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# IFSMA

## NEWSLETTER

The Shipmasters' International Voice



*UN General Assembly designates Seafarers as "Key Workers"*

*Photo: Jerome Adrian Betita-4th Engineer Jr ©. via IMO*



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## Secretary General's Report

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As the pandemic still rages on around the world, there is some good news in the form of more companies developing a COVID-19 vaccine which are now starting to get clearance for use around the world. November saw the IMO issue a Resolution covering the revised Industry Crew Change Protocols for States to adopt and also encouraging States to treat seafarers as key workers. This was followed in December by a Resolution from the United Nations General Assembly and the ILO for States to treat seafarers as key workers so that they can be treated alongside others when the new COVID-19 vaccinations become available. Hopefully, we will hear more about this in the New Year. Much work is ongoing across the industry to lobby nations on your behalf and a group of us, led by the International Chamber of Shipping, are working on how we can get \$ seafarers vaccinated and ways in which you can be certificated for free movement around the world.

There seems to be so much going on around the world with a lot of media coverage, that we have decided that we will now continue for the time being with a newsletter every month until things start to get back to some sort of normality. I hope that this will be sooner rather than later.

For those of you out at sea and overdue a crew change, rest assured we are doing all we can to try and get crew changes back on track. Again, I remind you to keep a weather eye out for fatigue in your crews and to remember that you are the one with the ultimate responsibility as the shipmaster. You will recall that I have discussed this issue with the International Transport Workers' Federation and whether you are in a union or not, they will be behind you if you feel the need to stop your ship from sailing if you consider it to be unsafe and you do not get the required support from your company or you receive any adverse repercussions from your decision to take such action. Otherwise, stay safe and look after yourselves and your crews. Do keep us in the HQ informed of any difficulties you might have or if you need to seek advice.

For those of you at home over this period, have a wonderful break and keep safe and I hope you will be able to get back out to sea as planned.

Seasons greetings to you all.

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## From the Editor

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### Port congestion

From time to time we read about port congestion in various parts of the world and shortly before the end of the year we saw its effect in the UK. There were several factors prevailing: pre-Brexit demand before likely tariff impositions, pre-Christmas / Festive cargoes arriving, stockpiling against shortages and essential COVID-19 supplies being discharged and stored within the port until required by consignees.



There was much comment in the home Press on maritime supply chain disruption with Tim Morris, CEO of the UK Major Ports Group, stating: *'The COVID-19 pandemic has caused unprecedented volatility in global supply chains. The impact is being felt across the world, including here in the UK. The situation at the UK's ports is improving following commitment of extra resources, working closely with customers and ports across the UK taking on more traffic. However, we are not complacent. Improvements at UK ports will take time to work through supply chains, they remain very busy and the underlying problem is global.'*

Some quarters demanded a parliamentary enquiry.

Let us all hope that 2021 is in all respects a better year.

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## The IMO Digest

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

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## IMO workshops for cleaner air in the Mediterranean

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Cleaner air in and around the Mediterranean Sea can be achieved by full and effective ratification and implementation of MARPOL Annex VI<sup>1</sup> regulations to prevent air pollution from ships. According to IMO on 27 November this was the topic for national workshops held in Egypt on 25 November and Algeria on 26 November. These gatherings were organized by REMPEC<sup>2</sup>, the Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea, in cooperation with IMO.



As well as emphasising the importance of ratification of Annex VI, the workshops also discussed a planned proposal to possibly designate the Mediterranean Sea as a sulphur emission control area (ECA). This would limit the sulphur content in fuel oil burnt by ships to 0.10% compared to the global limit outside ECAS of 0.50%. The world's busiest shipping lanes are found in the Mediterranean, so the impact and benefits of the proposed ECA for human health and the environment would be keenly felt, especially in densely populated coastal zones.

Due to the ongoing COVID19 pandemic, the workshops were delivered online.

Participants included various stakeholders from government, including maritime safety and port authorities, as well as other organisations and institutions directly related to the subject, such as shipping companies, ports maritime training institutes.

Lebanon was next in line to receive the same workshop in December. Algeria, Egypt and Lebanon are not yet parties to MARPOL Annex VI.

<sup>1</sup> <https://tinyurl.com/y2d4yotf>

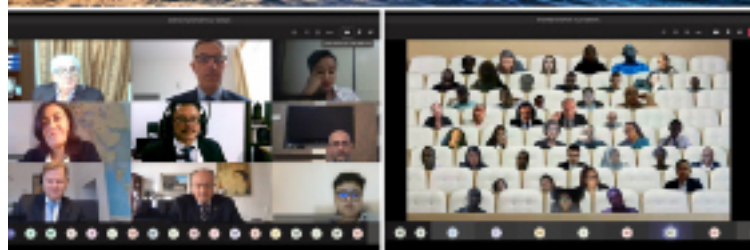
<sup>2</sup> The Regional Marine Pollution Emergency Response Centre for the Mediterranean Sea (**REMPEC**). See here: <https://www.rempec.org/en>

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## IMO training future maritime policy makers

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As part of continuing IMO work to train future leaders of the maritime world, students from the IMO International Maritime Law Institute (IMLI) in Malta have been introduced to key issues in maritime transport policy making in an event which took place from 23-26 November.



IMO has been providing training to its interested Member States on developing, adopting and updating national maritime transport policies (NMTPs) since 2015.

This seminar, delivered virtually by IMO and the faculty of the World Maritime University (WMU), highlighted the importance of good governance practice to guide planning, decision making and legislation in the maritime sector.

Furthermore, the assembly also provided an opportunity for students to take part in a practical group exercise during which they were able to further familiarize themselves with the NMTP concept and formulate the key aspects of a maritime transport policy for an imaginary State.

It was reported by IMO Media on 26 November that the seminar was being held for its fifth consecutive year,

thanks to the continuing collaboration between IMO and its two global maritime training institutions: the Malmö, Sweden-based WMU (<https://www.wmu.se>) and IMLI (<https://imli.org>) in Msida, Malta.

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## IMO Secretary-General urges priority vaccination for seafarers

The UN General Assembly (UNGA) has called on UN Member States to designate seafarers and other marine personnel as key workers and to implement relevant measures to allow stranded seafarers to be repatriated and others to join ships, and to ensure access to medical care. This was the subject of a *communiqué* issued by IMO on 1 December at 1759.

In a resolution on International cooperation to address challenges faced by seafarers as a result of the COVID-19 pandemic to support global supply chains, adopted on 1 December, the United Nations recognizes the need for an urgent and concrete response from all stakeholders, including the private sector, to resolve the situation of seafarers stranded at sea and/or unable to join ships because of national travel restrictions introduced across the globe as a result of the pandemic.



### Safe ship crew changes

The resolution also encourages Governments and relevant stakeholders to implement IMO-recognized protocols to ensure safe ship crew changes and travel during the COVID-19 pandemic, thereby allowing stranded seafarers to be repatriated and others to join ships, taking into account essential preventive measures taken by port states against COVID-19.

Welcoming the adoption of the resolution, IMO Secretary-General Kitack Lim said, ‘*Sadly, hundreds of thousands of seafarers, who are vital to maintaining supply chains, remain stranded at sea for months beyond their contracted time. This is causing immense strain, fatigue and exhaustion and is unsustainable. I hope that this call to action will result in positive momentum to resolve the crew change crisis.*

Mr Lim added: ‘*I am grateful to those countries who have already taken steps to designate seafarers as key workers and to all UN agencies and industry partners who have been working tirelessly to find ways to resolve the difficult situation. This is a human rights issue. Seafarers’ lives are*

*being made impossible through the crew change difficulties and this can only have a detrimental effect on ship safety and on the supply chain, the longer the situation continues.*’

The UN resolution calls on international organizations and other relevant stakeholders, including workers and employers organizations, to support Governments, upon their request, in the design and implementation of their responses and policies aimed at ensuring the integrity and increasing the resilience of global supply chains, decent working and living conditions and human rights of seafarers.

### Vaccination for seafarers

Noting recent positive news regarding the development of vaccines against COVID-19, Mr Lim said the key worker designation should ensure seafarers and maritime workers receive priority vaccination, to allow them to work and maintain vital global supply chains.

He concluded by saying: ‘*I hope that the key worker designation will ensure that seafarers can be vaccinated expeditiously. This will go some way to resolving the ongoing crew change crisis.*’

### UNGA resolution on International cooperation to address challenges faced by seafarers as a result of the COVID-19 pandemic to support global supply chains

The resolution was adopted during a session of the 75<sup>th</sup> United Nations General Assembly on 1 December 2020.

The full text can be downloaded here: <https://www.undocs.org/en/A/75/L.37>

### UN General Assembly special session on COVID-19

Later in week ending 5 December it is understood that the UN General Assembly will hold a special session on COVID-19. (See here: <https://tinyurl.com/yvymfbog>)

Illustration per [www.imo.org](http://www.imo.org) IMO ©.

## Supporting maritime security in the Gulf of Guinea

On 4 December IMO reported that it had taken part in the annual plenary meeting of the G7 Group of Friends of the Gulf of Guinea (G7++ FoGG) which focuses on dealing with illegal activities at sea in the Gulf of Guinea.

Over 1-3 December the online event included discussions on how the Yaoundé Code of Conduct will function in the future. The Code’s primary objective is to manage and considerably reduce the adverse impacts from piracy, armed robbery against ships and other illicit maritime activities. It was adopted in 2013.

In his opening remarks, IMO Secretary-General Kitack Lim highlighted the urgency of the security situation in the Gulf of Guinea and the need for cooperation. He also reiterated that: ‘*IMO, in collaboration with the G7++*



*Friends of the Gulf of Guinea, will continue to support training and other capacity-building activities for individual Gulf of Guinea states as well as cooperative regional efforts’.*



Speaking at the event, IMO’s Acting Head of the Maritime Security Section, Gisela Vieira, emphasised that IMO is continuing to work with Member States via virtual platforms, despite much of the in-the-field work being suspended due to the COVID-19 pandemic. For example, IMO’s Gulf of Guinea expert has conducted several virtual meetings with the Inter-regional Coordination Centre (ICC) to discuss implementation, sustainability and to assess a possible need for revision of the Yaoundé Code of Conduct framework.

The FOGG was hosted under the Co-Chairship of the United States and Gabon, with more than 80 participants from G7++ FoGG countries including those in West and Central Africa, international organizations and industry taking part. The co-chairs in 2021 will be the UK and Senegal.

*Illustration per [www.imo.org](http://www.imo.org) © IMO.*

## Supporting maritime technical cooperation during the pandemic

IMO’s technical cooperation activities are critical for implementation of the organisation’s measures and for developing a sustainable maritime sector.

From 7-11 December the IMO Technical Cooperation Committee oversaw this important work and met in virtual session. Acknowledging the impacts of the COVID-19 pandemic the Secretary-General told the Committee that a well-organized shipping sector will be critical in ensuring Member States’ post-COVID economic recovery and, in the longer term, achieving the Sustainable Development Goals. He said: *‘Although there is bound to be economic impact from the pandemic, it is imperative that Member States and development partners invest in maritime development and training, both through supporting the Integrated Technical Cooperation Programme and through direct support to our global training institutions, the World Maritime University and the IMO International Maritime Law Institute’.*

The agenda for the week’s session included implementation of the integrated technical cooperation programme (or ITCP), resource mobilization and partnerships, and the regional presence scheme. The Committee also continued work on developing SMART indicators for data collection within IMO’s mandate for technical cooperation. This was in support of the 2030 Agenda for Sustainable Development and the 2020 world maritime theme: Sustainable Shipping for a Sustainable Planet.

