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IFSMA

NEWSLETTER

The Shipmasters' International Voice



Illustration per www.intercargo.org introducing
INTERCARGO's Spring Semi-Annual Meetings;
see page: 13. INTERCARGO ©.



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Secretary General's Report

The Secretariat has been heavily involved at the IMO this month at the Maritime Safety Committee (MSC) which ran for eight days. As you can imagine, much time was spent discussing the war in Ukraine. The Committee condemned the actions of the Russian Federation and produced an MSC Resolution to that effect.

(See summary of MSC 105 on page 6). It is clear that there is a lot of committee work backing up and much effort will be needed in the future. IFSMA will be asking for assistance in the near future for people with recent knowledge from sea and STCW which will soon be subject to a comprehensive review. I expect that initially an examination will be undertaken to decide what sections need rewriting and in what order.

The issue of fatigue has come to the surface again, thanks to a study undertaken by the World Maritime University in which IFSMA was directly involved. At last we have managed to get some nations and organisations interested and France, Spain, ITF and IFSMA sponsored a paper to take this forward and it will be discussed in the Committee when it next meets in November. This is indeed encouraging.

MASS was again discussed and it was agreed that IMO will start work on a code for the regulation of MASS, but because of the complexity of this issue it was agreed by the Member States that it would initially be for cargo ships and at a later date for passenger ships if needed. The Code will start as guidelines for the industry before becoming mandatory in future as it matures. IFSMA has always argued that this should be for All Ships – same as for the COLREGS – but lost the argument despite being supported by some of the larger seafaring nations. We will continue to take this forward and we currently are very well represented by members in this area. There will be a Joint Working Group from all areas of the IMO to coordinate this work which IFSMA will attend.

We remain concerned about the safety of pilots getting on and off ships and that there are too many accidents involving the incorrect use of Pilot Ladders. A proposal has been made to review this issue and will be discussed at the next MSC. (There is a short article on Pilot Ladder safety as addressed by IMPA and the Nautical Institute on page 31 of this issue).

I do not need to remind you that the Covid Pandemic is still causing problems with crew changes and port calls so please stay vigilant and let me know of any issues you come across so that I can take this forward in the Joint Industry Covid Committee.

With fair winds and a following sea.

Keep safe.

Jim Scorer.

From the News Editor

In recent weeks it has been reported that the Indian Register of Shipping (IRS) has successfully completed Condition Assessment Programme (CAP) certification of four vessels of MOL Tankship Management Pte Ltd of Singapore.

CAP certificates were issued to two VLCCs and two LPG carriers.

IRS carries out CAP certification as required by oil majors. Having certified more than 200 vessels including oil and chemical tankers as well as product, asphalt and liquefied gas carriers, IRS has strong experience in performing CAP certification.

IRS's CAP programme, known as IR-CAP, is well recognized by a large number of oil majors worldwide. IR-CAP provides independent and thorough evaluation of the ship based on actual condition, in line with requirements of oil companies.

Hull CAP carried out on the basis of assessment of structural conditions of hull at dry dock and afloat through detailed visual surveys, extensive thickness measurement, longitudinal strength, buckling strength calculation and fatigue strength calculation. Machinery & Cargo System CAP is based on the assessment of machinery visual inspection, functional testing, analysis of lubricating oil, vibration measurement and verification of insulation resistance testing.

Mr Pankaj Kumar, DGM of MOL's India subsidiary said: *'MOL thanks Indian Register of Shipping for their excellent support during the change of Flag and CAP surveys and we look forward to long term relationship with IRS.'*

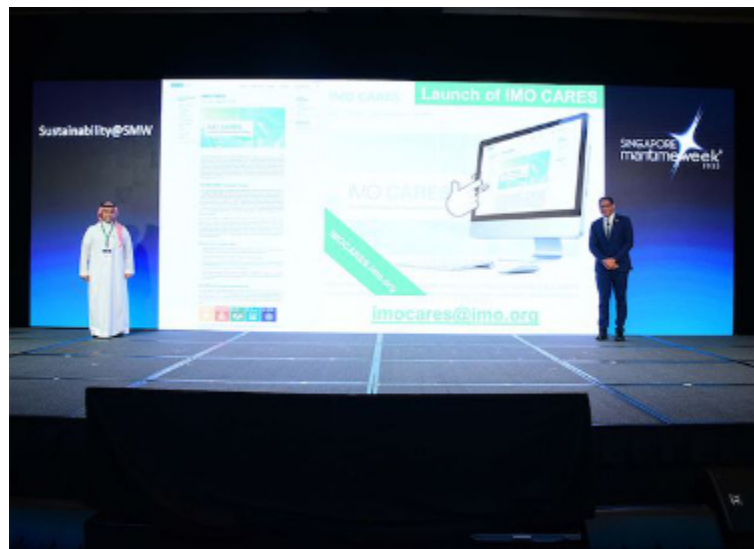
The IMO Digest

A summary of some of the news received with grateful thanks from the excellent IMO Media service in recent weeks.

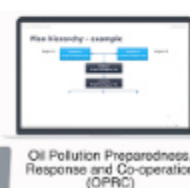
Illustrations per www.imo.org ©

IMO and e-Learning

IMO is adding e-Learning to its portfolio of services.



The first free to access course was launched during an online event held on 7 April, in the margin of its Pollution Prevention and Response (PPR) Sub-Committee meeting at IMO.



IMO has developed a number of e-Learning courses with the purpose of increasing the capacity of Member States to effectively implement IMO instruments. Some courses are also available to anyone interested in maritime issues wishing to enhance their maritime knowledge.

The first such course is: *An Introduction to Oil Pollution Preparedness, Response and Cooperation*, designed to provide a basic introduction to those involved in, or that have an interest in, matters related to oil pollution preparedness and response, whether from within the oil spill response community or the maritime sector.

The series of e-Learning courses is being developed in collaboration with the World Maritime University. Distance learning has become key in meeting the changing educational needs in the maritime industry and IMO is offering students and maritime professionals around the world the possibility to boost their understanding of key maritime issues.

Readers are invited to click here to visit the e-learning platform: <https://lms.imo.org/moodle310/>

IMO and the ILO's MLC

Oman ratifies

It was reported on 11 April that IMO had welcomed the 100th ratification of the International Labour Organization's Maritime Labour Convention (MLC), 2006, which is the global instrument mandating seafarers' employment rights and decent working conditions. Oman deposited its instrument of ratification with the ILO on 11 April 2022¹.

An international regulatory regime

Throughout the industry MLC, 2006, is considered the fourth pillar of the international regulatory regime for quality shipping, complementing three key IMO treaties on safety of life at sea (SOLAS), training of seafarers (STCW)

and marine pollution prevention, (MARPOL). The MLC, 2006, lays out requirements for payment of wages, leave, repatriation and medical care of seafarers, creating regulatory obligations for States, ship owners and operators.



Operating in a safer and more supportive working atmosphere boosts the ability of seafarers to avoid and respond to incidents at sea that could impact vessels and their crew, cargoes and the marine environment.

Joint IMO/ILO WG

IMO and ILO have a close working relationship. This has included input into the 2014 amendments to the MLC related to financial security in the case of abandonment of seafarers. A joint IMO/ILO working group reported to both IMO's Legal Committee and ILO's governing bodies. The two organizations regularly share information about issues of seafarer wellbeing and jointly maintain a database listing cases of seafarer abandonment. This collaboration has proven particularly relevant during the Covid-19 pandemic where both organizations worked closely together to address the crew change crisis and its consequences.

The 32nd session of the IMO Assembly included a new specific strategic direction on the human element in the current Strategic Plan for IMO². In furtherance of the work on the human element, is the intensified partnership with UN sister agencies that has culminated in the approval by the ILO Governing Body, and the endorsement by the IMO Council, of a Joint ILO/IMO Working Group to identify and address seafarers' issues and the human element in areas of common interest to both organizations. The group is expected to meet later in 2022.

¹For more see here: <https://tinyurl.com/2s3u7p8f>

²For an introduction see here: <https://tinyurl.com/2rtjvxsv>

Illicit maritime activity

South Africa signs Jeddah Amendment

On 21 April, the IMO media service announced that South Africa had become the 17th signatory* to the Jeddah Amendment to the Djibouti Code of Conduct (DCoC).

In 2017 the Jeddah Amendment was adopted to broaden the scope of the DCoC, which was developed and adopted in 2009 by countries in the Western Indian Ocean and Gulf of Aden as an important tool to combat piracy and armed robbery against ships in the region.

The Jeddah Amendment covers measures for suppressing a range of illicit activities, including piracy, arms trafficking, trafficking in narcotics, illegal trade in wildlife, illegal oil bunkering, crude oil theft, human trafficking, human smuggling, and illegal dumping of toxic waste.

Among other things, the DCoC/Jeddah Amendment regime has established a functioning network of Information Sharing Centres and a regional training coordination mechanism.

Signatory States have embraced the IMO 'Whole of Government' approach to maritime security, including the establishment of National Maritime Security Committee Structure (Including Sub-Committees), development of the National Maritime Security Risk Register and producing the National Maritime Security Strategy by all participating States, with support from IMO.



DCoC
DJIBOUTI CODE OF CONDUCT



HE Nomatamba Tambo, High Commissioner to the United Kingdom of Great Britain and Northern Ireland and Permanent Representative of South Africa to IMO deposited the instrument with IMO Secretary-General Kitack Lim at IMO Headquarters in London 20 April.

To read more about the Jeddah Amendment to the Djibouti Code of Conduct or the DCoC readers are invited to see here: <https://dcoc.org/>

A DCOC eleven-page publication Enhancing the Djibouti Code of Conduct – Jeddah Amendment Information

Sharing Network: Strategy Roadmap November 2021 is available here: <https://tinyurl.com/4znhmyx6>

* The 17 signatories are: Comoros, Djibouti, Ethiopia, Jordan, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Oman, Saudi Arabia, Seychelles, Somalia, South Africa, United Arab Emirates, United Republic of Tanzania and Yemen.

IMO and tackling aquatic invasive species

A major project to tackle bioinvasions by organisms which can build up on ships' hulls and other marine structures saw activities slow down during the Covid-19 pandemic but is on track to meet its targets. This was reported by IMO on 22 April.

The Global Project Task Force of the IMO-executed GloFouling Partnerships project (<https://www.glofouling.imo.org/>), a collaboration between the Global Environment Facility (GEF), the United Nations Development Programme (UNDP) and IMO, met for its second meeting (11 to 13 April) at IMO HQ in London.

The project addresses biofouling – the accumulation of algae, animals and micro-organisms on the surface of ships. Biofouling plays an important role in the transfer of invasive aquatic species (IAS) from one region to another. Reducing biofouling contributes to the reduction of GHG emissions from ships.

Busy projects ahead

Despite the restrictions imposed by the pandemic, the project moved many activities online and completed a number of reports since the first task force meeting in 2019. Looking ahead, the Project has been extended to 2025. A revised work plan and budget for 2022-2025 was agreed, with the inclusion of a key demonstration event on biofouling management in marine protected areas. This is likely to be conducted in the Galapagos Islands (Ecuador).

An R&D Forum and Exhibition on Biofouling Management, organized by GloFouling Partnerships, will be held from 11 to 14 October 2022, at IMO HQ in London, (further details on how to participate will be available soon, it is understood.)

During 2020-2021, three lead partnering countries in the project (Indonesia, Jordan, Philippines) delivered training through national institutions and nine others plan to do so during 2022.

All countries have completed national status assessment reports on biofouling management and established a national task force to lead action on biofouling. A number of regional awareness seminars took place online. In 2022, regional task force meetings are planned in four regions, with a view to developing the first draft of regional strategies and action plans.

The project's Global Industry Alliance (GIA) for Marine Biosafety was established and commissioned and completed a number of reports and studies during 2020-2021.

Twenty-three online webinars staged

Despite the pandemic, awareness raising and training continued. During 2020-2021, some 7,000 people registered for 23 online webinars and more than 630 participants engaged in online training opportunities (workshops, seminars) conducted in lead partnering countries. In addition, more than 500 people participated in national and regional policy development events.

Wealth of publications

Reports, studies and best practice issued during 2020-2021 included: *Guide on the development of National Status Assessments on Biofouling Management*; *Guide to developing a National Biofouling Strategy*; and *Guide for the development of Rapid Economic Assessments for Biofouling Management and Invasive Aquatic Species*. It was reported by IMO that all three guides will be published in 2022.

Reports commissioned by the GIA included: *Report – Analysis of existing and emerging regulations, standards and practices related to ships' biofouling management*; *Report – Impact of biofouling on fuel consumption and GHG emissions* (to be issued in 2022).



A *Report on Biofouling Management for Recreational Boating* has been developed which includes the result of an online survey on current practices implemented by boaters and marinas (to be published in 2022).

Future reports and guidance in progress include: *GESAMP report on the scientific aspects of biofouling and aquatic invasive species introduced via biofouling*; *Report on best practices to manage biofouling in the aquaculture sector*; and *Report on best practices on biofouling management in the offshore oil and gas industry*.

Representatives from eleven lead-partnering countries, four regional organizations, IOC-UNESCO and numerous strategic partners including from the private sector attended the 2nd Global Project Task Force meeting for the GloFouling Partnerships project.

Broad representation

The twelve Lead Partnering Countries in the GloFouling Partnerships Project are: Brazil, Ecuador, Fiji, Indonesia, Jordan, Madagascar, Mauritius, Mexico, Peru, the Philippines, Sri Lanka and Tonga.

IMO MSC Resolution

Actions to facilitate seafarer evacuation From 20 to 29 April the IMO Maritime Safety Committee (MSC 105) adopted a resolution to facilitate the urgent evacuation of seafarers from the war zone area in and around the Black Sea and the Sea of Azov as a result of the Russian Federation's aggression against Ukraine.

IMO's mission

Delegates were reminded of the IMO Convention and the Strategic Plan of IMO being to promote safe, secure, environmentally sound, efficient and sustainable shipping through cooperation,

Condemnation of the Russian Federation

UN General Assembly resolution A/RES/ES-11/1 of 2 March 2022, *inter alia*, condemned the declaration by the Russian Federation of a special military operation in Ukraine, deplored in the strongest terms the aggression by the Russian Federation against Ukraine in violation of article 2(4) of the Charter, and demanded that the Russian Federation immediately cease its use of force against Ukraine and refrain from any further unlawful threat or use of force against any Member State,

The paramount importance of preserving the safety and welfare of seafarers and urged Member States and observer organizations to provide maximum assistance to seafarers caught up in the conflict was underscored,

Also emphasised was the need to preserve the security of international shipping and the maritime community, and the supply chains that sustain other nations, as well as supply chains providing necessary food and medicines to the people of Ukraine,

Grave concern

At MSC delegates recalled the statement of the IMO Secretary-General of 26 February 2022 which expressed his grave concern regarding the spill over effects of the military action in Ukraine on global shipping, and logistics and supply chains, in particular the impacts on the delivery of commodities and food to developing . To this is added the impacts on energy supplies and the need to appreciate that ships, seafarers and port workers engaged in legitimate trade should not be collateral victims in the political and military crisis,

The Committee emphasised that ships should be allowed to sail from the ports of Ukraine at the earliest opportunity without threat of attack; and that for those ships that cannot leave immediately, or where it would be unsafe to do so due to the presence of sea mines or other hazards, humanitarian corridors be set up to enable the safety of seafarers by allowing them to leave the conflict zone and return home, as appropriate,

Implementation of a blue safe maritime corridor

Furthermore the MSC invited the Secretary-General to collaborate with the relevant parties and take necessary immediate actions to initiate the establishment and

support the implementation of a blue safe maritime corridor in the Black Sea and the Sea of Azov and keep Member States informed of developments, and to report to a future session of the Council,

Condemnation of seafarer harassment

MSC condemned any form of harassment of seafarers due to their nationality and underlined that seafarers affected by the conflict should be allowed free access to communications with their families,

The MSC indicated that it was deeply concerned by the impact of the Russian Federation's aggression against Ukraine on the safety and welfare of seafarers, including their mental health and that of their families,

Impact on safety of navigation

Consideration was given to the impact of the Russian Federation aggression against Ukraine on the safety and security of navigation and the integrity of global supply chains.



