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IF SMA

NEWSLETTER

The Shipmasters' International Voice



RMS St. Helena, final voyage. Story inside.



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Secretary General's Report

Let me start by saying that it is indeed a great honour for me to inform you that the Secretary General of IMO, Mr Kitack Lim, kindly agreed to become an Honorary Member of IFSMA and was presented with his certificate at a dinner hosted by the Executive Council for Honorary Members at the beginning of February. We were also delighted to have the new Director of the IMO Maritime Safety Division, Ms Heike Deggim, as a guest. This is a clear demonstration of the high standing of our reputation at the IMO and recognition of the work we do in support of our Shipmasters and Mariners, (see page 25.) I draw your attention to my report from attending the NCSR 5 Sub-Committee which is now posted on the website. In the months ahead the IMO will become an extremely interesting place in which to be as we embark on the debate of Maritime Autonomous Surface Ships (MASS). This will be one of the biggest challenges that IFSMA and others in the industry face and we need to ensure that we are fully engaged in the debate. I will shortly be sending out a note to you all seeking support for the IFSMA Delegation at the Maritime Safety Committee in May 2018 when we will start a Regulatory Scoping Exercise to look at all of those Conventions, Codes and Regulations that will need to be looked at where they could affect MASS.

Early February also saw your Executive Council conduct its quarterly meeting. An annual review of the IFSMA Strategic Plan was undertaken in significant detail and I will update you all on the progress we are making against our 5 Key Challenges at the AGA in Argentina in April. All the detail for the AGA is now on the website along with booking details and I urge you to get in your applications to attend as soon as possible. The Assistant Secretary General, Paul Owen, has designed a full and interesting programme of presentations and I thank Captain Marcos Castro and his team at Centro de Caps de Ultramar Oficiales de la Marina Mercante (ACCUOMM) for putting on an excellent social programme. This will be our last AGA in its current format as in 2019 we will be holding the first of our biennial IFSMA Conferences in India – location and dates will be announced at the AGA in Argentina. There are exciting times ahead for us.

Also at the Council meeting we were delighted to be briefed by Ms Jennefer Tobin from ID2 on a new initiative to try and help reduce the Administrative Burden of Shipmasters, as well as Crew members. Recognising the large number of ISM Code Safety Management System procedures and the inadequacy of current paper-based systems to enforce implementation, ID2 has introduced technology to replace paper with a digitalised format. The system is self-administering, engages the energy of all crew on board and frees the Master to do those things that only he can do. The Company Style of compliance can evolve from a constant solid base of evidence. The Master's time is freed for the greater benefit of all. It is an interesting concept which could be of significant benefit to us – I will keep you posted.

Finally, one last pitch for you to come and join us at the AGA in Argentina where the presentations will hold your attention and provide us with lots to discuss and to pass on our own experiences for the benefit of others.

Cyber Security – why you should be cyber aware

By Emma Burrage and Philip Roche
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Introduction

It was said by Warren Buffett that “risk comes from not knowing what you are doing”. Ship managers avoid risk by hiring good, competent people who can be trusted to run a ship safely. An experienced Master will have built his experience and competence over many years and in relation to maritime risk, he or she will know what is required.

Can the same be said of cyber risk? By this we mean the risk that a hacker might be able to deny the Master a crucial tool such as ECDIS or ARPA, or manipulate a GPS or AIS signal to give a false position or CPA, or the risk of finding ransomware installed on critical ship’s systems that prevent the sailing of a laden ship. Masters and crew will be less familiar with these risks and consequently, unless trained and supported, they will not know how to manage them.

This is undoubtedly new territory. Good companies with high standards of governance and oversight are being caught out every day. An experienced Master confidently stated recently that cyber risk to a ship was negligible and the fuss was unwarranted. He was proven to be wrong within six months. If you do not appreciate the threat, then you cannot counter it. This leads to unacceptable risk that might ultimately mean your ship is not seaworthy, with all the consequences that entails.

The risks associated with cyber can, broadly speaking, be divided into two categories. The first is in relation to cyber security risks, which includes risks to the operation and running of the ship and its systems. If a cyber security incident occurs which affects the operation and running of the ship and its systems, this may result in the ship being placed off-hire, or worse, a collision or other incident happening. The second area of risk relates to data security risks and the theft of personal data or intellectual property.

In this article, we will be considering the first category, cyber security risks, and what steps Masters should be ensuring they take to mitigate the risk of a cyber incident happening, together with some tips for dealing with an incident if one does arise.

Cyber risk management

On a ship the computer-based systems will comprise a range of (i) information technology (IT) components, including, for example, personal computers, laptops, tablets, servers and networking components such as routers; and (ii) operational technology (OT) for example, control systems, sensors, actuators and radar. As technology continues to develop, IT and OT on-board ships are being networked together and more frequently connected to the internet. This brings the greater risk of unauthorised access or malicious attacks being carried out on ships’ systems and networks. Risks can also arise from personnel accessing systems on-

board, for example via USB memory sticks.

To safeguard ships from these risks, shipowners and operators should put in place plans and procedures for cyber risk management. These should be in addition to the existing security and safety risk management requirements contained in the ISM Code¹ and ISPS Code². BIMCO have published guidelines that provide practical recommendations on maritime cyber risk management³.

Cyber risk management plans and procedures should (i) identify the roles and responsibilities of all users ashore and on-board the ship; (ii) identify the systems and data which if disrupted could pose risks to the ship’s operations; (iii) implement technical measures to protect against cyber incidents and ensure continuity of operations such as protection and detection software; (iv) implement procedural protection measures to provide resilience against cyber incidents such as training and software maintenance; and (v) implement protocols to prepare for, and respond to, cyber incidents.

By 2021, it will be a port state control requirement that a ship must have a functioning and effective cyber security policy in place. Legislation is being prepared and it is likely that a ship will be issued a cyber security certificate, or similar, by flag state or an approved authority. Failure to have a cyber security policy in place may result in the ship being detained, just as a breach of SOLAS does today. Unfortunately the IMO can only move at a certain pace to introduce new legislation and standards that are acceptable to the community. But, in reality, shipping needs to be taking these steps now and not waiting for regulation to force this change.

Pursuant to the NIS Directive⁴, there is also the possibility that shipowners, as operators of “essential services”, could in future be liable (for fines in amounts of up to 4% of global turnover) for not having “appropriate and proportionate technical and organisational measures” in place to manage the risks around cyber security. This is another example of the growing legal and regulatory framework which is relevant to the shipping industry.

As a Master of a ship, your managers should already have provided you with a cyber risk management plan. You and your crew should be receiving training in relation to both how to deal with a cyber incident if one occurs, and also what steps you and your crew should be taking to avoid one happening in the first place. It is, in theory, a simple risk assessment exercise which mariners are familiar with; identify the risk, work out the consequences and then put mitigating measures in place to make the risk as low as reasonably possible. The issue with cyber is that to most of us, it is a complex and unfamiliar area and we need experts to assist.

There are several actions which you and other on-board personnel should take to reduce the risk of cyber incidents occurring on-board your ship:

- Do not connect personal laptops, tablets, USB memory sticks or phones to on-board operational systems.

- Report immediately any suspicious or unusual problems experienced on IT and OT systems.
- Use new passwords every time you sign on to a ship and choose a complex password with numbers, symbols and capital letters.
- Change default user passwords and delete user accounts of colleagues who have left the ship.
- Only open emails and attachments from senders you know and trust. If in doubt report the suspicious email and do not open it.

Cyber incidents

The types of cyber security incidents which might affect a ship fall into two categories. The first would involve a ransomware attack where the ship's systems are taken over by an unauthorised third party and the ship is unable to sail unless a ransom is paid. The second category would involve a ship's AIS or other navigation system being hacked, resulting in a systems failure while the ship is at sea. The latter could, in a worst case scenario, result in a collision or grounding. At the very least, it may result in the ship being placed off-hire by the charterers.

Several incidents involving cyber-attacks on ships have been reported in the press recently. In February 2017, hackers reportedly took control of the navigation system of a German owned container ship on route from Cyprus to Djibouti. The attack, which is reported to have lasted around 10 hours, was allegedly carried out by pirates who gained full control of the ship's navigation system intending to sail the ship to an area where they could get on-board. The crew were unable to regain control of the navigation system and had to bring an IT expert on-board, who eventually managed to resolve the issue.

In June 2017, more than 20 ships in the Black Sea were reportedly affected by spoofing of AIS. The GPS for these ships were giving false locations, some inland and some even at airports. There have also been unreported incidences of crew members infecting ECDIS systems, either by charging their phones on the ECDIS, or by plugging a personal USB into the system. Unaware of the risks and without intending to cause harm, these crew members inadvertently allowed malware to get into the ship's on-board systems, posing a threat to all those on-board.

Consequences of a cyber incident

The consequences of a cyber incident could be very serious. A hacker may attempt to harm a ship or its cargo through manipulation of the ship's systems. A targeted attack could impact the speed or manoeuvrability of the ship or degrade the ability to navigate accurately to the point where the ability of the ship to operate is significantly impaired. Worryingly, this could be done without the ship's crew being aware that it is happening. The installation of ransomware on a critical system could delay the timely operation of the ship which will likely impact business operations and result in claims for off-hire or liquidated damages being brought against the ship owner. Currently, insurance coverage for the consequences of a cyber-attack is generally excluded from contracts of marine insurance but poli-

cies to deal with the consequences of an attack are being made available. A failure to have an effective cyber plan in place may affect coverage.

If the attack leads to claims, then there is a risk that the ship may be found to have been unseaworthy at the commencement of the voyage if no steps were taken to deal with the threat. To be seaworthy a ship must have the degree of fitness which an ordinary careful owner would require his ship to have before sending his ship to sea. This includes the physical fitness of the ship but also extends to ensuring that the ship has sufficient and competent crew (which means the crew must be trained) and adequate ship's systems for the relevant voyage. Such tests are applied taking into account the state of industry knowledge at the time.

It would seem that, in the very near future, a failure to improve cyber security on-board a ship, or to have a plan to deal with an attack, will result in the courts making a finding of unseaworthiness in relation to that particular ship. The IMO, BIMCO and many other industry bodies have been warning of such attacks for some time, and have provided good advice on countering the risk. The marine press carries daily stories of such incidents. Not knowing or understanding the threat of a cyber-attack will not be a good defence.

What to do now

Hopefully your managers will have devised and promulgated a cyber-attack response plan which is in place on the ship. You and your crew should have been given training to enhance awareness of the risks. If these steps have not been taken, it is worth asking them what the management plan is for countering such a threat. That a ship is old and has few integrated systems is not an excuse for not taking action; all ships are reliant to some degree on technology - standalone systems such as ECDIS have been proven to be vulnerable to hacking and ransomware attacks.

If a cyber-attack response plan is in place you should run drills, just as for any other emergency. Urge your crew to use good IT hygiene as described above to minimise the risk of inadvertent infection. In relation to navigation, ensure bridge watchkeepers cross check their apparent position with other means and do not accept information being given by a system unthinkingly. As repeated again and again at nautical school, much risk can be avoided by just looking out of the bridge window and being aware of what is going on. But cyber risk is a novel and pervasive problem which cannot be solved by self-help alone – there needs to be some planning and training to help Masters and crews deal with this new risk.

(Endnotes)

- 1 International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code)
- 2 International Ship and Port Facility Security Code (ISPS Code)
- 3 BIMCO Guidelines on Cyber Security Onboard Ships v2
- 4 http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2016.194.01.0001.01.ENG&toc=OJ:L:2016:194:TOC

Monkstone Lighthouse modernisation

By Senior Project Engineer, Mike Yaxley, Trinity House, London.

There has been an aid to navigation since 1859 on the Monkstone, a flat granite rock lying NNW of Flatholm Island in the Bristol Channel. The light marks the hazard for vessels approaching Cardiff, Newport and Avonmouth, the principal cargo ports of these waters also well-used by the fishing fleet and leisure sailors.



Monkstone Lighthouse before refurbishment, in 2016.

From *The Lighthouses of Trinity House* (Richard Woodman and Jane Wilson, published by Thomas Reed Publications, 2002) we learn that the rock breaks surface at low water spring tides. The Upper Bristol Channel is subject to the second largest tidal range in the world and thus to very strong tidal streams. Extremely hazardous waters here are strewn with great sandbanks that, although passable at high water, are exposed six hours later and most of the large vessels trading here embark pilots. Monkstone Lighthouse therefore not only marks the precise location of the rock after which it is named but, in addition, provides an important visual reference mark.

In about 1925 the masonry tower was strengthened and fitted with an iron lantern in which automatic acetylene lighting apparatus was installed.

In 1993 the lighthouse was further updated when the lantern was replaced with a prefabricated, red, glass-reinforced plastic unit housing a new solar-powered light.

During 2016 work was undertaken to upgrade the station's aids to navigation and their control systems to accord with current Trinity House standards. We identified Monkstone Lighthouse's requirements for re-engineering based on the risk of increasing maintenance needed to support ageing equipment and supply problems resulting from obsolescent equipment.

Use of modern technology and standardised equipment means that the station's navigational requirements are properly delivered, maintaining the original light range of

12 nautical miles with a reduction in power consumption and, in turn, simplified maintenance.

The aim of the project was to completely re-engineer the station to current service standards to an equipment fit that will extend the life of the station for a further 20 years with a minimum maintenance commitment. This included fitting a solar powered system to support a main and standby 12 nautical mile range LED light that will reduce the urgency to respond to a main light failure.

As part of the project we installed standardised system monitoring that reports over a radio system to the Planning Centre at Harwich where the navigation light function can be controlled.

Another item for consideration was that of maintenance and the project team worked on a scheme to improve access to, and replacement of, solar panels. With this in mind we devised a method that lowered the modules to a working height, that not only provided safe working access but also gave sufficient working height for the panels.