During sessions the Committee also considered actions taken by the IMO Secretariat to adapt methods of delivering technical cooperation assistance to Member States, in particular, Small Island Developing States and Least Developed Countries, in order to meet the challenges posed by the COVID-19 pandemic.



During his opening remarks the Secretary General took the opportunity to once again remind Member States that seafarers have been the silent heroes and collateral victims of the COVID-19 pandemic, as travel restrictions have left hundreds of thousands of them stranded on ships, or unable to join ships.

He again called on Governments to classify seafarers of all nationalities as key workers, and to adopt a comprehensive, multi-agency approach to facilitating crew changes. Furthermore, he highlighted the work of the Seafarers Crisis Action Team in supporting seafarers and resolving issues and recognized the contribution of the staff of the Technical Cooperation Division in staging regional webinars to bring these issues to a wider audience.

IMO’s 70<sup>th</sup> session of its Technical Cooperation Committee was chaired by HE Laurent Parenté of Vanuatu.

## Support to boost maritime security in Tunisia

As we all know proper implementation of IMO's maritime security measures is essential for trade.

Now Tunisia is the latest country to benefit from training on the ISPS Code for port personnel with security duties.

Early in December IMO reported that a national workshop in Sfax, Tunisia held from 30 November to 4 December brought together 26 port personnel and representatives of all entities involved in maritime and port security.



It was the intention of the workshop to provide the knowledge required for port facility personnel with designated security duties. Those duties are linked to a Port Facility Security Plan (PFSP), in order to meet the requirements of maritime security regulations in Chapter XI-2 of the SOLAS Convention, the International Ship and Port Facility (ISPS) Code, the International Maritime Dangerous Goods (IMDG) Code, the IMO/ILO Code of Practice on Security in Ports, IMO guidelines on security-related training and familiarization for port facility personnel (MSC.1/Circ.1341) and best practices in the security industry.

The workshop included practical exercises and role playing. It was organized by IMO and the Ministry of Transport and Logistics of Tunisia, under the auspices of IMO's Global Maritime Security Programme.

### Relative IMO documentation

For the *IMO Global Maritime Security integrated technical cooperation programme* see here: <https://tinyurl.com/yvjn8ozr>

For the *Code of Practice on Security in Ports* see here: <https://tinyurl.com/y677ytsa>

For *Guidelines on Security-related Training and Familiarization for Port Facility Personnel* see here: <https://tinyurl.com/yxgrpp2p>

## United in the fight against corruption

On 9 December, International Anti-Corruption Day 2020, IMO Secretary-General Kitack Lim highlighted the organization's support for the fight against corruption in all its forms.

In his statement issued on the Day, Mr. Lim acknowledged that the maritime sector, which is vital for the post-COVID recovery, is exposed to the risk of corruption, and highlighted the efforts led by IMO's Facilitation Committee, which is currently working to develop guidance to implement and embrace anti-bribery and anti-corruption practices and procedures.



Secretary General Lim commented: *'The International Maritime Organization supports the United Nations family in the fight against corruption in all its forms.'*

*'The maritime industry is frequently exposed to the risk of corruption. Shipping is part of a vital multinational transport and logistics chain, delivering 11 billion tonnes of goods annually – including much-needed medicines and protective equipment during the pandemic. However, research has identified that seafarers may be subjected to corrupt demands, such as unlawful requests for payments to allow ships to enter and depart the port or disproportionate penalties applied for minor errors. This can lead to interruptions to normal operations, delaying ships and creating a risk to navigation and seafarer safety. The Maritime Anti-Corruption Network (MACN) anonymous reporting mechanism has collected close to 40,000 reports of corrupt demands globally. This is most certainly a cause for concern.'*

*'Corrupt practices impact legitimate shipping and port operations and can lead to damaging effects on trade and investment. IMO's Facilitation Committee addresses the ship/port interface and is currently working to develop guidance to implement and embrace anti-bribery and anti-corruption practices and procedures to assist all stakeholders.'*

*'Combating corruption is a challenge for all of us. We must not allow the COVID-19 crisis to provide an excuse for a lack of vigilance. The maritime sector will be the foundation for the post-COVID recovery, a recovery which'*



*must be inclusive and sustainable with integrity and accountability. On the International Anti-Corruption Day, we stand #UnitedAgainstCorruption.'*

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## IMO Secretary-General highlights plight of seafarers

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### New video tells seafarer stories

In a statement issued on Human Rights Day, 10 December, IMO Secretary-General Kitack Lim invited everyone in the logistics and supply chains to stand up for human rights across the maritime sector.

UN Human Rights Day puts the global spotlight on the importance of human rights in the post-COVID recovery. IMO is highlighting the plight of the hundreds of thousands of seafarers who are still stranded at sea and has issued a strong call for their fundamental rights to be respected.

It is estimated that 400,000 seafarers are currently stranded on ships beyond the end of their original contracts and unable to be repatriated, due to COVID-related travel restrictions. Some have now been working at sea for over 18 months, well beyond the 11-month limit set out in ILO's Maritime Labour Convention (MLC). A similar number of seafarers are stuck at home, unable to join ships and provide for their families.

In a statement issued on Human Rights Day (10 December), IMO Secretary-General Kitack Lim invited everyone in the logistics and supply chains to stand up for human rights across the maritime sector. He said: *'Sadly, we have seen human rights of seafarers, fishers and other marine workers put in jeopardy during the pandemic,' Mr Lim said. "This is a clear human rights issue. This is causing immense strain, fatigue and exhaustion and is unsustainable.'*

People in the maritime sector have been on the frontline during the pandemic, delivering food, medicines and essential goods across the globe. However, seafarers cannot stay at sea indefinitely. The Secretary-General warned that failure to protect the rights of seafarers, fishers and other marine personnel will jeopardise the safety of shipping and have a detrimental effect on global supply chains. (Read the full message below.)

### Seafarers tell their pandemic stories in new IMO video

To help increase awareness of the issue, IMO has launched a video, see here: <https://tinyurl.com/y8m5tamo> This features seafarers who describe the challenges they have faced due to the pandemic, and the impacts of the resulting crew change crisis on their physical and mental health.

Among them, British Chief Engineer Matt Forster saw his original ten-week contract extended and ended up spending six months at sea. He commented: *'The biggest psychological effect was that you couldn't see an end to it. None of us signed up for that. We want to go to work, do our job, and then come home. We didn't sign up for what felt like an unjustified prison sentence.'*

American Captain Hedi Marzougui said that the extended period on board had a significant impact sea on his crew and himself. He said: *'The longer you stay out there, the more fatigued you get physically. The hours start to add up, the weeks and months start to add up. And you get very tired and you are not as sharp as you are when you are doing your normal stint.'* He added that fatigue and exhaustion can lead to accidents.

Captain Marzougui called on the world to help his fellow seafarers still stranded at sea: *'We also have rights as human beings, we have a family of our own. We have a life to get back to. We're not robots, we shouldn't be seen as second-class citizens.'*

Among the seafarers who were unable to join ships due to travel restrictions, Indian Second Officer Pankaj Gautham experienced significant difficulties feeding his family: *'It was financially a crisis for me, and it was a difficult time'*, he said.

### IMO's action for seafarers' rights

On Human Rights Day, IMO called on all Governments who have not already done so to designate seafarers and marine personnel as key workers, with all the related priorities for travel, transit and vaccination this entails, and to safely allow seafarers to travel, using recommended crew change protocols. The UN General Assembly has also called on UN Member States to designate seafarers and other marine personnel as key workers, in a resolution adopted on 1 December.

IMO's Seafarer Crisis Action Team (SCAT) continues to assist distressed seafarers in desperate situations, defending their human rights to decent working conditions, fair treatment, access to shore-based medical care and repatriation. SCAT has dealt with cases involving thousands of individual seafarers this year.



## UN Human Rights Day, 10 December 2020

**Message from Kitack Lim, Secretary-General, International Maritime Organization (IMO)**

*'On Human Rights Day, 10 December 2020, the International Maritime Organization (IMO) stands united with the UN family in defending human rights. As we come through the COVID-19 pandemic, we must work together to build back a more sustainable, resilient and fair world, with human rights at the centre of all we do.*

*'People in the maritime sector have been on the frontline during the pandemic. Seafarers, marine personnel, port workers, fishers – have been delivering food, medicines and vital goods for the global economy. These people will be fundamental for the post-COVID recovery, and their rights to safe and decent work conditions must be recognized, respected and protected.*

*'Sadly, we have seen human rights of seafarers, fishers and other marine workers put in jeopardy during the pandemic. Hundreds of thousands of seafarers, who are vital to maintaining supply chains, remain stranded at sea for months beyond their contracted time. Similar numbers are stuck at home, unable to join ships and provide for their families. This is a clear human rights issue. This is causing immense strain, fatigue and exhaustion and is unsustainable.*

*'Failure to protect the rights of seafarers, fishers and other marine personnel and resolve the crew change crisis will have a detrimental effect on ship safety and the global supply chain. The longer the situation persists, the worse those effects will be.*

*'On Human Rights Day, I call on all Governments who have not already done so to designate seafarers and marine personnel as key workers, with all the related priorities for travel, transit and vaccination this entails. In this call I am not alone; the whole of the United Nations is joining in, as evidenced by the recent adoption of resolution A/75/L.37 by the General Assembly, "International cooperation to address challenges faced by seafarers as a result of the COVID-19 pandemic to support global supply chains'.*



*In a statement issued on Human Rights Day, 10 December, IMO Secretary-General Kitack Lim invited everyone in the logistics and supply chains to stand up for human rights across the maritime sector.*

*Illustrations per [www.imo.org](http://www.imo.org) ©IMO.*

*'IMO's Seafarer Crisis Action Team (SCAT) has this year dealt with hundreds of individual cases, assisting distressed seafarers in desperate circumstances.*

*Ensuring basic human rights, decent working conditions, fair treatment, access to shore based medical care and repatriation is at the heart of these seafarer cases and is in line with the attainment of Sustainable Development Goal 8 – decent work for all.*

*'We must also continue to address abandonment of seafarers. The number of cases has substantially increased in 2020. To date, 65 new cases have been reported – compared to 40 during 2019. Of these new cases, only 18 have been resolved so far. Nearly a third of cases reported this year are a consequence of the COVID-19 pandemic. We continue to work with the International Labour Organization (ILO), Member States and industry and trade union partners to try to resolve these cases, based on our collective responsibility and human duty. While the causes of abandonment are many, they all have a dramatic human impact that must be addressed.*

*This year's Human Rights Day provides an opportunity to focus on the rights of vital workers, including those in the maritime sector. We all depend on them.*

*I invite everyone involved in the logistics and supply chains to take action to stand up for human rights, across the maritime sector and fair treatment, ensuring that the rights of seafarers, fishers and other marine personnel are uppermost in their corporate social responsibility plans.*

*Today, to recover better from the COVID-19 pandemic, I am standing up for human rights: are you?"*

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## **More States join IMO call to designate seafarers key workers**

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IMO reported on 15 December that forty-five IMO Member States and one Associate Member\* have now designated seafarers as key workers. This is seen as a key step in resolving the ongoing crew change crisis.

