



## Crew changes

Still critical in Covid-19 world

- Automation set for change in 2021
- Sulphur 2020 – in practice
- Enclosed safety remains crucial

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## IN BRIEF

### Tech award

Marine insurer North P&I Club has won the 2020 SAFETY4SEA Technology Award for its digital Covid-19 tracking tool, after a public vote recognised the solution as the year's stand-out technological contribution to maritime safety. Hosted on MyGlobeView, the tracking tool provides live updates on developments related to Covid-19, with data provided by North correspondents as well as international maritime and health organisations. This allows users to plan their operations based on the most up-to-date information regarding infection rates, port entry requirements, quarantine rules and more.

### Online safety

Britannia P&I Club has launched a proactive online safety campaign, BSafe. Developed by the Club's loss prevention team with the support of its people risks claims department, BSafe is targeted at its members' seafarers, with the aim of helping to influence behaviours and prevent onboard injuries and losses. Britannia recognises the demands and pressures on people who work on board its members' ships. By sharing relevant, useful and practical material to support various aspects of onboard operations, the aim of BSafe is to support seafarers through a website providing best practice information and the latest thinking on onboard safety and security. As BSafe develops, the Club will be uploading new material and initiatives to the site to provide further support and advice to seafarers.

### Best year

After a good year for the Republic of the Marshall Islands (RMI) fleet in 2019, the RMI Maritime Administrator has remained focused on enhancing resources despite the challenges 2020 has brought to the shipping community. The RMI had its best performance year on the Paris Memorandum of Understanding white list, its 16th consecutive year with the US Coast Guard's Qualship 21 programme, it remained as one of the top performing flags on the Tokyo MoU and also improved its standing with the Australian Maritime Safety Administration.

## Crew change protocol recognised at IMO

An important reference set of protocols to ensure safe ship crew changes and travel during the Covid-19 pandemic has been recognised by the IMO's technical body, the Maritime Safety Committee (MSC). The Committee has approved an MSC circular recognising the industry-developed protocols, which set out general measures and procedures designed to ensure that ship crew changes and travel can take place safely during the pandemic.

Currently, hundreds of thousands of seafarers are stranded on board ships, having seen their contracts extended beyond the maximum duration of service periods accepted under international treaties, ie 12 months, and a similar number of seafarers are waiting to join ships. The protocols also emphasise the need for governments to designate seafarers as key workers, acknowledging they provide an essential service. The protocols include practical steps for joining and leaving ships, including the need for compliance and strict adherence with Covid-19 testing and quarantine requirements, and measures to prevent infection on board ships. They are a living document which will be updated in line with developments concerning the pandemic.

Up-to-date information on national focal points and on ports which facilitate crew changes will be made available on a new module in the IMO's Global Integrated Shipping Information System (GISIS), following the agreement of the Committee. The MSC agreed that IMO, working with the International Labour Organization and the International Civil Aviation Organization, would develop a universal non-text logo or symbol that enables seafarers to identify, and consequently access, dedicated resources and processes on ship, in port and in transit to/from ships. Such a logo will have a longer term benefit by guiding seafarers to services which should ultimately support better safety outcomes.

The MSC also agreed a unified interpretation related to delays in delivery of ships, during the Covid-19 pandemic. The unified interpretation of SOLAS Regulation II-1/3-10 concerns the term "unforeseen delay in delivery of ships".

In addition, the MSC discussed a proposal to develop guidance on the implementation of remote surveys. The proposal recognises that the use of remote surveys is expected to continue to increase in the years ahead, even after the pandemic ends. The MSC noted that developing such guidance would require detailed technical consideration by experts, which should also include matters related to cases of force majeure. **MRI**

## Warning on ignoring crew change rules

Intercargo, the body representing the interests of dry bulk sector operators, has learned that in a number of instances, charterers in the dry bulk sector have been preventing much-needed crew changes from taking place during the period of the charter, despite the shipowner agreeing to accept the associated costs. In these instances, the charterers have been seen to simply ignore relevant provisions and charterparty clauses that could be employed. Indeed, it has been reported that bulk carriers changing crews in certain countries in south-east Asia are being treated as "toxic" by charterers for the 14 days following the crew change.

Intercargo said that it "strongly condemns the non-compassionate practices of some charterers of dry bulk carriers, in their rejection of crew changes outright during the charter period. This flies in the face of industry-wide efforts to offer seafarers the essential rest that they have been so long without during the Covid-19 pandemic and which is essential to the safe operation of the shipping sector. Ironically, this appalling practice has been reported primarily in the dry bulk sector, where the prevention of seafarer fatigue is of special concern. Bulk carriers on tramp trading routes call at many more ports than other shipping sectors, piling added strain on an already fatigued workforce with no hope of crew change.

"Intercargo wishes to state unequivocally that this issue goes further than the charterer's corporate social responsibility or environmental, social and governance responsibilities, and displays a clear lack of appreciation of one of the greatest humanitarian crises to affect the maritime sector."

• For more on crew safety see pages 11 to 13. **MRI**

## Beware of human trafficking scams

The International Transport Intermediaries Club (ITIC) is warning its ship and port agent members to be aware of approaches from people traffickers attempting to smuggle illegal immigrants through their ports. Traffickers, pretending to be shipping companies, are approaching ship agents and requesting them to handle a change of crew, including booking travel and accommodation. Operating through an agent in this way gives the traffickers a degree of legitimacy and provides a cover for their illegal operations. Often the ship agent will make the arrangements, but the migrants will simply disappear.

Andrew Jamieson, ITIC's claims director, explains further: "This is not a new issue, but we have seen a re-emergence of this scam. Sadly, in the past, some of our members have fallen for this scam and have been left with unpaid hotel bills and other expenses. More seriously, they can face fines from the immigration authorities plus liability for detention and repatriation costs if the migrants are caught."

He continued: "Coronavirus has impacted heavily on the process of crew changes and this appears to have shifted focus away from people smuggling. Traffickers are resourceful and can pass themselves off as a legitimate vessel operator. Not every offer of business is genuine and due diligence should be carried out on all potential new clients. We urge our members, and others, to remain extremely vigilant." *MRI*

## Opportunity to reduce risks in hoists and lifts in major safety step forward

William Hackett has released an industry report to help minimise the risk of hydrogen embrittlement (HE) and stress-induced corrosion cracking (SICC). The report includes guidance on material choices used in topside and subsea lifts, and is seen as a major step forward in increasing awareness for offshore operators of the risks associated with HE and SICC. Ben Burgess, director of William Hackett Lifting Products, said: "There is a real concern across the industry regarding the impact of HE and SICC on chains and links used in lift and hoist projects across offshore environments."

Dr Emilio Martínez-Pañeda, assistant professor at Imperial College London and a world-recognised expert in HE, welcomed the report. While not directly involved in the report's findings, Dr Martínez-Pañeda emphasised the challenging nature of HE and its important implications: "Hydrogen is famed for causing notorious structural integrity problems that are difficult to predict, and there is a need for new guidelines and solutions."

"Based on our own experiences of how our products perform offshore, combined with the manufacturing expertise of McKinnon Chain and outcomes of detailed technical analysis by industry partners, we have identified that as material hardness exceeds 39 to 40 HRC (the Rockwell C scale), the risk of HE and SICC increases as the hardness values rise," added Burgess.

But the issue of HE is not limited to just one type of activity. Examples include the failure of G10 welded chain slings in a container fleet in Norway, to the US where a global oil company had to withdraw a number of lifting appliances and promptly introduced an inspection regime before any future lift work was carried out.

The report also highlights that, while products may be fully compliant with relevant international standards, the reality is that when it comes to an offshore environment, they may be wholly unsuitable.

"Meeting the specific International Standards should not be seen as a guarantee that specific equipment is fit for purpose in an offshore environment," highlighted Burgess. "Specific environmental and performance considerations for equipment used offshore needs to be a key part of the material specification and selection process. To put this into context, a Grade 8 master link, when correctly heat treated, will provide toughness, tensile strength and resistance to shock absorption in loading, and at hardness levels that enable the steel in the product to withstand the extreme conditions of the offshore environment." *MRI*

## IN BRIEF

### Autonomous drafting

Law firm HFW is helping shipping association BIMCO draft the industry's first standard contract for the operation of autonomous vessels. The new standard contract will be based on the SHIPMAN 2009 agreement for use with autonomous ships and is expected to be published in 2021. Gudmund Bernitz, partner at HFW, said: "BIMCO and the drafting committee are facing an interesting challenge with creating this standard contract, in that there are currently no autonomous ships actually in operation. In fact, fully autonomous shipping is likely still several years away. Many of the provisions are therefore having to be based on assumptions and expectations. They will continue to be refined and adapted through time as automation projects start to go live across the industry, to ensure that the standard contract continues to meet the needs of this emerging technology."

### Cyber security

The US Department of Energy's Office of Cybersecurity, Energy Security and Emergency Response (CESER) has reached a US\$3 million partnership agreement with the National Institute of Standards and Technology to "research and develop tools and practices that will strengthen the cyber security of the nation's energy sector and maritime transportation system". According to CESER, 40 per cent of all maritime traffic is comprised of energy products, which highlights the importance of addressing cyber security risks at seaports.

### Risk awareness

Shipping insurer North P&I Club has launched a marine risk awareness solution, hosted on its interactive MyGlobeView digital platform. Route Risk Advice offers users a digital tool designed to evaluate and demonstrate the potential hazards of a voyage from the port of origin to its destination. The addition of the new application means that users can now input a voyage plan and receive up-to-date information on the risks that may arise at sea and in port.



## IN BRIEF

### Onboard supplies

With many seafarers serving longer contracts at sea during the pandemic, onboard food and supplies have never been more important. In a timely move, the International Shipsuppliers & Services Association (ISSA) has published its first ever Provisions and Bonded Stores Catalogue – enabling smoother ordering of a wide range of international food and drink. Vessel operators, ships' officers and catering teams will be now be able to identify the universal ISSA ordering code for thousands of food stores and fresh produce, streamlining the ordering process. In addition, the ISSA Ship Stores Catalogue has been updated and now includes products for the Polar Code and superyacht sectors.

### Hull inspection tool

Nippon Paint Marine has developed a hull inspection tool that avoids the need for divers or remotely operated vehicles. The underwater inspection of a ship's hull coating can now be performed by a single inspector on dry land or from a boat. The system uses GoPro camera technology attached to a 10 m telescopic pole to inspect the in-water condition of a vessel's antifouling paint. A video feed is relayed to the operator's smartphone for real-time monitoring and recording. The entire set-up can easily be packed into a small case and carried as regular aircraft luggage.

