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IFSMA NEWSLETTER

The Shipmasters' International Voice

New tonnage for Wan Hai Lines.

See news item on page 21



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Secretary General's Report

As I prepare this introduction to the December Newsletter I am mindful that another year has passed and we remain under siege by the pandemic and the failure of many Governments around the world to recognise our Seafarers as Key Workers, despite the words and platitudes they continue to utter.

I am pleased to say that despite the numbers of seafarers at sea beyond their contracted time remaining at approximately 200,000, the time they are spending at sea over their contract time is reducing. I have to applaud Ship Owners, Crewing Agents and Charterers who are doing much to find innovative ways of crew changing and at least we are maintaining the status quo in numbers, although I hope they start coming down again. However, we must not forget that it is the ICS, ITF and some of the other seafaring NGOs, supported by the UN, IMO and ILO Secretariats that are leading the way and making all this possible. It is they that are also leading the battle on the vaccines front and working with the airline industry and road hauliers in a combined effort. To date we believe now over 40% of seafarers have had their vaccines, but we need to find a way of developing an internationally accepted Vaccine Passport to stop you being given unnecessary addition jobs.

As you are all too aware IFSMA's main purpose is to represent you all at the IMO. In November the focus of attention was the Marine Environment Protection Committee where Governments had the opportunity to follow up their words and declarations at the recently completed COP 26 in Glasgow. They failed dismally and just kicked the can further down the road again. The Secretary General of ICS, Captain Guy Platten, summed up my thoughts perfectly with these words taken from his press release: *'We are disappointed that the words and commitments made by governments at COP26 have not yet been translated into action. This week's meetings have missed the opportunity to take forward a range of GHG reduction measures which would accelerate the development of zero emissions ships that are urgently needed at scale to decarbonise our sector. It's almost as if COP 26 never happened.'* The full release can be found at:

<https://www.ics-shipping.org/news-and-press/press/>.

With better news, I was delighted to see the reports of the Russian and Danish Navies, as part of a wider coalition in the Gulf of Guinea, where they successfully stopped two potential hijackings. With these actions other nations will add their support and reduce the threat of piracy in the area and start putting the pirates behind bars.

I am looking forward with optimism to 2022, which is just around the corner and I hope the next waves of Covid-19 are reduced significantly as we get more people vaccinated around the world.

As we approach the year's end, can those of us who are home, give a thought for all of you and your crews who are at sea keeping world trade moving?

I thank you with all my heart and send best wishes to you all and to your families for the Festive Season and 2022.

Fair winds and following sea
Jim Scorer

From the News Editor

Nautical Institute books are practical guides on best practice. Robust peer review and input from experts helps ensure the NI's books remain current and many are recognised as industry and military standards.

There is a wealth of titles in The Nautical Institute online bookshop of which some are listed here: *Bridge Watchkeeping*; *From Paper Charts to ECDIS*; *Guidelines for Collecting Maritime Evidence Volume 1 and Volume 2*; *The Admiralty Manual of Navigation Volume 1 and Volume 2: Principles of Navigation*; *Bridge Team Management* and *A Guide to Bulk Carrier Operations*.

Nautical Institute members receive a 30% discount on all NI titles and we are pleased to report that this generous discount has now been extended to members of IFSMA.

The NI online bookshop is available here: <https://www.nautinst.org/shop-listing.html>

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The Nautical Institute, which will celebrate the 50th anniversary of its founding next year (2022), is introduced in a video here: <https://www.nautinst.org/about-us.html>

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-Singapore and Lobito, Angola

Maritime Single Window project

In a news item from IMO on 28 October we learn of an IMO-Singapore project to implement a digital ship clearance system in the Port of Lobito, Angola, with the aim of supporting more ports in future.

The SWiFT Project

Originally, the Single Window for Facilitation of Trade (SWiFT) Project was launched in March 2021.

(For more information on this topic readers are invited to see here: <https://tinyurl.com/3twyxyjc>)

There was a call for expressions of interest to participate. Following overwhelming response received from applicants, the project will now begin its pilot phase with the Port of Lobito, before being scaled up to benefit more countries in the next phase.

The Maritime Single Window

It is understood that the SWiFT Project will develop a system for the pilot port to allow electronic submission, through one single portal, of all information required by various Government agencies when a ship calls at a port. This concept is known as the Maritime Single Window (MSW) system.



Electronic exchange of data

Regulations in IMO's Facilitation Convention require electronic exchange of data, to ensure the efficient clearance of ships.

(For more information on this topic readers are invited to see here: <https://tinyurl.com/kzc586zh>)

The single window concept is recommended, in order to avoid duplication of effort. Individual data elements should only be submitted once, electronically, through a single point of entry, to the relevant regulatory agencies and other parties.

The Covid-19 pandemic has emphasized the value of digitalisation. Electronic exchange of required data is speedier, more reliable, efficient and Covid-secure, since face-to-face contact is minimised.

Advice and training

Under the pilot project, the selected country will be advised on the necessary legal, policy and institutional requirements for the MSW system. The port will then be provided with functional MSW software, hardware and/or IT services, configured to the country's needs.

Training will also be provided, as well as advice on policy reforms required to successfully implement an MSW, it is understood.

IMO's ITCP Programme

The pilot will be supported by Singapore by way of in-kind contributions and by IMO using its Integrated Technical Cooperation Programme (ITCP).

In the words of Julian Abril, Head of IMO's Facilitation Section: *'Increased digitalization supports greater*

efficiency which benefits the ship, the port and wider supply chain.

'We want to support countries that may be having difficulties in implementing the FAL Convention requirements for electronic data exchange, by supporting a pilot project which will show the way and result in know-how which can then be shared with others.'

Following the initial pilot and subject to funding availability, the aim is, it is understood, to replicate the pilot project in other IMO Member States in need of similar technical assistance.

Remembering past support to Antigua and Barbuda

The IMO-Singapore SWiFT Project builds upon an earlier successful project that delivered a maritime single window system in Antigua and Barbuda with in-kind and financial support provided by Norway.

(For more information on this topic readers are invited to see here: <https://tinyurl.com/wf3ta2>)

Singapore will bring in its experience to cater to the technical requirements for ports that would like to incorporate port-to-port communication protocols in such a system.

Located on the west coast of Angola, the Port of Lobito is a gateway port for West Africa. It handles containers, dry bulk and mining materials, serving the economic development of the central and southern regions of Angola. Through the Benguela Railway, the port also serves countries of the Southern African Development Community (www.sadc.int *) that do not have access to the sea.

Tan Suan Jow, Dean of the Maritime and Port Authority of Singapore (MPA) Academy commented: *'Having successfully implemented digitalPORT@SG™ our national MSW, Singapore stands ready to do our part, and we look forward to partnering IMO Member States such as Angola on this digital journey to prepare for the future of shipping together.'*

It is understood that implementation of specific activities of the Pilot Project will commence by 15 November 2021.

UN SDG 9

The work on maritime single window implementation will support achieving the United Nations Sustainable Development Goal 9, which seeks to build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

More efficient shipping, working in partnership with the port sector, will be a major driver towards global resilience and sustainable development for the benefit of all.

**For a list of Member States of SADC see here: <http://www.sadc.int/member-states/>*

Illustration per: www.imo.org IMO ©.

IMO at COP 26

Updates on work to cut GHG emissions from shipping

IMO reported on 2 November its latest progress and achievements in addressing GHG emissions from international shipping at the United Nations Climate Change Conference (COP 26), in Glasgow which ran to 12 November.

We learnt from the excellent IMO news service that in a statement to the Subsidiary Body for Scientific and Technological Advice (SBSTA 52-55), the IMO Secretariat highlighted recent developments. These included the adoption in June this year, following a comprehensive assessment of its possible impacts on States, of mandatory short-term measures to reduce the carbon intensity of international shipping by at least 40% by 2030.

It is understood that this important achievement will be implemented from 2023 and will drive further energy efficiency improvements in the global fleet, which is also expected to reduce GHG emissions from shipping.

In accordance with a Work Plan approved in June 2021 by its Member States, IMO has started to consider concrete proposals for mid- and long-term GHG reduction measures, including potential market-based measures, which will further reduce GHG emissions from shipping. Subsequently consideration will be given to further progress work on impact assessments.



IMO adopted the first global mandatory energy efficiency requirements for an entire sector in 2011.

Since then, IMO Member States have continuously intensified their efforts to address GHG emissions from the maritime sector through the development of a consistent regulatory framework which applies to ships engaged in international trade.

In 2018, the IMO adopted its Initial Strategy on reduction of GHG emissions from ships to enhance IMO's contribution to global efforts. The Initial Strategy, which is due to be revised by 2023, sets out a vision and ambitions

for the maritime sector in line with the goals of the Paris Agreement.

At IMO the Secretariat also highlighted a range of projects, partnerships and initiatives on which the Organization is working, to enable a just and smooth transition towards zero carbon shipping, emphasising the continuing work to ensure no one is left behind in shipping's decarbonisation passage.

COP 26 Side events

It was reported that IMO would be participating in a number of side events (see schedule here: <https://tinyurl.com/34p9vm5c>) during COP 26 to promote its work.

At IMO the Department of Projects and Partnerships went on to showcase its engagements with stakeholders from the maritime, port, financial and energy sectors to support developing countries, particularly Small Island Developing States (SIDS) and Least Developed Countries (LDCs).

(To read more see here: <https://tinyurl.com/4j5zrw99>).

Additional resources

To read the full statement to SBSTA readers are invited to see here: <https://tinyurl.com/2mkhtvbx>

To learn more on IMO's work to cut GHG emissions readers are invited to see here: <https://tinyurl.com/249uw5fv>

Remove slime from ships to cut emissions

COP 26 presentations

Keeping ships' hulls free from just a thin layer of slime can reduce a ship's GHG emissions by up to 25%, according to the preliminary findings of a new study, launched at COP 26 on 4 November and reported by IMO.

The full video of the session may be seen here: <https://tinyurl.com/42zn62sc>



Readers are invited to download the report *Preliminary results Impact of Ships' Biofouling on Greenhouse Gas Emissions* here: <https://tinyurl.com/3x7ah83r>

Preliminary findings of the study on the Impact of Ships' Biofouling on Greenhouse Gas Emissions reveals that a layer of slime as thin as 0.5 mm covering up to 50% of a

hull surface can trigger an increase of GHG emissions in the range of 20 to 25%, depending on ship characteristics, speed and other prevailing conditions.

Biofouling is the build-up of microorganisms, plants, algae or small animals on surfaces. One of the most significant factors impacting the efficiency of all ships in service is associated with the resistance generated by the underwater area. Maintaining a smooth and clean hull free from biofouling is of paramount importance.

More severe biofouling conditions can lead to higher emissions, showing the importance of good biofouling management. With a light layer of small calcareous growth (barnacles or tubeworms), an average length container ship can see an increase in GHG emissions of up to 55%, dependent on ship characteristics and speed, it has been reported.



To reduce the GHG emissions from the maritime industry IMO has adopted a series of legally-binding ship design and operational performance indices that must be achieved by individual vessels. The aim is to ensure that ship operators consider options to improve the efficiency of their vessels throughout their lifecycle.

The report clearly shows the importance of good biofouling management. It illustrates how the perceived impact of biofouling is likely to have been historically underestimated by the shipping community.

The report on the preliminary results of the study on the Impact of Ships' Biofouling on Greenhouse Gas Emissions was launched by the Global Industry Alliance (GIA) for Marine Biosafety, a group of leading companies that have joined forces to develop solutions and address barriers to improve biofouling management. The GIA operates under the framework of the GEF-UNDP-IMO GloFouling Partnerships project, for more see here: www.glofouling.imo.org

These findings were revealed at the 'Managing Biofouling – A Win-Win Solution to Help Curb Climate Change and Preserve Ocean Biodiversity' hybrid official side event on 4 November, led by BIMCO, during the United Nations Climate Change Conference (COP 26).

IMO supporting digital clearance in Pacific ports

On 3 November IMO and the World Bank Group announced that they had joined forces to assist countries in the Pacific region to design pilot projects to encourage adoption of a Maritime Single Window (MSW) system to digitalize clearance processes in their ports.

It is understood that more than 40 participants from Fijian authorities and other relevant stakeholders* joined the World Bank Group and IMO to take part in an induction webinar on 2 and 3 November on the MSW initiative for the Pacific region.