It was emphasised that nearly all of Ukraine's grain exports pass through seaports on the Black Sea and the Sea of Azov. Here the Russian Federation naval blockade and shelling of ships and port infrastructure prevents commercial ships, including some loaded with grain and other agriculture commodities, from leaving the ports. This situation prevailing was noted in the recent reports by UNCTAD and the decision of the International Grains Council of 6 April 2022 (for the latter readers are invited to see here <https://tinyurl.com/5xyzvamt>)

Delegates at the MSC were gravely concerned by the number of ships and seafarers currently stranded in the Black Sea and Sea of Azov region and unable to leave the area safely, the collateral damage to many merchant ships and the tragic injuries and deaths of seafarers as a result of the Russian Federation aggression against Ukraine,

There have been alarming reports that seafarers in some Ukrainian ports no longer have secure access to fresh food, water and medical supplies as a result of the Russian Federation aggression against Ukraine,

Further, there was concern over reports of illegal seizure and detention of civilian ships, including SAR vessels, and their crews, all of which enjoy special protection under international humanitarian law,

IMO accord with other organizations

Apparently the IMO Secretary-General and the Director-General of the International Labour Organization (ILO), have jointly written to the Heads of the International Committee of the Red Cross (ICRC) and Médecins Sans Frontières (MSF); and to the United Nations High Commissioner for Refugees (UNHCR), to request urgent action wherever feasible to assist in the re-provisioning of the ships concerned with the vital supplies needed by their seafarers,

Furthermore, the MSC thanked the IMO Secretary-General for taking action to promote the establishment of a Blue Safe Corridor and to facilitate dialogue with key stakeholders to support the safety and security of seafarers, merchant shipping, the marine environment and global supply chains;

In addition the MSC requested that the Secretary-General continues to use his good offices to secure the assistance of international humanitarian bodies such as the International Committee of the Red Cross (ICRC), United Nations Office for the Coordination of Humanitarian Affairs (OCHA) and United Nations High Commissioner for Refugees (UNHCR) to provide, as a matter of urgency, humanitarian support to seafarers stranded in Ukrainian ports and to assist in their safe and expeditious evacuation; from the zone of hostilities;

Finally, MSC requested that the IMO Secretary-General continues to examine the establishment of other corridors for the continued safe and expeditious evacuation of seafarers and ships from the zone of hostilities.

In conclusion the MSC further requested that the Secretary-General continues to provide regular updates on the impact of the Russian Federation aggression against Ukraine on international shipping and the wellbeing of seafarers;

The MSC also called on the Russian Federation to immediately and unconditionally cease its aggression against Ukraine, withdraw its troops from the region, including Ukraine's territorial waters, as well as refrain from taking steps in furtherance of the military operations, which affect the evacuation of commercial ships and seafarers from the war zones;

Member States of IMO were urged to raise concerns regarding the collateral impact of the Russian Federation aggression against Ukraine on seafarers, port workers, safety and security of navigation, global supply chains and food security at the United Nations General Assembly and other United Nations Specialized Agencies, and request those bodies to seek a solution to alleviate these critical concerns, aiming to contribute to a peaceful solution.

Rolls-Royce launch new products

Rolls-Royce launches new mtu NautIQ products with Sea Machines technology to deliver intelligent crew support systems

Rolls-Royce announced on 5 April that it is expanding its range of mtu NautIQ ship automation systems with three new products: mtu NautIQ CoPilot, mtu NautIQ CoOperate and mtu NautIQ CoDirect.

It is understood that each offers different levels of intelligent crew support, autonomous control, and remote command capabilities.

Furthermore, it was reported that clients in all marine applications will gain significant operational advantages and benefits in terms of safety, efficiency, environmental impact, and climate friendliness. The new products are the next step in the cooperation between Rolls-Royce and Sea Machines Robotics, a leading developer of autonomous control and remote-vessel command systems, which was first announced at Monaco Yacht Show in September 2021.

Continued development of the mtu NautIQ product range is at the core of Rolls-Royce's strategy to be an innovation leader in the marine business and to provide customers with complete propulsion and control solutions from 'bridge to propeller'.

An intelligent pilot assist system

mtu NautIQ CoPilot is claimed to be the most advanced intelligent pilot assist system of the new product range. Depending on operating mode, the human-on-the-loop system can either autonomously control a planned voyage from start to finish, or not intervene at all in human operations, while only guiding the operator. The system enables navigation with greater precision and predictability, helping to reduce costs, fuel consumption and emissions. It is an important step towards more climate-friendly marine operations, made possible by the ground breaking fusion of digital marine sensors, embedded electronic charts, advanced AI algorithms and one of the world's most advanced broad-area computer vision systems.

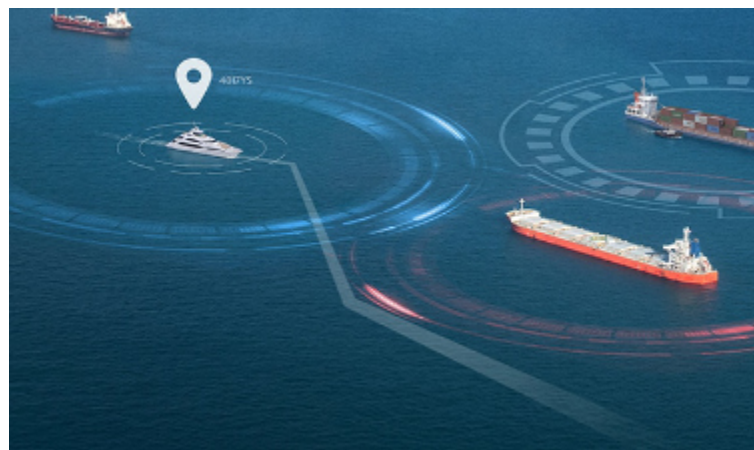
An optionally autonomous ship navigation command system

mtu NautIQ CoOperate is an optionally autonomous ship navigation command system which enables off-boat remote command, including all payloads on board.

Reports indicate that the system can take over routine vessel tasks and allow crews to focus on more important aspects of their missions. The system has recently proven itself in the field: The tug *Nellie Bly* used the system to complete a 1,000 nautical mile roundtrip from Hamburg and circumnavigated Danish waters, remotely commanded from an office in Boston, USA, 3,000 nautical miles distant. As with all the new products, operators can intervene at any moment if necessary.

Wireless, remote-helm system

mtu NautIQ CoDirect is a wireless, remote-helm system that can control a vessel's engines, steering and transmission as well as payload functions such as winches and cranes from a distance of up to 1,000 metres. This is claimed to allow marine crews to operate the vessel from the best vantage point, increasing safety and efficiency. For example, a tug operator can leave the wheelhouse to operate the vessel from a location with better visibility.



Michael Johnson, CEO and founder of Sea Machines, commented: *'This continued partnership is significant because it brings together a foremost marine power and propulsion solutions provider and the leading developer of advanced and AI-based vessel control systems.'*

'Our alliance not only increases access to intelligent technologies that can positively impact operators' bottom lines, productivity, eco-stewardship and safety, but it also provides proof of the growing market demand for these types of systems for real-world operations.'

'We thank Rolls-Royce for their continued trust in our technology and look forward to seeing them in use aboard a variety of vessel types globally.'

Denise Kurtulus, Vice President Global Marine at Rolls-Royce business unit Power Systems, added: *'I am excited to see how quickly the teams of Rolls-Royce and Sea Machines have turned our joint vision into products available for our customers.'*

'This addition to our mtu NautIQ product portfolio is an important part of our journey towards a provider of integrated sustainable solutions. And it's a fantastic example of how we, as a company with long history and tradition, implement cutting-edge technology – which benefits our customers and the environment alike – in a very agile way.'

Rolls-Royce business unit Power Systems, with its product and solution brand mtu, is pioneering climate-friendly propulsion and power solutions in the marine market. It is currently transforming itself from an engine manufacturer to a provider of integrated sustainable solutions.

With the sustainability programme 'Net Zero at Power Systems', Rolls-Royce Power Systems is taking concrete steps towards climate-neutral solutions. For example, starting in 2023, the company will release its mtu Series 2000 and 4000 engines for sustainable fuels such as e-diesel and second-generation biofuels, thus enabling climate-neutral operation in all applications. In addition to using sustainable fuels, the company is also working on new technologies such as CO₂-free fuel cell systems.

Synthetic fuel

Container ship reduces emissions

MAN Energy Solutions reported on 6 April that the 1,036-TEU container ship, *ElbBLUE* – the former *Wes Amelie* – had reduced its greenhouse gas (GHG) emissions by 27% by operating on a blend of climate-neutral, synthetic natural gas (SNG) and conventional liquefied natural gas (LNG), compared to LNG alone.

Compared with heavy fuel oil (HFO), GHG emission reduction was even as high as 34%. The data has emerged from measurements initially carried out on board the ship in September 2021 when *ElbBLUE* became the first container ship worldwide to replace a portion of its bunkered gas fuel (around 50%) with SNG.

Dr Uwe Lauber, CEO of MAN Energy Solutions, commented: *'With this project, we have proven the technical viability of our concept of the maritime energy transition. Today, more than ever, we are convinced that climate-neutral, synthetic fuels point the way to green shipping – and even further beyond.'*

Lauber continued: *'The current, global, political situation underscores the future role that synthetic fuels can play in a diversified energy supply in that they point the way toward less dependence on raw material deposits, suppliers and price fluctuations. As a result of the military attack on Ukraine in violation of international law, LNG prices, for example, have risen massively in recent weeks and are now at a similar level to SNG. If production capacity can be built up quickly and synthetic fuels made available to the market, SNG could become a climate-friendly and – in the long term – economical alternative to fossil fuels in shipping.'*

Pure SNG to cut GHG by 80%

Stefan Eefting, Senior Vice President and Head of MAN PrimeServ Augsburg, added: *'With this pilot project, we have proven that any LNG-powered ship can also operate with green SNG from power-to-X. Even with a blend of just 50% SNG, GHG and pollutant emissions are significantly reduced. When operated exclusively on SNG, we would expect a reduction of at least 80% in GHG emissions for modern ships.'*

It is understood that gas operation also drastically reduces other polluting emissions compared to HFO. In the case of the *ElbBLUE*, nitrogen oxide emissions (NOx) dropped by almost 87%, while emissions of sulphur oxides (SOx) and particulates were almost completely eliminated. These

values were achieved in both the exclusive operation on LNG and on a blend of LNG and SNG.



Measurements were carried out on a voyage between Brunsbüttel, Germany and Rotterdam, with SNG comprising approximately 50% of the bunkered gas at 85% engine load. *ElbBLUE* is powered by an MAN 51/60DF four-stroke engine. As a multi-fuel engine, the unit allows operation with either HFO or liquid natural gas (LNG) as fuel. The ship's test-run proved that the latter can be replaced by SNG without engine modification.

Pioneer

Owned by German shipping company, Elbdeich, and operated by charterer, Unifeeder, the 1,036-TEU container ship, *ElbBLUE*, sails the North Sea and the Baltic. It made headlines back in 2017 under its former name, *Wes Amelie*, when its MAN 8L48/60B main engine was converted to the current MAN 8L51/60DF four-stroke unit, which enables dual-fuel operation with gas. This was the world's first conversion of a container ship to multi-fuel operation with climate-friendly LNG.

In September 2021, the ship reached another milestone on the road to climate-neutral shipping when, in the Elbe port of Brunsbüttel, it became the world's first container ship to bunker climate-neutral synthetic marine fuel – some 20 tons. The liquefied SNG was produced in a power-to-gas plant operated by kiwi AG in Werlte, Germany and generated from 100% renewable energy.

MAN Energy Solutions has been committed to a Maritime Energy Transition aimed at climate-neutral shipping for many years. From the company's perspective, this requires the industry-wide and massive use of climate-neutral fuels as direct electrification of ocean-going shipping via batteries is not technically feasible. The development and conversion of the infrastructure and global fuel-supply chains required for this can only be successfully achieved in close cooperation between the shipping industry and political regulation, a scenario for which MAN Energy Solutions vigorously advocates.

Maritime Just Transition Task Force

Singapore Maritime Foundation becomes first partner

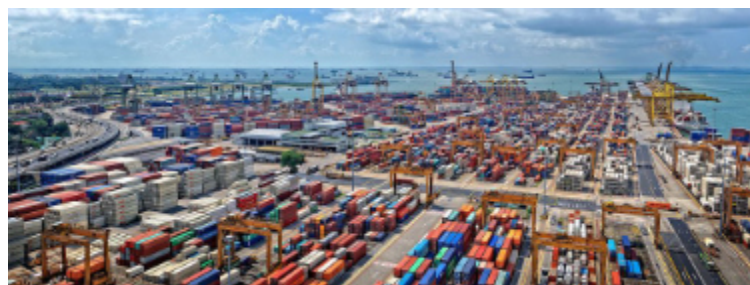
It was reported on 7 April from Singapore that the Maritime Just Transition Task Force founded by the International Chamber of Shipping, the International Transport Workers' Federation and the UN Global Compact announced that the Singapore Maritime Foundation has become its first public programme partner.

The Maritime Just Transition Task Force made the announcement at an event during Singapore Maritime Week. The Singapore Maritime Foundation will play a key role in informing the Global Industry Peer Learning Group and will act as a contributor to the Task Force's work including its first project on skills in maritime.

COP 27

It was also announced that the Maritime Just Transition Task Force will launch a report at COP27 to be held in Sharm el-Sheikh, Egypt, from 7 to 18 November. The document will report on the skills needed for a just and equitable green transition in maritime. Furthermore the report will quantify the number of seafarers that will need to be trained or upskilled to handle the green fuels of the future and the findings will feed into the creation of policy development and provide clear steps for the shipping industry to take.