In a circular letter (4204/add.35\*\*) issued on 14 December, IMO Secretary-General Kitack Lim called on Member States that have not yet done so to take action as a matter of urgency.

Key worker designation for seafarers is essential to exempt these professionals from specific COVID-related travel restrictions, allowing them to travel between their country of residence and ships, and to be repatriated at the end of their contracts. This is critical to resolve the crew change crisis, which currently leaves hundreds of thousands of seafarers trapped at sea or stuck at home and unable to join ships. It could even play a key role in granting them priority access to safe vaccination.

The plight of stranded seafarers is highlighted in an IMO video here: <https://tinyurl.com/y8ow889v>





This film features seafarers who describe the challenges they have faced due to the pandemic, and the impacts of the ongoing crew change crisis on their physical and mental health.

Resolutions urging Governments to designate seafarers as key workers have been adopted by IMO, the United Nations General Assembly and the International Labour Organization (ILO).

\*Member States: Azerbaijan, Bahamas, Bangladesh, Barbados, Belgium, Brazil, Canada, Chile, Cyprus, Denmark, France, Gabon, Georgia, Germany, Ghana, Greece, Indonesia, Iran (Islamic Republic of), Jamaica, Japan, Kenya, Kiribati, Liberia, Marshall Islands, Moldova, Montenegro, Myanmar, Netherlands, New Zealand, Nigeria, Norway, Panama, Philippines, Republic of Korea, Romania, Saudi Arabia, Singapore, South Africa, Spain, Sweden, Thailand, United Arab Emirates, United Kingdom, United States, Yemen.

Associate Member: Hong Kong (China)

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

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## UK Marine Accident Investigation Branch (MAIB) report

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### **Karina C fatal accident**

At 0945 on 24 May 2019, the second officer of the UK registered general cargo vessel *Karina C* was fatally injured when he was trapped between a stack of cargo hold hatch covers and a gantry crane used to move hatch covers. *Karina C* was, at the time, berthed in Seville, Spain. MAIB's report was issued on 26 November 2020.

The ship was completing cargo operations and preparing to sail when the second officer, who was working on deck, climbed into a small gap between hatch covers and the stopped crane, probably to cross the vessel. Unseen by the crane operator, he was crushed when the crane moved, closing the gap.

### **Safety Issues**

- Established safe working practices were not being followed by the two most senior personnel on deck.
- The company's drug and alcohol policy was not being effectively enforced.
- There was a delay of 4½ months in reporting the accident as it was initially considered to have been due to a medical event.

### **Recommendations**

MAIB Recommendations (2020/134 and 2020/135 respectively) have been made to Carisbrooke Shipping Ltd to improve the safety culture on its ships and the level of crew compliance with established safe systems of work and to investigate alterations to crane movement warning systems.

### **Chief Inspector's statement**

At the same time as MAIB issued its report the Chief Inspector of Marine Accidents made the following statement:

*'Ship's decks are dangerous places and this accident could have been avoided if personnel operating Karina C's deck that day had adhered to established safe working practices.'*

*'The limited space available and ambient noise on deck mean that travelling gantry cranes, common on many operators' vessels, can be particularly hazardous.'*

*'Recently they have been involved in a number of fatal accidents and the MAIB is currently investigating another tragic death in similar circumstances. The accident on Karina C is a further case where excess alcohol consumption almost certainly contributed to the death of a seafarer.'*

### **To receive the report**

The MAIB document with the title: *Report on the investigation of the fatal crush accident on the general cargo vessel Karina C at Seville, Spain on 24 May 2019* is to be found here: <https://tinyurl.com/y264cl65>

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## Mental health\* to be a priority post - Covid-19

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The newly-appointed CEO of a leading support provider has revealed his vision to ensure mental health becomes a top priority for companies, as the shipping market looks ahead to life post-Covid-19.

Christian Ayerst, who took up his position as CEO of Mental Health Support Solutions (MHSS; see here: [www.mentalhealth-support.com](http://www.mentalhealth-support.com)) on 1 December says he hopes to help make mental health a lasting conversation in the maritime sector.

Ayerst left his position as a senior lawyer with ship owner Stolt-Nielsen in Rotterdam to take on the role with the

ambitious vision of truly making a difference to the lives of employees working in the shipping industry.



He explained: *'It is vital we don't just pay lip service to the term mental health. We must ensure it becomes a lasting conversation, even as we look ahead to vaccine hopes to push us out of this global pandemic.'*

*'As we all hope that Covid-19 will become a distant memory next year, we must ensure that mental health of our employees remains at the forefronts of our minds, and offer real solutions for companies to create happy, safe and supportive working environments.'*

As well having a substantial background in shipping law, Ayerst has a wealth of knowledge in the technology sector, having set up his own online app helping to connect jobseekers and companies through one-minute videos.

He also served many years as a volunteer police officer, which he believes gave him valuable insight into mental health issues and saw him meeting people from all different walks of life.

MHSS offers a range of platforms to individuals and companies to help people maintain a healthy mind while working in the maritime industry, through tailored training, a round-the-clock helpline for those in need, and by holding conferences, seminars and round table discussions on mental health

On his career change, Ayerst commented: *'I'm proud to be leaving an established ship owner and joining a growing company which places the mental health and wellbeing of staff first.'*

*'At MHSS we will work tirelessly to make a real difference to the lives of those in this industry and make quality mental health and wellbeing support accessible to everyone. MHSS will make taking care of mental health and wellbeing the responsibility of everyone.'*

*'We will equip those we help with the tools they need to relate, recognise and repair issues they see in themselves and others. We are proud to be loud about mental health and wellbeing - and inspire others to do the same.'*

\*Definition of Mental Health per the World Health Organisation: State of well-being in which every individual realises his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community.

## Japan's First LNG-fuelled PCTC delivered

In October Nippon Yusen Kaisha (NYK) took delivery of *Sakura Leader*, a pure car and truck carrier (PCTC) capable of steaming with only LNG as the ship's main fuel. The vessel was built at the Shin Kurushima Dockyard of Shin Kurushima Toyohashi Shipbuilding Co Ltd and will be managed by NYK Ship Management Pte Ltd (NYKSM).

*Sakura Leader* is the first large LNG-fuelled PCTC to be built in Japan. It is claimed that vessel modification and the switch to LNG will make a ship up to approximately 40% more energy efficient (by reducing CO<sub>2</sub> emissions per unit of transport) compared to ships using conventional heavy oil-fired engines. It is understood that the vessel is also expected to reduce sulphur oxide (SOx) emissions by approximately 99% and nitrogen oxides (NOx) by approximately 86% compared to ships using conventional heavy oil-fired engines. The vessel will certainly be contributing to clean marine transport in the global trade of vehicles carriage.



NYK Group's medium-term management plan is known as: Staying Ahead 2022 with Digitalization and Green.



In accordance with the plan, environmental, social and governance (ESG) criteria have been incorporated into each Group company's business strategies. As part of the NYK Group, NYKSM will continue to strive to achieve optimal balance between the environment and the economy to contribute to a sustainable society.

Illustrations: ©NYKSM.



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## WMO: 2020 to be one of the warmest

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Climate change continued its relentless march in 2020, which is on track to be one of the three warmest years on record. The years 2011-2020 will be the warmest decade on record, with the warmest six years all being since 2015, according to the World Meteorological Organization in a news item released from Geneva on 2 December.

Ocean heat is at record levels and more than 80% of the global ocean experienced a marine heatwave at some time in 2020, with widespread repercussions for marine ecosystems already suffering from more acidic waters due to CO<sub>2</sub> absorption, according to the provisional WMO report on the State of the Global Climate in 2020.

The report is available here: <https://tinyurl.com/y26mafan>

This document is based on contributions of dozens of international organizations and experts. It shows how high-impact events including extreme heat, wildfires and floods, as well as the record-breaking Atlantic hurricane season, affected millions of people, compounding threats to human health and security and economic stability posed by the COVID-19 pandemic.

Despite the COVID-19 lockdown, atmospheric concentrations of greenhouse gases continued to rise, committing the planet to further warming for many generations to come because of the long lifetime of CO<sub>2</sub> in the atmosphere, according to the report.

WMO Secretary-General Professor Petteri Taalas commented: *'The average global temperature in 2020 is set to be about 1.2 °C above the pre-industrial (1850-1900) level. There is at least a one in five chance of it temporarily exceeding 1.5 °C by 2024.'*

*'This year is the fifth anniversary of the Paris Agreement on Climate Change. We welcome all the recent commitments by governments to reduce greenhouse gas emissions because we are currently not on track and more efforts are needed.'*

*'Record warm years have usually coincided with a strong El Niño event, as was the case in 2016. We are now experiencing a La Niña, which has a cooling effect on global temperatures, but has not been sufficient to put a brake on this year's heat. Despite the current La Niña conditions, this year has already shown near record heat comparable to the previous record of 2016.'*

*'2020 has, unfortunately, been yet another extraordinary year for our climate. We saw new extreme temperatures on land, sea and especially in the Arctic. Wildfires consumed vast areas in Australia, Siberia, the US West Coast and South America, sending plumes of smoke circumnavigating the globe.'*

*'We saw a record number of hurricanes in the Atlantic, including unprecedented back-to-back category 4 hurricanes in Central America in November. Flooding in parts of Africa and South East Asia led to massive population displacement and undermined food security for millions.'*

The 2020 provisional State of the Global Climate report is based on temperature data from January to October. The final 2020 report will be published in March 2021. It incorporates information from National Meteorological and Hydrological Services, regional and global climate centres and United Nations partners including the Food and Agriculture Organization of the United Nations (FAO), International Monetary Fund (IMF), Intergovernmental Oceanographic Commission of UNESCO (UNESCO-IOC), International Organization for Migration (IOM), the United Nations Environment Programme (UNEP), UN High Commissioner for Refugees (UNHCR), and the World Food Programme (WFP).

The global mean temperature for January to October 2020 was around 1.2°C above the 1850–1900 baseline, used as an approximation of pre-industrial levels. 2020 is very likely to be one of the three warmest years on record globally. Modern temperature records began in 1850.

The WMO assessment is based on five global temperature datasets. All five of those datasets currently place 2020 as the second warmest for the year to date, following 2016 and ahead of 2019. The difference between the warmest three years is small, however, and exact rankings for each data set could change once data for the entire year are available.

The most notable warmth was observed across northern Asia, particularly the Siberian Arctic, where temperatures were more than 5°C above average. Siberian heat culminated in late June, when it reached 38.0°C at Verkhoyansk on 20 June, provisionally the highest known temperature anywhere north of the Arctic Circle. This fuelled the most active wildfire season in an 18-year long data record, as estimated in terms of CO<sub>2</sub> emissions released from fires.

### Sea-ice

Since the mid-1980s, the Arctic has warmed at least twice as fast as the global average, reinforcing a long downward trend in summer Arctic sea ice extent which has repercussions on the climate in mid-latitude regions.

Arctic sea-ice reached its annual minimum in September, as the second lowest in the 42-year-old satellite record. Arctic sea ice for July and October 2020 was the lowest on record.

Sea-ice in the Laptev Sea has been exceptionally low through the spring, summer and autumn, and the Northern Sea Route was ice-free or close to ice free from July to October 2020.