The webinar followed the successful implementation and adoption of an IMO generic Maritime Single Window (MSW) system in Antigua and Barbuda developed with the support of Norway.

A maritime single window concept enables all information required by public authorities in connection with the arrival, stay and departure of ships, people and cargo, to be submitted electronically via a single portal, without duplication.

More efficient shipping and trade

In addition to requiring governments to introduce electronic information exchange since 8 April 2019, a maritime single window concept is also recommended by IMO's Facilitation Convention, the treaty which aims to reduce administrative burdens and make shipping and trade by sea more efficient.

* Participants from the senior management of Fiji's Ministry of Commerce, Trade, Tourism and Transport (MCTTT); Fiji Revenue and Customs Service (FRCS); Biosecurity Authority of Fiji (BAF); Maritime Safety Authority of Fiji (MSAF); Fiji Ports Corporation; Fiji Ports Terminal; ship agencies as well as Port Community (Secretariat of the Pacific Community-SPC).

New IMO programme for West Africa maritime security

Nigeria to implement IMO Whole of Government Approach to Maritime Security programme to build on progress made

On 9 November IMO announced that it is working to improve maritime security in West Africa and is offering a

new and innovative programme entitled the 'IMO Whole of Government Approach to Maritime Security'.

It is understood that the programme consists of integrated workshops and tailored support aimed at helping IMO Member States to develop National Maritime Security Committees, Risk Registers and Strategies.

Peter Adams, IMO Special Advisor to the Secretary-General on maritime security, explained: *'At IMO, we believe that an inclusive approach that draws key stakeholders together is most likely to yield meaningful results. Therefore, the programme aims to create a cross-government committee that can be aided by the Risk Register to objectively identify security gaps and prioritize where to steer future policy development, funding and capacity building efforts.'*

'It also leads to the development of a National Maritime Security Strategy that provide the strategic objectives, which explain how the Member State will secure its maritime domain for the foreseeable future. We hope to replicate the IMO Whole of Government Approach to Maritime Security in other regions in the future.'

Introducing the ISPS Code

The programme has been carefully designed based on IMO's global maritime security experience, including assisting countries to implement IMO's maritime security measures, such as the International Ship and Port Facility Security (ISPS) Code.

Furthermore, the programme provides a practical framework to underpin effective national maritime security decision-making and governance, tailored to the specific needs of the respective Member State.

Each element can be delivered either as a stand-alone unit or as an integrated programme. Depending upon the option or options chosen, the programme timeline can range from three to eighteen months, it is reported.

Developing a Nigerian National Maritime Security Strategy

Subject to available funding, IMO will work with the member state to provide the framework, expert workshops and consultancy support. IMO will be supporting Nigeria in the development of its National Maritime Security Strategy, with the project due to be launched towards the end of 2021 and completed within an eighteen-month period.

To find out more about the IMO Whole of Government Approach to Maritime Security programme readers are invited to see here: <https://tinyurl.com/cdt7uwdr>

Safer waters in West Africa

During a visit on 22 October to IMO Headquarters by representatives from the Nigerian Maritime Administration and Safety Agency (NIMASA), IMO Secretary-General Kitack Lim was given an update on maritime security in Nigerian waters.

Dr Bashir Jamoh, NIMASA Director General quoted data from the IMB reports, which demonstrate a downward trend, with a 40% reduction of piracy and armed robbery related incidents across the Gulf of Guinea.

He stated that there were 28 incidents reported in the first nine months of the year, compared to 46 in 2020. Nigeria accounted for four of these incidents, a 77% reduction from the 17 incidents in the same period in 2020. Unlike last year, when most incidents took place outside territorial waters, almost all incidents mentioned above occurred in anchorages, ports and harbours.

Dr Jamoh attributed the significant reduction in maritime security incidents in Nigeria to deterrence, through increased maritime law enforcement presence in the estuary regions, and to enhanced intelligence and engagement with the people of the Niger Delta. He also outlined a plan to enhance security in internal waters, given recent incidents in those areas.



Cooperation with MOWCA

Emphasising the value of IMO support for regional initiatives, the NIMASA Director General stated that the safety agency will shortly be completing work on its enhanced Regional Maritime Training Centre in Lagos, which is expected to serve as a hub for regional Search and Rescue (SAR) and security training. This is expected to build on continuing regional cooperation with the Maritime Organization for West and Central Africa (MOWCA) and the Joint Industry Group (Nigeria and international maritime industry associations).

Finally, Dr Jamoh highlighted the efforts put in to enhance the region's legal framework with adoption of legislation providing for enforcement and sanctions for offences against maritime security, including piracy.

NIMASA has been working to address socio-economic factors that contribute to piracy and maritime security issues, such as unemployment, poverty, lack of education opportunities and so forth. There has been a positive impact from a maritime education programme to provide alternate employment opportunities and scholarships for youth in the affected areas.

By training these individuals as future seafarers, fishers, maritime personnel and marine litter marshals, the education programme creates economic opportunities as well as addresses the maritime skills gap.

At IMO a global network for energy efficient shipping

Film launch

From Africa to the Pacific, a host of pilot projects and capacity-building initiatives to show shipping decarbonisation in action are highlighted in a new IMO film: *A global network for energy efficient shipping*.

(See here: <https://tinyurl.com/55mdbvzy>)

The film showcases tangible solutions in climate change mitigation in the shipping industry by use of technology in trials and pilots under the Global MTCC Network (GMN) Project, which is implemented by IMO and funded by the European Union.



The global network of Maritime Technology Cooperation Centres (MTCCs) undertake pilot projects and promote technologies and operations to improve energy efficiency in the maritime sector.

COP 26 event; Africa's shipping

The film was launched on 10 November during the UN Climate Change Conference (COP 26) at a side event: *How to decarbonize Africa's shipping sector*, which showcased efforts in the African region; explored issues around decarbonisation in ports and shipping; and provided an overview of the GMN project.

The side event, held at the Africa Pavilion, was organized by:

1. The Ministry of Transport, Infrastructure Housing, Urban Development and Public Works – Kenya.
2. The Global MTCC Network.
3. MTCC Africa.

The event was moderated by Lydia Ngugi, Head, MTCC Africa.

Other panellists and presenters were:

- Mr Hiroyuki Yamada, Director – Marine Environment Division, IMO;
- Dr Kevin Kariuki, Vice President for Power, Energy, Climate & Green Growth, Africa Development Bank

(AfDB);

- Madam Nancy Karigithu, Principal Secretary, State Department Shipping and Maritime, Kenya;
- Mr Anton Rhodes, Project Manager, Global MTCC Network (GMN);
- Eng Denis M Mulwa, Senior Port Electrical Engineer for Kenya Ports Authority;
- Eng Luke Samba, Marine Engineer, Kenya Maritime Authority (KMA);
- Mr Jose Matheickal, Chief, Department of Partnerships and Projects (IMO);
- Mr Mubarak Sodha, Projects Development & ICT Officer, Port Management Association of Eastern and Southern Africa (PMAESA).

IMO's first remote audits completed

On 15 November IMO reported that the first two remote audits under IMO's Member State Audit Scheme (IMSAS) have been successfully completed following efforts to reduce the negative impact of the Covid-19 pandemic on the audit schedule.

Continuity in the IMSAS is key to promoting the consistent and effective implementation of the applicable IMO instruments and to assist Member States to improve their capabilities as flag, coastal and port States.



Completion of the first remote audits follow a decision taken by the IMO Council at its 125th session in July 2021 to use, as an interim measure during the Covid-19 pandemic, a remote audit mechanism to progress with the audits, without discarding the possibility of on-site audits, where feasible.

Experience gained

Audits were completed using remote methodology, which included virtual viewing of various facilities. Experience gained in the conduct of these audits is being analysed and will be used to further develop various steps in remote auditing to further improve the auditing practices for audits scheduled from January 2022 onwards.

As a prelude to the roll-out of the remote audit mechanism, a virtual meeting of auditors currently included on the IMO roster was organized in September 2021, attended by 94 auditors from 54 Member States. The meeting provided a forum to present the modalities of a remote audit and to exchange views and experiences between the auditors on remote audit methodology.

Encouragement of women's participation

Member States are encouraged to nominate individuals for inclusion in the roster of auditors, and, in particular, to enhance women's participation in the Audit Scheme.

IMO-UNCTAD on shipping's decarbonisation

At COP 26: opportunities for developing countries

The decarbonisation of the global shipping industry will require new low-carbon fuels. This presents a great opportunity for developing countries, a COP 26 side event heard in Glasgow in the first half of November.

An IMO-UNCTAD organized event, *Seizing opportunities for developing countries in providing zero-carbon fuels to global shipping* was held on 10 November during the 26th United Nations Climate Change Conference in Glasgow, otherwise known as COP 26.

IMO's Jose Matheickal commented: *'There is a need for low and zero carbon marine fuels – this creates a promising opportunity for several developing nations because of geographic locations and their access to abundant renewable sources of energy.'*

Panelists from Chile, Indonesia, Kenya, Panama and South Africa highlighted their countries' push to support the transition to clean and sustainable fuels for shipping, including the potential for supplying green ammonia and green hydrogen.

In the words of Ms Isabelle Durant, Deputy Secretary-General, UNCTAD: *'With the emergence of zero carbon bunker fuels, developing countries have a lot of potential for supplying zero carbon bunker fuel and this will allow them to enter the market. This is a great opportunity for development.'*

The moderator was Mr Jose Matheickal, Chief, Department of Partnerships and Projects, IMO.

Panelists were:

Ms Isabelle Durant, Deputy Secretary-General, UNCTAD;

Mr Binyam Reja, Acting Global Director for Transport, and Manager of Transport Global Practice, World Bank;

Ms Johannah Christensen, CEO, Global Maritime Forum;

Mr Camilo Avilés Arias, Unit Head for New Energy Carriers, Division for Fuels and Energy Carriers, Ministry of Energy, Chile;

Mr Basilio Dias Araujo, Deputy for Maritime Sovereignty and Energy, Coordinating Ministry for Maritime Affairs and Investment, Indonesia;

Ms Nancy Wakarime Karigithu, Principal Secretary, State Department for Maritime and Shipping Affairs, Kenya;

Mr Alexis Rodriguez, Sustainability Manager, Panama Canal;

Mr Jak Koseff, Senior Advisor: Economic Acceleration & Special Projects, Office of the MEC for Economic Development, Environment, Agriculture & Rural Development, Gauteng Provincial Government, South Africa.



Readers are invited to watch proceedings again, listen to the discussion and hear how Chile, Indonesia, Kenya, the Panama Canal and South Africa will support the green maritime transition: <https://tinyurl.com/25tzr632>

Presentations may be downloaded here: <https://tinyurl.com/3tfwcakv>

IMO Council sets International Day for Women in Maritime

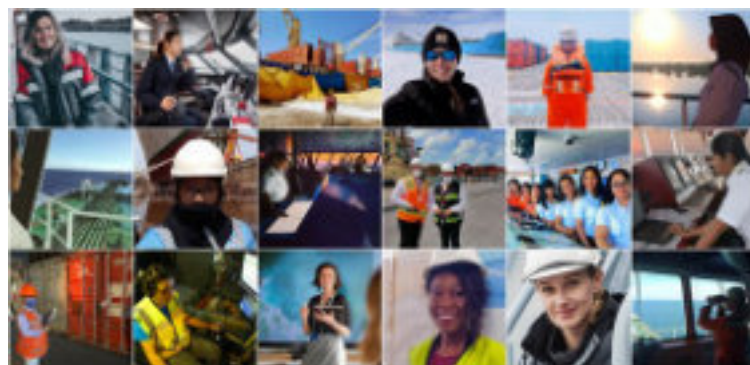
18 May each year

The IMO Council, meeting from 8-12 November, decided to establish an International Day for Women in Maritime, to be observed on 18 May every year.

Once adopted by the IMO Assembly in December 2021, the observance will celebrate women in the industry, promote the recruitment, retention and sustained employment of women in the maritime sector, raise the profile of women in maritime, strengthen IMO's commitment to Sustainable Development Goal 5 (gender equality) and support work to address the current gender imbalance in maritime.

IMO Secretary-General Kitack Lim commented: '*I welcome the Council's adoption of this proposal. Not only does it further efforts to achieve SDG 5 on gender equality, but it is a perfect follow-on action to the IMO Assembly's*

resolution and call to achieve a barrier-free environment for women, so that all women can participate fully, safely and without hindrance in the activities of the maritime community, including seafaring and shipbuilding.'



