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# IF SMA

## NEWSLETTER

The Shipmasters' International Voice



*USCG Vessel Polar Star*

*See article on Page 18*



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## Secretary General's Report

I don't know where the time goes. As always there is so much to do and never enough time – I am sure you know what I mean?

As ever, we have been busy at IMO with the latest sitting of the Navigation, Communications and Search and Rescue Sub Committee (NCSR 7). Those of you that read the Secretariat reports from the meeting at IMO will have seen that yet again I made a very strong statement about the use of AMRDs that employ AIS and DSC frequencies and should be banned. This followed some useful information we have been receiving from one of our colleagues from the United States, (thank you CAMM), on overuse of these devices on fishing gear.

Working with IALA and CIRM we have managed to get a change put into World Radio Regulations that these devices will no longer be manufactured to transmit on AIS and DSC frequencies. However, we have yet to achieve the resolution of their current use so there are still many thousands of these old devices at sea. Our battle for their outright ban will continue. Please keep sending me relevant information of examples seen at sea as it really does make a difference when I can give actual examples at the IMO.

I have been busy working with our volunteer international maritime lawyer on the preparation of a paper highlighting the role of the Shipmaster as part of the ongoing Regulatory Scoping Exercise on MASS.

If you look at the IMO website you will see the papers submitted to both the Legal Committee (mid-March) and Maritime Safety Committee (June) highlighting the key points and seeking the setting up of a IMO cross-Committee Working Group to discuss and take forward our ideas.

We have managed to get the backing of some of the more influential Flag states so I hope this will lead to a well informed and positive international debate. I will let you know how we get on as we need to make sure that IFSMA is seen to lead on this important issue for our industry.

In addition we are co-sponsoring, and have been one of the lead NGOs with ICS and ITF, a paper for the Facilitation Committee (FAL 44 in April) on corruption in our industry and I hope we will be able to make significant progress in starting to get rid of this corrosive and dangerous sickness in our industry.

Finally, on IMO issues, there will be a big debate at the Legal Committee, highlighting the criminalisation of sea-



farers around the world and in particular, the Shipmaster. We again will be one of the key NGOs at the front of this debate and will keep you informed of the outcome.

On the Membership front, I would like to welcome two new members to our Federation:- The Romanian Shipmasters' Association (RSMA) and the International Organisation of Masters, Mates and Pilots of the USA (see <https://bridgedeck.org/>). This is very much a reflection of our increasing profile on the international stage and I hope that you will keep spreading the word of what we deliver on the international stage, at the IMO and elsewhere.

The final important issue is that your Executive Council were delighted to accept the invitation from our colleagues from Ukraine (MTWTU) to hold the 2021 Biennial General Assembly in Odessa. We thank Oleg Grygoriuk, their Marine First Vice Chairman, for his kind offer and we look forward to hearing the proposed dates in the near future. Paul Owen will keep you informed of these dates on our website, and also keep an eye out for the formal Notice of BGA.

## Coronavirus disease 2019 – IMO urges no unnecessary delays to ships

Following reports received regarding the impacts on the shipping industry of the sudden and rapid outbreak of the Coronavirus disease 2019 (COVID-19), IMO issued a Circular Letter\* on 19 February advising Member States and others on implementation and enforcement of relevant IMO Instruments.

The letter urges Flag State authorities, port State authorities and control regimes, companies and ship masters to cooperate, in the current context of the outbreak, to ensure that, where appropriate, passengers can be embarked and disembarked, cargo operations can occur, ships can enter and depart ship yards for repair and survey, stores and supplies can be loaded, certificates can be issued and crews can be exchanged.

The principles of avoiding unnecessary restrictions or delay on port entry to ships, persons and property on board are contained in articles I and V and section 6 of the annex to IMO's Facilitation Convention.

IMO will continue to monitor the situation closely and will provide additional information as and when appropriate.

\*See here: <https://tinyurl.com/ursgqjs>

## The IMO digest

**A summary of some of the news received from the IMO Media service in recent weeks.**

**All illustrations (© IMO) downloaded from and with grateful thanks to [www.imo.org](http://www.imo.org)**

## IMO Technical Cooperation in Asia

In December last IMO reported that the second regional Knowledge Partnership Workshop in Asia was held in Bangkok from 16 to 20 December.

This event was co-organised by IMO, Thailand's Ministry of Transport and UNESCAP – the United Nations Economic and Social Commission for Asia. This workshop was designed to support maritime technical cooperation activities in the region.

Reports indicate that the workshop brought together officials from transport ministries responsible for maritime affairs, and finance ministries with responsibilities for official development assistance.

### The sharing of knowledge, skills and experience

At this gathering participants shared knowledge, skills and experience and met maritime and development cooperation counterparts from around the region. Here they sought cooperation opportunities. There is no doubt that the event increased awareness of maritime issues and prioritised them in national development plans, thus achieving an important objective.



According to the IMO Media service the workshop provided a platform for donors to prioritise their interests and identify the needs and demands of recipient countries. Here also recipients were able to have a better understanding of how to access the various resources available to address their needs. It was apparent that both sides improved their understanding of each other's mechanisms for accessing and delivering funding and support.

### IMO's strategy on mobilising technical cooperation activities

Looking at IMO's new long-term strategy on mobilising resources for technical cooperation activities it was clear that the workshop was a valuable part. It embodied a more proactive and methodical approach for generating new resources. Here also the event encouraged partnerships with IMO Member States and the UN system and

multilateral development banks, through new and innovative projects. Above all the partnership workshop encouraged active communication with potential donors and recipients to highlight the value and benefits of working with IMO and its alignment with the Sustainable Development Goals (SDGs).

Participating Member States and organizations represented at the workshop were: Australia, Bangladesh, Brunei Darussalam, Cambodia, People's Republic of China, Indonesia, Islamic Republic of Iran, the Lao People's Democratic Republic, Maldives, Mongolia, Myanmar, Nepal, Pakistan, the Philippines, the Republic of Korea, Sri Lanka, Thailand, Timor-Leste, Viet Nam and UNESCAP.

## Spreading IMO's liability and compensation regime

Countries bordering the Red Sea and Gulf of Aden have pledged to make progress towards ratifying, implementing and enforcing IMO's liability and compensation regime.\*

This was the result of an IMO workshop held in Dubai from 8 to 12 December and reported by IMO HQ in London later that month.

The regime covered a wide range of pollution incidents, wreck removal, carriage of passengers and luggage – providing a system which enables liability to be determined and ensuring that any compensation due is paid. Countries need to ratify and implement rules and regulations in order for them to be effective, it was emphasised.



Participants from Egypt, Jordan, Oman, Saudi Arabia, United Arab Emirates and Yemen were given a comprehensive overview of the relevant IMO liability conventions. Participants also shared information on their countries' law-making process and implementation of IMO conventions. This also included the drafting of national maritime legislation.

It was reported by the IMO Media service that the United Arab Emirates and Oman indicated their intention to work towards ratifying a number of the treaties concerned.

This workshop was organized by the Federal Transport Authority – Land & Maritime of the United Arab Emirates, in collaboration with IMO.

\*This includes treaties covering wreck removal, salvage, carriage of hazardous and noxious substances, passengers, Civil Liability Convention (CLC) Fund, Bunkers Convention and limitation of liability.

## Boost for IMO-led REMPEC Mediterranean marine pollution response centre

On 6 December IMO reported that Mediterranean coastal states have agreed to increase resources for the IMO-administered Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (REMPEC). The Centre assists Mediterranean coastal states to build national capacities to prevent marine pollution from ships and act in the event of major incidents.



From 2 to 5 December parties to the Barcelona Convention for the protection of the Mediterranean, met in Naples. They recognised the increased workload and new environmental issues (such as air pollution) assigned to REMPEC and the other five regional activity centres. These have been established under the Mediterranean Action Plan\* to support environmental protection in those waters.

At the gathering delegates agreed to new standards and guidelines which have been developed by REMPEC. These include: standards and guidelines under the Offshore Protocol, which aims at protecting against pollution from offshore activities; and guidelines on port reception facilities (Guidelines on the Provision of Reception Facilities in Ports and the Delivery of Ship-Generated Wastes and the Application of Charges at Reasonable Costs for the Use of Port Reception Facilities).

The Mediterranean States also adopted a roadmap towards the possible future designation of the Mediterranean Sea as a sulphur oxides (SOx) Emission Control Area under the IMO regulations for prevention of air pollution from ships (MARPOL Annex VI). A new global sulphur limit for sulphur in ships fuel oil comes into effect from 1 Janu-



ary 2020, cutting the limit for sulphur in ships' fuel oil to 0.50% from 3.50% - but in emission control areas, the limit is even lower, at 0.10%.

IMO and REMPEC were represented at the 21<sup>st</sup> Ordinary Meeting of the Contracting Parties to the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (COP 21), which brought together more than 350 delegates from the 21 Mediterranean coastal states.

In a video message, IMO Secretary-General Kitack Lim stressed the importance placed on IMO's longstanding cooperation with UN Environment in working towards the Sustainable Development Goals, particularly those related to sustainable oceans and seas.

\*<http://tinyurl.com/twzucab>

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## IMO NCSR 7

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**The IMO Sub-Committee on Navigation, Communications and Search and Rescue (NCSR), 7th session, was held at IMO HQ, London, from 15 to 24 January 2020.**

**IFSMA was represented by the Secretary General Commodore Jim Scorer and Captain Paul Owen, Assistant Secretary General.**

This Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) deals with all matters related to navigation and communication, including the analysis and approval of ships routing measures and ship reporting systems; carriage requirements and performance standards for navigational and communication equipment; the long-range identification and tracking (LRIT) system and the development of e-navigation.

It also deals with search and rescue matters and the Global Maritime Distress and Safety System (GMDSS), including recognition of service providers.

Joint working groups reporting to the NCSR Sub-Committee include the ICAO/IMO Joint Working Group on Harmonization of Aeronautical and Maritime Search and Rescue and the Joint IMO/ITU Experts Group on Maritime Radio-communication Matters.

The session approved the following ships' routing measures and referred them to the Maritime Safety Committee (MSC) for adoption:

- An additional two-way route in the Great Barrier Reef and Torres Strait, in Far North Queensland, Australia, intended to serve also as an associated protective measure for the Particularly Sensitive Sea Area (PSSA) in the Great Barrier Reef and Torres Strait. (Australia).
- Amended conditions of use for the two-way route in the TSS "Off Ushant" in order to remove ambi-

guities and take into account technological developments. (France).

- Harmonized and consolidated ships' routing systems in Norway ("Off the western coast of Norway", "Off the coast of southern Norway" and "Off the coast of Norway from Vardø to Røst"), each with traffic separation schemes (TSS) and recommended routes, aiming to optimise the effect of the routing systems and apply them to the same categories of ships. (Norway).
- Amended TSS "Slupska Bank" with the aim of reducing the danger of groundings in the area of shallows detected further east of the existing TSS in and outside the Polish territorial seas, in the southern part of the Baltic Sea. (Poland).

The proposed routing measures will be forwarded to IMO's Maritime Safety Committee (MSC) 102<sup>nd</sup> session in May for adoption and are expected to be implemented six months thereafter.

### Recognition of Indian Regional Navigation Satellite System

The Sub-Committee recommended the recognition of the Indian Regional Navigation Satellite System (IRNSS), as a component of the world-wide radio navigation system (WWRNS) and prepared a circular for approval by the MSC.



### Performance standards for shipborne QZSS receiver equipment approved

The Sub-Committee approved a draft MSC resolution on Performance standards for shipborne Japanese Quasi-Zenith Satellite System (QZSS) receiver equipment, for adoption by the MSC.

The Sub-Committee invited Japan to provide further information and detailed data on the system to a future session, with a view to considering its potential recognition as a future component of the WWRNS.

IMO has an important role in accepting and recognizing navigation systems which can be used by international shipping. IMO currently recognizes the Global Positioning System (GPS), Global Navigation Satellite System (GLO-NASS), BeiDou Navigation Satellite System (BDS) and Galileo Global Navigation Satellite System; and the most recent, the IRNSS mentioned above, is currently awaiting final approval. SOLAS chapter V requires all ships to carry a global navigation satellite system or terrestrial radio nav-

igation receiver, or other means, to establish and update the ship's position by automatic means, for use at all times throughout the voyage.

### **Revised Guidelines for Vessel Traffic Services agreed**

The Sub-Committee finalized the revision of the Guidelines for Vessel Traffic Services to update the version adopted in 1997 (resolution A.857(20)) and referred it to the MSC for approval and subsequent adoption by the Assembly.

### **Modernizing the global maritime distress and safety system**

Search and rescue (SAR) at sea depends on the integrated satellite and terrestrial radiocommunication system known as the Global Maritime Distress and Safety System (GMDSS). The GMDSS is mandatory under the regulations in chapter IV of the International Convention for the Safety of Life at Sea (SOLAS), 1974.



The Sub-Committee continued its ongoing work to review the GMDSS requirements, with the aim of enabling the use of modern communication systems in the GMDSS, while removing requirements to carry obsolete systems. Substantial progress was made in revising the relevant regulations in SOLAS chapters III and IV and preparing consequential amendments to other instruments.

The Sub-Committee endorsed an updated work plan, including categorization and prioritization for the review of other instruments related to the amendments to SOLAS chapters III and IV.

The aim is to finalize the work in 2021, for submission to the MSC, so that the amendments can be adopted in time for entry into force in 2024.

### **Revised SafetyNET Services Manual approved**

The Sub-Committee approved a draft revision of the International SafetyNET Manual, to reflect, among other things, updates to related GMDSS services provided by Inmarsat.

SafetyNET is an integral part of the GMDSS, providing

an international automatic direct-printing satellite-based service for the promulgation of maritime safety information (MSI), navigational and meteorological warnings, meteorological forecasts, SAR related information and other urgent safety-related messages to ships.

A draft MSC circular on the IMO Enhanced Group Call (EGC) Coordinating Panel was also approved, for submission to the MSC for approval. The IMO EGC Coordinating Panel, in cooperation with the International Hydrographic Organization (IHO), the World Meteorological Organization (WMO) and the International Mobile Satellite Organization (IMSO), coordinates the international broadcast of MSI and SAR-related information, using recognized mobile satellite services.