### Vessel performance

METIS Cyberspace Technology has launched a software module to tackle the challenges shipping companies face in monitoring vessel performance effectively to meet charterparty agreement (CPA) reporting needs. The new functionality will enhance the productivity of operations and chartering departments, allowing operators to monitor and track their vessel's CPA performance at a glance. Once all CPA terms are imported into the system the user can monitor all vessels concerned and identify potential deviations to specified consumption and speed terms. In addition, the system provides automated notifications in case the speed consumption curve exceeds certain predefined limits.

## Temperature-controlled transport claims still too high

The TT Club is warning that claims involving temperature-controlled transport remain too high, but could be risk managed. Analysis of its claims records for transport operators during the past three years shows temperature-controlled incidents ranking in third place. Almost 30 per cent of these incidents involved a miscommunication of operational instructions on the care of the cargo with a further 23 per cent down to temperature-setting errors. Reefer equipment failure or damage accounted for a quarter of the claims.

The TT Club, in an attempt to minimise losses for both its members and all those involved in the cool supply chain, issues publicly available guidance documents such as "StopLoss – temperature controlled cargo", and increasingly via online webinars. The latest webinar was entitled "Warm or cold: is it a game?". "Our own experiences and the data drawn from our claims history was reinforced by over a third of webinar attendees who, when asked their perception of the primary risk factors, pointed to communications errors with ambiguous or incorrect instructions passed between supply chain stakeholders," commented Mike Yarwood, TT's loss prevention managing director.

The sensitivity of many commodities transported under temperature-controlled conditions puts the care of the product both before and during transit as a paramount concern. During TT's webinar, Carsten Jensen, a consultant and surveyor specialising in perishable goods transport, gave a comprehensive insight into the five key aspects that impinge on loss prevention: product quality; preparation of the goods; correct packaging and stowing; attention to temperature irregularities and prolonged storage and transit.

"Clearly a number of these processes are out of the control of the forwarder, carrier and terminal operator," commented Yarwood. "But as the demand for unitised transport of perishables continues its upward trend, it is vital that the transport links in the chain become more informed about all the relevant processes to improve the collaborative efforts of all stakeholders." *MRI*

## IMO approves mandatory carbon cuts

Draft new mandatory regulations to cut the carbon intensity of existing ships have been approved by the IMO Marine Environment Protection Committee (MEPC), building on current mandatory energy efficiency requirements to further reduce greenhouse gas emissions from shipping. The MEPC also agreed the terms of reference for assessing the possible impacts on states, paying particular attention to the needs of developing countries, in particular small island developing states (SIDS) and least developed countries (LDCs).

The draft amendments to the MARPOL Convention would require ships to combine a technical and an operational approach to reduce their carbon intensity. This is in line with the ambition of the Initial IMO Strategy on reduction of greenhouse gas emissions from ships, which aims to reduce the carbon intensity of international shipping by 40 per cent by 2030, compared to 2008. The draft amendments will now be put forward for formal adoption at the MEPC 76 session, to be held during 2021.

IMO secretary-general Kitack Lim, said: "Considerable further work on the implementation of the measures is still ahead of us, but I am confident that the IMO spirit of cooperation will enable swift progress with the development of technical guidelines and a Carbon Intensity Code as well as the essential further work on the comprehensive assessment of impacts of the measures on developing countries, SIDS and LDCs." He said the approved amendments were important building blocks without which future discussions on mid- and long-term measures will not be possible. The progress in developing the short-term measures follows the timeline as set out in the initial IMO GHG strategy. The strategy proposed that short-term measures should be those measures finalised and agreed by the Committee between 2018 and 2023.

The draft amendments would add further requirements to the energy efficiency measures in MARPOL Annex VI chapter 4. The draft amendments build on the Ship Energy Efficiency Management Plan by bringing in requirements to assess and measure the energy efficiency of all ships and set the required attainment values. *MRI*

## SCOR Specialty

### GROWING TEAM

SCOR Specialty Insurance has appointed Richard Morris to complete its marine specialty product set. Operating alongside the existing fine art and cargo books, Richard's account will focus on jewellers' block and cash in transit. Richard will be based in London and reports to Gregory Delaisse, global head of marine single risk underwriting. Richard was previously at Starstone where he led the specie account. He brings more than three decades of industry experience and is a member of both the London insurance specie and technical committees.

## ISU

### NEW LEGAL ADVISER

The International Salvage Union's (ISU) long-standing legal adviser, Rob Wallis, consultant to, and former partner of international law firm, Hill Dickinson, is to retire in early 2021. The executive committee of the ISU has selected Richard Gunn, partner of international law firm, Reed Smith LLP, to take on the role.

The timing of Rob's move is to be determined but it is expected that the two will begin their handover towards the end of 2020 with Richard taking up the position in the first quarter of 2021. Richard is Reed Smith's global head of marine casualty, a qualified master mariner and served in the merchant navy for 12 years before coming ashore to work in shipping operations.

## ClassNK

### NEW OFFICES

Classification society ClassNK has opened new exclusive survey offices in Kandla, India, and Valencia, Spain. Both offices are located in one of the most well-known port cities in each country. In recent years, the number of surveys and audits required in the north-west part of India and southern part of Spain has been increasing. Through the opening of its newest offices, ClassNK will improve the efficiency of its ship surveys and audits in these areas.

## BIMCO

### NEW OFFICE

BIMCO will open its fourth local office, this time in London, at the beginning of 2021. The new office will support the organisation's regulatory affairs activities, with Dr Bev Mackenzie taking up the role of BIMCO's permanent representative at the

IMO from 1 February, reporting to deputy secretary-general Lars Robert Pedersen at the head office in Copenhagen.

The new BIMCO office is situated close to the IMO headquarters in London. The office will also serve as a hub for BIMCO employees who visit London.

## Wikborg Rein

### NEW MD



Law firm Wikborg Rein has appointed Ina Lutchmiah as the new managing director of its Singapore office. Ina already heads up Wikborg Rein's transactional practice in the Asia-Pacific region. In the Legal 500 UK 2020 rankings, Ina was recommended for oil and gas projects and ranked as a "rising star".

Despite a general under-representation of women in shipping law firm partnerships, Ina is the second female partner to head Wikborg Rein's Singapore office. The firm has a history of promoting senior women, with the posts of global managing partner, and managing director of the London office, previously held by female partners.

## Hill Dickinson

### NEW PARTNER

Hill Dickinson has appointed Jonathan Goacher as a partner, as it expands its regulatory practice. He will be based in the firm's Singapore office and will conduct the practice across Asia. Jonathan is a regulation specialist with around 20 years' experience at global law firms in Asia. He is primarily known for his expertise in the insurance sector.

## HFW

### SENIOR PARTNER

Law firm HFW has boosted its shipping practice with the hire of senior partner Paolo Ghirardani. Paolo joined HFW's London office from Stephenson Harwood, where he had been a partner for almost 30 years. Paolo spent the first seven years of his career at HFW, having joined as a trainee in 1983.

## The Thome Group

### AWARD

The Thome Group has won the Safety4Sea Tanker Operator Award. It said the win is particularly pleasing as it was awarded to

the ship operator of oil, chemical or gas tankers that demonstrated "above average safety excellence and performance". The Thome Group was included in a shortlist of other prestigious tanker operators, with the final decision based on an industry vote where maritime professionals were invited to choose their preferred tanker operator based on whom they felt had focused on safety, quality and crew health.

## Hepner

### NEW DIRECTOR



Hepner has appointed Frank Burkert to the position of sales director in Germany. Frank brings almost 30 years' experience in the transport and logistics industry. After starting his career as airfreight manager in Kühne & Nagel in 1991, he joined DB Schenker AG in 2003, where he held a number of management posts.

## Stream Marine Training

### NEW OPERATIONS DIRECTOR

Stream Marine Training has boosted its management team and set out a clear strategic direction as Katy Womersley, former general manager of Clyde Marine Training, moves over the River Clyde where she takes up the role of operations director at Stream Marine Careers.

Katy brings her experience in the maritime industry where, as a former seafarer, she began her career as a deck cadet before qualifying and working in the offshore and short sea trade.

## Beacon

### TEAM DOUBLES

London-based Beacon, the freight forwarding and supply chain finance company, has doubled the size of its team, increasing its customer base and expanding its physical presence into Asia by opening a new office in Hong Kong. Since March, Beacon's headcount has increased from 35 to 75, while also achieving a ratio of 40 per cent women employees, in line with the company's key objective of fostering gender diversity and inclusivity in the workplace.

James Yu, previously logistics programme manager at Uber in Hong Kong, has been appointed as ocean procurement lead, HK, based in the new Hong Kong office.

# Digital revolution steams ahead

**Nabil Ben Soussia**, of IEC Telecom Group, outlines the rapid expansion of digitalisation during 2020 and predicts it will grow in 2021

**D**igital communication took centre stage in the shipping industry during 2020 as vessel operators fast-tracked the installation of satcom connectivity to overcome many challenges posed by the Covid-19 pandemic. And that course seems set fair for 2021 where the rapid increase in digitalisation is certain to continue at an even greater pace, as the entire maritime sector embraces new ways of doing business.

The pandemic has had a devastating effect on our lives and livelihoods, but it has also presented us with the opportunity to examine how we work and to find new ways to carry out key functions. Never before has connectivity been more important. Crew and vessel operators use it to keep up to date with the latest developments during an ever-changing global situation, communicate with home and with shore offices, transfer data, hold videoconferencing and telemedicine meetings, carry out remote surveys and much more.

During the pandemic the interest in technology, particularly for video conferencing, has increased by at least tenfold, while the requirement for crew access to online communication has also spiralled. All economic sectors are considering the options available, including those which were previously taking a conservative approach to technological advancement. Covid-19 has accelerated digitalisation: videoconferencing, telemedicine and remote maintenance have become a part of day-to-day reality, fuelling demand for data consumption. In addition, as customers have recognised their reliance on technology to enable continuity of business operations, they are now asking detailed questions about what levels of cyber security systems can provide.

Digitalisation has given businesses a competitive edge during this time and this realisation is driving increased demand for cutting edge connectivity. In particular, those vessels which were already equipped with digitised systems were able to adapt much more quickly and easily. The use of digital dashboards enabled vessels to upgrade and update their systems when the need arose, without the need to access ports or take an engineer onboard – something which at times has been impossible this year.