The proposal to establish an International Day for Women in Maritime was first addressed by IMO's Technical Cooperation Committee (TCC) in September 2021 following the momentum of the World Maritime Theme in 2019 *Empowering women in the maritime community*.

This proposal received wide support from the TCC Technical Cooperation Committee in forwarding the proposal to the Council.

To learn more about the IMO's Women in Maritime Programme please see here: <https://tinyurl.com/yjt9f3xi>

In order to read the IMO Assembly's resolution on achieving a barrier free environment for women in the maritime sector readers are invited see here: <https://tinyurl.com/h2mke52d> (Res. A.1147).

Sea-based sources of marine litter

New report by GESAMP

Sponsored by IMO

The sources and impact of sea-based marine litter form the focus of a new report by the Group of Experts on the Scientific Aspects of Marine Environmental Protection (GESAMP), an advisory body to the United Nations sponsored by ten UN entities including IMO*.

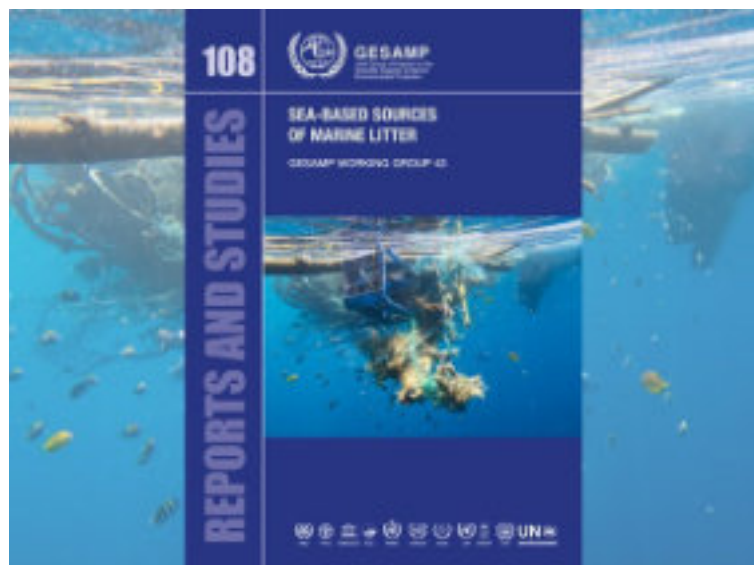
This 112-page report can be downloaded here: <https://tinyurl.com/f24r75pm>

This report outlines the various sources of marine litter and the impact and assesses the current availability of data and identifies knowledge gaps for the main categories of sea-based sources of marine plastic litter.

GESAMP's Working Group was established at the request of IMO, the Food and Agriculture Organization (FAO), and United Nations Environment Programme (UNEP).

Here is stressed the urgent need to reduce marine litter as the document outlines a number of ongoing initiatives and suggested steps to combat this issue, providing readers with

practical information. It also highlights knowledge gaps and suggested areas for future academic and scientific research, including on the impact of Covid-19 on ocean industries and livelihoods that result in marine litter.



Although very little quantification of sea-based sources of marine litter exists in the scientific, peer-reviewed and grey literature (highlighted as an area for further research), the report looks at five main categories. These are:

- **Fishing:** Abandoned, lost, or otherwise discarded fishing gear (ALDFG) from artisanal, commercial and recreational fishing operations is a large source of marine litter. It can include surrounding nets, seine nets, trawls, dredges, lift nets, falling gear, gillnets and entangling nets, ropes, traps, hooks and lines, floats and buoys, sinkers and anchors and miscellaneous gear including metallic materials. This gear can be lost regularly, episodically or catastrophically for a number of reasons ranging from inclement weather, ordinary wear and tear, wildlife interactions to natural occurring and human-made underwater obstructions. The impact of ALDFG includes economic losses, reduction of ability to target specific marine life, marine wildlife entanglement in and ingestion of marine litter, damage to marine habitats, impact on human habitats such as beaches and coastal areas and also loss of human life due to debris entanglement.
- **Aquaculture:** Ocean and coastal farming can be a source of marine litter in the form of aquaculture equipment and plastics, including ropes, buoys, mesh bags, anti-predator netting, cages, tanks and so on. This equipment may be damaged or discarded leading to marine litter which is often concentrated in coastal areas where aquaculture is practiced. Expanded polystyrene is the leading form of marine litter from ocean and coastal aquaculture activities, but there are currently no global estimates for the amounts of marine plastic litter generated from this sector.
- **Shipping and Boating:** Marine litter from merchant ships, cruise ships, yachts and leisure craft can take the form of solid waste, waste from cargo holds (for example wire straps, packaging materials, plastic sheets, boxes and so forth), waste generated during the normal operations of the ships, personal litter from individuals on board, debris from vessel wear and tear, and sewage (although this is

regulated by IMO's MARPOL treaty, accidental discharges occur occasionally). Microplastics from shipping and boating are also highlighted in the report as are shipwrecks, lost containers and cargo. In addition to impacting marine life, affecting coastal areas and potentially damaging other ships, litter from shipping and boating can also damage coastal and ocean-based aquaculture. The report highlights that few detailed studies are available that quantify the amounts and types of marine litter from shipping, and that further work is needed to address knowledge gaps in terms of mapping and modelling of ship generated litter sources and distributions, microplastics in ship surface coatings, as well as socio economic impacts of marine plastic litter generated from this sector.

In the report's section for Shipping readers are invited to see pages 31 to 42.

- **Dumping of waste and other matter at sea:** this category includes dredged materials, which is by far the most significant in terms of volumes, and potentially the largest source of plastic or other litter from wastes dumped at sea. However, there is limited information on the quantities of plastics in the waste streams, despite efforts by the London Convention and London Protocol Parties, the treaties that regulate the prevention of pollution from dumping of wastes at sea. There is therefore a need for a better understanding of the presence of plastics in wastes dumped at sea, both in terms of the characterization of the plastics present but also the geographical distribution.
- **Other ocean uses:** marine litter can occur as a result of offshore oil and gas exploration; shark and 'stinger' nets set up in beach areas to prevent harm to humans; weather monitoring, which can create debris, such as weather balloon equipment including acidic batteries, plastic components and latex rubber; artificial reefs, which may be constructed out of waste materials such as old tyres and so forth and may be impacted by tidal and weather conditions; scientific research equipment and activities; and fireworks.

GESAMP's report concludes that sea-based activities do contribute to the global burden of marine litter, and that this does warrants concern. However, it is not possible to estimate the total contribute of sea-based sources and a concerted effort to updates global estimates is needed to fill these knowledge gaps, together with renewed efforts to reduce inputs of marine litter from all sources.

It is of note that this report does not examine the potential toxic effects of plastics on marine life, as this and other subjects are covered in detail in the reports produced by GESAMP Working Group 40 on Sources, Fate and Effects of Microplastics in the Marine Environment, see in particular its second report (GESAMP Reports and Studies No. 93, published in 2016).

**GESAMP is made up of scientific experts from IMO, FAO, Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO), United Nations Industrial Development Organization (UNIDO), World Meteorological Organization (WMO), International Atomic Energy Agency (IAEA), United Nations (UN), UNEP, United Nations Development Programme (UNDP), and the International Seabed Authority (ISA).*

Maritime security

IMO promotes a whole of government approach

A regional workshop in Djibouti has promoted IMO's whole of government approach to maritime security in the western Indian Ocean and Gulf of Aden area.

The event, from 22 to 25 November, was attended by twenty-three senior government officials from eleven Djibouti Code of Conduct (DCoC) signatory States* at the Djibouti Regional Training Centre.

This IMO-led workshop supported the objectives of the Jeddah Amendment to promote inter-agency cooperation and whole of government approach to maritime security, focusing on developing national capability and thereby building strong foundations for greater regional cooperation.

It was reported that participants were taught relevant skills and were familiarised with the IMO model for developing a National Maritime Security Committee, a National Maritime Security Risk Register and a National Maritime Security Strategy.

Speaking at the workshop, HE Otsuka Umio, Japanese Ambassador to Djibouti, thanked IMO for developing the programme and underscored the importance of provisions of the DCoC/JA in enhancing maritime security in the western Indian Ocean and the Gulf of Aden.

The course is funded through a Japanese contribution to the Djibouti Code of Conduct Trust Fund.

* Comoros, Djibouti, Ethiopia, Jordan, Kenya, Mozambique, Saudi Arabia, Seychelles, Somalia, South Africa, and Yemen

USCGC *Kimball* returns to homeport after Bering Sea and Arctic patrol

The ship's company of US Coast Guard Cutter *Kimball* returned to homeport in Honolulu, Hawaii at the end of October following a 66-day patrol in the Bering and Chukchi Seas in which it steamed nearly 13,000 nautical miles since departing Honolulu on 21 August. The patrol including the Bering Strait and the Arctic Ocean. With Arctic sea ice melting, these distant travels are important in helping the US Coast Guard conduct a range of operations in the high latitudes as fish stocks and maritime traffic moves north.

Kimball conducted 18 targeted living marine resources boardings; the most a national security cutter has completed during a single patrol in the 17th District area of responsibility it was reported.

To quote Petty Officer 1st Class Samuel Cintron, *Kimball's* lead law enforcement petty officer: *'These law enforcement boardings maximised our presence in the Bering Sea.'*

'Each boarding team member was instrumental to the success of the operation and reinforced the Coast Guard's position on protecting national security and domestic fisheries.'

More than 65% of fish caught in the United States is harvested from Alaskan waters, generating more than \$13.9 billion annually.

Kimball's ship's company conducted at-sea drills with key maritime partners including the Royal Canadian Navy's *Harry DeWolf* and Japanese Maritime Self-Defense Force training vessel *Kashima*. In each instance, the ships operated alongside one another and exchanged visual communications, followed by honours (lining the rail). This display of maritime cooperation and mutual respect emphasizes the three nations' continued commitment to one another and to partnership at sea.



*Photo by Petty Officer 3rd Class Tori Barrett.
US Coast Guard District 14 Hawaii Pacific. USCG ©.*

During the deployment, *Kimball* crew observed four ships from the People's Liberation Army Navy (PLAN) operating as close as 46 miles off the Aleutian Islands' coast.

While the PLAN ships were within the US exclusive economic zone, they followed international laws and norms and at no point entered US territorial waters.

All interactions between *Kimball* and PLAN were in accordance with international standards set forth in the Western Pacific Naval Symposium's Code for Unplanned Encounters at Sea and Convention on the International Regulations for Preventing Collisions at Sea.

Kimball conducted astern refuelling at sea with USCGC *Oliver Berry*, a fast response cutter (FRC) also homeported in Honolulu. This capability significantly extends the operational range of FRCs.

Commissioned in 2019, *Kimball* is the Coast Guard's seventh national security cutter. These assets are 418 feet loa, with 54 feet beam and have a displacement of 4,600 tons. With a range of 13,000 nautical miles, the advanced technologies of this class are designed to support the national objective to maintain the security of America's maritime boundaries and provide long range search and rescue capabilities.

Hospital ship *Global Mercy*

Mercy Ships looks to Nor-Shipping 2022 to boost support

Campaigning medical charity Mercy Ships is looking to Nor-Shipping 2022, taking place from 10 to 13 January next year, to build support ahead of the commissioning of *Global Mercy*TM, the world's largest NGO hospital ship.



Global Mercy - the world's largest hospital ship due to set sail in 2022.

This was reported on 4 November and it is understood that the organisation has secured a place as Nor-Shipping's official Charity of Choice and will use the part of the conference and exhibition space set apart as 'Your Arena for Ocean Solutions' devoted to the recruitment of industry sponsors, to raise much-needed funds and to drive awareness of its crucial mission.

With the 174-metre loa 37,000 gt addition to its fleet, Mercy Ships faces a challenge to recruit marine crew where the ship will more than double the charity's requirement for volunteers and generate continuing operational funds.

Sustainable care

Roger Vassnes, National Director, Mercy Ships Norway, believes Nor-Shipping is a perfect arena to connect with potential supporters. He commented: *'This is where the maritime and ocean industries gather. For four days Oslo and Lillestrøm will be the hub for industry leaders – alive with opportunity, full of energy, and the ideal platform for Mercy Ships to build its network and engage with people that can help us help others.'*



Nor-Shipping in 2019, bringing the world of ocean business together.