### **Guidance for SAR services regarding aircraft autonomous distress tracking approved**

The Sub-Committee approved interim guidance for SAR services regarding implementation of autonomous distress tracking of aircraft in flight, for dissemination as a COMSAR circular. The guidance material is intended to provide basic information on Autonomous Distress Tracking (ADT), which goes into effect 1 January 2021 as part of the International Civil Aviation Organization (ICAO) Global Aeronautical Distress and Safety System (GADSS). ADT is to provide notification and location of an aircraft in potential distress.

IMO and ICAO hold an annual joint working group meeting on SAR matters. The International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual is published jointly by IMO and ICAO and was also considered at this session.

### **Polar Code application to non-SOLAS ships – correspondence group established**

IMO's Polar Code helps ensure the safety of ships operating in the harsh Arctic and Antarctic areas, taking into account extremes of temperature, and that critical equipment remains operational under those conditions.

The 31<sup>st</sup> IMO Assembly in 2019 adopted a resolution urging Member States to implement, on a voluntary basis, the safety measures of the Polar Code, as far as practicable, on non-SOLAS ships operating in the Arctic and Antarctic, including fishing vessels of 24 metres in length and above and pleasure yachts of 300 gross tonnage and above not engaged in trade.

While the Polar Code is mandatory under SOLAS, this generally excludes fishing vessels, pleasure yachts, smaller cargo ships under 500 gross tons and vessels on domestic voyages. Consideration is now being given to the possible application of chapters 9 (Safety of navigation) and 11 (Voyage planning) of the Polar Code to non-SOLAS ships and how best to enhance the safety of these ships when operating in polar waters.

A correspondence group was established to continue this



work inter-sessionally and report back to NCSR 8 in 2021.

### Revision of guidelines on places of refuge

The Sub-Committee considered a proposed revision to the Guidelines on places of refuge for ships in need of assistance, which were adopted in 2003 (resolution A.949(23)) to provide guidance when a ship is in need of assistance but safety of life is not involved (when safety of life is involved, SAR provisions should be followed).

Following initial discussions in a working group, a correspondence group was established to further develop the draft text and consider what issues should be brought to the attention of the Marine Environment Protection and Legal Committees for their consideration and input.

### Liaison statements to ITU and CEPT ECC approved

The Sub-Committee agreed to draft liaison statements to the International Telecommunication Union (ITU) on revision of recommendation ITU-R M.585-7 on assignment and use of identities in the maritime mobile service, for AMRD Group B using AIS technology; and to the Electronic Communications Committee (ECC) of the European Conference of Postal and Telecommunications Administrations (CEPT), on protection of L-band maritime satellite communications.

### UN agencies collaborate to promote seafarers' rights treaty

One of the main aims of the 2006 Maritime Labour Convention (MLC) is to provide comprehensive protection for seafarers' rights. Although adopted by the International Labour Organization (ILO), it touches on a wide range of areas that are also of direct relevance to IMO, such as hours of work and rest, entitlement to repatriation, abandonment of seafarers and safe manning.



IMO and ILO enjoy a long history of working together on seafarer issues and the latest example of this UN-system collaboration was a workshop held in Lisbon, from 18 to 20 February, organized together with the European Commis-

sion and the European Maritime Safety Agency (EMSA).

This workshop helped all stakeholders, particularly developing countries, build the capacity they needed to ratify and implement the MLC. In this regard, IMO funded the participation at the workshop of thirteen developing countries.

A key objective of the workshop was to help strengthen and harmonize flag State compliance, as well as port State control, which is a vital mechanism for ensuring the provisions of the MLC are being properly implemented on board ships. This was reported by IMO on 20 February.

Another objective was to address financial security and insurance obligations under the MLC, and encourage any deficiencies discovered to be properly reported through appropriate channels. The role of the IMO World Maritime University, the International Maritime Law Institute and the ILO Training Centre in Turin, in supporting effective implementation, was also highlighted.

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### Hollandia Seaways

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#### New and largest DFDS ro-ro ship now trading Gothenburg and Ghent, North Sea Port

DFDS is now using the new ro-ro ship *Hollandia Seaways* on the route between North Sea Port Ghent and Gothenburg in Sweden.

On 5 December, DFDS's largest ship was officially named at the Mercatordok Multimodal Terminal in Ghent, North Sea Port.

The purpose of North Sea Port is to manage, operate and develop the 60 kilometres long cross-border port area from the Dutch port of Vlissingen to Ghent in Flanders. Within this framework, it intends to strengthen the position of the port and industrial complex in the area, both in a national and in an international perspective. North Sea Port employs 250 staff.

*Hollandia Seaways* can carry 450 trailers, representing a cargo capacity of 6,700 line metres. It has a length overall of 237.4 metres. With an extra floor for trailers, this new ship will immediately catch the eye when in the lock in Terneuzen or on the Ghent-Terneuzen Canal. The vessel is said to be not only larger than the three DFDS ships which currently sail between Ghent and Gothenburg six times a week, it will be by far the largest ship in the entire DFDS fleet. This larger vessel will take the place of one of the three existing ships on the route. As a result, capacity will increase by some 600 trailers per week.

#### More trailers loaded and unloaded in the same time

*Hollandia Seaways* features a unique stern ramp system: it has three independent stern ramps which allow trailers to be loaded and unloaded at the same time, significantly shortening time in port. So even though this ship is much

larger, the loading and unloading time remains eight hours but now for 450 trailers instead of 290. Mooring infrastructure and capacity of the gates at the terminal have been adapted for this purpose.



### Scrubbers and shore power

Due to the vessel's large cargo capacity, energy consumption per transported trailer will decrease significantly, it is reported. The ferry is also equipped with a system that scrubs the exhaust gases in order to reduce sulphur oxide emissions. In addition, the ship can be connected to shore power in the port.

### Huge freight ferries built in China

Danish shipping company DFDS is preparing for future growth by having six very large freight ro-ro ferries built at the Jinling Shipyard in China. The first two ships were delivered during the course of 2019 and have been taken into service between Turkey and the EU to meet the growing demand for shipping capacity from logistics companies. *Hollandia Seaways* is the third ship in this series.

## **KVH and Kongsberg digital successfully install first integrated maritime IoT system on active working vessel**

It was announced from Middletown, Rhode Island on 2 January that KVH Industries, Inc. and Kongsberg Digital had successfully installed their first joint maritime IoT system on an active working vessel. It was reported that the team installed a KVH Watch VSAT antenna for IoT connectivity and the Kognifai Vessel Insight platform on *Simrad Echo*, a Norwegian research vessel owned and operated by Kongsberg, which will continue normal operations during the pilot maritime IoT project. Together, KVH Watch and Kognifai Vessel Insight provide an integrated infrastructure for IoT connectivity and vessel-to-shore data.

Maritime IoT is a focus of great interest among ship owners, ship managers, and maritime equipment manufacturers who are seeking ways to improve vessel operations through real-time monitoring and data analysis. This bundled connectivity solution by two leaders in the commercial maritime market, KVH and Kongsberg Digital, is one of the first cases of an active working vessel using an integrated maritime IoT solution.



*Simrad Echo KVH Watch Antenna*

### To ensure 100% availability

*Simrad Echo* will rely on Kognifai Vessel Insight to monitor main and auxiliary systems on the vessel and help ensure 100% availability. For example, the Kongsberg Mapping Cloud application will move high-resolution echo sounding data from vessel to shore in real time so that shore-based experts can provide analysis to optimize vessel operations.

In the words of Vignleik Takle, Kongsberg Digital's senior vice president of maritime digital solutions: *'While Vessel Insight works as an infrastructure for accessing contextualized quality data from a vessel or fleet, KVH is providing an alternative for IoT connectivity that enables the transfer of data from ship to cloud. We are very happy to be able to offer this as a connectivity option to our users.'*

### End to end maritime connectivity

The data flow from *Simrad Echo* will be facilitated by KVH Watch IoT Connectivity as a service, a VSAT solution that leverages KVH's end-to-end maritime connectivity services and high throughput satellite (HTS) network. KVH Watch features two modes: Watch Flow, for 24/7, machine-to-machine data delivery compatible with major IoT ecosystems such as Kognifai; and Watch Intervention, for on-demand high-speed sessions for face-to-face support, remote equipment access, and very large data transfers. The two companies plan to utilize *Simrad Echo* as a platform to develop tighter integrations for remote support and smart bandwidth utilization that will benefit both new and existing customers.

Robert Hopkins, Jr., KVH's senior director of maritime services commented: *'Vessels are complex systems of systems that must work together for the vessel to perform reliably and efficiently. During the Simrad Echo pilot, Watch Flow will deliver a complete view of those systems to shore on a Kognifai Vessel Insight dashboard. One system, Kongsberg Mapping Cloud for very high-resolution*



*bathymetry, is particularly data intensive, making it a great use case for our high-throughput Watch antenna.'*



*Simrad Echo*

KVH and Kongsberg Digital will use *Simrad Echo* pilot programme to continue to enhance their maritime IoT solution, which is designed to enable remote equipment monitoring and performance optimization for vessels ranging from small research vessels to tankers, bulk carriers, and containerships.

*Simrad Echo*, owned and operated by Kongsberg, is using KVH Watch™ IoT Connectivity as a service and the Kognifai Vessel Insight platform as part of an innovative maritime IoT bundled solution

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## **New DNV GL joint industry report offers recommendations for enhanced battery safety on vessels**

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In collaboration with the Norwegian, Danish and US maritime authorities, battery manufacturers, system integrators, suppliers of fire extinguishing systems, ship yards and ship owners, DNV GL has released a new report on battery safety in ships. The report assesses explosion and fire risks in maritime battery installations and the effectiveness of fire extinguishing systems in the event of a battery fire. This was reported by DNV GL from Oslo on 7 January.

In the words of Lars Alvestad, Acting Director of the Norwegian Maritime Authority: *'Batteries onboard ships are both environmentally friendly and cost-effective solutions that we wish to see more of in the future. This project has been important in learning the risks of these systems and using the new insight to improve safety requirements.'*

A battery fire can produce very hot fires, as well as the risk of explosion due to gases produced by the battery. DNV GL's new report presents the results of research on what happens during a fire in a battery compartment, the release of gases, and the usefulness of various extinguishing systems in combatting the fire and preventing explosions. One of the most important findings concerns ventilation systems, which are critical to avoiding an accumulation of explosive gas. The report concludes that ventilation alone will not adequately mitigate gas accumulation if a significant portion of the battery system ignites.

Henrik Helgesen, Project Manager for the research project and Senior Consultant at DNV GL added: *'In addition to fire suppression and ventilation, the battery design must have preventative safety barriers so that the fire and gas emissions are limited to as small a part of the battery system as possible.'*

This report provides new recommendations on ventilation systems, based on a newly created model which identifies the appropriate size and type of ventilation system based on a vessel's battery installation. Early fire and gas detection are also essential, meaning that the gas sensor should be located as close to the battery as possible.

Launched in 2017, the research project draws on the experience of a wide range of maritime stakeholders. To conclude Denis Cederholm-Larsen, Senior Ship Surveyor at the Danish Maritime Authority commented: *'It is very important for us to work closely with all parts of the industry and understand the full picture as we work to promote safety in our regulatory development work.'*

### **Contributing partners**

The following partners have contributed to the research:

- The Norwegian Maritime Authority
- The Danish Maritime Authority
- The Maritime Administration (MARAD)
- Norwegian Defence Research Establishment (FFI)
- Corvus Energy, supplier of maritime battery systems
- FIF14MARINE, supplier of Lithium-ion fire extinguishing systems
- Nexceris, developer of technology for battery gas sensors
- Kongsberg Maritime (former Rolls Royce Marine AS), supplier of propulsion technology
- ABB, supplier of propulsion technology
- Stena, ship owner and ferry operator
- Scandlines, ship owner and ferry operator

- Damen, ship yard
- Marioff, supplier of fire extinguishing systems
- Leclanche, supplier of battery systems
- Super-B, supplier of battery systems
- DNV GL



*DNV GL's Large Battery Destructive Test Chamber in Rochester.*

The report can be downloaded here:  
<http://tinyurl.com/s5kwr7n>

## Digital Waves Project

### Columbia Ship Management Ltd and the Cyprus Marine and Maritime Institute sign MoU

Columbia Ship Management Ltd (CSM) and the Cyprus Marine and Maritime Institute (CMMI) have signed an MoU to launch Digital Waves, which constitutes a comprehensive joint innovation programme to explore the digitalisation of certain domains of the maritime industry. This programme includes research and innovation in domains such as the gathering of data on ships and other stakeholders coupled with the latest trends in connectivity and artificial intelligence (AI). This was reported from Limassol on 9 January.

Digital Waves will have a global perspective and address domains including the sensorisation of ships, augmented and virtual reality, the gathering and grooming of data using 5G and edge-cloud technologies combined with modern trends in machine learning and cognitive artificial intelligence. Parts of such technologies have already begun to be implemented in the maritime sector as well as in the manufacturing sector through the Industry 4.0 Revolution.

Digital Waves will explore these modern technological trends and combine them into an holistic programme which is expected to contribute to significant efficiencies, cost savings, and strategic transformation. It is understood that the programme will also analyse the value-chain of the maritime sector and investigate potential transformations of the business model.

CSM and CMMI have assembled a team of international experts who will investigate the current market and innovate with new products and services which will, in turn, be offered to the sector through targeted solutions.

Digital Waves' joint innovation programme has already started and has been divided into three phases. To gain a deeper understanding of the Present Mode of Operation (PMO), the first phase involves strategic analysis of the main issues faced by maritime industry stakeholders. The second phase will involve testing and implementation in real-time maritime environments. The final phase will be the development of digital products and solutions.

This strategic partnership will enable CSM and CMMI to extend their services to other areas of mutual interest. Both companies are committed to making the shipping industry safer and more sustainable, it is reported.