Looking to 2021, we fully expect this drive towards digitalisation to accelerate and to expand into other sectors within the maritime industry. Digital connectivity is now available to smaller vessels where space and budgets were previously a barrier, such as workboats and yachts. New solutions enable smaller vessels to benefit from VSAT connectivity and the virtualisation of systems, while today's flexible tariffs enable budget requirements to be met without long-term commitment.

As we move into 2021 there is industry-wide recognition of the importance of crew communications onboard ships and offshore installations in recognition of the key role maritime workers have played during the pandemic. This need was already there and numerous recent industry surveys have revealed the strong correlation between communications, recruitment and

retention. We can foresee this to be a key factor during 2021.

Crew communication services are proving increasingly important, particularly for the younger generation, when deciding whether to work for or stay with a company. The modern generation is very connected and wants to remain part of the global conversation, even while at sea. The vast majority of crew now want to be able to use their laptops and smartphones onboard and, with this growing trend towards a technology-literate workforce that is highly motivated to stay connected, it is no surprise that the focus is on digitalisation.

The key to effectively managing crew communications is to properly separate them from vessel critical functions to ensure bandwidth is prioritised and cyber risks averted. In addition, it is advised that ship operators ensure all crew members are aware of the firm's digital policy, particularly because this can vary from company to company and even from vessel to vessel.

Digitalisation provides great value to the management team and the business overall. It is important to understand that there are many options and solutions available and to choose the system that meets your requirements for the duration you need them. There are many options available and this range will expand in the coming year. For example, you could choose a project-based subscription shared across a service fleet, giving flexibility to pass credit from one boat to another and suspend services once the project is over. Greater vessel efficiency can lead to significant cost savings, offsetting much of the installation costs for digitalisation.

**“The risks of not taking cyber security seriously impacts not only the operation of the vessel and the safety of those onboard but also the whole maritime business and there is a risk that deficiencies in anti-viral software and security systems could render a ship ‘unseaworthy’ in legal terms”**

In 2021 the IMO's requirement for issues of cyber security to be addressed in vessel planned maintenance and safety management systems (PMS and SMS) comes into force and will certainly focus attention on cyber security, especially following recent damaging high-profile cyber attacks on maritime companies.

IMO's Resolution MSC.428(98) is widely seen in maritime circles as a game changer. It states that, from 2021, a vessel's SMS will need to take into account cyber risk management in accordance with the objectives and functional requirements of the ISM Code. Member governments are encouraged to ensure that safety management systems address cyber risks no later than the first annual verification of the Document of Compliance after 1 January 2021.





The risks of not taking cyber security seriously impacts not only the operation of the vessel and the safety of those onboard but also the whole maritime business and there is a real risk that deficiencies in anti-viral software and security systems could render a ship “unseaworthy” in legal terms. We anticipate this will result in a better understanding and adherence to cyber discipline, becoming something which must be practiced at all levels in the command chain, both onboard and ashore.

It is important to ensure that critical systems such as bridge navigation or main propulsion systems, or the many vessel sensors which provide mission-critical data, are not compromised. It is not just crew members using the internet or plugging in an infected USB or corrupted phone that pose a risk. We also need to consider how many other people may be given access to the vessel’s technology.

For example, an engineer may need to access a system remotely to carry out an essential repair and that access needs to be carefully managed as it immediately creates a vulnerability. We expect greater installation of systems which can provide a third network for certified third parties and limit their access to just one system or piece of machinery and for just one occasion – ensuring that the person accessing remotely cannot interfere or impact on any other operations or technology either deliberately or accidentally and the cost of any mistake is limited to just one area, making it unlikely to shut the entire vessel down.

As the digital revolution continues and ships become more digitalised and dependent on data analysis, it is vital to ensure the verifiable authenticity of that data. Smart ships already address the threat posed by a loss of connection and would be aware if data was lost or impeded due to a drop in connection. However, if a vessel is corrupted in some way, either mistakenly or as a result of an attack, how will you know that the data received is correct?

It may be used to tell other systems to take actions – such as telling the ship to change course – so it is very important that you are able to verify and authenticate all data as it is recorded.

It is important that these risks be addressed as the number of devices connected increases and as operations become more dependent on connectivity. It has been reported that today a single ship can host 5,000 data tags and 3,000 sensors in the main control and engine rooms alone. It is important to be aware that a network is only as secure as its most vulnerable device and therefore access and permissions must be set accordingly.

Digitalisation is a two-way street. There is no “one-size fits all” solution. Every business entity has its own needs. We cannot compare the network requirements of a large commercial ship with the communication needs of a fishing boat or offshore service vessel. Digitalisation has redefined the role of satcom service providers.

The virtualisation of telecom services is inevitable. We know that most routine operations will go digital (maintenance, training, team management, regulation, compliance etc) and each operation needs to find the right communication tools to achieve their business objectives. [MRI](#)



Nabil Ben Soussia

Nabil Ben Soussia, CEO Asia, Middle East & CIS at IEC Telecom Group

# Parking up safely

No more lives on the mooring lines with automated mooring for the fleet of the future, suggests **Nicklas Vedin**, of Cavotec MoorMaster

**T**oday, we are on the verge of a step change in our industry: creating a fully autonomous maritime supply chain. The fast development and high interest in autonomous shipping is evidenced by the IMO's Maritime Safety Committee starting to apply IMO regulations in the context of maritime autonomous surface ships – as recently reported in *Maritime Risk International*.

With the IMO confident that autonomous vessels have a significant part to play in the future of shipping, the industry is now eagerly studying the first commercial projects to learn from their experiences and innovative solutions. Of particular interest is ASKO Maritime's introduction of the world's first fully autonomous, carbon-free ships.

ASKO Maritime is the shipping arm of Norway's largest grocery wholesaler. In pursuit of ASKO's goal of 100 per cent emission-free transport by 2026, ASKO Maritime is introducing two fully electric ro-ro vessels to connect two of ASKO's sites on different sides of the Oslo Fjord. The project will replace 2 million km of truck transport and reduce CO<sub>2</sub> emissions by 5,000 tonnes every year. As a "fleet of the future", the new vessels will not only be zero-emission, but also autonomous. Complete autonomous operation requires smart automation of all activities that would typically require human involvement – at sea, but also when moored in port.

## Mooring for autonomous operations

A key component in ASKO's plan is a system that can automatically moor ships in port. Ships have relied on ropes and chains to moor since the dawn of navigation. This requires personnel on the ship and on shore. With an unmanned vessel, calling on a fully automated port, there is nobody around to throw ropes and nobody on the quay to catch them. The autonomous vessels could use their thrusters to stay in position while in port, but this would increase energy consumption, reduce battery life and increase the risk level of the charging connection.

On the ship side, the Norwegian Maritime Authorities must sign off that the vessels meet the needed safety standard before they can enter fully autonomous operations. This approval process – supported by DNV GL as an independent third party – uses a risk assessment based on IMO 1455 guidelines. Public statements from ASKO target fully autonomous operations before 2024. On the shore side, the risks have long been understood and mitigated. The vacuum mooring technology chosen by ASKO has been in commercial use more than 20 years for applications ranging from smaller ferries to the largest container and bulk vessels. In Norway alone there are more than 50 systems installed. The maritime industry is ready for the proliferation of autonomous and fully electric shipping – at least as it relates to mooring.

## Value added safety

Outside autonomous shipping, mooring lines are one of the biggest risks to the health and safety of maritime workers. The P&I Clubs report that mooring incidents, such as seafarers standing in bights or snap-back zones when ropes part, are one of the most common causes of injury. Every minute spent mooring is a minute when longshoremen need to perform strenuous manual labour right next to the water. They are literally putting their lives on the line. Automated vacuum mooring technology is a real alternative to dangerous and slow mooring with ropes or hawsers. With recent technological advancements, vacuum mooring is now easy to introduce at thousands of terminals across the world.

**“Automated vacuum mooring technology is a real alternative to dangerous and slow mooring with ropes or hawsers”**

It also has a range of other benefits to ports and shipping companies. One of the obvious benefits is time savings. Mooring typically takes around 20 minutes, but sometimes up to an hour for large cargo ships. With some automated vacuum mooring systems, it takes as little as 30 seconds. Those saved minutes matter. They allow for faster turnarounds and more time loading or unloading. For shipping companies, every minute saved means ships can cruise at slower speeds to their next destination, thereby saving fuel. Advanced vacuum mooring systems also reduce vessel motion by up to two orders of magnitude for higher throughput and less risk to vessels and personnel.

The time savings themselves have a positive impact on health and safety. The fast mooring allows the vessels' engines to be shut off faster, thereby reducing harmful emissions for port employees and nearby communities. Port accidents are also more common in compressed loading windows where stress causes mistakes. With automated mooring, ships' crews and quayside personnel can focus on value-added activities, such as loading and unloading cargo.

## Profitable sustainability

Automated mooring all comes down to profitable sustainability. Typically, sustainability benefits are viewed as a drag on financial results. But with automated vacuum mooring, ports and shipping companies become more profitable and at the same time contribute to a greener, less polluted world. There is no doubt the shipping industry will embrace new, safer, more sustainable mooring practices as the rate of innovation picks up. This is a pivotal moment in the development of fully autonomous maritime supply chains and a safe and sustainable future for our industry. *MRI*



Nicklas Vedin

Nicklas Vedin, product manager,  
Cavotec MoorMaster

# Crew change conundrum to continue

Crew changes became challenging this year as the Covid-19 pandemic brought shipping to its knees. Crew management specialist **Henrik Jensen**, of Danica, looks back on an unprecedented year and considers how the crewing sector will recover

**I**n the normal course of maritime business, crew members transit to and from vessels as needed. The crew change regime is well-established and fairly straightforward. Not so this year – the pandemic changed everything and thrust crew change to the forefront of maritime industry concerns. Without crew our ships will not sail and without ships the world trade in food, medicines and goods will not operate. Hence the fate of the world’s seafarers took centre stage as governments and maritime associations around the globe negotiated solutions.

As the pandemic spread through populations around the globe travel restrictions, quarantine measures and testing regimes were implemented, amended and adjusted time and again. First China went into “lockdown” and Chinese seafarers were unable to travel internationally while Chinese ports closed, preventing crew changes as well as other vital activities such as ship supply. Then Hong Kong, Singapore, Japan, the Far East, the Middle East, India, Australasia, Europe, South America, North America – the pandemic and its impacts spread rapidly around the globe and ships and crew were affected. Filipino seafarers, Indian seafarers, European seafarers, American seafarers – everyone was impacted. The International Chamber of Shipping estimated that some 400,000 seafarers were affected by the restrictions.