'With the Global Mercy set to begin its mission in Senegal in spring next year, the timing of Nor-Shipping – and its

focus on taking positive #ACTION within the ocean space – couldn't be better.

'With the help of Nor-Shipping and its audience we can optimise our impact, helping the poorest communities in Africa gain access to first class care, while also training local medical personnel to permanently improve conditions. This is a long-term, sustainable and critically important undertaking... and we need all the support we can get to carry on changing lives and delivering opportunities.'

Since launching in 1978, Mercy Ships has worked in more than 55 countries, providing services valued at US\$ 1.7 billion, and directly benefitting almost three million people. The charity originally partnered with Nor-Shipping's summer 2019 outing, which attracted some 50,000 participants from across the globe.



Mercy Ships on a mission to help those in need.

Screenshots per www.mercyships.org

For 2022, the first ever winter Nor-Shipping, Mercy Ships will connect with visitors through an exhibition stand and with a seminar focused on the plans for its new vessel.

Unique opportunity

Per Martin Tanggaard, Nor-Shipping Director External Relations added: *'I cannot think of a more worthy cause to support. Mercy Ships offers people that have no, or extremely limited, access to medical amenities state-of-the-art facilities, expert care and, in many cases, the chance of a new life. The addition of the Global Mercy is a huge boon for the organisation, but it also creates a new set of demands. That is why they need our help now more than ever.'*

'Nor-Shipping is a networking paradise for maritime and ocean stakeholders, so this is a great opportunity for the charity to come face-to-face with the decision makers that can make a difference. This is the epitome of taking positive business #ACTION and I hope Mercy Ships can really capitalise on this unique gathering. I'd encourage everyone to offer whatever support they can.'

Ongoing impact

Mercy Ships is funded entirely by charitable donors and volunteers. As well as providing hospital ships and training to local people, the charity also renovates medical facilities to ensure ongoing benefits for communities. Mercy Ships concentrates on the sub-Saharan region of Africa, where over 93% of the population have no access to safe and timely surgical procedures.

About Nor-Shipping 2022

Nor-Shipping 2022 will feature six themed exhibition halls across a total of 22,500 sq m of space at the Norges Varemesse facility in Lillestrøm, Norway.

Almost 900 exhibiting companies are expected, from around 50 countries. A range of knowledge sharing and networking activities – including the high-profile Ocean Leadership Conference – will take place across the week, with the After Work at Aker Brygge social scene centring on one of Oslo's most celebrated city centre locations.

For more information: Nor-Shipping and Mercy Ships

For further details of the Nor-Shipping activity programme readers are invited to see here: www.nor-shipping.com

To find out more about Mercy Ships please see here: www.mercyships.org

METIS data-acquisition system

New standards in digital shipping

Athens-based METIS Cyberspace Technology SA has launched the next generation of its automated data-acquisition system, Ship Connect, in a move which enhances data transfer and monitoring while also enabling the development of ship performance analytics based on standard protocols. This was reported on 2 November.



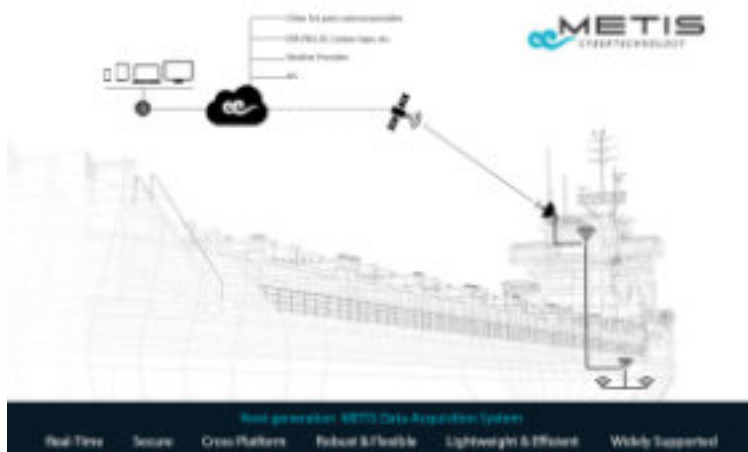
Through a robust, flexible and unified data-transmission framework, the upgraded system is understood to enable the processing and visualisation of real-time and historical data both on board and ashore.

Such is the efficiency of the data-transmission process that readings are transferred from vessel equipment to the METIS cloud platform in a second or less, making them immediately available for analysis.

In the words of Serafeim Katsikas, CTO, METIS Cyberspace Technology: *'With the latest generation of Ship Connect, we have set the standard for the interoperability which will shape shipping's digital future.'*

'The system is lightweight, efficient and compatible with all data sources, requiring minimal resources and optimising network bandwidth. It is not only extremely fast but secure and dependable, offering ship owners a solid foundation on which to base key operational decisions for enhanced vessel performance, sustainability and safety.'

Backed by MQTT, the new standard messaging protocol for the IoT, and Google's Protocol Buffers (Protobuf) language- and platform-neutral mechanism for serialising structured data, the system's new framework is also scalable to accommodate the installation of millions of IoT devices.



Explained Katsikas: *'Ship Connect is built on widely-supported, open-source architecture as opposed to the closed, proprietary kind that we see in many other systems currently available on the market.'*

'It therefore supports our objectives by allowing cross-platform integration and seamless interconnection with third-party systems. In addition, the framework's real-time event-handling capabilities support distributed event-driven processing. This brings computation and data storage closer to the data source, facilitating the development and mass implementation of advanced shipping applications right up to the level of autonomous vessels.'

It is understood that the new architecture includes mechanisms to safeguard quality of service, while advanced message-encryption and user-authentication protocols ensure security. Bidirectional communication between device and cloud streamlines support troubleshooting and updates, it is reported.

The METIS cloud platform already measures 6.3 billion performance data points per month on almost 270 ships.

ITF just transition plan

New employer-union climate alliance

Global Maritime Forum support

A clear, common purpose was emerging in the shipping industry for stronger action on climate change with regard to COP26 in Glasgow in week commencing 1 November.

On 5 November it was announced that the Global Maritime Forum* and the International Transport Workers' Federation (ITF) had signed an agreement to cooperate in 'problem solving and identifying concrete actions' to speed up decarbonisation in the maritime sector.

The Global Maritime Forum brings together leaders from across the maritime industry to shape the future of global seaborne trade and to increase sustainable long-term economic development and human wellbeing. The ITF is a global union federation with more than 300 maritime union affiliates in over 130 countries.

ITF General Secretary Stephen Cotton said: 'To reach zero by 2050, the shipping industry must pull its weight.'

'This agreement shows leadership and movement from the employers, workers and their unions to do what's needed to get us to zero,'

(Picture credit: ITF).

This accord outlines the importance of worker, corporate and investor leadership uniting to push for meaningful action. The immediate focus of the agreement is decarbonisation and just transition, but it will serve as the basis for co-operation on other strategic issues in the future.

As part of the memorandum the ITF will be inviting affiliates to sign up to the Global Maritime Forum's Call to Action.



(Picture credit: ITF).

As ITF General Secretary Stephen Cotton said in a statement on 5 November: *'To reach zero by 2050, the shipping industry must pull its weight. This agreement shows leadership and movement from the employers, workers and their unions to do what's needed to get us to zero.'*

'A just transition means concrete measure to ensure that workers' voices, expertise and ambitions to be at the centre of decision-making in transition plans for the industry. The Global Maritime Forum understand that, and that involving workers from the outset is crucial for the rapid change required in curb emissions.'



(Picture credit: Global Maritime Forum).

Johannah Christensen, CEO at the Global Maritime Forum added: *'We are excited about what this new agreement means for our industry's ability to step up to the task of decarbonising shipping by 2050. We recognise the incredible strength to be had in focusing the ideas, energy and investment of both our members on the climate crisis.'*

'We welcome the launch of the ITF's principles for a just transition. There is so much common ground. Training and re-training, maintaining health and safety when it comes to new fuels, and of course ensuring good working conditions for seafarers that are commensurate with their central role in global supply chains.'

'When it comes to moving shipping to zero carbon, Global Maritime Forum will be leading this transition – right alongside our workforce and their representatives in the ITF. We will do this transition justly, and in partnership.'

About the ITF

The International Transport Workers' Federation (ITF) is a democratic, affiliate-led federation of transport workers' unions recognised as the world's leading transport authority. It fights passionately to improve working lives; connecting trade unions and workers' networks from 147 countries to secure rights, equality and justice for their members. ITF is the voice of in the region of 20 million women and men who move the world.

About the Global Maritime Forum

The Global Maritime Forum is an international not-for-profit organization committed to shaping the future of global seaborne trade to increase sustainable long-term economic development and human wellbeing.

**Readers may remember the Neptune Declaration, for more see here: www.globalmaritimeforum.org/neptune-declaration which list of signatories includes IFSMA.*

UN Global Compact

Shipping industry confirms formation of 'people-centred' Task Force

Just Transition to net-zero

In a landmark moment for maritime workers the formation of a Just Transition Maritime Task Force has been agreed to drive decarbonisation of the industry and support millions of seafarers through shipping's green transition. This was reported from COP 26 in Glasgow on 10 November by ITF.

It is understood that the task force will push forward shipping's climate goals while protecting its works and their communities, ensuring opportunity for all.

Furthermore, it will focus on the development of new green skills and green and decent work, identifying best practice across the value chain and providing policy recommendations for an equitable transition – with a specific focus on developing economies.

UN + ICS + ITF + UN input

The task force was agreed during high-level talks at COP26, including in discussions with the Shipping lead, UN climate champions team, whose founding members include the International Chamber of Shipping (ICS), representing ship owners, the International Transport Workers' Federation (ITF), representing seafarers and port workers, and the United Nations Global Compact, the world's largest corporate sustainability initiative.

+ ILO + IMO

Other influential UN organizations including the International Labour Organization (ILO) and the IMO will join the task force as formal partners.



Stephen Cotton, General Secretary of ITF, left, and, right, Guy Platten of Secretary General of ICS at COP 26, Glasgow, 10 November 2021.

Photo: ITF ©.

Comment from ICS...

Guy Platten, Secretary General of ICS, said: *'We are all about to face the single largest transition in modern times, and all of us will be affected.'*

'Many of our seafarers come from developing nations, who are witnessing first-hand the effects of climate change. We must ensure they are given the green skills they need to keep global trade moving, and that developing nations can have access to the technologies and infrastructure to be part of shipping's green transition.'

The world's largest economies reiterated the importance of Just Transition during COP 26 from week commencing 8 November, as 30 nations committed to strategies ensuring that workers, businesses and communities are supported as countries transition to greener economies.

Global total of 1.4mn seafarers

Global shipping is responsible for the movement of 90% of world trade and currently accounts for nearly 3% of global GHG emissions. There are over 1.4million seafarers globally, with the majority of this workforce originating from emerging economies.

Comment from ITF...

Stephen Cotton, ITF General Secretary, added: *'This task force will give international shipping the opportunity to lead the transformation of transport. We welcome the commitment from all partners, from industry and the UN agencies, to tackle this challenge collaboratively with workers and their unions. We know that seafarers' expertise will lead shipping's green transformation, and we look forward to working in the task force to push forward concrete, tangible solutions to decarbonise the sector in a worker-led just transition.'*

We understand that this move represents the first of its kind for shipping and will provide clear leadership and steer for the industry to coordinate efforts and work with governments, industry, workers and their representatives to ensure a people-centred transition for the maritime industry.

...UN Global Compact...

Sanda Ojiambo, CEO and Executive Director of the United Nations Global Compact commented: *'Businesses are raising ambition for climate action and preparing for the transformative shift in our economies and societies necessary to secure a 1.5°C future. As companies work to halve emissions by 2030, a people-centred approach is a key to ensuring a just transition that leaves no one behind.'*

'With over 87 million people employed by our nearly 14,000 Participant companies, the UN Global Compact is uniquely positioned to scale the collective global impact of business to support a just transition. Guided by our recently launched Just Transition Think Lab this Maritime task force will help translate concrete strategies and policies for the sector.'

...and ILO

Guy Ryder, ILO Director-General, reflected: *'The task force represents the best of sectoral social dialogue. It echoes the tripartite approach set out in the ILO's 2015 Guidelines for a just transition towards environmentally sustainable economies and societies for all, taking a human-centred approach to achieving green shipping.'*

December meeting

A meeting is expected to take place in December to begin setting up the practical next steps for the Just Transition Task Force.