In reference to Digital Waves, Mark O'Neil, President of CSM, commented: *'As we enter the new year and a new decade amid the beginning of fundamental digital transformation in shipping, we envisage, through Digital Waves, to benefit from the combination of the rise of improved and cost sustainable connectivity and digitalisation to transform every aspect of the ship management model over the next three decades with a primary focus on safety and efficiency to the benefit of our clients.'*

Zacharias Siokouros, CEO of CMMI added: *'We are very excited that only a few weeks after CMMI set sail – having received great support in funds and resources from the EU, the Cyprus Government and our industry and academia partners – we are now embarking with Columbia Ship Management on a voyage of exploration into the Sea of Big Data.'*

*'A voyage that promises a lot of opportunities. And for this, I would like to thank my colleagues at CMMI and our partners at Columbia who have worked over the last few weeks with exceptional professionalism and dedication and have prepared its passage plan which we are today signing with Mark.'*

*'Digital Waves is without a doubt an innovative project that will develop world-class solutions to address issues beyond the boundaries of our region.'*

### About Columbia Ship Management

With over 40 years of tradition, commitment and professionalism, Columbia has established its position as a world-class ship manager and maritime service provider. CSM is at the forefront of shipping digitalisation and is a key contributor to the technological revolution in the maritime industry. CSM is positioned as the ship manager of the future through its Performance Optimisation Control Room (POCR) which provides 24/7 expert monitoring of its fleet. The POCR optimises operations in all areas of vessel safety, crew rotation and training, maintenance and fuel efficiency.





Mark O'Neil, President of Columbia Ship Management and Zacharias Siokouros, CEO of CMMI following the signing of the MOU to launch Digital Waves, Limassol, 9 January.

### About the Cyprus Marine and Maritime Institute (CMMI)

CMMI, is an independent, international, scientific and business Centre of Excellence for Marine and Maritime Research, Technological Development and Innovation that aims to be driven by the needs of the Industry and Society in addressing the major Challenges that the Marine and Maritime sectors face. CMMI, was established earlier this year following its selection for funding under the EU's HORIZON 2020 Programme, Spreading Excellence and Widening Participation Call, after a three-year highly competitive evaluation process among approximately 200 proposals at EU level. It was awarded €30 million funding from the EU Commission and the Cyprus Government while more than €25 million are to be provided by partners and industry and academia stakeholders mainly as in-kind contributions.

## THE Alliance Unveils Expanded Service Network for 2020

- Filing of Hyundai Merchant Marine (HMM) to join as a full member of THE Alliance became effective.
- New service structure: 33 services; coverage of 78 ports throughout Asia, Europe including Mediterranean, North and Central America, the Middle East, Red Sea and Indian Subcontinent.
- Deployment of over 280 efficient container vessels with expanded capacity allowing the implementation of enhanced service coverage with enhanced frequency, rapid transit times, and more comprehensive port coverage.

On 16 September it was reported from Singapore that members of THE Alliance, Hapag-Lloyd, Ocean Network Express, and Yang Ming are happy to welcome Hyundai Merchant Marine as a new core member of THE Alliance.

With the acceptance of HMM membership, THE Alliance offers an attractive upgraded product package and it will be launched around 1 April 2020. Based on the existing comprehensive network of THE Alliance, the newly enhanced product package will offer increasing frequency particularly from South East Asia, as well as new direct port coverage and improved transit times. The upgraded service package includes:

- A new pendulum service replacing the existing Asia-Europe FE5 and Transpacific PS7 services with a new highly efficient design. This new service, to be further named, will be operated by 18 modern 14,000+ TEU ships and provides added weekly Transpacific coverage between South East Asia and Southern California, thereby expanding the number of services directly covering this lane to three, in addition to FP1 and PS3.
- A modified PS3 will offer new direct coverage of Haiphong creating more value and choice for the customers.
- Further to the enhanced Transpacific coverage of South East Asia, a new Transpacific loop, PS8, focusing on Central China and Korea (including new coverage of Incheon) will be inaugurated around 1 April 2020.
- For Asia and North Europe, the group will deploy two efficient 20,000+ TEU vessel services in a newly revised FE2 and FE4 design which will bring economies of scale and positive environmental benefits.

This newly upgraded service network will offer the respective clients better choices with much broader coverage and improved service frequency.



THE Alliance will continue to bring innovative product solutions to the East/West Trades. THE Alliance members will continue to provide updates on the upcoming product changes as we approach the new service launch.

## Cargo shift and damage to vehicles on ferry *European Causeway*\*

North Channel, between Scotland and Northern Ireland

18 December 2018  
MAIB Report No 3/2020

See here: <http://tinyurl.com/rfyt98>

At 0633 on Tuesday 18 December 2018, the ro-ro passenger ferry *European Causeway* rolled heavily in very rough seas and very high winds during its voyage from Larne, Northern Ireland to Cairnryan, Scotland. During the passage the vessel encountered winds from SSE, force 11, with a high sea state and low swell.

Violent motion caused several freight vehicles to shift and nine to topple over. This resulted in damage to 22 vehicles, some damaged severely. At least six freight vehicle drivers had remained in their cabs on the vehicle decks during the crossing and four were found in cabs of vehicles that had toppled over. One driver was trapped and had to be freed by the emergency services when the ship arrived in Cairnryan.

The MAIB investigation found that:

- The route being followed had not been adjusted sufficiently to mitigate the effects of the sea conditions and reduce the likelihood of severe rolling.
- The cargo lashings applied were insufficient for the forecasted weather conditions.
- The ship's approved cargo securing manual provided limited guidance to ship's staff.
- Drivers remaining in their vehicles during the ferry's passage, in contravention of international regulations and company policy, was not uncommon and is an industry-wide issue.

The MAIB issued a safety bulletin on 26 March 2019 entitled *Safety warning about drivers remaining in vehicle cabs while ferries are at sea*, which has been widely promulgated by the (UK) Road Haulage Association. The publication is available here: <http://tinyurl.com/qtw28fu>

This bulletin highlighted the dangers posed to freight vehicle drivers who remain in their vehicle cabs while on board ro-ro ferries at sea.

A recommendation has been made to P&O Ferries Ltd to amend its Safety Management System to provide best practice guidance on the lashing of cargo in heavy weather.

The International Convention for the Safety of Life at Sea 1974 (SOLAS), as amended, required cargo units and cargo transport units on board ships to be loaded, stowed

and secured throughout a voyage in accordance with the Cargo Securing Manual (CSM) approved by the Administration. *European Causeway's* CSM was initially approved by Lloyd's Register (LR) on behalf of the Administration on 20 December 2000. It had been amended several times; most recently in May 2016, and had been approved by LR on 4 June 2016.

### Conclusions

- The accident occurred because *European Causeway* rolled heavily in rough seas and its cargo had not been adequately secured.
- The weather conditions had been forecast and the accident would almost certainly have been avoided had *European Causeway's* sailing been delayed until 0900 when the wind speed, as forecasted, dropped significantly.
- The night master's decision to sail in heavy weather was influenced by the decision of *European Highlander's* more experienced master.
- The passage plan was not altered to minimise the potential effects of the prevailing and forecast weather conditions and the night master's intent was not clearly communicated to the OOW. Either action could have avoided heavy rolling.
- The freight vehicles were not lashed in accordance with the guidance provided in the MCA's Code of Practice *Roll-on/Roll-off Ships - Stowage and Securing of Vehicles*.
- The ship's approved CSM and the company SMS did not provide sufficient guidance to staff about stowage techniques or the number and disposition of lashings to be applied for adverse weather conditions, and relied upon the master's experience and discretion.
- The passengers who remained in their vehicles during the passage endangered themselves and compromised the safety of other passengers and crew. This problem is not unique to P&O Ferries Ltd and requires industry-wide collaboration to eliminate it.

In conclusion we are able to report that Andrew Moll, Chief Inspector of Marine Accidents, said: '*The MAIB investigation identified that the forecast weather conditions had not been sufficiently considered when setting the course of the ship, nor the application of lashings to freight vehicles loaded aboard. The investigation further highlighted the problem of freight drivers remaining in their cabs on the vehicle deck when the ferry is at sea. Drivers remaining in their vehicles not only put themselves at risk, they place at risk other passengers, and anyone who has to rescue them. Perhaps, most importantly, crucial emergency responses, such as to a fire, can be delayed until all passengers are accounted for.*



*'I have written to the senior management of short sea ferry companies around the United Kingdom to further highlight the dangers posed by freight drivers remaining on vehicle decks, and to encourage them to take a collective approach to eliminate this dangerous practice.'*

*'In addition to the work that they have already undertaken, we have recommended that P&O Ferries Ltd enhance their safety management system, to provide ship's crew with better guidance concerning the stowage and lashing of freight vehicles in adverse weather conditions.'*

## Acknowledgement

**We are most grateful to MAIB for approval to publish the details above taken from the twelve-page report No3 /2020**

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\*Ro-ro vessel built 2000, of 159.5 metres loa, 20,646 gt, on a coastal voyage with a crew of 56 and 52 passengers, 3 cars, 40 accompanied freight vehicles, 2 unaccompanied freight vehicles, 36 semi-trailers and 5 minibuses.

## IMB Annual Piracy Report



### Unprecedented number of crew kidnappings in the Gulf of Guinea despite drop in overall global numbers

It was reported from London and Kuala Lumpur on 14 January that despite overall piracy incidents declining in 2019, there was an alarming increase in crew kidnappings across the Gulf of Guinea. This is according to the International Chamber of Commerce's International Maritime Bureau's (IMB) annual piracy report issued the same day.



In 2019, IMB's Piracy Reporting Centre received 162 incidents of piracy and armed robbery against ships world-

wide, in comparison to 201 reported incidents in 2018. The incidents included four hijacked vessels, 11 vessels fired upon, 17 attempted attacks, and 130 vessels boarded, according to the latest IMB figures. While the overall decline in piracy incidents is an encouraging development, vessels remain at risk in several regions, especially the Gulf of Guinea.



### Gulf of Guinea

The number of crew kidnapped in the Gulf of Guinea increased more than 50% from 78 in 2018 to 121 in 2019. This equates to over 90% of global kidnappings reported at sea with 64 crew members kidnapped across six separate incidents in the last quarter of 2019 alone.

The region accounted for 64 incidents including all four vessel hijackings that occurred in 2019, as well as 10 out of 11 vessels that reported coming under fire.

In the words of Michael Howlett, Director of the ICC International Maritime Bureau: *'We remain concerned that this region has recorded an unprecedented rise in crew kidnaps. These latest statistics confirm the importance of increased information exchange and coordination between vessels, reporting and response agencies in the Gulf of Guinea Region. Without the necessary reporting structures in place, we will be unable to accurately highlight the high-risk areas for seafarers and address the rise of piracy incidents in these persistently vulnerable waters.'*



### Singapore Straits

Similarly, the Singapore Straits experienced a rise in armed robbery attacks with 12 reported incidents in 2019, including 11 in the last quarter of 2019. The same region accounted for just three incidents for the entirety of 2018.

IMB's latest figures also report that vessels were successfully boarded in 10 incidents across the region last year. Despite this rise, IMB considers the intensity of the attacks in the Singapore Straits to be 'low level' and usually limited to armed robbery from the vessel.

Howlett added: *'This is a distraction and potentially dangerous for the crew in control of the vessel whilst navigating through these congested waters'*, continued Howlett. *The IMB PRC is grateful to Singapore law enforcement agencies for responding promptly to some of these incidents.'*



## Indonesia

Armed robbery attacks in Indonesian ports are down from 36 incidents in 2018 to 25 in 2019. Dialogue and coordination between the Indonesian Marine Police (IMP) and the IMB PRC has led to a decrease in regional incidents, according to the report.

Elsewhere, in the Indian sub-continent, Bangladesh reported zero incidents for 2019. This is the first time since 2015 that no piracy or armed robbery incidents have been reported around Bangladesh



## No incidents in Somalia, but risks remain

Across the Indian Ocean, Somalia reported zero piracy incidents, yet the IMB PRC advises that vessels and crews remain cautious when travelling through the region. In particular, the report warns that "Somali pirates continue to possess the capacity to carry out attacks in the Somali basin and wider Indian Ocean."

As with all piracy-related incidents, IMB urges all shipmasters and owners to report all actual, attempted and suspected piracy and armed robbery incidents to the IMB

PRC. This first step in the response chain is vital to ensuring that adequate resources are allocated by authorities to tackle this crime.

## Guidelines for the Carriage of Seed Cake in containers

### Newly published

With the title *Guidelines for the Carriage of Seed Cake in Containers* this was published on 20 January jointly by the CINS (the Cargo Incident Notification System) and the International Group of P&I Clubs. The document is available to download from the CINS website here: <http://www.cinsnet.com/newsy/>

"Seed Cake" is the term used for pulp, meals, cake, pellets, expellers and other similar cargo, where edible vegetable oils have been removed from oil-bearing seeds, cereals or commodities with similar properties .

The practices set out in the document are intended to improve safety during the carriage of Seed Cake and to ensure that it is declared, packaged and carried properly. Seed Cake shall be transported in compliance with the requirements set out in the IMDG Code. Practices set out in these Guidelines include selected provisions from the IMDG Code plus additional precautions to enhance its safe carriage.

Seed Cake is the term used for pulp, meals, cake, pellets, expellers and other similar cargo where edible vegetable oils have been removed from oil-bearing seeds, cereals or commodities with similar properties.

Trade names under which Seed Cake may be presented for shipment include, but are not limited to, those listed below:

- Animal feed
- Copra extraction pellets
- Groundnut meals
- Palm kernel expellers
- Peanut (oil) cake
- Peanut meal
- Seed meal, oily
- Soya bean meal
- Sunflower (seed) meal.

