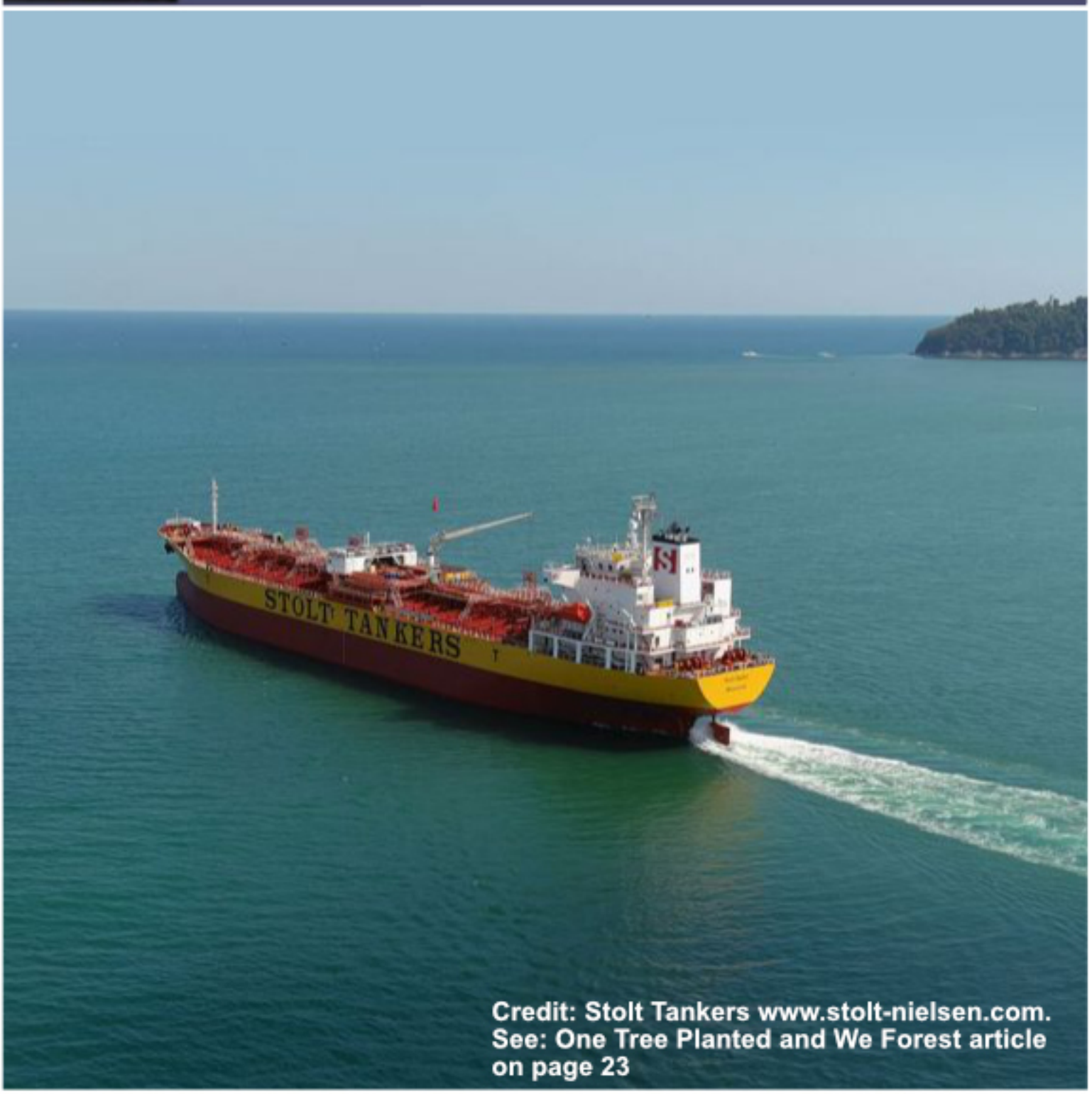
Number 51, April 2022

IFSMA NEWSLETTER

The Shipmasters' International Voice



Credit: Stolt Tankers www.stolt-nielsen.com.
See: One Tree Planted and We Forest article on page 23

UNITY FOR SAFETY AT SEA
IFSMA

International Federation of Shipmasters' Associations (IFSMA)
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Contents

Secretary General's Report

Last month was dominated by the invasion of Ukraine by Russia which has brought far reaching ramifications for the world. Every day we get more uncomfortable news of the indiscriminate damage being caused by the Russian armed forces and the huge impact it is having on the Ukrainian population. Our thoughts are with them all. Spare a thought for all at the Marine Transport Workers' Trade Union of Ukraine who are working closely with members of the Maritime Industry Ukraine Task Force to assist repatriation of Ukraine Seafaring families to countries of safety and I would like to thank all those who have offered to help. This effort is being coordinated by the International Chamber of Shipping (ICS) and INTERMANAGER, so if any Association would wish to assist with offers of accommodation, please contact us at the HQ and we will put you in touch.

Once again, the ICS is coordinating the efforts of all the maritime NGOs and we hold twice weekly meetings to discuss issues and keep ourselves up to date. ICS is being used as the conduit into the IMO and ILO so if you have any information you need or want to offer, please come through us at the HQ and I can ensure you are put in touch with the right point of contact.

Let us not forget the innocent seafarers who are caught up in this as currently there are 84 merchant vessels stuck in Ukraine ports and nearly all are fully crewed. They are running short of supplies and once again the ICS is working with the IMO/ILO and aid agencies to try and get supplies through where they can and also to repatriate crews if possible. The ICS have put out the message to all of the owners of those ships known to be in Ukraine to get in touch with them as theirs is the only route by which help can be given. The aid agencies and IMO/ILO will only do this through the ICS to ensure proper vetting and to avoid confusion.

Let us also not forget also that the Covid Pandemic is far from over and many of our seafarers are again stuck at sea because of reduction of crew changes as various nations continue the policy of total lockdowns. Please let me know if you have any issues on this front as we NGOs remain in touch and hold a meeting every two weeks to discuss any issues. More urgent issues can be taken forward at any time.

We at HQ continue to support you wherever you are and will try to keep you in touch with key events as they unfold so please keep in contact with us and remember that our business at the IMO continues alongside all the events taking place in the world. Make sure you monitor what is going on through our Briefs and Reports on our website and Facebook page.

As we approach our various festivals, whether it be Easter or some other festival, please spare some time to think of all those who are suffering in the world and in particular those in and affected by the events taking place in Ukraine.

Wishing you all fair winds and following seas,

Jim Scorer.

From the News Editor

A useful lesson on maintenance

Diesel engine component failure on the passenger and car ferry *Wenatchee* near Bainbridge Island, Washington State, resulted in nearly $3.8 million in damages. This was the subject investigated by the US National Transportation Safety Board (NTSB) and reported in mid-March. *Wenatchee*, 460ft loa, built 1998, is a passenger and car ferry with a capacity 202 cars and 1812 passengers.

Wenatchee under way before the accident. Source: Washington State Department of Transportation

On 22 April 2021, while the vessel was conducting a post-maintenance sea trial in Puget Sound, the no. 3 main diesel engine (there are four) experienced a connecting rod assembly failure and ejected components that breached the crankcase, resulting in the ignition of hot pressurized gases that were released in the engine room. The crew of *Wenatchee* effectively contained the spread of the fire by stopping all fuel supply and ventilation to the engine room and isolating the space.

The NTSB determined the probable cause of the mechanical failure of the no. 3 main engine was a connecting rod assembly that came loose and separated from the crankshaft due to insufficient tightening (torqueing) of a lower basket bolt during a previous engine overhaul.

The NTSB Marine Investigation Report No 22/06 is to be found here: https://tinyurl.com/42dn8rvy

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 WISTA International

Launch of Maritime SheEO Leadership Accelerator Programme 2022

On 8 March IMO in collaboration with the Women's International Shipping & Trading Association (WISTA International) and Maritime SheEO* announced the launch of the Maritime SheEO Leadership Accelerator Programme 2022.

The programme was launched during a live webinar focussing on The Next Generation Of Women Leaders In Engine Rooms, Bridges and Board Rooms. The webinar also marked the UN International Women's Day 2022, which this year was held under the banner of Gender Equality Today For A Sustainable Tomorrow and a key message to #BreakTheBias.

The Maritime SheEO Leadership Accelerator Programme was launched at a time when the industry recognises that it needs more women leaders. It was specially curated and designed to provide management knowledge and skills to help women in the maritime industry move into leadership roles.

IMO's Secretary-General Kitack Lim addressed the webinar and said that the maritime industry is working to transition to a more sustainable future. He acknowledged that diversity in leadership is good for business and that woman leaders are vital for the future of maritime.

The IMO has been working to facilitate gender equality in maritime since 1988 and is committed to achieving the UN Sustainable Development Goals, including Goal 5 to achieve gender equality and empower all women and girls. The IMO gender and capacity-building programme is dedicated to helping achieve Training-Visibility-Recognition of women in maritime.

During his speech, Mr Lim mentioned 18 May, when the IMO celebrates the inaugural International Day of Women in Maritime. The day will provide an annual platform to recognise women in the industry, promote the recruitment, retention and sustained employment of women in the maritime sector, raise the profile of women in maritime as well as to strengthen IMO's commitment to gender equality and support work to address the current gender imbalance in maritime.

Despina Theodosiou, President, WISTA International welcomed the 2022 cohort, saying: '*The women who will begin this programme represent our future. Some are already in roles of some authority and leadership, others aspiring to gain further recognition and position in their careers.*

'*They seek what any career-inspired individual at work seeks but often find they do not have the opportunities to do so. This course will help fill that gap. Our objective is that we should increasingly build up gender and diversity awareness, where leaders do not choose their workforce based on gender, colour or ethnicity, but on capability and being fit for the job*.'

It is a recognised that in Maritime, as with other sectors, the higher one climbs, the fewer women leaders one sees in leadership positions.

The Maritime SheEO Leadership Accelerator Programme was developed with the assistance of key industry experts working with IMO and WISTA. It will enable women to become part of an active and trustworthy network of female executives who support and inspire each other along their leadership journey.

Sanjam Gupta, Founder, Maritime SheEO commented on the launch: '*Women leaders will bring skills, different perspectives, and innovative ideas that lead to better decision-making as a whole for the business. Especially for the younger generation, the power of role models cannot be overlooked.*

'*This important programme aims at helping women reach their untapped potential. We are delighted that the IMO is furthering their commitment by offering 30 global scholarships to women in the maritime industry to enable us to reach this goal. This project would not be possible without the collaboration and support of WISTA International. Together we can drive change*'.

It is anticipated that this initial programme marks the start of a regular schedule which will be conducted in English, the universally accepted language in maritime. The Leadership Accelerator Programme includes self-study modules and project presentations by the participants, culminating in an online graduation.

*For more on SheEO readers are invited to see here:
https://maritimesheeo.com/
and here:
https://maritimesheeo.com/magazines/

Progress on life cycle GHG emissions guidelines

Impact assessment of measures at IMO WG It was reported on 21 March that progress on developing draft lifecycle GHG and carbon intensity guidelines for marine fuels and assessment of impacts of GHG measures has been made by an IMO working group.

The session, held remotely, was attended by more than 430 participants from some 70 Member States, as well as from NGOs in consultative status with IMO.

The Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 11), which met 14-18 March, also considered proposals on how to keep the impacts of the short-term measure under review and proposals for the revision of the ship fuel oil consumption Data Collection System (DCS).

It is understood that the short term measure to reduce carbon intensity was adopted as an amendment to MARPOL Annex VI in June 2021[1] and includes the Energy Efficiency Existing Ship Index (EEXI); annual operational carbon intensity indicator (CII) and CII rating.

Furthermore, the Working Group's report will be submitted to the Marine Environment Protection Committee (MEPC) at its next session in June (MEPC 78, to be held from 6-10 June 2022).

Lifecycle GHG emission guidelines for marine fuels

The Working Group noted the urgency of the development of draft lifecycle GHG and carbon intensity guidelines for marine fuels[2] as expressed by many delegations to facilitate investment decisions, and following detailed discussions aimed to finalise the draft guidelines at MEPC 79 to be held from12-16 December this year.

To that purpose, the Working Group proposed the establishment of a correspondence group to further develop the draft guidelines using the draft guidelines submitted by Member States as a basis.

The working group agreed that the standalone technical lifecycle guidelines would cover Well-to-Wake, including Well-to-Tank and Tank-to-Wake, emission values, but that any regulatory application of the guidelines would be defined in a separate process.

Recalling that the guidelines would be fuel-neutral, the working group also agreed that the main initial feedstocks to be included in the draft life-cycle assessment (LCA) guidelines would not be considered as priority fuels to avoid discriminating against other possible feedstocks and pathways and prejudging further discussions. Initial feedstocks merely represented the main current and expected future marine fuels.

A candidate short-term measure in the IMO Initial GHG Strategy[3] refers to developing '*robust lifecycle GHG/ carbon intensity guidelines for all types of fuels, in order to prepare for an implementation programme for effective uptake of alternative low-carbon and zero-carbon fuels*'.

The lifecycle refers to the assessment of greenhouse gas emissions from the fuel production to the ship (Well-to-Wake); from primary production to carriage of the fuel in a ship's tank (Well-to-Tank, also known as upstream emissions) and from the ship's fuel tank to the exhaust

(Tank-to-Propeller or Tank-to-Wake, also known as downstream emissions).