Established at COP26 in Glasgow, the Task Force founding members also include the IMO and the ILO. It brings together governments, maritime workers' unions, and the shipping industry to pursue a fair and equitable green transition in shipping. Its purpose is to ensure that workers' rights and developing economies' access to zero-emission vessels and zero-carbon fuels remain at the centre of policy decisions.



Additional industry Project Partners are understood to be: Anglo Eastern, MSC, Ocean Technology Group, Ocean Network Express, PTC, and knowledge partners including the World Bank International Finance Corporation (IFC), Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping, the Nigerian Chamber of Shipping, Ocean Conservancy, Carbon Trust and the World Maritime University. The Task Force is also supported by the Lloyd's Register Foundation.

The global shipping industry is responsible for about 3% of global GHG emissions. Reskilling and upskilling the workforce is integral to transitioning industry to a zero-emission value chain of new fuel production and distribution and building its new supporting infrastructure.

What they said

IMO

Kitack Lim, Secretary General of the IMO affirmed: *'A just transition in the maritime sector entails ensuring everyone involved is equipped with the necessary skills and that no one is left behind in this process. Given the international nature of shipping, we need to engage worldwide with all stakeholders.'*

'All of the workforce involved in shipping, but especially the people at the heart of it, the seafarers, need to be a part of this transition. The outcome of the Just Transition Maritime Task Force, is vital to the ongoing processes at IMO related to the future workforce, in particular, the upcoming discussions on a comprehensive review of IMO's International Convention for the Standards of Training, Certification, and Watchkeeping for Seafarers (STCW Convention).'

'I look forward to continued work in collaboration with the relevant stakeholders.'

ICS

Guy Platten, Secretary General of the ICS remarked: *'People are powering this green transition, and they must be set up for success. This is why we established the Just Transition Taskforce to ensure the seafarer workforce is supported. The first step is to quantify the skills needed for our workforce to be able to safely work on zero-emission vessels. We will collaborate with industry and governments to ensure no seafarer is left behind, and that developing nations will have equal access to the same training and support.'*

'ICS is steadfast in its commitment to ensuring that developing economies are supported so we can make the green transition together.'

ITF

Stephen Cotton, General Secretary of the International Transport Workers' Federation (ITF) commented: *'It is fantastic to have new partners like the Singapore Maritime Foundation joining the task force as its critical work begins to gather steam. Singapore continues to be a key global maritime hub, and it is clear that they want to be part of helping drive this industry transformation.'*

'We can only decarbonise shipping if we have the buy-in of all those with an interest in the future of the shipping supply chain.'

'Skills development and retraining is key. But what does that mean if you're a seafarer? Workers want to know what a just transition means in practical terms for their jobs, for health and safety. That's why the top research priority of the taskforce is to calculate the number and kinds of jobs that will be needed for the fuels and ships of the future. Our members are looking forward to seeing the results later this year.'

UN Global Compact

Sanda Ojiambo, CEO and Executive Director, UN Global Compact added: *'As the global community works to urgently halve emissions by 2030 to ensure a 1.5°C future, we must ensure the transition is just, equitable and inclusive, involving governments, unions and the private sector in continuous dialogue. With over 87 million people employed by our nearly 14,000 Participant companies, the UN Global Compact is uniquely positioned to scale the collective global impact of business to support a just transition.'*

'Guided by our recently launched Think Lab on Just Transition, the Maritime Just Transition Task Force and its Industry Peer Learning Group consisting of shipping companies, seafarer unions and international organizations represents the best of sectoral social dialogue which is fundamental for the Just Transition. As the first global group of such a nature, we hope it can be a blueprint for other sectors in transition'

Singapore Maritime Foundation

To quote Ms Beng Tee Tan, Executive Director of the Singapore Maritime Foundation added: *'Maritime Singapore is making a decisive transition towards sustainable shipping. As a conduit to connect the public and private sectors across the entire maritime ecosystem, the Singapore Maritime Foundation is privileged to be the first programme partner of the Maritime Just Transition Taskforce and to contribute to this global conversation.'*



'We recognise that sustainable shipping requires a workforce equipped with new skills. A key challenge therefore is to identify the suite of skills required for new talent, and how to reskill the existing workforce. This collaborative effort speaks much about the desire of the global maritime industry to come together to address the urgent task of preparing a talent pool to support the sector's transformation in the years ahead.'

ILO

Guy Ryder, Director General, International Labour Organization concluded by saying: *'The Maritime Just Transition Task Force represents the best of sectoral social dialogue. It echoes the tripartite approach set out in the ILO's 2015 Guidelines for a just transition towards environmentally sustainable economies and societies for all, taking a human-centred approach to achieving green shipping.'*

Inchcape Shipping Services at 175

Epiris the new owner

A capital boost for future growth

Inchcape Shipping Services (or 'ISS') is set to embark on a new era of growth after UK-based private equity investment firm Epiris signed an agreement to acquire ownership of the global maritime services provider to coincide with its 175th anniversary this year. This was announced by Inchcape on 4 April.

This transaction, which follows a sale process by Inchcape's former Dubai-based owners, will greatly enhance its core port agency business as well as expand digitalisation of its services for customers, according to Chief Executive Frank Olsen. He commented: *'We wish to thank our previous owners for their supportive investments in Inchcape over the years that have enabled us to develop and expand our operations worldwide.'*



Illustrations per: www.iss-shipping.co

Inchcape Shipping Services ©.

'Epiris is now making a transformational investment in our successful business that will establish a new platform for customer-focused growth and enable us to take our marine services and digital solutions to the next level as we transition into the future.'

Resilience and rejuvenation

At the same time, Olsen said *'Inchcape is coming home'* with the takeover by London-headquartered Epiris that returns the company to its British roots after it was originally founded in 1847 by Scottish merchants William Mackinnon and Robert Mackenzie before being renamed in the last century under the erstwhile ownership of the Inchcape family from Scotland.

Olsen reflected: *'Inchcape has demonstrated its resilience as a stalwart provider of maritime services to keep international trade flowing over nearly two centuries of tumultuous global change, while evolving in step with the changing demands and challenges of the shipping industry.'*

Industry consolidation

As a resilient brand in a fragmented shipping services market, it is understood Inchcape will pursue industry consolidation through complementary acquisitions to strengthen its port agency business as well as opportunities in the maritime data segment to enhance its leading digital portfolio.

Inchcape has pioneered the use of digital technology in port agency services in support of improved operational efficiency, transparency, compliance, and environmental, social and governance principles towards the goal of sustainability, according to Olsen.

It was reported that Inchcape sees digitalisation along with data-sharing as an important element in its transparency drive for increased visibility of operational data, costs and integrated compliance to achieve improved operating efficiency, cost savings and a collective sustainability effort.

Building back stronger

Olsen explained that digitalisation is the enabler for operational measures such as better voyage planning and faster port turnaround that are key to decarbonisation of shipping as they can reduce fuel consumption, thereby improving environmental sustainability.

He also highlighted the fact that Inchcape is building back stronger after overcoming the logistical challenges of the Covid-19 pandemic, with digitalisation and decarbonisation core to its future growth strategy at an inflection point for the shipping industry.

About Inchcape Shipping Services

Inchcape Shipping Services is a leading port agency and marine services provider with a global network covering 85% of the world's ports. Inchcape combines its worldwide infrastructure with local expertise by way of over 240 offices in 60 countries and a team of more than 2,700 staff.

About Epiris

Epiris is a private equity firm which invests in opportunities to transform businesses in partnership with exceptional management teams.

Global trade and development

Impact of the crisis in Ukraine

WTO Secretariat publication

The war in Ukraine has not only created a humanitarian crisis of immense proportions but has also dealt a severe blow to the global economy, circumstances which the World Trade Organization Secretariat has analysed in a note issued on 11 April that looks into the implications for global trade and development.

According to the Secretariat note: *‘The brunt of the suffering and destruction are being felt by the people of Ukraine themselves but the costs in terms of reduced trade and output are likely to be felt by people around the world through higher food and energy prices and reduced availability of goods exported by Russia and Ukraine,’*



It continued: *‘Poorer countries are at high risk from the war, since they tend to spend a larger fraction of their incomes on food compared to richer countries. This could impact political stability.’*

Lower GDP growth; cut in global trade

Using a global economic simulation model, the WTO Secretariat projects that the crisis could lower global GDP growth by 0.7-1.3 percentage points, bringing growth to somewhere between 3.1% and 3.7% for 2022. The model also projects that global trade growth this year could be cut almost in half from the 4.7% the WTO forecasted last October to between 2.4% and 3%.



Essential products: Russia and Ukraine important suppliers

While the shares of Russia and Ukraine in overall world trade and output are relatively small, the two states are important suppliers of essential products, notably food and energy. Both countries supplied around 25% of wheat, 15% of barley and 45% of sunflower product exports in 2019. Russia alone accounted for 9.4% of world trade in fuels, including a 20% share in natural gas exports.

Minerals

Russia and Ukraine are also key providers of inputs into industrial value chains. Russia is one of the main suppliers globally of palladium and rhodium, key inputs in the production of catalytic converters for automobiles, supplying 26% of global import demand for palladium in 2019. Semiconductor production depends to a substantial extent on neon supplied by Ukraine. Disruptions in the supply of these inputs could hit car producers at a time when the industry is just recovering from a shortage of semiconductors, the note highlights.

Economic impact expected in Europe

Some regions will be more strongly affected by the war than others. Europe, the main destination for both Russian and Ukrainian exports, is likely to experience the brunt of the economic impact. Reduced shipments of grains and other foodstuffs will also boost prices of agricultural goods, with negative consequences for food security in poorer regions.

African vulnerability

Africa and the Middle East are the most vulnerable regions, as they import over 50% of their cereal needs from Ukraine and/or Russia. In total, 35 countries in Africa import food and 22 import fertilizer from Ukraine, Russia or both. Some countries in Sub-Saharan Africa are facing the possibility of price hikes of up to 50-85% for wheat as a result of the war's impact on grain shipments from the region.



WTO Secretariat's note warns: *‘The current crisis is likely to exacerbate international food insecurity at a time when food prices are already historically high due to the Covid-19 pandemic and other factors.’*

One of the longer-term risks is that the war could trigger a disintegration of the global economy into separate blocs. Economic sanctions could cause major economies to move toward 'decoupling' based on geopolitical considerations, with the goal of achieving greater self-sufficiency in production and trade. Even if no formal blocs emerge, private actors might choose to minimize risk by reorienting supply chains.

Suffering of developing economies

The Secretariat note warns that the income losses from such a development *'would be severe, especially for emerging and developing economies.'* At a global level, it could reduce GDP in the long run by about 5%, notably by restricting competition and stifling innovation. Importantly, the GDP decline could be more severe as the estimate considers only a limited set of the gains from trade that would be foregone.

Finally, the Secretariat note states: *'This highlights the importance of the rules-based multilateral trading system, not least because the WTO provides functions that can help to cushion the impact of the crisis. Keeping markets open will be critical to ensure that economic opportunities remain open to all countries.'*

Readers may wish to be aware that the 36-page WTO Secretariat note, *The Crisis in Ukraine: Implications of the war for global trade and development*, can be downloaded here: <https://tinyurl.com/v8v2h5ns>

Illustrations per www.wto.org WTO ©.

INTERCARGO's Spring semi-annual meetings

Time for reflection

With an estimated 100 merchant vessels under blockade in Ukrainian ports, it was time for reflection as INTERCARGO members, Executive Committee and Technical Committee met at the Association's spring semi-annual events, held in London early in April. The meetings were presided over by Chairman Dimitris Fafalios, Vice Chairman Spyros Tarasis, Vice Chairman Uttam Kumar Jaiswal, and Technical Committee Chairman Tom Keenan. Members had the opportunity to meet both face to face and virtually.

Dimitrios Fafalios said: *'During our meeting today, we could not help but be aware that the vast majority of the ships trapped off Ukraine are bulk carriers carrying essential cargoes, such as grains and coal required to meet energy and feed needs.'*

'We know that there are also many seafarers unable to be with their loved ones at the centre of the conflict or facing yet more crew change issues due to the impact of sanctions. It is doubly unjust for the seafaring community that this situation should come so hard on the heels of the pandemic, a time when our crews were tested to the full and are still only recovering from the hardships endured.'

Ukraine

The Executive Committee discussed concerns raised by members both for the wellbeing of seafarers – Ukrainian and Russian – and for the very serious challenges facing operators and managers. Dimitrios Fafalios confirmed INTERCARGO's commitment to joint industry initiatives, such as the Industry Task Force, established earlier this year.

Covid-19

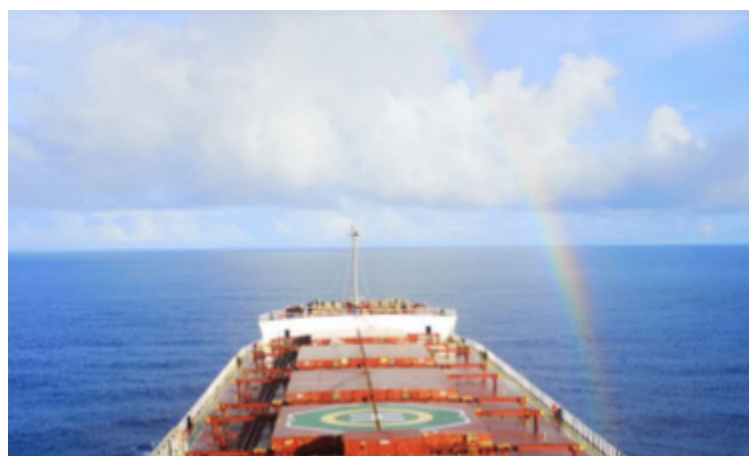
Concerns were raised that the situation in Ukraine had pushed Covid off the industry agenda and that seafarers worldwide were still facing major issues with crew change, port entry and changing vaccination requirements. The Association continues to maintain dialogue with governments at the highest level to keep the situation top of the agenda for national governments.

Together in Safety & ESG

INTERCARGO reiterated its support for the Together in Safety initiative, developed by a coalition of like-minded top level shipping associations. Safety in the bulk carrier sector continues to be a priority for the Association as it strives to keep issues such as cargo liquefaction, the fuel oil sulphur limit and vessel design and construction, high on the industry's agenda. Secretary General Kostas Gkonis said that *'safety is a key component and driver of the ESG framework, a topic we have been looking into with great attention'*.

GHG emissions

The issue of GHG emissions was once again at the centre of discussions, with the operational challenges associated with the IMO roadmap, paths to compliance and the industry's decarbonisation ambitions for 2050 featuring as key topics for debate.



The meeting highlighted the need for an acceleration in the commercial development and availability of relevant technologies, fuels, propulsion systems and related infrastructure to meet these aspirations. Delegates agreed to support the IMO in its efforts to urge governments to adopt the necessary measures to accelerate R&D of zero-carbon technologies and expedite their deployment.

Operational issues

At the session members were encouraged to debate key issues affecting their daily operations. The secretariat provided updates on developments with DryBMS – a quality standard for the dry bulk sector, casualty and incident reporting, and the dry bulk market outlook, while the agenda also included the latest developments on piracy and cyber security issues, as well as on ship recycling.