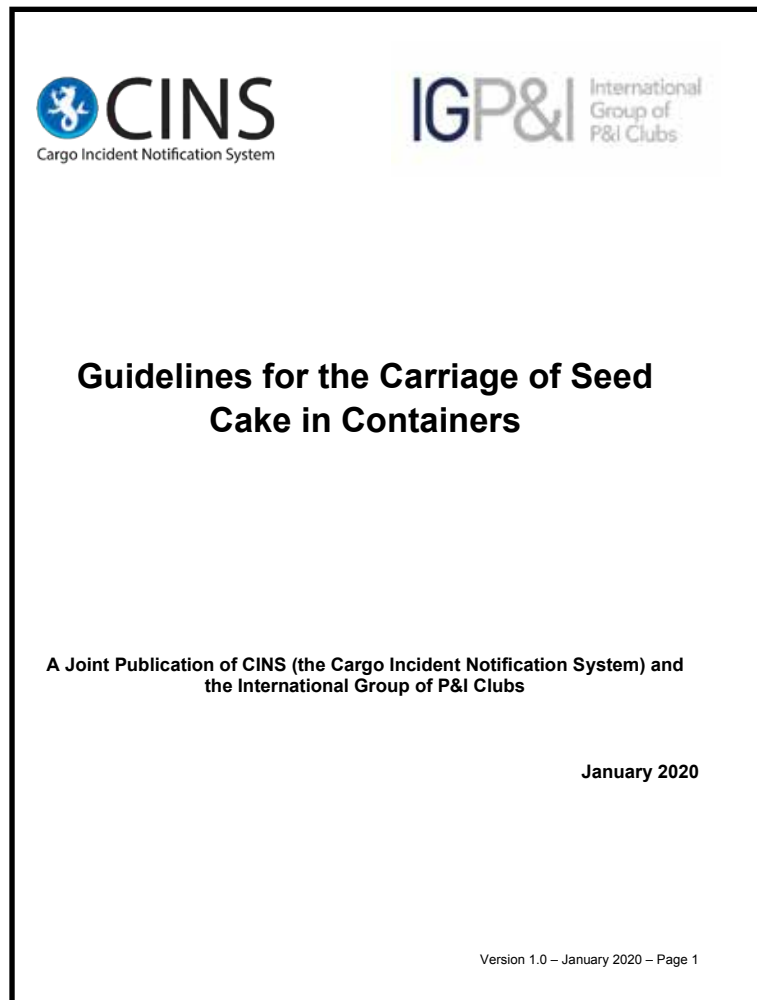
According to CINS the presence of oil and moisture in Seed Cake cargoes can, through a combination of microbiological activity and oxidation, cause self-heating. Microbiological self-heating, driven by the inherent moisture content, can raise the temperature of the cargo to a point where oxidation of the residual oil occurs. This oil oxidation can result in further self-heating occurring.

The document referred to above indicates that while all self-heating is usually initially slow, oxidative self-heating can be much faster than microbiological heating and may raise the temperature high enough for the cargo to ignite



spontaneously. Therefore, the higher the moisture and oil content the higher the risk of self-heating and spontaneous ignition.

Seed Cake derived from solvent extraction may have an additional hazard arising from residual flammable solvent mixed in the cargo. However, in most instances, the manufacturing processes the Seed Cakes are subjected to will mean that most if not all solvent will have been recovered and recycled.



### Cargo Incident Notification System

CINS is a shipping line initiative, established to improve safety in the supply chain, reduce the number of cargo incidents on-board ships and on land, and highlight the risks caused by certain cargoes and/or packing failures. Membership of CINS comprises over 85% of the world's container slot capacity.

Guidance on carriage of divinylbenzene (DVB) and metal scrap in containers as well as dangerous goods stowage are to be found on the CINS website: [www.cinsnet.com](http://www.cinsnet.com)

### International Group of P&I Clubs

The thirteen principal underwriting associations which comprise the International Group, between them provide liability cover (protection and indemnity) for approximately 90% of the world's ocean-going tonnage. See also: [www.igpandi.org](http://www.igpandi.org)

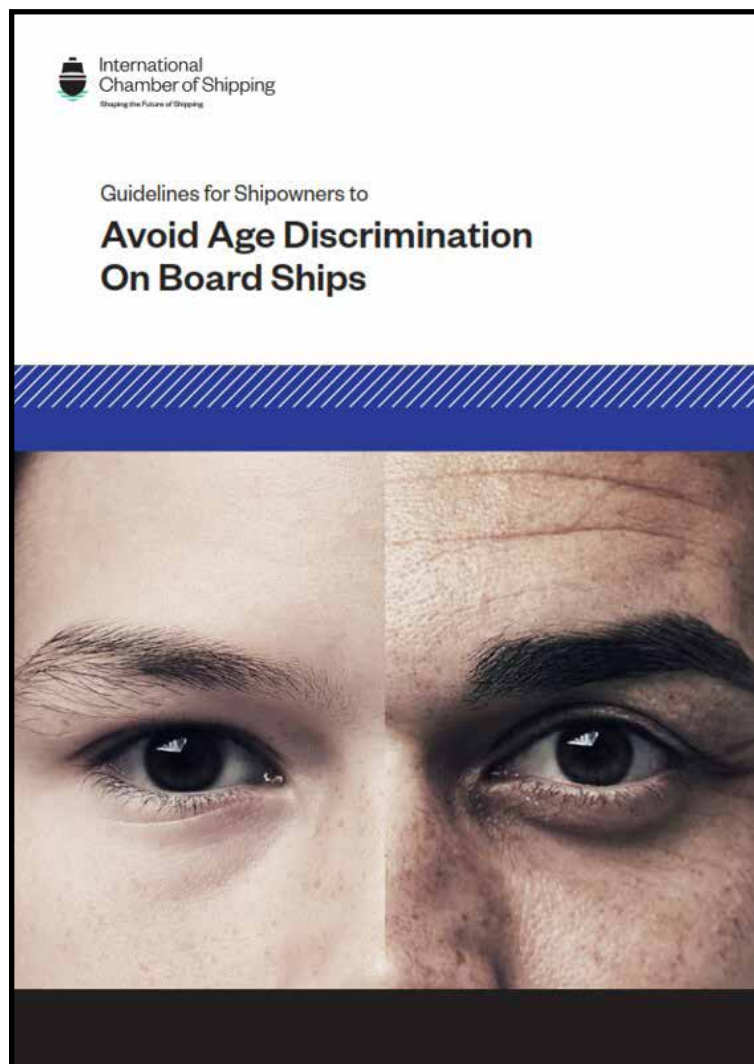
## International Chamber of Shipping helps industry tackle age discrimination on board ships

Age discrimination is no joke, and can affect individuals of all ages in any field of work. The shipping industry is no different. The ILO Maritime Labour Convention (MLC) recognises this issue, but how can employers translate this into practical solutions for preventing age discrimination in real-life situations?



The International Chamber of Shipping (ICS) has released a new publication: *Guidelines for Shipowners to Avoid Age Discrimination On Board Ships*, which is available at no charge via the ICS website here: <http://tinyurl.com/tn3hque>

Explains Natalie Shaw, Director of Employment Affairs at the International Chamber of Shipping: 'Age discrimination is a form of unfair treatment and the age gap between employees in the workplace can now be as much as 50 years.'



*'We are seeing a changing global workforce that is continuing to work longer, yet there are still many stereotypes associated with age that can play out on board ship. This can affect not only older employees, but also the young who can suffer from age-related stereotypes at the other end of the spectrum.'*

*'As well as avoiding legal consequences, preventing age discrimination can help ship operators to motivate and retain staff and improve the working environment on board ship, enhancing reputations as quality employers. Having different age groups in a team with shared goals can unite employees as they swap ideas, experience and knowledge.'*

### **ILO Maritime Labour Convention**

Under the ILO MLC, the flag state must ensure that its regulations respect the fundamental right to be free from age discrimination, which can affect the physical and emotional health of employees, decrease motivation and increase sickness rates, as well as compromising cohesive and effective teamwork.



*Natalie Shaw, Director of Employment Affairs,  
International Chamber of Shipping.*

The ICS Guidelines address different types of age discrimination, whether direct or indirect, and show how this can be avoided with respect to recruitment, training, pay and promotion, as well as redundancy and retirement.

Shaw added: *'The ICS Guidelines emphasise the importance of judging people on their performance or the quality of their job applications, and seek to tackle head-on the need to avoid damaging assumptions or stereotypes that can be unfairly associated with particular age groups.'*

## **Galileo now replying to SOS messages worldwide**

Towards the end of January it was reported that the European Union's Galileo satellite system is now replying to SOS messages worldwide

As well as providing global navigation services, Europe's Galileo satellite constellation is contributing to saving more than 2000 lives annually by relaying SOS messages to first responders. From 23 January it was reported by the European Space Agency (ESA) that satellites will reply to these messages, assuring people in danger that help is on the way.



*Spitzbergen MEOLUT*

*Photo: ESA ©.*

This ESA-design return link system, unique to Galileo, was declared operational in week commencing 19 January, during the 12<sup>th</sup> European Space Conference in Belgium. Delivery time for the return link acknowledgement messages from initial emergency beacon activation is expected to be a couple of minutes in the majority of cases, up to 30 minutes maximum, depending primarily on the time it takes to detect and locate the alert.

### **Rescue beacon activated**

In the words of ESA's Galileo principal search and rescue engineer, Igor Stojkovic: *'Anyone in trouble will now receive solid confirmation, through an indication on their activated beacon, informing them that search and rescue services have been informed of their alert and location. For anyone in a tough situation, such knowledge could make a big difference.'*

All but the first two out of 26 Galileo satellites carry a Cospas-Sarsat search and rescue package. At only 8 kg in mass, these life-saving payloads consume just 3% of on-board power, with their receive-transmit repeater housed next to the main navigation antenna.

### **Seaborne search and rescue test**

Founded by Canada, France, Russia and the US in 1979, Cospas-Sarsat began with payloads on low-orbiting satel-



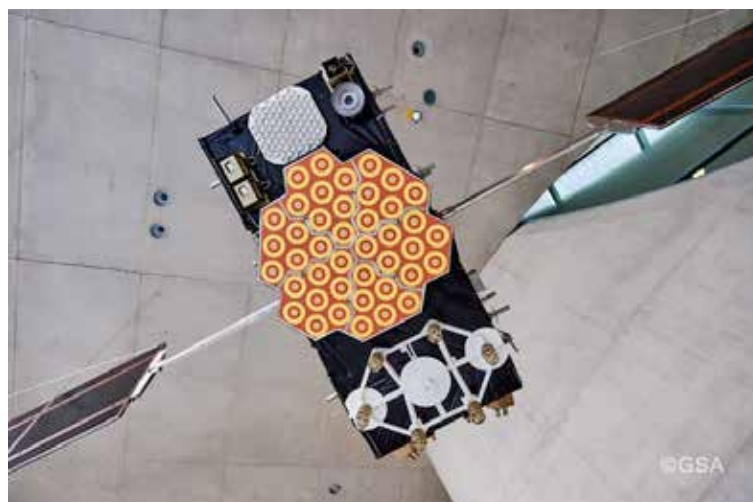
lites, whose rapid orbital motion allows Doppler ranging of distress signals, to pinpoint their location. The drawback is these fly so close to Earth that their field of view is comparatively small.

Geostationary satellites went on to host Cospas-Sarsat payloads. These see much more of the planet, but because they are motionless relative to Earth's surface, Doppler ranging is not possible.

Medium-orbiting satellites such as Galileo – orbiting at 23,222 km altitude – offer the best of both worlds, providing a wide ground view by multiple satellites combined with time-of-arrival and Doppler ranging techniques to localise SOS signals. This improves the maximum signal detection time from four hours to less than five minutes, down to one or two kilometres (within a formal specification of 5 km within 10 minutes).

### European GNSS Agency

Galileo's Search and Rescue service is Europe's contribution to Cospas-Sarsat, operated by the European Global Navigation Satellite System Agency, GSA, and designed and developed at ESA. As the overall Galileo system architect and design authority, ESA has been responsible for the interface between the core Galileo infrastructure to the Return Link Service Provider facility, procured by the European Commission and operated by French space agency CNES.



COSPAS-SARSAT

Photo: ESA ©.

The Cospas-Sarsat satellite repeaters are supplemented by a trio of ground stations at the corners of Europe, known as Medium-Earth Orbit Local User Terminals (MEOLUTs), based in Norway's Spitzbergen Islands, Cyprus and Spain's Canary Islands and coordinated from a control centre in Toulouse, France. This trio is soon to become a quartet, with a fourth station on France's La Réunion Island in the Indian Ocean under development.

The satellites relay distress messages to these MEOLUTs, which then relay them to local search and rescue authorities.

The service's return link message capability was developed as an inherent part of the Galileo system. The messages are relayed to the individual beacons that sent the original distress call by being embedded within Galileo signals broadcast from satellites in their view.

Stojkovic added: *'The switching on of the return link service was enabled by a thorough test campaign carried out by ESA, with the support of the GSA and CNES. We needed to be sure the service remains reliable even with multiple distress calls being replied to at once.'*



He concluded by saying: *'The return link is a joint service of Cospas-Sarsat and Galileo and therefore agreement by Cospas-Sarsat was crucial. This acceptance was achieved through long discussions led by the European Commission at the Cospas-Sarsat Council last November, supported by plentiful documentation of simulations and test results provided by ESA and CNES.'*

A key milestone was a public demonstration of the return link service, performed at the Cospas-Sarsat Joint Committee Meeting in Doha in Qatar in the summer of 2019.