Candidate future low-carbon and zero-carbon fuels for shipping have diverse production pathways (for example, different generations of biofuels, hydrogen-based fuels, and so forth) entailing significant differences in their overall environmental footprint.

Impact assessments of candidate GHG reduction measures

The Initial IMO GHG strategy recognizes that the impacts on States of a proposed measure should be assessed and taken into account as appropriate, with particular attention paid to the needs of developing countries, especially small island developing States (SIDS) and least developed countries (LDCs).

The Working Group reconfirmed that the Initial IMO GHG Strategy identified work on the assessment of impacts on States as a key element of the Organization's efforts in reducing GHG emissions from ships whilst that impact assessment process needed to be both a meaningful and a manageable task.

The group considered the report of an Ad-hoc Expert Workshop on Impact Assessments (which met 8-9 March 2022) which had considered various procedural and methodological issues related to assessment of impacts of candidate GHG reduction measures.

Overall, the Working Group expressed its appreciation to the process and methodologies used under the comprehensive impact assessment of the short-term measure and confirmed that it provided a solid basis for future comprehensive impact assessments.

The Working Group reiterated the need for relevant methodological and process-related improvements. A draft text of process and methodological elements to complement the procedure for assessing impacts on states of candidate measure was developed and will be considered again by the Group later this year. The aim is that this could be included in a future revision of the Procedure for assessing impacts on States of candidate measures (MEPC.1/Circ.885)[4]

It was noted that further work was needed to complete the lessons-learned exercise of the comprehensive impact assessment of the short-term measure, in order for this to be completed by MEPC 79.

Maritime Transport Cost Data collection in the Pacific region

The Working Group was informed by the Secretariat that in follow-up to the identified data gaps in the comprehensive impact assessment of the short-term GHG reduction measure, it had initiated a new study aimed at improving the availability of maritime transport costs data in the Pacific region. This initiative is aimed at facilitating future impact assessments of candidate mid-term GHG reduction measures.

The project is funded by the IMO's multi-donor GHG TC Trust Fund[5] and will be implemented by the MTCC-Pacific[6], in cooperation with other organizations active in the region.

Revision of the ship fuel oil consumption Data Collection System (DCS)[7]

In 2016 IMO adopted the mandatory IMO Data Collection System (DCS) for ships to collect and report fuel oil consumption data from ships over 5,000 gt (the first calendar year data collection was completed in 2019).

The Working Group agreed draft amendments to MARPOL Annex VI Appendix IX Information to be submitted to the IMO Ship Fuel Oil Consumption Database, to include more information on the ship's carbon intensity performance (EEXI and CII). The Secretary-General was invited to circulate the draft amendments for adoption at MEPC 79.

Following discussion on other potential amendments to Appendix IX of MARPOL Annex VI and associated guidelines on the data collection system, the Working Group agreed to initiate a work stream on the revision of the Ship Fuel Oil Consumption Data Collection System. It recommended that the Committee invite interested Member States and international organizations to submit concrete proposals to a future Working Group session.

Next ISWG-GHG

The 12th session of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG-GHG 12) is schedule to meet from 16 to 20 May. It will consider the final report of the Correspondence Group on Carbon Intensity Reduction and concrete proposals for midterm measures and associated impact assessments, including the proposal to establish an International Maritime Research Board, in the context of IMO's Work plan on the development mid-term GHG reduction measures[8];.

To learn more

To learn more on IMO's work to reduce GHG emissions from shipping readers are invited to see here: https://tinyurl.com/mr2ne2bm

1 https://tinyurl.com/47tstpn5
2 https://tinyurl.com/2p9x8m2h
3 https://tinyurl.com/mr2ne2bm
4 https://tinyurl.com/mw8eakuf
5 https://tinyurl.com/mufmu8wb
6 https://mtccpacific.spc.int/
7 https://tinyurl.com/mwat7rf4
8 https://tinyurl.com/pkc4vxxs

Invasive aquatic species

IMO and regional prevention of transfer

With regard to prevention of transfer of invasive aquatic species in the Red Sea and Gulf of Aden IMO and States in the Red Sea and Gulf of Aden region have begun developing a regional biofouling management strategy

and action plan to prevent such invasive and damaging transfer.

A meeting bringing together government representatives from PERSGA member States* to coordinate efforts in the region was held in Hurghada, Egypt on 22 and 23 March.

This event was organised by PERSGA under the GloFouling Partnerships project (https://www.glofouling.imo.org/) and follows earlier efforts in the region such as the regional seminar conducted in 2021 to raise awareness on the issue of ships' biofouling as one of the main vectors for the transfer of invasive aquatic species.

PERSGA member States established a Regional Task Force and elected its Chair (Jordan) for a two-year term. Jordan is a Lead Partnering Country of GloFouling Partnerships and has already made considerable progress at the national level, with the development of a national status assessment report and a draft national strategy.

Participants also discussed and agreed on the contents of a draft regional strategy and an action plan on biofouling management that will help harmonize efforts, identify priority activities and set a communication channel for knowledge sharing.

Regional efforts are key to pooling resources, share experience and increase the number of countries that develop national assessments and a national policy on biofouling management, in line with the IMO Biofouling Guidelines to prevent invasive aquatic species and protect their negative impacts on marine biodiversity.

It is understood that the next steps in the region will be the endorsement of the draft strategy and its action plan, and the implementation of the first activities identified, followed by another meeting of the regional task force in 2023.

To learn more about the biofouling issue, which is the accumulation of aquatic organisms such as micro-organisms, plants and animals on surfaces and structures immersed in or exposed to the aquatic environment, readers are invited to see here:
https://tinyurl.com/2ex46a82

* Secretariat of the Regional organization for the conservation of the environment in the Red Sea and Gulf of Aden (PERSGA) member States: Djibouti, Egypt, Jordan, Saudi Arabia, Somalia, Sudan and Yemen.

The IMO Legal Committee, 109th session, (LEG 109)

21-25 March 2022

- **Black Sea and the Sea of Azov**
- **Guidance on insurance or other financial security certificates**
- **Seafarer abandonment**
- **Fraudulent registration and fraudulent registers of ships**
- **Maritime Autonomous Surface Ships (MASS)**
- **The 2010 HNS Convention**

IMO's Legal Committee met from 21 to 25 March and approved a guidance circular on the impact of the situation in the Black Sea and the Sea of Azov on insurance or other financial security certificates.

This followed the decision of the IMO Council at its Extraordinary Session earlier in March to request IMO Committees to consider ways to enhance the efforts of Member States and observer organizations in supporting affected seafarers and commercial vessels and consider the implications of this situation for the implementation of the Organization's instruments, take appropriate action and report back to Council.

The circular noted that a number of relevant IMO liability and compensation treaties require that State Parties issue certificates attesting that insurance or other financial security which meets the requirements of the conventions is in force. The introduction of economic sanctions may in some cases restrict the insurers or other financial security providers from processing claims or prohibit the payment of claims arising under these conventions.

Furthermore, the circular recommended that flag or certifying States issuing certificates based on Russian insurers or Russian financial security providers should verify that the coverage meets the criteria outlined in the appropriate IMO Circular which provides guidance for accepting 'Blue Cards' or similar documentation from insurance companies for specified treaties.

Port States encountering certificates involving Russian insurers or financial security providers should consult with the issuing or certifying State whose responsibility it is to ensure that the insurance or financial security remains adequate, as called for in the relevant IMO liability and compensation treaties.

New agenda sub-item

The Committee agreed to include a new sub-item on the impact on shipping and seafarers of the situation in the Black Sea and Sea of Azov in the agenda of the Legal Committee under the existing agenda item on Advice and guidance in connection with the implementation of IMO instruments.

Seafarer abandonment

The Committee noted information from the IMO/ILO joint database of abandonment of seafarers, revealing that 30 cases of abandonment had already been reported in the first three months of 2022. In calendar year 2021, a record 95 new cases had been reported. Of these cases, only 31 had been resolved. In calendar year 2020, the total number of reported cases was 85. Of these, 43 cases had so far been resolved. Of the cases reported since 2020, 21 were related to consequences of the Covid-19 pandemic, further exacerbating the crew change situation of seafarers.

The Committee expressed profound concern regarding the increase in abandonment cases as a result of the pandemic, while thanking the IMO Secretariat, the IMO Seafarer Crisis Action Team, ILO and ITF for their efforts in helping to resolve abandonment cases.

The Committee encouraged discussion relating to a solution to the problem of repatriation of abandoned seafarers and reminded Member States to ratify and effectively implement the relevant international instruments and amendments thereto; and to report incidents of abandonment to the database when they occurred in their ports or on vessels flying their flag.

Flag States and port States were urged to take further action to ensure the presence of financial security, as required by the ILO Maritime Labour Convention (MLC, 2006), Standard A2.5.2, and to take appropriate action when financial security is not in place.

The Committee noted the outcome of the Sub-Committee on Implementation of IMO Instruments (III 7) in July 2021 concerning matters related to the financial security of seafarers in cases of abandonment, including that individual port State control (PSC) inspection reports should include information regarding the validity period and contact information of financial security providers of the insurance certificates required by the 2014 amendments to the MLC, 2006. The Sub-Committee had also agreed to invite PSC regimes to consider a concentrated inspection campaign (CIC) on financial security related to the 2014 amendments to the Maritime Labour Convention (MLC), 2006.

Furthermore, the Committee endorsed, with respect to the handling of issues related to the abandonment and fair treatment of seafarers, the III Sub-Committee's recommendation on alignment and integration of actions in favour of both seafarers and fishers, recognizing that both seafarers and fishers are often confronted with the same kinds of problems, which had become even more serious in the context of the pandemic.

Guidelines for port State and flag State authorities on how to deal with seafarer abandonment cases

Draft guidelines for port State and flag State authorities on how to deal with seafarer abandonment cases, developed by an intersessional correspondence group, were endorsed by the Committee.

The text will be forwarded, as a base document for consideration and further refinement, to the joint ILO-IMO Tripartite Working Group which has been established to identify and address seafarers' issues and the human element. (The joint group is expected to meet later in 2022).

Fair treatment of seafarers

The Committee invited concrete proposals to the next session on the agenda item '*Fair treatment of seafarers detained on suspicion of committing maritime crimes*'.

Preventing unlawful practices associated with fraudulent registration and fraudulent registers of ships

The Committee continued its work on measures to prevent unlawful practices associated with fraudulent registration and fraudulent registers of ships, noting the adoption by the IMO Assembly of a related resolution (A 32/Res.1162). Such illicit practices undermine the foundation of the overall IMO regulatory regime.

The Committee noted communications received from a number of Governments on the operations of fraudulent registries, and on several instances of the use of fake identities by ships. The Committee noted concerns already raised by some delegations that AIS data were deliberately manipulated and that ships were able to operate transmitting fake data. The Committee agreed to inform the Maritime Safety Committee of this issue, as that Committee may wish to investigate how ships without proper registration were able to obtain MMSI numbers.

Following consideration of the report of the Correspondence Group, the Committee agreed the terms of reference for a study to address issues arising in connection with fraudulent registration and fraudulent registries of ships and possible measures to prevent them.

The study group will include the United Nations Conference on Trade and Development (UNCTAD), the World Maritime University (WMU), the IMO International Maritime Law Institute (IMLI) and other interested parties.

Forged / False documents

Meanwhile, the Committee agreed on a definition of 'forged / false documents' based on text developed by the Correspondence Group.

Forged / false documents means any document, whether in electronic or paper format, that is: (i) forged or falsified to obtain or issue a ship registration certificate; (ii) a forged or falsified ship registration certificate; or (iii) issued based

knowingly on the forged or falsified ship registration certificate.

A presentation by IHS Markit / S&P Global (designated entity for IMO numbers and tonnage figures) on their work related to the fraudulent registration and fraudulent registries of ships took place on 25 March, in the margins of the Legal Committee.

Maritime Autonomous Surface Ships (MASS)

Following the completion of the Committee's regulatory scoping exercise on Maritime Autonomous Surface Ships (MASS) downloadable as a 46 page pdf here: https://tinyurl.com/4jp56r6u the Committee agreed to include a new output under the work programme on '*Measures to address Maritime Autonomous Surface Ships (MASS) in instruments under the purview of LEG*' on the 2022−2023 biennial agenda, and subsequently the 2024-2025 biennial agenda, with a target completion year of 2025.

The Committee invited concrete proposals to LEG 110 (to be held in 2023) on the scope of the work on the new output and a draft road map, in order to have a common understanding of the steps to be taken by the Committee.

The Committee noted that the human element should be an important aspect to consider in the completion of this output, and that MASS should operate within the legal framework of the United Nations Convention on the Law of the Sea (UNCLOS).

Joint Committee WG input on MASS

The Committee approved the establishment of a joint Maritime Safety, Legal and Facilitation Committees (MSC-LEG-FAL) Working Group on MASS, as a cross-cutting mechanism to address common high-priority issues identified by the regulatory scoping exercises for the use of MASS conducted by the three Committees. The Joint Working Group would be instructed to address the common issues identified by the three Committees; and provide advice to the Committees after every meeting. (The establishment of the Joint Group is subject to approval by FAL and MSC.)

Push for entry into force of 2010 HNS Convention

The Committee welcomed the recent accession of Estonia to the 2010 HNS Convention, the key IMO compensation treaty covering the maritime transport of hazardous and noxious substances (HNS) by ship. The Committee noted that the 2010 HNS Protocol needed only six more ratifications with the required contributing cargo, thus the Convention was significantly closer to its entry into force.

