

Number 68, September 2023

IF SMA

NEWSLETTER

The Shipmasters' International Voice

The UK's National Risk Register
See page 14



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Readers are reminded that the opinions expressed in the IFSMA Newsletter are those of the various authors and providers of news and are not necessarily in accord with IFSMA policy.

Secretary General's Report

August is the month the IMO takes its annual summer leave and business shuts down for a brief period. However, Paul Owen, our Assistant Secretary-General has been working hard behind the scenes with the Japanese Captains' Association to ensure that everything is ready for the Biennial General Assembly which takes place in Tokyo from 25 - 27 October. This will be a great opportunity for you to catch up with what we are doing now and into the future and well as sharing stories and ideas with fellow shipmates in a relaxing environment. There is a great programme for partners too so I look forward to seeing many of you there. It is not too late to book.

Whilst August has allowed me to take some much needed leave, September starts with a bang and we are hard at it as we are attending a number of events at the London International Shipping Week from 11-15 September and then we head into the next meeting at the IMO – the Carriage of Cargoes and Containers (CCC4). There are usually a number of safety issues that concern IFSMA, but this time we are co-sponsoring eleven papers all on the subject of Enclosed Space Safety. This is an area in which we at the Human Element International Group, formed by IFSMA in 2017, have been very active as we strive to make the entering and working in enclosed spaces safer. Annually there are far too many deaths in the marine industry to both seafarers and shore staff. I will be reporting on this after the meeting and we publish papers of interest on the website.

On that note, keep safe wherever you are and I hope to see many of you in Tokyo.

Jim Scorer
Secretary General

From the News Editor

Lifeboat accidents: The Lifeboat needs to be reinvented

Without doubt lifeboats are an essential part of crew safety onboard every vessel but seafarers are way too often getting injured when launching the lifeboat.

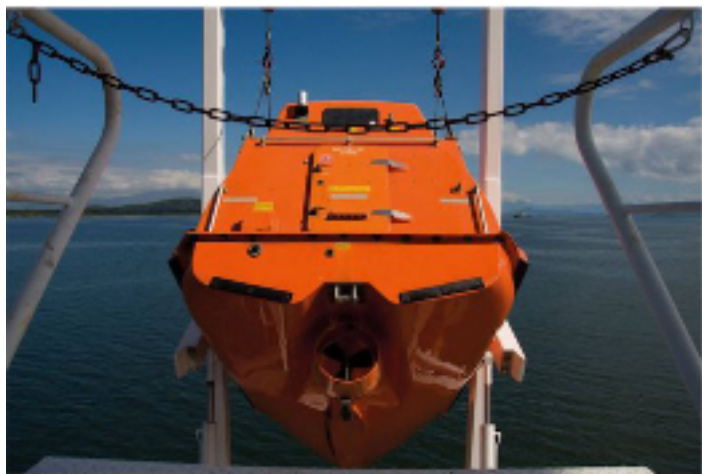
Instead of focusing on how to improve the lifeboat itself, focus has been on compliance and training. Now we learn that the Hamburg-based Container Ship Safety Forum e.V. (CSSF: <https://www.cssf.global/>) has called for a reinvention of the lifeboat onboard cargo vessels.

Launched in 2014 and incorporated as a registered association in 2018, the Container Ship Safety Forum is a global business-to-business network and industry association that is aiming to improve safety performance and management practices in the container shipping industry.

To achieve this, CSSF members collaborate through measurement, reporting and benchmarking as well as

sharing best practices and engaging with industry stakeholders.

With its 32 members, the CSSF represents more than 50% of the worldwide available TEU capacity on fully cellular container vessels



Over the years, many seafarers have been injured – some of them fatally – while launching the lifeboat during evacuations or evacuation drills. Not because the lifeboats have not been compliant with safety standards, but simply because the launch of a lifeboat is a dangerous task to perform.