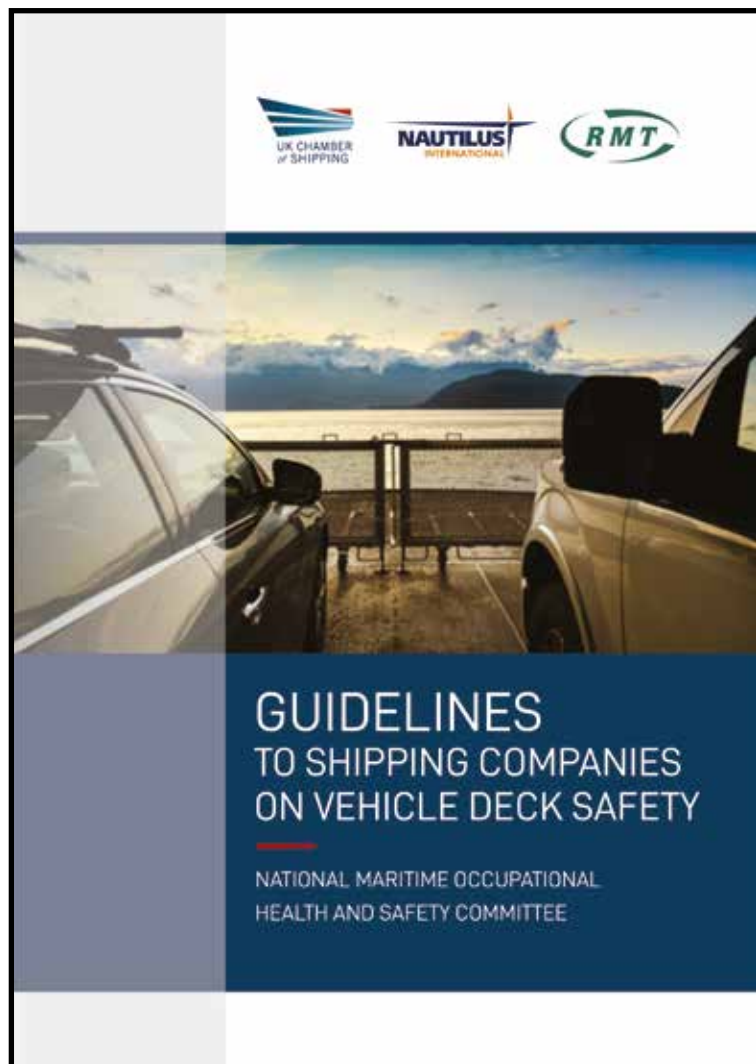
## Guidelines to shipping companies on Vehicle Deck Safety

**The UK Chamber of Shipping, Nautilus International and the National Union of Rail, Maritime and Transport Workers (RMT) collaboration**

The vehicle deck of a ferry or a ro-ro vessel is one of the most hazardous areas of a vessel. Moving vehicles, lack of visibility, blind spots, high noise levels, noxious fumes from vehicles, unclean surfaces and inadequate floor markings can all contribute to hazards. An unacceptably high number of workers have been injured in accidents on vehicle decks, sometimes fatally.

The UK Chamber of Shipping, Nautilus International and the National Union of Rail, Maritime and Transport Workers (RMT) have developed guidelines to shipping companies to draw their attention to the specific hazards present

on vehicle decks. They recommend that operators of ships with vehicle decks review their safety policies, procedures and management systems to ensure that the advice that follows is reflected as appropriate.



The guidelines aim to:

- Promote the health, safety and welfare of seafarers.
- Contribute to safer and more effective shipboard environments.
- Eliminate accidents and injuries on vehicle decks and in port areas where there is vehicle movement.
- Encourage improvements in safety performance.
- Ensure that crew members receive training in safe work procedures on vehicle decks.
- Emphasise the importance of properly maintaining safety equipment.

The guidelines should be read and considered in conjunction with other guidelines to shipping companies on health and safety issued by the National Maritime Occupational Health and Safety Committee (NMOHSC), in particular the guidelines on behavioural safety systems.

## USCGC *Polar Star*

With a ship's company of 159 the US Coast Guard Cutter *Polar Star* (WAGB 10) arrived on 22 January at McMurdo Station, following a 58-day transit from the United States. The cutter departed its homeport of Seattle on 26 November.

This year (2020) marks *Polar Star's* 23<sup>rd</sup> passage to Antarctica in support of Operation Deep Freeze, an annual joint military service mission to resupply the United States Antarctic stations, in support of the National Science Foundation (NSF), the lead agency for the United States Antarctic Program.

The 399 ft, 13,000-ton *Polar Star* arrived after creating a 23 mile channel through the ice to McMurdo Sound, which will enable the discharge of over 19.5 million pounds of dry cargo and 7.6 million gallons of fuel from three logistic vessels.

Together these three ships carry enough fuel and critical supplies to sustain NSF operations throughout the year until *Polar Star* returns in 2021.

Each year *Polar Star* creates a navigable channel through seasonal and multi-year ice, sometimes as much as 21 feet thick, to allow refuel and resupply ships to reach McMurdo Station.



*The Coast Guard Cutter Polar Star moves through pack ice on 28 December, 2019, about 200 miles north of McMurdo Station, Antarctica. The 43-year-old Polar Star is the US's only heavy icebreaker, and the crew is seen here heading to McMurdo Station to escort refuel and resupply ships through the ice, which can be ten feet thick. This year marks the 64<sup>th</sup> iteration of the operation known as Operation Deep Freeze.*

*US Coast Guard photograph by Senior Chief Petty Officer Nyxo Lyno Cangemi. US Coast Guard Pacific Area.*

USCG ©.



Captain Greg Stanclik\*, CO of *Polar Star*: 'I am immensely proud of all the hard work and dedication the men and women of the *Polar Star* demonstrate each and every day. Maintaining and operating a 44 year old ship in the harshest of environments takes months of planning and preparation, long workdays and missed holidays, birthdays and anniversaries with loved ones.'

'The *Polar Star* crew truly embodies the ethos of the Antarctic explorers who came before us — courage, sacrifice and devotion.'

### US icebreaking capability

Commissioned in 1976, *Polar Star* is the United States' only operational heavy icebreaker. Reserved for Operation Deep Freeze each year, the ship spends the winter breaking ice near Antarctica, and when the mission is complete, returns to dry dock in order to conduct critical maintenance and repairs in preparation for the next Operation Deep Freeze mission.



The crew of the US Coast Guard Cutter *Polar Star* (WAGB-10) poses for a group photo on 2 January 2020, about ten miles north of McMurdo Station, Antarctica.

US Coast Guard photograph by Senior Chief Petty Officer Nyxo Lyno Cangemi.

USCG ©.

If a catastrophic event, such as getting stuck in the ice, were to happen to the Coast Guard Cutter *Healy* (WAGB 20) in the Arctic or to *Polar Star* near Antarctica, the US Coast Guard is left without a self-rescue capability.

By contrast, Russia currently operates more than 50 icebreakers, several of which are nuclear powered.

### New icebreaking capability

The Coast Guard has been the sole provider of the nation's polar icebreaking capability since 1965, and is seeking to increase its icebreaking fleet with six new polar security cutters (PSCs) to ensure continued national presence and access to the Polar Regions.

In April 2019 the Coast Guard awarded VT Halter Marine Inc of Pascagoula, Mississippi, a contract for the design

and construction of the Coast Guard's lead polar security cutter, which will be homeported in Seattle. The contract also includes options for the construction of two additional PSCs.



Crew members from the Coast Guard Cutter *Polar Star* (WAGB-10) conduct ice rescue training on 19 January, about seven miles north of McMurdo Station, Antarctica. The crew of the *Polar Star* was participating in Operation Deep Freeze – the US military's contribution to the US Antarctic Program, which is managed by the National Science Foundation.

US Coast Guard photograph by Senior Chief Petty Officer Nyxo Lyno Cangemi.

USCG ©.



The U.S. Coast Guard Cutter *Polar Star* breaks ice on 16 January, near the ice pier of McMurdo Station, Antarctica.

US Coast Guard photo by Senior Chief Petty Officer Nyxo Lyno Cangemi.

USCG ©.

In the words of Vice-Admiral Linda Fagan, commander of the Coast Guard's Pacific Area: 'The Coast Guard's icebreaker fleet is paramount. Our ability to clear a channel and allow for the resupply of the United States' Antarctic stations is essential for continued national presence and influence on the continent.'

\*See here: <http://tinyurl.com/rdcrrw4>

## Operation Deep Freeze 2020

### US Military Sealift Command ship departs California in support

It was reported by Military Sealift Command Pacific Public Affairs on 23 January that the Military Sealift Command (MSC) charter ship SLNC *Magothy* had concluded cargo loading and sailed from Port Hueneme, California. The ship was headed for the remote Antarctic outpost of McMurdo Station, in support of Operation Deep Freeze (ODF), the Joint Task Force Support for Antarctica mission to the NSF\*-managed US Antarctic Program.

While at Port Hueneme more than 500 containers of building materials for an expansion project at the NSF facilities at McMurdo Station were loaded under the supervision of US Navy reservists from MSC's Expeditionary Port Unit (EPU) 114.



*Military Sealift Command charter ship SLNC Magothy concluded cargo operations and departed Port Hueneme, California for the remote Antarctic outpost of McMurdo Station.*

It is understood that *Magothy* was scheduled to call at Tauranga, New Zealand, where the ship was to load additional cargo, then take passage to McMurdo Station, where staff of Navy Cargo Handling Battalion ONE discharged the ship at a floating jetty in place of the traditional ice-pier delivered by the MSC-chartered mv *Ocean Giant*.

According to Sarah Burford of MSC Pacific Public Affairs: *'Magothy is one of three MSC-chartered ships that will deliver 80% of the supplies and 100% of the fuel needed for the year's survival at McMurdo Station.'*

*'Operation Deep Freeze is a joint service, on-going Defense Support to Civilian Authorities activity in support of the NSF, lead agency for the United States Antarctic Program.'*

ODF operates from two primary locations situated at Christchurch, New Zealand and McMurdo Station, Antarctica.

The year 2020 marks the 65<sup>th</sup> anniversary of the establishment of McMurdo station and its resupply mission, which began in 1955. Each year an MSC-chartered cargo ship and tanker have made the challenging voyage to Antarctica since the station and its resupply mission were established in 1955.

\*Natural Science Foundation:  
<http://tinyurl.com/rw53cfg>

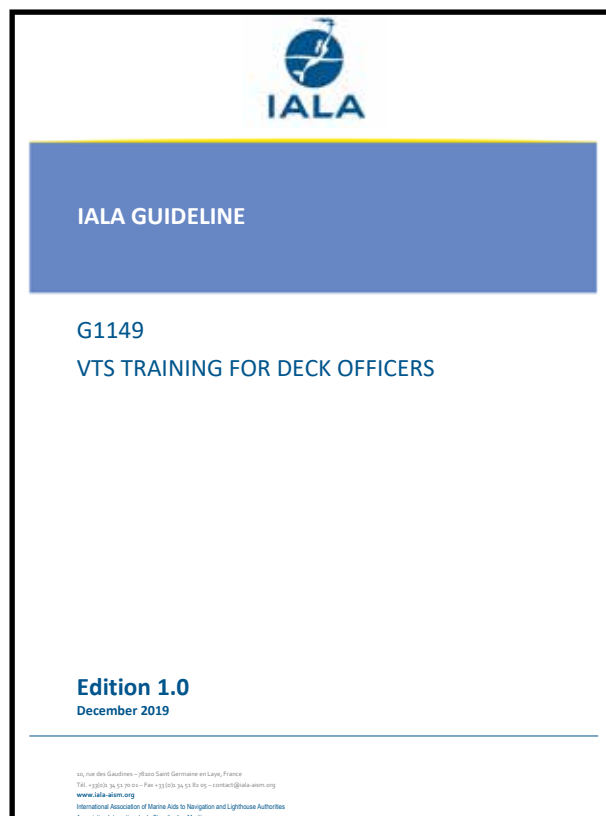
## New IALA publication available at no charge

### VTS training for deck officers

IALA is an international Non-Governmental Organisation with consultative status at IMO as is IFSMA.

Established in 1957 IALA brings together marine aids to navigation authorities, manufacturers, consultants, and scientific and training institutes from all parts of the world and offers them the opportunity to exchange and compare their experiences and achievements in the field of marine aids to navigation and kindred topics.

IALA encourages its members to work together in a common effort to harmonise aids to navigation worldwide and to ensure that the movements of vessels are safe, expeditious and cost-effective while protecting the environment.



Twice each year IALA issues new documents such as Recommendations and Guidelines.

On 30 January 2020 it issued Guideline G1149 *VTS Training for Deck Officers*

This is available, as are all similar documents as pdfs in English at no charge and downloadable at:  
<https://www.iala-aism.org/guidance-publications/>

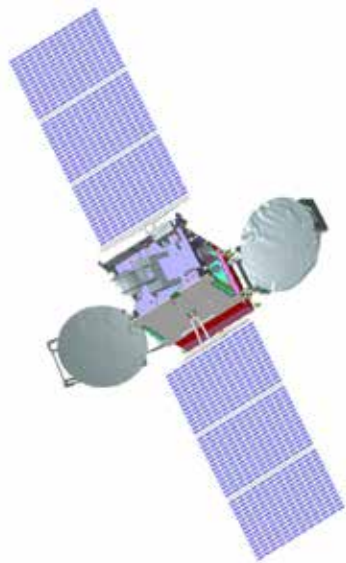


## India's communication satellite GSAT-30 launched successfully

India's latest communication satellite GSAT-30 was successfully launched from the Spaceport in French Guiana during the early hours of 17 January

The launch vehicle Ariane 5 VA-251 lifted off from Kourou Launch Base, French Guiana at 0235 IST carrying India's GSAT-30 and EUTELSAT KONNECT for Eutelsat, as scheduled.

After a flight lasting 38 minutes 25 seconds, GSAT-30 separated from the Ariane 5 upper stage in an elliptical Geosynchronous Transfer Orbit.



With a lift-off mass of 3357 kg, GSAT-30 will provide continuity to operational services on some of the in-orbit satellites. GSAT-30 derives its heritage from ISRO's earlier INSAT/GSAT satellite series and will replace INSAT-4A in orbit.

In the word of ISRO\* Chairman Dr K Sivan: 'GSAT-30 has a unique configuration of providing flexible frequency segments and flexible coverage. The satellite

will provide communication services to Indian mainland and islands through Ku-band and wide coverage covering Gulf countries, a large number of Asian countries and Australia through C-band'.