About the UN Global Compact

As a special initiative of the UN Secretary-General, the United Nations Global Compact is a call to companies everywhere to align their operations and strategies with Ten Principles in the areas of human rights, labour, environment and anti-corruption.

At ITF the ambition is to accelerate and scale the global collective impact of business by upholding the Ten Principles and delivering the Sustainable Development Goals through accountable companies and ecosystems that enable change.

The UN Global Compact has launched a Just Transition Think Lab* which will help set the global narrative on corporate engagement in a just transition. The Think Lab is partnered with the International Labour Organization and the Just Transition Centre.

*For more information see here: <https://tinyurl.com/3wvrn42s>

In a landmark moment for maritime workers the formation of a Just Transition Maritime Task Force has been agreed to drive decarbonisation of the industry and support millions of seafarers through shipping's green transition.

The Bahamas Maritime Authority

New STCW I/10 agreement

Confirmation of IMO White List position

On 10 November the Bahamas announced that it has maintained its position on the IMO White List as the IMO Maritime Safety Committee at its 104th session confirmed it had been given full and complete effect to the STCW 78 Convention.

This positive news also coincided with The Bahamas signing a STCW 1978 Regulation I/10 Agreement with Barbados. This agreement ensures that The Bahamas and Barbados each reciprocally recognise Certificates of Competency that are issued by the respective state.

By signing this agreement, The Bahamas' seafarers are afforded the opportunity for their certificates to be accepted and recognised by Barbados, and likewise certificates from Barbados' seafarers will be accepted and

recognised by The Bahamas, providing seafarers from both White List countries the flexibility to accept employment on ships and yachts that are registered in the respective member state.



Captain Oli Olsen, Deputy Director, Seafarers & Manning Department at The BMA, commented: *'This Agreement with Barbados will be of great benefit to the seafarers of both nations. We hope that it will be followed shortly by the establishment of similar reciprocal agreements with other whitelist countries.'*

The Bahamas Maritime Authority (BMA) is one of the world's ten largest ship registries with a reputation for quality and excellent service.

It has a worldwide network of offices and Consulates including representation in Nassau, New York, London, Piraeus, Hong Kong and Tokyo – all dedicated to providing expert advice to their valued customers 24 hours a day. The BMA has a deep commitment to quality, compliance and continuous improvement and expects all Bahamian-registered ships to share the same ethos.

Voyage of Discovery

RRS Discovery expedition to Ascension Island and St Helena

We learn that preparations were being made towards the end of November for Blue Belt Programme scientists and team members to embark at Southampton on a 9000 mile expedition to Ascension Island and St Helena in the South Atlantic Ocean.

According to Dr Paul Whomersley, Principal Scientific Officer, RRS Discovery Survey, as this article was being prepared, staff were finalising the scientific objectives and preparing the necessary equipment ready for departure in RRS Discovery, the whole expedition is expected to take approximately 60 days.

It is understood that since initial plans were developed and due to the potential impacts and risks that Covid-19 could have on such an expedition the vessel will steam to Cape Verde, off the west coast of Africa. After refuelling she will continue on passage to Ascension Island and St Helena.

Ten days will be spent in the vicinity of each island conducting scientific surveys and collecting data. Once completed the teams will be disembarked at Tenerife.

At Southampton on 26 November Discovery at the time of going to press was due to embark 27 scientists including staff from the Governments of both Ascension Island and

St Helena. They will be supported by technical and engineering staff from National Marine Facilities and, of course, by RRS *Discovery*'s ship's company.



RRS *Discovery* (Photo: National Oceanography Centre).

Dr Paul Whomersley stated in an online article in the Blue Belt Programme newsletter that a main objective of the expedition is to collect new scientific data on how key habitats and species found within the biodiverse and near pristine Exclusive Economic Zones (EEZs) and Marine Protected Areas (MPAs) of both islands function. This increased knowledge will help inform the development of future sustainable management and conservation strategies.

The Blue Belt Programme newsletter may be subscribed to here: <https://tinyurl.com/fr7s3swy>

It is reported that the expedition will consider habitats of interest and the Mid-Atlantic Ridge. A deep water camera, able to function at a depth of 3000metres will be carried and also a wave glider (an autonomous, unmanned surface vehicle) will be deployed on missions around the islands to survey pelagic fish abundances by using acoustics to measure the size of shoals.



The transit track of *Discovery*.

Baited Remote Underwater Video Systems (BRUVS) will also be deployed in the surface waters to assess the presence and abundances of large pelagic species such

as shark and tuna. However, we understand that by 1 December RRS *Discovery* was alongside at Southampton under a Covid testing regime

About RRS *Discovery*

This ship is the fourth vessel to bear the name *Discovery*, the first being the barque-rigged auxiliary steamship built in 1901 which carried Robert Falcon Scott and Ernest Shackleton on their highly successful voyage to the Antarctic the following year.

The modern-day *Discovery* is a purpose-built (commissioned 2012) ocean-going research vessel operated by the Natural Environment Research Council (NERC). She is 99.7 metres loa, 18 metres beam and of 6000 gt. Fitted with the most up-to-date technical equipment and sensors, *Discovery* is a fine example of a research vessel to undertake oceanic exploration in remote and challenging environments.



Geographic scope of the Blue Belt Programme (per www.cefas.co.uk).

About the Blue Belt Programme

The Blue Belt Programme supports the delivery of the UK Government's commitment to enhance marine protection of over four million square kilometres of marine environment across the UK Overseas Territories.

This Programme is a partnership between two world-leading agencies of the UK Government, the Centre for Environment, Fisheries and Aquaculture Science (CEFAS), the Marine Management Organisation (MMO) and seven UK Overseas Territories (see adjacent map).

NYK and new tonnage

VLCC *Tateshina*

The very large crude oil carrier *Tateshina*, owned by NYK, was delivered on 8 November. The vessel was built at Nantong COSCO KHI Engineering Co., Ltd. (NACKS) in the People's Republic of China.

It is understood from NYK that by improving the shape of the ship's bow, the wave-making resistance caused by the

bow wave when under way has been greatly reduced, and propulsion performance has been improved.

This ship is also equipped with energy-saving measures such as low-friction paint applied to the hull, high-efficiency large-diameter propellers, and ladder fins that regulate the water flow at the stern and reduce energy loss. As a result, energy efficiency (carbon dioxide emissions per unit of transport) is expected to improve by approximately 23% compared to conventional VLCCs, and the IMO's phase 2 EEDI requirements* have been achieved.



In addition, the vessel has been given the Cyber Resilience-Guideline (CybR-G) notation by the Japanese classification society ClassNK. This is the first such grant of a cyber notation for a vessel in accordance with the *Guidelines for Designing Cyber Security Onboard Ships* established by ClassNK. The notation acknowledges that the design is feasible for proper ship operation with cybersecurity taken into consideration.

Vessel Particulars

Length overall: 339.5 metres
Breadth: 60.00 metres
Depth: 28.90 metres
Gross tonnage: 162,218 tons
Deadweight tonnage: 311,979 tons
Shipbuilder: Nantong COSCO KHI Engineering Co., Ltd. (NACKS)
Flag: Liberia

The NYK Group considers safety to be of utmost importance and will continue to take countermeasures against threats such as cyberattacks on ships to contribute to stable crude oil transportation to meet customers' demands.

LNG Endeavour

The liquefied natural gas (LNG) carrier *LNG Endeavour*, commercially managed by France LNG Shipping (a French ship-owning company jointly owned by NYK and Geogas LNG) and under a long-term charter contract with TotalEnergies Gas & Power Ltd, was delivered on 20 October. The vessel was built in Korea at Samsung Heavy Industries Co Ltd of Geoje, Republic of Korea.

The LNG carrier is equipped with a WinGD X-DF diesel engine that can operate on fuel oil or boil off gas stored in its cargo tank. The vessel has a cargo tank capacity of 174,000 cubic meters and a membrane-type tank that will make use of advanced insulating materials to reduce the boil-off rate (percentage of gas volume that vaporizes during navigation).



Vessel Particulars

Length overall: about 293 metres
Breadth: about 45.8 metres
Gross tonnage: 115,408 tons
Main engine: X-DF diesel engine
Cargo tank capacity: about 174,000 cubic metres
Shipbuilder: Samsung Heavy Industries Co. Ltd.
Flag: France.

* EEDI requirements

Regulations on the energy efficiency of ships based on the 2013 revision of the International Convention on the Prevention of Ship Pollution 1997 Protocol (Appendix VI to the MARPOL Convention). EEDI (Energy Efficiency Design Index) is the number of grams of carbon dioxide (CO₂) required to carry 1 ton of cargo for 1 mile, and the reduction rate from the baseline (baseline) will be gradually enhanced. Tankers are required to implement reductions of 10% by 2015 (Phase 1), 20% by 2020 (Phase 2), and 30% by 2025 (Phase 3).

UNCTAD

Launch of the Review of Maritime Transport 2021

As we well know maritime transport is the backbone of international trade and the global economy.

Over 80% of the volume of international trade in goods is carried by sea, and the percentage is even higher for most developing countries.

The *Review of Maritime Transport* is an UNCTAD flagship report, published annually since 1968. It provides an analysis of structural and cyclical changes affecting seaborne trade, ports and shipping, as well as an extensive collection of statistics from maritime trade and transport.

Covid-19 focus

This year's edition (2021) of the report has a special focus on the Covid-19 pandemic's impact on the industry and includes a special chapter on the challenges seafarers face in view of the crewing crisis.

UNCTAD's *Review of Maritime Transport 2021* published on 18 November examines the impact of the Covid-19 pandemic on maritime trade volumes and how the shipping crisis is affecting economic recovery and threatening the delivery of critical vaccines and food supplies.

Unprecedented pressures

This report paints a picture of unprecedented pressures in global supply chains, dramatic spikes in freight rates, significant price rises on the horizon for consumers and importers and potential shifts in trade patterns due to trade tensions and the quest for more resilience in maritime trade.



Overview; some highlights from the Review

Maritime transport defied the Covid-19 disruption. In 2020, volumes fell less dramatically than expected and by the end of the year had rebounded, laying the foundations for a transformation in global supply chains and new maritime trade patterns

The Covid-19 pandemic disrupted maritime transport, though the outcome was less damaging than initially

feared. The shock in the first half of 2020 caused maritime trade to contract by 3.8% in the year 2020. But in the second half of the year there was a nascent, if asymmetric, recovery, and by the third quarter, volumes had returned, for both containerized trade and dry bulk commodities. However, there has yet to be a full recovery for tanker shipping.

The rebound was fairly swift because, unlike the global financial crisis of 2009, the downturn was not synchronized across the world. In 2021, in tandem with the recovery in merchandise trade and world output, maritime trade is projected to increase by 4.3%.

The medium-term outlook also remains positive, though subject to mounting risks and uncertainties, and moderated in line with projected lower growth in the world economy. Over the past two decades, compound annual growth in maritime trade has been 2.9%, but over the period 2022–2026, UNCTAD expects that rate to slow to 2.4%.

Maritime transport navigated through the pandemic, but there was an unprecedented humanitarian crisis for seafarers.

While carriers generally managed to mitigate the shock and disruption, port and landside operations found it more difficult to adjust, and seafarers were in a precarious situation as the pandemic triggered an unprecedented global crew-change crisis.

The health risks and related travel restrictions meant that hundreds of thousands of seafarers could not return home, while an equivalent number were unable to join their ships and to provide for their families.

Hardest hit has been tanker shipping, but the impact has been less for containerised trade, gas shipments, and dry bulk commodities.

Lockdowns, travel restrictions and production cuts have compressed the demand for fuel. In 2020, shipments of crude oil, refined petroleum products, and gas together fell by 7.7%.

The impact was less, however, for dry bulk commodity trade: supported by strong demand from China for iron ore and grain, total dry bulk trade fell by only 1.5%.

Containerized trade also resisted, falling by only 1.1%. Global container port throughput fell at a similar rate and in 2020 totalled 815.6 million TEU. Logistical bottlenecks, and soaring costs, along with an asymmetric recovery, have heightened uncertainty.

In summary

In summary UNCTAD in its report sees the priorities below for action.

We at IFSMA are particularly keen to see an end to the crew-change crisis, widespread vaccination of seafarers and increased facilitation of crew changes.

With these achieved the trade system in general and maritime transport in particular are bound to be revitalised.