At first, crew members stayed onboard because this was the safest place for them to be, working in the Covid-free environment of a closed vessel with no person-to-person contact with the outside world. Everyone pulled together to overcome the difficulties and seafarers were understanding. In return, many ship operators increased crew calling and internet provision to allow seafarers to keep in touch with friends and family. Some even offered salary bonuses. Flag states extended the validity of necessary documents for those trapped onboard, while IMO issued a list of crew change protocols.

However, the pandemic and its effects continued far longer than at first anticipated and before long seafarers were working at sea for many months beyond their contracted time – in some cases crew had been onboard for more than a year. The maritime industry recognised the safety issues and health concerns this situation presented and came together to find solutions. Travel restrictions were the key barrier and the IMO lobbied governments, urging them to recognise seafarers as “essential workers” and to allow them passage home. Ship operators worked together to charter flights and repatriate crew.

In some areas, seafarers are now designated as essential workers and in the northern hemisphere summer crew changes have taken place. Many ship operators report that a large number of their overdue crew have now been changed, despite the challenges which still exist. Ports around the globe are still subject to sudden local and national lockdowns and restrictions; and even when crew changes are allowed another hurdle is the lack of flights as airlines

have reduced their number of destinations and flight frequencies – not to mention the significantly higher air fares we will now face.

Crew changes have gone from being a straightforward shipping activity to becoming a sought-after aspiration that many seek but few achieve. Long hours and much effort have been spent trying to resolve travel problems and get seafarers home or to where they need to be. There is an ever-changing list of restrictions, medical tests, visa and transit requirements to be met to facilitate crew travel. Today, planning and executing a crew change can take two to three times longer than before.

The frustration for both crew members and ship operators is immense. Crew health, vessel safety, seafarer family incomes, ship operator expenses and world trade are all adversely impacted by this international impediment. It seems we will be navigating these choppy waters for some time to come. Crew will again need to disembark, but restrictions are still in place, changing almost daily, flights are still difficult to come by and flight timetables are subject to change at short notice.

**“Crew changes have gone from being a straightforward shipping activity to becoming a sought-after aspiration that many seek but few achieve”**

In addition, there is now some reluctance by seafarers to return to vessels. Having spent a long time onboard and earned many extra months’ money, they are choosing to stay home with their families, with some saying they may not be available until after Christmas. With this consideration, it can be predicted that crew scheduling will not return to normal until mid-2021 at the earliest because, due to Covid-19 and delays in repatriating seafarers, the entire crew planning system is destroyed and crew rotation patterns are all over the place. It will take a lot of time and effort by crew managers and shipowners; and need the assistance of the international community and governments, for the regular crew change system to be re-established.

We must sail on with determination for the sake of our seafarers, for safety and for world trade. *MRI*



Henrik Jensen

Henrik Jensen, managing director of Danica



# Living with lockdown at sea

Now **Sophia Bullard**, of the UK P&I Club, discusses the challenges to crew health posed by Covid-19 and has some practical suggestions

**T**he sudden onset of Covid-19 and the impact on our lives, whether we are on a lockdown at home, stranded at sea, working on the front line or on furlough, can take an emotional toll on all of us. The experience of living through this outbreak is daunting, even after we return to some kind of normalcy. Being proactive and protecting our mental health is a priority that we all need to address.

A lot of media coverage has focused on the vulnerability of front-line respondents, and the victims of the pandemic, but limited attention has been given to special populations like seafarers who may be stranded at sea, unable to return home due to travel restrictions and border closings. The impact of this aberrant situation on thousands of seafarers can have unforeseen consequences on their mental health.

Organisations, authorities and shipping companies have collaborated to facilitate crew changes and repatriation; however, travel restrictions and border closings have made it almost impossible for seafarers, whose contract agreements are ending, to return home. To the seafarers, who work endlessly and under strenuous conditions, facing the precarious challenges of the pandemic can be overwhelming.

## Dealing with lockdown at sea

Being stuck at sea during such times can trigger feelings of uncertainty about the future causing anger, fear, anxiety and

sadness. Recognising these common symptoms and being proactive may not resolve the problem but can certainly mitigate the psychological effects experienced during lockdown.

Some common signs of anxiety and depression that people may be experiencing include:

### Physical signs:

- Headaches, neck tension, gastrointestinal problems
- Sleep issues
- Decreased or no appetite
- Decreased energy, fatigue

### Psychological and emotional signs:

- Worrying about your health and the health of loved ones
- Feelings of being overwhelmed by events and powerlessness
- Negative thinking or negative perception of daily events
- Feelings of discouragement, insecurity, sadness, anger

### Behavioural signs:

- Difficulty in concentrating
- Difficulty carrying out daily tasks or making decisions
- Irritability, aggression, crying
- Withdrawal
- Increased use of alcohol, drugs and/or medication

If you or someone onboard is experiencing any of these signs, do not hesitate to address them. Being proactive entails taking actions to protect your well-being. Instead of anticipating and worrying about when this will end, you can engage in activities

## Lessons learnt from an eye injury to an engine room fitter

**Stuart Edmonston**, of the UK P&I Club, provides this case study discussing a real life incident that involved an eye injury to a fitter and the lessons that can be learnt from this

An engine room fitter was instructed to fabricate a steel locking pin while a tanker was waiting to berth when lying in the port anchorage. To do the job, the fitter put on his personal protective equipment, including a full-face visor, and began using an electric angle grinder to fabricate the locking pin in the workshop. The electric grinder was fitted with a 180 mm

diameter disc, but several minutes into the job he switched to a pneumatic grinder, which was designed for a maximum disc size of 100 mm. However, the fitter believed a larger disc was required for the job, which led him to remove the smaller disc, as well as the safety guard to make room for a larger disc.

The fitter continued using the now unguarded grinder to complete the task until suddenly, without warning, the disc shattered. Once this occurred, a fragment of the disc flew towards the fitter and penetrated his face shield, seriously injuring his right eye. Other crew members rushed in to give him first aid and arrangements were made to transfer him ashore for medical treatment.

The incident occurred because the fitter probably switched from using the electric grinder because of the higher power provided by a pneumatic grinder. However, installing, cutting and grinding discs larger than the size for which the power tool is designed for is a dangerous practice and increases the risk of disc failure.

The removal of safety guards on power tools exposes the operator, other crew members and those onboard to serious injuries from flying work debris, broken discs as well as to the additional risk of body parts making contact with the high speed rotating discs.



that will foster a sense of control and empowerment. Not all techniques may be helpful or practical, but keeping an open mind and experimenting with whatever works for you will alleviate the burden of the lockdown at sea and protect your well-being.

Some common practices include:

- Staying informed by using reliable news sources.
- Limiting the time allocated to seeking information; overload of information can aggravate anxiety and stress.
- Being aware of your feelings, thoughts and reactions. We may not choose the way we feel, but we can always choose how we react to those feelings.
- Practicing gratitude and kindness with your colleagues onboard. Research suggests kindness improves your well-being, evokes positive feelings and gives you a sense of self-worth and purpose.

#### **Lessons learnt:**

- Ship managers and officers should enforce a zero-tolerance policy regarding the misuse and abuse of power tools including, but not limited to, the removal of safety guards.
- Manufacturers' instructions for the safe use of power tools must be readily available to the crew and strictly observed.
- Inspection and maintenance of power tools to be included in the vessel planned maintenance system.
- Crew should receive appropriate supervision and training in the use of power tools and be aware of the consequences of misuse and non-compliance with safety precautions.
- Angle grinders in the wrong hands are lethal weapons. *MRI*



Stuart Edmonston

Stuart Edmonston, loss prevention director, UK P&I Club



Sophia Bullard

Sophia Bullard, crew health programme director, UK P&I Club

- Connecting with others with care and compassion.
- Staying in touch with your family and friends via social media, phone, email, FaceTime, WhatsApp, Messenger, Facebook, Instagram etc.
- Choosing a “touchstone friend” – a person you trust and with whom you can freely voice your feelings, thoughts and reactions of what you are experiencing.
- Establishing a daily routine; this action is of paramount importance during lockdown. This includes daily physical activity, a regulated sleep schedule and eating healthy meals.
- Engaging in one pleasant activity every day, like listening to your favourite music, reading a good book, watching movies or playing board games or cards.
- Practicing positive affirmations. These are positive statements we tell ourselves to shift our mindset, especially during difficult moments when negativity prevails. By affirming to something we are stating it to be “true”.
- Choosing positive affirmations that are powerful for you and repeat them throughout the day. Below are some positive affirmations you can use (or make up your own) to tell yourself when stress, fear or anxiety hijacks you:
  - “I am doing the best I can do right now”
  - “I believe in my ability to get through tough times”
  - “I will not stress over things I cannot control”
  - “I will be present and calm today”
  - “I take things one day at a time”
  - “I have been through hard times before and survived them”
  - “This will not break me”
- Practicing mindful breathing, meditation or prayer.

**“Seafarers working tirelessly to ensure that global supply chains remain open face extremely demanding mental, physical and emotional challenges”**

As the pandemic continues, many seafarers remain cut off from their families and loved ones. Victims of circumstances, their ability to work or disembark from vessels is being dictated by constantly changing international travel restrictions. Seafarers working tirelessly to ensure that global supply chains remain open face extremely demanding mental, physical and emotional challenges, and their efforts amid this pandemic should be widely recognised and praised. *MRI*

# IMO 2020 – the disruptor that never was

Shipping began 2020 focused on environmental issues, in particular the IMO's sulphur restrictions which came into force in January. **Beth Bradley**, of Hill Dickinson, examines what effect this legislation has had in this rather interesting year

**I**t is not yet a year since the permissible sulphur content of fuel on board a vessel to be used as marine fuel was lowered to 0.5 per cent mass by mass (m/m), a requirement which presented a huge challenge to global shipping. Here, we examine the extent to which this transition has been successful, notwithstanding the intervention of Covid-19 and related disruption.

Regulation 14.1.3 of Annex VI of the Marpol Convention came into effect on 1 January 2020. The Regulation forbade the burning of fuel oil on board vessels not fitted with exhaust gas cleaning systems (scrubbers) which exceeded a sulphur content of 0.5 per cent m/m (the sulphur cap), unless operating in an emission control area where the maximum sulphur content remained 0.1 per cent m/m.

The Regulation was buttressed by the non-compliant fuel carriage ban that came into force on 1 March 2020. This prohibited the carrying of marine fuel on board (even if not being used) which exceeded the sulphur cap.