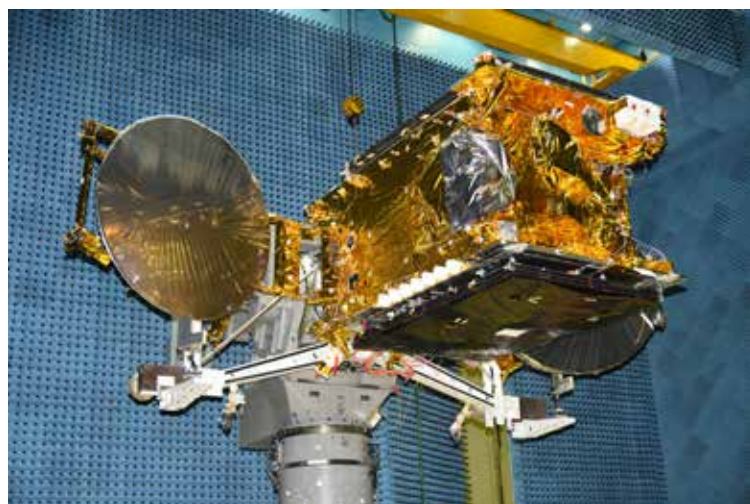


Satellite solar panels and antennae were deployed and the satellite placed in an orbit with a perigee (nearest point from Earth) of 35,826 km and an apogee (farthest point from Earth) of 35,913 km.

Dr Sivan added: 'GSAT-30 will provide DTH Television Services, connectivity to VSATs for ATM, Stock-exchange, Television uplinking and Teleport Services, Digital Satellite News Gathering (DSNG) and e-governance applications. The satellite will also be used for bulk data transfer for a

host of emerging telecommunication applications.'

ISRO's Master Control Facility (MCF) at Hassan in Karnataka took over the command and control of GSAT-30 immediately after its separation from the launch vehicle. Preliminary checks of the satellite revealed normal health.



With a lift-off mass of 3357 kg, GSAT-30 will provide continuity to operational services on some of the in-orbit satellites.

At the time of writing (1 February) orbit-raising manoeuvres were to be performed to place the satellite in Geostationary Orbit (36,000 km above the equator) by using its on-board propulsion system.

During the final stages of its orbit raising operations, the two solar arrays and the antenna reflectors of GSAT-30 were to be deployed. Following this, the satellite would have been put in its final orbital configuration then reported as operational after the successful completion of all in-orbit tests.

The designed in-orbit operational life of GSAT-30 is more than 15 years. Manufacturer of the satellite is ISRO.

\*See here: <https://www.isro.gov.in/about-isro>

## The Indian Regional Navigation Satellite System (IRNSS)

IRNSS is an independent regional navigation satellite system being developed by India. It is designed to provide accurate position information service to users in India as well as the region extending up to 1500 km from its boundary, which is its primary service area. See: <https://www.isro.gov.in/irNSS-programme>

The space segment of the IRNSS is a constellation of eight satellites known as NavIC. Three satellites of these are located in suitable orbital slots in the geostationary orbit and four are located in geosynchronous orbits with the required inclination and equatorial crossings in two different planes. All the satellites of the constellation are configured identically.

An Extended Service Area lies enclosed by a rectangle from Latitude 30° S to 50°N, Longitude 30°E to 130°E.

It is understood that IRNSS will provide two types of services, namely, Standard Positioning Service (SPS) which will be provided to all users and Restricted Service (RS), which is an encrypted service provided only to authorised users.

Furthermore, the IRNSS System is expected to provide a position accuracy of better than 20 metres in the primary service area.

Some applications of IRNSS have been forecast as:

- Terrestrial, aerial and marine navigation
- Disaster management
- Vehicle tracking and fleet management
- Integration with mobile phones
- Precise timing
- Mapping and geodetic data capture
- Terrestrial navigation aid for hikers and travellers
- Visual and voice navigation for drivers

**We look forward to reporting again on this potentially valuable player in the world of PNT: Positioning, Navigation and Timing.**

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## Hapag-Lloyd to lower CO<sub>2</sub> emissions using biofuel

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Hapag-Lloyd reported on 3 February that it is bunkering “bio”: To reduce the CO<sub>2</sub> emissions generated by operating ships, one of its ships recently refuelled in Rotterdam with a new, eco-friendly biofuel.

For the first time, *Montreal Express* is being powered by so-called “B20” fuel, which consists of 80% low-sulphur fuel oil and 20% biodiesel based on cooking oils and fats that had previously been used in the food service/catering industry.

It is understood that the biodiesel generates up to 90% less CO<sub>2</sub> emissions than conventional fuels.

With this test, Hapag-Lloyd is taking another step towards reaching its ambitious climate-protection goals.

Explained Jörg Erdmann, Senior Director Sustainability Management at Hapag-Lloyd: *‘By the end of this year, we want to have reduced our specific CO<sub>2</sub> emissions by 50% compared to the reference year 2008.*

*‘Biofuels like ‘B20’ can help us reach this target. This is because, in addition to having a low sulphur content, the fuel also emits less climate-damaging CO<sub>2</sub> during combustion.’*

Hapag-Lloyd intends to use the test run with *Montreal Express*, which operates in the St. Lawrence Coordinated Service 2 (AT 2) between Europe and Canada, to gain experience and information on the properties of the fuel in

real-world use.

Jan Christensen, Senior Director Purchasing & Supply at Hapag-Lloyd added: *‘We are checking to see whether the share of biodiesel has any adverse effects on the equipment and the fuel processing on board the vessel. If the test is successful, more ships from Hapag-Lloyd’s fleet could operate using the ‘B20’ fuel in future.’*



*Hapag-Lloyd’s Montreal Express.*

*Photo kind provided by Hapag-Lloyd ©.*

## About Hapag-Lloyd

With a fleet of 231 modern container ships and a total transport capacity of 1.7 million TEU, Hapag-Lloyd is one of the world’s leading liner shipping companies.

The Company has around 13,000 employees and 392 offices in 129 countries.

Hapag-Lloyd has a container capacity of approximately 2.6 million TEU – including one of the largest and most modern fleets of reefer containers. A total of 121 liner services worldwide ensure fast and reliable connections between more than 600 ports on all the continents. Hapag-Lloyd is one of the leading operators in the Transatlantic, Middle East, Latin America and Intra-America trades.

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## LNG bunkering

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### DNV GL FuelBoss platform creates new online hub

As the adoption of LNG as a ship fuel continues to speed up, DNV GL has launched a new online bunkering platform to take operators seamlessly from order through to delivery.

Known as FuelBoss this offers ship owners, operators and suppliers a single common platform for nomination, scheduling, spot inquiries and business intelligence. LNG suppliers Gasum, Cryo Shipping and Nauticor are said to be amongst the confirmed pilot customers and have supported the development with their expertise and domain knowledge. This was reported by DNV GL in Amsterdam and Oslo on 4 February.

In a statement from the Classification Society it was em-



phasised that LNG has arrived in shipping. After a long wait, the number of vessels trading will more than double in the next two years. As the fleet grows from vessels that primarily work fixed routes to those in more general operation, the complexities of LNG bunkering and planning need to adapt to these changing patterns.

In the words of Trond Hodne, Senior Vice President at DNV GL – Maritime: *'The idea behind FuelBoss is to accelerate the uptake of LNG in the maritime industry by providing suppliers with a highly efficient tool for managing all their customers and day-to-day operations, while offering ship operators a common interface for interacting with LNG suppliers. FuelBoss will standardize and simplify daily work processes and enable the LNG fuel industry to reap the benefits of digitalization.'*

*'At the moment, both the interest in and the number of vessels using LNG is growing rapidly, but the bunkering picture is still fragmented. Delivery costs can be a significant part of the delivered LNG price, so optimizing the supply chain is essential. FuelBoss will let LNG suppliers and shipowners reap the network benefits of having a single platform for this growing market.'*



*FuelBoss is a new online bunkering platform for LNG, to take operators seamlessly from order through to delivery. Image courtesy of DNV GL ©*

Online and open to anyone, FuelBoss is an integrated tool for LNG bunkering, allowing users to order bunker volumes within term contracts in a standardized format. At the same time users will be enabled to keep track of changes and monitoring involved assets, to communicate through an integrated messaging service and digitally fill in, sign and archive forms and documentation from the bunkering process.

Furthermore it is understood that the platform will facilitate spot inquiries outside term contracts and the users will have access to a map-based overview of assets to keep track of LNG-fuelled ships and LNG bunker vessels through live and historic AIS feed. Signing up to the platform is free for ship owners and other buyers of LNG fuel, it is reported.

The platform integrates software developed by port call

optimization and maritime supply chain specialist Teqplay. This software has been validated and used by LNG supplier Shell and their customers for a year, to plan and execute LNG bunkering operations.

Leon Gommans, CEO Teqplay commented: *'With the complexity of planning and coordinating operations for serving their growing customer base, Shell saw the need for a tailored digital tool that standardized the planning and work processes around the LNG bunker vessel operations.'*

*'As LNG bunkering of Shell's customers will be carried out by an increasingly global organisation to support the adoption of LNG fuel in new regions, the need for cost-competitive and standardized work processes became even more pressing.'*

With FuelBoss, DNV GL and Teqplay have brought the market a flexible solution to fit the needs of both small and large LNG suppliers. LNG suppliers Gasum, Cryo Shipping and Nauticor have all signed up as pilot customers and have already supported the development with their user requirements, to ensure it becomes an efficient tool to manage their daily operations.

DNV GL will continue to develop features for FuelBoss, including the integration of ship sensor data, data analytics for business intelligence, and support for other alternative fuels as demand grows.

**It is reported that the platform is due to launch commercially in April this year, but interested parties can sign up for beta\* access here:**  
<https://www.dnvgl.com/maritime/fuelboss/index.html>

\*Beta, in this context, refers to software that is not ready for final sale/distribution. The purpose of using Beta software is to distribute to a small group of dedicated users so they can find the final bugs in the App so these can be fixed before the final version is ready.

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## Novel coronavirus 2019 (COVID-19)

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### Keeping up to date

#### WHO advice

Daily updates on novel coronavirus 2019 are being provided by the World Health Organization (WHO) here: <https://tinyurl.com/yx6vexyp>

Readers are advised to visit this page for daily updates.

On this website you can find information and guidance from WHO regarding the current outbreak of novel coronavirus (2019-nCoV) that was first reported from Wuhan, People's Republic of China on 31 December 2019.

WHO is working closely with global experts, governments and partners to rapidly expand scientific knowledge on this new virus, to track the spread and virulence of the virus, and to provide advice to countries and individuals

on measures to protect health and prevent the spread of this outbreak.



#### From IMO

IMO has provided advice for IMO Member States, seafarers and shipping.

The following circular letters have been issued:

**Circular Letter No.4203 Novel Coronavirus (2019-nCoV)** provides information and guidance, based on recommendations developed by the World Health Organization (WHO) and the Division of Healthcare Management and Occupational Safety and Health (DHMOSH), United Nations, on the precautions to be taken to minimize risks to delegates attending meetings at IMO following the recent outbreak of novel coronavirus (2019-nCoV).

**Circular Letter No.4204 Novel Coronavirus (2019-nCoV)** providing information and guidance, based on recommendations developed by the World Health Organization (WHO), on the precautions to be taken to minimize risks to seafarers, passengers and others on board ships from the novel coronavirus (2019-nCoV).

Member States are advised to urge all stakeholders (companies, managers, crewing agents, etc.) to promulgate information to ensure that seafarers, passengers and others on board ships are provided with accurate and relevant information on the coronavirus outbreak and on the measures to reduce the risk of exposure if they are likely to be engaged on ships trading to and from ports in coronavirus-affected States.

See also here: <https://tinyurl.com/tscce87>

#### Additional advice

The following links also provide advice to seafarers and

shipping (non-exhaustive list):

International Maritime Health Association (IMHA) advice for shipping companies on the new type of coronavirus (2019-nCoV). See: <https://tinyurl.com/sr7uegk>

United States Coast Guard Novel Coronavirus. See: <https://tinyurl.com/ugo2ecc>



Banner illustrations reproduced from [www.who.int](http://www.who.int) with grateful thanks ©.

The situation changes on a day to day basis. For up to date links to information for IFSMA Members visit <https://www.ifsma.org> and select IFSMA Log.

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## Newbuild Donsötank tankers

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### Yaskawa Environmental Energy / The Switch shaft generators

WE Tech Solutions, a leading energy efficiency provider for the maritime industry, has signed an agreement to deliver equipment for two newbuild product and chemical tankers with Swedish shipowner Rederi AB Donsötank. This was reported on 6 February.

The 22,000 dwt vessels, currently under construction at China's Wuhu Shipyard Co. Ltd, will benefit from a system built around the WE Drive™ variable frequency drive and Yaskawa Environmental Energy / The Switch's permanent magnet (PM) shaft generators.

It is understood that this technology delivers lower emissions, significant efficiency gains, and lower operational and maintenance costs for the advanced ice-class 1A tankers (see the computer generated illustration here).



## The power of efficiency

Finland's WE Tech, a specialist in solving flexible, reliable and innovative marine hybrid challenges, will provide a comprehensive technology package for the sister ships, with delivery starting in spring 2020.

In the Power Take Out (PTO) mode, the solution allows mechanical energy from the propeller shaft to be converted to electrical energy – the most energy-efficient way to generate power in a vessel. Switching to the Power Take In (PTI) mode enables the technology to convert auxiliary generator power to propulsion power by utilizing the PM shaft generator as an electrical motor. This effectively boosts the propulsion system for demanding operations, such as those in ice-covered water.



### Flexible benefits

Mårten Storbacka, Managing Director of WE Tech commented: *'This is both an environmentally friendly and operationally powerful solution. In the PTO mode, there is no need to run auxiliary engines and generators when sailing, slashing fuel costs, emissions and saving on maintenance requirements. Switching to PTI allows the vessel to adapt to the most demanding conditions, using the shaft generator as a reliable and economical auxiliary propulsion drive.'*

### Preferred partners

Yaskawa Environmental Energy / The Switch has a long history of working alongside WE Tech as a key supplier. Together, the two have collaborated on a series of deliveries to customers such as ESL Shipping, Saga LNG Shipping, Rederiet Stenersen and Wallenius Shipping.