Reinvention needed

In the words of Aslak Ross, Chairman of the CSSF *'We need to reinvent the lifeboat and its launching equipment onboard cargo vessels. For way too long, we have seen able seafarers being injured when launching lifeboats even though crews have been trained and the lifeboat is modern and fully compliant.'*

'Everyone knows we have a problem; seafarers are scared to launch lifeboats; however, no one has offered a plausible path towards a solution to the problem for cargo vessels. A change is needed to provide a safe environment for seafarers and to regain trust in lifesaving equipment.'

As a known problem it was learnt in 2017 when the UK Chamber of Shipping issued an article *Lifeboat drills: We need to save lives, not lose them* in which they identified sixty fatalities during testing of lifeboats over a ten-year period. In the article, it was stated that simulation training could improve safety.

Simulation as a supplement

Aslak Ross commented: *'Simulation and use of new technology is one way to conduct drills in a safer environment, and we support the intent to reduce the risk of accidents, however, it does not solve the core of the problem: Launching a lifeboat is too dangerous. And even though simulation has its advantages, it should only be used as a supplement to well-conducted onboard abandon ship drills where crews are familiarized with the ship specific equipment.'*

In the so-called hierarchy of controls – a five-level system widely used in industries to minimize or

eliminate exposure to hazards – training is on the second lowest level to minimize risks, while removing and replacing the hazards are considered the two most effective actions to eliminate risks.

Therefore, the CSSF encourages the industry, classification societies, flag states and suppliers to launch innovation to replace current lifeboats with a safer technology.

Alternative designs are already available for offshore installations and for passenger evacuation on passenger vessels through Marine Evacuation Systems (MES) and the like.

Innovation required

In conclusion Aslak Ross said: *'Such systems should also be made available to cargo vessels without delay. It is long overdue to change the current environment and innovate to eliminate the risk of lifeboat accidents. We need approved systems that can be fitted to newbuildings – we need to safeguard our seafarers.'*

A transport union's comment

Accidents involving lifeboats are one of the most common causes of injuries and fatalities among seafarers in the shipping industry, according to the UK's National Union of Rail, Maritime and Transport Workers (RMT). IMO SOLAS regulation III/19.3.3.3 requires each lifeboat to be launched at least once every three months during an abandon ship drill, and manoeuvred in the water by its assigned operating crew. However, the regulation, while requiring each lifeboat to be manoeuvred in the water by its assigned operating crew, does not actually require that crew to be on board when the lifeboat is launched.

Causes of accidents

According to insurer Gard, there are a number of causes of lifeboat accidents. Some of the more frequently occurring ones are:

- I. Failure of the on-load release mechanism.
- II. Inadvertent or accidental operation of the on-load release mechanism.
- III. Inadequate maintenance of the lifeboat and its launching equipment. Sometimes the item to be maintained might not be readily accessible due to its location
- IV. Lack of familiarity with lifeboats and the on-load release mechanism unclear operating instructions for the on-load release/resetting mechanism.
- V. Faulty design.

The CSSF is calling for the industry to take action and innovate to eliminate the risk of lifeboat accidents. Seafarers' safety should be the top priority, and a safer alternative to lifeboats should be made available to cargo vessels without delay. *'We need to safeguard our seafarers,'* Ross concluded.

Banana claims; reefer cargo

Bananas are grown in all tropical regions, and most of the global production is consumed in home markets.

However, a significant proportion of the production is intended for export, and the Cavendish variety is by far the most popular one exported. This variety is generally harvested in an unripe, green condition and transported to the end market as refrigerated cargo, either in containers or on specialised reefer vessels.



Though said to be the world's most transported and consumed fruit, bananas are also among the most sensitive cargoes carried by ship. Before a banana is available on the shelves of the supermarket it has been exposed to numerous external factors which all have a bearing on how the banana is finally presented. Many of the external factors affecting the quality of the bananas will not manifest themselves before the final stages of ripening and may cause claims being advanced against the ocean carrier.