Antarctic ice in 2020 was close to or slightly above the 42-year mean.

Greenland continued to lose ice despite a slower rate than 2019.

### Sea-level rise and ocean heat

Ocean heat content for 2019 was highest on record in the datasets going back to 1960. There is a clear signal for faster heat uptake in recent decades. More than 90% of

the excess energy accumulating in the climate system as a result of increased concentrations of greenhouse gases goes into the ocean.

On average, since early 1993, the altimetry-based global mean rate of sea level rise amounts to  $3.3 \pm 0.3$  mm/yr. The rate has also increased over that time. A greater loss of ice mass from the ice sheets is the main cause of the accelerated rise in the global mean sea level.

Global mean sea-level in 2020 is similar to that in 2019, and consistent with the long-term trend. Developing La Niña conditions have led to a recent small drop in global sea level, similar to the temporary drops associated with previous La Niña events.



As with heatwaves on land, extreme heat can affect the near-surface layer of the oceans with a range of consequences for marine life and dependent communities. Satellite retrievals of sea-surface temperature are used to monitor marine heatwaves, which can be categorized as moderate, strong, severe or extreme. Much of the ocean experienced at least one strong marine heatwave at some point in 2020. The Laptev Sea experienced an extreme marine heatwave from June to October. Sea ice extent was unusually low in the region and adjacent land areas experienced heatwaves during the summer.

Ocean acidification is increasing. The ocean absorbs around 23% of the annual emissions of anthropogenic CO<sub>2</sub> from the atmosphere, thereby helping to alleviate the impacts of climate change on the planet. The ecological costs of this process to the ocean are high, as the CO<sub>2</sub> reacts with seawater lowering its pH; a process known as ocean acidification. There is decline in average pH at the available observing sites between 2015 and 2019, the last

year for which data are currently available. A wider variety of sources including measurements of other variables shows also a steady increase in the global ocean acidification

## High Impact Events

### Floods

Severe flooding affected many millions of people in East Africa and the Sahel, South Asia, China and Viet Nam.

In Africa – Sudan and Kenya were the worst hit, with 285 deaths reported in Kenya and 155 in Sudan. Lake Victoria reached record levels in May, the Niger and Nile rivers reached record levels at Niamey (Niger) and Khartoum (Sudan). Flooding also contributed to an ongoing locust outbreak.

In South Asia – India experienced one of the two wettest monsoon seasons since 1994, August was the wettest month on record for Pakistan, and widespread flooding was observed throughout the region (including Bangladesh, Nepal and Myanmar).

In China – persistent high rainfall in the Yangtze River catchment during the monsoon season also caused severe flooding. Reported economic losses exceeded US\$15 billion, and at least 279 deaths were reported during the period.

In Viet Nam – heavy rains typical of the arrival of the northeast monsoon were exacerbated by a succession of tropical cyclones and depressions, with eight making landfall in less than five weeks.

### Heat, drought and fires

In the interior of South America, severe drought affected many parts in 2020, with the worst-affected areas being northern Argentina, Paraguay and the western border areas of Brazil. Estimated agricultural losses were near US\$3 billion in Brazil alone. There was significant wildfire activity across the region, most severe in the Pantanal wetlands of western Brazil.

In the USA, the largest fires ever recorded occurred in late summer and autumn. Widespread drought and extreme heat contributed to the fires, and July to September were the hottest and driest on record for the southwest. Death Valley in California reached 54.4°C on 16 August, the highest known temperature in the world in at least the last 80 years.

In the Caribbean, major heatwaves occurred in April and September. Temperatures reached 39.7°C at Veguitas on 12 April, a national record for Cuba, whilst Havana also had its hottest day with 38.5°C.

Australia broke heat records in early 2020, including the highest observed temperatures in an Australian metropolitan area, in western Sydney when Penrith reached 48.9°C on 4 January.

Europe experienced drought and heatwaves, although these were generally not as intense as in 2019. In the



eastern Mediterranean with all-time records set in Jerusalem (42.7°C) and Eilat (48.9°C) on 4 September, following a late July heatwave in the Middle East in which Kuwait Airport reached 52.1°C and Baghdad 51.8°C.

## **Tropical Cyclones and storms**

The number of tropical cyclones globally was above average in 2020, with 96 cyclones as of 17 November in the 2020 Northern Hemisphere and 2019-2020 Southern Hemisphere seasons.

The North Atlantic region had an exceptionally active season, with 30 tropical cyclones as of 17 November, more than double the long-term average (1981-2010) and breaking the record for a full season, set in 2005. At a time when the season is normally winding down, two Category 4 hurricanes made landfall in Central America in less than two weeks in November, resulting in devastating flooding and many casualties.

Cyclone Amphan which made landfall on 20 May near the India-Bangladesh border was the costliest tropical cyclone on record for the North Indian Ocean, with reported economic losses in India of approximately US\$14 billion. Large-scale evacuations of coastal areas in India and Bangladesh helped to lower casualties compared to previous cyclones in the region.

## **Risks and impacts**

Approximately 10 million displacements, largely due to hydro-meteorological hazards and disasters, were recorded during the first half of 2020, mainly concentrated in South and South-east Asia and the Horn of Africa. In 2020, the COVID-19 pandemic has added a further dimension to human mobility concerns.

The COVID-19 pandemic has added also another layer of risk to evacuation, recovery and relief operations related to high-impact events. In the Philippines, for example, although over 180,000 people were pre-emptively evacuated ahead of Tropical Cyclone Vongfong (Ambo) in mid-May, the need for social distancing measures meant that residents could not be transported in large numbers and evacuation centres could only be used at half capacity.

After decades of decline, the recent increase in food insecurity since 2014 is driven by conflicts and economic slowdown as well as by climate variability and extreme weather events. Nearly 690 million people, or 9% of the world population, were undernourished and about 750 million experienced severe levels of food insecurity in 2019 according to the latest FAO data. The number of people classified under crisis, emergency and famine conditions had increased to almost 135 million people across 55 countries.

According to FAO and WFP, over 50 million people have been hit twice: by climate-related disasters (floods, droughts and storms) and the COVID-19 pandemic in 2020. Countries in Central America are suffering from the triple-impact of hurricanes Eta and Iota, COVID-19 and pre-existing humanitarian crises. The Government of

Honduras estimated that 53,000 hectares of cropland were washed away, mainly rice, beans, and sugarcane.

Negative environmental effects include impacts on land such as droughts, wildfires in forest and peatland areas, land degradation, sand and dust storms, desertification and air pollution, with far reaching implications for nature and wildlife. Impacts on marine systems include sea level rise, ocean acidification, reduced levels of ocean oxygen, mangrove decay and coral bleaching.

## **Lessons and opportunities for enhancing climate action**

According to the International Monetary Fund, the current global recession caused by the COVID-19 pandemic makes it challenging to enact the policies needed for mitigation, but it also presents opportunities to set the economy on a greener path in order to boost investment in green and resilient public infrastructure, thus supporting GDP and employment during the recovery phase.

## **Sources of information**

Information used in this report is sourced from a large number of National Meteorological and Hydrological Services (NMHSs) and associated institutions, as well as Regional Climate Centres, the World Climate Research Programme (WCRP), the Global Atmosphere Watch (GAW) and Global Cryosphere Watch.

United Nations partners include the Food and Agriculture Organization of the United Nations (FAO), International Monetary Fund (IMF), Intergovernmental Oceanographic Commission of UNESCO (UNESCO-IOC), International Organization for Migration (IOM), the United Nations Environment Programme (UNEP), UN High Commissioner for Refugees (UNHCR), and the World Food Programme (WFP)

WMO has extended its gratitude for all the dedicated hard work which makes this report an authoritative source of information on the state of the climate and on climate impacts.

WMO uses datasets (based on monthly climatological data from observing sites of the WMO Members) developed and maintained by the United States National Oceanic and Atmospheric Administration, NASA's Goddard Institute for Space Studies, and the United Kingdom's Met Office Hadley Centre and the University of East Anglia's Climatic Research Unit.

It also uses reanalysis datasets from the European Centre for Medium Range Weather Forecasts and its Copernicus Climate Change Service, and the Japan Meteorological Agency. This method combines millions of meteorological and marine observations, including from satellites, with models to produce a complete reanalysis of the atmosphere. The combination of observations with models makes it possible to estimate temperatures at any time and in any place across the globe, even in data-sparse areas such as the polar regions.

Internationally recognized datasets are used for all other key climate indicators. Full details are available in the report.

The World Meteorological Organization is the United Nations System's authoritative voice on Weather, Climate and Water.

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## Global Crew Change Advice

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The UK P&I Club, a leading provider of P&I insurance and other services to the international shipping community, has launched *Global Crew Change Advice*, a comprehensive manual that outlines current challenges and issues regarding crew changes in ports throughout the world. An A-Z compendium of global ports, from Albania to Yemen, it is thought no other Club has such an exhaustive document.

The UK Club worked with over 200 of its correspondents global network to produce the easy to navigate 130 page document, which is structured to answer four basic questions. For example, in Kuwait, the questions and answers are as follows:

**Q: Are routine crew changes permitted in your port?**

**A: As of now, crew changes are temporarily halted due to the Covid-19 pandemic in the commercial ports of Shuwaikh and Shuaiba. However, sign off is permitted at KPC terminals Mina Al Ahmadi and Mina Abdullah.**

**Q: If crew changes are allowed, are there any restrictions in doing so? (e.g. mandatory Covid-19 tests or quarantine requirements.)**

**A: The crew will be taken directly from the ship to the airport. No tests are conducted and there is no quarantine period.**

**Q: Are crewmembers who are either sick or injured permitted to be disembarked in your port?**

**A: Yes, subject to approval by Ministry of Health and Ministry of Interior.**

**Q: If crewmembers are allowed to disembark, are there any restrictions in doing so? (e.g. mandatory Covid-19 tests or quarantine requirements)**

**A: Disembarking is subject to mandatory Covid-19 tests, and there is also a 14 day quarantine period.**

Andrew Taylor, Chief Executive, UK P&I Club, said: *'Constantly shifting global and regional restrictions during the pandemic can play havoc with logistics and planning. Our Global Crew Change Advice manual is an important document for Members and we believe this is the most comprehensive A-Z index of how ports around the world deal with crew changes in the current pandemic environment.'*

*It is understood that the document will be updated regularly when the situation changes and the Club hopes*

*Members will find it invaluable when liaising with charterers and local agents for planning crew changes.'*



*Illustration per [www.ukpandi.com/news](http://www.ukpandi.com/news) ©UK P&I Club.*

For enquiries regarding the Global Crew Change Advice manual, readers are invited to contact Neil Beckwith, UK P&I Club Correspondents Manager at [neil.beckwith@thomasmiller.com](mailto:neil.beckwith@thomasmiller.com)

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## DUKC® integrated into HR Wallingford's Ship Simulation System

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Navigation simulation-based training has become even more realistic for the Port of Port Hedland (W Australia) thanks to the integration of OMC International's Dynamic Under Keel Clearance (DUKC®) system into HR Wallingford's Ship Navigation Simulation System.

Pilbara Ports Authority (PPA), which operates the port of Port Hedland, is now benefiting from the DUKC® integration in its regular integrated familiarisation training for advanced pilot, tug master and vessel traffic service (VTS) operators at HR Wallingford's Australia Ship Simulation Centre in Fremantle.