Regarding the station's position, although small Monkstone is a challenging place in which to work for space is extremely limited within and without.

Access had to be carefully considered. Use of the helicopter was ruled out and landing could only be achieved by surface means as tidal conditions permitted in waters with a tidal range of some 11 metres and a 5 knot current.

All equipment and materials were transferred by hand using an inflatable craft and hand-winch up the tower. Employment of Peter Binding's mv *Mair* enabled heavier items to be lifted by the vessel's crane at slack water, high tide, and regarding the tidal window we were able to take advantage of *Mair's* crew's local knowledge.



Close up of scaffolding on a misty morning.

During the project complete painting of the station was undertaken.

For the duration of the engineering works the Navigation Department agreed the establishment of two temporary

lighted buoys, as defined by the Examiners' Committee, established close to the lighthouse in order that the aid to navigation could be extinguished.



New lanterns.

In all the project involved many people throughout, running through various stages from brief, design, field operations and completion, taking account of safety, risk, costing, planning and procurement considerations.

The two temporary navigation buoys were prepared by staff at Swansea Buoy Yard and established by THV *Galatea*.

Other points to be considered with this project were the daily on-site support and welfare facilities provided in mv *Mair*, the commissioning of the modernised aid to navigation, quality assurance, Examiners' Committee viewing trials and, finally, removal of the temporary buoys ready for the station's handover to Field Operations. During this time members of the team working on the project were provided by Field Operations with daily transport from and to Barry Island where they stayed in local accommodation.

This lighthouse is now monitored and controlled from the Trinity House Planning Centre in Harwich.

Editor's note

This article was first published in the Trinity House Fraternity Review, 2017, and appears here by permission of the Author, the Editor and the Corporation of Trinity House, London.



At low water with mv Mair in background, a survey visit.

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Seafarer shore leave gets extra protection from 1 January 2018

Seafarers' rights to shore leave have been strengthened. This was announced in a briefing issued by IMO on 1 January 2018.

As reported the amendment to the international standard on shore leave adds a new provision, which says there should be no discrimination on grounds of nationality, race, colour, sex, religion, political opinion, or social origin.

Seafarers' rights to shore leave have been strengthened through amendments which entered into force globally on 1 January 2018, under the revised treaty which aims to achieve the smooth transit in ports of ships, cargo and passengers.

Amendments to the Convention on Facilitation of International Maritime Traffic (the FAL Convention) also bring in a new requirement for national governments to introduce electronic information exchange, including electronic data interchange (EDI), to transmit information related to maritime transport. This should be in place by 8 April 2019 it is understood, with provision for a transitional period of at least 12 months during which paper and electronic documents would be permitted.

It is understood, too, that use of a single window for data is encouraged, to enable all the information required by public authorities in connection with the arrival, stay and departure of ships, persons and cargo, to be submitted via a single portal, without duplication.

In addition, a number of standard forms, standards and recommended practices relating to stowaways have been updated.

The FAL Convention has 118 contracting States.

Shore leave

IMO's briefing went on to explain that the amendment to the international standard on shore leave adds a new provision, on top of the requirement to allow crew ashore while the ship on which they arrive is in port.

This new provision indicates there should be no discrimination on grounds of nationality, race, colour, sex, religion, political opinion, or social origin.

Shore leave should be granted, irrespective of the flag State of the ship.

If any request is turned down, the relevant public authorities must provide an explanation to the crew member and the master, which the seafarer or master can request to be provided in writing.



Photo: IMO ©.

Seafarers' rights to shore leave have been strengthened. The amendment to the international standard on shore leave adds a new provision, which says there should be no discrimination on grounds of nationality, race, colour, sex, religion, political opinion, or social origin.

Security and stowaways

The section on preventing stowaways is updated and expanded. National authorities are recommended to apply operational procedures equivalent to those in the IMO International Ship and Port Facility Security (ISPS) Code, to prevent stowaways accessing a ship.

A new standard requires governments, where appropriate, to incorporate legal grounds to allow prosecution of stowaways, attempted stowaways and any individual or company aiding a stowaway or an attempted stowaway with the intention to facilitate access to the port area, any ship, cargo or freight containers into their national legislation.

New FAL Forms

It is reported that updated FAL forms came into effect from 1 January 2018, covering IMO General Declaration; Car-

go Declaration; Ship's Stores Declaration; Crew's Effects Declaration; Crew List; Passenger List and Dangerous Goods.

Three additional documents have been introduced for ships' clearance that may be required by shore authorities, that is: security-related information required under SOLAS; advance electronic cargo information for customs risk assessment and advanced notification form for waste delivery to port reception facilities.

FAL Convention

The FAL Convention, first adopted in 1965, aims to harmonize procedures for ship's arrival, stay and departure from port.

It includes mandatory Standards and Recommended Practices on formalities, documentary requirements and procedures which should be applied on arrival, stay and departure to the ship itself, and to its crew, passengers, baggage and cargo.

The revised annexe, which was developed following a comprehensive review of the treaty, will ensure the convention adequately addresses the shipping industry's present and emerging needs and serves to facilitate and expedite international maritime traffic. The objective is to prevent unnecessary delays to ships, and to persons and property on board.

Maritime piracy and armed robbery reaches 22-year low

IMB report

It was announced from London on 10 January that a total of 180 incidents of piracy and armed robbery against ships were reported to the International Chamber of Commerce's (ICC) International Maritime Bureau (IMB) in 2017. This information was published in the latest IMB report.

Furthermore, this is the lowest annual number of incidents reported since 1995, when 188 reports were received.

In 2017, 136 vessels were boarded, while there were 22 attempted attacks, 16 vessels fired upon and six vessels hijacked.

Fifteen separate incidents occurred in which 91 crewmembers were taken hostage. Seventy-five were kidnapped from their vessels in 13 other incidents. Furthermore, the IMB report informs that three crew members were killed in 2017 and six injured.

A year earlier, in 2016, a total of 191 incidents were reported, with 150 vessels boarded and 151 crewmembers taken hostage.

Beyond the global figures, the IMB report underlined several highlights from the past year.

Persistent danger in the Gulf of Guinea

In 2017, there were 36 reported incidents with no vessels hijacked in this area and 10 incidents of kidnapping involving 65 crewmembers in or around Nigerian waters. Globally 16 vessels reported being fired upon – including seven in the Gulf of Guinea.

In the words of Captain Pottengal Mukundan, Director of IMB: *'Although the number of attacks is down this year in comparison with last year, the Gulf of Guinea and the waters around Nigeria remain a threat to seafarers. The Nigerian authorities have intervened in a number of incidents helping to prevent incidents from escalating.'*



Sentencing Somali pirates

Nine incidents were recorded off Somalia in 2017, up from two in 2016. In November, a container ship was attacked by armed pirates approximately 280 nautical miles east of Mogadishu. The pirates, unable to board the vessel due to the ship's evasive manoeuvring fired two RPG rockets, both of which missed, before retreating.

Six Somali pirates were subsequently detained by European Union Naval Force, transferred to the Seychelles and charged with "committing an act of piracy" where they face up to 30 years' imprisonment, if convicted. Captain Mukundan added: *'This dramatic incident, alongside our 2017 figures, demonstrates that Somali pirates retain the capability and intent to launch attacks against merchant vessels hundreds of miles from their coastline.'*

Mixed results in Southeast Asia

Indonesia recorded 43 incidents in 2017, down from 49 in 2016. The IMB report notes that Indonesian Marine Police patrols continue to be effective in the country's ten designated safe anchorages.

In the Philippines, however, the number of reported incidents has more than doubled, from ten in 2016 to twenty-two in 2017. According to the report, the majority of these incidents were low-level attacks on anchored vessels, mainly at the ports of Manila and Batangas. Vessels underway off the Southern Philippines were boarded and crew kidnapped in the first quarter of 2017. However, alerts broadcast by the IMB's Piracy Reporting Centre (PRC), on behalf of the Philippine authorities, have since helped to avoid further successful attacks.

Launched in 1991, the IMB PRC is a 24-hour manned centre that provides the maritime industry, governments and response agencies with timely and transparent data on armed robbery incidents received directly from the master or owner of vessels.

Reported attacks can be viewed online on the IMB Live Piracy Map.

For further information readers are invited to contact: Captain Pottengal Mukundan, Director, IMB Tel: +44 20 7423 6960 email: pmukundan@icc-ccs.org

About the International Chamber of Commerce (ICC)

The International Chamber of Commerce (ICC) is the world's largest business organization with a network of over 6.5 million members in more than 130 countries. We work to promote international trade, responsible business conduct and a global approach to regulation through a unique mix of advocacy and standard setting activities— together with market-leading dispute resolution services. Our members include many of the world's largest companies, SMEs, business associations and local chambers of commerce.

More information is available at: www.iccwbo.org

The full **Maritime piracy and armed robbery** report is available on request here: <http://tinyurl.com/yax6vrq3>

UNCTAD What lies ahead

On 25 October, UNCTAD's *Review of Maritime Transport 2017* was launched. It included a special chapter on shipping networks and maritime transport connectivity. See: http://unctad.org/en/PublicationsLibrary/rmt2017_en.pdf

UNCTAD has announced that in the coming months it will publish a study on cabotage shipping services, an issue of particular relevance for connecting national, regional and overseas liner shipping services.

From 11 to 13 July 2018, UNCTAD will convene an Inter-governmental Group of Experts on Competition Law and Policy, including a special session on Challenges faced by developing countries in competition and regulation in the maritime transport sector.

See: <http://tinyurl.com/y8b7m8q5>

In September 2018, UNCTAD will launch its 50th anniversary issue of the *Review of Maritime Transport*, with a special focus on long-term trends in international shipping – and consolidation and competition will feature prominently in this analysis.

Also in September 2018, UNCTAD plans to organize an *ad hoc* expert meeting on maritime transport issues, back to back to the first conference of the International Association of Maritime Economists (IAME) to be held in Africa. See <http://www.iame2018.com>

In accordance with its mandate, UNCTAD is carrying out work to help developing countries improve their transport systems and ensure better access to worldwide markets.

From the UNCTAD Handbook of Statistics: Maritime Transport these fact sheets make interesting reading:

#13: *World Seaborne Trade* available here:

<http://tinyurl.com/yicsb5qbg>

#14: *Merchant fleet* available here:

<http://tinyurl.com/y8k6svga>

#15 *Maritime transport indicators* available here:

<http://tinyurl.com/y88ppf9t>

World seaborne trade reached 10.3 billion tons in 2016 after a steady increase over the previous seven years. Since 2009, the volume of goods loaded and unloaded in ports worldwide has grown by 2.4 billion tons. In particular the trade of dry cargo and petroleum products and gas by sea has increased.

The world fleet has grown continuously since the beginning of the 1990s. This growth accelerated in 2005. As a result, in 2017, the world fleet reached 1.9 billion dwt, twice the size it was 12 years ago. Today, bulk carriers account for 43% of the fleet, followed by oil tankers (29%) and container ships (13%).

The top five shipowning States at the end of 2016 were: Greece, Japan, China, Germany and Singapore; together they had a market share of 50% in deadweight tons. The top five flag registries were: Panama, Liberia, the Marshall Islands, Hong Kong SAR, and Singapore. Only three economies, the Republic of Korea, China, and Japan, constructed 92% of world tonnage in 2016. Four economies, those of India, Bangladesh, Pakistan and China, together accounted for 95% of ship scrappings undertaken in 2016.

The economy best connected to the global liner shipping network in 2016 was China, followed by Singapore, the Republic of Korea, Malaysia, Hong Kong SAR, the UK and the USA. Sub-regional leaders include Panama in Latin America, Morocco in Africa, and Sri Lanka in South Asia. The Russian Federation is the best connected transition economy. Within Europe and Eastern and South-Eastern Asia, economies are particularly closely connected with each other by shipping lines.

e-Navigation paves the way for safe and efficient shipping

The eighth in a series of conferences known as e-Navigation Underway, co-hosted by the Danish Maritime Authority and IALA, was held in a vessel steaming Copenhagen-Oslo-Copenhagen from 24 to 26 January. 150 participants from five continents joined the hosts. Debate at the conference was lively with a strong focus on applying digitalization to real world uses, it was reported.

President and CEO at ship owner DFDS, Niels Smedegaard, said during his speech to the conference: 'We have

to speed up on understanding and applying the new possibilities that new technology provides. The development is too rapid for the human mind to keep up. This can cause concern about the consequences of new technology, and we have to be quicker at adapting, which will require both education and new ways of cooperating.'

In a *communiqué* issued by the Danish Maritime Authority (DMA) at the closure of the event it was learnt that some of the specific discussions on digitalization centred on topics such as digital port reporting, cyber security, and how Coastal States can apply new technology to become better at their job. Harmonization and data standardization were other topics attracting interest. Different standards hinder effective digitalization across the maritime sector leading to more, not less, human effort. There is need for the industry to strive for global standards.

Director General of the DMA Andreas Nordseth, emphasised that he is ready to support the development: 'A lot of stakeholders are ready to accelerate the process of digital harmonization, discussions of cyber security standards and so forth in the various international bodies. The technology is here. The industry is ready. It is time for all of us to deliver actual results that make a real world of difference.'

It is understood that many countries are developing digital tools for the maritime world, but they tend to be stand-alone solutions rather than internationally integrated systems. Such an approach keeps the full potential of digitalization from being realised.

The event was supported by CIRM, Nautical Institute, BIMCO and IHO.



During the passage delegates were shown e-navigation products and services.

Photo: DMA ©.

Lifeboats

Norway-based lifeboat manufacturer Norsafe reported early in January that it had developed a modern, partially enclosed lifeboat (known as a PELB) said to provide a secure and protective means of escape for persons in passenger vessels.