The insurer Gard has outlined a selection of concerns in the carriage of the fruit and these are discussed in an article here: <https://tinyurl.com/37dp49bn>

Heavy lift

The US Coast Guard reported that the Captain of the Port in Savannah, Georgia, enforced a temporary safety zone in the Savannah River on 24 August for the import of intermodal ship-to-shore cranes in a Biglift vessel, *Biglift Barentsz*. (Our illustration here is of one of its sister ships *Biglift Baffin*). It never ceases to amaze the huge variety of project cargo carried across the globe.



The Coast Guard Captain of the Port Savannah established a safety zone during the import of the cranes to ensure the safety and security of the public and all vessels in the channel over six hours. Vessels were not permitted to enter into, transit through, moor, or anchor within 1,500 feet of the *Biglift Barentsz*, a 519-foot Netherlands-flagged heavy load carrier transiting the Savannah River to Garden City Terminal. No vessels were permitted in the safety zone thirty minutes prior to, during, and thirty minutes after the event unless authorized by the Coast Guard.

In the words of Commander Nathaniel Robinson, Coast Guard Captain of the Port Savannah in advance of the operation: '*Coast Guard Marine Safety Unit Savannah, our maritime law enforcement agency partners, and Savannah Pilots Association are committed to maintaining the integrity of the Savannah River and protecting the safety of the maritime public.*'

Violating these zones, it was reported, is a felony offence. Boaters (leisure craft) who enter these zones can expect to be escorted from the area immediately and may be subject to fines of up to \$250,000 and/or up to six years in federal prison.

Video view

Film of the Biglift MC-Class of heavy lift vessels *Biglift Baffin* and *Biglift Barentsz* is available here: <https://tinyurl.com/bdckhvp2>

New heavy lift tonnage

Earlier in August Spliethoff Group of which Biglift is part reported that mv *Bloemgracht* (141.3metres loa; cargo hold capacity 18,884 cubic metres) had been delivered from Fuzhou Mawei shipyard. The series of two identical DP2 B-type vessels is now complete, the other is mv *Brouwersgracht* (*illustrated*). The Spliethoff DP2 B-type vessels are the next generation offshore supply vessels with a number of versatile characteristics that make them unique in the market, it is reported.



These advanced vessels combine the intake of a multi-purpose vessel with a superior DP2 station keeping ability, making them ideal for supplying large volumes and weights of cargo directly offshore, it is reported. To obtain fast, safe and efficient loading and

discharge of pipes both on and offshore, the vessels are equipped with a removable automated pipe handling gantry crane.

They are equipped with two Huisman 500 mt heavy lift mast cranes, making them suitable for heavy lift transport and offshore installation.

US Marine Highway Routes

In the US the Maritime Administration (MARAD) has designated two new Marine Highway Routes. This was reported on 17 August.

These routes are:

- I. M-11 in Alaska which will add over 6,500 miles to the marine highway system.
- II. M-79 extending the reach of the Ohio River system by nearly 250 miles.

It is understood that the newly designated M-11 and the M-79 routes will help speed up the movement of goods, strengthen supply chains, and support local economies in Alaska, Pennsylvania and West Virginia. These designations allow any eligible applicant on these routes to apply for future US Marine Highway Program grants.

The Maritime Highway Program (MHP) supports the increased use of America's navigable waterways to relieve landside congestion, provide new and efficient transportation options, and increase the productivity of the surface transportation system. By working closely with public and private organizations, the MHP helps create and sustain American jobs in US ports, shipyards, and aboard vessels while also improving the nation's supply chains.

A Marine Highway Route is a navigable waterway, capable of transporting freight, located in the United States or its territories. Since its inception in 2010, the MHP has designated 31 marine highway routes.

In further detail, more on these routes is to be found here below.