The Association will hold its next semi-annual meetings in October 2022.

In order to express its appreciation to all members for their continued support and especially those who, under the ongoing circumstances, were unable to enjoy the networking opportunities afforded by face-to-face meetings, the Association has also created a special electronic compilation of promotional material from its members, which can be viewed here¹.

About INTERCARGO

International shipping is vital for the global economy and prosperity as it transports approximately 90% of world trade. The dry bulk sector is the largest shipping sector in terms of number of ships and deadweight. Dry bulk carriers account for 43% of the world fleet (in tonnage) and carry an estimated 55% of the global transport work.

Readers are invited to view the 2021 Dry Bulk Shipping video: *Sustainably serving the world's essential needs*. See footnote below ².

The International Association of Dry Cargo Ship owners (INTERCARGO) unites and promotes quality dry bulk shipping, bringing together more than 220 forward thinking companies from 30 countries. INTERCARGO convened for the first time in 1980 in London and has been participating with consultative status at the IMO since 1993.

INTERCARGO provides the forum where dry bulk ship owners, managers and operators are informed about, discuss, and share concerns on key topics and regulatory challenges, especially in relation to safety, the environment, and operational excellence. The Association takes forward its members' positions to IMO, as well as to other shipping and international industry fora, having free and fair competition as a principle.

¹www.intercargo.org/members-spring-2022

²www.intercargo.org/video-2021

mv *Francisca* Loss of containers

Loss of 34 containers overboard

MAIB examination

In mid-April the UK Marine Accident Investigation Branch (MAIB) completed its preliminary examination into the loss of containers overboard.

On 31 October 2020, 34 containers were lost overboard from the Netherlands- registered general cargo vessel *Francisca*^{*}, near Duncansby Head in the North Sea.

Francisca was on passage from Straimsvik, Iceland to Rotterdam when severe weather was encountered. The deck cargo of containers was struck by green sea forces when *Francisca* was pitching heavily into the waves, causing stacks to collapse and containers to be lost overboard. All but one of the containers was empty and some debris from the laden container washed up ashore. None of the containers were recovered and *Francisca* suffered minor damage on deck. There were no injuries.

The MAIB's preliminary assessment found that *Francisca*'s violent pitching and ploughing into the heavy seas resulted in a rapid loss of speed and heading control, which exposed the deck cargo to green sea forces capable of overwhelming the maximum loading of the container securing arrangements.

Regular passages between Iceland and the Netherlands meant that *Francisca*'s crew had become accustomed to operating in the often poor weather in the North Atlantic, Pentland Firth and North Sea, and this had lowered their appreciation of the significant weather-associated risks.

Preliminary assessment also identified that the absence of a protective breakwater at the vessel's bow increased the risk of cargo loss in heavy weather, and corrosion to the vessel's deck cargo securing arrangements may have contributed to the scale of the loss.

It is anticipated that a full report from MAIB will be available in due course.

Actions taken

As a result of the MAIB's preliminary assessment, the Chief Inspector of Marine Accidents has written to the vessel's technical manager, VMS Ship Management BV, and the charterer, Longship BV, advising them of the safety issues identified by this accident so that internal measures can be taken to reduce the risk of recurrence.

^{*}Built 1997; 99.99 metres loa; 4015gt; minimum safe manning 8; cargo: aluminium anodes/billets and containerised general cargo.

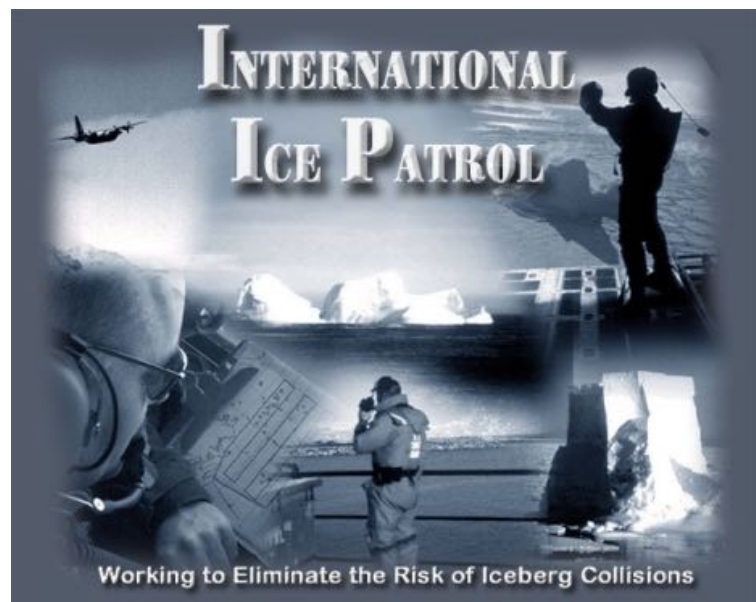
New US satellite-based imagery

North Atlantic Coast Guard iceberg warnings

One hundred and ten years after RMS *Titanic*'s tragic collision with an iceberg, the US Department of Homeland Security (DHS) Science and Technology Directorate (S&T) is developing new technology to help the Coast Guard improve maritime safety and navigation in the North Atlantic Ocean.

When complete, Project Titanic will fuse satellite-based Synthetic Aperture Radar imagery with ship reporting systems to detect, identify, and report iceberg locations to the maritime community.

In the words of Kathryn Coulter Mitchell, DHS Senior Official Performing the Duties of the Under Secretary for Science and Technology: *'Floating icebergs like the one the Titanic struck on 15 April, 1912, pose the same navigational hazards today as they did 110 years ago.'*



'That disaster prompted seafaring nations on both sides of the Atlantic to form the International Ice Patrol (IIP). To this day, the Coast Guard conducts this vital mission to protect ships, oil rigs, and other maritime assets from succumbing to a similar fate.'

'When complete, the Project Titanic technology will help the IIP provide even more comprehensive and timely maritime safety information on iceberg locations.'

Initially, the IIP relied on Coast Guard cutters to survey icebergs but transitioned to aircraft after the Second World War. Currently, the IIP conducts bi-weekly aircraft missions for nine days at a time during the ice season from February through to July of each year. Aerial ice reconnaissance typically costs the Coast Guard more than \$10 million annually, and missions are frequently hampered by bad weather and low visibility.



USCG Commander Marcus Hirschberg of the International Ice Patrol commented: *'With S&T developing technology that leverages space-based imagery, the need*

for costly aerial ice surveillance will be greatly reduced and our capabilities enhanced.'

'This technology is immune to dark, overcast conditions and other difficult weather that would normally prevent aircraft operations, and the technology can also monitor difficult-to-reach locations to help us predict how heavy an iceberg season to expect.'

'The increasing availability, timeliness, and improved resolution of commercial Synthetic Aperture Radar systems will revolutionize iceberg surveillance.'

S&T has also developed Synthetic Aperture Radar-based technologies for flood response and other applications.



In conclusion Matthew Barger, S&T Maritime Safety and Security Program Manager commented: *'Project Titanic is different from other S&T efforts because it uses global satellite access, faster data collection, and enhanced sensor technology.'*

'It also harnesses the versatility of commercial Synthetic Aperture Radar imagery and the efficiency of computers. Because of how far the technology can go with surveying a much wider distance and collecting broader data, we can detect icebergs on a larger scale than ever before.'

Testing through 2023

The Titanic Project is currently in the developmental phase and the Coast Guard IIP is set to test the technology through 2023 with the goal of operational integration.

Illustrations per www.navcen.uscg.gov
Reproduced with grateful thanks.

USCG ©.

EMSA and Baltic emissions drone monitoring campaign

Together with the Federal German Maritime and Hydrographic Agency (BSH), the European Maritime Safety Agency (EMSA) is conducting a large-scale emissions monitoring campaign using remotely piloted aircraft. This was scheduled to begin later last month (April). Over a three-month period, a specially equipped drone was to measure the sulphur content in the exhaust plumes of ships transiting the Baltic Sea in order to be able to detect violations of the applicable limits. At the same

time, image data was due to be collected for hydrographic surveying purposes.

The remotely piloted aircraft will be prepared to take off from the German Armed Forces' Staberhuk site on the east coast of Fehmarn and to fly over selected ships operating in the Fehmarn Belt and the Kadettrinne/Kadetrenden in order to measure the sulphur content of their exhaust plumes using specific sensors. In this way, it will be possible to infer the sulphur content of the ship's fuel, which must not exceed a level of 0.10% in the Baltic Sea Emission Control Area (SECA). This was reported by EMSA on 13 April.



Measurement results are made available in real time to responsible authorities in all European ports via THETIS-EU, the Port State Control information system operated by EMSA. In this way, ships can be specifically selected for inspection at their next port of call and samples of the fuel can be taken. If violations of the strict sulphur limits can be proven, those responsible face heavy penalties.

In addition to ship exhaust gas measurements, multispectral aerial imagery is acquired. For shallow waters, bathymetric values can be extracted from images.

Furthermore, imagery allows for three-dimensional mapping of the shore zone. The drone survey campaign will investigate whether aerial imagery can provide complementary information for the German hydrographic surveying service.

Drone flights are operated by the Norwegian company Nordic Unmanned on behalf of EMSA. The sensor technology and analysis capabilities for the emission measurements is supplied by the Danish company Explicit ApS.

About EMSA

The European Maritime Safety Agency (EMSA) is a decentralised agency of the EU, based in Lisbon, Portugal. EMSA serves the EU's maritime interests for a safe, secure, green and competitive maritime sector, delivering value for member states through support for pollution prevention and response, maritime surveillance,

safety and security, digitalisation and the provision of integrated maritime services, and technical assistance.

Remotely Piloted Aircraft System (RPAS) services are offered free of charge to all EU countries by EMSA. They have been developed to assist in maritime surveillance operations and ship emission monitoring and can operate in all seas surrounding the European Union. RPAS services can provide support to traditional coast guard functions, including search and rescue and pollution prevention and response.

Services are offered to member countries individually and as part of EMSA's regional RPAS strategy, which allows multiple coast guard functions in several EU countries to be supported by one or more RPAS services.

To see where EMSA is flying readers are invited to see here: <https://tinyurl.com/yc4ayxba>

Readers are advised that requests for further information can be sent to: information@emsa.europa.eu

About the BSH

The *Bundesamt für Seeschifffahrt und Hydrographie* (BSH www.bsh.de) is Germany's central maritime authority. Around 1,000 employees from more than 100 professions work at the two HQs in Hamburg and Rostock and on five ships.

Their tasks focus on promotion, safety and monitoring of maritime navigation, research and collection of long data series in the field of oceanography and marine chemistry, the water level forecasting service as well as hydrography, within the framework of which official nautical charts are produced. In order to continuously improve the compatibility of protection and use of the seas and to maintain the increase in knowledge of the seas, the BSH works in maritime application-oriented research and on the development of products and services.

Investigations and provision of data on sea state measurements in offshore wind farms and as well as the development of sound measurement networks in the North Sea and Baltic Sea and the provision of data and technical information on impulse sound in the sea are examples of this. The development of technologies for measuring ship emissions in the air is also part of this.

The BSH Navigation and Communication System Laboratory provides a test environment for complex navigation and communication systems.

ClassNK releases GHG Emissions Management Tool

From Tokyo on 15 April ClassNK released *ClassNK ZETA (Zero Emission Transition Accelerator)*, a Green House Gas emissions management tool to track accurate CO₂ emissions and confirm and simulate Carbon Intensity Indicator (CII)* ratings.

While the shift toward a zero-emission society has accelerated around the world, the time has come, believes ClassNK, for the maritime industry to systematically plan, manage, and report the GHG emissions from shipping.

ClassNK has provided Zero Emission Transition Support Services to support customers involved in the maritime transport business make a smooth transition to zero emission while planning and managing GHG emissions in their daily business operations.



ClassNK ZETA developed as part of the services is a tool for visualizing CO₂ emissions from ships, which is linked with the ClassNK MRV** Portal supporting compliance to MRV schemes such as IMO DCS and EU-MRV regulations.

Users of MRV Portal can utilize the following four features without preparing additional data:

- 1. Vessel Monitoring: Displays CO₂ emissions, CII rating, etc. of individual ships without delay. Users can also check the estimated annual CO₂ emissions and CII ratings based on the current operation status at any time and consider any necessary measures.
- 2. Fleet Monitoring: Displays CO₂ emissions and CII ratings of the entire fleet for each company or team in charge without delay. Makes it possible to check the CO₂ emissions of the fleet and the progress of the company's overall CO₂ reduction targets at any time.
- 3. Simulation: Simulates the changes in CO₂ emissions and CII ratings for an individual ship or fleet that would be seen by slow steaming, installing energy-saving devices, or switching fuels. Various simulations enable users to consider measures for reducing CO₂ emissions.
- 4. Periodical Report: Outputs CO₂ emissions by

ship, fleet, voyage, etc. In the future, it will also allow users to meet the reporting needs of various stakeholders, such as financial institutions, cargo owners, and insurance companies.

In addition to ship management companies and other data holders, ClassNK ZETA is also available to ship owners and charterers, subject to data usage permission by the data holders.

It is understood that in future, ClassNK will expand its functions to be used by various stakeholders involved in maritime transport, such as cargo owners and financial institutions, and will also work to enhance its functions in collaboration with external partners.

Detailed information and application for use is available here: <https://tinyurl.com/4295rmsm>

Details of ClassNK Zero Emission Support Services are available here <https://tinyurl.com/3hbbtrd6>

*The CII measures how efficiently a ship transports goods or passengers and is given in grams of CO₂ emitted per cargo-carrying capacity and nautical mile.

**Measurement, Reporting and verification.

SSA joins forces with the MPA and SMOU

Opening up shore-based career opportunities

It was reported from Singapore early in April that the Singapore Shipping Association (SSA) had signed a Memorandum of Understanding (MOU) with the Maritime and Port Authority of Singapore (MPA) and the Singapore Maritime Officers' Union (SMOU) that will help to bridge the gap in preparing seafarers for a working life ashore in today's highly digitalised world.

The MOU, which was signed during Singapore Maritime Week, will support, and equip seafarers with the relevant skills needed in transitioning from a sea-based to a shore-based career, with a particular emphasis on sustainability and digitalisation.

All parties will collaborate to help maritime employees undertake new and redesigned jobs in Industry 4.0 and beyond, and work towards a more digitalised and sustainable shipping industry, but with a pledge to build a relevant, ready, and resilient workforce for the sustainability of the industry labour and talent pool to command fairer and better wages as well as welfare and work prospects.

It is understood that a committee made up of the three signatories, plus any other relevant partners, will be set up to help companies equip their employees with future core competencies and technological tools to improve personal and operational effectiveness and efficiency.

SSA, MPA and SMOU will help employers identify what training and skills are required and incorporate new transformation requirements into their company-

based training programmes and plans. They will work with NTUC* Training & Placement Division to support Company Training Committee training and transformation initiatives; as well as perform industry wide engagement to accelerate workers' acceptance and adaptation of technology to benefit both employer and maritime employees.