The Minima 88 unit is understood to be SOLAS compliant. It is an 8.8 metres loa craft with a width of 4.25 metres and a potential capacity of 150 persons.



The craft has a signal-coloured canopy with white hull and streamlined exterior. There is a spacious cockpit amidships said to provide excellent visibility during embarkation with a good field of vision for the helmsman. Forward visibility is claimed as excellent and a roof hatch in the cockpit enables sight towards the davits during the lifeboat's launching or retrieval.

Fast and efficient embarkation are facilitated through large side doors and seating is arranged on two levels. A mechanical steering nozzle offers optimum manoeuvrability.

According to Norsafe an order has been received for six Minima 88 lifeboats from Xiamen Shipyard in the People's Republic of China for the Finland-based Viking Line for a new ferry under construction and due to come into service in 2021 on Baltic routes from Turku to Stockholm.

Norsafe can also provide crew training at Rosendal, Norway and Lavrion, Greece.

AMVER Assists

Indigo Lake, Star Gran, Express Berlin

News was received towards the end of January that three vessels in the AMVER scheme assisted a lone sailor after a mishap while on passage from Cabo San Lucas, Mexico to Los Angeles, California

US Coast Guard rescue personnel in Los Angeles received notification from the Garmin/Inreach Emergency Call Center that a lone sailor on a 45-foot yacht was disabled and adrift approximately 700 miles west of Cabo San Lucas and requested a mechanic to help him effect repairs to his engine.

Coast Guard, using an AMVER Surface Picture, located the 587-foot bulk carrier *Indigo Lake* which was 340 miles from the yacht. The Master of the Hong Kong-flagged AMVER participant vessel diverted and made preparations to embark the sailor.

Once *Indigo Lake* arrived on scene it rigged a safety net

and pilot ladder and provided a lee for the disabled craft. The sailor aboard declined to abandon ship and instead requested members of *Indigo Lake* make repairs to his engine. *Indigo Lake's* master could not safely board the sailboat and was released by the Coast Guard.

The sailor reported he was able to lower his jib and mainsail and, while the mainsail was tattered, was able to make way towards Los Angeles under sail. Rescue authorities then located the Norwegian-flagged general cargo ship *Star Gran* which agreed to divert and see if they could render assistance. The crew of the 646-foot ship agreed to divert and help. *Star Gran* was able to locate the yacht, secure it alongside and lower the chief engineer to help troubleshoot the engine. *Star Gran* briefly embarked the sailor who was given breakfast and talked to Coast Guard authorities via satellite phone. Ultimately the sailor decided to disembark the AMVER ship and continue his attempt to Los Angeles. *Star Gran* was released by the Coast Guard.

The following day the Coast Guard was contacted by the sailor saying he had turned off his engine to tighten a belt and could not restart his engine. He again requested assistance and Coast Guard rescue personnel, continuing to use the AMVER system, located the container ship *Express Berlin* and requested they divert and assist the sailor. The Master and crew of the *Express Berlin* were briefed on the situation and agreed to help.

Express Berlin arrived on scene, secured the yacht and sent a team aboard to troubleshoot the engine. The engineering crew of the container ship supplied new batteries along with a spare and for a third time, the sailor declined rescue. *Express Berlin* was released only to be recalled after several hours when the sailor stated he was ready to abandon ship. The 76-year old sailor safely embarked the Greek-flagged container ship without injury and at the time of the report was due to remain on board until the next port call in Taiwan.

Express Berlin, managed by Danaos Shipping of Greece, enrolled in AMVER on 25 March 2011 and has earned seven AMVER participation awards. *Star Gran*, managed by G2 Ocean of Norway, enrolled on 1 January 1987 and has earned 27 AMVER participation awards. *Indigo Lake*, managed by Pacific Basin Shipping of Hong Kong, enrolled on 4 November 2015 and has earned two AMVER participation awards.

Stena Crystal Sky

The AMVER participating LNG carrier *Stena Crystal Sky* rescued two people from their 23-foot yacht that encountered severe weather approximately 1,000 miles southwest of Cabo San Lucas on 18 January. The yacht, on passage to the Marquesas Islands, had experienced difficulties and lost auto-steering after encountering severe weather. The two yachtsmen on board had activated the emergency feature of their Inreach device and requested rescue.

Coast Guard authorities conducted an AMVER Surface

Picture and located the 977-foot LNG carrier only 280 miles from the sailboat and requested the ship divert to assist. The Master of the UK- flagged vessel agreed to assist and changed course to find the stricken yacht.

Stena Crystal Sky arrived on scene and, despite wind Force 6 and a ten foot swell, launched a small boat to recover the two sailors from their boat. Within an hour of arriving on scene the crew of the LNG carrier had safely embarked the sailors and left their yacht adrift. The rescued were uninjured and stayed aboard the LNG carrier until it arrived in Panama.

Stena Crystal Sky, managed by Stena Bulk of Sweden, enrolled in AMVER on 13 January 2012 and has earned six AMVER participation awards.

In a statement from AMVER reporting these rescues sailors were strongly encouraged to have a properly registered 406 MHz Emergency Position Indicating Radio Beacon (EPIRB) on their vessel in addition to whatever other communications or emergency texting device they may carry.

***Stena Impero* named in Guangzhou**

The chemical and product tanker *Stena Impero* (illustrated) was named on 31 January in a chilly and drizzly Guangzhou, SE China. She is the last in a series of thirteen sister ships ordered by Stena Bulk at the shipyard GSI (Guangzhou Shipbuilding International) in 2012 and represents an investment of SEK 4 billion (US\$510 million).

Many guests, customers, partners, employees and representatives of the shipyard and corporate management, gathered at the shipyard to attend the solemn ceremony. The naming began with traditional Chinese dancing and music after which godmother Jean Mulholland swung the bottle of champagne against the newbuilding's bow. *Stena Impero's* captain, Vinay Singh, then gave guests a guided tour of the tanker. After her delivery on 7 February she was due to sail on her maiden voyage with a cargo of vegetable oils from Asia to Europe.

In the words of Erik Hånell, President and CEO of Stena Bulk: *'It was exactly three years ago that we took delivery of our first vessel in the IMOIMAX series and the vessels have performed beyond our expectations. Both the technical and the commercial concepts have proved to be very successful and have set a new standard for cargo efficiency and bunker consumption. With the delivery of the Stena Impero, the IMOIMAX fleet is now complete, in line with the order, and is a significant and competitive addition to our high-quality fleet. At the same time, it is an important step forward and a development of our existing sophisticated trading system.'*

'With the last vessel now delivered, I would like to take the opportunity to thank the shipyard GSI for fantastic collaboration with Stena Teknik during the development of the technology and during the three long years of production.'

A traditional donation

In conjunction with the naming ceremony the shipowner by tradition makes a donation to a suitable project at the yard or, alternatively, to a locally important project or organisation. In this case, US\$15,000 was donated to The Guangzhou Children's Social Welfare Home, which was founded in 1957. This facility can accommodate about 1,000 children and has access to medical care, rehabilitation, education and other forms of caregiving for, among others, children with disabilities and orphans.

About *Stena Impero*

Stena Impero is owned by Stena Bulk and will, together with her twelve sisters delivered earlier, sail in one of Stena Bulk's global logistic systems which focus on refined petroleum products, vegetable oils and chemicals. The fleet consists of 60 vessels for carriage of products and chemicals and is operated from Stena Bulk's recently opened office in Copenhagen with support from the company's offices in Singapore, Houston and Dubai and its head office in Gothenburg.



The IMOIMAX concept

IMOIMAX is a vessel concept with focus on flexibility and is a further development of an already well-established concept. The innovative technical design was developed by Stena Bulk and Stena Teknik together with the Chinese shipyard GSI. It offers several advantages such as extra large cargo flexibility, a high level of safety and economical fuel consumption.

An IMOIMAX tanker has 18 separate tanks (3,000 m³/tank), which provides for large freedom of choice as regards combinations of cargoes. The tanks have a Jotun Flexline coating so that they can be easily cleansed and thus used for other cargoes to quickly switch between different markets and thus maximise capacity utilisation.

Technical data: length: 183 metres, beam: 32 metres, deadweight: 50,000 tons.

IMOIMAX fleet list

Name, delivery date and owner

- *Stena Impression*, 2015, Golden Stena Bulk*
- *Stena Image*, 2015, Concordia Maritime
- *Stena Imperial*, 2015, Golden Stena Bulk
- *Stena Important*, 2015, Concordia Maritime
- *Stena Imperative*, 2016, Stena Bulk
- *Stena Weco Impulse*, 2016, Stena Weco
- *Stena Imagination*, 2016, Golden Stena Bulk
- *Stena Immortal*, 2016, Golden Stena Bulk
- *Stena Immaculate*, 2017, Stena Bulk
- *Stena Impeccable*, 2017, Stena Bulk
- *Stena Imperator*, 2017, Stena Bulk
- *Stena Imprimis*, 2017, Stena Bulk
- *Stena Impero*, 2018, Stena Bulk

* Golden Stena Bulk (formerly Golden Stena Weco) is a joint venture between Stena Bulk (formerly Stena Weco) and Golden Agri-Resources (GAR).

Some of the technical solutions that result in more efficient energy consumption and greater logistic flexibility incorporated in the vessel are:

- Main engine auto-tuning
- More efficient boiler with recovery from multiple heat sources
- Recovery of propeller energy loss
- Aerodynamic design of accommodation and bridge
- Flexible cargo handling
- Nitrogen as inert gas

The Nautical Institute launches *Shiphandling Logbook*

Shiphandling is probably the most important skill for mariners and one of the most difficult to practice. The Nautical Institute recognises the value of gaining sea-time and developing shiphandling skills and has now published *Shiphandling Logbook*, launched on 7 February. This logbook aims to provide seafarers with an essential tool to help them manage the development of their shiphandling skills and take advantage of training opportunities.

Mariners will be able to record and reflect on their experiences, provide evidence of what has been learned, identify gaps and be encouraged to take opportunities to learn more, it has been reported

This easy-to-use logbook includes a complete list of manoeuvres and understanding required under STCW. *Shiphandling Logbook* is advertised as an essential tool regardless of ship and trade for those who wish to develop their professionalism.

To purchase *Shiphandling Logbook*, readers are invited to contact: pubs.admin@nautinst.org

400 more cadets each year in UK

More than 400 extra cadets will be trained in maritime roles every year thanks to a £15 million funding boost announced by the new Shipping Minister Nusrat Ghani on 2 February.

This investment, which will double the support for young people to £30 million a year, will be offered through Support for Maritime Training (SMarT), enabling the annual intake of cadets to rise from 750 to 1,200.

Multinational shipping companies, including Carnival UK, BP, Shell, Maersk and Stena Line, have also pledged to create an extra 450 training positions on board ships.

These positions will give SMarT cadets the experience at sea that will help them gain internationally recognised qualifications, setting them in good stead for future careers both within and outside the sector.

This commitment comes shortly after the launch of the Year of Engineering, a campaign to show young people from all backgrounds the variety and opportunities an engineering career can bring.

Shipping Minister Nusrat Ghani said: *'We are building the maritime workforce of tomorrow and I want to encourage more young people to consider an exciting and rewarding career at sea.'*



'By doubling the funding for cadet training, we will help make sure that our engineers and captains of the future can access the right opportunities to reach their full potential.'

'It will also strengthen the UK maritime sector's position as a world leader and ensure people have the skills they need to help the industry flourish after we leave the EU.'

Shipping and ports are critical to supplying the UK's daily needs, with around 95% of imports and exports coming by sea, including 40% of the country's food and at least a quarter of its energy.

By supporting young people wanting to get into maritime

careers the nation will boost a growing sector ensuring that the UK remains the first port of call for shipping companies seeking highly skilled officers.

UK Chamber of Shipping Chief Executive Guy Platten said: *'Nothing will prove that the UK is open for business quite like seeing more British seafarers arrive in the world's ports. We already recruit people from all backgrounds and all corners of the country, and with this new investment we will be able to create thousands of new opportunities in the years ahead.'*

'The taxpayer sees a £5 return on every £1 it invests in seafarer training, so this funding will see the economy and the workforce, as well as the industry better off.'

'Seafarers are highly skilled and well paid, and have the opportunity to build a successful long-term career. We know this funding will help us to unlock the talents of more young people, and it goes to show what can be achieved when government and industry work together.'

It is understood that training places will be offered to those appropriate secondary education qualifications with an interest in becoming a navigating officer, engineer or an electro-technical officer.

Places will be available at training colleges including: Warsash Maritime Academy in Southampton; City of Glasgow College; Lairdsidde Maritime Centre in Liverpool; South Shields Marine School and the Fleetwood Nautical Campus.

The funding will increase annually over seven years to fulfil demand for seafarer training.

In the UK the maritime industry has a crucial role to play in inspiring the next generation of engineers throughout 2018, the (UK) government's Year of Engineering, and is being supported by organisations from across the industry including: the Royal Navy, UK Nest, Seafarers UK, the Maritime and Coastguard Agency, Land Rover BAR and Associated British Ports.

New service developed for assessing Under Keel Clearance

Latest Efficiensea2 advance

A new digital test service could make it easier for mariners to assess how tidal level and weather affect their plans to pass through challenging fairways where shallow water poses a hazard. Initially, for trial purposes, the service covers the Sound between Sweden and Denmark.

When going through shallow passages all around the world, navigators have to manually determine the best time to sail through, taking into account tidal levels, weather impact and the vessel's under keel clearance. Soon, however, this may change as more data is collected and made available.

That is the result of a new digital test service combining detailed bathymetry, constantly updated tide tables and weather reports to show 'comfort zones' and areas to be avoided for vessels with different draughts. The service has been developed by the EU-funded project EfficienSea2 and can be accessed on computers and tablets by those with a login to the web platform BalticWeb (see: <https://balticweb.e-navigation.net/>).