M-11 Marine Highway Route (Alaska)

The Alaska Department of Transportation and Public Facilities is the sponsor of the M-11 route. This expansive waterway will add over 6,500 miles to the marine highway system with the inclusion of the coastal and river ports in southwestern and northern Alaska from the Aleutian Islands to the Canadian border. The waterways of the Bering Sea, Bristol Bay, the Arctic Ocean, and the Yukon-Kuskokwim River Delta have been waterborne transportation hubs for centuries. Many communities in this area depend on a system of ports, rivers, barge landings, and airports for the movement of goods and passengers. The M-11 Route will enhance transportation in these communities and will provide a greater range of waterborne transportation choices.

M-79 Marine Highway Route (Pennsylvania and West Virginia)

The M-79 route designation is co-sponsored by the Port of Pittsburgh and the Morgantown Monongalia Metropolitan Planning Organization. The M-79 route extends the reach of the Ohio River system by nearly 250 miles, adding the easternmost tributary rivers. Local business interests in the region, including river terminals and operators, are looking to waterborne transportation as a reliable and cost-effective alternative to other forms of surface transportation. The M-79 will serve as an incentive for increased operations, infrastructure investments, and freight movement, especially for new commodities that will move on the water in the future.

To learn more about MARAD's US Marine Highway Program readers are invited to see here: <https://tinyurl.com/mvniuwfa>

The IMO Digest

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

Illustrations per www.imo.org ©

Yemen

IMO enhances maritime security

Over late July / early August a national workshop was taking place to improve maritime security decision-making, policy development and implementation in Yemen. This was reported by the IMO media service on 1 August.

The aim of the workshop, which used the Whole of Government Approach to Maritime Security, was to support the development of a national maritime security committee, along with a national strategy and a risk register.

Broad participation

The event which ran from 30 July to 3 August, in the port city of Aden, brought together thirty-two participants from different government departments and agencies with an interest in maritime security. This gathering highlighted the importance of multi-agency collaboration and active participation as well as engagement of all stakeholders for the effective application of maritime security measures.

Regional security challenges

This was part of the programme of activities under the Regional Programme for Maritime Security in the Red Sea Area which was established last year to ensure adequate security and safety standards in a region that faces security challenges due to regional instability.

It is reported that the Red Sea Programme is funded by the European Union and jointly delivered by IMO, the United Nations Office on Drugs and Crime

(UNODC), INTERPOL and the Intergovernmental Authority on Development (IGAD¹). Under this initiative, IMO aims to assist participating countries to enhance maritime security and safety in the Red Sea Area, in line with the 2050 Africa Integrated Maritime Strategy².

British Embassy visit

In mid-July Eng/ Abdulrab JaberAl-Khulaqi, Deputy Chairman of the Board of Directors of Aden Ports Development Company, received Mr Alexander Petka, Head of the Economic Recovery Team at the British Embassy in Yemen, and his accompanying delegation.



At the meeting, which was attended by many officials and senior businessmen of Aden governorate, and representatives of shipping lines agents, many issues relating to the economic recovery process of the governorate were discussed.

Topics discussed included the challenges and difficulties faced by businessmen, issues of entry permits for ships to the port, lists of cargo that are prohibited to be imported, insurance against risks, closure of main roads, levies, double customs collection, including the customs riyal, and banking problems.

(See also here: <https://tinyurl.com/4m5xjuca>

¹ <https://iqad.int/>

² <https://tinyurl.com/2st6chkc>

Sub-Committee on Implementation of IMO Instruments (III 9)

31 July - 4 August

Updated draft resolutions to support implementation

The Sub-Committee, which reports to the Maritime Safety Committee (MSC) and the Marine Environment Protection Committee (MEPC), finalized the updating of four key IMO Assembly resolutions on implementation: the draft Survey Guidelines under the Harmonized System of Survey and Certification,

2023; the draft 2023 Non-exhaustive list of obligations under instruments relevant to the IMO instruments implementation Code (III Code); the draft Procedures for port State control (PSC), 2023; and the draft 2023 Guidelines on the implementation of the ISM Code by Administrations. These will be forwarded for adoption by the IMO Assembly at its thirty-third session (A 33), which meets 27 November to 6 December 2023.