1. Vaccinate the world.
2. Revitalise the multilateral trade system.
3. End the crew-change crisis.
4. Vaccinate seafarers.
5. Facilitate crew changes.
6. Ensure reliable and efficient maritime transport.
7. Mainstream supply chain resilience, risk assessment and preparedness.
8. Control costs.
9. Decarbonise.
10. Climate-proof maritime transport.

Editor's note:

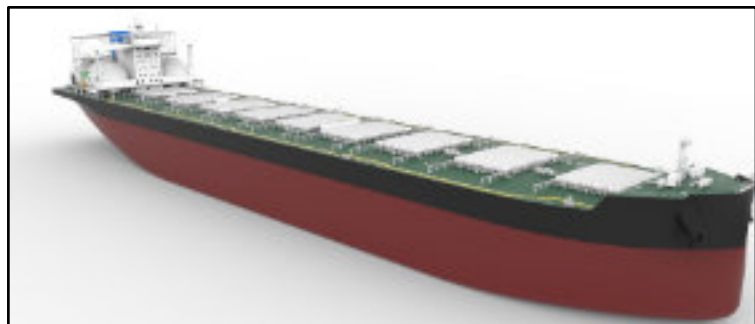
We acknowledge with grateful thanks the kind assistance of the UNCTAD Media Centre in the preparation of this article.

ABB to equip twelve Himalaya Shipping bulk carriers

Shaft generator provision for maximum efficiency

ABB announced in mid-November that the equipment package for Bermuda-based Himalaya Shipping's ultra large bulk carriers each of 210,000 dt will feature innovative shaft generators with a Power-Take-Off (PTO) provision, comprising new drive systems and permanent magnet technology, improving the energy efficiency of these vessels by up to four percent while enhancing operational flexibility.

It is understood that ABB's full scope of supply for the Himalaya Shipping vessels also includes low-voltage drives and transformers, as well as engineering, project management and commissioning services.



The vessels' energy systems align with goals set out in the IMO Energy Efficiency Design Index (EEDI) and Carbon Intensity Index (CII).

It is reported that shaft generator performance gains exploit the inclusion of permanent magnet technology and new ACS880 single drive systems from ABB. Here the drive system is said to deliver greater responsiveness for the changing power needs of a bulk carrier depending on speed, bulk freight weight, and electrical load changing.

The possibility to choose the most efficient operational option from several alternatives delivers reducing fuel costs by 3-4%, while the footprint of the equipment package is approximately 20% smaller compared to equivalent units featuring synchronous excitation machines. In addition, higher power density enabled by

ABB's solution allows reducing fuel consumption and emissions.

To quote Jan Andersson from SeaQuest, Himalaya Shipping consultant: *'ABB's latest series of shaft generators support our initiatives to ensure optimized ship efficiency, reduce CO₂ / NOx emissions and deliver maximum performance using less power in a package that is compact, robust and easy to maintain.'*

Qiaohua Dong, Deputy Director of Ship Design Institute of Jiangsu New Times Shipbuilding Co., Ltd commented: *'With more strict emissions regulations and requirements, our shipyard should also adapt to new technologies and solutions.'*

'It is the first time for us to install ABB's latest shaft generator system. By utilizing this energy-efficient system, it will also help us to develop the capability of building an energy-efficient and environmentally friendly future.'

This contract is seen as a significant milestone for a new generation of permanent magnet shaft generator-based devices, with improved energy efficiency. Here a range of benefits will help ship owners and operators enhance efficiency and reduce emissions.

Based on simplicity in construction, integrating permanent magnet technology on board a vessel is said to be straightforward, while reducing maintenance costs due to the absence of the carbon brushes which need frequent replacement.

In addition to newbuild vessels, ABB's permanent magnet technology is also relevant for existing ships, where retrofitting shaft generator systems offers a practical option for improving energy efficiency and cutting emissions, it is understood.

On-demand mooring training

Ocean Technologies Group partners with Samson Rope

Ocean Technologies Group (OTG) and Samson Rope, a leading developer and manufacturer of high-performance synthetics, have agreed to collaborate to provide seafarers with on-demand access to Samson's comprehensive set of online courses in rope handling, inspection, fabrication, and installation.

Courses will be available on OTG's Ocean Learning Platform, which was specially created to deliver blended learning, assessment, and competency management solutions that ultimately connect e-Learning and hands-on activity to improve knowledge, skills, and behavioural development.

Remote learning has become the norm for many seafarers due to the travel restrictions brought about by the pandemic. In fact, being able to access learning on-demand whenever and wherever you are does have its benefits as many seafarers are finding out.

Providing real-world 24-hours a day training keeps personnel informed and briefed on the latest best practices, which helps minimise accidents.

In the words of Raal Harris, OTG's Group Creative Director: *'Partnering with like-minded maritime companies such as Samson is core to our strategic vision for our learning platform. Opening it up to manufacturers so that they can provide best-in-class knowledge and training alongside our core library allows our customers to build joined-up learning pathways that maximise efficiency.'*



Remote learning has become the norm for many seafarers due to the travel restrictions brought about by the pandemic.

'Samson's commitment to supporting its extensive product range with detailed eLearning courses is admirable, as all too often serious accidents can occur from a lack of knowledge in using ropes correctly when mooring a ship to a berth.'



Samson Rope courses will be available on OTG's Ocean Learning Platform.

'We have had requests for more detailed material on OCIMF's Mooring Equipment Guidelines (MEG4) so having Samson's courses available on our platform will give our customers access to the most comprehensive material available on the subject.'*

*For an introduction to OCIMF publications readers are invited to see here: <https://tinyurl.com/6faezkbh>

Twelve new containerships for Wan Hai Lines

MacGregor's significant hatch cover order

Our cover picture with this edition of *Newsletter* shows a handsome vessel of Wan Hai Lines.

MacGregor, part of Cargotec, reported in mid-November that it had secured a significant hatch cover order for twelve 3,055 TEU containerships. The ships will be built by Japan Marine United (JMU) for the Taiwanese shipping company, Wan Hai Lines. Scope of supply includes design and key components, fabrication and delivery of hatch covers to JMU.



The order is booked into Cargotec's fourth quarter 2021 order intake, with deliveries planned to commence during the fourth quarter of 2022 and completed during the first quarter of 2024.

The new containerships are part of Wan Hai Lines' wider fleet renewal plan to meet growing market demand and increase efficiency. At present, Wan Hai Lines is the world's tenth largest container liner company with a total fleet capacity of 424,000 TEU.

Shipping needs a ringside seat at international debates:

InterManager

Shipping needs a King Arthur-style round table of many relevant bodies to fully represent its views at international level and do it justice, InterManager's President Mark O'Neil said during the association's Annual General Meeting in week commencing 7 November.

Highlighting the shipping industry's distant position in relation to important global events such as the recent COP26 environmental discussions, Mark O'Neil, InterManager President and CEO of Columbia Shipmanagement, said shipping's arena seat is *'in the gods'* and we need to be ringside. He commented: *'We need to control the narrative and be involved. InterManager is crucial to that voice.'*

One year into his term of office, O'Neil reported an increase in membership but stressed InterManager plans to grow even more. This year InterManager – which is celebrating its 30th anniversary – has *'shouted more loudly as an association and gained much more recognition,'* he informed the well-attended meeting which took place in-person in Cyprus with other InterManager members around the globe joining online.

He stated that third party ship and crew managers, who today employ 90% of the world's seafarers, are well-placed to drive the debate. He added: *'I am fed up with others taking the lead. We need to have opinions on important issues to serve our members and our respective crews.'*



InterManager

International Ship Managers' Association
Promoting Excellence In Ship Management

During his Presidential Address, O'Neil, who will serve until autumn 2022 in his first term of office, outlined InterManager's ongoing activities, highlighting the association's crucial membership of the industry Covid-19 vaccination taskforce, its pivotal role in ensuring that seafarers around the world are recognised as keyworkers, and its life-saving campaign to improve the on board provision of medical oxygen on ships.

O'Neil also updated the meeting on the progress of InterManager's new Ship Management Standard which aims to ensure and enhance quality standards across the sector.

He said it was important for ship managers to demonstrate to the world *'that we are a highly professional group of companies'*. Members of InterManager are understood to be considering a first draft of the new Standard which will be implemented throughout the membership. It looks set to give members a competitive edge by demonstrating verifiable standards across a range of areas of operation, while setting out a recognised path to success.

The meeting concluded with a dynamic debate on environmental concerns and shipping's role in meeting climate change targets.

Speakers included Alastair Evitt of V.Ships, who is a former InterManager President; Sunil Kapoor of Fleet Management; David Furnival of BSM; Captain Eugen Adami of Mastermind; Captain John Albrecht of SCF Management Services; Sotiris Raptis of ECSA; as well as Captain Kuba Szymanski, InterManager Secretary General, and Mark O'Neil.

O'Neil enthused: *'Managers are at the heart of this debate because we interact with all aspects of the shipping industry.'*

InterManager's weekly video

Each week InterManager publishes a video of news, see here: <https://tinyurl.com/mk9ffhk9>

* In a British theatre the gods are the cheapest seats, some distance from the stage, at a high level, with a poor view and diminished sound. The ringside seats are preferred to feel part of the performance.

ITF and COP 26

Transport workers' demands

At COP 26 the key task was to deliver a credible plan to limit global temperature increases to 1.5°C.

In the words of a statement from ITF in mid-November the Glasgow Climate Pact, which was agreed by all parties, recognised the scale of the crisis, but is weak on concrete measures to address it. As a result, we are on track for temperature increases of 2.4°C by 2050, which will have devastating consequences for humanity and the planet.

Transport in the spotlight

We cannot escape the fact that transport is responsible for 25% of all greenhouse gas emissions. The fossil fuel dependent transport industries are a major challenge today, but the zero carbon transport industries of the future can be part of the result, it was reported.

Falling short on finance

One of the most serious failures in Glasgow was financial support for the Global South, especially relating to adaptation, mitigation and loss and damage. In 2009, Global North countries pledged to mobilise \$100 billion for adaptation (such as building infrastructure for sea walls to protect against the negative effects of climate change) and mitigation (renewable energy infrastructure). However, this funding target has missed every year, it is reported.

At COP26, Global South countries came with a new demand, finance for loss and damage for countries already experiencing the disastrous effects of climate change. Yet, the Glasgow Climate Pact failed to deliver any concrete commitments.

On his return from COP26 in Glasgow, ITF General Secretary Stephen Cotton said: *'The funding gap is one of COP26's most serious failures. Countries in the Global South are being denied funds needed to urgently protect their citizens now, as well as for safeguarding future generations.'*

Investment in transport infrastructure is the one of most important areas, both in terms of creating transport needed to bring down long term emissions, and in repairing ports and railways wrecked by extreme weather.

Cotton added: *'Governments need to turn the vague promises in the Glasgow Climate Pact into concrete action. If governments fail, we are risking the life and death of millions and we cannot allow the burden of climate change to fall on those in poorer nations.'*

'In Glasgow we saw a greater sense of urgency from some governments and employers across the transport sector, and we need to build on this momentum to seriously tackle the decarbonisation of transport.'

Just Transition Maritime Taskforce

In Glasgow, the ITF announced the establishment of the Just Transition Maritime Taskforce in partnership with the ICS, the UN Global Compact, the ILO and the IMO.

Cotton reflected: *'This is an example for how all transport industries should address Just Transition. See also article on page XX.'*

'The taskforce will make sure that seafarers have a big say in key issues around jobs and skills as the industry embarks on its biggest ever transformation. It is vital that the voice of labour is at the table.'



COP26 has made one thing clear: the struggle of trade unions globally for climate justice is more important than ever after the Glasgow climate conference fell short.

Photo per: www.itfglobal.org ITF ©

'Transport workers must be front and centre in the fight for climate justice and for a just transition of our industries. The time is now to mobilise for the green horizon in shipping...and for zero-carbon transport being an opportunity for transport workers.'

Focus on Just Transition in revised climate plans

One of the most important outcomes from COP26 is that all countries are now required to submit revised national climate plans, known as Nationally Determined Contributions or NDCs, by 2022.

These revised plans must include specific targets for reducing emissions by 45% by 2030.

The Glasgow Climate Pact also affirmed that all countries must make explicit commitments on just transition in their long-term plans. Yet, more progress needs to be made on making sure that climate action involves a just transition for workers.

Over the course of the conference, over 147 ITF unions in 36 countries backed this call and urged their governments to implement robust just transition measures for transport in their NDCs.