The delegations of Belgium and the Netherlands provided information on the progress of adopting national legislation, which would allow them to ratify the 2010 HNS Protocol simultaneously with Germany. The delegation of France confirmed that its objective to ratify the 2010 HNS Protocol in 2023 should be achieved. Furthermore, the Committee was informed that the Philippines was in the final stages of ratifying the 2010 HNS Protocol.

When in force, the treaty will provide a regime of liability and compensation for damage caused by HNS cargoes transported by sea, including oil and chemicals, and covers not only pollution damage, but also the risks of fire and explosion, including loss of life or personal injury as well as loss of or damage to property.

An HNS Fund will be established, to pay compensation once a ship owner's liability is exhausted. This Fund will be financed through contributions paid post incident by receivers of HNS cargoes.

To assist Member States in their work towards further ratifications, Canada, in cooperation with the IMO and IOPC Funds Secretariats, will host a workshop on the HNS treaty in late 2022.

Mission to Seafarers Adventure Race Challenge

The Mission to Seafarers has launched a new adventure race challenge event in Japan, taking place in early 2023.

All sponsors and participants of this exciting race will support the Mission's Emerging Port Strategy 2022-26, a five-year plan to develop existing operations in Asia specifically, but also globally.

The Adventure Race Japan will take place on the Izu Peninsula, Japan, regarded as a place of outstanding natural beauty and a designated UNESCO Global Geopark. The event will see teams of three take on endurance challenges including trail races, team-building challenges, and a water-based element.

Designed to suit both those who are relatively new to adventure races and to those hardened athletes who are raring for a new challenge, there will be two race options, the Green Dragon Race and the Black Dragon Race, offering the option to walk or run the trails on the first two days of the challenge. Teams will be asked to raise a minimum of US$5,000 per team, although some teams may aspire to raise more.

Day in, day out, all the year round the Mission is on call, providing help for seafarers in over 200 ports around the world. As we well know seafarers often work in very dangerous situations, experiencing isolation, fatigue, mental and physical health issues, the risk of abandonment, shipwreck, and piracy. During Covid-19

these pre-existing issues have been exacerbated, leading to a critical situation in some cases onboard. All funds raised will go towards the Missions' frontline work to provide welfare, advocacy, mental health, and family support to these unseen keyworkers of the sea and develop the Mission's strategy to provide support in areas where it is most needed.

To hear the President of The Mission to Seafarers, HRH The Princess Royal, speak about the importance of supporting this cause readers are invited to see here: https://tinyurl.com/3m4nr429

Of the Mission's activities and the endurance race the Mission to Seafarers' Secretary General, Andrew Wright, commented: '*Seafarers have been amongst the most heroic of key workers during this pandemic. They have kept vital supplies moving, despite facing unprecedented and often appalling hardships. Being able to support seafarers all year round, in over 200 ports around the world, is essential during these times. We have developed a new strategy to help offer support where it is most needed and ensure we are providing the level of care and support needed to our seafarers.*

'*This endurance race is a new event designed to bring together teams across the world to build relationships, enhance communication and support our international key workers. For a global industry that thrives on face-to-face contact, which has been limited due to Covid-19, this creates a fantastic opportunity to take on an exciting team-building challenge, while traversing the area surrounding Mount Fuji*.

James Woodrow, Managing Director, China Navigation Company, added: '*China Navigation is pleased to support The Mission to Seafarers. Our seafarers are the heart of our company; shipping goods around the world since 1872. 2020 and 2021 have been particularly challenging as we have battled to serve our customers during COVID. In 2022, we are sponsoring the Mission's Adventure Race Japan to raise funds for seafarers around the world and to celebrate the challenges they conquer each and every day. Please join us in supporting this great cause*.'

Sakura Kuma, CEO, APM Terminals Japan said in conclusion: '*Welcome to Japan! First of all, by the time we meet together at The Mission to Seafarer's Adventure Race Japan in 2023, we must be embracing the new glory of our industry post-pandemic. Just like ports connecting sea and land, our seafarers are connecting shipping and terminal communities. If we don't support them then who will? If not now, then when? APMT Japan is proud to stand by The Mission to Seafarers*.'

To learn more

For more information on Mission's Adventure Race Japan, and to sign up readers are invited to visit the website here: https://www.mtsadventurerace.org/

The sponsorship brochure detailing the various packages of support is available on the charity's website here: https://tinyurl.com/ynz7dcsr

Harnessing ammonia

What are the key challenges as ship fuel?

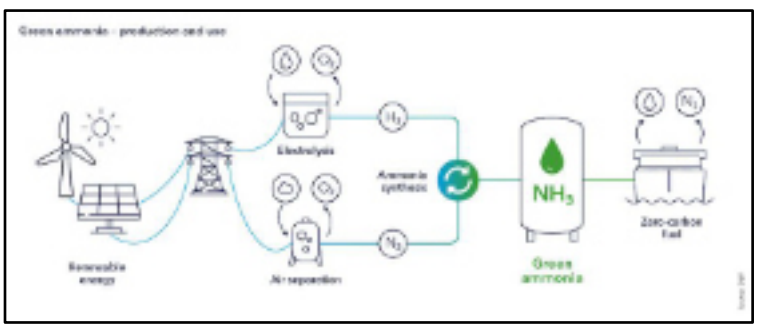
This article was first published by DNV AS from its HQ in Norway and appears here with kind permission of Tomas Barrett, Global Head of Corporate, Communications Corporate Communications Maritime at DNV AS.

It first appeared under the title: *What are the key challenges to harnessing ammonia as ship fuel*? And was published on 8 February 2022 as part of DNV's *Maritime Impact – Our expertise in stories*, on the website: www.dnv.com

Smells like sustainability: Harnessing ammonia as ship fuel

Ammonia is one of the most promising future fuels in the maritime world, but introducing it to the fuel mix is far from straightforward. What are some of the biggest challenges that need to be overcome? And what are DNV and other companies doing to tackle them?

It smells pungent and if a mere 0.5% of the air you breathe consists of it, it will kill you. And yet ammonia is being heralded as one of the best zero-carbon fuel options for deep-sea shipping in particular. In this article we will highlight some of the central questions that need to be answered before ammonia-fuelled ships can hit the water, including the supply, sustainability, engine technology and the necessary safety considerations.



Green ammonia – production and use.

Supply: Shipping will have to compete with other industries

Today, around 80% of the global ammonia supply is used as fertilizer. Where will the ammonia for shipping come from? This is an issue that remains to be resolved, and production would have to ramp up significantly to meet the future demands of both shipping and global agriculture.

'*In the context of decarbonisation it is important to understand that when we talk about ammonia's great potential for shipping, we mean green ammonia. The fuel's sustainability credentials vary depending on how it is sourced*,' explains Hendrik Brinks, Principal Researcher for Zero Carbon Fuels at DNV.

Fuel suppliers working on framework for green ammonia production

The fuel can be categorized as “brown” (produced from fossil sources), “blue” (produced from fossil sources with carbon capture) or “green” (produced from renewably sourced hydrogen in a process called electrolysis). ‘*While the production of blue ammonia results in 85% less CO_2 emissions than brown variants, only green ammonia is a zero-carbon fuel*,’ he adds.

The crux is: green ammonia is currently not produced anywhere. This is expected to change over the coming decade. ‘*Several fuel suppliers are already doing a lot of work on the necessary framework for producing green ammonia, including certification, technology and costs*,’ says Brinks.

Engine technology: First ammonia-fuelled engine by 2024

While the supply of green ammonia will take time, the development of engine technology is progressing fast. In the AEngine joint development project (JDP), MAN Energy Solutions, Eltronic FuelTech, the Technical University of Denmark and DNV are working together on developing the first dual-fuel ammonia-powered combustion engines. The AEngine project is funded by the Innovation Fund Denmark. With combustion testing scheduled for this spring, MAN’s two-stroke model is expected to go to market in 2024.

In the AEngine JDP, MAN Energy Solutions, Eltronic FuelTech, the Technical University of Denmark and DNV are working on the development of the MAN ME-LGIa ammonia-burning engine.

‘*As an engine designer we are agnostic when it comes to the different fuel types,*’ says Peter H Kirkeby, Principal Specialist, Dual-Fuel Engines at MAN Energy Solutions. ‘*Ammonia has generated a lot of interest, especially from the deep-sea ship segments, and it has a lot of potential – but developing an engine that is powered by ammonia has been a challenge. One of the biggest hurdles is how to burn ammonia efficiently to extract the maximum amount of power while making sure the engine is still a compact design*.’

Combustion: Ammonia burns more slowly than other fuels

Unlike diesel oil, ammonia has a very slow flame propagation, which means it burns much more slowly. Its auto-ignition temperature is also a lot higher, at around 630°C – diesel oil burns at 210°C. This means that sustaining combustion once it gets started is also more difficult with ammonia than with other fuels.

‘*And, of course, you also need to ensure that the engine allows for the usual performance peaks that come with acceleration, etc. We are planning for a final fuel mix that would contain around 95% ammonia and 5% of a pilot fuel such as marine gas oil. In the future this could even be biofuel*,’ says Kirkeby.

Harmful emissions could be mitigated by combustion process

Mitigating harmful emissions is another significant challenge, even with green ammonia. While carbon-free, ammonia contains a lot of nitrogen, and burning it is likely to result in both nitrogen oxide (NOX) and nitrous oxide emissions.

Kirkeby explains that NOX emissions weren’t so much of an issue for the engine manufacturer. ‘*They are well-regulated and the abatement technology for NOX – selective catalytic reaction – is already used on many ships and should also be suitable for ammonia. Nitrous oxide emissions are the greater challenge. N_2O, or laughing gas, is a very aggressive greenhouse gas that is 283 times stronger than CO_2. Our approach is to use the combustion process itself to mitigate these emissions*.

‘*We have to make it a very simple system that can also handle ammonia – meaning that it is modular enough to allow for easy troubleshooting and for crews to have straightforward maintenance procedures even though the fuel is a toxic substance.*’

This is how it could be done: burning ammonia generates nitrous oxide emissions inside a certain pressure and temperature window during the combustion process. ‘*Through combustion tuning, we can either stay clear of that window or we can go into the temperature and pressure range where it is decomposed again. In the diesel cycle, which is the one we use, you have very good control over this*,’ says Kirkeby.

The final challenge has been to adapt the well-established two-stroke engine system to ammonia without changing the fundamentally good things about it. ‘*We have to make it a very simple system that can also handle ammonia – meaning that it is modular enough to allow for easy troubleshooting and for crews to have straightforward maintenance procedures even though the fuel is a toxic substance*.’

The MAN Energy Solutions test bed plays a crucial role in the development of ammonia combustion technology, which, while carbon-free, must ensure safety and avoid corrosion.

Ammonia tankers ideal first users

Looking ahead, the first engines will likely be installed on ammonia tankers. Currently there are about 200 gas tankers that can take ammonia as cargo and typically 40 of them are deployed with ammonia cargo at any point in time. These kinds of vessels could be ideal candidates as they already have the fuel as cargo and crews with experience in handling ammonia. Other segments such as bulk carriers and containerships could follow suit. DNV expects the first ammonia-fuelled vessels to hit the water in the second half of this decade, but large-scale uptake of this technology is not expected until the early 2030s.

The safety of ammonia systems and operational procedures is at the top of the agenda in DNV's work on this fuel. In the AEngine joint development project, DNV is handling the safety aspects and will be performing risk assessments with regard to hazard identification (HAZID), hazard and operability (HAZOP) and failure mode and effect analysis (FMEA).

MAN engine testbed.

Safety: Mitigating ammonia toxicity

DNV class rules for ammonia as ship fuel were published in July 2021, paving the way for technology development. They include provisions for storing, handling and bunkering ammonia on board. Some of the aspects to consider here include the use of toxicity zones and venting masts in specific locations.

The engine technology itself would be fitted with double wall piping, so that the pipe containing ammonia is surrounded by a ventilated space, making it easy to detect leaks. '*This is a common standard for all alternative fuels*,' explains Christos Chryssakis, Business Development Manager and Alternative Fuels Expert at DNV. Additional solutions such as double block and bleed valves ensure that systems can be separated for maintenance.

'*Our class rules for ammonia are based on experience with ammonia as a refrigerant and as cargo. We are constantly updating these rules, as ongoing research offers further insights into the necessary margins to ensure that systems are not only safe but also practical in their handling*,' says Chryssakis. '*Carrying out risk assessments on the first designs for ammonia-fuelled vessels will be an important next step*.'

DNV carries out studies on ammonia bunkering

Looking beyond operations on board ammonia-fuelled vessels, DNV recently completed studies on ammonia bunkering operations in the Ports of Amsterdam and Oslo, examining the potential ramifications of a large ammonia leak in ports. '*We looked at worst-case scenarios, including the implications of leaks in the port-side supply infrastructure and on a bunker vessel. The Port of Oslo lies in a residential area – so the stakes are particularly high here*,' explains Chryssakis.

'*We defined external safety zones and risk-reduction measures, looking at the radius which would be affected by an ammonia leak. For the Port of Oslo, we found that in principle using a bunkering vessel with refrigerated ammonia would come with an acceptable risk level, because the residential area in Oslo would not be affected by a leak. But there is still work to be done to ensure safe handling on board*.

