

Time	Topic	Presenter	Booth No.
1100 – 1130hrs	Sulphur 2020: From Fuel Procurement to Combustion	Lloyds Register	B2-C01
1130 – 1200hrs	Enhancing Safety on your Engines	Schaller Automation Pte Ltd	B2-107
1200 – 1230hrs	Powering Smart Ships with IoT and Cyber Security	Singapore Telecommunications Limited	B2-G21
1230 – 1300hrs	New Tech in Maritime Field Inspections	MapGage (MDI B.V)	L1-A10f
1300 – 1330hrs	Preparing for IMO2020 Fuel Mix – BunkerMAESTRO, an Innovative Solution to Bunker Scheduling Efficiency	Claritecs Pte Ltd	L1-A10c
1330 – 1400hrs	Improving Cyber Resilience in Shipping and Maritime	Threatspan	L1- A10h
1400 – 1430hrs	Maritime Transportation of Oman	Oman Shipping Company	B2-T21
1430 – 1500hrs	Digital Innovations to Transform Maritime Training & Operations	KVH Industries, Inc.	B2-T18
1500 – 1530hrs	Are Green LED Lighting Solutions Safe to use On-Board Vessels?	Beng Hui Marine Electrical Pte Ltd	B2-G15
1530 – 1600hrs	GRE Lasts a Ship's Life Time	BH Global Corporation Ltd	B2-G17
1600 – 1630hrs	SCHOTTEL SYDRIVE-M	SCHOTTEL GmbH	B2-C21

Thursday, 11 April 2019

Time	Topic	Presenter	Booth No.
1100 – 1130hrs	IMO 2020 Bunker Fuel Sulfur Limit Compliance with Blockchain	Dastell LLP	B2-22R
1130 – 1200hrs	Machine Learning Applied to Maritime Cargo Flows	Portcast Pte. Ltd.	L1-A10a
1200 – 1230hrs	The Latest Technologies to Save Fuel and Reduce the Operating Cost	Griffin Group International Pte Ltd	B2-J13
1230 – 1300hrs	InvestHK Seminar	InvestHK	
1300 – 1330hrs	How e-Navigation will Transform Passage Planning	NAVTOR AS	B2-N11L
1330 – 1430hrs	Launch of the Maritime Startups and Scaleups Infographic: Creating a Global Hub of Start-Up-Driven Maritime Innovation	Startup Wharf Ltd.	



Leading global coatings provider Hempel (B2 – H09) is exhibiting its hull performance monitoring system SHAPE (Systems for Hull and Propeller Efficiency) at Sea Asia this year.

Founded on the ISO 19030 standard, that Hempel was integral in developing, SHAPE uses this standard to deliver high-quality performance data analysis that allows the expert teams at Hempel to offer advice to shipowners on how best to optimise performance.

Why SHAPE up?

Fouling can dramatically affect a ship's hydrodynamics and the frictional resistance from the roughness caused by slime on a ship's hull can result in an increase in fuel consumption.

Shells, barnacles, oysters and mussels on the hull can lead to a huge drop of 18 per cent in efficiency (on average over five years), as the ship burns more fuel

just to maintain a given speed. This problem is exacerbated on vessels with unpredictable trading patterns and longer idle periods.

Using intelligent software and working closely with coatings experts, long-term trends can be monitored using in-service KPIs to develop

and deliver an optimum protective coatings solution for individual vessels. Importantly, the empirical measurements that result can be utilised to showcase a vessel's performance to customers, financiers and other stakeholders; to show how a vessel stacks up against its competition. This data intelligence is evidence of the latent efficiency savings to be made.

A step by step process

The detailed process behind SHAPE monitors long-term changes in a vessel's hull performance that results from a number of factors, including fouling. There are six key stages that comprise the transparent and thorough process of SHAPE.

First, the vessel's speed power reference curves are established. Next, in-service data is collected, cleansed and purified to eliminate extreme operating conditions

and the effects of environmental factors.

From this, precise speed loss calculations are undertaken – this is critical to understand vessel performance and fuel efficiency as power increase and speed loss are directly related. Subsequently four KPIs are calculated: dry docking performance; in service performance; maintenance trigger; and maintenance effect.

This detailed process provides Hempel's experts with the data required to provide solid advice to the shipowner on how they might improve their fuel efficiency by making data-driven decisions. By combining the SHAPE system with Hempel's coatings, shipowners are armed with the right tools to maximise both the hull efficiency of their vessels and their return on investment.

SHAPE at a glance:

- A tailored hull performance programme with a dedicated Hempel performance analyst.
- Expert data interpretation and advice from Hempel's team of chemists, physicists and hydrodynamicists.
- Key performance indicators based on speed loss measurements to track performance gains over time.
- Monitored and guaranteed speed loss – directly related to fuel savings – applicable for hull coatings specified for up to 60 months dry docking intervals.
- Transparent cost-effective performance monitoring following the ISO 19030 methodology.

IRClass strengthens presence in Asia – Pacific



The Indian Register of Shipping (IRClass) is continuing to grow its presence in Asia – Pacific including key markets such as China, Indonesia and Malaysia.

The Singapore office is the regional headquarters of IRClass (L1-D11) as it

strengthens its operations in the region.