According to Juha Reinilä, Key Account Manager, Marine, Yaskawa Environmental Energy / The Switch, the latest delivery encapsulates the industry's current drive to harness innovative technology to deliver benefits for the various stakeholders.

### About Yaskawa Environmental Energy

Yaskawa Environmental Energy / The Switch focuses on innovative products, capabilities and the means to create energy sustainably, contain it effectively and consume it responsibly. Its mission is to enable more profitable power generation, energy storage and use, while lowering the cost of electricity and operations.

## Digital tools in new shipping routes in Danish waters

### Danish Maritime Authority (DMA) reports

On 1 July 2020, new shipping routes will be established in Kattegat and Skagerrak. These routes will increase the safety of navigation for the 70,000 ships that pass through these waters annually. This was reported by the DMA on 4 February.



Work is currently underway on the production of new charts and information for vessels so that the Danish and Swedish maritime authorities can be ready for the final establishment on 1 July 2020. The Danish Maritime Authority is preparing the new shipping routes in collaboration with the Swedish Transport Agency and the charting authorities in both countries. The new shipping routes were approved by the IMO, in 2018.

### The new shipping routes

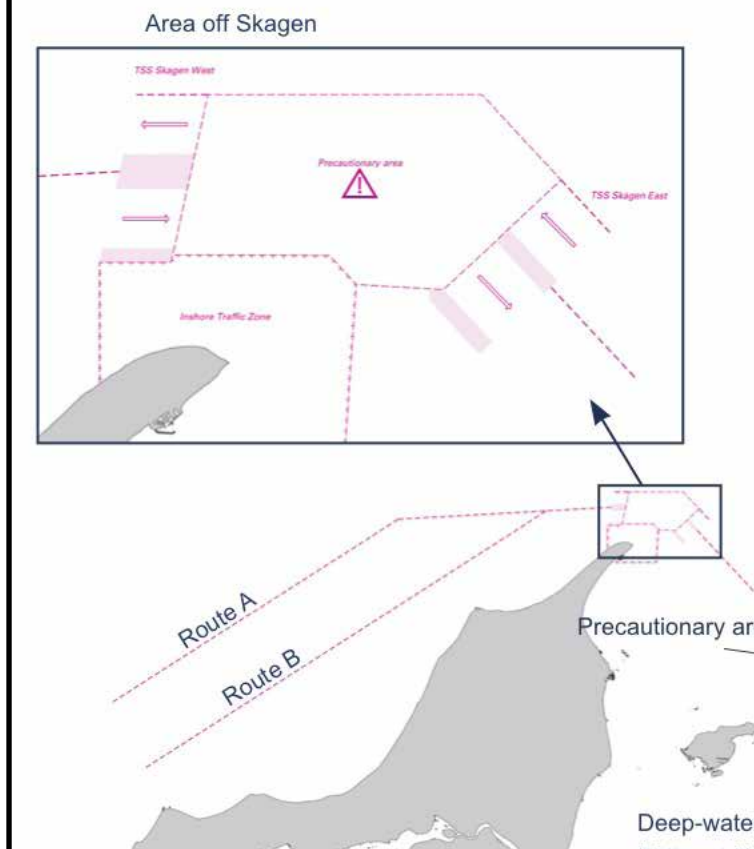
The current Kattegat shipping route, Route T, was established over 40 years ago. Today, ships are much larger now, and approximately 70,000 sail through Kattegat annually, including many deep-draught tankers sailing to and from the Baltic Sea.

The new shipping routes are established to create more predictable traffic patterns and to guide ships on routes that separate oncoming ship traffic better, thus increasing the safety of navigation. On some sections, so-called traffic separation schemes are introduced, which will simplify sailing and help prevent ship collisions.

### Digital buoyage is used

In addition to the traditional aids to navigation, the new shipping routes will in several places be marked with virtual AIS buoys. These type of buoys differs from traditional buoys as they are not physically found in the water, but are only visible in the ship's navigation system. Furthermore, the AIS system can be used to send fast information directly to the ships. In the period leading up to 1 July this year the AIS system will continuously release information about the impending route changes.

## New shipping routes in Kattegat and Skagerrak – more



### To learn more

Information about these new shipping routes will be found on the Danish Maritime Authority's website here: <https://tinyurl.com/tsotldu>

And there is more about the new shipping routes in this published leaflet (English) here: <https://tinyurl.com/vw5r9oe>

The detailed and official information about the new routes will be published in Notices to Mariners and in the official charts from the Danish Geodata Agency.

Photos: DMA ©.

## Grounding of the ro-ro freight ferry *Seatruck Performance* in Carlingford Lough, Northern Ireland

8 May 2019

### MAIB Investigation Report 4/2020

The (UK) Marine Accident Investigation Branch (MAIB) carried out an investigation and reported into this serious marine accident including what happened, safety lessons learned and recommendation made. The Report was issued on 6 February.

### Summary

At 2243 on 8 May 2019, the Isle of Man registered ro-ro freight vessel *Seatruck Performance* grounded while transiting the Greenore Channel in Carlingford Lough, Northern Ireland, soon after departing Warrenpoint for passage to Heysham, England.

The ferry quickly developed a 7° list but was able to return to Warrenpoint without assistance and there were no injuries to its eleven passengers and twenty-two crew, or any pollution. Subsequent survey and dry dock identified that a tank and a void space on the ferry's port side had been breached. There was a 10m tear in port side shell plating below the waterline in way of No 8 heeling tank and No 4 void space. The ferry was out of service for three weeks.



Damage to *Seatruck Performance* port side.

Illustration MAIB Crown Copyright 2020 ©.

### Safety issues

- The potential for squat was not considered when calculating the ferry's under keel clearance before departure, or when considering its speed
- Shallow water effects were experienced as the ferry approached the intended alteration, which affected both heading and speed, due to the under keel clearance and the proximity of a charted bank on the south side of the channel
- The master was steering by hand, which reduced his ability to maintain an overview of the situation, and a lack of support from the bridge team made him a single point of failure
- The navigational practices being used by *Seatruck Performance*'s bridge team did not fully incorporate the electronic aids available and were insufficient to assure the vessel's safe outbound passage, at night, through the Greenore Channel

### Recommendations

*Seatruck Performance*'s owner and manager, *Seatruck*



Ferries Ltd, has taken action to raise awareness of shallow water effects and improve onboard passage planning.

The company has been recommended (Recommendation No 2020/108) to take further measures to ensure the safe navigation of its vessels by optimising its use of electronic navigation systems and enhancing its Bridge Resource Management training.

The full MAIB report is available here: <https://tinyurl.com/se25x6n>

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## Kawasaki Heavy Industries, Ltd

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### LPG Fuel Supply System. ClassNK grants AiP

It was announced from Tokyo on 5 February that ClassNK (<https://www.classnk.or.jp/hp/en/index.html>) had granted an Approval in Principle (AiP) based on its Rule Part N which adopts IGC Code\* and its *Guidelines for Ships Using Low-Flashpoint Fuels* to Kawasaki Heavy Industries, Ltd (KHI\*\*) for their LPG fuel supply system.

Using expertise from the design and construction of the LPG carrier, the LNG carrier, and LNG-fuelled ships as well as the design and production of marine engines, KHI has developed the LPG fuel supply system.



It was reported that in consideration of LPG fuel's properties and the related rules, ClassNK has carried out the verification on the system from the viewpoint of minimizing risks to vessels, crew, and the environment.

Following confirmation that the design of KHI's LPG fuel supply system met the prescribed standards, ClassNK then issued the AiP.

The main features of the design announced by KHI are as follows:

(1) Cyclical system design that is compatible with propane and butane and circulates LPG in a pressurized state capable of usage at normal ambient temperature.

(2) Establishing a highly safe control system by implementing risk assessment based on the IGC Code.

(3) System configuration applicable to merchant ships other than LPG carriers.

Speaking on the occasion, Mr Hayato Suga, Corporate Officer and Director of Plan Approval and Technical Solution Division said: '*ClassNK is glad to have granted the AiP on KHI's innovative design for the system to use LPG as ships' fuel which tackles with the reduction of air pollution and climate changes due to emission from ships.*

*'Through our professional third-party verification on cutting edge technology, we will continue support the spread of alternative fuel options including LPG.'*

\*International Gas Carrier Code, see here: <https://tinyurl.com/uxhs62r>

\*\*See here: <https://global.kawasaki.com/>

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## Unlawful discharge of bilge waste

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### Tank vessel operator convicted

#### \$1.75 million fine

It was reported by the United States Coast Guard (USCG) from Honolulu on 11 February that Bernhard Schulte Shipmanagement (Singapore) Pte Ltd (Bernhard), a vessel operating company, pleaded guilty that day in the US Federal Court to one count of maintaining false and incomplete records relating to the discharge of bilge waste from the tank vessel *Topaz Express*, a felony violation of the Act to Prevent Pollution from Ships.

US District Judge Derrick K Watson of the District of Hawaii accepted the guilty plea.

Chief Engineer Skenda Reddy and the vessel's Second Engineer Padmanaban Samirajan previously pleaded guilty to their involvement in the offence.

Under the terms of the plea agreement, Bernhard will pay a total fine of \$1,750,000 and serve a four-year term of probation. This is the largest fine ever imposed in the District of Hawaii for this type of offense, it was reported.

Bernhard further must implement a robust Environmental Compliance Plan, which applies to all 38 vessels operated by the company that call at US ports.

In the words of Assistant Attorney General Jeffrey Bossert Clark of the Justice Department's Environment and Natural Resources Division: '*The Environment and Natural Resources Division of the Department of Justice is charged with enforcing federal and international laws designed to protect our oceans from pollutants.*

*'Under those laws, vessel operators are required to either properly treat their bilge waste onboard before discharging it into the sea or offload their bilge waste to disposal facilities. This case should serve as a deterrent to individuals and companies that flout our laws and pollute our oceans.'*

US Attorney Kenji M Price said: *'Prosecutions like this one are important because, by holding companies accountable for the harm they cause to the ocean's ecosystem, we do our part to protect the planet and its finite resources. In Hawaii, we are surrounded by the beauty of the Pacific Ocean, and companies that intentionally damage the ocean's ecosystem must be held accountable for their criminal conduct.'*

*'My office will continue to bring to justice companies that illegally discharge bilge waste into the ocean and then attempt to conceal their misconduct.'*

Captain Arex Avanni, commander, Coast Guard Sector Honolulu, added: *'This case was built on the hard work of Coast Guard inspectors and investigators and we appreciate the strong partnership with the Department of Justice to hold polluters accountable.'*

*'All vessel owners and operators are responsible for maintaining their vessels and preventing illegal discharges of oily wastes into the ocean. We are committed to the people of Hawaii to protect our waters and the Pacific Ocean from the damage caused by pollution from illegal dumping.'*

According to court documents and information presented in court, the defendants illegally dumped bilge waste from *Topaz Express* directly into the ocean, without properly processing it through pollution prevention equipment.



Bilge waste typically contains oil contamination from the operation and cleaning of machinery on the vessel. The defendants admitted that these illegal discharges were not recorded in the vessel's oil record book as required by law.

Specifically, on three separate occasions between May and July 2019, Bernhard, acting through Chief Engineer Sken-da Reddy and Second Engineer Padmanaban Samirajan, its employees, used a portable pneumatic pump and hose to bypass the ship's pollution prevention equipment and discharge bilge waste directly into the ocean. They then failed to record the improper overboard discharges in the vessel's oil record book.

Additionally, during the US Coast Guard's inspection of *Topaz Express*, Reddy destroyed paper sounding sheets and altered a copy of the vessel's electronic sounding log, in an effort to conceal how much bilge waste had been discharged overboard without being processed through the vessel's pollution prevention equipment.

The US Coast Guard Sector Honolulu and the US Coast Guard Investigative Service investigated the case. Trial Attorney Stephen Da Ponte of the Environment and Natural Resources Division's Environmental Crimes Section and Assistant US Attorney Marc A Wallenstein of the District of Hawaii are prosecuting the case.

## Joining Amver

### (Automated mutual-assistance vessel rescue)

Amver is a worldwide voluntary ship reporting system operated by the United States Coast Guard (USCG) to promote safety of life and property at sea.

Amver's mission is to quickly provide SAR authorities, on demand, accurate information on the positions and characteristics of vessels near a reported distress.

Any merchant vessel anywhere on the globe, on a voyage of greater than 24 hours duration, is welcome in the Amver system and family, it is reported. International participation is voluntary regardless of the vessel's flag of registry, the nationality of the owner or company, or ports of call.

In mid-February 2020 new participants in AMVER totalled another nine ships, ranging from a container vessel to a cruise ship and a platform supply vessel.

### Every week new vessels commit to saving lives at sea.

In the words of the recent invitation to join AMVER: *'You may be asking yourself why they do this. Isn't there already a global system for search and rescue? Don't all ships at sea hear a distress when it goes out? The answer is complicated.'*

*'First, there is no global, dedicated and mandatory search and rescue system. There are several global vessel tracking systems, but they are not for the sole purpose of search and rescue.'*

*'Second, not all ships hear a distress call. There is a complex system involving satellites, radios and rescue coordination centres that all play a part in managing a maritime search and rescue case.'*

Amver participants play a huge part in assisting in a maritime emergency. Because Amver ships volunteer their positions, a search and rescue expert can reasonably expect an Amver participant will assist when called. Additionally, rescue experts have greater detail about Amver ships such as medical equipment and medical personnel.

### Contact method

If a ship already has an inexpensive means of sending electronic mail (e-mail) to an internet address, this is a preferred method. E-mail may be sent via satellite or via HF Radio, depending on the ship's equipment and arrangements with communication providers ashore. Ships must be equipped with a personal computer, an interface between the computer and the ship's communication equipment, and the appropriate software.

### It is important to note

The e-mail path on shore to the Amver centre is essentially free, but the communications service provider may still charge from ship to shore.