The Global Centre for Maritime Decarbonisation (GCMD) in Singapore also just recently initiated a study that aims to define a robust set of safety guidelines and operational envelopes that will establish the basis of a regulatory sandbox for ammonia bunkering trials at two local sites. DNV will take the lead in that safety study and supports with ammonia demand forecasting, bunkering site recommendations, the development of conceptual designs of bunkering modes like truck to ship or ship to ship, HAZID/HAZOP/QRA studies, as well as drafting of technical and operational guidelines.

'*There are many parts to this puzzle and it is essential that we have them all in place for ammonia to safely enter the marine fuel market*,' says Hendrik Brinks.

'*We will need rigorous safety procedures, the inclusion of ammonia in international regulations as well as engine designs that control harmful emissions and allow for straightforward maintenance protocols. And of course, highly skilled crews that are trained to handle ammonia and green ammonia in sufficient supply. Only then can ammonia reach its full potential as one of the most promising green fuels*.'

Conflict in Ukraine

Rise in maritime comms use

Satcom systems in short supply

Demand for maritime connectivity escalated in the first week of March as seafarers clamoured to call home. This was reported by digital communications specialist IEC Telecom (www.iec-telecom.com).

The company advised that its usage figures for February showed maritime communications traffic had risen by 30%, most of it over the previous seven days and attributable to extra calls to Ukraine.

IEC Telecom says crew communications are vital on board all vessels

According to the *2021 BIMCO/ICS Seafarer Workforce Report*, the world fleet employed some 76,442 Ukrainian and 198,123 Russians, accounting for 14.5% of the global workforce.

Responding to the increased demand IEC Telecom significantly reduced the cost of calls to Ukraine – down to just US$0.35 per minute – and went on to offer ship operators a 20% discount on its connectivity scratch cards usable on calls anywhere in the world, as well as doubling data services.

Nabil Ben Soussia, Group CCO, President Asia, Middle East and CIS for IEC Telecom, commented: '*IEC Telecom has been alerted by the situation in Ukraine and its impact on crew at sea who are understandably very worried.*

'*We noted the sudden rise in the use of our services and could see clearly that this corresponds with the outbreak of hostilities. IEC Telecom has a long history of helping humanitarian efforts and we want to do all we can to help those affected by what's happening in Ukraine, which is why we have reduced our rates to enable ship operators to provide more internet and call time to Ukrainian seafarers, many of whom we know have family members in regions where the fighting currently is*.'

As at 6 March crews impacted by the conflict in Ukraine were desperately trying to keep in touch with family and friends as well as seeking up-to-date information, ship operators report. Ships which had crew communications systems in place were reported as responding to calls from seafarers to increase bandwidth, speed and availability on board.

However, for vessels without a satellite communications system in place they have faced additional problems arising out of the global shortage of microchips with three to six months waiting lists for installation of VSAT systems.

Ben Soussia explained that availability of VSAT systems significantly decreased prior to the start of the Russian-Ukrainian conflict, because of the global shortage of microchips arising out of the Covid pandemic. This created a worldwide problem for a diverse range of producers including car manufacturers, technical businesses and laptop suppliers, for example. He encouraged ship operators world-wide to instead consider installing fixed voice terminals, while those stocks last. Operating akin to public phones, these systems secure crew welfare communications.

He reported: '*This is an unprecedented situation. As a ship owner you need to act now to secure your crew communications. In an unstable world, what today is helping Ukrainian seafarers keep in touch with home could help your crew tomorrow*.'

Furthermore, Ben Soussia advised that a voice terminal, such as Thuraya's MarineStar, can be installed by any electrician within a couple of hours and costs the same as a mobile phone to operate. He said in conclusion: '*Do not wait for problems to impact your crew. Put something in place now to ensure you have a welfare communications system on board your vessel*.' He warned that high demand could soon impact stocks.

Smart shipping on Inland Waterways*

At the beginning of March the World Association for Waterborne Transport Infrastructure, PIANC, released its first report on automated and autonomous shipping: *Smart Shipping on Inland Waterways*.

As digitisation broadens the possibilities for new business developments, smart shipping methods are finding their way into the market, ranging from the development of inland waterway vessel trains, remotely controlled ships to small or smaller drone-like platforms for transport of goods and people.

This new report focuses the interactions between autonomous vessels and the infrastructure, the role of the authorities and regulations with regard to Smart Shipping. Smart Shipping developments are viewed from the perspective of

infrastructure providers and traffic managers of inland waterways to stimulate and maximise the deployment of smart shipping.

An overview of recent smart shipping developments and use cases are analysed in order to define the gaps that are prohibiting the further deployment of smart shipping developments.

Possible solutions to cope with these gaps and recommendations for the future are described. These can be picked up in other PIANC Working Groups or research groups.

Lea Kuiters and Ann-Sofie Pauwelyn, the Chairwomen of PIANC Working Group (WG) 210 commented: '*The main task of this Working Group was to come to a common understanding of smart shipping on inland waterways, its possibilities, and its influence on tasks of the waterway authority like lock operation and vessel traffic management.*

'*With this report we invite others to join the discussion and think about how the future of inland waterways could look like.*"

In the book topics investigated include the answers to the following questions:

- What information is necessary on board a ship and ashore? What are the authority's tasks in this respect?
- What information is already available on board, on shore and what needs to be exchanged?
- What should be the quality of the data. For example considering accuracy, completeness and availability?
- What is the impact of smart shipping on the infrastructure, both physical and digital, considering information and communications technology (ICT) and sensors in the infrastructure)?
- In what way will the services of fairway authorities change in case of a hybrid situation where for example both crewed and autonomous vessels are present and full autonomous navigation?
- What is the impact of smart shipping on regulations, considering crew, equipment on board, liability and the environment?
- What should a fairway authority do in case of smart shipping to maintain the safe, efficient and sustainable use of the waterway?

About PIANC

With HQ in Brussels PIANC is the global organisation providing guidance and technical advice for a sustainable waterborne transport infrastructure to ports and waterways.

Established in 1885, PIANC unites the international experts for technical, economic, and environmental topics related to waterborne transport. Its members include national governments and public authorities, corporations, industry and academic experts and young and experienced professionals.

*Produced by PIANC InCom Working Group 210. Price € 73.00 (63 pages), the publication may be ordered here: https://www.pianc.org/publications

Taking Account

The Maritime Anti-Corruption Network

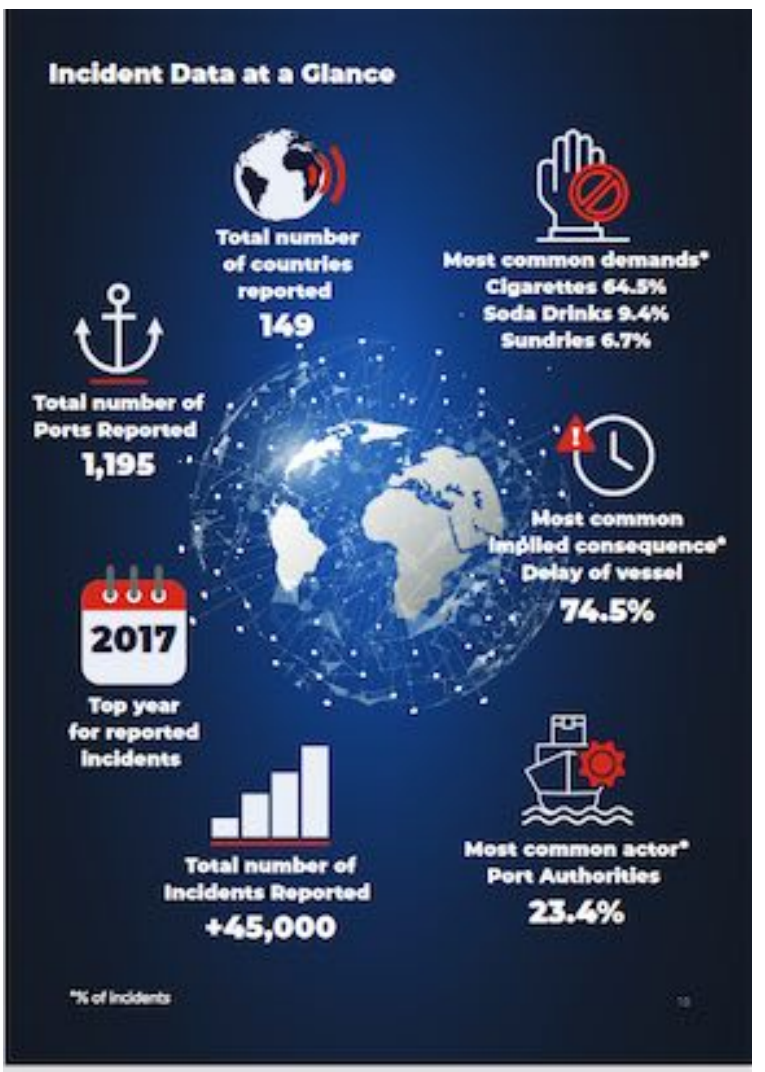
Outlining ten years of corruption reporting

Towards the end of February the Copenhagen-based Maritime Anti-Corruption Network released the results and lessons learned from ten years of collecting data of corrupt demands in maritime trade.

This data has been collected in over a decade through MACN's Anonymous Incident Reporting platform, a system designed to allow the maritime industry to report when it has been faced with corrupt demands in ports globally. To date, the reporting system has close to 50,000 incidents reported in over 1,000 ports, across 149 countries.

This 31-page report, *MACN A Decade of Reporting* is available here: https://tinyurl.com/2p8puazr

This is the first document of its kind covering maritime corruption and provides a unique insight into the scale, type, and volume of corruption in the maritime supply chain.



MACN has indicated it is pleased to share insights and experiences of why data collection is important to drive change and reduce corruption.

Data shows the extent of a global problem

Across the world's ports, corrupt demands are most commonly made for cigarettes, alcohol, and cash.

While multiple actors are reportedly involved in making corrupt demands, the consequence of rejecting such demands is similar across the world's ports – delay of the vessel, which has knock-on detrimental effects.

In the words of MACN CEO, Cecilia Müller Torbrand: '*The cost of corrupt demands, and the repercussions for refusing them, have massive consequences for the industry and trade*.

'*At a time when supply chains and economies are under increasing pressure, corruption is having a real impact on trade and livelihoods – onshore and at sea*.'

During the Covid-19 pandemic MACN noticed that the incidents dropped in numbers, most likely due to reduced interaction with port authorities and increased adoption of electronic systems for vessel clearance.

Torbrand continued: *Despite increased awareness of MACN's reporting system globally we see a slight reduction in reporting. We can carefully draw the conclusion that some of the mitigating actions taken to reduce health risks are also having a positive effect by limiting the person-to-person interaction usually associated with corrupt demands. We hope this trend will continue in the post-Covid era*.'

The report demonstrates the importance of data collection

The report highlights regional and temporal trends and features further analysis of top ports. The report also helps to emphasize the importance of MACN's incident reporting system, demonstrating the value of the data to stakeholders in the maritime industry, governments, and civil society partners.

MACN's incident reporting not only the issue but also provides a benchmark by which to measure the effectiveness of port governance and of anti-corruption initiatives taken by MACN and other stakeholders.

The data has progressed and developed MACN's in-country work, serving as a door opener with governments globally. The data is not intended to serve as evidence or to replace law enforcement but, in several countries, it has triggered actions such as further investigations, gap assessments, integrity training for port officials and improved port governance.

Torbrand added in conclusion: '*MACN was founded in 2011 because the shipping industry saw the need for private sector action. Corruption hurts our seafarers and staff and damages our business. Regulations and law set an important foundation but, as this data shows us, this is not enough to drive on-the-ground change*.

For further information on MACN, the Marine Anti-Corruption Network readers are invited to contact: macn@macn.dk

About MACN

The Maritime Anti-Corruption Network is a global business network that provides a unique forum for businesses to contribute to the elimination of corrupt practices in the maritime industry.

MACN is composed of vessel-owning companies and others in the maritime industry, including cargo owners and service providers. MACN was established in 2011 as an industry-led collective action initiative, with a goal of stamping out corruption in the maritime industry and promoting inclusive trade.

With over 160 companies across the maritime industry, MACN has a strong industry voice, playing a key role in ocean transport. MACN has become one of the pre-eminent examples of an industry-led collective action network taking tangible steps to eliminate corruption across the wider supply chain.

By working in partnership with the industry, governments, and civil society MACN has been successful in addressing corruption risks through country-specific actions in States as diverse as Nigeria, Indonesia, Egypt, India, Ukraine, and Argentina.

MACN's initiatives have been welcomed by stakeholders and have resulted in tangible outcomes such as the removal of trade barriers, strengthened governance frameworks, and substantially reduced corruption risks in maritime trade.

Editor's Note:

This article is based on material kindly provided by MACN per https://macn.dk/ to which grateful acknowledgement is made. MACN ©.

Ships Cooks to be honoured on Landmark Day

30 May 2022

An appetite to honour the people who prepare delicious, nutritious dishes for vessels' crewmembers is the inspiration behind a new shipping industry celebration: Cooks Day.

MCTC, the international catering management provider to the maritime sector, will host the inaugural event on 30 May 2022 to recognise and express appreciation for the valuable role cooks play while at sea.

Christian Ioannou, Group CEO at MCTC: '*The ship's cook serves wholesome, nutritious, hearty meals that not only support seafarers' physical and mental wellbeing, but also cater to any dietary requirements. And they prepare food for culturally diverse crewmembers, creating dishes that remind them of home*.'