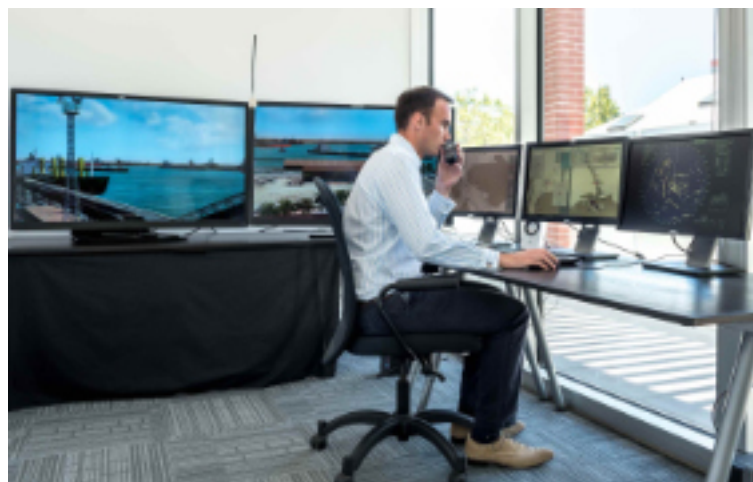
The PPA marine team has been using the Centre since 2013 to practice emergency scenarios in the virtual port environment. Practising for these scenarios is vital, as otherwise an incident could block the port's access channel, hindering ship movements.

Typically, the Harbour Master or Deputy Harbour Master, two pilots, up to six tug masters and a VTS operator attend the training sessions. HR Wallingford sets up multiple simulators to represent a ship, four tugs and the VTS, all fully integrated in one virtual environment.

Integration of OMC International's DUKC® system into the simulators is of particular importance for the port of Port Hedland's VTS operators, as they interrogate DUKC® during everyday operations to manage the sailing draughts and tidal windows for vessels restricted by their draught. The VTS operators and marine pilots can now practise their communication and use of the DUKC®



system, for both routine transits and emergency scenarios. Training in the simulation environment allows for greater familiarisation, and overall improved safety and response if the situation was to occur in reality.



*Ben Spalding, Manager of the Australia Ship Simulation Centre, with HR Wallingford's vessel traffic service simulator.*

Ben Spalding, Manager of the Australia Ship Simulation Centre commented: *'The integration works by HR Wallingford's Ship Simulation System linking to OMC International's cloud-based server which runs the DUKC® system. The AIS data of the ship in the simulation is sent to the cloud server which does the calculations and feeds data to the web-based system integrated into HR Wallingford's VTS simulator.'*

OMC International's DUKC® is vital for maximising the restricted tidal window at the world's largest bulk export port, which primarily trades in iron ore, a mainstay of the region's economy. Some of the world's largest ships call to the port of Port Hedland every day and, for example, if a ship's engine fails, the VTS operator can draw on information from DUKC® to enable the Harbour Master to make an informed decision on the next course of action.

DUKC® delivers real-time UKC information during transit to ensure the safety of vessels. Integrating this technology into the full bridge simulators is a great development allowing for realistic training and emergency scenario replication.

Captain Heathcliff Pimento, Port Hedland Harbour Master, added: *'We are pleased that OMC International and HR Wallingford have collaborated on this integration.'*

*'DUKC® and the training at HR Wallingford are critical to our operations. Incorporating the software into a VTS simulator enhances our emergency response training, further increasing safety at our ports, which is paramount for Pilbara Ports Authority.'*

## New guidance - health policies

### New guidance aims to help companies devise and implement mental health policies for seafarers.

An essential new guide *Mentally Healthy Ships* has been launched by ISWAN to provide shipping companies and ship operators with information to help devise and implement mental health policies and practices to promote and protect seafarers' mental health.

ISWAN's earlier series of Good Mental Health Guides, published between 2017 and 2018, aim to offer seafarers evidence-based information about what they can do to protect and promote their own mental health at sea. These guides were designed to adapt the evidence base to the seafaring population by carefully considering ways in which strategies to maintain good mental health and promote wellbeing could be practised on board. However, some of this self-help advice, is only possible if the facilities are made available to the crew. Employers have a critical role to play in executing their duty of care, through mitigating known risks where possible, and ensuring that systems, procedures and structures are in place to create a mentally healthy environment on board.

*Mentally Healthy Ships* is written by Consultant Clinical Psychologist and author of ISWAN's Good Mental Health Guides, Dr Pennie Blackburn. It offers invaluable guidance on why it is vital that procedures and safety planning include due consideration of mental health, as well as information on how to implement it.

Dr Blackburn said: *'There has been a growing awareness in the shipping industry of the importance mental health and wellbeing has in how well we people can function both on shore and on board. I am delighted to be able to share this new guide and I hope that the principles outlined in it will give companies practical and useful ideas to guide them to create Mentally Healthy Ships.'*

The COVID-19 pandemic and related crew change crisis has put unprecedented pressure on seafarers with prolonged time on board exacerbating existing risks to mental health and presenting new challenges. During the peak of the pandemic, ISWAN's 24-hour helpline SeafarerHelp saw a threefold increase in the number of cases and is still dealing with an increase in cases compared with the same time last year. Many companies have recognised the risks to seafarers' wellbeing caused by the pandemic and have taken important steps to improve the support available to seafarers during this time. The crisis has highlighted a great need for all companies to review and strengthen protections to seafarers' mental health as a priority and this new guidance can offer the necessary tools to ensure policies and procedures are robust.

ISWAN Executive Director Roger Harris said: *'Working with shipping companies and others on the mental wellbeing of seafarers has convinced us of the need to produce a comprehensive guide for vessel operators on this key area. We know that this guide will practically help companies develop a mentally healthy environment onboard for all their seafarers.'*

This much-needed resource complements ISWAN's other work on seafarers' mental health having worked closely with shipping companies over the last few years to provide Maritime Mental Health Awareness Training and assistance with mental health support through its 24-hour services.



*Mentally Healthy Ships* is available free for download at <https://tinyurl.com/y3hvhyns> and ISWAN is inviting expressions of interest for an online masterclass on how to make best use of the guide to go ahead early next year.

ISWAN would like to thank Steamship Mutual for their sponsorship of the guide and the International Chamber of Shipping for their endorsement.

For further information about the guide or to express an interest in attending an online tutorial on *Mentally Healthy Ships*, please contact [caitlin.vaughan@iswan.org.uk](mailto:caitlin.vaughan@iswan.org.uk)

### About ISWAN

International Seafarers' Welfare and Assistance Network (ISWAN): A charity and membership organisation which works to promote and support the welfare of seafarers all over the world. The free, 24-hour, multilingual helpline, SeafarerHelp, is one of the direct welfare services that ISWAN provides to seafarers. Others include relief funds for seafarers and their family members in need and a range of health information resources.

ISWAN works with companies, unions, governments, welfare organisations and ports for the implementation of the ILO Maritime Labour Convention, 2006. ISWAN supports those who establish and provide welfare facilities and services in port and on ships. ISWAN is funded by membership subscriptions, grants from foundations, sponsorship and earned income. For more information readers are invited to see: [www.seafarerswelfare.org](http://www.seafarerswelfare.org)

## How the IIoT is about to destroy the Noon Report as we know it

Over the past few years, the Internet of Things (IoT) has emerged as one of the most important technologies of the 21st century. Now that we can connect everyday objects – kitchen appliances, cars, thermostats, baby monitors – to the internet, seamless communication is possible between people, processes, and things. And this megatrend is increasingly moving into the industry, where the Industrial Internet of Things (IIoT) has enormous potential benefits to maritime operations.

In fact, according to McKinsey, if businesses and policymakers get it right, linking the physical and digital worlds could generate up to \$11 trillion a year in economic value by 2025. And what is most exciting for the maritime industry as a whole is that maritime infrastructure, vessels, and equipment are to a large extent already smart, meaning they are already filled with sensors and able to communicate information. The last piece of the puzzle is to simply make the connections.

### Edge computing in the maritime industry

However, while the technology to connect maritime sensors and equipment exists, a key extra challenge has been how to handle the complexity of a large number of different connection interfaces and data protocols of onboard equipment and sensors. Due partly to this complexity, the industry at large has been somewhat behind the curve in IIoT adoption.

But now we are in a new era. Up-and-coming maritime technology providers are developing IoT devices that are capable of collecting vessel data from a far wider range of maritime data protocols, in addition to the ability to run apps locally. The result is something called “edge computing”. The benefits of edge computing is that apps that are available to the crew do not suffer from limited communication or latency issues offshore and that collected data can be stored and processed locally.

### What this means for the noon report

Vessel operations and the global maritime supply chain are increasingly complex and interconnected. Efforts to optimize vessel performance, streamline processes, and optimize supply chains must therefore be supported by the ability to examine every process component and supply chain link in granular detail.

The noon report is the most used form for monitoring vessel operations and performance. But due in part to the complexity above, what started out as an innocent position report has slowly but steadily evolved into a monster – with various formats of noon reports being provided to not just ship owners and managers, but also charterers, sub-charterers, weather providers, ports and terminals, oil majors, commodity traders, agents, and more. Historically, all this data has been manually collected by the crew, and some noon reports have become so elaborate that it takes several hours to collate all the data required from different areas of the ship.





IIoT solutions built for the maritime industry are uniquely positioned to solve all this complexity. With these solutions, data directly from your engines, flowmeters, vessel management system, or navigation equipment can be drip-fed into your reporting. And depending on the solution you work with, it is possible to not only collect generic data points, but also interface with equipment or sensors that are unique performance indicators to your operation.

This means data that is more reliable, from a wider variety of sources, and in much higher resolution – a potential game-changer for operations, as independent research shows that there is a ten-fold improvement in uncertainty achieved using a continuous monitoring set relative to a noon report dataset (Ship Operational Efficiency: Performance Models and Uncertainty Analysis, Lucy Gemma Aldous 2015). The automated collection of data is also valuable in terms of drastically reducing the administrative workload for your crew, and minimizing the chance of human error. Use your noon report data for more than just reporting

But just as important as collecting data is the ability to put it in the hands of people who can make use of it. Obvious ways that it can be accessed and used are in the apps running on the IoT edge device, in the cloud, or as an Excel export. But perhaps the most exciting way is through the unsung hero of our connected world – the API (Application Programming Interface). APIs are the engine that enable different pieces of software to exchange information.

With APIs that already exist today, maritime businesses are able to access performance and reporting data in a uniform way not just from individual vessels, but across their whole fleets. And they are able to share and use it in multiple ways – with their supply chains for on-the-fly efficiency and performance gains, for research, compliance, and more in their own tools, dashboards, and apps. APIs are not only an integration technology but a key strategic asset in the digital transformation of the maritime industry.

### **Leverage better data and rev your growth engine**

With the right data integration and management platform, maritime businesses can finally leverage their data's strategic value, improve operations, increase profits, and strengthen relationships with customers, partners, and suppliers. In manufacturing, it is already recognized that IIoT-powered analytics is no longer a “nice to have”. Companies that seize the opportunity presented by IIoT

now, are going to develop strong competitive advantages in an oversupplied market that will help them power through 2025 – and maybe pick up some of that value predicted by McKinsey.