From the introduction of the sulphur cap, there has been a high degree of compliance, reflective of the seriousness with which the majority of stakeholders (shipowners, charterers, insurers and suppliers) have viewed their responsibilities. There have been few publicly available reports concerning non-compliance of or enforcement action being taken in respect of breaches of the Regulation. The extent to which that reflects the additional pressures brought to bear on those responsible for enforcement caused by Covid-19 remains to be seen but, for the time being, implementation has been far less painful than anticipated.

Implementation has not, however, been without teething troubles. While reports of breaches are few and far between, quality issues relating to the constitution of very low-sulphur fuel oil, as well as the question of what action should be taken and by whom when a commercial sample indicates a breach of the sulphur cap, are giving rise to disputes and are likely to continue to do so. Enforcement of the Regulation takes aim both at the shipowner and at the supplier of fuel but it is the shipowner who, in the first instance, faces the prospect of fines and adverse publicity where there is a finding of non-compliance. Owing to the structure of the Regulation, the enforcing authorities are encouraged to ensure that where non-compliance is established, meaningful fines are issued.

It is for those responsible for enforcement to determine what is meant by "meaningful" in this context. Consequently, in the run-up to implementation one of the main areas of concern was uncertainty in relation to applicable sanction if the Regulation was breached. That uncertainty remains an issue. Therefore, when fresh bunkers are stemmed, owners are best advised to arrange for a sample to be tested, prior to the fuel being consumed, to check whether the fuel is compliant with the sulphur cap. Usually, and in the absence of contractual terms in the time charterparty to the contrary, it is one of the commercial samples that is tested.

Where an indicative test returns a result indicating a sulphur content above 0.5 per cent m/m problems can occur, since at that point an owner is on notice that the fuel on board may not be



Khakimullin Aleksandr/Shutterstock.com



compliant but neither the Regulation nor most time charterparties make express provision as to what steps should be taken. Where there is an indicative result which suggests that the fuel supplied breaches the sulphur cap, it is appropriate for owners to immediately alert the time charterers (who ordinarily are responsible for providing fuel to the vessel) and for the time charterers in turn to put the suppliers on notice that there is an issue with the fuel. It is also open to owners to seek guidance from their flag administration.

As noted above, an indicative result based on a commercial sample is not a breach of the Regulation. Establishing breach of the Regulation involves the enforcing authority testing the MARPOL sample (although there are circumstances in which the enforcing authority may test the in-use sample). Unless there are provisions in the time charterparty which deal with joint testing in circumstances where there are question marks over the fuel supplied, owners are on notice of a potential breach of the sulphur cap, but without a mechanism to resolve it. The problem is deepened where the indicative result is in the range of 0.5 per cent to 0.53 per cent m/m, owing to margin of error arguments which will assist the supplier of the fuel (where often that margin is contractually specified) but which puts the owners at risk of breach of the Regulation, since no margin applies to the MARPOL sample.

This presents at least two broad problems: first, to what extent are owners permitted to carry the fuel, in light of the carriage ban, to a place where it may be de-bunkered or other steps taken to reduce the sulphur content of the fuel? Secondly, where ownership of the bunkers ordinarily resides with time charterers, how are owners to remove the fuel without cooperation or agreement? There are no easy answers and as yet no case law which can assist resolving the legal uncertainty.

On a practical basis, resolving these issues requires cooperation between the parties to enable either further joint testing to be carried out with an aim to sensibly resolving whether the fuel does or does not breach the sulphur cap or to enable the fuel to be discharged. It also favours additional time charterparty clauses which clarify both parties' responsibilities where there are circumstances which indicate a potential breach of the sulphur cap but where there has not been a finding of a breach of the Regulation.

In the run-up to the implementation of the sulphur cap, there were concerns regarding the ease of availability of compliant fuel. So far, and in most areas, supply has not been a large concern. However, there have been a range of quality issues reported relating to very low-sulphur fuel oil which appear to be related to the methods – blending particularly – by which the sulphur content in marine fuel has been lowered. While not strictly a sulphur cap issue, new quality issues have arisen as a consequence of lowering the sulphur content.

The quality concerns so far include a propensity to sediment, instability, contamination, flash point and cold flow properties. These all can pose risk to the engine and components, leading to potential loss of power and propulsion. On the whole marine fuel is specified in accordance with ISO 8217 (2005/2010/2017) but, interestingly, although perhaps frustratingly, quality issues can arise without the fuel necessarily being off-specification.

From a charterparty point of view, a time charterer providing marine fuel is under an absolute obligation to supply bunkers that are of a generally reasonable quality. Additionally, and in practice, most time charterparties include terms containing a specification for the fuel. The time charterer's obligation is

therefore two-fold: to supply fuel which is both of the contractual specification; and also which is of a general reasonable quality. Consequently, even if the fuel supplied is on-specification according to ISO 8217, there may still be a breach on the time charterer's part if that fuel is not suitable for use.

But, in contrast, suppliers' obligations are almost always confined to supplying on-specification fuel and their terms and conditions will frequently exclude fitness for purpose requirements. This can leave a time charterer in a difficult position where on the one hand they may face quality claims arising out of the fuel supplied to the vessel but on the other may not have a right of recourse against the supplier.

Neither the issues around indicative testing nor quality of marine fuels are easy to resolve. Without clear contractual provisions which set out how the parties are to respond in circumstances where there is a prima facie concern relating to the marine fuel supplied, delay and costs can quickly mount.

**“A time charterer may be left in a difficult position where on the one hand they may face quality claims arising out of the fuel supplied to the vessel, but on the other may not have a right of recourse against the supplier”**

On the whole, the introduction of the sulphur cap has been less disruptive than anticipated and there have been fewer reported instances of the Regulation being breached than expected. This is a reflection of the preparedness of suppliers and owners alike, although it may also reflect the practical difficulties which Covid-19 has given rise to insofar as regular action by the enforcing authorities may have been suppressed.

To the extent that Covid-19 has impacted on regular testing by the enforcing authorities it may be that if conditions ease, more breaches of the Regulation will be reported. That said, suppliers will no doubt have been using the time to iron out any technical issues.

On the whole, however, the first year of the sulphur cap has been successful, which suggests that some optimism can be had in relation to the IMO's Strategy on Reduction of GHG (greenhouse gas) Emissions from Ships adopted in 2018 – the initial strategy of which is to reduce the carbon intensity of international shipping by 40 per cent by 2030 and by 70 per cent by 2050 (compared with 2008 levels). How these ambitions are to be translated will be fleshed out in the coming period by the Marine Environment Protection Committee – watch this space. *MRI*



Beth Bradley

Beth Bradley, partner,  
Hill Dickinson

# Proving proper **planned maintenance**

The key to preventing equipment failure claims is found in a vessel's planned maintenance system, write **Alexianna Kalafati** and **John Southam**, of the North P&I Club

**P**reventing breakdowns of vessel equipment and machinery requires high standards of maintenance, but even well-maintained equipment fails. If that failure leads to commercial disputes and cargo claims, the shipowner will need to prove that the right procedures were followed. A good planned maintenance system (PMS) is essential for the safe and efficient operation of a vessel.

The ISM Code requires that a ship is run without harm to people and the environment. This means ensuring all safety-critical equipment, cargo equipment and machinery are inspected and maintained in line with regulations and the manufacturer's recommendations.

As well as helping to make sure that maintenance is performed in a correct and timely manner, a properly executed PMS provides vital evidence when defending or pursuing a claim.

## **Owner's obligations**

### **Time charters**

It is common for an owner to agree in a time charterparty to maintain the vessel during the currency of the fixture. Clause 1 of NYPE 1946 provides that owners must "keep the vessel in a thoroughly efficient state in hull, machinery and equipment for and during the service". This calls for both preventative and remedial maintenance.

**"As well as helping to make sure that maintenance is performed in a correct and timely manner, a properly executed PMS provides vital evidence when defending or pursuing a claim"**

### **Voyage charters**

Voyage charterparties may not have the same provision on maintenance, but there is warranty of seaworthiness. Clause 2 of Gencon 94 provides that an owner is liable for the damage or loss of cargo if "caused by personal want of due diligence on the part of the owners or their manager to make the vessel in all respects seaworthy and to secure that she is properly manned, equipped and supplied, or by the personal act or default of the owners or their manager".

### **Contract of carriage (bill of lading)**

If the cargo carried under the bill of lading is lost or damaged within the carrier's period of liability, a claimant might allege that the carrier failed to exercise due diligence to make the vessel seaworthy at the commencement of the voyage (article III, rule 1 of the Hague-Visby Rules). The owner may then need to provide evidence that equipment was properly maintained.

## **PMS records as evidence**

Disputes in which one party alleges that poor maintenance was the cause of an incident are common. To help rebut such allegations, a ship operator needs to show that there was a good maintenance regime in place at the time of the incident. To show this a comprehensive PMS can prove an invaluable piece of evidence.

### **Stevedore damage**

In *London Arbitration 12/04* (*Lloyd's Maritime Law Newsletter* (2004) 643 LMLN 3), a derrick collapsed during discharge operations. The charterer alleged poor condition of the derricks and their rigging. The owner counterclaimed in respect of damage to the vessel caused by the collapsed derrick, blaming the alleged negligence of the stevedores.

It was held that the collapse of the derrick was caused by stevedore negligence. The recent history of the vessel's trading, covering three separate discharges, gave no hint of defective or poorly maintained derricks; the charterer had failed to show a history of any defects.

Most damaging to the charterer's case was the vessel's annual cargo gear survey, which had, coincidentally, been held immediately after the vessel's arrival at port to discharge the cargo. It was asked how, if the cargo gear had been in such a state as the stevedores later claimed it had, the class surveyor could have passed the equipment as being in sound condition.

### **Wet damage**

In *Ceroilfood Shandong Cereals and Oils v Toledo Shipping Corporation (The Toledo Carrier)* [2006] Lloyd's Rep Plus 105, a consignment of garlic was found wet.

The cargo interests alleged water entered the hold either by way of a backflow through the bilge system or via corroded vent heads on deck, highlighting the absence of a record of either the non-return valves or the deck vent heads ever having been opened for inspection. They also alleged the hatch covers were poorly maintained and brought attention to a temporary cement box repair on a seawater line. The ship operator's expert observed no evidence of incompetent or inappropriate operation or management of the vessel and rejected the cargo interests' analysis of the maintenance records. As he saw it, it is common practice to effect temporary repairs to leaks on sea waterlines until they can be permanently repaired. The court favoured the ship operator's evidence and the cargo interests' claim was dismissed.