Illustration per: www.maritimesingapore.sg

Furthermore, the signatories will also help to develop a blueprint to transform the way the industry carries out its training to ensure better outcome and implementation of identified projects and initiatives that will benefit the industry and the workforce.

Caroline Yang, President of SSA, welcomed the MOU claiming it was a major step in helping seafarers embrace innovation and business change when they come ashore. *'Driving awareness of shipping as a career is as much about shore-based jobs as it is with life on board ship. We want to ensure that the talent we have all nurtured and developed at sea takes advantage of the opportunities that a shore-based career can give, especially as we look to greater digitalisation and innovation.'*

Note: SMOU is an IFSMA Member.

*National Trades Union Congress.

Global Impact of war in Ukraine on food, energy and finance systems

A brief by UNCTAD

On 14 March 2022, UN Secretary-General António Guterres announced the establishment of a Global Crisis Response Group (GCRG) on Food, Energy and Finance to coordinate the global response to the widespread impacts of the war in Ukraine.

The GCRG will ensure high-level political leadership to get ahead of the immense inter-connected challenges of food security, energy and financing, and put in place a coordinated global response to the ongoing crises.

The war in Ukraine is setting in motion a three-dimensional crisis: on food, energy and finance. It is producing alarming cascading effects to a world economy already battered by Covid-19 and climate change, according to the new findings of the GCRG in a brief issued on 13 April.

The brief issued on 13 April is available here:
<https://tinyurl.com/2p8ane39>

In the words of UN Secretary-General António Guterres: *'We are now facing a perfect storm that threatens to devastate the economies of developing countries. The people of Ukraine cannot bear the violence being inflicted on them. And the most vulnerable people around the globe cannot become collateral damage in yet another disaster for which they bear no responsibility.'*

'Our world cannot afford this. We need to act now,' stressed the Secretary-General calling for urgent, concrete and coordinated action to help countries and communities most at risk avert the interlinked crises. He added: *'We can do something about this three-dimensional crisis. We have the capacity to cushion the blow.'*

On the brink of a perfect storm

As two of the world's breadbaskets, Russia and Ukraine provide around 30% of the wheat and barley we consume. Russia remains the world's top natural gas exporter, second-largest oil exporter and a significant producer of fertilizers. The war has severely affected food, energy and financial markets, sending commodity prices to soar record high. Global economic growth is forecast to decrease by 1% in 2022.

Preliminary analysis suggests that as many as 1.7 billion people in 107 economies are exposed to at least one of three risks, mostly in Africa, Asia and the Pacific, and Latin America and the Caribbean. When combined with the already devastating impacts of the Covid-19 crisis and climate change, the exposure to just one risk is dire enough to cause debt distress, food shortages and power outages.

Established by the Secretary-General, the GCRG aims to develop coordinated solutions to the interlinked crises in collaboration with governments, the multilateral system and sectors.

The goal is to help vulnerable countries avert large-scale crises through high-level coordination and partnerships, urgent action, and access to critical data, analysis and policy recommendations.

The world needs to act with urgency

The brief proposes a series of immediate to longer-term recommendations to avert and respond to the triple crisis, including the need to keep markets and trade open to ensure the availability of food, agricultural inputs such as fertilizer and energy. It also calls for international financial institutions to urgently release funding for the most at-risk countries while making sure there are enough resources to build long-term resilience to such shocks.

On food, beyond keeping markets open and ensuring that food is not subjected to export restrictions, the brief urges the prompt provision of funds for humanitarian food assistance. Food producers, who face higher input and transport costs, urgently need support for the next growing season.



On finance, the brief asks the international financial system, including G20 countries and development banks, to provide flexible, urgent, and sufficient funding for particularly least developed countries, and relief from debt servicing under current conditions.

Container ship *Ever Forward* refloated

The US Coast Guard, Maryland Department of the Environment and Evergreen Marine Corporation, in partnership with multiple state and local responders, refloated *Ever Forward* on 17 April following a 35-day-long salvage operation that began on 13 March after the Hong Kong-registered 1,095ft loa container ship grounded in the Chesapeake Bay near the Craighill Channel.

Refloating *Ever Forward*, which was hard aground outside of the navigation channel along the entire length of the ship's hull, required extensive coordination of responders and involved the development and implementation of a comprehensive salvage plan, including dredging and push and pull tugboat operations.

Following two unsuccessful refloat attempts on 29 and 30 March, salvage experts determined they would not be able to overcome the ground force of *Ever Forward* in its loaded condition, with 4,964 containers aboard.

Dredging

Dredging was completed to a depth of 43 feet, resulting in 206,280 cubic yards of material being dredged and taken to Poplar Island. The material is being used to offset erosion at the Paul S Sarbanes Ecosystem Restoration project.

Lightening

Operations to remove 500 containers with crane barges ran from 9 to 16 April. For safety and balance purposes, containers from both the port and starboard sides of the ship were removed and placed on receiving barges during daylight hours only. These containers were then taken to their original onboarding facility, Seagirt Marine Terminal in Baltimore, and offloaded by shore-based handling gear.

Freeing

After the containers were removed, two pulling barges, two tugs from Donjon-SMIT, two tugs from Moran, and two tugs from McAllister freed *Ever Forward* at approximately 0700 on 17 April.

Captain David O'Connell, commander of Coast Guard Sector Maryland-National Capital Region said: 'The

vastness and complexity of this response were historic, as an incident like the *Ever Forward* grounding, in type and duration, is a rare occurrence.

'It was the collaboration of each responding agency, Evergreen Marine Corporation, and dedicated responders that resulted in the successful refloating of *Ever Forward* while ensuring the safety of the public and response personnel, mitigating pollution potential, and minimizing economic impacts.'

Monitoring

Throughout the operation, extensive steps were taken to protect the environment. Fuel tanks on the ship were regularly monitored, and equipment, including the containment boom, was pre-staged for rapid deployment in the event of a fuel release.

Mitigating

Special conditions in an emergency wetlands license issued by the state of Maryland for dredging include a requirement for the licensee, Donjon-SMIT, to assess the dredge and vessel grounding area for impacts to a natural oyster bar in the area, provide a report to the Maryland Department of the Environment after the vessel's removal and then develop a plan for any mitigation determined to be required for impacts to that oyster bar.



Photographs by Petty Officer Third Class Breanna Centeno.

US Coast Guard District 5.
USCG ©.

Maryland Environment Secretary Ben Grumbles added in conclusion: 'We appreciate the steady partnership with the Coast Guard, Evergreen Marine Corporation and all the other agencies that worked to prevent pollution and protect the Chesapeake Bay.'

'We remain focused on moving forward to the environmental restoration and compensation phase.'

Reloading

Ever Forward had departed Baltimore on 13 March when it ran aground. At the time of writing shortly after the vessel was refloated it was understood that the ship was being prepared for tow to the Annapolis Anchorage Grounds for inspection. Thereafter it was to be reloaded with the

containers that had been removed and continue its voyage to its next port of call, Norfolk, Virginia.

In a corporate statement, Evergreen Line representatives stated: *'We are deeply appreciative of the efforts put forth by the US Coast Guard, Maryland Port Administration, local and federal Environmental Protection Agencies, and the many private service providers that were engaged, all of whom worked tirelessly to bring this event to a successful conclusion.'*

Grounding of Tanker *Bow Tribute*

Subsequent contact with river intake fender systems

US NTSB Investigation details

The decision to overtake a tow in a large river bend occupied by multiple vessels during high-river conditions led to the grounding of a tanker and contact with river intake fender systems in New Orleans, Louisiana, the National Transportation Safety Board said in a statement on 14 April.

Marine Investigation Report 22/11 details the NTSB's investigation into the 16 March 2021, grounding of the tanker *Bow Tribute* (Norwegian-flag, built 2014, 182.7m loa, 30,521 gt) and subsequent contact with the fender systems protecting two river intakes owned by the city's sewerage and water board.

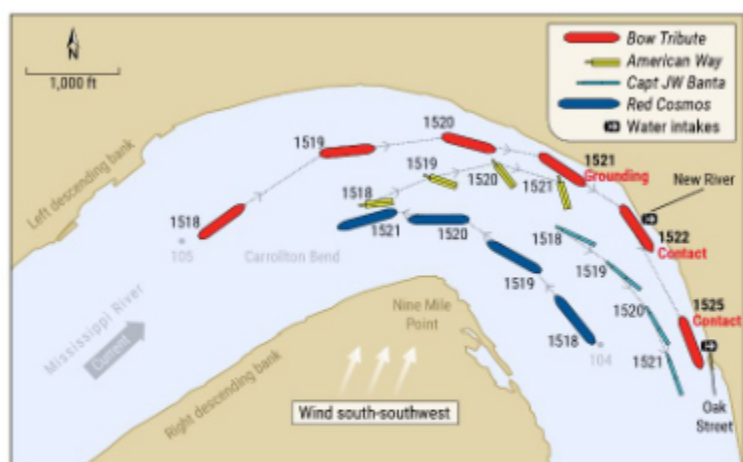


Figure 3. Positions of the *Bow Tribute*, *American Way*, *Capt JW Banta*, and *Red Cosmos* (approximate scale) in the Carrollton Bend in the minutes leading up to the casualty, based on automatic identification system data. The *Bow Tribute*'s subsequent contact at the two river intakes is also identified.

Bow Tribute was transiting downbound in the Lower Mississippi River when the vessel grounded while attempting to overtake a two-barge tow in a river bend. No injuries or pollution were reported. Damages totalled over \$1.9 million, including \$986,400 in damages to the vessel and \$926,100 in damages to the fender systems.

On board *Bow Tribute* was a New Orleans-Baton Rouge Steamship Pilots' Association (NOBRA) pilot and a 27-person crew. Ahead of the tanker, also travelling downbound, was the towing vessel *American Way* pushing two empty barges with a crew of four. The two pilots agreed the tanker would overtake the tow at Nine Mile Point, within the Carrollton Bend. There was additional traffic in the area of *American Way*, including the downbound towboat *Capt JW Banta* pushing two barges and the upbound bulk carrier *Red Cosmos*.

While rounding Nine Mile Point ahead of *Bow Tribute*, *American Way* tow began to slide in the bend and into the path of the overtaking *Bow Tribute*. The *American Way*'s pilot could not maintain the tow's position in the centre of the river, nor power or steer it out of the slide in sufficient time to allow space for *Bow Tribute*, which was travelling at double the speed of the *American Way*. As the distance between the vessels continued narrowing, the NOBRA pilot steered the tanker clear of *American Way*. The NOBRA pilot on the *Bow Tribute* told investigators that he kept the vessel near the shoreline because he could no longer see *American Way* under *Bow Tribute*'s starboard bow. Shortly after, *Bow Tribute* struck sequentially two spud barges that were part of a fender system protecting the river intake pipes.



The NTSB determined the probable cause was the pilot's decision to overtake a tow in a large river bend occupied by multiple vessels during high-river conditions with a strong following current. Contributing to the grounding was the ineffective communication between the pilot of *Bow Tribute* and the pilot of the towing vessel *American Way* regarding where the overtaking manoeuvre would occur.

The Report said: *'Clear, effective, and unambiguous radio communications should be used, especially during high traffic and dynamic conditions such as overtaking in a bend.'*

NTSB Marine Investigation Report 22/11 is available online here: <https://tinyurl.com/2p8nwzft>

*Illustrations and text per NTSB with grateful thanks.
Courtesy: National Transportation Safety Board.
NTSB ©.*

Collision between fv *Commission* and container ship *Kota Lembah*

NE of Tauranga, Bay of Plenty, New Zealand

NZ TAIC investigation report

Circumstances

At about 0400 on 28 July 2021 the longline fishing vessel *Commission* was motoring at about 6 knots while laying out about 22 nautical miles (NM) of fishing line about 70 NM off the coast in the Bay of Plenty. *Commission* collided with the stationary container vessel *Kota Lembah*, which had been drifting in the area for several days while waiting for the next available berth at its next port, Auckland.

Kota Lembah suffered scraping along its hull near the bow and *Commission* suffered damage to its stabiliser arm and wheelhouse structure. The hull of neither vessel was breached in the collision and nobody was injured.

Findings

Commission's crew had detected the presence of *Kota Lembah* on radar but made no attempt to sight the ship or plot it on the radar. There was nobody keeping watch in the wheelhouse at the time of the collision.

The bridge team on *Kota Lembah* had seen and were plotting the *Commission* on the radar, and despite *Kota Lembah* being required to give way to *Commission* under the applicable collision prevention rules, it did not do so.

The watchkeeping standards on both vessels fell well short of good industry practice.

It was about as likely as not that the *Commission's* skipper was to some degree suffering from the effects of fatigue at the time.



Lessons learnt

Adhering to the rules for preventing collisions at sea is the best defence against being involved in a collision. When one vessel deviates from these rules, the risk of collision will be significantly higher. When two vessels deviate from them a collision becomes almost inevitable.

Fatigue adversely affects human performance and is known to contribute to accidents. Vessels must be resourced so that fatigue can be appropriately managed.

Non-compliance with standards for achieving navigation safety is also known to contribute to accidents. Anyone involved in keeping a navigational watch needs to be knowledgeable about the collision prevention rules.

Who may benefit

All seafarers, vessel owners and vessel operators.

Recommendations

The NZ TAIC issued the following recommendations to both parties:

Recommendation to the owner of the FV *Commission*

On 23 March 2022, the Commission recommended that Oceanic Fishing Limited enhance its training system to upskill deckhands in watchkeeping practices that meet the

minimum requirements of Maritime Rules Part 31 and adequately reduce the risk of accidents and incidents resulting from poor watchkeeping practices and fatigue. (002/22)

On 11 April 2022, Oceanic Fishing Limited replied, in part: *We have engaged a maritime specialist to review our MOSS system with view to making improvements to our operation and MOSS system.* On 23 March 2022, the Commission recommended that Oceanic Fishing Limited have appropriate fatigue management policies and procedures in place and a method to audit these to ensure that they are being applied effectively on board vessels in their fleet. (003/22)

On 11 April 2022, Oceanic Fishing Limited replied, in part: *We have had a meeting with our skippers and crew and discussed the importance of following our rules and procedures for managing fatigue, including limiting hours of work and taking breaks.*

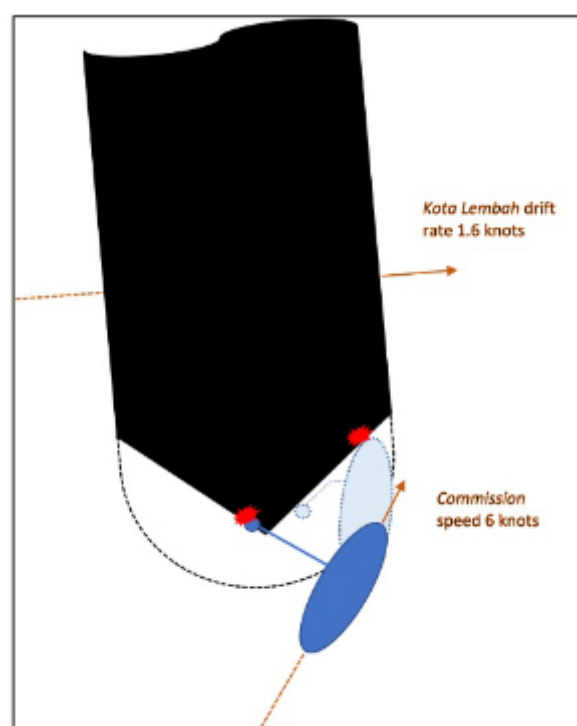


Figure 4: Diagrammatic representation of collision sequence (not to scale)

Recommendation to the operator of the 'Kota Lembah'

On 23 March 2022, the Commission recommends that Pacific International Lines disseminate the findings and lessons arising from this report to its fleet and audit the navigational practices of its fleet for compliance with the COLREGS at all times. (004/22)

The TAIC report

The New Zealand Transport Accident Investigation Commission (TAIC) report can be found with this link: <https://tinyurl.com/bdz48xzx>

Editor's note:

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The New Zealand Transport Accident Investigation Commission

TAIC ©

Uncontrollable monsters

By Michael Grey

“She’s not answering her helm, Pilot!” It is not what anyone on the bridge of any ship wants to hear from the helmsman, particularly when the ship is very large, approaching a bend in the channel or some other nail-biting element of the passage from berth to sea. We don’t yet know if this terse message was called out on the bridge of the *Ever Forward*, departing the port of Baltimore, just before she slid elegantly into the mud, a berth which she would not vacate for the next 35 days.