The Amver invitation concluded with: *'You and your ships can be part of the solution. You can make search and rescue easier and more effective. You can provide hope. You can enrol in Amver today.'*

**In February Amver welcomed the following new members:**

*Vostochny Voyager  
Crest Aries 1  
Salamina  
Seven Sea Splendor  
Ocean Goby  
Kalamos  
Nightsky  
Torm Elizabeth  
Ultra Courage*

Readers wishing to learn more about Amver are invited to see here: <https://www.amver.com/>

To join see here:  
<https://www.amver.com/Home/Enrollment>

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## **Optimarin BWT fleet agreement with DOF Group**

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Ballast water treatment (BWT) specialist Optimarin has signed a fleet agreement with DOF Group (<http://www.dof.no/>) for the installation of 16 Optimarin Ballast Systems (OBS), with an option to extend the contract to 50 vessels in total.



*Integrated offshore company with global operations, DOF operates Skandi Africa.*

This deal, Optimarin's biggest single agreement in the offshore segment, will see the USCG approved OBS installed across a range of advanced Platform Supply Vessel (PSV), Subsea and Anchor Handling Tug Supply (AHTS) vessels.

DOF, a leading integrated offshore company with global operations, will take delivery of three systems this year, with the remainder following in 2021 and 2022.

Flexibility of Optimarin's modular system allows for easy retrofitting, giving DOF the opportunity to install some sys-

tems under scheduled sailings with the crew undertaking all fitting, while Optimarin handles commissioning.

Remaining units will be installed during planned dry dockings and International Oil Pollution Prevention (IOPP) certificate renewals, it is understood.

Speaking about the agreement, Lars Njåstad, Chief Procurement Officer, DOF ASA, indicated that DOF's team went through a very thorough evaluation and tendering process before reaching their decision.

He explained: *'It was crucial to get a proven, trusted and globally compliant system that would provide optimal long-term value for DOF and its stakeholders. Technology that was simple to retrofit, given the commitments and limited space on these state-of-the-art vessels, was also a determining factor. OBS ticked these boxes.'*

### **Increasing opportunity**

The contract follows Optimarin's best ever annual results, with 2019 sales and revenues roughly double that of 2018, while the number of units now sold approaches 1000 (with over 650 installed and operational).

Tore Andersen, EVP Sales and Marketing, Optimarin, commented that the DOF agreement is indicative of accelerating sales and opportunity within the niche BWT segment: *'DOF is a world class ship owner and operator, which, like Optimarin, has forged a reputation for itself through dedicated, high quality service within a core specialism. We're delighted to sign a contract of this scale, with a name that commands so much respect throughout the industry.'*

He continued: *'As the need for final regulatory compliance grows we're seeing an increased interest in fleet agreements of this nature, with forward-thinking owners looking to guarantee global flexibility and secure trusted systems ahead of the retrofit wave.'*

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## **UK and Ireland Light Dues 2020 to 2021**

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**A written statement<sup>1</sup> to the UK Parliament (House of Commons, Lower House)**

**Rate of light dues payable to support the work of the General Lighthouse Authorities.**

One of Maritime Minister Nusrat Ghani's last duties before leaving office on 13 February was to make a written statement on Light Dues, the means of financing the marine aids to navigation services of the United Kingdom.

In the document she said: *'A strong and growing maritime industry is vital to the economy of the United Kingdom and it is critical that we treasure and protect this vital artery if we are to remain a world-leading maritime centre.'*

*'The work of the General Lighthouse Authorities<sup>2</sup>, which provide and maintain marine aids to navigation and respond to new wrecks and navigation dangers in some of*

*the busiest waters in the world, is crucial to underpinning that vision whilst maintaining our vigorous safety record and continuously improving standards of safety.*



UK Maritime Minister, Nusrat Ghani

*'Reductions in the three General Lighthouse Authorities' running costs have enabled the UK to reduce light dues on four occasions since 2014. For 2020 to 2021 I intend to freeze light dues rates at 37½ pence per net registered tonne. This will mean that light dues will have fallen by 30% in real terms since 2010.*

*'Light dues rates will continue to be reviewed on an annual basis to ensure that the General Lighthouse Authorities are challenged to provide an effective and efficient service which offers value for money to light dues payers.'*

**The General Lighthouse Authorities of these islands are:**

**Trinity House**  
([www.trinityhouse.co.uk](http://www.trinityhouse.co.uk))

**Commissioners of Northern Lighthouses (Northern Lighthouse Board)**  
([www.nlb.org.uk](http://www.nlb.org.uk))

**Commissioners of Irish Lights (Irish Lights)**  
([www.irishlight.ie](http://www.irishlight.ie))

<sup>1</sup>A similar statement was made the same day in the House of Lords (Upper House) by Baroness Vere of Norbiton, Parliamentary Under-Secretary for Transport.

<sup>2</sup> Explained here: <https://tinyurl.com/rag8nm4>

## **European Shipping Week 2020 opens with the latest figures on European shipping**

European Shipping Week 2020, the biggest shipping event in Brussels and the flagship event of ECSA, opened on 17 February with the release of the latest figures on European shipping by Oxford Economics.

According to the latest information from 2018, European shipping directly contributed € 54 billion to the Gross Do-

mestic Product (GDP) of the EU. Taking into account the spill over effects to other sectors of the EU economy, the total contribution stands at €149 billion.

The European shipping industry directly employs 685,000 people. In total, taking into account the effects on other sectors of the EU economy, the European shipping industry is supporting 2 million jobs.

A direct comparison with the previous 2015 figures is difficult, due to changes in methodology and data sources. However, the trends are clear. The European shipping industry, with a few exceptions, is still under severe pressure from difficult market conditions, leading to a decline of the contribution to the EU's GDP. As a result also the number of jobs created by the European shipping industry remains under pressure.

In the words of Martin Dorsman, ECSA's Secretary General: *'Shipping is and should always remain one of the most valuable assets of Europe, economically, socially and culturally. There are many opportunities as well as challenges facing the sector. Especially the continued depressed market conditions for many EU shipowners pose extra challenges for the industry that wants to decarbonise as quickly as possible and to contribute to safe and highly skilled jobs in Europe.'*

*'For European shipping to stay in business, regulators have to adopt a global perspective and ensure a global level playing field. The current tensions between the global trading powers, the rise of piracy in the Gulf of Guinea and the insecurity along the Gulf of Hormuz all contribute to difficult and uncertain market conditions.'*

Dorsman also added that Brexit is a contributing factor to the uncertainties faced by the European shipping industry.

The 2020 update of the *Economic Value of the EU Shipping Industry* by Oxford Economics is available for download here: <https://tinyurl.com/wz54aqf>

### **About ECSA**



The European Community Shipowners' Associations (ECSA) was founded in 1965 and represents the national shipowners' associations of the EU and Norway.

European shipowners control 40% of the global commercial fleet, contribute €147 billion to the EU GDP and provide 2.1 million Europeans with careers both on board and ashore.

ECSA promotes the interests of European shipping so that the industry can best serve European and international trade in a competitive free business environment to the benefit of shippers and consumers.

See also: [www.ecsa.eu](http://www.ecsa.eu)



## Fatal accidents caused by moving elevators on ships

### AMSA Marine notice issued

On 13 February the Australian Maritime Safety Authority (AMSA) issued Marine notice 01/2020 *Fatal accidents caused by moving elevators on ships* the purpose of which was to highlight shipowners', operators', masters' and crews' obligation to ensure safe working arrangements are in place for any work involving a ship's elevator.

### Background

During 2018 and 2019, AMSA received notification of two separate accidents that involved crew members being trapped and crushed by a moving elevator.

In both instances, the elevator moved while the crew members were working between the elevator casing and the cage, resulting in fatal crush injuries.

Incidents resulting in crush injuries caused by an elevator are not new, with a similar fatality investigated by the Australian Transport Safety Bureau (ATSB) in 2007. In this instance, a crew member was crushed in the elevator while conducting repairs. Elevator-related fatalities have also been reported on multiple ships in other parts of the world.

AMSA believes that such incidents are avoidable through the application of simple and effective risk controls.

### Systemic failures related to fatal crushes in elevators on ships

Similar systematic failures have been identified in all of these fatal accidents. The following were considered to be some of the key safety issues:

- Elevator instruction manuals lacked unambiguous and useable safety guidance.
- No proper risk assessments were in place for elevator maintenance as part of the safety management system.
- Risk assessments that did exist were not effectively implemented.
- Crew were not aware of—or did not consider—all of the hazards associated with working in the elevator. An example of this is the counterweights that moved down as the lift cage moved up, causing harm.
- Untrained personnel were used to carry out maintenance and repairs on the ship's elevators.
- No appropriate safeguards were in place—such as isolation lock-out—to ensure that the elevator cage did not inadvertently move while the crew were working in the elevator shaft.

### Expectation

An elevator shaft is a very hazardous environment in which to work. The potential dangers involve:

- height risk

- injury by falling object(s)
- noise
- electrocution from live electrical circuits
- unanticipated movement of the elevator cage.

AMSA cannot stress enough the importance of conducting a proper risk assessment and implementing relevant procedures, which are applied in practice to ensure the safety of crew working on a ship's elevator.

AMSA also recommends planning for elevator maintenance or deferring elevator maintenance work until the vessel is in port and utilising a trained manufacturer's technician.

### Effective risk assessment

AMSA's *Maritime Safety Awareness Bulletin Issue 6\** provides guidance on tools and methods that can be adopted to support risk identification and the implementation of risk controls.

\* <https://tinyurl.com/urvbvwc>

## Holds and Hatch Covers

### The London P&I Club's updated guide

Hatch cover design is continually evolving to meet changing trading needs. The London P&I Club's updated guide on the safe operation and maintenance of ship holds and hatch covers is now available.



**Illustration reproduced by kind permission of The London P&I Club**

This document also covers important safety issues, highlighting right and wrong ways of working, as well as correct practices and potential dangers. Furthermore, the guide aims to provide simple pointers for the safe operation and maintenance of the holds and hatch covers of ships carrying dry cargoes. Safety of personnel and care of cargo are the prime considerations addressed, but efficiency, economy and reputation are all taken into account.

In the introduction the publication highlights some of the common causes of damage, loss and personal injury associated with cargo holds and hatch covers. It will help ship's staff to operate and maintain the holds and hatch covers on their vessel safely and cost effectively.

*Holds and Hatch Covers* is designed to assist shipboard staff in identifying the right and wrong ways of working by highlighting correct practices and pointing out potential dangers. The generous use of photographs, sketches and simplified wording is intended to encourage use of the book by those with a limited knowledge of English.

The London P&I Club insures a diverse range of shipowners and charterers and is one of the world's leading Protection and Indemnity Associations, providing P&I, FD&D and War Risks cover to an international membership.

*Holds and Hatch Covers* is available to download here: <https://tinyurl.com/ucpopl5>

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## USCG State of the Coast Guard address

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### Commandant highlights achievements and new initiatives in 2020 address

On 20 February the Commandant of the US Coast Guard outlined his vision for the service and highlighted the accomplishments of its people during that day's 2020 State of the Coast Guard Address in Charleston, South Carolina.

During his annual address Admiral Karl Schultz reflected on the organization's successes over the past year and the Fiscal Year 2021 President's Budget Request.

He also outlined plans to expand the Coast Guard's footprint in the Charleston area by homeporting five National Security Cutters and potentially becoming a future home of the service's Offshore Patrol Cutter, currently under construction.

He told those present: *'Charleston is a first stop to nationwide investment in our service, our facilities, and our people. To serve the communities in which we live, we need early adopters like you here today.'*

The Commandant provided updates on the acquisition timeline for the Polar Security Cutter and Offshore Patrol Cutter.

Along with these acquisition updates, the Coast Guard will restore hurricane-damaged facilities in South Carolina and seek to expand its operations based in the Lowcountry.

Currently USCG is carrying a nearly \$2 billion shore infrastructure backlog, and in one example Admiral Schultz explained how flooding affected operations at Coast Guard Station Niagara, New York, which was pumping more than 200,000 gallons of water from its facility daily last spring.

He continued: *'Every mission begins and ends at a Coast Guard facility. Unfortunately, due to years of flat-line budgets forcing trade-offs, the facilities that our men and wom-*

*en deploy from and return to are crumbling around them.'*

The Commandant shared his vision for talent management in the Service.

Specifically, he outlined several personnel initiatives to recruit and retain a highly-skilled workforce. This includes a Coast Guard under-represented minority study to better understand recruiting and retention dynamics and a Coast Guard Diversity and Inclusion Action Plan to foster a more inclusive culture. He announced a workforce readiness website, called "My Coast Guard," delegated meritorious advancement authority to field commanders, and expanded the enlisted Marine Inspector Training Program.

*'Talent management is both our most pressing challenge and our greatest opportunity,'* said Schultz as he was flanked by Coast Guard service members. *'That is why I believe wholesale investment will enable our talented people to carry out their missions across the maritime domain today and tomorrow.'*

During the address Admiral Schultz presented various awards to USCG staff.

The Coast Guard's enduring and specialized role in the Indo-Pacific region was also highlighted. The service will expand its permanent presence in the region through expeditionary capability, work with its partner nations to address the security challenges in the region, and build capacity and capability.

The Commandant rolled out the service's "Tech Revolution" road map, a detailed plan to update the Coast Guard's 1990's-era hardware, software, and analytics.

He also described the need to strengthen service innovation initiatives and accelerate implementation of the best ideas service-wide to field commanders. These include the marine inspector mobility application INSPECT, partnering with Global Fish Watch to combat illegal fishing, linking to the DoD's Defense Innovation Unit in Silicon Valley, and the establishment of the Blue Technology Centre of Expertise at the University of California San Diego.

Other initiatives discussed were the Coast Guard's Cyber Strategy, improving cutter connectivity, and modernizing the Coast Guard Auxiliary's information technology capabilities.

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## From the IFSMA office

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We have published links to useful information on our website in the IFSMA Log (Login required). COVID-19 infection is a rapidly changing situation. To keep up to date we suggest you frequently check links provided and find the one that suites you best.

Don't forget to view the video in the IFSMA Log "Problem Ports: Seafarers' Stress and Subjugation as a Result of Corrupt Practices". Produced by Cardiff University, Seafarers International Research Centre (SIRC), highly recommended. <https://www.ifsma.org/page-3/index.php>