Suresh Sinha, managing director of IRClass said: "Singapore is one of the main Asia - Pacific locations for global maritime companies,

and we see great value to have a regional headquarters in this city where its maritime sector is constantly developing – tapping on digitalisation and acquiring new technologies."

IRClass has previously received authorisation as Recognised Organisation (RO) from the flag administrations of Malaysia and Thailand and expects to attain recognition from other key nations in the region.

The classification society has also increasingly secured newbuilding projects in China, Japan, South Korea and Malaysia.

"For IRClass, these contract wins underlines the growing trust in the IRClass brand and our commitment to owners in Asia," Sinha said.

IRClass executive chairman, Arun Sharma, is one of the panellists in the Sea Asia conference session 'A practical response to upcoming regulation' on day two of the show. Sharma is also the vice chairman of the International Association of Classification Societies.

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Creating the maritime city of tomorrow



Singapore's Minister for Trade and Industry Chan Chun Sing has broadly outlined the survival strategy for Maritime Singapore, which is and will continue to remain an indispensable pillar of global trade for the city-state.

Chan was speaking at the 13th Singapore Maritime Lecture on Monday, which was held as part of the annual Singapore Maritime Week.

"How does a city-state like us survive – a city-state that has no hinterland? In order for our city-state to survive, trade is our lifeline, so we need to connect to the world as our hinterland," Chan said.

The Minister singled out the three obvious physical dimensions of connectivity that Singapore needs in order to connect with the world – via air, land and sea.

The maritime industry of shipping and port operations is a must-have for Singapore, which needs to maintain its position as a leading maritime hub port amid competition and an ever-challenging global environment.

"As the shipping industry redesigns its business models for the 21st century, Singapore must also rethink our maritime strategy. Our continued status as a global hub port and international maritime centre will depend on how well we can navigate the challenges and opportunities that come to fore with these driving forces," Chan said.

"We understand the vagaries of global trade flows. So we reimagined what it

means to be a Maritime City of Tomorrow. Not a localised port operator, but a global maritime platform that transcends our geography."

Chan made the point that Singapore's selling point needs to go beyond its geographical location. This means there is a need to broaden and deepen maritime services offerings with complementary adjacent sectors such as finance, insurance, commodity trading and logistics.

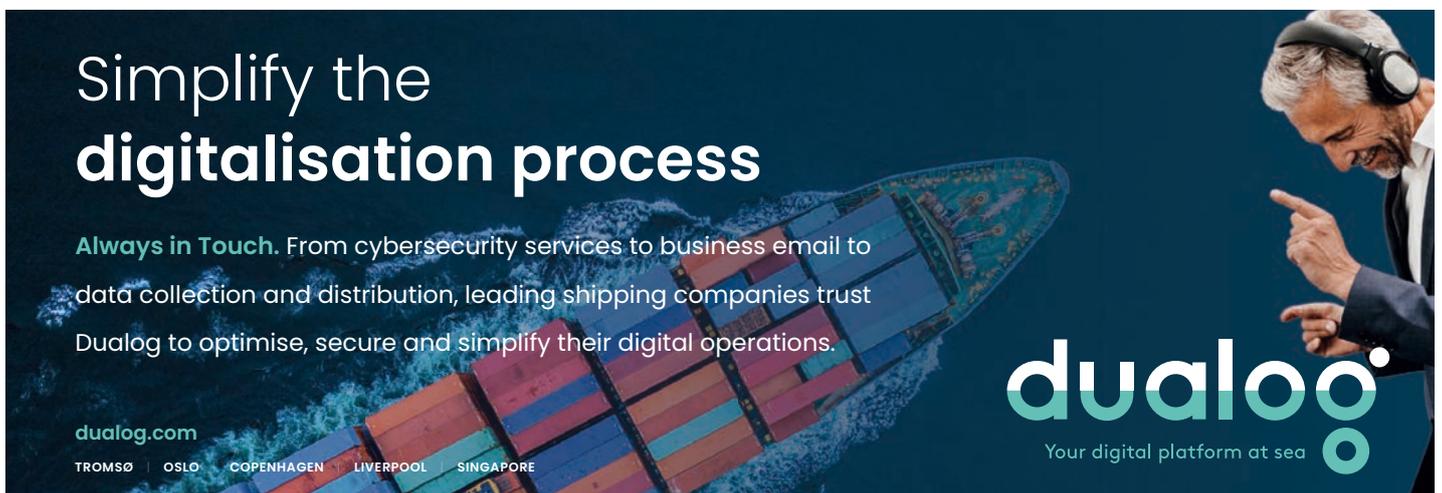
Hence in order for Singapore to survive going forward, Chan said Singapore would need to complement the three physical dimensions of connectivity with five non-physical dimensions of connectivity. They are talent, technology, data, finance and rules.

"If Singapore can leverage on these five non-physical dimensions to reinforce our survival and success, then Singapore will go down in history as the first country to transcend its geographical size and location. Our growth, our survival will no longer be constrained by our geographical size and location," he said.

INFOCUS Photography competition

Don't forget to check out the INFOCUS photography competition on Level 1 of the exhibition.

The best images submitted by amateur photographers in the shipping and maritime industries are on display and you can help select the winner!



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