**To find out more about how access to data is going to transform the maritime industry, please visit:**  
<https://onboard-platform.com/>

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## **Tackling the scourge of container ship fires**

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**By Andrew Gray**  
**Campbell Johnston Clark Limited ©**  
**London**

he proliferation of serious fires onboard container ships in recent years has shocked the shipping industry. Here are considered the causes and impact of such fires and the urgent efforts being made by a wide variety of stakeholders to solve this seemingly intractable problem.

### **Incidence of container ship fires**

Over the last decade there has been a 70% fall in ship total losses<sup>1</sup>. This has been widely credited to long term improvements in ship safety management and loss prevention programmes. Counter to this trend, there has been a substantial increase over the last decade in the number of fires in containers carried onboard container and ro-ro ships. One troubling statistic is that on average there is a fire onboard a container ship every week<sup>2</sup>, with a major container fire occurring on average every 60 days<sup>3</sup>. Nine major container ship fires were reported in 2019<sup>4</sup>. By comparison, despite an overall fall in casualties in the first half of 2020, ten such incidents were reported<sup>5</sup>.

### **Cause**

This disturbing situation has been linked to both supply chain issues, including the widespread non-declaration and misdeclaration of dangerous goods cargoes, and inadequate fire-fighting systems onboard many of these vessels.

About 10% of laden containers or 5.4 million containers being shipped annually are estimated to contain declared dangerous goods<sup>6</sup>. Of these, about 1.3 million containers may be poorly packed or incorrectly identified, indicating the scale of potential risk<sup>7</sup>

A 2020 study by the New York based National Cargo Bureau (NCB), supported by Maersk amongst others, revealed that of 500 containers inspected, 2.5% of DG containers imported to the USA were found to include misdeclared cargoes which represented a serious risk<sup>8</sup>. Another study found there may be about 150,000 volatile containers in the supply chain annually<sup>9</sup>.

Undeclared or misdeclared cargoes which have become notorious for causing container fires include calcium hypochlorite (widely used as a bleaching agent), lithium batteries and charcoal. Non-declaration or misdeclaration of cargoes is generally understood to arise from shippers' attempts to pay lower freight or circumvent restrictions on the carriage of dangerous cargoes.

## Dealing with fires onboard

There has also been widespread concern about the suitability of existing ships' fire-fighting systems to deal with container fires. A 2017 study highlighted that systems originally developed for fighting fires in general cargo ship holds have proved to be unsuitable for container vessels<sup>10</sup>.

Smoke detection and CO<sub>2</sub> fire-extinguishing systems developed for large open holds may be completely ineffective within the confines of individual containers stowed beneath hatch cover pontoons which are not gastight. There are calls for more sophisticated fire detection systems, utilising infrared cameras or thermal sensors installed both below deck and on deck.

While the containment of a fire within a limited number of containers remains the approved method of firefighting onboard a container ship, the equipment available is often unsuitable. Many stakeholders warn that new technical solutions are needed to make this approach effective. These issues have only been magnified by the steadily increasing size of container ships from 10,000 TEU vessels in 2005 to ultra large container ships in excess of 20,000 TEU today.

Improvements have been made to new vessels constructed after 1 January 2016 under amended SOLAS regulation II-2/10, but there are calls for substantial changes to existing ships' firefighting systems<sup>11</sup>. These include utilizing the ship's structure to create more effective fire compartments while installing enhanced below deck and on deck water-based systems to cool the ship's superstructure and prevent fire spread.

On deck, monitors should be installed to create water curtains which can cool the maximum height and width of container stacks, particularly on the very much larger container ships now at sea<sup>12</sup>. Other innovative fire-fighting systems are being deployed such as HydroPen, which drills through the container door and then switches mode to spray water inside the container<sup>13</sup>.

Without adequate ship's firefighting systems, the ability of a container ship's crew to respond to and contain a blaze is severely limited. Despite the undoubted bravery and professionalism of crews in tackling such fires, external assistance is invariably required. The ship may be a considerable distance from shore and, even when outside assistance arrives, such fires may take weeks to be brought under control. Meanwhile, a further concern is the pressure placed on the resources and expertise of the global salvage industry in dealing with the rising numbers of major container fires.

## Loss and damage

As a specialist shipping law firm, we are only too aware of the increasingly severe consequences of large container ships fires. Not only have such events resulted in the injury and death of many crew members and others over the years, but the environmental implications and financial losses continue to be significant.

Apart from needless injury and loss of life, potential losses from a container ship fire might include hull damage, total

loss of the ship, cargo and container loss and damage, claims between ship owners, charterers and slot-charterers, environmental damage prevention and clean-up, salvage costs, wreck removal, fines, investigation and legal costs.

With the increased size of container ships and their carrying capacity, a large container fire will severely impact the global marine insurance and P&I market with the sheer value of the property at risk, not to mention the GA effort of trying to collect security, vastly scaled up for the largest container ships. With present claims potentially running into tens or even hundreds of millions of US\$, there is the fear that a total loss of a 20,000 TEU vessel and her cargo might exceed US\$1 billion.

A considerable burden is also placed on the salvage industry and external firefighting services, with the significant challenge of fighting such fires due to the increased beam and stack heights of the larger container ships.

In addition, ports of refuge face the nightmare of how to deal with say 10,000 burned-out container shells and their cargo, many of which are not insured and are abandoned. For example, exemplary support was recently given by the Singapore MPA and PSA in providing a port of refuge to *MOL Charisma*, the latest victim of this year's major container fires.

The human and financial carnage inflicted by a single undeclared or misdeclared cargo in a badly stowed container onboard a modern container ship cannot therefore be overstated.

## Solutions

Major efforts are however underway to deal with this problem from both the supply chain side and in improving the firefighting systems onboard.

In an ideal world every cargo loaded in every container would be checked before shipping, but the cost of such an undertaking would be immense. At the same time, there are calls for more widespread spot checks by IMO member states and shipping lines to help identify undeclared or misdeclared cargoes.

Leading stakeholders are also working together to develop systems which reduce risk. The Cargo Incident Notification System (CINS) has over a number of years shared information on cargo related incidents and identified commodities which commonly cause problems during transportation<sup>14</sup>.

A number of shipping lines are using artificial intelligence to develop increasingly sophisticated algorithms to search through their booking systems to identify potential misdeclaration, including Hapag-Lloyd's Cargo Patrol, Exis Technologies' Hazcheck Detect and ZIM's ZimGuard.

Other ventures include the Maritime Blockchain Labs (MBL) Misdeclaration of Dangerous Goods pilot, using blockchain technology to verify documentation and demonstrate the end-to-end delivery of dangerous goods<sup>15</sup>.



Meanwhile, IUMI and other major stakeholders have co-sponsored a submission to the IMO Maritime Safety Committee's 102<sup>nd</sup> session to amend SOLAS in respect of improved detection, protection and firefighting capabilities onboard container ships<sup>16</sup>.

Further pressure may also need to be brought to bear on rogue shippers by building a world-wide consensus for those misdeclaring dangerous container cargoes to face criminal sanctions in their home country, with jail time for deliberately endangering life and the marine environment.

## Conclusion

**Campbell Johnston Clark's** global team has offices in London, Newcastle, Singapore and Miami. It advises on all aspects of shipping and international trade, from handling major casualties to dry shipping litigation and ship finance. It has been involved in many significant ship and container fire cases over the years. Most recently, its Singapore office has acted in the *Mol Charisma* container ship fire which occurred off Sri Lanka in September of this year (2020).

## Editor's note

As a firm Campbell Johnston Clark Limited shares the serious concerns of its clients and the wider shipping industry about the proliferation in container ship fires. The firm strongly supports the numerous efforts being made by different sectors, from the supply chain side to shipboard improvements, to bring this unhappy chapter in shipping history to a close.

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<sup>1</sup> Allianz Safety and Shipping Review 2020

<sup>2</sup> Gard conference – Container ship fires – 31 October 2019

<sup>3</sup> TT Club – Campaign for Greater Container Safety – March 2019

<sup>4</sup> National Cargo Bureau (NCB) white paper – 6 July 2020

<sup>5</sup> Cefor - *ibid*

<sup>6</sup> Gard Insight – Tackling cargo misdeclaration – 21 March 2018

<sup>7</sup> TT Club – *ibid*

<sup>8</sup> NCB – *ibid*

<sup>9</sup> TT Club – *ibid*

<sup>10</sup> IUMI Position Paper on firefighting on container vessels and proposal on firefighting systems by the German Insurance Association (GDV) – 18 September 2017

<sup>11</sup> IUMI Policy Agenda – 10. Safety of container vessels – 24 August 2020

<sup>12</sup> IUMI and GDV - *ibid*

<sup>13</sup> Gard conference – *ibid* – Rosenby Engineering HydroPen™ distributed by Viking Life-Saving Equipment

<sup>14</sup> TT Club - *ibid*

<sup>15</sup> <https://wearebloc.io/labs>

<sup>16</sup> Policy Agenda - *ibid*

## Clear Seas launches new webpages

### Outlines step by step response to ship-source spills in Canadian waters

Despite a drop in marine oil spills worldwide due to improved safety measures, Clear Seas' latest public opinion survey revealed that ship-source spills are still a top concern for Canadians. It will be recalled that in Newsletter 35 we carried an article on Clear Seas' work on page 18.

Catastrophic events such as the major oil spill that occurred in July 2020 off the coast of Mauritius (see the IMO's illustration here and response at: [Responding to MV Wakashio oil spill \(imo.org\)](https://www.imo.org/en/pressroom/newsandmedia/pressreleases/Pages/pr20-022.aspx)) also raise questions about the response resources available in Canada to clean up oil spills and how to protect the marine environment and coastal communities.



To provide a detailed answer to those questions, Clear Seas has developed a unique, highly visual webpage cataloguing Canada's spill response assets and processes. This comprehensive resource highlights the role of the different organizations involved in oil spill response from coast to coast to coast, the sequence of events if an oil spill happens, and the tools and techniques available to recover oil from the water and shorelines.

**The webpage is available here:** <https://tinyurl.com/y8jbttny>

As part of Clear Seas' mandate to provide impartial and fact-based information on the topic of safe and sustainable marine shipping in Canada, this Key Issue webpage was created to help better understand:

- The rules and regulations that come into effect once an oil spill is discovered.
- The role of the Canadian Coast Guard in making sure that polluters take the necessary action to clean up the spill and how other stakeholders participate in the response.
- The important role Indigenous and coastal communities play in the response operations.
- The latest research and information on how different types of oil, including diluted bitumen, are recovered.
- What happens to oil when it's spilled in water and how is the oily waste disposed.

**For information on Clear Seas readers are invited to see here:** <https://clearseas.org/en/>

Illustration per [www.imo.org](https://www.imo.org) IMO ©

## Sharp Crewing Services establishes own Covid-19 Manilla testing centre

Philippines- and Singapore-based crew specialist CF Sharp has established its own Covid-19 testing centre in Manila to speed up its crew change process. This was reported in early December.

Sharp, which earlier in 2020 repatriated more than 12,000 crew members from cruise ships around the world, is now understood to be using its expertise to assist with crew changes for commercial vessels at anchor off the Philippine coast. The organisation has set up a coronavirus testing regime at the company's Seafarer Family Center in Manila in order to give it more control over the crew testing process.