Christopher Saarnak, Project Leader for EfficienSea2 and Chief Adviser at the Danish Maritime Authority, says about the test service: *'It is all about making life more efficient for the navigator so that he or she can focus on manoeuvring the vessel. Rather than asking them to combine data from sea charts, tidal tables, weather forecasts and the vessel's draught, all while navigating the ship, our service would offer a way to do it automatically. In the end, it could free up valuable time for the crew.'*

Automated safety feature

At first, navigators have to check the platform BalticWeb, which is a demonstration platform used to test digital services, on their computer and/or tablet when using the Under Keel Clearance Service. The relevant data will then be added as another layer on charts of BalticWeb, clearly showing where it is unsafe to sail.

With time, however, Christopher Saarnak sees potential for making the service even more useful than it would be currently. He commented: *'The future perspectives for this kind of service are great. The better the data becomes, the less stress will be put on the navigators when sailing. This kind of service will also need to be thoroughly implemented if autonomous ships are ever to truly take off, and we are happy to help them do so.'*

The data for the service is delivered by the Danish Meteorological Institute, the Danish Geodata Agency and the Swedish Maritime Administration.

Enhanced safety with global possibilities

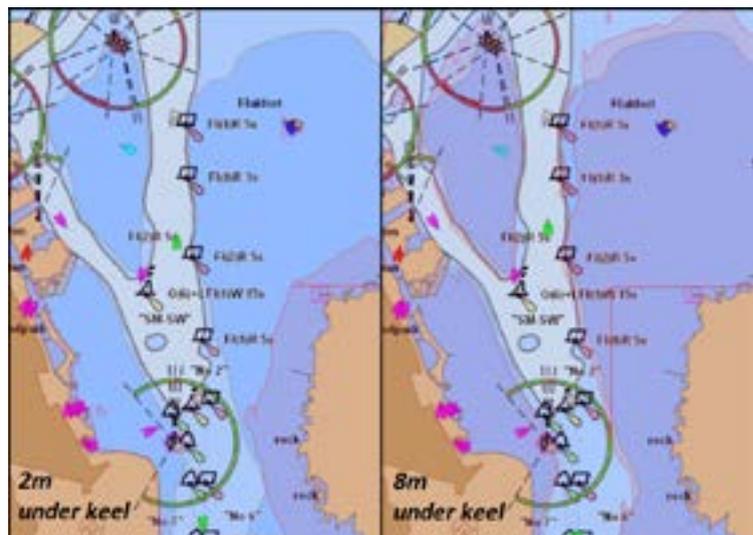
The new test service covers the Danish/Swedish waters surrounding the Sound, but could potentially be adjusted to include other parts of the Baltic Sea and potentially the world.

The service is being delivered to BalticWeb through the MCP – previously known as the Maritime Cloud – which makes it possible for other nations to make their own bathymetric, weather and tidal data more readily available for use in similar services.

Saarnak concluded by saying: *'While knowing your no-go zones is advantageous when just covering the Sound region, it is our ambition to expand the concept to other waters. A wide use of dynamic under keel clearance will give mariners an extra assurance when sailing through passages they are not intimately familiar with.'*

The work done on the new service draws inspiration from

the International Hydrographic Organization working on a production specification (S-129) for Under Keel Clearance as well as from around the world, where a group of countries, perhaps most notably Australia, are investing in similar services.



When mariners test the service, the no-go zones will be highlighted in red to mark areas, wherein it is unsafe to navigate.

Picture: www.EfficienSea2.org EfficienSea ©.

Implementing the 2020 sulphur limit

Ban on carriage of non-compliant high sulphur fuel oil agreed

IMO has agreed to move forward with a prohibition on the carriage of fuel oil for use on board ships, when that fuel oil is not compliant with a new low sulphur limit which comes into force from 2020. The aim of the new limit is to reduce sulphur oxide (SOx) emissions from ships to improve air quality and protect the environment.

The 0.50% limit on sulphur in fuel oil on board ships (outside designated emission control areas or ECAs, where the limit is 0.10%) will come into effect on 1 January 2020.

To help ensure consistent implementation of this regulation, IMO's Sub-Committee on Pollution Prevention and Response (PPR), which met from 5-9 February at IMO HQ in London, agreed draft amendments to the MARPOL Convention on the prevention of pollution from ships (MARPOL Annex VI) to prohibit the carriage of non-compliant fuel oil, such that the sulphur content of any fuel oil used or carried for use on board ships shall not exceed 0.50%.

The exception would be for ships fitted with an approved "equivalent arrangement" to meet the sulphur limit – such as an exhaust gas cleaning system (EGCS) or so-called "scrubber" – which are already permitted under regulation 4.1 of MARPOL Annex VI. These arrangements can be used with "heavy" high sulphur fuel oil as EGCS clean the emissions and therefore can be accepted as being at least as effective at meeting the required sulphur limit. For a ship without an approved equivalent arrangement the sulphur content of any fuel oil carried for use on board shall not exceed 0.50%.

Under regulation 3.2 of MARPOL Annex VI, a ship undertaking trials for ship emission reduction and control technology research can be exempted by the Administration of a Party to Annex VI.

The Sub-Committee forwarded the proposed draft amendments to the Marine Environment Protection Committee (MEPC 72) meeting in April 2018, for urgent consideration. **Once approved by MEPC 72**, the draft amendments could be adopted at MEPC 73 (October 2018) and could enter into force on 1 March 2020 (just two months after the 0.50% limit comes into effect).

To assist with consistent implementation, the Sub-Committee agreed to develop a single set of Guidelines covering all relevant aspects and also agreed the outline of draft Guidelines for consistent implementation of regulation 14.1.3 of MARPOL Annex VI (the regulation on the 0.50% limit). The guidelines would cover:

- Preparatory and transitional issues, relating to how ships can prepare for implementation, including relevant time schedules;
- Impact on fuel and machinery systems resulting from new fuel blends or fuel types;
- Verification issues and control mechanism and actions, including port State control and in-use fuel oil samples;
- Fuel oil non-availability: guidance, information sharing and standard reporting format;
- Safety implications relating to the option of blending fuels;
- Other useful guidance/information that assist Member States and stakeholders, including guidance addressing quality assurance and integrity of the supply chain.

The Sub-Committee agreed the terms of reference for its Intersessional Meeting on consistent implementation of regulation 14.1.3 of MARPOL Annex VI, to be held 9 to 13 July 2018.

A work plan for the Sub-Committee was agreed, to include:

- development of the draft Guidelines for consistent implementation of regulation 14.1.3 of MARPOL Annex VI at the intersessional meeting, with a recommendation that these could be presented directly from the working group to MEPC 73 (October 2018);
- development of draft amendments to MARPOL Annex VI at the intersessional meeting, for finalization at PPR 6 for approval at MEPC 74, with a view to adoption at MEPC 75 (Spring 2020) with an expected entry into force in summer 2021, relating to definition of "Sulphur content" (regulation 2); and testing and verification procedure of in-use fuel oil samples (amend-

ments to regulation 14 and associated consequential amendments to regulation 18 and appendix VI);

- development of draft amendments, as appropriate, to existing guidelines at the intersessional meeting and finalization at PPR 6 for adoption by MEPC 74, namely to the 2009 Guidelines for port State control under the revised MARPOL Annex VI (resolution MEPC.181(59)); 2010 Guidelines for monitoring the worldwide average sulphur content of fuel oils supplied for use on board ships (resolution MEPC.192(61), as amended by resolution MEPC.273(69)); and Guidelines for onboard sampling for the verification of the sulphur content of the fuel oil used on board ships (MEPC.1/Circ.864).

The urgency of the matter was recognised to the extent that MEPC 72 (April 2018) will be requested to consider whether the output on ship implementation planning for 2020 from the PPR intersessional meeting in July 2018 should be forwarded to MEPC 73 (October 2018).

Consistent implementation of the 0.50% sulphur limit for all ships will ensure a level playing field is maintained, with the result that the expected improvement of the environment and human health will be achieved. Sulphur oxides (SOx) are known to be harmful to human health, causing respiratory symptoms and lung disease. In the atmosphere, SOx can lead to acid rain, which can harm crops, forests and aquatic species, and contributes to the acidification of the oceans.



Photo: IMO ©

Black carbon: reporting protocol and most appropriate measurement methods agreed

Black Carbon is the product of incomplete combustion of carbon-based fuels. Black Carbon emissions from ships contribute to climate change as a 'Short-Lived Climate Pollutant'. IMO has been looking at how to measure and report on Black Carbon emissions, as part of its work to consider the impact on the Arctic of Black Carbon emissions from international shipping.

The Sub-Committee agreed the Reporting protocol for vol-

untary measurement studies to collect Black Carbon data as well as most appropriate Black Carbon measurement methods for data collection.

The Sub-Committee encouraged Member States and international organizations to continue to collect Black Carbon data, using the agreed reporting protocol and the agreed measurement methods, and submit relevant data to the next session of the Sub-Committee.

Draft Guidelines for discharge of exhaust gas recirculation bleed-off water agreed

The Sub-Committee agreed draft 2018 Guidelines for the discharge of exhaust gas recirculation (EGR) bleed-off water, for submission to MEPC 73, with a view to adoption.

One method for reducing NOx emissions to meet Tier III NOx emission levels when operating in a NOx Tier III emission control area is to use Exhaust Gas Recirculation (EGR), which is an internal engine process resulting in a NOx reduction which will meet the requirements of the regulation. By means of this process, condensate of exhaust gas will be generated and discharged as bleed-off water, which should be handled differently depending on the fuel oil sulphur content. EGR may also be used as a Tier II compliance option.

The guidelines cover the discharge of EGR bleed-off water.

The Sub-Committee also agreed draft amendments to the NOx Technical Code 2008 relating to certification requirements for selective catalytic reduction (SCR) systems.

Atlantic ship tracks

Image from the Copernicus Sentinel-3A satellite

This picture was released by the European Space Agency (ESA) on 9 February 2018. (See next page.)

The Copernicus Sentinel-3A satellite in orbit over the Atlantic Ocean close to Spain and Portugal shows where the sky not only features clouds but also criss-cross tracks from vessels.

The familiar condensation trails – or contrails – seen in the sky usually come from aircraft, so it might seem strange that ships can also occasionally leave their mark in the sky. This rarely seen maritime twist on aircraft contrails was captured by the Sentinel-3A satellite on 16 January 2018. Known as ship tracks, these narrow cloud streaks form when water vapour condenses around small particles that ships emit in their exhaust fumes. They typically form when low-lying stratus and cumulus clouds are present and when the air surrounding the ship is calm.

As the image shows, several shipping lanes intersect off the coast of Spain and Portugal. Although the Strait of Gibraltar is a busy shipping lane, with numerous ships trav-

elling in and out of the Mediterranean, there are no ship tracks visible here in the image. Most tracks are several hundreds of kilometres off shore.

Like aircraft contrails, ship tracks may also play a role in our climate by reducing the amount of sunlight that reaches the Earth's surface or conversely by trapping the Sun's radiation in the Earth's atmosphere – but this remains an uncertain aspect of climate science, it is reported.

The Copernicus Sentinel-3A satellite carries a suite of sensors including an ocean and land colour instrument, which was used to capture this image, also featured in the Earth from Space video programme to be found at: <http://tinyurl.com/y77d37c6>



Picture credit: Id 389965 / Copyright contains modified Copernicus Sentinel data (2018), processed by ESA, [CC BY-SA 3.0 IGO](https://creativecommons.org/licenses/by-sa/3.0/) © Released 09/02/2018 1000.

Marine mammal avoidance provisions

New information sources to support implementation of the Polar Code

At the IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) in December 2017 a paper on the above was submitted by Friends of the Earth International (FOEI), World Wide Fund for Nature (WWF) and the Pacific Environment and Clean Shipping Coalition.

The joint paper provided several new sources of information on Polar marine mammal habitat, migration routes, and one method of assisting mariner voyage planning through marine mammal areas to assist in the implemen-

tation of chapter 11 of the new Polar Code¹

Introduction

It was reflected that during MEPC 71, the Committee considered document MEPC 71/16/7 submitted by Friends of the Earth International (FOEI), Pacific Environment (PE) and World Wildlife Fund (WWF), which reviewed potential data and communication tools relevant to implementing paragraphs 11.3.6 and 11.3.7 of chapter 11 of the International Code for Ships Operating in Polar Waters (Polar Code).

In the ensuing discussion the Committee “*invited Member States and international organizations to submit to the NCSR Sub-Committee information on the status of their collection of marine mammal information and their communication of this information to masters transiting polar waters*”. In line with this recommendation the joint authors submitted three new sources of information for the Sub-Committee’s consideration. These were the second expanded edition of the *Atlas of the Bering Chukchi and Beaufort Seas*, WWF’s mariner’s guide for the Hudson Strait, and the *Ecological Atlas of the Kara Sea* by the Arctic Science Center.

The joint authors stressed that these publications represent only a fraction of the data available, and that all possible sources of information, especially any up to date peer reviewed studies, be considered.

Background

According to the Polar Code, masters must take into account when considering a route through polar waters “current information and measures to be taken when marine mammals are encountered relating to known areas with densities of marine mammals, including seasonal migration areas,” (paragraph 11.3.6) and “current information on relevant ships’ routing systems, speed recommendations and vessel traffic services relating to known areas with densities of marine mammals, including seasonal migration areas” (paragraph 11.3.7).

Inclusion of these provisions within the Polar Code accounts for both environmental and navigational considerations. As reflected by MEPC’s 2009 guidance on minimizing the risk of ship strikes to cetaceans (MEPC.1/Circ.674) and the 2014 guidelines for the reduction of underwater noise from commercial shipping (MEPC.1/Circ. 833) to address adverse impacts on marine life, the impact of vessel traffic on marine life including marine mammals such as whales or seals has been a topic of growing concern. In addition to ship strikes and underwater noise, marine mammals may be adversely affected by the discharge of oil, greywater, introduction of invasive species through ballast water, or direct habitat disruption caused by vessels traversing near temporary terrestrial resting areas or other ice habitat.