In *Empresa Cubana Importadora de Alimentos v Octavia Shipping Co SA (The Kefalonia Wind)* [1986] 1 Lloyd's Rep 273 a vessel ran into stormy weather and seawater leaked through the hatch covers, wetting some of its cargo. A surveyor found that all the covers were in poor condition and that rust had been present for some time. The ship operator failed to present any evidence



showing that the covers had been properly maintained and the court concluded that they were “old and poorly maintained”, finding in favour of the cargo interests.

### **PMS set-up**

Too often, important tasks on crucial pieces of equipment are omitted from a PMS. To avoid this, the equipment manufacturer’s manual should be checked for recommendations on maintenance and any statutory and class requirements. It should be ensured that the correct tasks are included in the regime at the correct intervals and with a detailed description. Additionally, a system should allow the crew to report “unscheduled maintenance”, meaning they can properly record all maintenance whether it is due or not.

**“Comprehensive records not only help in identifying any trends or concerns regarding condition but also act as vital evidence that the vessel is operated and maintained to a high standard”**

### **Recording work**

Maintenance records that aim to prove inspections and works were carried out often include very little detail. Sometimes only a

date and short statement are entered into the PMS – sometimes just a date. To increase its value as evidence, a record could include more detailed information on facts such as:

- Who performed the task.
- How long it took.
- What condition the item was found in.
- What work was done.
- Whether follow-up work is needed.
- The spare parts used.
- Running hours for machinery.
- Anything else that could be relevant to those conducting the task in future.

Comprehensive records not only help in identifying any trends or concerns regarding condition but also act as vital evidence that the vessel is operated and maintained to a high standard. *MRI*



Alexianna Kalafati



John Southam

Alexianna Kalafati,  
FD&D advisor, and  
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# Sanctions compliance crucial

Daniel Pilarski, of Watson Farley Williams, looks at best practices for compliance with US sanctions

**S**anctions compliance has always been important to the maritime community, given that shipping involves trade with multiple countries and parties. Historically however, many non-US shipping companies paid little attention to sanctions compliance, on the grounds that as non-US persons, they were not generally bound by US sanctions. While at one time this may have been true, in the past decade it has become clear that US sanctions compliance is crucial to the worldwide shipping community.

The US “maximum pressure” campaign against Iran and Venezuela led to multiple non-US parties being subject to secondary sanctions for trading with those countries, with disruptive effects worldwide. In addition, non-US persons can be subject to significant fines for sanctions violations that involve a US nexus, which may be as simple as using US dollars (which are cleared through US financial systems). As a result, sanctions compliance should be an utmost priority to all participants in the international shipping community.

**“In the event of an accidental sanctions violation, maintaining and following a sanctions compliance policy is a significant mitigating factor for sanctions authorities to reduce penalties”**

## Sanctions compliance policy

The first step in sanctions compliance is to adopt and maintain a robust sanctions compliance policy. There are two principal reasons to have a sanctions compliance policy:

1. It helps individuals within the organisation to comply with sanctions.
2. In the event of an accidental sanctions violation, maintaining and following a sanctions compliance policy is a significant mitigating factor for OFAC (Office of Foreign Assets Control) and other sanctions authorities to reduce penalties.

In 2019 OFAC published a framework for a sanctions compliance policy ([https://home.treasury.gov/system/files/126/framework\\_ofac\\_cc.pdf](https://home.treasury.gov/system/files/126/framework_ofac_cc.pdf)). While a good sanctions compliance policy should be tailored to meet the actual operations of the company in question, the OFAC framework is a great place to start.

## Counterparty diligence

The next step in sanctions compliance is counterparty diligence, so as to identify whether your counterparty is sanctioned. Counterparty diligence overlaps heavily with other “know your customer” (KYC) diligence, including any anti-money laundering (AML) requirements. At the most basic level, OFAC operates a website that can be searched for the name of any counterparty

(<https://sanctionssearch.ofac.treas.gov/>). Commercially available subscription services can also run a more detailed search. However, merely searching the website (or even a for-pay service) for a counterparty’s name is not necessarily sufficient.

For one thing, under the “50 per cent” rule, an entity that is owned 50 per cent or more by one or more specially designated nationals (SDNs) is itself treated as an SDN. Shipping companies often operate through special purpose entities organised in offshore jurisdictions, with no record of beneficial ownership. A search of such a company’s name may yield no results, but if it is owned by an SDN, it will still be treated as an SDN. There is also a risk of a conduit or “strawman,” where the “true” counterparty is not the listed entity but the sanctioned entity that stands behind it. As a result, it is important to ascertain the true identity of the counterparty, not just nominal ownership.

Finally, OFAC guidance has made clear that transactions with sanctioned officers and directors may result in a violation even if the company itself is not an SDN ([www.wfw.com/wp-content/uploads/2017/07/ExxonMobil-sanctions-July2017.pdf](http://www.wfw.com/wp-content/uploads/2017/07/ExxonMobil-sanctions-July2017.pdf)). Therefore, officers, directors and similar parties should be made subject to KYC diligence.

Even if it has been established that the counterparty itself (including its officers and directors) is not sanctioned, it would still be prudent to learn more about the counterparty to ascertain whether the counterparty is likely to be in violation of sanctions. This is sometimes referred to as “know your customer’s customer” (KYCC). By necessity, this is a more subjective



determination than simply learning the counterparty's identity. The counterparty may have engaged in activities that raise some red flags, but management may decide, after analysing the risk, that such activities do not rise to the level that would require rejection of the transaction. The appropriate level of KYCC should be described in the sanctions compliance policy.

Two issues have been identified that raise particular compliance challenges: AIS transponders; and ship-to-ship (STS) transfers.

### AIS transponders

Ships are generally required by IMO rules to use automatic identification system (AIS) transponders to transmit their location at all times. OFAC has identified a failure to transmit as a red flag for sanctions evasion, based on the fact that multiple ships that allegedly traded to Iran in violation of secondary sanctions apparently turned off their transponders to facilitate the illicit trade. However, there may be instances in which a transponder fails to transmit for technical reasons. In addition, there may be legitimate reasons for parties to turn off their transponders (eg where piracy is a concern). Therefore, not all instances of transponders failing to transmit should be treated as a per se violation. Rather, parties should decide what characteristics of AIS failures should and should not raise red flags.

### STS transfers

STS transfers of oil and other tanker cargo are a legitimate practice used by tankers worldwide. However, OFAC has determined that STS transfers can be used to disguise the origin or destination of illicit cargo. When engaging in STS transfers, it is important to do diligence on the counterparty ship to minimise the risk that the ship has engaged or will engage in any trading in violation of sanctions. As with AIS transponders, there is often uncertainty regarding the level of diligence that is appropriate. This should be dealt with in the sanctions compliance policy.



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### Contractual language

Participants in the shipping community should ensure that their charterparties, loan agreements and other relevant contracts have robust sanctions clauses. Ideally, the contract should provide that the relevant party should not violate sanctions (or take actions that result in a risk of a sanctions violation to any party) and should permit a party to terminate the agreement if there is a sanctions violation, or if the other party is sanctioned. As with compliance generally, having good contractual language does two things: it minimises the likelihood of a violation; and it demonstrates a good-faith attempt to comply, which is a mitigating factor if there is a violation.

**“It is important that the company keep accessible records (whether in electronic or physical form) showing its diligence, searches and other activities undertaken to comply with sanctions”**

### Records and auditing

One of the most important, and most overlooked, aspects of compliance is recordkeeping. It is important for a company to be able to show the relevant authorities or other parties not just that it has adopted a compliance policy, but that it has actually followed the policy and done the work of compliance. Otherwise, if there is a violation, the mitigating effects of the compliance policy will be vitiated. It is therefore important that the company keep accessible records (whether in electronic or physical form) showing its diligence, searches and other activities undertaken to comply with sanctions. In general, records should be kept for at least five years (which is the standard statute of limitations for a sanctions violation). In addition, it is useful for a company to test or audit its sanctions compliance programme, whether by means of internal checks or a more formal third-party audit, to confirm that the individuals tasked with enforcing compliance are in fact doing so.

### Conclusion

Given the importance of US sanctions, it is crucial for all participants in the maritime community, including shipowners, charterers, technical and commercial managers, brokers, crewing companies, lenders and insurance companies, to adopt, maintain and follow a robust sanctions compliance policy, as well as including appropriate sanctions language in relevant contracts. *MRI*



Daniel Pilarski

Daniel Pilarski, New York partner and sanctions expert, Watson Farley Williams



# Navigating obstacles

Richard Cooper, Jim Cashman and Paul Miller, of HFW, consider the challenges facilitating remote evidence in admiralty proceedings

**A**t first glance, the case of *The Sakizaya Kalon and The Panamax Alexander* [2020] EWHC 2604 (Admlty) appears unremarkable and unlikely to attract media attention. No areas of disputed law were put before the court nor were there any surprises in the judgment itself, which was almost purely based on applying the existing law to the judge's findings of fact. Legally, the case did clarify a small but important point regarding how long before a collision a vessel can be at causative fault which, despite the judgment being 306 paragraphs long and addressing some complex technical points, seems to have been the only substantive legal question addressed by the court.

However, on closer inspection, one can see the case's historical significance. First, the case was the end of an era, as it was the final judgment of Sir Nigel Teare as Admiralty Court Judge, one of the finest admiralty jurists to preside over the court in recent years. Secondly, however, it ushered in a new chapter for the Admiralty Court, as it was the first time in legal history that a witness gave remote evidence from the high seas, demonstrating that modern technology can now connect the court with witnesses and experts in the most remote and isolated of places.

## Background

The vessels involved in the collision the subject of this case were *Sakizaya Kalon*, *Osios David* and *Panamax Alexander*; all laden Panamax bulk carriers. On 15 July 2018 the vessels were the last three in a convoy heading south through the Suez Canal, with *Osios David* being the first of the three, followed by *Sakizaya Kalon* and the *Panamax Alexander* bringing up the rear. All three ships had Egyptian pilots on board who communicated with each other over the radio in Arabic.

**“This case was the first time in legal history that a witness gave remote evidence from the high seas, demonstrating that modern technology can now connect the court with witnesses and experts in the most remote and isolated of places”**

While the convoy was sailing through the canal, a vessel at the front of the convoy, *Aeneas*, began to suffer from engine issues. It became evident that the convoy would have to stop temporarily, as the canal is too narrow to allow modern commercial vessels



to overtake each other safely without tug assistance. Accordingly, the vessels in the convoy began to slow their speed to stop and moor to the banks of the canal, this being communicated between the pilots and the Suez Canal Authority via radio.