*Seafarer being tested for Covid-19 coronavirus at CF Sharp's testing centre in Manila, Philippines.*

Partnering with Safeguard DNA Diagnostics Inc (SDDI), CF Sharp is able to undertake speedy and cost-effective testing to enable crew changes via Manila ports, it is reported. SDDI operates a diagnostics laboratory and is duly licensed and accredited to perform clinical laboratory testing and diagnostics procedures by the Department of Health. The company is able to carry out Real-Time Polymerase Chain Reaction Process (RT-PCR) on returning or departing seafarers in order to enable crew changes to take place swiftly and successfully. Most countries currently require a valid RT PCR certificate to be obtained within 72 hours of transit, it is understood.

Roger Storey, Managing Director, CF Sharp Crew Management, Singapore, explained: *'Having undertaken such a large-scale repatriation process on behalf of our cruise principals when the pandemic first struck, our staff have gained considerable expertise in how best to manage crew transits, particularly with regard to the regularly-changing rules, restrictions and testing regimes. We identified testing as being an area where we could streamline the process and, since our Family Center is not currently operating, we were able to set up a testing facility there.'*

*'Having our own test centre means we can control the procedure and ensure crew are processed promptly and receive their results in good time to facilitate their on bound journey either home or to their vessel. Speeding up*

*the testing regime also saves ship operators money which is important since crew change costs around the globe have almost doubled as a result of the pandemic. At this difficult time the shipping industry must do all it can to support our seafarers while they keep the world supplied with trade and aid.'*

CF Sharp's facility houses two testing booths and can process up to 50 crew each day. The service operates in a Covid-safe manner and the swab test itself only takes three minutes to perform. In addition to carrying out tests at the CFS Family Center, the swab team also undertake testing in the hotels where onsigners (mainly for the many cruise vessels for which CF Sharp provides crew) are undergoing isolation prior to dispatch. The testing team can carry out hundreds of tests each day if needed.

Furthermore, the company also keeps a comprehensive list of returning crew each month in coordination with crewing managers. In line with Philippine Government regulations, CF Sharp staff meet all offsigning crew at the airport and escort them to their assigned quarantine hotel in Manila. All crew members arriving at the airport undergo RT PCR testing and remain at their quarantine accommodation until their results arrive back – usually within two to three days, although this can be as quick as 24 hours if needed.

If the result returns as negative the seafarers are then free to return home or take an outbound flight. If the test is positive the seafarer is taken to a Philippine Government quarantine facility to continue their isolation period under medical supervision. During this time CF Sharp staff monitor and assist crew, making sure they are safe.

**For advice on crew changes in the Philippines or Singapore readers are invited to contact Roger Storey on email: [md@scspl.com.sg](mailto:md@scspl.com.sg)**

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## The World of the Seafarer

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**Published by Seafarers' International Research Centre  
Cardiff, Wales, UK**

From the Seafarers' International Research Centre (SIRC) it is reported that the open access book *The World of the Seafarer* authored by staff and alumni of the Centre is now available. Publication has only been possible with the generous support of The Nippon Foundation for which the Centre expresses heartfelt gratitude.

Professor Helen Sampson, Director of the SIRC informs us that the open access nature of the book means that it can be read by anyone, anywhere in the world free of charge.

To access the book readers are invited to follow this link: <https://tinyurl.com/ycawoc9l>

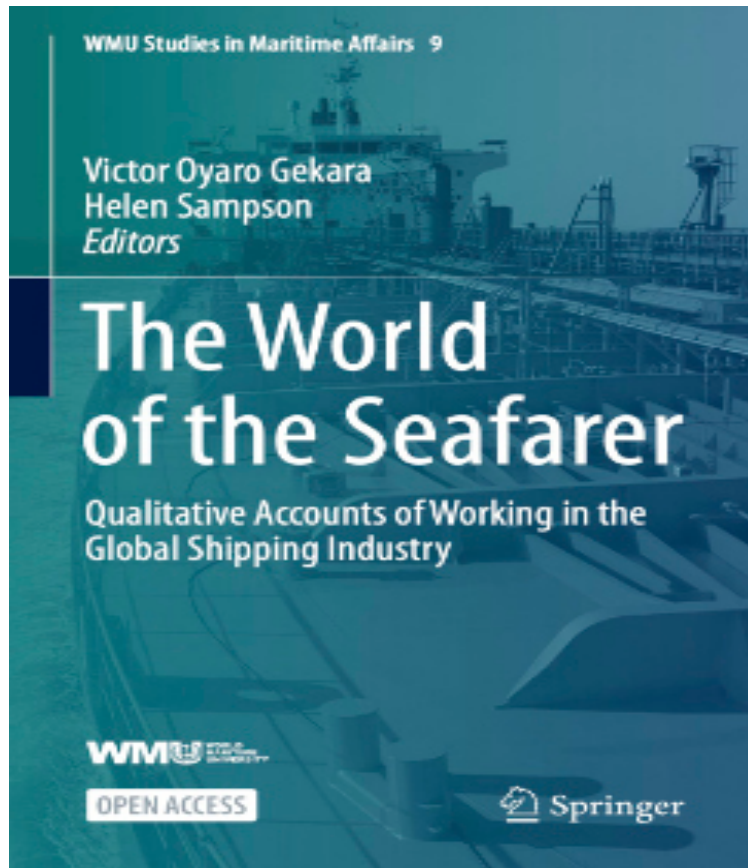
Professor Sampson is one of the book's editors, the other is Victor Oyaro Gekara of the School of Accounting Information Systems and Supply Chains, at RMIT University at Melbourne, Australia.

This volume, with the sub-title *Qualitative Accounts of Working in the Global Shipping Industry* deals with contemporary issues relating to the life and work of seafarers and to the modern shipping industry. It is written



by leaders in their field and provides an account that is global in reach and yet detailed and empirically rich.

Here is an ethnographic mosaic which depicts the contextual complexities of the life and work of seafarers who are employed in the international merchant cargo fleet. The compilation is based upon observations and interviews of researchers in multiple disciplines. It is woven together to offer a richly detailed insight into the ways in which a complex global industry operates internationally.



Furthermore, the book covers issues to do with career decisions and recruitment, gender, life and work on board multinational vessels, health and safety issues, the regulation of the industry, shipboard roles and role conflict, and the representation of workers.

This title will be of considerable interest to all students globally who are studying for professional seafaring qualifications, to graduate students studying for masters courses in ship and port management, and to welfare professionals and policy makers. It is of special interest to those connected to the shipping industry who specialize in issues relating to the human element and will serve as a paradigm defining text in this area.

*The World of the Seafarer: Qualitative Accounts of Working in the Global Shipping Industry* is available in hardcover at €51.99. It is recorded in catalogues as ISBN 978 3 030 49825 2

## SIRC

For information on the Seafarers' International Research Centre readers are invited to see here: [www.sirc.cf.ac.uk](http://www.sirc.cf.ac.uk)

## Inmarsat report

### *Digitalisation uncovered: What's next for shipping?*

On 14 December Inmarsat reported the issue of a document entitled *Digitalisation Uncovered*. This captures insights from ship owners and ship managers in a period of technology transition. Increasing commitment to IoT-enabled solutions and a broadening range of applications in use signal a clear acceleration in maritime digitalisation, but challenges remain, we understand.

Data collection and analysis was carried out by Informa Engage, on behalf of Inmarsat. Data was collected from 8 April through to 31 May 2020.

Methodology conforms to accepted marketing research methods, practices and procedures. On 8 April Maritime Intelligence e-mailed invitations to participate in an online survey to members of the Lloyd's List Intelligence database.

By 31 May Informa Engage had received 368 survey responses, and delivered the results and analysis. Only respondents who had a role in the purchase and application usage of digital solutions qualified to participate in the survey

*Digitalisation Uncovered – What's Next for Shipping?* includes interviews with ABB, Bureau Veritas, G2Ocean, and Hempel and outlines how Inmarsat's digital solutions, in collaboration with an ever-increasing network of certified partners, are supporting the industry's key digitalisation drivers in real-time, including operational efficiency, regulatory compliance and crew training.



*Digitalisation Uncovered – What's Next for Shipping?* provides information on:

- Key drivers of digitalisation
- Costs-versus-savings of digitalisation
- Which solutions are attracting the most interest
- Range and scope of suppliers, from start-ups to established original equipment manufacturers (OEMs)

It should be acknowledged that Covid-19 has prompted a significant increase in the use of video-based connectivity by crew, for social and welfare reasons. It is highly likely that repeating the research behind *Digitalisation Uncovered* over the next few months would find far more than 17% of respondents identifying crew welfare issues as a top three driver for digital adoption.

## Danica's annual seafarer survey

### Seafarers' Employment Condition Survey 2020

It was reported on 14 December that Hamburg-based Danica's annual Seafarer Survey shows crew training is benefiting from digital delivery at the same time as seafarer training has increased and improved this year – thanks to shipping companies embracing the use of digital technology.

#### Training online increase

A survey by crewing specialist Danica revealed that nearly a third of all seafarers who responded to say they had received training from their company this year had been trained online – a huge increase from just 4% in 2019. And 63% said they found that training to be useful – a 10% increase on last year.

Danica Managing Director Henrik Jensen commented: *'Our results demonstrate that shipping is embracing new ways of working and that digital training methods are proving to be a success. I predict this situation will continue and online crew learning will become widespread for many seafarers.'*

#### East European database

Danica's annual Seafarer Survey entitled *Seafarers' Employment Condition Survey 2020* was conducted between May and October among its database of more than 43,000 Eastern European seafarers. This year 8,392 crew responded, the majority of whom were senior officers.

The survey found that training is a significant factor in a seafarer's life with almost 54% reporting their company had provided training during their home period – a slight increase on 2019 (52%), despite the pandemic. The most common areas of training include planned maintenance, MARPOL regulations and safety management systems.

However, the Covid-19 pandemic has changed the way training is delivered. Nearly 30% of the seafarers who were given training conducted it online while the use of CBT training has nearly doubled since 2019. In contrast, participation in company seminars has dropped from 55% in 2019 to 40% in 2020, reflecting the difficulties in travelling this year.

It also seems that the quality of training has improved: 63% of respondents reported they found their training useful (up from 53% in 2019). And, importantly, 85% of those who participated in online training said they found it to be better than classroom training.

#### Online to replace classroom teaching

Jensen says he anticipates online training will replace classroom-based teaching for a wide range of seafarer qualifications, especially those required regularly for certification updates. In fact, he is so sure of this eventuality that Danica has begun delivering many of its courses via distance-learning methods.

He adds: *'The Covid-19 pandemic and the many travel restrictions around the globe have meant the maritime sector has had to adapt to new ways of studying in 2020.'*

*'Distance learning solutions enable seafarers to study at home or on board at a time that suits them, without the need to travel to a classroom. This reduces the amount of time crew have to spend away from their families during their onshore leave, as well as saving the company money in hotel, travel and refreshment costs.'*

Jensen reflected that he isn't surprised that Danica's survey shows seafarers are responding positively to remote ways of training. He explained: *'Digital training is often more flexible, combining a mix of online tutorials, self-work and one-to-one teaching, backed up by verification processes. We have found this blended format leads to higher levels of concentration, commitment and confidence.'*



#### Increasing internet demand

The 42 question survey also identified that seafarer demand for access to the internet and personal e-mails while at sea has increased and continues to be a significant factor for crew when choosing an employer. While almost 50% of respondents received free access to the internet and a further 38% were able to access the internet with associated charges, 40% of crew said they would change employer in order to gain access to the internet while at sea (up from 32% in 2019). In fact, Jensen advises that Danica is finding it increasingly difficult to encourage crew to take up employment on vessels which don't provide personal internet access.