In conclusion Cotton said: *'Transport unions have put their governments on notice. The transition cannot happen without an active role for workers. Workers must be at the table. We expect concrete commitments on both Just Transition and credible plans for each transport sector to decarbonise, which must include specific commitments for women and young workers.'*

BWT retrofit demand surge

Optimarin riding the wave

The market is heating up for ballast water treatment (BWT) systems amid a retrofit rush that has resulted in a recent surge of orders for leading supplier Optimarin – and it says hasty delivery is vital to meet soaring demand. This was reported by the Sandnes, Norway-based company in mid-November.

Ship owners are continually upgrading their vessels with BWT systems ahead of a 2024 deadline for compliance with the IMO's Ballast Water Management Convention and this has triggered a wave of orders that has, it is understood, challenged the capacity of some suppliers to deliver, according to Optimarin.

Chief executive Leiv Kallestad commented: *'We have been gaining new clients at an increasing rate every month throughout 2021, both in our established markets and those where we have previously sold fewer systems, with a 15-20% year-on-year increase in the number of systems sold to date.'*

He attributes this to the company having readily available approvals documentation, a very fast and efficient ordering process, and the flexible system to ease installation.



The ballast water treatment system supplied by Optimarin is under continuous improvement.

Photo: Optimarin ©.

Pandemic after-shocks

He believes there has been a lot of demand due to national lockdown restrictions during the Covid-19

pandemic that have acted as a constraint on global supply chain logistics, as well as the fact that many ship owners have been reluctant to take their vessels offline for BWT retrofits as business was booming in certain shipping segments.

The long-established supplier has so far sold more than 1200 BWT systems, with 900 installed on vessels, and is on course to meet the next short-term sales milestone of 1500 systems, according to Kallestad.

With a broad geographical presence the company has in particular seen increased sales in Turkey where it has recently secured 25 orders.

He states that Optimarin has expanded its customer base with between five and seven new clients each month, which offers potential for multiple deliveries to any one client as additional BWT systems are required on other vessels in a fleet.



Optimarin is on course for the next short-term sales milestone of over 1500 BWT systems on high demand, according to chief executive Leiv Kallestad.

Photo: Optimarin ©.

Thinking smarter

The company has also focused on product development to enhance the quality of its well-proven technology. This has resulted in a more compact system as complex parts have been replaced with smaller, simpler and more robust components, we understand.

This has significantly reduced the footprint of the system that makes it easier to install for retrofits, which presently account for a major proportion of Optimarin's turnover, as well as on new builds.

In addition, this improvement drive has reduced manufacturing costs for the system that, in turn, has enabled the supplier to offer more competitive pricing even with a better-quality product.

OptiLink, a cloud-based digital provision

Optimarin recently took a major leap in digitalisation of its systems with the launch of OptiLink, a cloud-based digital means to enhance operation and maintenance through remote troubleshooting day in, day out, round the clock,

with data analytics for fleet-wide ballast water management.

Kallestad added: 'We believe a factor of our capability is fast-track delivery with a turnaround time on orders of about thirty days – and in some cases down to only ten days – compared with typically around three months for the industry.'

'Optimarin is well-positioned in all ship segments, with significant positions in offshore, cargo, bulk, container and tanker, and seems to be steadily increasing its overall market share in its target market segments.'

'Ten countries have accounted for around 70% of sales with the remaining 30% distributed around the world. Optimarin is present where the ship owners are and where the ships are being built.'

'We take a long-term partnership approach with our clients as a supplier that is able to offer an efficient turnkey delivery, as well as fast and responsive aftersales and technical support throughout the estimated 25-year lifetime of the system.'

Mitsubishi proposed new tonnage

Joint development of a large CO₂ carrier

It was announced from Tokyo in mid-November that Mitsubishi Shipbuilding, part of Mitsubishi Heavy Industries (MHI) Group, and Nippon Yusen Kaisha (NYK Line) have agreed to jointly develop a large-scale liquefied CO₂ (LCO-2) carrier.

To facilitate the development of technologies for transporting CO₂ using large vessels, this project will combine Mitsubishi Shipbuilding's advanced gas handling technologies accumulated through the construction of liquified gas carriers (LPG and LNG carriers), with NYK Line's wealth of knowledge in operations of not only small and medium-sized vessels, but also large vessels that are expected to increase in demand globally. The two companies will participate in the Carbon Dioxide Capture, Utilization, and Storage (CCUS) value chain based on the development of LCO-2 carriers.

CCUS is attracting attention worldwide as an effective means to achieve a carbon neutral world. LCO-2 carriers will play a vital role in that value chain by transporting liquified CO₂ to storage sites and facilities for utilization, and demand for these vessels is expected to increase in the future.

Mitsubishi Shipbuilding is actively pursuing commercialization of LCO-2 carriers as part of MHI Group's strategic initiative for the energy transition, bringing together technologies and knowledge gained from construction of liquified gas carriers in an effort, as a marine systems integrator, to support decarbonization at sea. This joint project is expected to make a significant contribution to the establishment of a CO₂ ecosystem* in the CO₂ transport sector, which will be an essential component of the CCUS value chain.

NYK Line expects the establishment of technology to transport CO₂ using large-scale LCO-2 carriers to make a significant contribution to the realization of a carbon neutral world. Through this joint project with MHI Group, which possesses a wide range of technologies to overcome the high technological hurdles in the CCUS value chain, NYK Line will be integrating its accumulated wealth of knowledge in ship operations to support early realization of not only small and medium sized vessels, but also large-scale LCO-2 carriers. Building on this project, NYK Line will participate in the CCUS value chain.



Going forward, Mitsubishi Shipbuilding and NYK Line will continue their efforts through this joint development project to develop the technologies for LCO-2 carriers necessary to establish a CCUS value chain, utilizing the complementary strengths and knowledge of the companies to contribute to the realization of a carbon neutral world.

* MHI Group defines 'CO₂ ecosystem' as a societal structure in which all stakeholders with a connection to CO₂, both direct and indirect, come together beyond their respective interests to achieve coexistence and co-prosperity.

Port of Albany Western Australia

New Port Welfare Committee

A growing network of Port Welfare Committees around the Australian coastline has been strengthened by the recent establishment of a new committee in the Port of Albany, Western Australia.

Raising the total number of operational committees in Australia to thirteen, the latest addition propels effort to reinvigorate the existing network of PWCs and maximise support for seafarers.

Human Rights At Sea Advisory Board member Paul MacGillivray is guiding the initiative, having inaugurated the PWC for Port of Albany in October this year, and a PWC for the Port of Bunbury, Western Australia, in 2020.

Background

The concept behind Australia's PWCs aligns with the regulations of the Maritime Labour Convention (MLC) 2006, which provides that seafarers must have access to shore-based welfare facilities when in port.

The MLC 2006 further provides that the establishment of welfare boards should be encouraged, to regularly review welfare facilities and ensure their services are consistent with the changing needs of seafarers and developments in the shipping industry.

The network of PWCs operates under the Australian Seafarers' Welfare Council (ASWC), which is an initiative of the Australian Maritime Safety Authority designed to

maintain the adequacy of welfare facilities and assist in the coordination of committees.

The role of the PWCs is to support seafarers passing through Australian ports by monitoring and facilitating the provision of welfare services, acting as a point of contact for seafarers and agencies, and liaising with the ASWC and port stakeholders.

Establishing the Port of Albany PWC

The first PWC meeting for the Port of Albany was held on 22 October at the Southern Ports office in Albany. Southern Ports is responsible for the regional ports of Albany, Bunbury, and Esperance, which are economic gateways for the state of Western Australia.

The Chair of the new PWC is Gary Crockford, Southern Ports Regional Manager for Port of Albany. The initial meeting was chaired by MacGillivray on behalf of the ASWC and was attended by a diverse range of stakeholders and government entities.

MacGillivray said *'There were eighteen persons in attendance, representing the Mission to Seafarers, Stella Maris, Southern Ports, Australian Maritime Safety Authority, Australian Border Force, WA Police, WA Health Service, terminal operators, and ship agents.'*

Noting a spirit of compassion at the meeting, he said discussions were influenced by the key challenges seafarers are facing during the pandemic, which are largely attributed to port closures and travel restrictions.

He added: *'The most pressing topic on the agenda was COVID-19, and its continuing impact on crew change and repatriation; denial of medical and dental care; lack of shore leave; support for COVID-infected ships and seafarer vaccination; and what the port community is doing to make the seafarer's life on visiting ships more bearable.'*

Although seafarers have typically benefited from access to welfare facilities in ports, their needs are evolving, necessitating a stronger focus on services relating to communication, technology, and professional mental health support.

ISWAN Annual Review 2020-21

With calls and messages to ISWAN's 24-hour helplines more than tripling last year as a direct result of the Covid-19 pandemic, the charity has had a unique insight into the challenges faced by seafarers around the world.

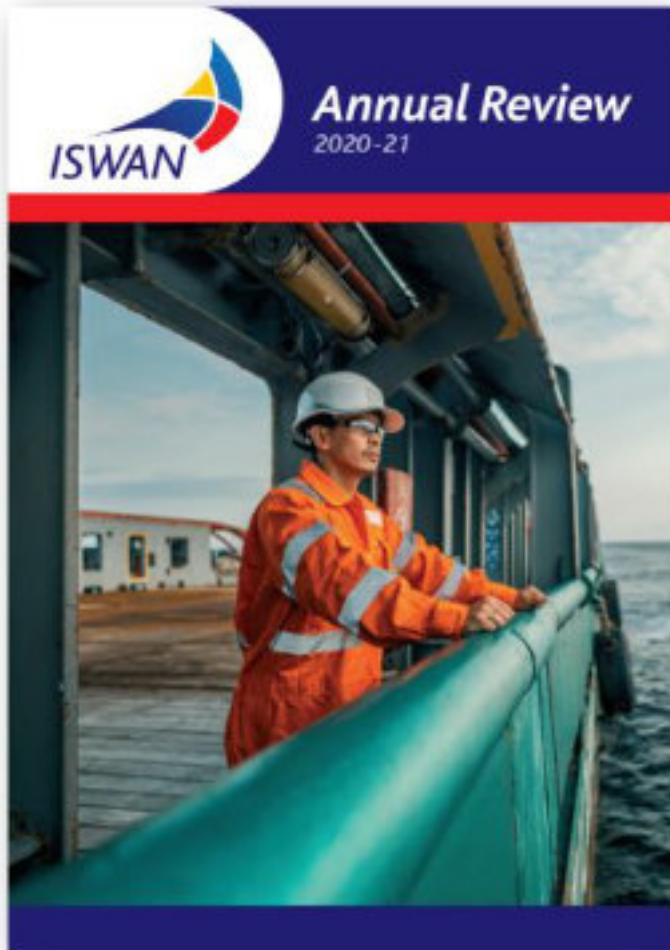
The ISWAN Annual Review 2020-21, published last month and covering the financial year from April 2020 to March 2021 highlights some of the key issues seafarers have faced and how ISWAN has been able to help, including:

- Over 20,000 calls and messages to its helplines from seafarers and their families seeking help and support.
- Twice the usual number of calls and messages relating to suicides or suicidal thoughts.
- More than US\$272,000 in grants awarded to those in desperate need through relief funds administered by ISWAN.
- Over 1,800 seafarers safely returned home with the

help of ISWAN's team in India.

- Food delivered daily by ISWAN's team in the Philippines to around 2,000 crew members left stranded in Manila during the national lockdown.

ISWAN's Chief Executive Officer Simon Grainge delivered this message: *'In a year dominated by the pandemic, ISWAN adapted well to the new working environment and enthusiastically stepped up to meet the increased demands on its services from seafarers as they struggled with their own challenges.'*



'However, none of this has been achieved alone. ISWAN is enormously grateful for the sustained commitment of its funders who have enabled our work to continue, and our colleagues in the other maritime welfare organisations that have collaborated so effectively with us. We would also like to thank every single person who has donated to ISWAN, liked or shared our social media posts, and spread the word about our work – your support means so much to us.'

'The pandemic has yet to run its course and seafarers are still being asked to go above and beyond the call of duty, so ISWAN will do the same – supporting them in the best way we can.'