Collisions with large whales have also been recognized as a potential danger to vessels and human life (DE 56/10/19).

breed, and rear their young, as will the polar bears that hunt these seals (Lydersen and Kovacs 1999, Freitas et al. 2008, Derocher 2012).

Icebreaking may negatively impact these species, either by directly damaging concealed lairs, or by creating artificial channels in the ice that may attract seals who treat them like natural openings in the ice. These seals, along with beluga whales which also use areas of open water among the ice, would then be at risk from collision by future ships utilizing the same channel. (Härkönen *et al.* 2008).



Maps of the Hudson Strait showing marine mammal habitat and mariners' routes, along with a guide to species and safe distance.

Many of the cetaceans covered in the Atlas use areas of open water and sea ice during different times of the year, making them susceptible to most forms of vessel-related disturbance. Bowhead whales seem to travel throughout their Arctic range regardless of sea ice presence, often using leads and polynyas to breathe (Nerini *et al.* 1984, Moore and Reeves 1993, Quakenbush *et al.* 2010, Citta *et al.* 2012). They are also commonly found in areas of open water, especially in the Beaufort and Chukchi Seas in the summer and fall as they migrate to these regions for specific activities, such as calving, rearing, and moulting, but forage throughout their range in other parts of the year (Quakenbush *et al.* 2013). As an especially large whale, they are particularly susceptible to ship strike. While other

great whales, such as grey and humpback whales, do not breed in the Arctic, they do venture into these northern waters in substantial numbers during the ice-free Boreal summer and autumn months and are commonly impacted by vessel strike (Clapham *et al.* 1999, National Oceanic and Atmospheric Administration 2017). In addition to collisions with individual great whales, the noise from ships may potentially confuse cetaceans, causing them to delay their migration and putting them at greater risk of entrapment in sea ice. (Laidre *et al.* 2012).

Pacific walrus have a unique relationship with their Arctic habitat. These large, tusked, pagophilic (strong preference for ice) pinnipeds haul out of the water in groups ranging from a few dozen to more than 10,000 (Fay 1982, Simpkins *et al.* 2003). These haulouts have historically been on the sea-ice margin, though continually rising Arctic Ocean water temperatures have caused pack ice to become scarce, forcing Pacific walrus to haul out instead on land and increasing the potential for anthropogenic disturbance including disturbance by nearshore vessels (National Oceanic and Atmospheric Administration 2014). Noise disturbance regularly causes hauled-out Pacific walrus to stampede, resulting in the trampling deaths of hundreds of juvenile walrus a year (Jay and Fischbach 2008, Udevitz *et al.* 2013).

Mariner's Guide for the Hudson Strait

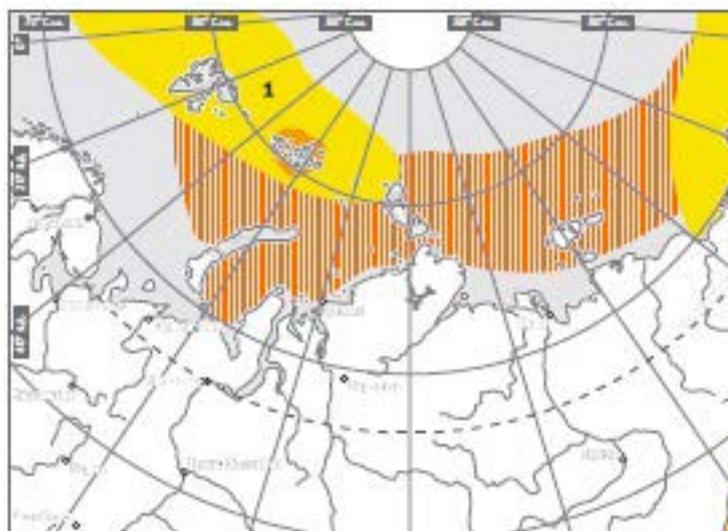
The Hudson Strait is the main corridor connecting Hudson Bay with the Atlantic Ocean and is primed to become one of Canada's major shipping corridors as summer sea ice melts and the open water shipping season expands. This region is home to many Arctic marine species, including polar bears, walrus, and seals, as well as beluga, narwhal and bowhead whales. As the number of voyages rises so do the risks to these species and their habitat, which many northern and indigenous peoples rely on for food and culture.

In 2015, WWF-Canada and a shipping company, Fednav, partnered to produce a comprehensive study on the impacts and risks of shipping through the Hudson Strait (Vard Marine, 2015a). The final report listed several recommendations for mitigating risks and making shipping safer for community members, mariners and marine mammals in the Hudson Strait (Vard Marine, 2015b). As a result, WWF-Canada created the Hudson Strait Mariner's Guide to better equip mariners to reduce their impact on the marine environment, avoid sensitive wildlife areas, and work with communities in the region. The Guide is made up of two large posters for a ship's bridge. The first is a chart that helps mariners identify whales, seals, polar bears and walrus, and provides operational guidance when close to or encountering marine mammals. The second is a set of maps of marine mammal habitat in both summer and winter, as well as an extensive list of contacts so mariners can report sightings and incidents at both the national and community level.

In May 2017, the Guide was sent to shipping company owners, operators and federal regulators. The Guide was

well received by Canadian industry leaders and was used by mariners this past shipping season. For example, one mariner used the community contact numbers provided on the Guide when he had to make an unscheduled stop in the community of Salluit.

WWF-Canada is currently working on producing a second Mariner's Guide for the area including and around the Tallurutiup Imanga (Lancaster Sound) National Marine Conservation Area, located at the eastern entrance of the Northwest Passage. This region is seeing a major increase in ship traffic as activities ramp up at the nearby Mary River iron ore mine. The increase in ship traffic might impact the whales, such as belugas, narwhals, and bowheads, which transit the region every summer en route to their feeding and nursing areas.



Map from the Kara Sea Atlas showing bowhead density and seasonal habitat in the Russian Federation.

While the Tallurutiup Imanga Mariner's Guide will have similarities to the Hudson Strait Mariner's Guide, it will also provide mariners with detailed information on sensitive seasonal times for species and recommended mitigation measures generated from relevant regulations, community concerns, and science. Examples of these recommendations include a 5 km setback distance around walrus haul-outs as well as avoiding ice breaking through caribou sea ice migration routes and community on ice transportation corridors. The Tallurutiup Imanga Mariner's Guide will be released in spring 2018, prior to the summer shipping season.

The data layers from the Mariners' Guides have been shared with the National Research Council for the development to their Canadian Arctic Shipping Risk Assessment System (CASRAS), an integrated database of relevant environmental data with specific application to shipping. This system can be used in planning a voyage and aboard transiting ships to help mariners identify the safest, most efficient shipping routes through the Arctic. Along with weather conditions, physical oceanography and sea ice conditions, mariners will also be able to add marine mammal habitat layers, with notes on where wildlife are likely to

be at different times of the year and recommended mitigation measures.

Russian Arctic Science Center

The Russian Arctic Science Center has also collated information on marine mammal species in its 2017 Ecological Atlas of the Kara Sea. The Kara Sea Atlas is the first comprehensive assessment of the region, and is the first of several planned publications for each area of the Russian Arctic. The center's research was conducted over two large scale aerial and oceanic expeditions from 2013-2016, in conjunction with the company Rosneft. These maps provide a broad guide for high areas of species density, as well as broader areas where species may be present. The maps are available in a physical book at present. An accompanying app, ARctic Book, is also available.

NCSR Sub-Committee action

The Sub-Committee (NCSR) was invited to note the information contained in this document³, and was requested to invite parties to share relevant spatial marine mammal information. The Sub-Committee was, further, invited to consider a mechanism that provides the best available information on marine mammal densities, habitat and use available to mariners to assist them in meeting the requirements of chapter 11 of the Polar Code.

¹Preparation of this submission was assisted by the Environmental Investigation Agency and Audubon Alaska.

² <http://cetsound.noaa.gov/>

³ It was recognized by the authors that Polar marine mammal habitat use is not fully mapped, and will require consistent updates and review as habitat use shifts due to climate change.

Reference IMO Document NCSR-5-22-8.

Safety warning after explosion

Container vessel *Manhattan Bridge*

1 fatality and 1 serious injury

In November 2017 the Japan Transport Safety Board issued a Marine Accident Investigation Report into an explosion in an auxiliary boiler of the container vessel *Manhattan Bridge* when she was berthing at the port of Felixstowe (UK) at around 2304 on 19 January 2017.

In the incident an engine room oiler suffered fatal injuries and the second engineer suffered severe burn injuries when the furnace explosion occurred on the vessel's auxiliary boiler. The oiler and engineer were attempting to restart the boiler after it had suffered a flame failure cut out.

The boiler had tripped out several times due to flame and ignition failures earlier in the day and had been successfully restarted by the second engineer.

Following the accident, waxy deposits, sufficient to cause

intermittent fuel supply problems, were found in the boiler's distillate fuel supply filter.

Fuel samples tested against the latest international marine fuel quality standard identified that wax crystals large enough to block the filters could start to form in the fuel at a temperature of 14°C or below. The air and sea temperature at the time of the accident at Felixstowe was 4°C. The fuel, which was loaded on board two months earlier, had been tested against an older version of the fuel quality standard. The older standard did not include a test to identify cold filter plugging points.

The requirement to comply with increasingly stringent low sulphur emission regulations in sulphur emission control areas (SECAs), such as the North Sea, has increased demand for low sulphur marine gas oils (MGOs). Some low sulphur MGOs have a higher paraffin content and are therefore more susceptible to waxing in cold conditions.

Following the incident the (UK) Marine Accident Investigation Branch issued a safety bulletin (SB1/2017 of June 2017).

The Japan Transport Safety Board (JTSB) conducted an investigation of the accident and its report was issued on 29 November 2017

(see: <http://tinyurl.com/ycvmo2hb>)

Explosion of gas released from cargo

Unprocessed incinerator bottom ash

At 1447 on 13 January 2017, the dry cargo vessel *Nortrader* suffered two explosions in quick succession.

The vessel was anchored in Plymouth Sound and had loaded 2333 tonnes of unprocessed incinerator bottom ash (U-IBA) the day before at Plymouth. The first explosion was in the forecastle store and the second in the cargo hold. The force of the explosion in the cargo hold dislodged all the heavy steel hatch covers and all but one of the holding down cleats were broken. Many of the hatch covers and sections of the hold coaming were distorted.

Nortrader's chief engineer was in the forecastle store at the time, testing the emergency fire pump. He suffered second degree burns and had to be airlifted to a nearby hospital. His recovery was prolonged and he was only declared fit for work again four months later. The vessel was out of service until 20 April.

Of the safety lessons attention is drawn to the International Maritime Solid Bulk Bulk Cargo (IMSBC Code)*. This requires the shipper to provide the vessel's master with a comprehensive list of information about the intended cargo.

The (UK) Maritime and Coastguard Agency has been recommended to update the Merchant Shipping (Carriage of Cargoes) Regulations to refer to the International Maritime Solid Bulk Cargoes Code and to work with the Environ-

ment Agency to ensure that test protocols for the classification of cargoes are fit for purpose.

Furthermore, the (UK) Maritime and Coastguard Agency has set up tripartite agreements between the UK, the Netherlands and several other administrations for the safe carriage of incinerator bottom ash and proposed its inclusion in the International Maritime Solid Bulk Cargoes Code.

This incident is the subject of a (UK) Marine Accident Investigation Branch report and a safety flyer. Both documents are available here: <http://tinyurl.com/yys32hyo>

*see <http://tinyurl.com/ybwdwspa>



Photograph of mv *Nortrader* reproduced by courtesy of MAIB ©.

Annual Maritime Employee Survey

'Rising confidence in shipping industry employment prospects'

In early February international maritime recruiter Halcyon Recruitment and online training provider Coracle published their 2017 report, generated from the ninth Annual Maritime Employee Survey.

The final document reveals rising confidence in shipping industry employment prospects. It was found that shore-based shipping industry employees around the world feel slightly more positive about their employment prospects and are less likely to seek new positions in the near future.

Just over half (56%) of the 2,863 respondents indicated concern over job security while only 28% said that they were considering a job change in the next twelve months. This compares with the findings of the eighth Maritime Employee Survey published in late 2016 which found that 63% of employees were worried about job security and 37% were considering a change of job.

Heidi Heseltine, Halcyon Recruitment Chief Executive Officer, commented: 'The results this year reveal more positivity within the shipping industry as a whole. While there is nothing to suggest a dramatic increase in the number of jobs on the market, shipyard order books are healthier than they have been for months, second hand vessel sale

and purchase activity is up and there is more positive sentiment in the freight markets. This will be likely to have a trickle effect in new positions being created over the next 12-24 months. Interestingly, the results highlighted the ongoing lack of promotion and advancement opportunities – not helped by the flat organisational structure in many companies - as the leading reason for discontent.’

The report looked at the potential impact that the UK’s impending exit from the European Union (known widely as Brexit) will have. Heidi Heseltine observed: ‘The results revealed that 43% of respondents believe that Brexit will have a negative impact on the UK as an attractive location to work and 40% believe it will have a negative impact on the UK as a global shipping centre. The exact nature of the UK’s departure remains uncertain but many organisations are presently either implementing plans or evaluating opportunities to move outside the UK.’

Responses to the much-anticipated survey were drawn from all the key maritime centres and included respondents representing all the major trades working in both commercial and operational roles. The research was undertaken between July and November 2017.