Ioannou added that mealtimes are crucial for engendering a community spirit among seafarers who spend months away from family and friends. '*Life aboard a vessel is very challenging. When away from their loved ones, mariners often take comfort from the daily routine of eating alongside their colleagues.*

He continued: '*Mealtimes in the galley, the heartbeat of any vessel, draw people together for a communal activity where crewmembers can relax, chat, share stories or discuss the challenges of life at sea. Eating with others, particularly during religious or festive holidays, can also evoke memories of a special event or family occasion*.'

Tips from MCTC on how shipping companies can pay tribute to their cooks before 30 May include:

- Encouraging vessels in the fleet to support this initiative and to raise awareness of the critical role that onboard cooks play;
- Sharing pictures with MCTC of crewmembers enjoying their favourite meals, which will be posted on the catering management company's social media channels;
- Emailing MCTC with stories of how the cook has helped or supported crewmembers and colleagues;
- Recording a personal video message for the cook, thanking them for their work and contribution. The footage will be posted on MCTC's social media channels and its website.

For the day itself, crewmembers can bake a cake (MCTC's experts will provide all the ingredients and a step-by-step guide for making it) or organise a group photo with seafarers and the vessel's cook holding a Cooks Day banner.

Sharing the Cooks Day logo on social media channels is another suggestion.

Readers are invited to visit the MCTC website for more information about the day and ideas for celebrating it: https://tinyurl.com/2z9xhph3

The Mission to Seafarers

A message from Rev Canon Andrew Wright
Secretary General 9 March 2022

The Mission to Seafarers shares the horror and sadness of so many as we witness events in Ukraine.

Our thoughts and prayers are with all directly caught up in the fighting, including seafarers trapped in Ukrainian ports, crews facing immediate risk in hostile waters (we are currently visiting the crew of at least one ship which suffered attack and damage) and local maritime chaplains and volunteers from our colleague societies.

More specifically, our focus is on the many Ukrainian and Russian crews that we encounter in ports all over the world. I have just been reading a digest of some of the stories that have come in from Mission to Seafarers teams in these early days of the conflict. They all reflect the tremendous anxiety and stress faced by seafarers of both nationalities, sometimes working alongside each other on board. I am deeply touched by the responses of our chaplains and teams in such dreadful circumstances.

Here are just a few.

From Panama: '*An emotionally challenging visit to this lovely, warm, and welcoming crew after many months. Chief Officer is from Mariupol, Ukraine. He has been on the telephone regularly with his wife is who frightened and deeply distressed by the invasion. Mariupol is currently surrounded and there is no way for her or the family to leave. He is due to sign off on 3 March and has no way of returning home. Chief Officer has decided to fly to Germany so that he may stay with relatives living there in the hope that the negotiations between the Ukraine and Russia will be successful and enable him to return home. He is clearly upset and worried about the escalation of the violence and not being able to do anything concrete to help or support his family*…'

From New Zealand: '*Wi-fi given upon arrival. Sad. Seven Ukrainians and six Russians onboard. No fighting but very sad. They cannot go home. They cannot have crew changes. Some on board for 9.5 months. Last time I visited they were so cheerful, just awful with what they are going through. Have told them to ring me day or night if they want to talk. They are coming back one more time so I can check up and see how they're doing then*.'

From the UK: '*Delivered Wi-fi and newspaper. Two Ukrainian crew on board and provided two free SIM card packages to them. The wife of one of them is in Kiev and tried to talk to her, but access is very limited to reach her. Third Officer sent us order for sushi*.'

From the USA: '*Visited to deliver one last package. Fifteen new crew members on board this morning. We got to speak with a new officer from Ukraine about the situation back home. He is concerned for his family, who are currently fleeing to Spain following the recent bombings. They will be in our prayers*.'

As things become clearer, we will no doubt face calls for the support of seafarer families who find themselves displaced or where there has been injury or death – and there will be the realities of damaged and destroyed housing. Thankfully, the world is rallying in the provision of immediate support to refugees, and maritime welfare charities have time to prepare for some of these big challenges. Emerging key issues directly impacting our immediate work include: the desperate anxieties felt by seafarers about family back home – creating high levels of pastoral and welfare need; the urgent demand for enhanced communication provision and the capacity to support calls with family, especially for Ukrainians; and travel restrictions and bans having a very severe impact on travelling home after a contract.

The Mission to Seafarers is immediately enhancing its Samaritan's Fund to enable additional payments in support of communication provision at a local level, including through SIM cards and MiFi units. Our emergency fund can also be accessed to help with stranded seafarers if that becomes necessary. As a high priority, we are looking at ways in which we might provide enhanced Ukrainian/Russian "own language" mental health support, building on that which is already in place through our WeCare programmes. We are also looking closely, with partners, at other support we might offer.

Above all, we remain committed as ever to appropriate pastoral support in every place where we encounter Ukrainian and Russian seafarers, as we do daily in the 200 ports across 50 countries where we have chaplaincy teams. In every encounter, we will offer a listening ear and a friendly welcome, alongside guidance and such practical help that it is possible for us to deliver. Where necessary, we will signpost to other support options. Where there is crew conflict, we will work for reconciliation. And as ever, where it is requested, we will offer prayer and direct spiritual support. It goes without saying that our welcome will remain inclusive and for all, remembering the clear teaching and example of Jesus.

Please join us at The Mission to Seafarers in praying for a swift and lasting peace, as we remember the sufferings of so many.

Andrew Wright

Crews & ships trapped at Ukrainian ports

INTERCARGO statement

On 10 March INTERCARGO called on IMO, member states and governments to engage effectively with the involved countries and local authorities to ensure safe passage out of danger for ships and their crews.

The vast majority of ships trapped off Ukraine are bulkers carrying essential grain cargoes, such as wheat and corn, and strategic coal cargoes required to meet energy needs.

Indeed, it must be remembered that Ukraine and Russia account for significant shares of global exports for such essential goods.

Dry bulk owners are doing everything they can to ensure the safety of their crews and their vessels, but it is now time sat INTERCARGO for authorities to step in and provide:

- A safe maritime corridor to enable ships to sail out of the area.
- Safe land corridors to get crews back aboard the ships that need to sail away.

It is understood that INTERCARGO has co-sponsored, with industry partners, a paper submission to IMO on how seafarers' safety, security, and welfare have been impacted and developing a series of pragmatic and practical solutions.

INTERCARGO is grateful to crew nations, adjacent countries, port states and flag states for their ongoing support, but more coordination is needed if the maritime community is to ensure the safety of crews and ships.

Note

A previous relevant statement from INTERCARGO can be viewed here:https://tinyurl.com/2ph7mbs7

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 tonnage. Dry bulk carriers account for 43% of the world fleet (in tonnage) and sail an estimated 55% of the global transport work.

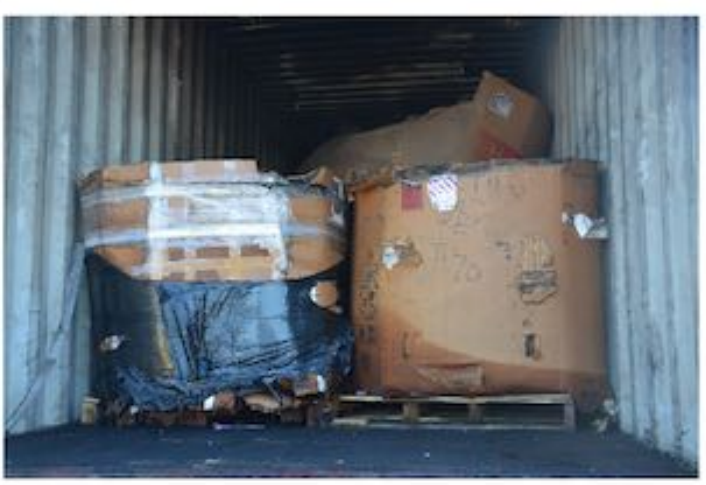
The International Association of Dry Cargo Ship owners (INTERCARGO) represents the interests of quality dry bulk ship owners, with close to 2,400 registered ships out of more than 11,000 ships in the global dry bulk fleet, corresponding to over 25% of the global dry bulk fleet basis deadweight.

INTERCARGO convened for the first time in 1980 in London and has been participating with consultative status at 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 the IMO, as well as to other shipping and international industry fora, having free and fair competition as a principle.

Lithium battery fire

USCG Marine Safety Alert

On 19 August, 2021, a container illegally loaded with discarded lithium batteries caught fire while en route to the Port of Virginia. The container was being transported on a chassis from Raleigh, North Carolina, intended for a sea passage to a port in China via a foreign-flagged container ship.



The batteries caught fire on the highway resulting in loss of the cargo, and significant damage to the shipping container. Upon initial investigation, the responding fire department determined that the heat produced from the fire burned hot enough to create a hole through the metal container's structure. In addition, the bill of lading listed '*computer parts*,' not lithium batteries. This is a situation that made responding to the fire more challenging and could have been potentially catastrophic had the container caught fire after being loaded aboard the container ship.

Further investigation by the Department of Transportation (DOT) and Pipeline and Hazardous Materials Safety Administration (PHMSA) determined that the shipper failed to properly placard, label, mark and package the lithium batteries, class 9, UN 3480 and 3481, and identified the cause of fire to be residual charge/full circuit, which led to a thermal increase.

Burnt lithium batteries in fiberboard boxes.

The Coast Guard seeks to increase awareness of these hazards, and strongly recommends units and other stakeholders:

- Disseminate this safety alert to all marine safety personnel and stakeholders within their respective port(s).

I• Have awareness of the following:

  a. IMDG Special provisions 376 and 377, which address additional marking requirements for lithium batteries being transported and that are damaged or defective, or being disposed of or recycled.

- Ensure damaged/defective batteries shall be packaged IAW P911 or LP 906.

- Ensure batteries for disposal or recycling adhere to P908 or LP 904

- Ensure all packaging provisions state: cells and batteries shall be protected against short circuit. Note: Some provide additional direction such as isolating each battery and limits on package contents.

- Utilize PHMSA's Lithium Battery Guide Lithium Battery Guide for Shippers | PHMSA (dot.gov) and the U.S. Environmental Protection Agency's (EPA) guidance on Used Lithium-Ion Batteries | US EPA

- Have awareness of Appendix A to Subpart D of 49CFR107, which contains guidelines for civil penalties to pursue enforcement or recommend follow-on action to DOT PHMSA.

The USCG Marine Safety Alert, No 01-22 may be seen here: https://tinyurl.com/4n87kapx

Editorial Note: This text is based on USCG Marine Safety Alert, No 01-22

issued on 10 March 2022 and is reproduced here with grateful thanks.

Discovery of blocked fixed CO_2 fire extinguishing system

Safety warning issued

Potential manufacturing defects with pilot system hose assemblies

On 19 September 2021, a fire broke out in the auxiliary engine room on board the Finnish-registered roll-on/roll-off cargo ship *Finnmaster* while departing Hull.

In an attempt to extinguish the fire, the ship's crew activated the machinery space's carbon dioxide (CO_2) fire extinguishing system, but only half of the system's gas cylinders opened. The initial investigation by the UK Marine Accident Investigation Branch (MAIB) identified that one of the CO_2 system pilot hoses was blocked due to a manufacturing defect. Several coupling leaks were also found in the pilot lines.

Safety issues

A six-page MAIB Safety Bulletin was issued early last month (March 2022).

This may be seen here: https://tinyurl.com/2p8at7kf

The document has been produced for safety purposes only, on the basis of information available to date. It has identified the following:

- The quality assurance processes of the pilot hose assembly supplier failed to identify that the hose couplings had not been fully bored through.

- The onboard installation testing processes did not identify that some of the hose assemblies were blocked and that there were leaks in the CO_2 system pilot lines.

- Latent defects may exist in the CO_2 fire-fighting systems on board ships supplied with potentially affected hose assemblies delivered from the same batch.

Recommendations

Geeve Hydraulics BV has been recommended (S2022/105) to provide a copy of the MAIB Safety Bulletin to all customers supplied with the affected hose assemblies, and draw attention to the safety issues and the need for immediate action. It has also been recommended (S2022/106) to amend its procedures to ensure that hose assembly components are procured in accordance with the relevant type approval requirements.

Section through blocked CO_2 pilot hose coupling showing incomplete bore through the stem.
Illustration MAIB Crown Copyright 2022 ©.

All companies identified as having been supplied with the affected hose assemblies by Geeve Hydraulics BV have been recommended (S2022/107M) to take immediate remedial action.

Request for information

To assist this investigation, it is requested that service providers, owners and operators pass details of any blocked pilot system hose assemblies that they find to the UK MAIB by e-mail to: maib@dft.gov.uk with the title '***CO2 Pilot System Hose Assembly Issues***' and include:

- The name of the vessel.

- The date and place of installation of the affected hose assemblies, and

- Details of the defects identified.

Related publications

This accident remains under investigation and the detailed causes and circumstances will be published in an MAIB investigation report in due course.

Containerisation of LNG fuel

BV Approval in Principle

Early in March Marine Service GmbH and Newport Shipping announced an Approval in Principle from Bureau Veritas (BV) for a jointly developed containerised shipborne LNG system.

It is understood that the 40ft ISO LNG Fuel Tank Container System is suitable for LNG-fuelled newbuildings and retrofits of container vessels.

The LNG fuel tank container is described as a class approved Type C LNG fuel tank in accordance with the IGF-code and is based on the German TÜV certified IMDG Container. The capacity of the tank is 31 gross tonnes and about 33m^3 of LNG.