We will learn, in due course, because the United States, unlike too many shameful countries, conducts a proper examination of marine incidents and through its excellent agency the National Transportation Safety Board, publishes the findings, usually with commendable speed. After the embarrassment of the Suez Canal grounding, the well-publicised struggle to get the *Forward* to move backward was probably the last thing a quality carrier wanted at this stage, with the world agonising about its stuttering global supply lines.

It was one of those salvage jobs which, at first sight, did not seem to be that difficult. The ship was apparently undamaged, there was a decent tidal range in the channel and no shortage of towing power to haul the thing off. But with each successive attempt, the situation seemed to deteriorate, with a sort of suction effect of the glutinous silt holding the hull fast over much of her length. The fact that the ship had apparently plunged into the bank at a considerable speed, as she failed to make the bend, would also be responsible for her extended stay, the eventual declaration of General Average, the discharge of some 500 containers and a great deal of dredging around the ship. It would take six powerful tugs, a couple of pulling barges with powerful winches and the lift from the near-spring tide to get the ship moving, to everyone’s considerable relief.

But it won’t be the last time that questions are asked about the low-speed manoeuvrability of these very big ships, which are brilliant at doing their designed tasks in the open sea, but decidedly difficult to handle in tight places. And as the ships have got bigger, the tight places have got tighter, the margins for error have become smaller and what would have been a routine port approach with smaller ships has become somewhat buttock clenching, as these hazards approach.

We now have whole classes of ship which need to operate at faster speeds just to keep sufficient water flowing over the rudder to provide an adequate turning moment. The faster speed in shallow water, brings with it problems of squat and bank effect, while the huge windage and the changing wind forces from gusts, or different aspects in a turn, require really quite unusual skill and anticipation. The situation may not be assisted by shallow water alarms sounding and even the engine management system deciding to act on its own initiative.

It’s not just monster container ships, or car carriers which seem to require super-dextrous handling in difficult places or unpredictable weather conditions. There are modern big bulk carriers with very slow turning propellers directly

driven by their slow-speed engines which, when light ship, are almost un-steerable at the sort of speed a prudent pilot might prefer for a safe passage in a channel. I recall reading an account of a pilot from one well-known bulk port who wrote about having to run at what seemed to him to be a dangerous speed in a channel, crabbing along in a cross-wind and with a tight bend to negotiate before the berth, praying that the tugs would be connected and their skippers alert. You might reasonably argue that there should be tighter weather limits on such ports, or question whether they are legally “safe”, except that the lawyers seemed to be adept at squashing that suggestion, even after a couple of capesized ships were lost trying to leave port in an emergency.

Designers and ship operators focussed upon carrying capacity tend to attribute these occasional groundings to human error – “that’s why we pay for expensive pilots etc.” avoiding any issues of greed and speed. The old saying “quarts into pint pots” comes to mind, although it wouldn’t hurt to look a bit more carefully at the ability of a rudder to actually change the direction of what appears to be an un-steerable modern monster.

Michael Grey, Honorary IFSMA Member and former editor of *Lloyd’s List*.

Editor’s note: This item first appeared in *The Maritime Advocate* online, issue No 802 of 22 April 2022 and appears here by kind permission of the author and the Editor.

Managing blackout risks on passenger ships

New DNV focus on safety

It was reported from Oslo on 21 April that a newly published guidance paper from DNV seeks to support the prevention and mitigation of blackouts impacting passenger vessels.

With blackout incidents on cruise ships on the rise, DNV has created a new guidance titled *Managing the risk of blackouts* which addresses the main causes and associated risks, while offering recommendations and best practices on how to avoid them and reduce the likelihood of their occurrence.

In 2019 there were twelve reported power-loss events on cruise ships that resulted in full or partial blackout while in transit or manoeuvring – up from four events in 2018. Although the majority of incidents occur in open water with minimal consequences, they represent a major accident hazard and, in certain situations, result in loss of propulsion which may pose an imminent threat to the ship, its passengers and crew.

While in recent years there has been a lot of focus on sustainability factors and cost saving measures, DNV urges owners and operators not to lose sight of the safety element.

In the words of Hans Eivind Siewers, Segment Director for passenger ships and ro-ro at DNV Maritime: ‘*Factors such*

as new fuels, change of speed and other measures to remain compliant with EEXI* and CII** regulations are high on ship owners' agendas.

'We also see a considerable focus on keeping operational expenditure (opex) and capital expenditure (capex) costs in check after two years with reduced revenue. While dealing with all these challenges we urge ship owners not to lose sight of safety. By increasing awareness of what to do to avoid and manage blackouts we want to contribute positively to building trust across the sector.'

In the new paper, DNV outlines a stepwise approach that centres on a simplified barrier-risk model. A simplified 'bow tie' model is used to present the threats and technical / operational barriers that contribute to increasing / decreasing the likelihood of blackout, and the mitigating barriers for supporting recovery. The paper's five-step structure makes the information and practical tools easy to access and implement.

Rami Nurminen, Director Technical Assurance at Royal Caribbean Cruises, confirms that value of the guidance for cruise operators: *'This is a great initiative that combines design principles, technical commissioning and human factors. A holistic approach is essential to maintaining design principles throughout system development, integration and final testing – not least operator familiarisation and training of new crew members.'*

In summary, the guidance paper is intended to support a step-change in safety for operators, from gaining an overall understanding of blackout causes, defining safety ambitions and prudently managing conflicting goals (such as decarbonisation and cost pressures), to identifying appropriate operational and technical measures to reduce risk based on cost-benefit evaluations.

The paper also describes the mandatory requirements for blackout prevention and recovery that provide a minimum technical standard for newbuildings, including Safe Return to Port (SRtP) regulations under SOLAS and additional measures such as DNV's Operational Reliability (OR) class notation, which specifically targets resilience and availability of propulsion, steering, electrical power and manoeuvrability.

Siewers added: *'DNV is off course open to engaging with operators who want to leverage our operations expertise to improve their organisation and ensure their ships are optimally ready to start sailing again. This also feeds into the newbuilding equation in terms of specifications and what barriers are built into the design to minimize blackout risks.'*

To apply to receive a copy of DNV's full paper readers are invited to make a download request using the link here: <https://tinyurl.com/2p96eca7>

* Energy Efficiency eXisting ship Index. See also <https://tinyurl.com/6a7frs5v>

**Carbon Intensity Indicator, for an introduction see here: <https://tinyurl.com/5hcx9u2k>

HAPAG-Lloyd's latest:

Turkey – US service

Sustainability Report

HAPAG-Lloyd's Turkey – US East Coast Express (TEX) service

Mersin-New York-Mersin

Hapag-Lloyd will launch the new regular service Turkey East Coast Express

(TEX) in mid-May 2022. This weekly liner service will connect westbound the three Turkish ports of Izmit, Aliaga and Mersin with the US East Coast ports of New York, Norfolk and Savannah. A stopover in the port of Tangier, the western Mediterranean hub of global cargo traffic, additionally provides customers with optimal connections to the worldwide network. Also eastbound excellent connections from the US East Coast to Turkey and Hapag-Lloyd's hub in Tangier are offered.

Lando Schlese, Director Trade Management Atlantic at Hapag-Lloyd, commented: *'With the new service, we are responding to increased customer demand for container shipments between Turkey and the US East Coast. By calling at only a few strategic ports, we speed up the transport and can offer correspondingly short transit times. The service, which is fully operated by Hapag-Lloyd, enables our customers to plan more reliably despite the current challenges in the Market.'*



It is understood that the new Turkey East Coast Express (TEX) offering very attractive transit times both, westbound and eastbound between Turkey and the US East Coast will be operated weekly with six vessels and has the following port calls: Mersin – Izmit – Aliaga – Tangier – New York – Norfolk – Savannah – Tangier – Mersin.

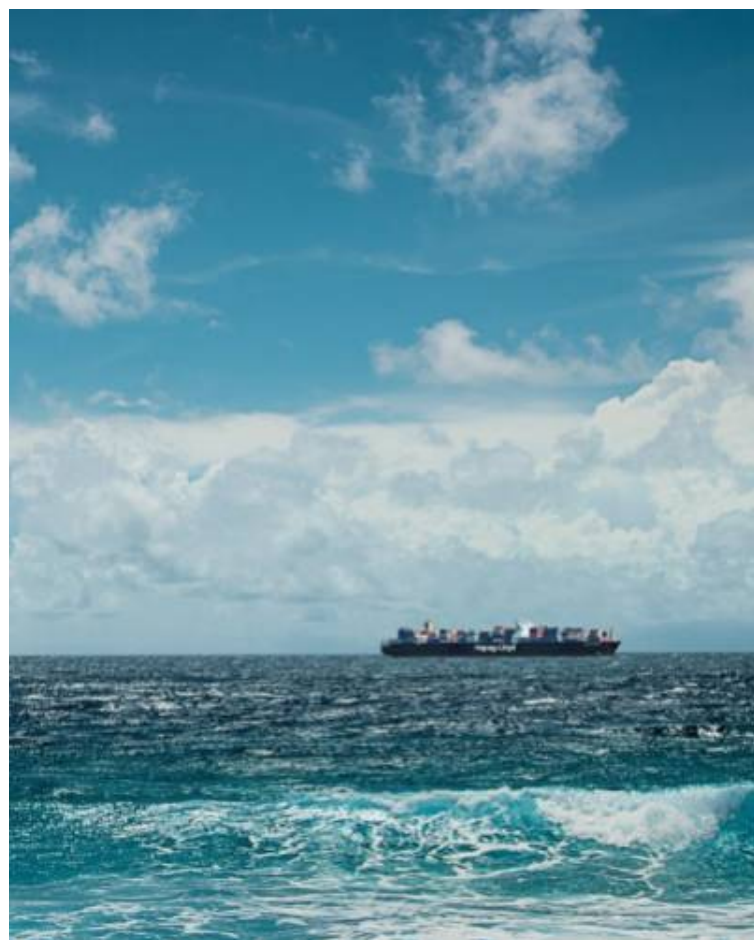
Hapag-Lloyd Sustainability Report 2021

In 2021, Hapag-Lloyd made its holistic sustainability strategy the fourth pillar of its Strategy 2023. With its *Sustainability Report 2021*, the carrier documents its consistently pursued path to sustainable shipping and presents the progress and results of its ecological, social and qualitative measures.

Focus topics and goals

Hapag-Lloyd takes a holistic view of sustainability. Thus, its strategic goals for the next ten years relate to three focus areas: Clean Shipping and Future-Proof Propulsion, Diversity and Society, and Compliance and Responsibility.

For its sustainable transformation, Hapag-Lloyd designates decarbonisation as one of its most important goals and aims to operate all its vessels in a climate-neutral way by using alternative fuels by 2045.



On the way to net-zero emissions, the shipping line is setting itself an interim target for 2030 of reducing the carbon intensity of its entire fleet by 30% compared to 2019 (measured by the Energy Efficiency Operational Indicator (EEOI)).

Clear mission: Shipping for a cleaner future

These goals can only be achieved with future-proof propulsion systems. That is why Hapag-Lloyd invested in twelve new containerships. Each ship with a capacity of 23,500+ TEU and a dual-fuel propulsion system, will be able to run on conventional fuel, fossil methane gas (LNG) and future alternative fuels. In addition, Hapag-Lloyd carried out tests with selected biofuel propellants for the operation of its A19 and A15 ship classes in 2021 and, thanks to the successful certification, it will now be able to operate 16 ships with these fuels.

Rolf Habben Jansen, CEO of Hapag-Lloyd commented: *'Sustainability is an integral part of our corporate strategy. As a global shipping company, the world's oceans are literally our playing field, and we are committed to making an important contribution to our industry's journey towards zero-carbon shipping. We are pursuing the decarbonisation of our fleet with great determination.'*

Committed to caring: Socially responsible

The Sustainability Report 2021 also presents Hapag-Lloyd's actions in society and at the community level. To promote global social activities, the carrier has developed the Hapag-Lloyd Cares programme, which supports regional and local educational projects, humanitarian aid and marine preservation activities. Hapag-Lloyd also cooperates on a global level with humanitarian and ecological organisations like the United Nations Children's Fund UNICEF as well as the world famous skipper Boris Herrmann and his Team Malizia.

The current Hapag-Lloyd Sustainability Report 2021 can be found here: <https://tinyurl.com/3hwpek9p>

About Hapag-Lloyd

With a fleet of 253 modern container ships and a total transport capacity of 1.8 million TEU, Hapag-Lloyd is one of the world's leading liner shipping companies. The Company has around 14,100 employees and 421 offices in 137 countries. Hapag-Lloyd has a container capacity of approximately 3.1 million TEU – including one of the largest and most modern fleets of reefer containers.

A total of 126 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.

Illustrations per www.hapag-lloyd.com ©.

Supporting seafarers impacted by war in Ukraine

Columbia Shipmanagement, together with its owning company and its clients, have raised an unprecedented €1.4 million and assembled a team of psychologists, mostly from Ukraine, to aid traumatised families of seafarers who have been impacted by the war in Ukraine.

This package of measures, financed by the newly set-up Columbia and Clients Charitable Fund, will help to provide accommodation as well as professional psychological support, to traumatised seafarers and their families at designated Columbia Sanctuaries in Poland and Romania.

Mental Health Support Solutions (MHSS), providers of professional mental health support to the maritime sector, has drawn together the team of 320 psychologists which will be on hand to assist seafarer families suffering from the effects of the war in Ukraine.

CSM has taken over a hotel in Romania and two villas in Poland which will act as safe harbours for families waiting to go through the visa and immigration process. Families are welcome to stay for up to six months while their applications are processed, it is understood.