Other key conclusions from the report include:

- Of respondents 37% have received a salary increase and 47% have received a bonus in the last twelve months (both only slightly down from 2016 with the results showing 38% and 49% respectively);
- Those working in the dry cargo sector are faring best with 44% receiving a salary increase and 52% receiving a bonus;
- The tanker segment employees also did well with 52% receiving a bonus however only 35% reported a salary increase;
- Respondents computed at 76% of the study are happy with the bonus they received this year, which has increased from 69% in 2016;
- Those working in the vessel operations and technical/HSEQ* markets were hit the hardest with only a third of respondents in each of these sectors receiving a salary increase;
- A figure of 77% of respondents will go to specialist maritime recruiters when considering a job change before considering other avenues such as LinkedIn, Facebook, and so forth;
- The relationships that individuals have with their line managers is the area with which employees are most content, with 53% respondents putting this first;
- Only 48% of respondents work for employees that provide, pay for or encourage training and personal development;

- Apparently 45% of employees cited lack of promotion and advancement opportunities as the leading reason for dissatisfaction in their current role.

The survey, at 35 pages is available here:

<http://tinyurl.com/y77r2xby>

*Health, Safety, Environment and Quality.

IMO agreement with the EBRD

Early in February it was reported by IMO that it had signed a new partnership agreement with the European Bank for Reconstruction and Development (EBRD). This agreement will help promote sustainable shipping through a range of safety- and environment-focused capacity-building activities in the maritime and port sectors in selected countries.



Generic shipping pic provided by IMO with the announcement.

IMO has thus been brought together with the EBRD, which has experience in supporting comprehensive transport-related development activities and practices in the maritime and port sectors.

A Memorandum of Understanding (MoU) was signed on 8 February (see illustration) by IMO Secretary-General Kitack Lim and the First Vice President of the EBRD, Phil Bennett.

Said Secretary-General Lim: ‘*This strategic partnership, combining IMO’s global mandate and outreach and EBRD’s experience and expertise on investment and finance, is expected to contribute a great deal to sustainable maritime transport and the implementation of the United Nations Sustainable Development Goals (SDGs).*’

As part of the United Nations family, IMO is actively working towards the 2030 Agenda for Sustainable Development and the associated SDGs. Most of the elements of the 2030 Agenda will only be realized with a sustainable transport sector supporting world trade and facilitating the global economy.

The IMO/EBRD MoU represents the first such arrangement to be established between IMO and a multilateral development bank.

In addition to providing investment financing, IMO and EBRD will work together under the agreement to provide technical advisory services, project preparation and planning, capacity building and institutional development, fo-

cusing initially on joint projects with the national authorities of Azerbaijan, Egypt, Georgia, Morocco, Tunisia and Turkey.

Gap analysis will be carried out with specific projects likely to focus on a range of safety- and environment-related issues, centred on implementing and enforcing IMO regulations.



MoU signing referred to in para 3

These projects could include:

- Investment opportunities in sustainable transport.
- Safe transport of solid bulk cargoes and dangerous goods.
- Facilitation of maritime traffic and electronic business and implementation of a maritime single window.
- Identification of locations and business models for port reception facilities for ship-generated waste.
- Sensitivity mapping and oil spill exercises.
- Promoting acceptance and implementation of IMO's 2012 Cape Town Agreement on fishing vessel safety.
- Assessing emissions in ports and developing emission-reduction strategies.
- Looking at opportunities to improve ships in terms of reducing air pollution and greenhouse gas emissions and improving energy efficiency.
- Potential regulatory and policy reforms associated with ships using shore-based power sources in port (known as 'cold ironing').
- Identifying opportunities to invest and propose investment for LNG bunkering infrastructure.
- Risk assessments for marine bioinvasions and identifying key locations for port-based reception facilities and contingency measures, as well as appropriate commercial models.

The First InterManager Ship Managers' Forum

People power and new technologies debated

Blockchain in the shipping industry, the safety culture among crew members, and the changing world of maritime payments were all debated at InterManager's First Interactive Ship Managers' Forum held on 5 February. (<https://en.wikipedia.org/wiki/Blockchain>)

The event was opened by Gary Pogson, Lead Specialist, Marine & Offshore Innovation Team, at Lloyd's Register.

In his address he posed the question: '*Distributed ledger for engineered systems – hype or hope?*'

He added: '*A lot of the hype over the past year or so has been driven by ICOs or Initial Coin Offerings, facilitated by smart contract capabilities on blockchain platforms such as Ethereum – this is the new crowdfunding and the numbers are significant.*'

The interactive conference, attended by around 60 delegates who filled the room in the Lloyd's Register building, saw full audience participation through the online app Slido, which allowed delegates to post questions and comments throughout the conference and guide the debate.

Yuzuru Goto, Managing Director of "K" Line LNG Shipping (UK), spoke about the safety culture of crews and the launch of the "K"ARE Project in the company after it recognised the need to improve the safety culture as many accidents are caused by human error. The project followed a serious incident when a "K" Line- managed ship collided with another vessel in Zeebrugge. The other vessel sank and there was significant damage to the "K" Line vessel.

Goto told the audience you can only shape the safety culture once you embrace failure. He explained: '*When I got the call at 3am I knew immediately that this was not a drill, it was for real. All you can think of is what if the worst has happened and we have lost crew members. Thankfully that did not happen, but there was damage to everything, and the other ship eventually sank. Upon reflection you ask yourself how did this happen and your initial conclusion is it is just bad luck. But when you look at it more deeply you realise it is down to the safety culture.*'

Working alongside ShipMoney, a maritime payments company that facilitates onboard payroll payments through a singular integrated payments platform, Phil Kelly from human performance, training and consultancy company Pro Noctis, delivered a presentation on what feeds your decision making.

Discussing the behaviour of people, Kelly commented: '*Particularly with today's set of millennials, the next generation of leaders want things to be individualised. They want something that is not generic. Add into that automation, artificial intelligence, blockchain, cryptocurrency, and*

the one thing that binds this all together is us as human beings. There has been a lot of focus in your policies, infrastructure and IT and a lot of money invested. But we have forgotten about the people – and that is not just the members of staff, that is right to the top as well. It seems the industry is a bit stuck and fearful of change.'

Continuing the discussion about people, Mark Charman, Founder and CEO of Faststream Recruitment Group, spoke about seafarers and shore personnel and why making the switch from working at sea to shore is a good move for seafarers.

He revealed that through a Perception Versus Reality report Faststream had produced, the majority of seafarers surveyed said they would never make the transition from ship to shore. Out of those questioned, 85% said they were not interested in moving to a shore-based role. He concluded that attraction and recruitment is only going to get harder, saying: *'If you don't bear-hug your seafarers someone else will.'*



InterManager

International Ship Managers' Association
Promoting Excellence In Ship Management

Mark Robertshaw, Senior Vice-president, Sales & Commercial, at Brightwell Payments took to the floor discussing the changing world of maritime payments.

He told delegates that through Brightwell's research, the company has found that the majority of crew members fall into three categories when it comes to their pay. They are: (i) young, single and not necessarily working towards a goal or plan; (ii) those who actively support their family back home and need to get money home to ensure bills are paid; and (iii) those who want to send money home but have the luxury to watch rates and send at optimal times.

Robertshaw commented: *'If you think about it some of your crew get paid in US dollars, but their home currency is not in US dollars, so a lot of employers are saying we will pay you in US dollars. But if you, as an employer, pay your crew members in US dollars but allow the crew member to dictate when they transfer the money to their home bank accounts to benefit from exchange rates, then that is a big plus.'*

How do we find the best seafarers in the world? That was the important question posed by Roger Ringstad, Managing Director of Seagull Maritime. The company runs psychometric testing to conduct ability profiling, For this project Seagull used test results from more than 20,000 individuals.

Ringstad revealed that the DNA of the world's best seafarers is made up of levels of knowledge, accuracy, speed, emotions, energy, affection and control.

Mikael Weis, Chief Operating Officer at ShipServ, an e-marketplace for the marine and offshore supply industries, spoke about how ShipServ is working with Ship Managers to understand and address some of their challenges. ShipServ works with its customers to reduce operating expenditure by process automation, finding suppliers, optimising the supplier base, and analysing and benchmarking.

He revealed that in a survey three quarters of its customers said it was difficult to answer spend questions and the majority understood the need to answer such questions.

Secretary-General of InterManager, Captain Kuba Szymanski reflected: *'We had a fantastic line-up of speakers and a packed out audience for our first Ship Managers' Forum. A lot of important issues were discussed and the interaction from the audience guided the debate. There were so many questions, we did not have the time to answer them all. Thank you to Lloyd's Register for hosting our event and all our Partners who supported the event.'*

Detentions China

On 8 February in Athens Terence Zhao Wei (*pictured*), President and Group MD of Singhai Marine Services made an impressive presentation in the Capital Link's Greek Shipping Forum (2018), urging Greek ship owners to pay particular attention to their port state control inspection regimes.

A captive audience of more than 1000 participants were updated and made aware of the need for careful and detailed preparations in order to fully comply with the PSC inspection requirements and thus avoid risking a ship's detention in port in the People's Republic of China.

There is no doubt that with more ships calling at Chinese ports more are being inspected and, in turn, more are at risk of detention. Furthermore, there is evidence that with the increase in traffic the Chinese authorities have become extremely strict on matters of safety, security, and the environment. In turn, this puts pressure on ship owners.

Zhao said that the rate of detentions is very high in China compared with the Paris and Tokyo Port State Control regimes. He reflected that the number of inspections carried out is also much higher, with evidence that one ship in ten inspected in some ports is detained.

He provided figures in support. Last year nearly 6,707 ships were inspected, with 5,771 booked for deficiencies. Of the inspected ships, 358 were detained, 5.23% of those inspected, a percentage considerably higher than Paris and Tokyo PSC detentions. Chinese inspectors found an average of 3.85 deficiencies per ship. Detentions can lead to a ship being detained for from one to fifteen days, and longer.

There are 55 ports with PSCOs in China, employing 293 inspectors. Zhao warned owners of the need to arrange special training for crew and officers prior to sailing to China.



The Singhai Meeting

Zhao Wai's presentation in pdf form is available here: <http://tinyurl.com/yanmqc3n>

In valuable advice to ship owners in the pdf it is noted that Singhai Marine suggest that those responsible for ships and their management should:

- Study past detention cases and provide specific training for managers and senior officers.
- Understand cultural differences and communications barriers, be prepared,
- Show respect to the PSCOs and the report given.
- Appeal in an appropriate way.

Singhai Marine Services (Singapore) Pte Ltd dating from 2004 / 2005 is accredited, with Government approvals, by the MSA China and MPA Singapore and fully complies with the ILO's Maritime Labour Conventions (2006) on Recruitment and Placement Service Provider legislation. It has DNV GL ISO 9001:2008 certifications for seafarers manning agency services.

Core business is the provision of manning and crew management services for all types of ship, supply of highly qualified Chinese and international deck officers, marine

engineers and ratings and it manages a large talent pool of professional seafarers and aspiring Chinese cadets who are determined to make seafaring their lifelong careers. Locally its seafarer recruitment networks extend from Dalian, Wuhan, Shenzhen and Rizhao and regionally, from Myanmar, Vietnam and Indonesia.

An autonomous surface vessel at work

In mid-January, from Portsmouth, ASV Global announced the successful deployment of one of its C-Worker 7 class of autonomous surface vessels for Subsea 7, a seabed-to-surface engineering, construction and services contractor to the offshore energy industry. The seven metre loa autonomous surface vessel was used to support a pipelay operation off the coast of Egypt.

Fitted with a survey suite comprising a multibeam echosounder and side scan sonar, the C-Worker 7 ASV carried out monitoring in support of the pipelay vessel *Seven Antares*.

A spokesperson from Subsea 7 said: *'The C-Worker 7 has proven to be a very capable vessel providing an excellent stable survey platform controlled by the pipelay vessel.'*

Richard Daltry, Technical Director at ASV Global said: *'We are delighted to be supporting Subsea 7 in their quest to increase operational efficiency through the use of autonomous surface vessel technology. This operation marks a huge step in realising the potential of this technology and goes a long way to prove its operational readiness, particularly in a demanding offshore environment.'*



The C-Worker 7 operated for a total of 37 days. Use of the autonomous surface vessel replaced the need for an additional survey vessel resulting in significant cost savings. The C-Worker 7 also provided greater operational flexibility due to its superior endurance and improved availability compared to an equivalent manned vessel, it was reported.

In addition, use of the C-Worker 7 resolved the technical challenge of surveying in very shallow waters whilst also removing the risk to personnel working at sea in small craft.

A custom payload frame was designed to house the speci-

fied survey suite. The modular frame slotted into the C-Worker 7's moonpool to mount and deploy the sensors. Extensive testing confirmed that repeated sensor deployment was achieved within millimetre accuracy ensuring that no further survey sensor calibrations were required. Vessel trials and testing took place in the Solent, UK before the vessel was mobilised from ASV's UK facility.

Throughout the operation the C-Worker 7 was controlled and monitored using the ASView control system from a control station set up onboard the Seven Antares. Subsea 7 Survey personnel piloted the C-Worker 7 and operated the survey sensors to ensure data accuracy and quality.

Honorary IFSMA Membership for Kitack Lim IMO SG

At a dinner in his honour in London on 6 February His Excellency Kitack Lim, Secretary General of IMO, was presented with his Certificate of IFSMA Honorary Membership. This was granted to reflect upon his immense contribution to the field of maritime safety and protection of the environment and for his breadth of knowledge and diplomatic skills.



Pictured beside him here is Captain Willi Wittig, IFSMA Deputy President.