Readers are invited to download the ISWAN Annual Review 2020-21 from its website here:

<https://tinyurl.com/2p8sfynr>

Navigating the challenges of the Suez Canal

Port agency services provided by Inchcape keeping ships on course on vital trade route

As we know passage through the Suez Canal is by no means plain sailing. It requires a multitude of complex bureaucratic approvals, timely logistics, tight scheduling and close monitoring to ensure the smooth transit of between 50 and 70 ships daily along the narrow Egyptian waterway that is a vital artery for the flow of world trade.

Aziz Nabil, operations manager for Inchcape Shipping Services Egypt commented on 22 November: *'Nothing can be left to chance and there is no room for delay as this can prove costly for the ship owner.'*

About 12% of international trade passes through the 193-kilometre canal that connects the Mediterranean Sea and Red Sea, making it the shortest shipping route between Asia and Europe.

The risks of negotiating the man-made route were highlighted with the dramatic grounding of the giant containership *Ever Given* in March this year that blocked the Suez Canal for a week – delaying some 369 ships carrying an estimated \$9.6 billion of trade – before the ship was finally refloated.

The Suez Canal Authority (SCA) subsequently filed a \$916 million claim for compensation for lost revenue and salvage costs due to the incident, attributed to a navigational failure caused by reduced visibility in high winds and a sandstorm, and the ship was detained for three months until the financial dispute with the ship owner was resolved.

Transit monitoring

Nabil pointed out that, while Inchcape did not act as the transit agency for the *Ever Given*, it was one of the first agencies to report the incident and the first to notify the world when the ship was freed, given it has 24/7 surveillance of traffic on the Suez Canal.

While incidents on this scale are rare, he says blockages can occur due to issues such as engine failure as the canal is traversed by ever-larger ships and Inchcape therefore closely monitors a vessel's progress via VHF radio for the entire 12-hour passage.

He added: *'This means, in the event of an incident, we are able to respond instantly by alerting the authorities even before it has been notified by the ship's captain so the SCA can immediately mobilise tug assistance to prevent escalation of the incident.'*

Inchcape's strong working relationship with the SCA is a key strength in this regard as this facilitates easier authorisation to effectively co-ordinate incident response and avert a more serious blockage of the canal, he explained.

This direct line of communication is also important to process the large volume of compliance documentation

required from multiple authorities when arranging transits for diverse vessels – including tankers, containerships, bulkers and cruise ships – handled by Inchcape's dedicated Suez rebates and transit team at Port Said and Suez at the northern and southern ends of the canal, respectively.



Photo per: www.suezcanal.gov.eg
Suez Canal Authority ©.

Paperwork challenge

Nabil went on to explain: *'Port agency for Suez Canal transit is not an easy task for the ship's master. After the initial transit request, we are in communication with various government bodies and then submit an electronic application for transit with the SCA to gain a time slot in the daily vessel convoy.'*

'An Inchcape officer will then board the ship while at anchorage for the master to complete the required documentation so we can then secure the necessary approvals for transit to proceed. There is a lot of paperwork to be done to ensure there is no delay in entering the canal.'

While Inchcape's boarding officer will usually disembark before the vessel enters the canal, it is also possible for the officer to remain on board during transit to enforce the SCA's strict anti-bribery rules as part of a special service to prevent corruption.

Cairo-based Inchcape Egypt has a 100-strong team of expert and professional staff, including six boarding officers, that covers all 60 ports in the country and is licensed to provide a wide variety of port agency services for any type of ship.

Inchcape handles more than 120 ship transits a month on the Suez Canal, which also entails the logistical challenge of timely delivery of spares, provisions, bunker fuel and other services before a vessel enters the canal, as well as co-ordinating crew changes as part of an end-to-end service.

Cost avoidance

Nabil said: *'Before a vessel enters the canal, we are in daily contact with the master to gain detailed information on the nature of the ship's cargo as well as operational and technical issues such as visibility from the bridge, the state of radar equipment, vessel draft, and the condition of rudders and anchors.'*

He explained reporting of potential issues ahead of time is vital to prevent a delay in joining the two convoys of about 30 vessels that transit the canal in either direction from around 0400 each day, as missing a time slot can incur a fine of up to \$5000.

Similarly, knowing the vessel's draft in advance means it can be adjusted if necessary to avoid a cost of around \$15,000 for a special tug escort required by the SCA if the draft exceeds 47 feet, while other tugs can cost up to \$30,000.

Inchcape also navigates for shipping companies the chain of rebates offered on the Suez Canal to keep it competitive with an alternative longer route via the Cape of Good Hope. This requires collecting the necessary documents from various agencies at the origin and destination ports so that rebate claims with the SCA can be processed rapidly.



Photo per: www.suezcanal.gov.eg
Suez Canal Authority ©.

Such cost savings will be even more important given the SCA plans early next year to increase transit tolls by 6% for around 20,000 ships that traverse the canal annually.

To conclude Nabil stated: *'Cost avoidance is a massive issue and this necessitates strong knowledge and expertise in handling Suez Canal transits, which is clearly also a factor in preventing serious incidents that can hit the flow of global trade.'*

METIS collaborates with Spire Global

Enhancement of weather forecasting

METIS Cyberspace Technology SA has signed an agreement with global data and analytics expert Spire Global covering the provision of highly accurate weather-forecasting services to enhance the existing weather-related functionality available to the METIS data acquisition and analytics platform. This was reported by the parties towards the end of November.

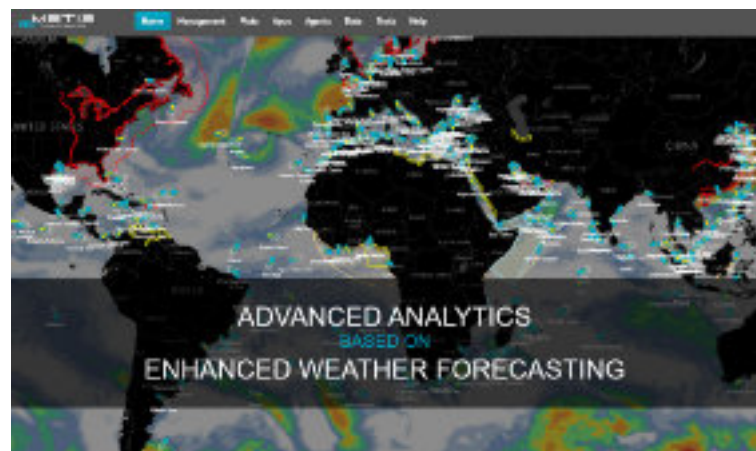
Through a combination of terrestrial and satellite data, Spire provides unparalleled insight into weather patterns at each layer of the Earth's atmosphere and across its surface – even in remote parts of the ocean where the elements are notoriously difficult to predict. It becomes the fourth weather provider to contribute to the METIS cloud-based platform.

In the words of Andreas Symeonidis, Marketing Manager, METIS Cyberspace Technology: *'A crucial part of our strategy is to establish an open platform on which our solutions interconnect with those of third-party providers to offer added value to customers.'*

'As the latest example of this approach, our collaboration with Spire gives us full global coverage of weather conditions with no blind spots, allowing us to account for all eventualities and deliver our most precise weather-based services yet.'

METIS will receive a ten-day forecast covering the entire global grid, with an update frequency of one to six hours. The data package will include atmospheric data such as temperature and wind speed; maritime data, meaning sea currents and basic wave heights; and wave-specific data comprising detailed insights on waves and swell.

Based on this information, the Athens-based company will improve its weather-routing and speed-profiling capabilities as well as its ability to provide proactive weather alerts. Customers will therefore benefit from safer and more efficient navigation – and, by optimising speed, can be assured of timely arrival in port while reducing fuel-oil consumption and emissions.



The collaboration with Spire gives METIS complete global coverage of weather conditions with no blind spots, allowing METIS analytics to take account of all weather-related eventualities.

Symeonidis continued by saying: *'The interaction between our platform and Spire's is extremely fast and efficient, which means we can reduce the time it takes to complete each request and perform complex analyses involving multiple routes. This flexibility will enable us to fine tune our existing services and – even more importantly – develop new and highly specialised ones.'*

The METIS platform's newly enhanced weather services are the latest addition to a constantly expanding portfolio of solutions designed to address specific challenges within the maritime industry and support smart, safe and sustainable operations.

Earlier this year, the data analytics specialist launched the Predictive AER Emissions INDEX, the first solution of its kind in the industry, to help ship owners keep pace with the annual efficiency ratio (AER) and related regulations.

ABB and digital transformation

To meet the growing market demand for a straightforward entry to digitalization, ABB has launched a new product for collecting and recording vessel performance data on board.

ABB Ability™ OneBox – Marine Signals Monitoring transfers the signals from shipboard sensors to cloud infrastructure for access and analysis by the shipowner.

Increased insight and continual learning about ship performance will enable smarter decision-making to improve operational efficiency and reduce fuel consumption, it is reported.

Based on the information, it is understood that ship owners can calculate fuel consumption and evaluate the possible need for further action to ensure compliance with the International Maritime Organization EEXI (Energy Efficiency Existing Ship Index) and CII (Carbon Intensity Indicator) targets.



Antto Shemeikka, Head of Digital Services, ABB Marine & Ports, commented: *'With many in merchant shipping seeking a cost-efficient way to kick-start their digital transformation journey, we are delighted to add OneBox to the solutions ABB offers to market.'*

'OneBox can be implemented quickly, cost-efficiently and with minimum effort, and upgraded seamlessly to keep pace with changing digital demands. Owners with no previous experience of digitalizing the operations of their vessels can gain valuable information about ship performance and transform their operational decision making onboard existing ships, for example by utilizing integrated signals from the Electronic Chart Display and Information System (ECDIS), fuel systems, engines, and shaft power meter.'

OneBox is said to be straightforward to install and maintain, with commissioning performed either on board or remotely, and is compatible with any platform that allows data analysis and interpretation and can be scaled up to include sensors from additional equipment.

It was further reported that vessel operating data can be visualized using ABB analytics software such as ABB Ability™ Marine Fleet Intelligence real-time fleet monitoring and analysis, ABB Ability™ Genix Industrial Analytics and AI Suite, or a third-party web-based platform.

Panama Maritime Authority

Cybersecurity MOU

It was announced from Tokyo on 25 November that ClassNK had signed a Memorandum of Understanding (MOU) on cybersecurity with the Panama Maritime Authority (PMA).

Panama, the world's largest flag state, is making various efforts to improve the safety of its own vessels. On 17 November, PMA announced the establishment of a Cyber Incident Voluntary Reporting Scheme to better understand the cyber threats that vessels are exposed to and to seek more pragmatic and effective measures to control the cyber risks. It is understood that the scheme encourages all Panama-flagged vessels to report detected cyber incidents to PMA.



Merchant Marine Notice

The PMA has issued a relevant Marine Notice available here: <https://tinyurl.com/y6hfkfvz>

Under the MOU, ClassNK will provide its knowledge and experience cultivated so far to PMA for their efforts to ensure cyber security. As part of these efforts, Class NK will analyse the information collected from the cyber incident voluntary reporting scheme of PMA.

Speaking on the occasion, PMA's Eng. Rafael Cigarruista, General Director of Merchant Marine said, *'As a world largest flag state, it is our duty to take action against cyber risk and contribute to the safety of maritime transport. In this occasion, we are very happy to conclude a MOU with ClassNK, a leading classification society putting effort into maritime cyber security. By integrating the knowledge and expertise from both flag state and classification society, we are confident in developing measures against cyber risks that are appropriate for the industry to deploy.'*

US Coast Guard and Port Authority of Jamaica

Enhancing maritime security

Last month it was reported that US Coast Guard International Port Security Program personnel conducted port-security engagements from 9 to 12 November in Kingston, Ocho Rios, Trelawney, and Montego Bay with the Port Authority of Jamaica.

Lieutenant Commander Kate Woods, the US International Port Security liaison officer to Jamaica commented: *'The Port Authority of Jamaica and many of the ports demonstrate a clear commitment to port security through significant capital investment in new infrastructure over the past few years.'*

'However, the use of technology and equipment can pose cybersecurity threats to the maritime sector. We look

forward to tackling this issue with our Jamaican partners to protect local, regional, and global maritime commerce.'



The International Port Security Program seeks to reduce risk to US maritime interests, including US ports and ships, and facilitate secure maritime trade globally in cooperation with global maritime trading partners.



Through international port visits, the discussion and sharing of port security best practices, and the development of mutual interests in securing ships coming to the United States, the programme enhances both US port security and the security of the global maritime transportation system.

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