These containers have a fail-safe dry quick coupling connection and are approved for loading in up to seven layers high stacks. The stainless-steel double-walled tank is vacuum insulated.

The concept consists of container stowage on a free deck safe area. LNG piping and venting system as well as firefighting systems are integrated in the container cell guides' structure. The gas handling room is arranged adjacent to the container storage and separated from the containers by a cofferdam and fire protection means, allowing to feed low pressure and high pressure fuel gas systems for all known 4-stroke and 2-stroke dual fuel engines. A redundant control, alarm and monitoring system for remote operation, gas and fire alarm with interface to ships' automation is part of the system.

Since LNG containers are portable, the total number of containers can be easily optimised according to the owners' requirements. Simple and easy to install on board, when a ship is in port, the empty containers can be taken out and replaced by filled ones.

Ingmar Loges, Managing Director, Newport Shipping commented: '*The global shipping industry faces unprecedented challenges as environmental regulations tighten. The shipping industry needs alternatives. The containerized LNG concept provides an answer to these challenges*.'

Marine Service GmbH develops several LNG fuel systems including tank containers, an alternative provision for traditional LNG bunkering.

It is reported that Newport Shipping offers full retrofit services for the LNG fuel tank containers at the fifteen shipyards with which it cooperates. With flexible financing options and a quick delivery of turnkey LNG retrofit options the company expects that this will present an attractive option for ship owners.

In the words of Christian Krämer, Chairman of Marine Service GmbH: '*We are glad to have reached an Approval in Principle from BV for our containerised LNG fuel. LNG is one of the most promising alternative fuels by now*'.

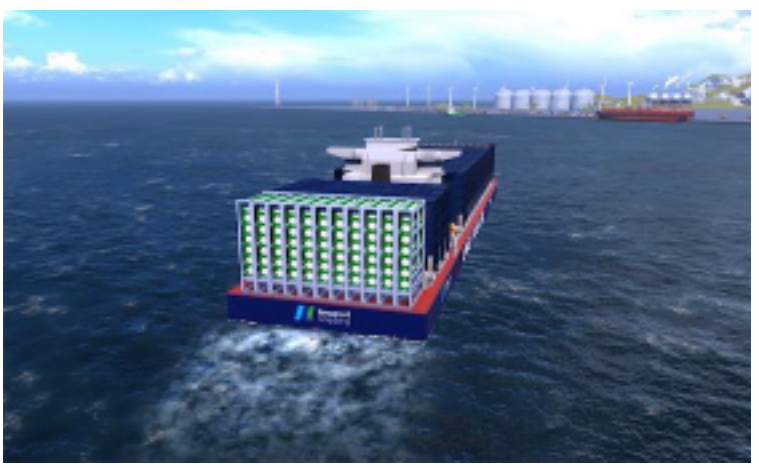
About Marine Service GmbH

Hamburg-based Marine Service GmbH is part of the family-owned Krämer Group, which also includes the shipping company Chemikalien Seetransport.

Founded in 1958 as a marine engineering and consultancy company for the development, design, plan approval and construction supervision of seagoing vessels, especially LNG carriers, Marine Service offers today a wide range of products and services.

It is one of the market leaders in LNG technology and offers engineering and consultancy services for LNG/LPG carriers, LNG bunker ships and other vessels as well as converter platforms for offshore wind farms.

Additionally, Marine Service designs, develops and commissions its own turn-key LNG Fuel Gas Supply System for cruise vessels and other ships. It is already installed on board four cruise vessel newbuildings. Marine Service is also pioneering in the development of alternative fuel and propulsion technologies.



About Newport Shipping

Newport Shipping UK LLP is registered in the United Kingdom specialising in providing comprehensive drydocking services for ship repair works, purchase and timely delivery of owners' extras (spare parts, paint supply) as well as specialised maintenance, equipment upgrades (BWTS, scrubbers) and turnkey LNG retrofits.

The Group operates through a strategic network of 15 shipyards with 38 docks capable of handling all vessel sizes and approximately 2,500 dockings annually across the Atlantic and Pacific trading zones.

Newport Shipping is registered in London but has presence in all major shipping centres – including Athens, Oslo, Istanbul, New York, Shanghai, Singapore and Hamburg.

Guidelines for the Maritime Expert Witness

Nautical Institute launch

Being the expert in a witness box can be a daunting experience, but preparation is key, according to a new

book on the subject that was launched last month (March) by The Nautical Institute.

Guidelines for the Maritime Expert Witness provides invaluable assistance and advice to those who are new to giving expert evidence and serves as a timely reminder to seasoned hands.

With a Foreword by Sir Julian Flaux PC QC, Chancellor of the High Court, this book continues the themes developed in the NI's popular *Guidelines for Collecting Maritime Evidence* Volumes 1 and 2, by following the dispute resolution process to its conclusion, either in court or in an arbitration or mediation hearing.

The book's contributors – mariner expert witnesses, solicitors, barristers, mediators, arbitrators and a retired judge – emphasise the need for the expert to understand that their primary duty is to the court or resolution panel. They must be able to demonstrate their knowledge, independence, integrity and credibility under cross-examination, the authors stress.

'*The book provides a great deal of useful practical advice and emphasises some of the most important aspects of expert evidence, at least from a judge's or arbitrator's perspective*,' said Sir Julian Flaux.

He added: '*These include that expert reports should be clearly and cogently written, with objective analysis; that the expert is independent from his or her appointor and is an expert not an advocate; that the expert should not stray beyond his or her field of expertise; that expert evidence from the witness box should be given in a dispassionate and non-confrontational manner; and that limiting expert evidence at the trial or hearing to what is in issue is critical, hence the importance of the experts' meeting and the joint memorandum*.'

John Noble, a Fellow of The Nautical Institute and technical editor of Vols 1 and 2 (2016 and 2019) of *Guidelines for Collecting Maritime Evidence*, said The Nautical Institute had been most fortunate in acquiring input from a range of experienced contributors who offer advice and commentary on the role and purpose of expert witnesses in the dispute resolution processes.

He commented: '*This volume will be read by mariners and others who may be contemplating a career in the dispute resolution fields; equally, many readers will have an interest in developing their wider knowledge in maritime matters*'.

Noble continued: '*A key to being a good expert witness is preparation. Readers who have sat professional oral examinations will be only too aware that an unprepared candidate is doomed to fail. Being an expert in the witness box can be a daunting experience, similar to sitting an oral exam*'.

He stressed: '*Increasingly, clients will need to be satisfied that not only has their expert the required expertise, but also holds a good groundwork in the legal processes and some form of formal training may be a pre-requisite. This edition is primarily based on the English legal system simply because its dispute resolution process in maritime matters is highly advanced. Many other jurisdictions base their own jurisprudence on the English legal system*'.

Ukraine war's impact on Trade and Development

UNCTAD report

UNCTAD's rapid assessment of the war's impact beyond the humanitarian crisis in Ukraine shows a rapidly worsening outlook for the world economy, with the situation especially alarming for least developed countries. This was made clear in a statement from Geneva-based UNCTAD on 16 March.

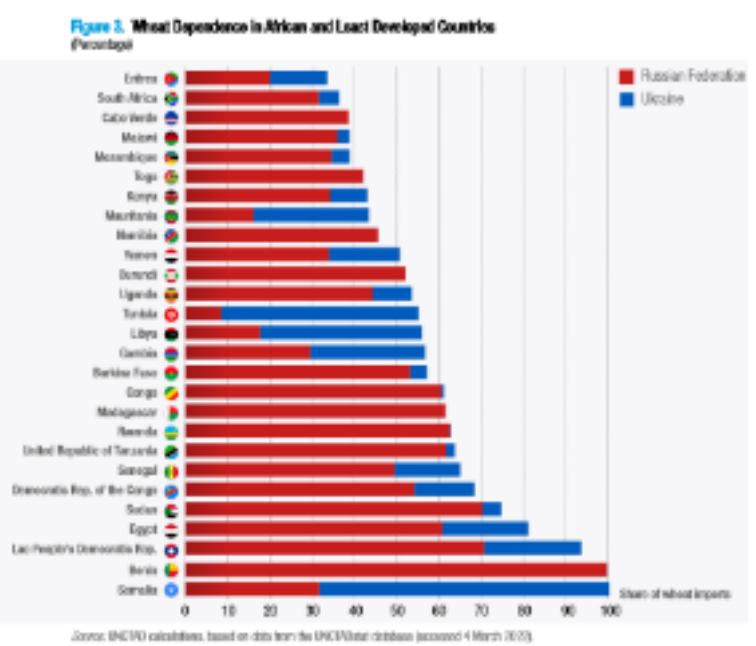
An UNCTAD rapid assessment of the war in Ukraine's impact on trade and development confirms a rapidly worsening outlook for the world economy, underpinned by rising food, fuel and fertilizer prices.

The published report also shows heightened financial volatility, sustainable development divestment, complex global supply chain reconfigurations and mounting trade costs.

This document *THE IMPACT ON TRADE AND DEVELOPMENT OF THE WAR IN UKRAINE: UNCTAD RAPID ASSESMENT* is available here: https://tinyurl.com/mas589va

UNCTAD Secretary-General Rebeca Grynspan said in a statement[1]: '*The war in Ukraine has a huge cost in human suffering and is sending shocks through the world economy*.

'*All these shocks threaten the gains made towards recovery from the COVID-19 pandemic and block the path towards sustainable development*.'



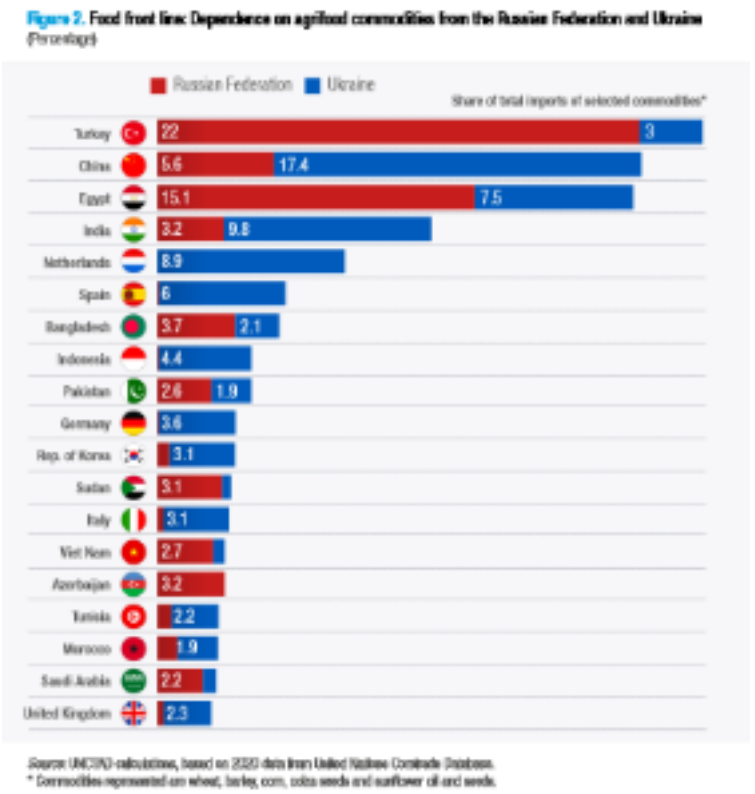
The two fundamental 'F's

Concern abounds over the two fundamental 'F's of commodity markets – Food and Fuels.

Ukraine and Russia are global players in agri-food markets, representing 53% of global trade of sunflower oil and seeds and 27% of global trade of wheat.

Exports to Africa

This rapidly evolving situation is especially alarming for developing nations. We understand that as many as 26 African countries, including some least-developed countries, import more than one third of their wheat from the two countries at war. For 17 others , the share is over half.



Screenshots taken from the Report ***THE IMPACT ON TRADE AND DEVELOPMENT OF THE WAR IN UKRAINE: UNCTAD RAPID ASSESSMENT*** *reproduced with due acknowledgement.*

UNCTAD (C).

Ms. Grynspan added: '*Soaring food and fuel prices will affect the most vulnerable in developing countries, putting pressure on the poorest households which spend the highest share of their income on food, resulting in hardship and hunger*'.

According to UNCTAD calculations, on average, more than 5% of the poorest countries' import basket is composed of the products that are likely to face a price hike due to the war. The share is below 1% for richer countries.

Risk of civil unrest

The risk of civil unrest, food shortages and inflation-induced recessions cannot be discounted, the report says, particularly given the fragile state of the global economy and the developing world due to the Covid-19 pandemic.

UNCTAD's Secretary General added: '*Long-standing effects of rising food prices are hard to predict but an UNCTAD analysis of historical data sheds light on some troubling possible trends*.'

Agri-food commodity cycles, for example, have coincided with major political events, such as the 2007-2008 food riots and the 2011 Arab Spring.

Shangil Tobaya, North Darfur.
UN Photo/Albert González Farran ©.

Freight rate hikes

Restrictive measures on airspace, contractor uncertainty and security concerns are complicating all trade routes going through Russia and Ukraine. The two countries are a key geographical component of the Eurasian Land Bridge.

In 2021, 1.5 million containers of cargo were shipped by rail west from China to Europe. If the volumes currently going by container rail were added to the Asia-Europe ocean freight demand, this would mean a 5% to 8% increase in an already congested trade route.