*Osios David* successfully stopped and moored to the western bank of the canal about an hour after becoming aware of *Aeneas's* engine troubles. This was about 32 minutes prior to the collision. Shortly thereafter, *Sakizaya Kalon* successfully stopped and moored just astern of *Osios David* to the eastern bank of the canal. This was now 17 minutes before the collision.

*Panamax Alexander* failed to stop, only dropping her anchor minutes before she collided with *Sakizaya Kalon's* starboard side and fouling her anchors. *Panamax Alexander* and *Sakizaya Kalon* went on to collide with *Osios David* and ended up in what was described by the court as a “triangle position” across the canal. The collisions between the three vessels generated claims totalling US\$18 million.

## The claim

The procedural history of the case is complicated as it was a consolidation of three separate claims. To summarise, the first claim involved *Sakizaya Kalon* interests bringing a claim against *Panamax Alexander* interests, primarily for breaching the following Collision Regulation rules:

- Rule 2 (Responsibility);
- Rule 5 (Look-out);
- Rule 6 (Safe speed);
- Rule 7 (Risk of collision); and
- Rule 8 (Action to avoid collision).

*Panamax Alexander* interests counterclaimed on the basis that there was no order to stop, she had received insufficient warning that the other vessels were going to stop and, once it became apparent the vessels ahead had moored, she could not possibly have safely stopped in time. They argued that the cause of the collision was either negligence on the part of the other two vessels or alternatively an inevitable accident.

The *Panamax Alexander* interests' counterclaim against *Sakizaya Kalon* was based on the following five criticisms:

1. That she did not give notice that she would moor;
2. That she did not seek tug assistance to moor;
3. That she had moored on the eastern side of the canal, thus effectively blocking the canal given that *Osios David* was moored to the west side just ahead;
4. That she should have slacked her anchors and moved ahead of *Osios David* prior to the collision; and
5. That she should not have attempted to heave her anchors during the collision.



## Issues at trial

The court had to decide who had breached the Collision Regulations and ultimately the apportionment of liability between the three vessels. Despite the parties raising many technical and factual disputes, the primary question that seemed to catch the court's attention was whether *Panamax Alexander* could be found liable for her actions an hour or so before the collision. In most collisions, causative fault usually only occurs much closer in time to the collision event. In this case, however, the other two ships argued that *Panamax Alexander* should have taken steps to slow down and stop more than an hour before the collision and failing to do so was in fact the cause.

## Judgment

The court found *Panamax Alexander* fully liable for the collisions. The nautical assessors advised the court that it would have taken no more than good seamanship to safely stop and moor *Panamax Alexander*. *Panamax Alexander* was negligent for not sufficiently preparing to stop at about an hour and 10 minutes before the collision. This was a breach of Collision Regulation Rules 5, 7 and 8. It should have been obvious to *Panamax Alexander* an hour before the collision that the vessels ahead were slowing down to moor and that *Panamax Alexander* would have to do the same.

In addition, the court found that *Panamax Alexander* had breached Rule 6 (Safe speed), an hour and 10 minutes before the collision, but that this was not causative because there was still time and space to slow down and stop.

**“It is perhaps the first example where causative fault occurred more than an hour before the collision”**

However, in relation to the Rule 5, 7 and 8 faults – also made more than an hour before the collision – these were causative. This is, legally, the most important aspect of the decision, as it is perhaps the first example where causative fault occurred more than an hour before the collision. Nevertheless, it is hard to see how this reasoning could apply outside of a collision in a narrow canal or river.

## Technical and legal obstacles to facilitating remote evidence

The other noteworthy aspect of the trial was that all three witnesses of fact gave evidence remotely from overseas, with *Sakizaya Kalon's* captain giving evidence remotely from his vessel in the South Atlantic Ocean, which was a historic first. Facilitating the remote evidence of witnesses overseas involved overcoming significant technical and legal obstacles.

Establishing a reliable internet connection on the high seas is challenging from a technical perspective. To give remote evidence, a witness needs a stable video and audio connection for several hours. The internet capabilities of individual vessels differ greatly. The captain's vessel used a satellite connection, whose reliability fluctuated depending on the ship's location. Solicitors for *Sakizaya Kalon's* interests worked in conjunction with Sparq, the virtual court trial providers, to ensure that a reliable

connection could be maintained for the trial by providing the captain with custom hardware that could “boost” the satellite connection and maintain stable internet.

Despite being technologically feasible, there may be significant legal obstacles to a witness giving remote evidence, whether at sea or not. It should not be presumed that foreign governments will always allow those within their jurisdiction to give witness evidence remotely to an English court. As such, Practice Direction 32 Annex 3, para 4 of the Civil Procedure Rules (CPR) requires that if there is any doubt, the parties need to seek confirmation from the “Foreign and Commonwealth Office (Legalisation Office)” that there is no objection from the host country at a “diplomatic level”.

The captain of *Panamax Alexander* gave evidence from a hotel facility in Athens. This is a straightforward situation, as the Evidence Regulation (Council Regulation (EC) No 1206/2001) was applicable at the time of the hearing. The Regulation allows the courts to bypass diplomatic channels and, as such, there was no requirement to seek diplomatic permission.

The captain of *Sakizaya Kalon* gave evidence from his Liberian-flagged vessel on the high seas. One must ask whether confirmation needs to even be sought in this situation. To comply with the CPR Practice Directions, best practice would be to seek confirmation from the vessel's flag state. In this case, the flag state was Liberia, who raised no objections when notified that a witness was to give evidence from on board a vessel under their flag.

The captain of *Osios David* gave evidence from on board his vessel while at port in Chile. This raises the question of who permission should be sought from: the port or flag state? Likewise, when a vessel is in transit with its destination still to be confirmed, it can be difficult to predict where the witness will be on the day they are due to give evidence. Some states, such as Brazil, have in place a bureaucratic process that takes weeks to resolve. In circumstances where the destination is only confirmed days before the hearing, it may be too late to seek diplomatic approval from the port state.

## Conclusion

Despite its limited legal importance outside of collision causation in narrow channels, rivers and canals, or perhaps even more limited to convoy situations, the case has been a significant milestone in the evolution of the courts' technical capabilities.

Notwithstanding the technical and legal issues regarding remote evidence, the parties were ultimately successful in navigating these obstacles. All three captains gave remote evidence: *Sakizaya Kalon's* from the high seas, *Osios David's* from his vessel in port and *Panamax Alexander's* from a hotel in Athens during a total of three days of cross-examination. Judges like to see a witness's evidence tested by cross-examination. There is increasingly less reason for this not to happen, no matter where a witness may be. [MRI](#)



Richard Cooper



Jim Cashman



Paul Miller

Richard Cooper, paralegal, Jim Cashman, partner and Paul Miller, master mariner, of HFW

# How to **change behaviour**

**Akshat Arora**, at The Standard Club, looks at why the shipping sector continues to struggle with deaths and injuries in enclosed spaces

**E**nclosed space entry-related accidents on board ships have long been a cause of serious injuries and fatalities. The IMO adopted Resolution A.1050(27), “Revised Recommendations for Entering Enclosed Spaces Aboard Ships” in November 2011 and incorporated mandatory amendments to SOLAS Ch III Reg.19.3.6 (emergency training and drills) and Ch XI-1 Reg.7 (atmosphere testing instrument for enclosed spaces). Additionally, the International Safety Management (ISM) Code requires companies to ensure proper risk assessment procedures are in place.

Unfortunately, despite the existing requirements, enclosed space fatalities persist. In 2019, based on a study done by Vistrato, the International Transport Federation (ITF) underlined a “shocking spike” in deaths in confined spaces with a total of 145 casualties in the past 20 years, with an alarming 28 of those occurring within a span of 16 months. These incidents highlight improper training, insufficient hazard awareness and perhaps signal a need for enclosed space entry-related procedures to be reviewed further.

The Standard Club first published its “Master’s Guide to Enclosed Space Entry” in 2012 and recently launched its third edition underlining current issues and challenges. The guide is aimed at assisting seafarers entering enclosed spaces to do so safely, and preventing enclosed space-related casualties. Following the launch, the Club organised a webinar in cooperation with InterManager to discuss the topic and field participants’ questions. Here we detail key questions raised in that session.

## **What are the most common reasons behind these enclosed space fatalities?**

Analyses reveal that most incidents are caused due to failure in following established procedures, either due to lack of knowledge, or disregard for the need to take safety precautions. This applies to both ship’s staff and shore stevedores.

There have been several cases where, due to unplanned rescue, the person who tried to save the victim became a victim.

Many toxic gases are odourless and tasteless, so when entering an enclosed area or rescue situation, one should not attempt to use his/her senses to determine if the atmosphere is safe.

There are other external factors. For example, at times crew are faced with unclear or conflicting instructions. The Oil Companies International Marine Forum (OCIMF)’s ISGOTT (International Safety Guide for Oil Tankers and Terminals) mentions that seafarers “should not enter enclosed space in breathing apparatus unless it is an emergency”; but typically on tankers, wall wash tests have to be carried out and many operators require seafarers to wear breathing apparatus sets for this activity.

## **Does the IMO regulation on enclosed space training and drills achieve the desired effects?**

Under SOLAS Ch III Reg.19.3.6, from 1 January 2015 all ships must conduct enclosed space drills at intervals not exceeding

two months. Despite such tightly spaced intervals, there have been cases where crew were either not aware of the confined spaces onboard or the fact that the adjacent spaces to a confined space might be posing similar hazards. Drills must be realistic, focused and challenging to test the crew’s skills and responses.

Standards of training remain varied, with only some companies investing in sophisticated training and education tools, while the majority do not. Alternatively, a training course with a detailed minimum standard could be made a regulatory requirement for enclosed space practical training for seafarers prior to being assigned to any shipboard duties.

## **Ships are obliged to have the correct portable gas detector devices available on board. Is the IMO regulation adequate for all ship types?**

Under SOLAS Ch XI-1 Reg.7, carriage of atmosphere-testing instruments for enclosed spaces has been mandatory since 1 July 2016. MSC.1/Circ.1477 contains guidelines to facilitate the selection of portable atmosphere testing instruments for enclosed spaces; and the IMO encouraged early adoption of atmosphere testing for enclosed spaces through MSC.1/Circ.1485.