Mark O'Neil, President and CEO of Columbia Shipmanagement, commented: *'My only requisite was that the accommodation had security guards on the doors to protect the women and children coming in. We have set up these sanctuaries for six months, all fully paid for, and the families will receive food, accommodation and clothing. Then, via the work of MHSS, we are also able to provide the necessary psychological support.'*



He added: *'The war in Ukraine has impacted many members of our maritime community. I'm so proud of what the industry has been able to achieve through this joint action to raise funds so we can support seafarers and their families during this incredibly difficult and challenging time.'*

'The situation in Ukraine is deeply distressing, far more so for those directly impacted, and providing accommodation and psychological help is the least we can do. We all stand united in our support for all seafarers and families impacted by this terrible conflict.'

O'Neil stressed: *'I have said from the start, it is all about the victims of the conflict, whether they are Ukrainian, Russian, Georgian or Filipino, it doesn't matter. They are the victims. And when we set up the Columbia and Clients Charitable Fund, Schoeller Holding, our shareholder, and CSM each put in \$500K.'*

'Some of our clients and staff contributed to the extent that we now have upwards of \$1.3m-\$1.4m in the fund. The guiding principle was that the fund should not be

bureaucratic as we wanted to put cash in the hands of those who needed cash without having to constantly reconcile the money.'

As part of its initiative, CSM has also set up four rendezvous points, one in Russia, one in Ukraine, one in Poland and one in Romania for any families that may need food, clothing or accommodation.

O'Neil added: *'These rendezvous points are there to thrust cash into the hands of those who need it and assistance is there to help get them through the asylum system. This rendezvous programme has been extended, via InterManager, to any seafarer families employed by other ship management companies on a reciprocal basis.'*

He concluded with: *'Raising the money is not the issue here, it is what you do with the money. You need viable projects, and this is a good way of delivering help where help is needed. We are also looking at setting up a charity that can work on a wider scale, after the flow of refugees has abated, to offer the long-term psychological help the victims of the conflict will need.'*

Charles Watkins, Clinical Psychologist and CEO of Mental Health Support Solutions, reflected: *'I'm pleased that the industry is recognising the importance of mental health. War torn families not only need financial aid but also psychological support because these normal and abnormal psychological reactions to traumatic events can impact for many years. The quicker people receive professional support the better.'*

According to Mr Watkins, the Ukrainian psychologists were very eager to get back to work and to help people in need. As he put it: *'Yesterday we had two people arrive here in Romania from Mariupol who were traumatised and we were able to offer the right support in their own language.'*

'The earlier you treat the mental issues, the higher the chances that they will be OK. Thanks to the fund, we can offer post-traumatic stress psycho-education as well as regular counselling; it is all coming together. Every sanctuary will have its own specific needs but there will also be general needs. Fantastic that CSM has made this possible because this type of crisis counselling is new.'

Asian Shipowners' Association

Shipping Policy Committee

34th Interim Meeting 2022

18 April 2022

The 34th Interim Meeting of ASA SPC was held online on 18 April due to precautionary measures against Covid-19. The meeting was chaired by Mr Keiji Tomoda, Vice President of the Japanese Shipowners' Association and participated in by 24 delegates from ASA member associations of ASEAN, Chinese Taipei, Hong Kong, Japan and Korea. The meeting was called to order by the Chairman at 1430 pm JST. ASA SPC members were reminded of the importance of full compliance with all

applicable competition laws throughout the entire programme and the meeting was conducted with counsel present, as in previous meetings. The outline of the meeting is as follows:

External Factors Affecting the Shipping Industry

Current various external factors surrounding the shipping industry such as the influence of the Covid-19 pandemic, the Ukraine Crisis and new green responsibilities were discussed. Delegates reaffirmed their firm determination to carry out their tasks as global logistic providers so as to minimise supply chain disruptions in cooperation with all stakeholders, while recognising the priority of crew safety.

Developments of International Maritime Policy

Broad policy issues concerning the international maritime industry were discussed. Mr Helio Vicente, Manager (Shipping Policy) of the ICS made a presentation on ICS's recent engagements on the issues of Covid-19, protectionism, trade and so forth. Delegates appreciated ICS's efforts to date and echoed his emphasis on the importance of reopening the WTO negotiations for the liberalisation of maritime services as soon as possible. With regard to the Canal Issues, the discussion concentrated on the recent developments on tolls at the two greatest canals around the globe, the Suez Canal and the Panama Canal, both of which underpin international logistics in an uncertain situation.



Delegates reaffirmed the critical importance for such a global infrastructure of avoiding a sudden and significant change of the tolls and charges, as well as to secure a sufficient prior notice and appropriate explanation by the Authorities. In this connection,

Furthermore delegates expressed their confusion against new surcharges introduced on 1 March 2022 with only 48 hours prior notice, then to be revised on 1 May 2022 by the Suez Canal Authority (SCA), which resulted in roughly a 7% to 20% toll increase for many types of vessels, in addition to a 6% tariff hike for most types of vessels, implemented on 1 February 2022. The Committee shared its concern that high uncertainty in the mechanism of operating the surcharge may damage the stability and reliability of the Canal, recognised that it was enormously important for the industry to jointly raise its united voice to the SCA and confirmed to continue tackling this issue with close cooperation with other international organisations such as the ICS so as to reflect all stakeholders' propositions.

As for the Panama Canal, Delegates were also disappointed by the proposal for the new toll system dated 1 April 2022 by the Panama Canal Authority (ACP), as the mark-up for some types of vessels may exceed 100% in 2025, compared with the current toll. While some positive

elements are included in the proposal such as a sufficient prior notice period with a formal consultation mechanism, Delegates shared a recognition that such a significant toll hike may not be compatible to the long term sustainability required to a global infrastructure and confirmed that we should submit our comments to the ACP during the formal consultation period to urge the ACP to avoid radical rate increases, based on the current unprecedented market condition.

Anti-Corruption Issue

The Committee reported recent developments on Anti-Bribery issues such as the discussion at the IMO and activities by the Maritime Anti-Corruption Network (MACN). Delegates renewed their determination to combat any kinds of corruption and were encouraged by a recent SCA circular, proclaiming its zero-tolerance policy against any act of facilitation payment or gift during the Suez Canal transit as one of the significant fruits from the efforts of all stakeholders concerning this issue.

Anti-trust Immunity and US Legislative Developments

The latest developments concerning the review of the current anti-trust immunity system in a number of jurisdictions were reported by Mr Robert K Magovern, Vice Chair of Transportation and Trade at Cozen O'Connor and the SPC's legal counsel. Delegates reconfirmed the ASA's long-standing policy that the anti-trust immunity system for cooperative carrier shipping agreements was indispensable for the healthy development of the liner shipping industry and the maintenance of a reliable service to the entire trading community. The Committee commended the ASA for its active support of industry efforts to maintain anti-trust exemptions for liner shipping agreements and urged continued activity in this regard.

Magovern also made a presentation on developments regarding recent US legislative developments such as the pending US Ocean Shipping Reform Act (OSRA) bills. Delegates agreed to keep watching the developing situation. Before the conclusion of the meeting (16:30 pm JST), the Chairman announced his intention that the next SPC meeting would be held in Singapore in autumn this year if the situation allowed.

About the ASA

The Asian Shipowners' Association (ASA) is a voluntary organization of the shipowner associations of Australia, China, Chinese Taipei, Hong Kong, Japan, Korea and the Federation of ASEAN Shipowners' Associations comprising shipping associations of ASEAN countries. The aims of the ASA are to promote the interests of Asian shipowners. Between annual ASA meetings, the ongoing work is carried out by five Standing Committees: The Seafarers' Committee (SC), the Ship Insurance and Liability Committee (SILC), the Safe Navigation and Environment Committee (SNEC), the Shipping Policy Committee (SPC), and the Ship Recycling Committee (SRC). It has been estimated that ASA shipowners and managers control and operate around 50% of the world's cargo carrying fleet.

About the ASA SPC

The ASA Shipping Policy Committee (SPC) is a forum for the members of ASA associations to discuss maritime policy issues such as regulation, taxation, trade policy, customs, canals, infrastructure and the macro economy, and policy public relations.

USCG Medevac

On 25 April the US Coast Guard medevaced a passenger from a cruise ship approximately 160 miles southeast of Galveston, Texas.



A US Coast Guard Air Station Houston MH-65 Dolphin helicopter crew medevacs a 68-year-old man from a cruise ship approximately 160 miles southeast of Galveston, Texas, 25 April.

Coast Guard Sector Houston-Galveston command centre watchstanders received a medevac request at 2005 hours on 24 April from the cruise ship *Adventure of the Seas* stating a 68-year-old man aboard was experiencing severe back pain, low blood pressure and decreased heart rate. Watchstanders consulted with the duty flight surgeon, who recommended a medevac.



A Coast Guard Air Station Houston MH-65 Dolphin helicopter crew launched to conduct the medevac while a

Coast Guard Sector/Air Station Corpus Christi HC-144 Ocean Sentry aircraft crew launched to provide an overflight and relay communications.

The Dolphin crew rendezvoused with the cruise ship, landed on the ship's helicopter pad, took aboard the passenger and transferred him to the University of Texas Medical Branch at Galveston in stable condition.

In the words of Commander Mike Cortese, search and rescue mission coordinator: *'Excellent communication between the cruise ship personnel, the helicopter crew, the aircraft crew and our command centre watchstanders ensured proper coordination for the medevac.'*

'Conducting a medevac far offshore during the night can be complex and demanding, but the aircrews from Air Station Houston and Sector/Air Station Corpus Cristi did a phenomenal job getting this passenger to a higher level of care as quickly as possible.'

Photos: US Coast Guard District 8. USCG ©.

MAIB Report: Catastrophic engine failure and fire

Ro-ro passenger ferry *Wight Sky*

The UK's Marine Accident Investigation Branch (MAIB) accident investigation report into the two catastrophic engine failures, one resulting in a fire, on board the ro-ro ferry *Wight Sky* at the entrance to Lymington River and before berthing at Lymington Pier (South Coast of England) on 26 August and 14 December 2018, is now published.

The full MAIB report at 92 pages and 5MB is available here: <https://tinyurl.com/yk7pzt8>

Summary

On 26 August 2018, *Wight Sky* suffered a catastrophic main engine failure as it prepared to enter the Lymington River on its regular crossing from Yarmouth, Isle of Wight. This was the ferry's second catastrophic main engine failure in less than a year, the failed engine being the replacement for the previous failure that had resulted in a fire and serious injuries to an engineer officer. On 14 December 2018, *Wight Sky* suffered a third catastrophic engine failure. On this occasion, the failed engine was a new build and had been in operation for just 389 hours.

Wight Sky was one of three Wight Class sister ferries and following the third engine failure Wightlink withdrew its Wight Class ferries from service. Following discussions between the ferry owner, the Maritime and Coastguard Agency, Lloyd's Register, and the engine manufacturer Volvo Penta, a mitigation plan was put in place to enable the ferries to return to service.

This investigation found a history of engine failures across the Wight Class fleet dating back to 2010 and consequently, the scope of the investigation expanded to include all known failures. This led to a long and detailed technical investigation that comprised forensic

examination and testing of five of the failed engines and their components, a full review of the vessels' system design and operation, and the safety management, planned maintenance and condition monitoring procedures, together with manning and technical oversight. In May 2019, the MAIB published an interim report of its initial findings.

Safety issues

The MAIB found the following safety issues:

- Insufficient technical oversight of the engines' operating parameters.
- Standards of maintenance management and quality control.
- Engine component and auxiliary system design problems.
- A lack of clear ownership for engine maintenance and engine condition monitoring.

Statement from the Chief Inspector of Marine Accidents

Andrew Moll, Chief Inspector of Marine Accidents, issued the following: *'This has been a long and complex investigation. Initially focussing on two catastrophic engine failures, the investigation found a history of engine failures across Wightlink's fleet of Wight Class ferries dating back to 2010. Consequently, the scope of the investigation was broadened to include the forensic examination and testing of five failed engines and their components, a full review of the vessels' propulsion system design and operation. We also examined the ferry operator's safety management, planned maintenance and condition monitoring procedures, together with the technical oversight provided by the engine manufacturer and its approved service provider.'*

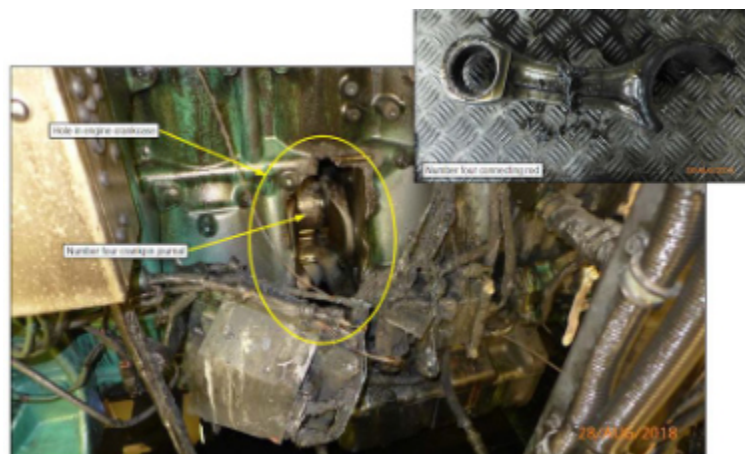


Figure 4: Two in ME2 crankcase, showing main engine component, and inset, showing main engine component on the engine room deck plate

'MAIB has worked closely with Wightlink, Volvo Penta AB, Lloyds Register and the Maritime and Coastguard Agency over the past three years to help ensure that most of the technical issues identified in the investigation report were addressed as soon as practicable. The report contains recommendations aimed at improving the reliability of the propulsion machinery on board the Wight Class ferries and reduce the likelihood of future catastrophic engine failures.'

Recommendations

The MAIB report made a series of recommendations.

- Wightlink (Recommendation 2022/109): Ensure competent technical oversight of maintenance on board its vessels, through resourced procedures, so that technical issues are identified and escalated to senior management as necessary.
- Volvo Penta AB (2022/110): Identify all affected D16 MH customers to inform and resolve the identified oil filter bypass anomaly.
- Register (2022/111): Assess the need to introduce within its rules and regulations the time taken to declutch a main propulsion engine from the drive shaft in the event of an emergency shutdown, to prevent the engine from being driven and increasing the risk of serious injury and damage.
- RK Marine Ltd (2022/112): Provide its customers with all manufacturers' safety bulletins applicable to the engines in use.



Figure 3: Engine room CCTV of ME2 engine fire

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ABB's integrated ship operating system

Key DNV cyber security certification

Classification society DNV reported on 27 April that it had awarded ABB the Cyber Secure Essential SP1 certification for its ship automation, propulsion and power systems, fully integrated with the remote access system.

This certification confirms ABB's cyber security solutions meet DNV's 'Cyber Secure SP1' requirements based on the internationally recognised standard for control system cyber security, IEC62443.