Also present were: Efthimios Mitropoulos, former IMO Secretary General 2003-2011; Ms. Heike Duggim, Director, IMO Maritime Safety Division; Captain Christer Lindvall, former IFSMA President; Captain Rodger MacDonald, IFSMA Honorary Member and former IFSMA Secretary General; Captain Koichi Akatsuka, Vice President, Japan. Marcel van den Broek, Vice President, The Netherlands; Captain Fritz Ganzhorn, Vice President, Denmark; Captain Jorgen Loren, Vice President, Sweden; Captain Dominique Perrot, Vice President, France; Captain Dan-

ielle Quaini, Guest, France; Captain Rodolfo Vidal, Guest, Argentina; Commodore Jim Scorer, IFSMA Secretary General and Captain Paul Owen, IFSMA Assistant Secretary General.

Kitack Lim from the Republic of Korea was elected Secretary-General of IMO in June 2015 for a four-year period beginning 1 January 2016. He is the eighth elected Secretary-General of the Organization

He was born in Masan, Gyeongsangnam-do, in the Republic of Korea. He majored in nautical science at the Korea Maritime and Ocean University (KMOU), Busan, graduating in 1977. He worked on ships as a Korean naval officer and for an international shipping company. He joined the Korea Maritime and Port Administration in 1985, while continuing with further studies at the Graduate School of Administration, Yonsei University, obtaining a Master's Degree in 1990. He then studied maritime administration at the World Maritime University (WMU), graduating with a master's degree. From 1995 he attended a doctoral programme for international law at KMOU, completing course work in 1998.

Mr. Lim began attending IMO meetings as part of the Republic of Korea's delegation in 1986 and he engaged in activities to promote maritime safety through effective implementation of IMO conventions in his country and other IMO Member States in the Asian region. He was elected Chair of IMO's Sub-Committee on Flag State Implementation (FSI - now III) in 2001 and of the Tokyo Memorandum on Port State Control in 2004.

In 2006, Mr. Lim was appointed Director General of the Maritime Safety Bureau of the Ministry of Land, Transport and Maritime Affairs (MLTM) and then as a Senior Maritime Attaché at the Embassy of the Republic of Korea in London and led all IMO work for the Republic of Korea, serving as a Permanent Representative to IMO up to August 2009. Following that, he was re-appointed Director General for Maritime Safety Bureau (MLTM).

In March 2011, Mr. Lim was appointed Commissioner of the Korean Maritime Safety Tribunal (KMST). In July 2012, he assumed the position of President of Busan Port Authority, until January 2016 when he took up his appointment as Secretary-General of IMO.

Mapping 100% of the world's seabed by 2030

The General Bathymetric Chart of the Oceans (GEB-CO)

The Nippon Foundation is currently undertaking the NF-GEBCO Seabed 2030 project, a global project that aims to map 100% of the world's seabed by 2030.

Bathymetric data plays an important role in addressing a wide range of issues, including helping to secure the safe passage of vessels, contributing to the analysis and

forecasting climate change and tsunamis, the sustainable development of resources, and fishery management. Together with the GEBCO Guiding Committee, the Nippon Foundation (NF) aims to complete the map of the world's seabed by 2030, by compiling existing bathymetric data that has not been released to the public and gathering data for the uncharted areas of the world.



This collaborative project builds on more than 100 years of GEBCO's history in global seafloor mapping.

GEBCO operates under the joint auspices of the International Hydrographic Organization (IHO) and the Intergovernmental Oceanographic Commission (IOC) of UN-ESCO. It is the only long-term international project with a mandate to map the entire ocean floor.



Launch of the project was announced by Mr Yohei Sakakawa, Chairman of The Nippon Foundation, at the United Nations Ocean Conference in June 2017.

Seabed 2030 concept paper

Recommended reading is a paper detailing the background to and need for Seabed 2030, released in February 2018.

The title is: *The Nippon Foundation—GEBCO Seabed 2030 Project: The Quest to See the World's Oceans Completely Mapped by 2030.*

A link is here:

<http://www.mdpi.com/2076-3263/8/2/63/html>

Last October members of the Seabed 2030 Project Team and invited experts met at the UK National Oceanography Centre in Southampton to plan the first stages of this ambitious project. The Team includes representatives of the four Seabed 2030 Regional Centres and the Global Centre.

As part of Seabed 2030, GEBCO will strengthen and expand its links and collaborations with international and regional bathymetric data collecting and mapping organisations in order to build an authoritative global bathymetric model.

Contract for new Lake Tanganyika ship imminent

The contract to build a new ship for Lake Victoria is due to be signed within a short time, says Tanzania's Deputy Minister for Transport & Communications, Engineer Atashasta Ndiye.

The deputy minister was visiting Lake Tanganyika's Kasanga port in Kalambo District in Rukwa Region on 19 February.

He said the new vessel will be able to carry 600 passengers and 200 tonnes of cargo and will operate on the eastern shores of Lake Tanganyika, supplementing the work undertaken by the more than a hundred years old historically important mv *Liamba*.

Ndiye said that the new ship will operate from Kigoma via Katavi and Rukwa in Tanzania to Mpulungu Township in the neighbouring Zambia as well as in Democratic Republic of Congo (DRC) and Burundi with numerous stops in between.

The ship is to be built in the Republic of Korea. In addition to acquiring an additional ship to operate on the lake, Tanzania will be undertaking a major expansion of the port at Kasanga.

Lake transport is vital to the economic growth of the nation, he said, adding that building a new ship will greatly improve and address marine challenges on Lake Tanganyika.

Kasanga Port Manager, Eng Seleman Kazendo said the building of the new cargo and passenger ship will go hand in hand with the major expansion of the Port and upon completion, it will begin serving 18 smaller centres along the shoreline of Lake Tanganyika as well as transporting cargo to neighbouring Burundi and DRC.

Tanganyika has meanwhile installed modern meteorological instruments on Lake Tanganyika, to improve weather forecasting. Source: Tanzania Daily News.

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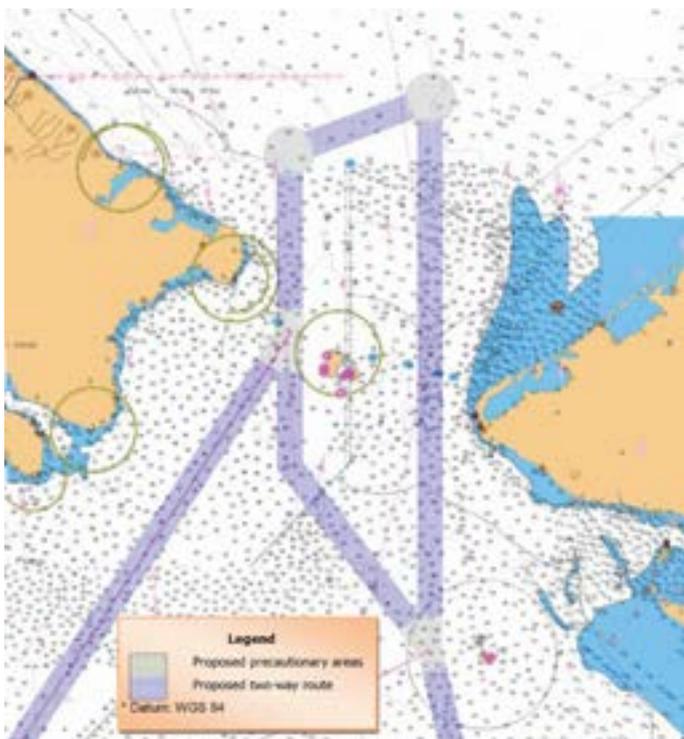
Tanzanian lake steamer Liemba on Lake Tanganyika – still going strong after 105 years.

US, Russia propose Bering Strait ship traffic routing measures

In response to increased Arctic shipping traffic, the United States and the Russian Federation have proposed a system of two-way routes for vessels to follow in the Bering Strait and Bering Sea. This was reported from US Coast Guard HQ in Washington at the end of January.

To view or download the routes readers are invited to see the document here: <http://tinyurl.com/y7q883jg>

The two nations jointly developed and submitted the proposal IMO to establish six two-way routes and six precautionary areas.



Located in US and Russian Federation territorial waters off the coasts of Alaska and the Chukotskiy Peninsula, the routes are being recommended to help ships avoid the numerous shoals, reefs and islands outside the routes and to reduce the potential for marine casualties and environ-

mental disasters.

The proposed two-way routes will be voluntary for all domestic and international ships.

No additional aids to navigation are being proposed to mark the recommended two-way routes and the routing measures do not limit commercial fishing or subsistence activities.

In the words of Mike Sollosi, Chief of the US Coast Guard Navigation Standards Division: *'Over the past decade, the US and Russia have both observed a steady increase in Arctic shipping activity.'*

Increased commercial and recreational traffic bring the increased risk of maritime casualties, said Sollosi, and the bilateral proposal for routing measures is designed to reduce that risk.

He concluded with: *'The U.S. Coast Guard is engaging international and interagency partners across borders in developing joint proposals for ship routes in waterways that we share.'*

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RMS St Helena on her last voyage

HE The Governor of the British Overseas Territory of St Helena, Lisa Phillips, declared 9 February a public holiday on St Helena to allow the island to bid farewell to RMS *St Helena*^{*}, which set sail on her final voyage to Cape Town the following day having served the island for 27 years.

Public celebrations commenced with an open day on the ship for members of the public with tours conducted by her crew and there were huge festivities ashore at James Bay.

Saturday 10 February saw RMS *St Helena*'s crew accompanied by uniformed contingents parade through Jamestown and across the seafront to the wharf. A 27ft paying-off pennant was handed to Captain Adam Williams by Director of St Helena Line, Kedell Worboys.

Accompanied by a flotilla of local craft the ship turned around and steamed past the harbour at speed as the crowd cheered and waved to all on board. Sadly the vessel, the last of two under the Red Ensign to have the prefix RMS-Royal Mail Ship, had to return to the island with a medical emergency and sounded her whistle for the last time when she finally departed on 12 February.

An interesting video on St Helena may be viewed here: <http://tinyurl.com/y7wnwqhe>

^{*}Built by Hall Russell of Aberdeen, completed by A & P Appledore she was launched in 1989. Of 6767gt, 105 metres loa, 19.2 metres breadth.

She carried 156 passengers and 56 crew, also 1800 tonnes of cargo.

Note: There is no breakwater in James Bay, all visiting cruise ships anchor in the bay and passengers are tendered ashore.



Photo: St Helena Tourism ©.

The Nautical Institute appeals for seafarer feedback over S-Mode

Towards the end of February The Nautical Institute announced a consultation to help assess the latest proposals for standardised navigation equipment. The latest suggestions were presented at IMO's fifth session of its NCSR (Navigation, Communication and Search and Rescue) Sub-committee by the Institute and other stakeholders including CIRM (Comité International Radio-Maritime), the Western Norway University of Applied Sciences, and delegation members from Australia and the Republic of Korea.

Navigators' views are sought on the latest concept for S-Mode which is in the closing stages of development before being finalised next year. This is for an 'always on' standardisation of key features to be adopted by the leading manufacturers of navigation systems.

NI Director of Projects, David Patraiko commented: *'The collaboration with industry stakeholders has taken years, however this new approach of standardisation should lead to more effective familiarisation for mariners and ultimately improve the safety of navigation. For many years and particularly with the increased complexity of ship systems, mariners have been challenged when sailing on different ships with different manufacturers' equipment to become familiar with systems that are so safety critical'*.

The new proposal, by CIRM, focuses on:

- 1) A standard approach to hotkeys.
- 2) The establishment of 'essential information blocks'.
- 3) Defining a list of functions that must be accessible by single or simple operator action.

However, these proposals need urgent feedback from mariners before they become enshrined in IMO Guidance due to be finalised next year.

In the words of the NI now is the time for users to have their say and they are invited to visit: www.nautinst.org/knowledge to participate in three short surveys based on these proposals.

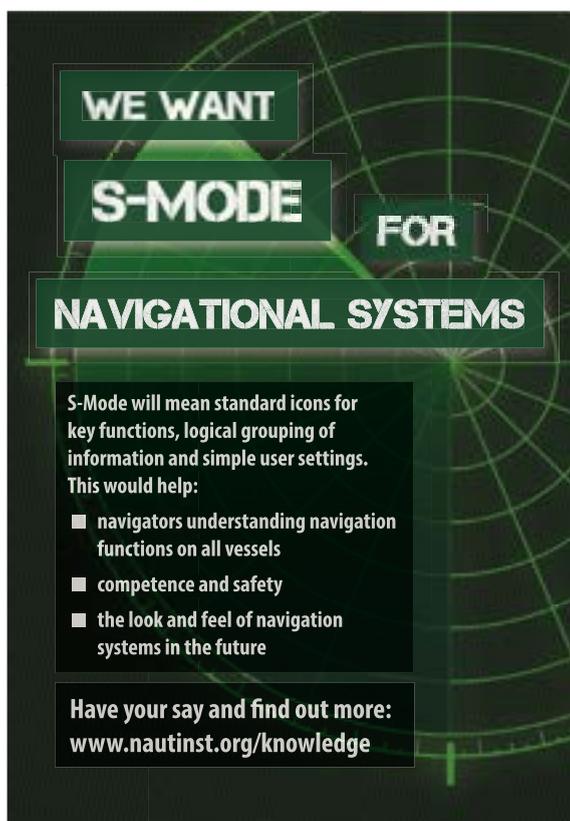
This task can be achieved individually or in groups. The groups might be bridge teams (if Internet is available), or officers in a shipping company or training organisation.

Furthermore, instructions and tutorials are available with the surveys and further background information is to be found including a recorded webinar and full documentation.

In conclusion the NI has conveyed its thanks to the Western Norway University of Applied Sciences, Department of Maritime Studies for these surveys and the analysis.

Urgency is stressed, as these surveys will be closed on 1 June 2018 in order that responses can be compiled.