III Code Implementation Guidance

The Sub-committee finalized the draft text of the III Code Implementation Guidance. The guidance aims to assist Member States in the implementation of the III Code, and the standard of audits conducted under the IMO member state Audit Scheme (IMSAS). The draft will be submitted to the Maritime Safety Committee (MSC) and Marine Environment Protection Committee (MEPC) for approval for issuing under an MSC-MEPC circular.

Guidance on assessments and applications of remote surveys, ISM Code audits and ISPS Code verifications

The Sub-Committee finalized part of a package of work on guidance on assessments and applications of remote surveys, ISM Code audits and ISPS Code verifications, as contained in draft Survey Guidelines under the Harmonized System of Survey and Certification (HSSC) and Guidelines on implementation of the ISM Code, with a view to adoption by A 33 (26 November-6 December).

Review of the Casualty Investigation Code

The Sub-Committee considered proposals for a holistic and comprehensive review of the Casualty Investigation Code and to amend the Code, including proposals to amend and improve the quality and timeliness of marine safety investigation reports. Following discussion, which saw strong support for the proposed review of the Code, the Sub-Committee invited interested Member States and international organizations to submit a proposed new output on a holistic and comprehensive review of the Casualty Investigation Code to the Maritime Safety Committee (MSC).

Casualty analysis

The Sub-Committee considered the report of the Correspondence Group on Analysis of Marine Safety Investigation Reports, containing information based on the analysis of the 27 marine casualties and incidents.

Lessons learned

The Sub-Committee approved the text of Lessons Learned from marine casualties and their release on the IMO website: Lessons-Learned. The Sub-Committee highlighted the importance of submitting the Lessons Learned while uploading marine safety investigation reports.

Safety issues related to risks of falls from height

The Sub-Committee considered the proposal developed by the Correspondence Group for a new output on guidelines addressing the identified safety issues of seafarers exposed to risk of falls from height (including, but not limited to, access to and egress from the location where the work will be conducted, working from height and work over the side) and agreed to forward to the MSC a proposal to develop guidelines addressing safety issues related to risks of falls from height.

Preventing the loss of containers at sea

The Sub-Committee considered the proposal developed by the Correspondence Group related to the development of measures to prevent the loss of containers at sea.



The Sub-Committee agreed to forward the proposal along with analysis to the Sub-Committee on Carriage of Cargoes and Containers (CCC) for further consideration, under the CCC agenda item *Development of measures to prevent loss of containers at sea* in its biennial agenda for 2024-2025.

Fishing vessels - person overboard

The Sub-Committee considered safety issues resulting in man overboard from fishing vessels in relation to the use of personal flotation devices (PFDs) and the possible application of existing technology, such as radar search and rescue transponder (SART), to relocate a person falling overboard from fishing vessels. The Sub-Committee invited the Sub-Committee on Navigation, Communications and Search and Rescue (NCSR) to recommend that the ICAO/ILO Joint Working Group on Harmonization of Aeronautical and Maritime Search and Rescue (JWG 30) should determine the most effective and appropriate means for locating a person falling into the water from fishing vessels and take further action to address the safety issue.

Issues relating to the implementation of IMO instruments from the analysis of data

The Sub-Committee noted that ten documents had been submitted under this agenda item, which were considered under other relevant agenda items. The Sub-Committee invited Member States, international organizations and the Secretariat to continue submitting their analyses of various data sets under this agenda item, as well as proposals on the way forward in relation to effective use of analysis in support of the regulatory work of IMO and policy development.