From the UNCTAD report we learn that; '*Due to higher fuel costs, re-routeing efforts and zero capacity in maritime logistics, the impact of the war in Ukraine can be expected to lead to even higher freight rates*.' It is appreciated that such increases would have a significant impact on economies and households.

In 2021, UNCTAD simulated that the freight rate increase during the pandemic raised global consumer prices by 1.5%, '*with particularly oversized effects in vulnerable economies such as small island developing states, landlocked developing states and least developed countries*'.

[1] https://tinyurl.com/2p8v4cth

Grounding of chemical tanker *Chem Alya*

UK MAIB Report

Synopsis

At 1618 on 25 October 2021, the Liberian registered 11,939gt chemical tanker *Chem Alya** departed from the buoyed channel and grounded on the Shingles Bank while transiting the Needles Channel off the south coast of England, on passage from Fawley to Alexandria, Egypt. There were no injuries or pollution and the vessel, which was undamaged, was refloated later that evening.

The (UK's) Marine Accident Investigation Branch (MAIB) preliminary assessment, while recognising the Needles Channel was a challenging route, found that *Chem Alya*'s bridge team did not work effectively together or make full use of the ship's ECDIS during the transit.

Furthermore, *Chem Alya*'s passage plan did not consider IMO Resolution A.768(18)**, which recommended that laden tankers of over 10,000gt do not use the Needles Channel '*due to tidal problems and apparent movement of the sand banks*'. This warning information could also be found on the Admiralty Chart for the area.

Action taken

Based on the findings of its internal investigation, *Chem Alya*'s managers, ASM Maritime BV, have taken measures to improve the future safe operation of their vessels by prohibiting them from using the Needles Channel. The company has also implemented procedures intended to improve navigational practices and has begun a programme of bridge team management refresher training for all deck officers.

The Chief Inspector of Marine Accidents at MAIB has written to ASM Maritime BV, advising the managers of the MAIB's findings and acknowledging the safety actions they are taking.

The Chief Inspector of Marine Accidents has also written to Associated British Ports Southampton. While acknowledging that the Needles Channel lies outside its pilotage area, the chief inspector has nonetheless advised the harbour authority to review the information provided by its pilots and VTS operators to vessels intending to use the Needles Channel and, specifically, to draw their attention to the guidance in IMO Resolution A.768(18).

Editor's note:

This news item is based on material kindly provided by MAIB

through GOV UK.

*Classification society: Korean Register

Year of build: 2009
Construction: Steel
Length overall: 144.80m
Registered length: 134.73m
Gross tonnage: 11,939
Minimum safe manning:14
Authorised cargo: Tanker/chemicals
Cargo information: 13,213mt of carbon black feedstock
Manning: 22 crew

At the time of the grounding there was clear, good visibility, north-westerly wind Force 4 with a one metre swell.

**SHIPS' ROUTEING. See: https://tinyurl.com/z8u8rs8p then see Item'*3.1.6 In the Needles Channel* '.

Ocean Network Express

Refrigerated Container Fleet expansion

On 18 March Ocean Network Express (ONE) announced from Singapore that it is expanding its current refrigerated container fleet by adding another 6,500 new units (including 500 units equipped with advanced Controlled Atmosphere (CA) technology) to meet the growing demand for refrigerated cargo around the world.

ONE continues to demonstrate its strong commitment to meet the demand for containerised reefer trade, which is expected to continue to grow in 2022.

Use of water-borne coatings

This latest addition to its reefer fleet also underlines ONE's commitment to protect the environment and human health. Rather than using traditional solvent-borne paint, these new units will have water-borne paint applied instead. The use of solvent-borne paint is known to release volatile organic compounds (VOC) which can pollute the environment and cause smog that impacts air quality and

visibility. The use of water-borne paint will help to reduce VOC emissions by 80-90%, yet it retains a similar quality to solvent-borne paint in terms of durability and anti-corrosion capabilities.

ONE is currently working towards the application of the latest Internet of Things (IoT) technology into its fleet of reefer containers which provides real time visibility of critical information such as the temperature and humidity inside the container, thereby enhancing cargo care during the entire voyage.

Hiroki Tsujii, Managing Director, Marketing & Commercial in Ocean Network Express (ONE) commented: '*ONE continues to show our commitment to the refrigerated cargo segment with this additional investment in new reefer containers.*

'*We maintain one of the largest and youngest reefer fleets in the world, equipped with the most advanced technologies designed to handle perishable cargo demand. As a socially responsible company and leader in the industry, we are also doing our part for the environment by using water-borne paint which reduces VOC emissions.*'

ONE's Global Reefer Business Planning team, which is based at ONE's HQ in Singapore, develops ONE's global reefer marketing and business strategy through the close monitoring of market demand and close collaboration with ONE's regional Reefer teams located around the world.

ONE's Reefer technical team is available both on board and on shore providing round the clock assistance, monitoring the precious reefer cargo of ONE's customers throughout the voyage.

One Tree Planted and We Forest

Stolt Pool's and partners' reforestation donation

At the end of February Stolt Tankers BV announced that the Stolt Tankers Joint Service (STJS) Pool, together with its partners NYK Line, Tufton, and Farvatn Capital, had donated $100,000 to One Tree Planted and We Forest, two non-profit organisations with extensive experience managing reforestation, carbon absorption and environmental impact projects.

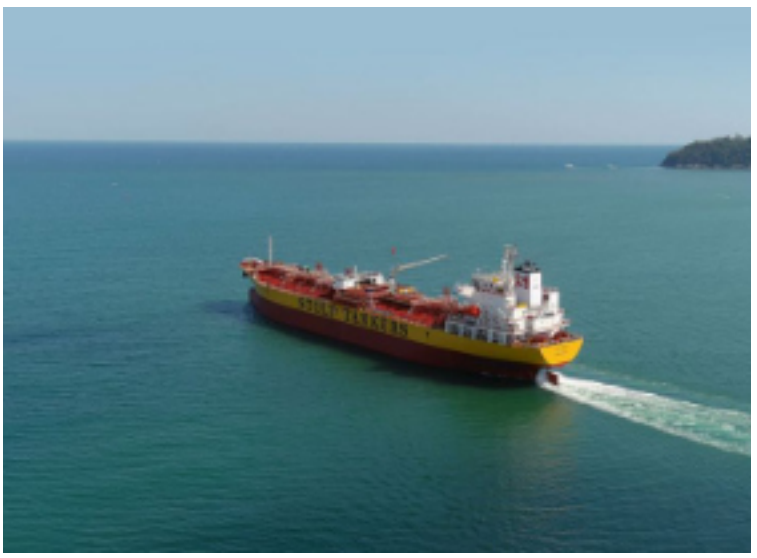


Illustration per www.stolt-nielsen.com ©

This donation reflects Stolt Tankers' broader ambition to reduce its own carbon intensity by 50% by 2030 (relative to 2008) and to become a fully carbon-neutral business by 2050. The STJS Pool is the first tanker pool to implement a Green Bunker Procurement Fund with proceeds fully dedicated to carbon reduction, fuel efficiency and environmental initiatives.

Commenting on the partnership with One Tree Planted and We Forest, Lucas Vos, President of Stolt Tankers noted: '*I am pleased to make this $100,000 donation jointly with our partners NYK, Tufton, and Farvatn and believe addressing the many aspects of decarbonisation in shipping requires an all hands-on-deck approach.*

'*This contribution demonstrates our mutual commitment to addressing the climate challenges of today, and tomorrow, by supporting reforestation and ocean mangrove ecosystems. We hope our support will make an impact by both capturing carbon and helping the communities and ecosystems on the front line of climate change*.'

Africa, Asia and North America reforestation

In total, three projects will be supported by these donations. The first project is led by We Forest and focused on reforestation of the Desa Forest in Northern Ethiopia. The group is also supporting We Forest on their Philippines' Indigenous Bamboo and Native Tree Reforestation project which will remove 500,000 tonnes of CO_2 from the atmosphere.

Lastly, Stolt Tankers is pleased to be supporting One Tree Planted on their Pacific Northwest reforestation project which plants trees alongside rivers and streams to improve water quality and ultimately the health and quantity of salmon to support wild orca populations.

Höegh Autoliners' Aurora-class of vehicle carriers

It was reported a few weeks back that the Norwegian owner, Höegh Autoliners had entered into a contract with China Merchants Heavy Industry (Jiangsu) Co., Ltd. (CMHI) for four fixed and eight optional multi-fuel and zero carbon ready Aurora class vessels.

Under the terms of the contract, the first two vessels will be delivered in the second half of 2024 and the next two vessels in the first half of 2025. In addition, Höegh Autoliners has options for another four plus four Aurora class vessels.

The Aurora class will have DNV's ammonia and methanol-ready notation and will be the first in the PCTC segment to operate on zero carbon ammonia. Together with the capacity to carry up to 9,100 cars, the industry-leading Aurora class will be the world's largest car carriers, it is reported.

Leif O Høegh, Höegh Autoliners chair commented: '*We are proud to partner with one of the largest and most reputable shipbuilders in China. The collaboration with China Merchants Industry represents a breakthrough in reaching our ambitious net zero emissions target by 2040.*

'*The innovative design of the zero carbon-ready Aurora class will enable our customers to decarbonise their supply chain. Together with CMHI we are leading the way towards a net zero emissions future for our industry.*'

This transformational newbuilding programme will accelerate Höegh Autoliners' green transition, expand the fleet, and deliver market leading low-to-zero emission transport services to its customers.

Andreas Enger, Höegh Autoliners CEO added: '*We are excited to partner with China Merchants Heavy Industry and secure the delivery of the world's largest and most environmentally friendly PCTC vessels by 2024. The Aurora class represents the future of our business. It will further strengthen our service offering, accelerate our path to zero and put us in the forefront of sustainable shipping*.'

It is reported that China Merchants Industry has been expanding its shipbuilding business over the past two years and it is now the largest PCTC builder and one of the largest shipbuilding groups in China. The business

owns Deltamarin, which has designed the new Höegh Autoliners Aurora-class.

Finally, we learn that the Aurora-class is designed to transport the cargo of the future. The vessel's strengthened decks and enhanced internal ramp systems enable electric vehicles on all decks and provides more flexibility for heavier project cargo.

The vessel's multi-fuel engine will be able to run on marine gas oil (MGO) and LNG. With modifications, the vessel can transition to use future zero carbon fuels including ammonia or methanol.

There is an introductory video on the Aurora-class to be found here: https://tinyurl.com/ycxna5ap

MacGregor equipment order

Meanwhile we learn that MacGregor has received a significant order to supply comprehensive RoRo equipment for these four vessels. The order, with a value of more than $15 million is for the first two vessels to be delivered during the second half of 2024 and the next two in the first half of 2025. Höegh Autoliners also has options for a further four plus four vessels.

MacGregor's scope of supply encompasses design, supply and installation support for a large stern quarter ramp and door, side ramp and door, and liftable car decks.

About China Merchants Heavy Industry

China Merchants Heavy Industry (Jiangsu) Co Ltd (CMHI) is a large backbone enterprise wholly owned by China Merchants Industry Holdings Co., Ltd. (CMI). With HQ in Hong Kong, CMI has several production and manufacturing bases in the Yangtze River economic zone, Guangdong-Hong Kong-Macao Great Bay Area, Yangtze River Delta area, Bohai Bay, as well as subsidiaries and institutions abroad in Italy, Netherland, Singapore, Finland, Poland.

CMI's business mainly focuses on five aspects including repairs and conversion, marine and offshore equipment newbuilding, specialized shipbuilding, cruise shipbuilding, new materials and special equipment.

About Höegh Autoliners

Höegh Autoliners is a leading global provider of Ro-Ro services delivering cars, high and heavy and breakbulk cargoes across the world.

The company operates around forty RoRo vessels in global trade systems and makes about 3000 port calls each year. Its plan is to develop innovative methods for greener and more sustainable deep-sea transport and is on a path to a zero emissions future with customers and partners.
Höegh Autoliners has its head office in Oslo and employs around 375 staff in its 16 offices worldwide and 1300 seafarers.

Pacific Basin launches Ocean Technologies Learning Platform

It was announced from Hong Kong towards the ends of March that Pacific Basin Shipping Limited, one of the world's leading dry bulk shipping companies, had signed an agreement with the Ocean Technologies Group to implement its recently launched Ocean Learning Platform.

Pacific Basin continues to implement the latest in education provision for its approximately 4,600 seafarers, allowing crews to access interactive training, while gaining further insight on seafarer development through sophisticated reporting.

In order to support seafarers' continuing development and the unique training needs of the industry the company continually seeks to improve its training programme to ensure seafarers conduct their work in the safest and most efficient ways.

Crews today need access to more just in time learning than ever before.

Martin Fruergaard, CEO of Pacific Basin, commented: '*The shipping industry will continue to evolve, as will the demands on our seafarers. For us to continue to deliver to our customers the highest level of service and safety, we want to ensure that our seafarers and shore-based personnel are up-to-date with the latest industry learnings.*

'*Pacific Basin will always strive to enhance our safety-first culture, and we hope that this learning system will enrich interaction and engagement and help to deliver the best learning outcomes.*'

It is understood that the learning system will allow crews to conduct training on or offline, reduce onboard administrative workload through an Automatic Data Exchange which automates crew sign-on/off and training record synchronisation, as well as delivering more relevant company communication.