For more information readers are invited to take a look at: www.nautinst.org/knowledge



**WE WANT
S-MODE FOR
NAVIGATIONAL SYSTEMS**

S-Mode will mean standard icons for key functions, logical grouping of information and simple user settings. This would help:

- navigators understanding navigation functions on all vessels
- competence and safety
- the look and feel of navigation systems in the future

Have your say and find out more:
www.nautinst.org/knowledge

MT Sanchi

On 6 January the Panamanian-flagged, Iranian-owned tanker *Sanchi*, carrying a cargo of 136,000 tonnes of natural-gas condensate from Iran to the Republic of Korea, collided with the Hong Kong-flagged cargo ship *CF Crystal* 160 nautical miles off Shanghai.

Sanchi caught fire and after burning and drifting sank on 14 January. None of her crew of 32 survived. The 21 crew of *CF Crystal* were rescued and landed at a Chinese port.

Within two days of the collision IMO's SG Kitack Lim posted a message of sympathy and prayers for the lost seafarers and commended the rescue and fire-fighting efforts.

This can be seen as another deadly accident that could have been avoided. However, the causes of the incident are still under investigation.



During the IMO Ship Design & Construction Sub-Committee later in the month a shrine (illustrated) was created by the Iranian IMO Delegation in memory of the crew of *Sanchi*. Apart from anything else this served to focus all delegates' attention to the risks faced by seafarers and, furthermore, how much the seafarers of the world depend on the transactions at IMO as it strives to make the seas and seafaring safe and the environment pure.

Danish routeing measures

The IMO NCSR* Sub-Committee has approved the Danish Maritime Authority's proposal for new ships' routeing measures, thereby bringing new routes in the Skagerrak and the Kattegat one step closer and enhancing safety of navigation.

Because of developments in shipping, the vessels transiting these waters today are larger than those for which the routes were originally designed. Approximately 7,000 ships transit the Kattegat each year, the majority of which are deep-draught ships heading for or coming from the Baltic Sea. Consequently, there is a need to extend existing ships' routes, thereby making it easier to keep the traf-

fic separate in accordance with the largest water depths.

Therefore, the Danish Maritime Authority has – in cooperation with the Swedish Transport Agency and the agencies responsible for nautical charts in both countries – developed proposals for new ships' routeing measures in the Skagerrak and the Kattegat.

Director Per Sønderstrup from the Danish Maritime Authority commented: *'Danish shipping is characterised by quality shipping as regards ships, seafarers and the maritime infrastructure. And therefore, we must also have the very best routeing systems in Danish waters that support safety of navigation. I am pleased that our hard work on ships' routes has now reached a milestone. Thereby, we have taken a major step towards the introduction of the new ships' routeing measures.'*

Now, the ships' routeing measures are to be approved by the IMO Maritime Safety Committee this May with a view to being implemented in July 2020.



The new ships' routeing measures consist of the following:

- Two recommended routes between Hanstholm and the Skaw, referred to as Route A and Route B
- A traffic separation system at the Skaw
- Deep-water routes between Læsø and Anholt and east of Grenå
- A new precautionary area north-east of Læsø
- A new Route S along the Swedish coast
- Three new traffic separation systems along Route S. One of them in the northern part of the Sound

*The Sub-Committee on Navigation, Communications and Search and Rescue.

DNV GL and electronic certificates

With the introduction of IMO compliant electronic class and statutory certificates DNV GL has taken classification into new territory, it is reported. It is understood that four months after the launch of this new service, more than 50,000 certificates have been issued by DNV GL in respect of more than 6,000 vessels of the classed fleet now trading, some with one or more certificates. It is understood that digitally signed electronic certificates represent nearly 80% of all certificates issued by DNV GL since the roll-out.

Certificates are published on DNV GL's customer portal immediately after an onboard survey is completed, so that all relevant parties can access the latest certificates from anywhere in the world. No fewer than 52 flag states accept the certificates, with further acceptances expected over the coming year.

These electronic certificates are secured with a digital signature and a unique tracking number (UTN) which can be checked online, assuring their validity and authenticity. Customers can choose to share access to their certificates with stakeholders (charterers, ports, flag administrations, insurers) by using temporary access codes. With the temporary code the stakeholder can directly access the customer's secure certificate folder, bringing the administrative burden on the ship owner down to the absolute minimum.



DNV GL has issued over 50,000 electronic class certificates.

Guidelines for the carriage of Calcium Hypochlorite

Revised Version 3.0 of Joint IG/CINS publication issued

The International Group of P&I Clubs (IG Clubs) and the shipping line members of the Cargo Incident Notification System (CINS) in early January issued a revised version 3.0 of *Guidelines for the Carriage of Calcium Hypochlorite in Containers*.

These Guidelines were first published in May 2016, with version 2.0 issued in January 2017 to take account of the package limit of 100lb drums under US measurement as well as the package limit of 45kg net weight.

As previously advised, the Guidelines can essentially be considered "IMDG Code plus precautions" in that they include selected provisions from the IMDG Code plus additional precautions consistent with the science basis established in 1999 by consulting scientists advising the IG Clubs.

The revised version 3.0 of the Guidelines seek to provide continuity in terms of the referencing of the package limit

and provide clarity as to the nature of the Guidelines.

The IG Clubs are an Advisory Member of CINS and many Club Members are also members of CINS. The IG Clubs take the opportunity to encourage other container line members to enquire about CINS membership, the main purpose of which is to highlight and address risks posed by certain cargoes and/or packing failures in order to improve safety in the container liner shipping industry.

The eight page CINS IGPI *Guidelines on Calcium Hypochlorite in containers* is available here: <http://tinyurl.com/y7z7tapn>

Yemen conflict forces new security recommendations

In response to the threats arising from the conflict in Yemen, BIMCO, ICS and INTERTANKO have published interim guidance on maritime security in the southern Red Sea and Bab al-Mandeb. Ship owners and operators should be aware of new threat patterns in the area. This was the subject of a joint statement towards the end of January.

The European Union Naval Force (EUNAVFOR) and the Combined Maritime Forces (CMF) have advised that a range of threats other than piracy, such as sea mines and waterborne improvised explosive devices (WBIEDs), are potential risks in the area.

In the words of Angus Frew, BIMCO Secretary General and CEO: *'We've been advised that these threats are real, and therefore decided to provide guidance for ships operating in the area. We have seen two incidents in January, and we want to make sure owners and operators are aware and advise their crews accordingly.'*

It is important that company security officers and ship masters are informed of these new threats, as the threat patterns and mitigating measures differ from the more familiar regional threat of piracy.

The guidance stresses the importance of using the Maritime Security Transit Corridor, registration with MSCHOA¹ and reporting to UKMTO², as well as reviewing and updating risk assessments and plans to include these new threats. This guidance also includes advice specific to identified threat types, including WBIEDs and complements the guidance provided in BMP 4³.

ICS Secretary General, Peter Hinchliffe commented: *'This guidance supports the activity of military forces in the region, and adds a further layer to the awareness and preparedness of ships in the region. That trade continues through these waters demonstrates shipping's resilience in the face of such threats. The ability of the industry to successfully risk assess dynamic situations in cooperation with State resources and naval operations ensures the continued safety and security of maritime trade.'*

Dr Phillip Belcher, INTERTANKO's Marine Director added: *'In response to the urgent need, we have produced this practical guide for Masters and seafarers. This will be*

come a valuable planning tool and should provide some reassurance to our industry’.

Interim Guidance on Maritime Security in the Southern Red Sea and Bab al-Mandeb is available on the BIMCO, ICS and INTERTANKO websites.

See here: <http://tinyurl.com/ybq3tkl9>

¹Maritime Security Centre Horn of Africa.

²United Kingdom Maritime Trade Operations.

³Industry Best Management Practices for Protection against Somalia Based Piracy

The BIMCO Dry Bulk Vetting Scheme

BIMCO launched its Dry Bulk Vetting of Terminals scheme on 19 January 2015.

The vetting scheme asks ship owners to complete a questionnaire after visiting a terminal. The answers received are used to create a database on port/terminal practices that will be used for statistical purposes and rating of terminals. The collected data gives a quick overview of the dry bulk terminal's performance. It can be used as guidance for planning future calls at terminals around the world. Shipping companies will, for example, be able to find out if other ships have experienced damage, difficulties or surges at a particular terminal.

This report is the second of its kind and the results are based on data collected from 19 January 2015 to 1 December 2017. BIMCO plans to publish this report annually. The vetting reporting scheme can be found on the BIMCO website: <http://tinyurl.com/yba37phe>

This is the second issue of the report and the data covers the period from January 2015 to December 2017; 115 ships, provided 598 reports, from 278 different terminals around the world.

BIMCO's goal is to get 1000 ships participating in the survey, mainly through networking with members, the media and through speaking about the report at conferences.

In the words of a BIMCO Spokesman *'We need to get the word out all the way to the ship masters. That is the crucial challenge. Because the more reports we get the more valuable it becomes for all the participants and the ship-masters themselves.'*

Generally, the standard is good with over 93% of ports reviewed as average or better, with positive feedback coming from the communication between ship and terminal, the loading and unloading and the standard and maintenance of equipment.

The report was first launched at the start of 2017 and will be available on an annual basis.

Some ports are well below standard

At the other end of the spectrum, a number of ships complained of a lack of language skills when visiting certain ports; permanent pressure on ship/crew and master; unexpected claims; and unnecessary bureaucratic and offensive port authorities.

In addition, ports rated badly when the cost of terminal services was either too expensive or the service was non-existent.

BIMCO's future plans for the vetting of dry bulk terminals will be based on a two-step approach.

Step One will be to have at least 1000 ships participating in the survey in order to provide a robust annual report.

Step Two will follow up on the results by communicating with terminals and other stakeholders with the aim of improving procedures and best practices.

'We would like to encourage shipmasters in the bulk fleets to report their experiences after each terminal call to the dry bulk vetting scheme. The information will be invaluable for our members and the broader industry to help guide the planning of future calls at terminals around the world, and for terminals to improve their service.' The spokesman said.

The BIMCO Dry Bulk Terminals Vetting Report 2017 is available free of charge to download.

For more information and to access the questionnaire readers are invited to go to the BIMCO questionnaire page here: <http://tinyurl.com/yctpz2yx>

Translation of CHIRP Maritime Feedback into Tagalog

New Loss Prevention Video

Britannia P&I Club has sponsored the translation of the CHIRP (Confidential Hazardous Incident Reporting Programme) Maritime Feedback into Tagalog, the national language of the Philippines.

One of the aims of CHIRP is to contribute to the enhancement of global maritime safety by providing a totally independent confidential reporting system for anyone employed in or associated with the industry to use.

Individuals can report on safety breaches, environmental issues, sexual harassment, bullying and health concerns.

Neale Rodrigues, Divisional Director of Loss Prevention, Britannia P&I, said: *'The decision was taken to translate the reports into Tagalog as Filipinos account for about a third of the total population of seafarers. Being able to read the reports in their own language should improve our Filipino colleagues' understanding of the work that CHIRP*

Maritime does and encourage them to report incidents, in the knowledge that they will be treated in total confidence.'

About 47,000 paper copies of the CHIRP Maritime feedback reports are sent to ships, offices and seafarer centres and are read by an estimated 200,000 seafarers and members of the maritime community. Now, with the help of Britannia P&I's sponsorship, 6,000 Tagalog copies will also be sent every quarter.

Andrew Cutler, CEO, Britannia P&I, added: *'As a responsible insurer, we felt it was important to support our Members with information to help them reduce claims. CHIRP maritime provides an invaluable service by reviewing and investigating reports of hazardous incidents and near misses for the benefit of the industry. With this information, our Members can be better informed on how to reduce their risk and keep claims to a minimum.'*

In another move to help encourage best practice and reduce claims, Britannia P&I Club has launched a loss prevention video concentrating on the perils of an over reliance on and a lack of appropriate knowledge of ECDIS.

Set on the bridge of a medium-sized tanker, the video goes through a series of scenarios highlighting the actions of the ship's Master, First Officer, Third Officer and Lookout.

The film to be found here:

<https://britanniapandi.com/videos/> demonstrates how a series of small errors in judgment and a few assumptions, without reviewing all the facts, can lead to a vessel ground- ing and all the implications that this could entail.

HM The Queen marks IMO Anniversary

Seventy years to the day since the treaty establishing the United Nations International Maritime Organization was adopted, Her Majesty Queen Elizabeth II marked the occasion at IMO Headquarters in London on 6 March.

Accompanied by IMO Secretary-General Kitack Lim, Her Majesty unveiled a commemorative plaque and cut an anniversary cake. Her Majesty also met some of the guests attending the event, including representatives of IMO Member States, inter-governmental and international non-governmental organizations, and IMO Secretariat staff.

In the words of IMO Secretary-General Lim: *'We are celebrating 70 years of achievement, in which the truly vital industry of shipping has become safer, cleaner and greener, thanks to the work of IMO. We are also looking ahead to the exciting new challenges on the horizon.'*

'Billions of ordinary people, all over the world, rely on shipping every day of their lives – even if they don't realise it or understand it. It is our role to ensure shipping can continue to make this vital contribution to global well-being.'

The Convention on the International Maritime Organization (IMO) was adopted on 6 March 1948 at the United Nations Maritime Conference held in Geneva, Switzerland.

The convention entered into force 10 years later, on 17 March 1958, when the 21st State ratified the treaty. IMO's first meeting was held in London on 6 January 1959, at Church House in central London.

Since then, IMO Member States have pursued their mission to develop the global regulatory framework for international shipping.



Photo reproduced by kind courtesy of IMO ©.



Willi Wittig, Paul Owen, Hans Sande & Rodger MacDon- ald at the event - Jim Scorer behind the Camera.



All attendees were invited to sign the visitors book, this photo shows Jim Scorer.

The event was very well attended with close to 1,000 IMO Member State representatives as well as IGO and NGO representatives. David Appleton (not shown) also attend- ed to represent IFSMA Member Nautilus International.