Harmonizing Port State Control (PSC) activities and procedures worldwide

The Sub-Committee noted that information provided by all ten PSC regimes revealed that 63,761 inspections were carried out in 2020, 74,574 in 2021 and 81,346 in 2022.

In 2020, 1,530 detentions were reported, 1,746 in 2021 and 2,160 in 2022. The overall detention rate increased from 2.34% in 2021 to 2.66% in 2022.

The Sub-Committee considered the regulatory basis for port State control, roles and responsibilities of Contracting Governments in their right to exercise port State control, and the supporting role of IMO. Additionally, the Sub-Committee considered the prospect of possible future developments, which include potential development of an overarching database under the umbrella of IMO; the need for analysis of PSC data stored in GISIS* to establish trends to support regulatory and policy developments; and the increasing number of PSC MoUs/Agreements working on the development of a port State control regime for fishing vessels.

Marine plastic litter from ships

With a view to progressing the work under this agenda item, the Sub-Committee invited interested Member States and international organizations to submit documents to III 10 on work on marine plastic litter assigned to it by MEPC.

Analysis of GISIS module on port reception facilities

The Sub-Committee noted analysis of data contained under the Port Reception Facilities (PRF) module of GISIS.

PRF Inadequacies by waste type 2018 to 2022 shows that 93% of reported inadequacies relate to MARPOL Annex V (garbage). More than half (58%) of the reports state no facility available, while 14% report unreasonable charge for use of the facilities.

The Sub-Committee urged Parties to MARPOL to increase the level of reporting and to review their respective reports within the PRF module to ensure that these were accurate and up to date; The Secretariat was invited to provide periodic reports on the data analysis to future sessions in relation to the PRF module.

*Global Integrated Shipping Information System:
<https://gisis.imo.org/Public/Default.aspx>

Energy Efficiency Existing Ship Index (EEXI) explained

Video series

Maritime administration personnel, ship owners and operators can get to grips with the Energy Efficiency Existing Ship Index (EEXI) through a new series of videos. This was reported by IMO on 9 August.

The films, developed by the Global Industry Alliance to Support Low Carbon Shipping (Low Carbon GIA), provides an introduction to IMO's EEXI requirements, how to calculate the attained and required EEXI, and how the survey and certification works.

Free access to videos

The videos, free to access online, are between ten and twelve minutes in duration and cover:

- Similarities and differences between EEXI and EEDI.
- EEXI compliance options.
- A worked example of how a ship's required and attained EEXI are calculated.
- A short quiz that enables the learner to test their understanding of EEXI.

Readers are invited to watch the EEXI video series here: <https://tinyurl.com/mry36zke>



Minglee Hoe, Technical Analyst of the IMO-Norway GreenVoyage2050 Project commented: 'Providing support tools to maritime administrations and ship owners/operators who want to increase their knowledge of the Energy Efficiency Existing Ship Index (EEXI) is important in helping the industry to navigate meeting ship energy efficiency requirements and making improvements in line with the IMO GHG strategy.'

Mandatory regulation

The EEXI regulation is mandatory under MARPOL Annex VI and took effect in January 2023 as part of IMO's short-term GHG reduction measure: <https://tinyurl.com/48emx8vb>

A ship's attained EEXI indicates its energy efficiency compared to a baseline. Ships attained EEXI will then be compared to a required EEXI based on an applicable reduction factor expressed as a percentage relative to the Energy Efficiency Design Index (EEDI) baseline. It must be calculated for ships of 400 gt and above, in accordance with the different values set for ship types and size categories. The calculated attained EEXI value for each individual ship must be below the required EEXI, to ensure the ship meets a minimum energy efficiency standard.

Video series

The video series was developed under the Energy Efficiency Technologies (EETs) and operational best practices workstream of the Low Carbon GIA video series.