There is no requirement in SOLAS which specifies the number of gas detectors that should be maintained onboard. Therefore, several ship operators maintain minimum compliance, where just one set of gas detection equipment is provided onboard which is often kept safely for inspections and not used when an enclosed space entry is made. Even when this equipment is used, full dependency is imposed on the fact that its sensors are calibrated and the instrument is functioning properly.

Basically, it is the company or ship’s responsibility to assess which additional instruments are required. However, there have been a number of cases where cargo was fumigated and, due to a lack of clarity in the charterparty terms, suitable gas detector tubes for measuring concentrations of the toxic fumigant gas were not provided. Regulations surrounding this aspect must be made more specific to effectively close such gaps.

## **The current pandemic is preventing some fumigators to sail with the vessel. This means that ship operators and crew, who do not have necessary expertise to handle toxic materials, are exposed to a new operational environment. What is the guidance on this?**

With Covid-19 travel restrictions in place, ships are being tasked to carry out topping up of fumigation by the crew during the sea passage. This is against the IMO guidance contained in circulars MSC.1/Circ.1264 and MSC.1/Circ.1358, which states that the crew should not handle fumigants and requires fumigation to be conducted by qualified operators.

What ship operators can do is to get approval from the ship’s flag state and the relevant port states based on a plan on how this



topping-up operation will be conducted, including step-by-step procedures, the training that will be given to the crew, equipment handling requirements, risk assessment and contingency measures, with information provided in the relevant safety data sheet. The fumigation company should always be available to offer additional guidance if the crew encounter any issues during the operation or subsequent monitoring during the voyage.

### **To what extent do classification societies really consider human factors when designing ship's internal structures, and flag administrations when approving them?**

Design aspects can always be improved to reduce the risks of enclosed spaces. Usually the access manholes are suitable for one person to squeeze through and it will be difficult to initiate a proper rescue or evacuation. Further consideration could be given towards the layout and configuration of the confined spaces. Ventilators could also be better designed to provide quick venting, good air exchange and a breathable atmosphere.

With technological advancement, safety can be further improved by allowing features like biometric scanning, electronic tagging, sentry watch, man-down alarms, remote inspection using drones or fitting sensors for atmosphere measurement and personnel tracking.

### **There have been several casualties as a result of the crew entering enclosed spaces with an emergency escape breathing device (EEBD), respirators, or gas masks, which are not the appropriate equipment. What is the correct rescue equipment?**

The appropriate safety and rescue equipment for entering an enclosed space may vary depending upon the space, ship type and work involved. As a minimum, it will usually include:

- SCBA (self-contained breathing apparatus) with a spare cylinder.
- A lifeline and rescue harnesses.
- Lighting, including torches.
- A stretcher.
- A means of raising the stretcher, ie a tripod-type arrangement.
- Communication equipment.
- Atmosphere testing equipment and personal gas meters.

Appropriate personal protection equipment, including a gas meter, should be worn by all personnel entering the enclosed space.

An EEBD should never be used in lieu of a SCBA set. They can only be used as an escape device. Similarly, air-purifying respirators (or gas masks) should not be used as they do not provide a supply of clean air from a source independent of the atmosphere within the space.

### **What are the new changes to standard enclosed space entry procedures after ISGOTT 6? Can the guidance on enclosed space entry be applicable to an operator of non-tanker ships?**

ISGOTT 6 was published in June 2020, encompassing the latest thinking on a range of topical issues including:

- Gas detection, the toxicity and the toxic effects of petroleum products (including benzene and hydrogen sulphide).
- Safety management systems, including processes such as permit to work, risk assessment, etc and their relation to the underlying principles of the ISM Code.
- Best practice guidance on enclosed space entry, which highlights the risks of not following procedures and management of safety principles (eg risk assessment and use of entry permits).
- An emphasis on the need to address human factors, particularly around human behaviours and the importance of factoring this into training and the safe management of activities.

While ISGOTT is primarily targeted towards oil tankers and the terminals they visit, the safety management principles and processes in many safety-critical topics such as enclosed space entry can be applied to all ship types.

### **In terms of IMO requirements on enclosed space entry procedures, are these fit for purpose?**

IMO Resolution A.1050(27) objectives are solely "to encourage the adoption of safety procedures aimed at preventing casualties to ships' personnel entering enclosed spaces where there may be an oxygen-deficient, oxygen-enriched, flammable and/or toxic atmosphere". Unfortunately, this Resolution is not sufficiently broad, as there are also other hazards facing those entering an enclosed space.

We are at a stage where the procedures, permit to work and risk assessment process has, in theory, matured. However, the continuing loss of life while working in or entering enclosed spaces indicates otherwise.

When completing the checklists, emphasis should be on the demonstration of compliance, instead of just ticking the boxes. Lengthy procedures and checklists are more likely to become a paper exercise instead of being followed properly. **MRI**



**Akshat Arora**

**Akshat Arora, senior surveyor – loss prevention at The Standard Club**



# Safety report unveils **connivance on dangerous practices**

Shipping has prioritised profit over protection for seafarers, a World Maritime University report has found. In a damning indictment of the industry, the report hears of chronic mistrust between shore and ships, reports **Richard Clayton** of *Lloyd's List*

**H**as the shipping industry taken its eye off the ball when it comes to safety? Most of us consider the industry pretty safe – unless we read headlines about sinkings, groundings, and fires. All these incidents happen from time to time but there's a level we can accept.

Insurance experts estimate that about four-fifths of all marine accidents involve human error, rising to more than 90 per cent if the boundaries of human interaction are widened.

Human error remains a key safety issue and an underlying factor in many insurance claims, whether it is crew members on phones or an over-reliance on other forms of technology, fatigue, or a failure of organisational culture and behaviour. For this reason, the quality of crew and shipowners' overall safety culture is of increasing importance to risk assessment.

**“Recording malpractices are widespread, fatigue conventions are widely flouted, and minimum safe manning levels are ignored”**

Now read the research study “A Culture of Adjustment, Evaluating the implementation of the current maritime regulatory framework on rest and work hours”, from a team at the World Maritime University.

It's long — 128 pages — and occasionally verges on the academic. However, it's worth the effort. This study will change the way you think about maritime safety culture and the way you think about shipping. In essence, the research sets out to investigate whether earlier concerns about under-reporting of work hours or adjustment of work/rest hour records could be supported by the evidence.

Through semi-structured interviews, focus group discussions, and case studies, researchers wanted to gain a clear understanding of how different stakeholders deal with implementation, compliance monitoring and enforcement of the relevant provisions of the International Labour Organization and International Maritime Organization. What they found is deeply worrying.

Recording malpractices are widespread, fatigue conventions are widely flouted and minimum safe manning levels are ignored. Further, flag states compete to offer the lowest levels of compliance, shipowners penalise seafarers for speaking out, safety management systems have become enmeshed in bureaucracy and industry leaders look the other way.

In the most damning indictment of all, the findings identify “a chronic mistrust between shore and ships”. The report concludes that, “to a certain extent, all maritime stakeholders seem aware of the existence of a culture of adjustment”.

This “de facto connivance” needs to be unlocked to avoid the culture of adjustment becoming uncontrollable and irreversible, the report concludes.

The interviews brought out much frustration; and not only about dodgy operators. An example is given of discussions in 2010 about reducing working hours from 90 hours per week to 45 or 50.

“Believe it or not – [a country in Scandinavia], [a European country] and [another European country] were absolutely against that, and they had it their way. [A country in Scandinavia] was leading on it; [a country in Scandinavia] was the country that would not allow reduction of hours, and ... we lost, unfortunately they had silent support from [a European country] and [another European country].”

“I remember we were all sent back because we could not work out common ground, and IMO at that time said, ‘Guys go back, you have two hours to work out something’.

“And what did we work out? 90-hours a week. This is absolutely ridiculous.”

Seafarers openly admit they change their records to comply with regulations.

“People are absolutely not afraid to write something different than what they have actually done in terms of rest hours, because to them it's not even a mistake.

“If you ask them, this is what we do in real life; but on paper, this is what we do and this is how it is done on this ship and this is how it is done in this company.

“It comes to the culture ... you can see a good correlation between the number of accidents and this sort of happenings.”

The authors suggest the underlying factor is shipowners' goals of optimising profit and encouraging competition between service providers, including seafarers.

“This results in the indirect relaying of commercial pressure down the line to ships, which encourages compliance on paper.”

Seafarers allege that shipowners match the verification and monitoring agencies with the preferred operating profile for each ship. One interviewee said that companies play the power leader card: “If you don't do what I want, I will go somewhere else; and that applies to the class society, to the flag, and ... to ship management”.

A comment from a government official supports this. “When we investigate accidents, we see that there is ‘work as done and work as imagined.’ The difference between ... how the safety management



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system is being designed from the company and how work is being carried out, is becoming larger, and larger, and larger.”

Manning levels, fatigue and malpractice run up against shipowners’ tight financial margins throughout the industry.

**“People are absolutely not afraid to write something different than what they have actually done in terms of rest hours, because to them it’s not even a mistake. If you ask them, this is what we do in real life; but on paper, this is what we do and this is how it is done on this ship and this is how it is done in this company”**

Although the 14-hour workday was found to be widespread in the literature, this system goes unchallenged. Indeed, the authors state, “it satisfies the industry to legally maintain dangerous practices such as the six hours on/six hours off system and to control crew expenses”.

The WMU report recommendations include training flag state surveyors, port state control officers and companies’ shore-

side managers to recognise that insufficient rest damages ship safety, work performance and occupational safety and health.

Moreover, adjustments of records should be registered as a major non-compliance to specific instruments and evidence of ISM Code non-conformity; shipping companies should establish a “genuine link” with their crews to incorporate stable employment conditions in seafarer contracts; and they should promote a “just culture” to strengthen their reporting systems.

Perhaps the clearest illustration of just how far shipping has taken its eye off the safety ball comes in the final set of recommendations which call on labour and maritime communities to consider using “ethical, fair and efficient sanctions” to address systematic violations and recording malpractices.

Long-term contracts and protection of seafarers should be the norm, not the exception; mutual engagement is critical for implementing a just culture and building confidence between seafarers and their companies.

By suggesting that a de facto connivance in a culture of malpractice must be tackled, this report makes it crystal clear that shipping’s own view of seafarers as critical key workers is not supported by the evidence.



This article first appeared in our sister publication *Lloyd’s List*. For more on *Lloyd’s List*, visit [www.lloydslist.com](http://www.lloydslist.com).



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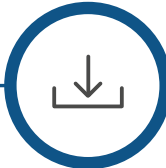
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