Salaries remain the key driver for crew switching employers with almost three quarters of respondents (74%) commenting that a higher salary would persuade them to move on. However, the survey also showed that overall wage levels have remained fairly static throughout 2020, with some demand-driven fluctuations caused by pandemic travel restrictions affecting particular regions and thereby driving up demand in less affected countries.

Fringe benefits remain important to seafarers, particularly health insurance for themselves and for family members, pension provision and shorter contract periods. Ship operators take note – a massive 92% of respondents admitted to checking the employment market during their home period!



While 77% of seafarers said they would recommend their employer to a friend (up from 73% in 2019), the survey also revealed a worrying reduction in safety levels with 15% of seafarers reporting they felt they had worked under unsafe conditions (a big rise from 5% in 2019) while 12% said they had experienced a violation of rest hour rules and 13% admitted they had suffered workplace stress.

Furthermore, Jensen commented: *'While the majority of our respondents said they had changed companies due to fleet-related redundancy, salary or promotion opportunities, or in order to work on a newer vessel, it is nevertheless important that, as an industry, we work together to address any slips in standards of employment for the hundreds of thousands of seafarers who have kept world trade flowing over this difficult year.'*

The full survey results can be found on the Danica website here: <https://tinyurl.com/ycxz36gy>

### About Danica

The company has its own network of manning agencies across Eastern Europe. With the first office established in Odessa in 2009, Danica now also boasts offices in Saint Petersburg, Vladivostok and Nakhodka in Russia, and in Riga, Latvia. Presently, Danica deploys more than 1,400 seafarers to a wide range of international vessels owned by blue-chip ship owners.

Danica connects vessel owners via a single point of contact to a large pool of competent officers and ratings. Ukraine is the world's third largest provider of ships' officers with some 36,000 experienced officers working for foreign ship owners and managers, while Russia is the fourth largest provider with 27,000 officers. The Baltic countries (Estonia, Latvia and Lithuania) boast a total of 12,000 officers.

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## e5 Lab and ClassNK sign joint research agreement on cyber security

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On 15 December it was reported that e5 Lab Inc (hereinafter known as e5 Lab) and ClassNK have signed a joint research agreement on cyber security. For their first joint research project, they will conduct a proof of concept (PoC) on Marindows, a comprehensive digital platform for ships being developed by e5 Lab.

### About Marindows

e5 Lab is developing a comprehensive digital platform for ships (Marindows) that consists of connection and applications necessary for the unmanned (robotic) operation of ships.

Marindows not only significantly improves the safety, productivity and efficiency of ships, but also enables them to evolve at the speed that software evolves, rather than at the speed of hardware as in the past. With OTA (Over the Air) updates, Marindows will continue to evolve to become safer, smarter, more efficient, and environmentally friendly.

The comments regarding this joint research are as follows: e5 Lab, Chief Technology Officer (CTO), Mr. Yasumasa Suetsugu who said: *'e5 Lab will create new value and business in environment (EV) and digital (Marindows), the growing industries of the 21<sup>st</sup> century. Working with the best partners domestically and overseas, Marindows will bring unprecedented innovation to the maritime industry.'*

*'By considering cyber security together with ClassNK, a cybersecurity expert in the maritime industry, we will expand the speed and scale of the digital revolution in the maritime industry that starts with Marindows. Digital and cyber security must be considered as a set, and I am deeply grateful for the opportunity to actively collaborate with ClassNK.'*



ClassNK, Executive Vice President, Director of Innovation Development Division, Mr Hirofumi Takano added: *'We are very pleased to sign this joint research agreement with e5 Lab, who is engaged in cutting-edge digital initiatives, and be involved in such an advanced project. Cyber security measures must be widely implemented since the comprehensive digital platform for ships needs to connect various devices and systems on board. Through this joint research, we would like to verify the best practices that the Society has jointly established with cooperating organizations, together with the e5 Lab experts, and use the knowledge obtained to establish standards for comprehensive digital platform for ships.'*

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## ABB Marine & Ports opens new lab to stress-test cyber threats to shipping

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ABB Marine & Ports' cyber security laboratory has opened at a key moment in shipping's digital development as stricter maritime cyber security rules enter in to force on 1 January 2021. This was reported by the company on 15 December.

In line with the guidelines set out by the IMO, the new laboratory features hardware and software systems developed to help ship owners and operators combat the maritime industry's growing cyber security risks. Customers are now being invited for virtual demonstrations of the laboratory's systems and capabilities it is understood.

With the rise of smarter, more connected systems, IMO urges all shipping companies to demonstrate that cyber threats are part of every vessel's Safety Management

Systems (SMS) risk assessment from 2021 onwards. According to IMO's guidelines on maritime risk management: *'ships with complex cyber-related systems may require a greater level of care and should seek additional resources through reputable industry and government partners.'*



To quote Ahmed Hassan, Head of Cyber Security, ABB Marine & Ports: *'Cyber security is not a product but an evolving target which needs constant monitoring, managing and updating.'*

*'As a single vendor offering operating technology (OT) and cyber security, we recognize that managing cyber security is a careful balance between risk, functionality and cost. The principles of cyber security must apply across all maritime stakeholders, from designers and builders, to owners, operators and crew; and from classification societies to universities and research bodies, government departments and insurers.'*

ABB Marine & Ports' new laboratory will offer cyber security support for shipping companies at all stages of digitalization and has the flexibility to meet various levels of cyber security requirements. While some companies may only require a one-off assessment of existing OT installations, others may need a long-term approach with continuing support.

New services offered by the ABB Marine & Ports cyber security lab include:

- Reference architecture that targets network segmentation and segregation.
- Enforcing security policies to zones and conduits.
- Ability to monitor network traffic and act on vulnerabilities.
- Ability to collect and manage security logs for the control system components.
- ABB Ability™ Cyber Asset Inventory solution, which discovers and records system inventory, as well as notifies about vulnerabilities.
- Event monitoring, which enables sending alerts to crew members as well as ABB Ability™ Collaborative Operations Centers worldwide.

Hassan concluded by saying: *'Our systems have been developed to address the very latest threats and solutions*

*available in cyber risk management. The new cyber lab confirms our position as a front-runner in the field of maritime security compliance.'*

## DNV GL awards AIP to Daehan Shipbuilding for small-size LPG carriers

It was announced from Mokpo, Republic of Korea on 15 December that DNV GL has awarded an Approval in Principle (AIP) to Daehan Shipbuilding (DHSC) for a new design of small-size LPG carriers in the range of 5,000-7,000 DWT.

The AIP handover ceremony took place recently at the DHSC headquarters in Mokpo. Dae-Seong Jeong, DHSC President & CEO, and Vidar Dolonen, Regional Manager Korea & Japan at DNV GL - Maritime, attended the presentation.

Prior to the AIP, DHSC and DNV GL had teamed up in a joint development project (JDP) on small-size LPG carriers using LPG as dual fuel. While DHSC worked to develop new vessel designs DNV GL reviewed both the basic and detailed designs in accordance with relevant rules and regulations. It also provided technical advice and recommendations by their gas carrier experts to help enhance the design development.



*The AIP handover ceremony took place at the DHSC headquarters in Mokpo, Republic of Korea. **Front row:** Yang Soo Kang (DHSC), Jeong Eun Lee (DNV GL), Dae-Seong Jeong (DHSC), Vidar Dolonen (DNV GL), Kyung Seok Lee (DHSC), Sung Ho Shin (DNV GL), Young Wook Min (DHSC). **Back row:** Seung Gan Kim (DHSC), Kyong Ho Kim (DNV GL), Yong Shik Choi (DHSC), Keum Il Yoo (DHSC).*

In the words of Dae-Seong Jeong of DHSC: *'With the designs verified by DNV GL, we are now able to offer our expanded shipbuilding capabilities to the market. The vessels will be future-proof from an environmental perspective and meet the growing demand from shipowners for efficient small-scale LPG carriers.'*

DNV GL's Vidar Dolonen added: *'We are pleased to award the AIP to DHSC, which assures that the design of these new LPG carriers complies with class rules and the relevant regulations. Our close cooperation was key to the development of this new ship type for DHSC. Having successfully worked together on prior projects, like Daehan's first Suezmax tanker and their shuttle tanker*



series, we wish the yard best of luck with the new LPC carrier design and look forward to continuing the good collaboration in the future.'

It is understood that DNV GL provides technical support to relevant stakeholders during all stages of a gas tanker's life cycle, including innovative class notations such as Gas fuelled LPG. To better serve customers' needs, gas experts of the classification society are located around the globe to work with yards and ship owners as closely and efficiently as possible.

For more information about DNV GL – Maritime readers are invited to visit <https://www.dnvgl.com/maritime>

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## Mental Health Support Services (MHSS) delivers free services to seafarers

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One of the shipping industry's leading specialists in seafarer mental health support is offering seafarers and shore-based staff free access to clinical psychologists and a confidential 24/7 mental health hotline to help them over the festive period. This was reported on 21 December.



Christian Ayerst, CEO

Mental Health Support Solutions (MHSS) is increasingly concerned that some seafarers may not be getting the right level of support they need during this difficult time and that separation from loved ones over the festive season, on top of COVID-19 fears, the crew crisis, family anxieties and many other concerns and worries, may be too much for some of them to bear.

Christian Ayerst, MHSS CEO, commented: *'The festive season is known for being one of the hardest times of the year for those away from loved ones. We are aware of the hardship seafarers have taken on during this very difficult year and we want to offer them our support. MHSS is therefore, keen to offer them free access to all its services which include one to one therapy as well as a confidential 24/7 mental health hotline run by clinical psychologists. Our team of experts is on hand to support them during this difficult time.'*



Charles Watkins  
Managing Director

Charles Watkins, Clinical Psychologist and Managing Director at MHSS, added: *'Mental health is such a complicated subject matter because everyone has their own unique set of circumstances and concerns. Each case is different and requires a personal and considered approach. This year has been damaging to seafarers' mental health and we felt it vital that we step up and support them. We do not want seafarers struggling more than necessary over the festive season. Offering our services over this period is the least we can do for them.'*

Ayerst concluded: *'Seafarers have given so much to everyone throughout the pandemic. We want them to know that we're here to support them during challenging times too.'*

**To gain free access to MHSS' services to provide mental health guidance to seafarers and shore-based staff readers are invited to contact by e-mail here: [info@mentalhealth-support.com](mailto:info@mentalhealth-support.com)**

**For further information on MHSS see here: [www.mentalhealth-support.com](http://www.mentalhealth-support.com)**

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## From the Office

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The IFSMA work tasks continue to be carried out from our home offices, including virtual meetings. The South East of the UK is at present in the highest level of lockdown. Though it is not impossible the level might be increased even more if the number of COVID-19 infections continues to increase. The hospitals are nearly all full in UK.

### Did you know:

A maritime lien survives a change in ownership of the vessel.

An action in rem is an action against a ship itself. The practice is to describe the defendant in the writ as "Owners of [X] ship" without naming the owners. The owners themselves then enter an appearance in the proceedings, at which point the claim converts from an in rem action to an in personam action.