Rishi Mehra, Marine & Safety Manager at Pacific Basin, added: '*With advances in new training technology, we can continue to increase the effectiveness of our in-house training material, as well as benefit from the eight hundred plus training titles available from the Ocean Learning Library. The health and safety of our seafarers is our main concern, and through this system we can tailor specific training, while monitoring the implementation and effectiveness of the learning platform to each seafarer.*'

In conclusion Manish Singh CEO of Ocean Technologies Group, reflected: '*We are delighted that Pacific Basin has chosen to implement our award winning learning platform. We are very proud that such a leading owner operator has put their faith in us to help them deliver on their safety and sustainability goals. Crews today need access to more just in time learning than ever before, we believe this will enable their crew and shore-based teams to work and learn more effectively and reach even higher levels of performance*.'

MarineCare service agreement

Increased vessel safety and uptime

ABB and PONANT enter 10-year accord

Le Commandant Charcot, which recently became the first exploration cruise ship to reach the geographic North Pole, has been signed up for ABB MarineCare services to ensure safe and sustainable operations.

It is understood that the comprehensive ten-year service agreement provides round-the-clock remote support, diagnostics and condition monitoring, as well as preventive and planned maintenance, and the critical spare parts to sustain the achieved operational efficiency.

The service scope also includes warranty for the ship's energy storage system, supplied and integrated by ABB. Key benefits of ABB MarineCare reported include increased safety, reduced operational, maintenance and administration costs and maximized vessel uptime.

Regular maintenance and continuous awareness of asset health status enable resolving possible issues remotely, preventing failure escalation and reducing the need for unplanned activities.

Furthermore, it is reported that eight ABB Ability™ Collaborative Operations Centers worldwide provide round the clock, year round support ensuring dedicated expertise and fast response times.

In the words of Mathieu Petiteau, Newbuilding Director, PONANT: '*At PONANT, we take great pride in allowing our guests to experience the most awe-inspiring destinations on Earth, secure in the knowledge that their safety and the health of the environment are our utmost priorities.*

'*ABB's support ensures optimized performance of our advanced ABB technology on a continuous basis, bringing us complete peace of mind and allowing us to focus on delivering a unique travel experience*.'

ABB MarineCare secures safe and sustainable operations of PONANT's polar exploration cruise vessel Le Commandant Charcot.

Image ©PONANT-Nicolas Dubreuil

'*PONANT's high standards in safety and sustainability are crucial when operating in isolated environments such as the Arctic and Antarctica*,' said Jyri Jusslin, Head of Service, ABB Marine & Ports. He continued with: '*Our MarineCare agreement ensures that Le Commandant Charcot has full access to our remote services wherever in the world she is sailing, and offer the ship's crew continuous training to help them respond to any unforeseen issues*.'

Energy and propulsion

The Polar Class PC2 expedition vessel features the largest energy storage system installed on a cruise ship, as well as two ABB Azipod® propulsion units with a combined power of 34 megawatts. With the electric drive motor situated in a submerged pod outside the ship hull, the Azipod® system can rotate 360 degrees, significantly increasing manoeuvrability and operating efficiency of a vessel and cutting fuel consumption by up to 20% compared to conventional shaftline systems, it is claimed.

Founded in 1988 by French Merchant Navy officers, PONANT offers a new style of cruises under the French flag with its own concept of sea travel and commitment to promoting sustainable and responsible tourism to exceptional and unusual destinations.

Defining the levels of automation

One Sea white paper offers a route forward for developing rules for MASS

Autonomous maritime ecosystem alliance One Sea has published a new white paper which offers a route forward for developing and implementing an international regulatory framework for Maritime Autonomous Surface Ships (MASS). This was announced by One Sea at the end of March.

The new white paper – *Autonomous Ships: Terms of Reference for Rule Development* – calls for urgency in developing common terms of reference covering autonomous and highly automated ship operations that can be used across the maritime industry. This document examines definitions of ship autonomy and levels of automation, and explores how they can be applied progressively to ship operations.

In his foreword, Captain Eero Lehtovaara, Chairman of One Sea, writes: '*The IMO Conventions which provide the safe operating framework for the entire shipping industry have been developed over many years and amendments to accommodate autonomous ship operations demand painstaking work.*

'*Experts in digital technologies and seafarer welfare groups suggest that shipping should therefore establish not only priorities but a series of waypoints on its voyage towards autonomy, to support efficient and safe ship operation in the near-term*.'

The paper presents the industry proposal for a scale for determining automation in shipping, by describing six levels which can be applied to various ship operations or an entire ship. It also suggests that levels of autonomy should be defined on a scale based on the need for human attention/attendance rather than mixing the definition with manning levels on board a ship.

One Sea Senior Ecosystem Lead, Päivi Haikkola, commented: '*Currently, there is no common language for MASS, and terms or technology types are used interchangeably, when they have very different meanings in reality. For example, remote control and monitoring should not be confused with automation, as remote operations can be performed on ships of various levels of automation. Also, the term autonomy should only be used for the highest level of automation.*

'*The development of international regulations for MASS is the top priority for One Sea, and discrepancies in terminology being used is one of the main obstacles that must be overcome.*

'*The purpose of the whitepaper is to provide clarity and assist rule development and standard definitions which can be easily applied across the industry going forward. Regulations cannot be successfully developed if different definitions and interpretations of how to categorise levels of automation persist*.'

To download a copy of the white paper readers are invited to see here: https://tinyurl.com/yckrjjx7

About One Sea

Established in 2016, One Sea is a high-profile ecosystem with a primary aim to lead the way towards an operating autonomous maritime ecosystem by 2025. The collaboration gathers together leading marine experts and is a strategic combination of top research, state-of-the-art information technology and business.

Members

Members include: ABB, Cargotec, Finnpilot Pilotage, Fintraffic, Haltian, Kongsberg, Monohakobi Technology Institute (MTI), TietoEVRY and Wärtsilä. Other partners include Finnish Marine Industries, Finnish Port Association, Finnish Shipowners' Association, Shipbrokers Finland and The Royal Institution of Naval Architects (RINA).

One Sea is an open ecosystem that can be joined by anyone who intends to do business in autonomous shipping. Financing is provided by participating companies and Business Finland.

The One Sea ecosystem is led by DIMECC: Digital, Internet, Materials & Engineering Co-Creation.

New ways to accelerate green fuel production

Maersk explores

It has been reported that Maersk and the Egyptian authorities have signed a partnership agreement to explore the establishment of large-scale green fuel production in Egypt.

In the presence of the Egyptian Prime Minister, a Memorandum of Understanding (MoU) was signed on 28 March in a joint bid to further accelerate the supply of green fuels and the global transformation to net-zero shipping.

Santa Catarina at berth in the port of Itapoá, Brazil. The vessel is sailing East Asia/South & East Africa in the network of Hamburg Süd, a strong brand in the Maersk family.

Photo per: www.maersk.com
Maersk ©

This partnership follows six fuel-partnerships announced earlier in March*, and with it Maersk joins forces with the General Authority for Suez Canal Economic Zone (SCZone), the Egyptian New and Renewable Energy Authority (NREA), the Egyptian Electricity Transmission Company (EETC), and the Sovereign Fund of Egypt for Investment and Development (TSFE).

Henriette Hallberg Thygesen, CEO, Fleet & Strategic Brands, Maersk, commented: '*Egypt has excellent conditions for renewable energy production and ambitions to become global leader in the green energy value chain. We are very excited to be able to explore options together, drawing on our more than 100 years of business relations in the country*'.

It is understood that the parties will be conducting a feasibility study before the end of 2022 to examine an Egypt-based hydrogen and green marine fuel production, powered by renewable energy with Maersk as committed offtaker (that is the purchaser of the refined product).

Thygesen concluded with: '*The availability of green energy and fuel in sufficient quantities and at cost competitive price levels is the single biggest challenge to the decarbonisation of global shipping.*

'*For Maersk, our recently announced strategic partnerships with six industry leading companies are key in addressing this challenge, but to stay on the 1.5-degree pathway even more scale is needed within this decade. That is what this partnership is exploring*.'

Eng.Yhia Zaki, Chairman, SCZone, said: '*Capitalizing on Egypt's fundamentals and vision, SCZONE's strategic integrated areas of ports and industrial parks around the Suez Canal, and leveraging on the solid and enduring longstanding relationship we have with Maersk, I am looking forward to the evolvement of this project, which meets our mutual target of transforming into the green economy*.'

Ayman Soliman, CEO of The Sovereign Fund of Egypt, added: '*This partnership presents a unique opportunity to strengthen a longstanding relationship with a key strategic partner to the Egyptian Government over the last 100 years. Specifically for The Sovereign Fund of Egypt, this potential opportunity adds a new dimension to our roadmap towards zero emission targets. Maersk's bid to accelerate the supply of green fuels and the global transformation to net-zero shipping will expand the Suez Canal's service offering as a main global hub for green bunkering in the region*.'

Maersk intends to explore similar opportunities in other regions with strong potential for renewable energy development, drawing on business and governmental relations to facilitate opportunities for nations and commercial players to embrace the rapid acceleration in green fuel production that is key to the decarbonisation of shipping.

*See here: https://tinyurl.com/yckpxf4z

New Ukraine Crisis Support Fund

Urgent financial support to seafarers and their families

At the end of March it was reported that financial support had become available to seafarers and their families directly impacted by the Ukraine crisis through a new fund.

The new Ukraine Crisis Support Fund, which is managed by the International Seafarers' Welfare and Assistance Network (ISWAN) on behalf of the Seafarers International Relief Fund (SIRF), can provide one-time financial grants of up to $500 to seafarers and their families to help with expenses including medical, rent, living costs, or educational support for children. It can also provide compensation of up to $1,000 to next of kin if a seafarer has died as a direct consequence of the Ukraine crisis.

The fund is open to seafarers of any nationality directly impacted by the Ukraine crisis, it is understood.

To apply but note:

Individual seafarers or family members cannot apply directly

Seafarer-centred organisations must apply to the fund on behalf of seafarers and their families – individual seafarers or family members cannot apply directly.

Seafarer-centred organisations include (but are not limited to) maritime welfare charities, maritime unions, port welfare committees, ship management companies or manning agents.

Encouragement

ISWAN is seeking the support of such organisations to make applications and ensure that the available funds reach those in need.

Information about the Ukraine Crisis Support Fund, including the criteria for application and how to apply, can be found here:

https://tinyurl.com/5sx4da9

To apply

Applying organisations are invited to contact ISWAN for guidance thus:

- By e-mail at iswan@iswan.org.uk
- Telephone on +44 (0)300 012 4279.

ISWAN is advising seafarers and their families seeking financial support to contact a seafarer-centred organisation in their reach and refer them to the above webpage so the organisation can apply on their behalf.

Further support for seafarers and their families is available via ISWAN's free, 24-hour helpline SeafarerHelp – contact details and Live Chat can be found at www.seafarerhelp.org

ISWAN's Ukraine Crisis Support Fund was established through a donation from the Seafarers International Relief Fund (SIRF), which is managed by The Seafarers' Charity.

Urgent support is needed from the maritime industry to help those affected by the crisis.

Companies and organisations wishing to donate to the SIRF can do so at https://tinyurl.com/cfzuzn3h

Promotional posters

Promotional posters in English and Ukrainian may be downloaded here: https://tinyurl.com/2p8jtka7

and

https://tinyurl.com/46hwx54p

Danger of mines

Northern Black Sea Region, the Sea of Azov (north of latitude 46°N)

All ports in Ukraine

International maritime employers and unions are urging governments to significantly increase efforts to ensure safe and secure passage for vessels following reports of mines drifting in the Black Sea.

The International Transport Workers' Federation (ITF) and the Joint Negotiating Group (JNG) – the social partners of the International Bargaining Forum (IBF) – met on 31 March to evaluate and discuss solutions that will ensure that seafarers, and their vessels, are not collateral damage in the continuing conflict in Ukraine.

Early in March the IBF designated the Northern Black Sea Region, the Sea of Azov (north of latitude 46°N) and all ports in Ukraine Warlike Operations Areas (WOAs).

Captain Belal Ahmed, JNG spokesperson and Chairman of International Maritime Employers' Council (IMEC) commented: '*The safety and security of seafarers in this evolving crisis, especially seafarers serving in the region is our priority. Reports that mines have been discovered both inside and outside of the designated WOAs raises serious concerns*.'

The NATO Shipping Centre issued the following statement on 30 March: '*There is a threat of drifting mines in the Northwest, West, and Southwest areas of the Black Sea. Drifting mines have been detected, and national authorities are working to find and neutralize any other mines in the region. Masters should take all precautions to mitigate the mine threat including avoiding floating objects, keep the forward area of the ship clear of crew, and using effective lookouts*.

David Heindel, chair of the ITF Seafarers' Section added: '*We strongly urge governments to do all in their power to mitigate the threat and secure the safe passage for vessels trading near these conflict areas. It is essential that the world's seafarers can continue to perform their duties safely and keep global supply chains moving*'.

NATO readiness

Greek-led Exercise Ariadne 22 was held from 7 to 18 March in the southern Aegean off the coast of Crete. This was the annual mine countermeasures exercise hosted by the Chief of the Hellenic Fleet designed to enhance operational and tactical capabilities, and readiness of all participants and to provide the opportunity to promote cooperation and mutual understanding among different units

Participants conducted a series of mine countermeasures tasks based on fictitious scenarios including very shallow water (VSW) operations to facilitate explosive ordnance disposal and improvised explosive device disposal, autonomous underwater vehicle employment, and mine recovery operations.

A stark warning of mines drifting in the Black Sea.
Per www.itfglobal.org ITF ©.