It is understood that the certification is in line with and goes beyond IMO resolution MSC.428(98) to protect power, propulsion and automation systems on board ships, as well as the confidentiality and integrity of remote connections.

ABB's certification for ship operating systems from DNV is a significant advancement to the previous SP0 verification

achieved by the company in 2021 both in terms of scope and level of security controls.

From January 2021, the IMO requires every ship's safety management system to include a cyber security risk assessment. Since the resolution has come into force, it has been complemented by additional guidelines. However, the IMO's risk assessment needed for compliance does not specify the means of protecting systems and networks at sea, leaving it to ship owners to make their own cyber security arrangements. DNV's cyber secure rules and the IEC62443 standard fill this important gap with concrete requirements, it is reported.



ABB's cyber security solution provides required protection for onboard systems

Illustration per ABB© with thanks

Jarle Coll Blomhoff, Group Leader for Cyber Safety and Security, DNV, commented: *'Cyber security awareness in the maritime industry is increasing fast. However, owners alone cannot take the full burden of responsibility. They rely on the expertise from yards, suppliers and classification societies to make sure they are prepared to deal with cyber threats both onboard and on shore.'*

'The security ABB offers as a built-in feature for systems demonstrates that these new threats and the importance of building cyber protection into every link of the supply chain are recognized throughout the maritime industry.'

This new certification acknowledges ABB's cyber security solution as providing the required protection for onboard systems, but also enabling system recovery to pre-attack status and troubleshooting to find the root cause of a breach. Approvals to remotely connect to the vessel must be controlled by the onboard crew, with only actively accepted and encrypted connections being permitted. In addition, ABB also offers continuous support to reduce their customers' cyber operations workload.

'SP1 certification marks a significant upgrade in the cyber security levels for ships,' said Ahmed Hassan, Head of Cyber Security, ABB Marine & Ports.

He added: *'While it is crucial to secure the communication between the vessel and the Cloud, it is also important to build cyber security into the systems essential for operation, while separating these from the non-essential ones.'*

'This builds 'Defence in depth' into the vessel design – a mechanism with several security controls where if one measure fails, another will come into play to protect

assets. As a result, cyber security risks can be mitigated on an increasingly stronger level that goes beyond what has been possible in the marine industry up until now.'

An emerging ammonia bunkering network

A global bunkering network for ammonia is being brought to fruition by Yara as newbuild orders for multi-fuel vessels by the likes of Höegh Autoliners are set to increase uptake of the carbon-neutral fuel. This was reported by industry towards the end of April.

Yara, which has traditionally produced ammonia for its core business of fertiliser production, has set up its Clean Ammonia unit that is working together with industry players including class society DNV, ship owners and engine manufacturers to boost the availability of ammonia as a shipping fuel.

Yara Clean Ammonia's (YCA) director for bunkering market development Christian Berg commented: *'Yara is in a unique position as it already has the necessary logistics in place for ammonia with an existing end-to-end value chain comprising production infrastructure, shipping and storage facilities. We are also the world's largest trader of ammonia.'*

Berg told a recent Immediasea webinar focusing on fuel flexibility, hosted by Blue-C with Fathom World: *'The missing link in the value chain is bunkering facilities and we are now working with the industry to develop fuel terminals as well as ship-to-ship transfer of ammonia for larger vessels.'*

Ammonia availability

Berg also challenged conventional industry wisdom that availability is one of the biggest barriers to adoption of ammonia as an alternative fuel to meet IMO emissions targets.

He said: *'There are today 130 ports globally that have ammonia infrastructure, so grey ammonia is already being traded as a cargo and using it as fuel is only a question of certification. We are well on the way to making it available as a fuel.'*

Yara has mainly produced grey ammonia made from natural gas in recent years but is now pursuing several projects for production of blue ammonia – in which CO₂ is captured and stored – and green ammonia that is produced with water using electrolysis.

The Norwegian company originally started producing green ammonia, which is essentially carbon-free, in 1927 but shifted to grey ammonia in the 1990s with the availability of cheap gas before CO₂ emissions became a big issue. Yara now produces 8.5 million tonnes of ammonia annually at seventeen plants.

First terminal

YCA is part of a consortium that is developing a first ammonia terminal in Norway set to be operational in 2024, backed by funding of NOK89 million (\$9.4million) from the country's so-called Green Platform, and Berg says it has

'a global perspective' for development of a wider bunkering network.

The bunkering infrastructure technology is being developed by Azane Fuel Solutions, a joint venture between Amon Maritime and Econnect Energy that are both partners in the consortium for the so-called Ammonia Fuel Bunkering Network project.

The Yara unit is also set to deliver green ammonia for the ShipFC project involving the world's first vessel to use ammonia fuel cells and for another with Viridis Bulk Carriers that involves a partnership between seven cargo owners.

Berg sees the first ammonia-fuelled vessels being afloat in 2024 or 2025 given current tests by engine manufacturers for use of the fuel. It is understood that he does not rule out that ammonia could soon compete with LNG as the low-carbon alternative fuel of choice.



Yara is part of a consortium that is developing a first ammonia bunkering terminal in Norway.

Image: Azane Fuel Solutions ©.

Ammonia, together with hydrogen, biofuels and e-fuels, are ranked by DNV as having the strongest green credentials as they can reduce emissions by between 80% and 100%. However, it is reported that there are also barriers to adoption in terms of availability, cost, and maturity of technology.

DNV's regional business development manager Anders Mikkelsen told the Immediasea panel *'the fuel landscape is highly uncertain'* as key future fuel technologies will not be available for another four to eight years so *'shipowners need to be prepared for several fuel alternatives.'*

Collaboration factor

Given the IMO's demand for increasing reductions in emissions over the coming years, this makes it difficult for ship owners to select the right fuel option at the newbuilding stage to ensure the vessel is future-proof in terms of compliance, Mikkelsen said.

He added: *'Basic preparation at the ship design and newbuild stages is therefore important to buy time to allow for flexibility down the line when there is more clarity on price, availability, quality and capacity of future fuels.'*

'The key is to correctly assess the technology, fuel production and supply infrastructure to stay under the carbon reduction trajectory.'

'And in the context of fuel flexibility, collaboration is vital both between ship owners and manufacturers as well as fuel suppliers, which enables more confident decision-making. Those who choose the path of collaboration are farthest along on their decarbonisation journey.'

Höegh Autoliners is among ship owners taking a forward-thinking approach by pursuing multi-fuel newbuilds, having recently ordered an initial four of what will be the world's largest PCTCs (pure car and truck carriers), with options for eight similar vessels, at China Merchants Heavy Industry.

Design effort

The Deltamarin-designed Aurora-class vessels with capacity of 9100-CEU, set for delivery in 2024 and 2025, will be capable of running on liquid fuels, LNG and biofuels, and will also be the first newbuilds with DNV's ammonia- and methanol-ready class notations.

The company envisages these vessels could be converted to ammonia or other net-zero fuels in the 2025-to-2030 timeframe.

Höegh chief executive Andreas Enger characterised these as *'a definitive step'* towards the company's goal of reaching net zero emissions from its fleet of deep sea car carriers by 2040. It has already cut emissions per CEU nautical mile by 37% since 2008 and has a current carbon intensity 10% lower than average for its segment.

Enger added: *'We have put a lot of effort into the design of these vessels to build strong conventional economics, with high capacity and strengthened decks for heavier electric vehicles, as well as fuel flexibility. Given the age profile of these vessels, this is well-fitted to where the world is going.'*

Decarbonisation payback

Deltamarin's sales & marketing director Esa Jokioinen said ship owners would be well-advised to consider at the newbuilding design stage multiple factors – such as operational profile, trade route, cargo type, current and future regulations, and fuel availability – to optimise the hull, layout and engine selection.

Designing with fuel flexibility so a vessel can easily be converted for alternative fuels as these become available is also key to future-proofing a newbuild investment, according to Jokioinen.

In conclusion Jokioinen said: *'Looking at the different requirements in the beginning and investing in the best design usually gives the best payback for any decarbonisation action. There is no silver bullet, though everyone is still hoping for it.'*

Pilot ladder safety

Are they as safe as they should be

Nautical Institute study

The dire consequences of failing to ensure personal safety when it comes to the maintenance and rigging of pilot ladders onboard today's vessels, came under close scrutiny by speakers and delegates attending the latest industry webinar presented by The Nautical Institute (NI).

The Pilot Ladder Safety Webinar, which was attended by over 1,000 maritime professionals, raised a series of serious issues. One such was how important it is to preserve life. Another is the relative low cost of a ladder and whether this is something that can be overlooked. Considered, too, were the repercussions of a vessel potentially being detained for Port State Control infringements. These are balanced against the cost of a ship being refused boarding by a Pilot and other punitive measures.

Members of The NI and the International Maritime Pilots' Association (IMPA) have been concerned for many years at the needlessly high rate of Pilot Ladder casualties, and resulting deaths and injuries.

The NI is continuously reminded of the problem with boarding arrangements from its Members and through its Mariners' Alerting and Reporting Scheme (MARS).

IMPA recently published its annual Safety Campaign results for 2021 indicating that non-compliance with long established SOLAS regulations remains regrettably high – with little change from previous surveys. Progress is not happening. Still pilots are being injured and lives are being lost during pilot transfer operations.

Nick Cutmore, Secretary General of IMPA and Captain John Pearn, Chair of the IMPA Safety Committee, used the webinar to report on their findings and discuss how good seamanship can literally save lives. The Safety Campaign results and guidance on correct Boarding Arrangements are freely available on the IMPA website here: www.impahq.org

A recording of this safety critical webinar is available on The NI's YouTube Channel here:

<https://tinyurl.com/4awrzukw>

In the words of The Nautical Institute all maritime professionals are encouraged to view and share the channel in order to save lives and reduce injury.

This webinar follows a recent publication of the NI's *The Navigator* magazine focusing on Pilotage issues and available freely online here: <https://tinyurl.com/yxss6mnm>

Hapag-Lloyd

Real-time container tracking devices

Towards the end of April Hapag-Lloyd reported that it will equip its entire container fleet with real-time tracking devices.

After successfully introducing real-time monitoring for its reefer container fleet in 2019 with the IoT product Hapag-Lloyd LIVE, the company will start to install newly developed devices to all standard containers of its three million TEU fleet.

Hapag-Lloyd continues to further digitalize container shipping and Hapag-Lloyd LIVE will become available for customers of its standard containers during 2023, it is reported.

Maximilian Rothkopf, COO of Hapag-Lloyd said: *'Going forward, we will be able to provide all our customers with real-time track and trace data, giving them full visibility of any container movement worldwide.'*



Hapag-Lloyd first mover in equipping all containers with real-time tracking devices

We will be able to detect delays earlier, inform impacted customers automatically and initiate counteractions at an early stage. We firmly believe that our real-time tracking approach will not only be beneficial for our customers but be a game changer for the entire container shipping industry.'

These devices will be able to transmit data on a real-time basis from each container and by this make the supply chain more transparent and efficient. They can supply location data based on GPS, measure temperature and monitor any sudden shocks to the container. In future, additional sensors could be added through Bluetooth.

To ensure safety for crews, cargo, and vessels the devices are designed and certified to the ATEX Zone 2 explosion proof standard. The company will continue to work with key customers to develop and expand the product and its features based on their feedback.

Hapag-Lloyd's shipping container monitoring device integrates the latest energy harvesting technology and low-power consumption techniques to ensure ultra-long lifetimes with high-frequency data sending. The container

fleet will be equipped with devices both from established TradeTech partner Nexxiot AG starting this summer as well as with devices from ORBCOMM, a global leader in Internet-of-Things solutions, starting later this year.

Olaf Habert, Director Container Applications at Hapag-Lloyd added: *‘It is our vision to build the world’s smartest container fleet and to provide valuable information to our customers at the frequency they need.*

‘Working with the most advanced companies for global-scale IoT applications will help us to equip our container fleet as fast as possible. This is what our customers now require and increasingly expect so they can manage their complex supply chains better.’

According to Hapag-Lloyd the devices report via the mobile phone network to the cloud server of the device provider (fully encrypted data stream).

From there the data flows to the Hapag-Lloyd cloud and is made available to the company’s internal systems which are used around the world as well as directly to customers.

It is understood that customers will be able to receive data via different channels for example on the Hapag-Lloyd website or APIs.

Hapag-Lloyd is the owner of the data and will work closely with the cargo owner, shipper, and consignee to regulate access to the data.

Close quarters near miss

Cruise vessel *Maud* and ro-ro ferry *Gardenia Seaways*

Synopsis

At about 0230 on 4 November 2021, the cruise vessel *Maud* and ro-ro ferry *Gardenia Seaways* passed each other at an approximate distance of 130 metres in the vicinity of the North Shipwash Buoy, to the north of Harwich Haven Authority jurisdictional limits (England, North Sea coast). At the end of February this year the (UK) Marine Accident Investigation Branch (MAIB) reported that it had completed a preliminary assessment.

The outbound *Maud* had earlier signalled its intention to pass the inbound *Gardenia Seaways* port to port, but the *Maud* passed closely ahead of *Gardenia Seaways* despite several warning broadcasts from Harwich Vessel Traffic Services (VTS).

It is understood that neither master was on the bridge at the time and actions from the watchkeepers on both vessels contributed to a dangerous situation developing in an area well-known for traffic conflicts.

Action taken

As a result of MAIB’s preliminary assessment, the Chief Inspector of Marine Accidents has written to Hurtigruten Expeditions and DFDS Seaways AB (Lithuania) advising them of the safety issues identified and highlighting his concern about the conduct of navigation on both vessels.

The Chief Inspector has also written to Harwich Haven Authority and advised it to undertake a traffic assessment in consultation with Trinity House and the Maritime and Coastguard Agency to identify routeing or procedural measures that will help deconflict traffic in the area.

Ship Particulars:

Name	Maud	Gardenia Seaways
Flag	Norway	Lithuania
Classification	DNV	DNV
Type	Cruise	Ro-ro cargo
Owner	Hurtigruten Expeditions	Ro-Ro Carriers 2 Ltd
Manager	Hurtigruten Expeditions	DFDS Seaways AB-Lithuania
Year of build	2003	2017
LOA	135.75m	209.60m
GRT	16,521	32,336
Minimum Safe manning	70	14

Furthermore, it is understood that Hurtigruten Expeditions and DFDS Seaways AB (Lithuania) have taken internal measures to capture the lessons learned from this near miss and improve standards of watchkeeping throughout their fleets.

Hurtigruten Expeditions has also increased the *Maud*’s complement of officers to allow for additional watchkeepers in areas that involve increased levels of navigational awareness.

Ship particulars

Maud, Norway-flagged, classed DNV, built 2003, 135.74 metres loa, 16,521gt, on passage from Harwich to Stavanger, Norway with 210 passengers and 145 crew on a cruise / expedition voyage.

Gardenia Seaways, Lithuania-flagged, classed DNV, built 2017, 209.60 metres loa, 32,336gt, on passage from Rotterdam to Felixstowe with 24 crew carrying a mixed ro-ro cargo

External environment

At the time of the incident it was night, overcast with good visibility and slight sea conditions.