A Carbon Intensity Indicator (CII) video series was released in May this year and is available here: <https://tinyurl.com/4a2nhaex>

More information

In order to learn more about the mandatory EEXI and CII measures readers are invited to use the link here: <https://tinyurl.com/4a2nhaex>

FSO Safer

Statement by IMO Secretary-General Kitack Lim

On 17 August HE Kitack Lim said:

'I wholeheartedly welcome the successful transfer of oil from the FSO Safer, completing the transfer of the oil cargo to prevent an environmental disaster off the coast of Yemen. IMO has been pleased to provide technical support over several years, in particular for oil spill contingency planning as well as a broad array of maritime issues. I congratulate all involved and thank the donors who made this possible.'

'Now we look forward to the next stage of the operation, including the safe recycling of the FSO Safer. I encourage further donations so that the UN-led project to remove any remaining environmental threat to the Red Sea can be completed.'

Background

Information kindly provided by IMO in week commencing 13 August:

IMO has played a key supporting role in the United Nations-coordinated initiative aimed at preventing an oil spill from the FSO Safer, which has been moored off the coast of Yemen since 1988, serving as a floating storage and offloading unit. Due to the ongoing conflict in Yemen, all production and export operations related to FSO Safer were suspended in 2015, with around 150,000 MT (around 1.1 million barrels) of crude oil remaining onboard.

Prior to July this year, the FSO *Safer* had not been inspected or maintained since 2015 and has been out of class since 2016. This led to serious concerns about its integrity. The risks related to possible structural failure or explosion (due to the nature of the degrading cargo) – which could have led to a major humanitarian and environmental disaster in the region.

Since the plans to address FSO *Safer* were initiated by the UN in 2019, IMO has been supporting the project on an array of maritime issues relevant to the 'Operational Plan', notably oil spill contingency planning efforts, resource procurement, contracting of specialist personnel, and ship chartering, ownership, registration and insurance

Under the UN initiative, the marine salvage company SMIT, a subsidiary of Boskalis, was contracted to inspect and ready FSO *Safer* and carry out a ship-to-ship transfer of the oil to the replacement tanker, *MOST Yemen*. This has now been completed.

The next critical step will be the instalment of a mooring point attached to the pipeline to which the *MOST Yemen* can then be safely secured. The aim is to complete this work by September to take advantage of the climatic conditions in the summer months.

Negotiations are continuing to resolve legal issues concerning the future sale of the transferred oil so that the proceeds can be used to benefit the people of Yemen.

The overall cost of the operation is over \$140 million, with some \$20 million still needed.

Commentary

News and film on this topic from Al Jazeera on 25 July is available here: <https://tinyurl.com/45amjvrv>

See also page 20: Yemen waters: FSO *Safer*.

An accident of our times

By Michael Grey, IFSMA Honorary Member

The report into the loss of the bulker *Wakashio*, which stranded and broke up on the shores of Mauritius in July 2020, has finally been made public by the Panamanian authorities. There are few surprises in this report, the main findings having been earlier made available to the IMO, which was justifiably concerned at the devastation caused to the pristine foreshore by the ship's spilled bunkers.

It is one of those accidents which might be considered inexcusable. She was a modern, well-equipped ship, operated by a famous Japanese line and managed by one of the most reputable ship managers. Her stranding caused considerable environmental harm, cost the senior officers their liberty, everyone concerned their reputation and the subsequent removal of the wreck and the clean-up, enormous expense. There was just no reasonable excuse for such an occurrence and probably not a lot to be learned from a professional point of view, from the analysis of the events.

And yet... The loss of the *Wakashio* might be considered an accident of its time, that just would not have occurred in another era. What was the ship, which should have passed the coast of Mauritius well clear, doing so close in the first place? The answer is clear enough – they closed the land so that they could get a signal on their mobile phones, so that the crew could speak to their nearest and dearest. The date is significant, too, with Covid raging around the world, no shore leave or reliefs and society in general expecting (if they ever even thought about seafarers for a second) shipping to keep world trade and the stuff they all needed, flowing. Crews were expected to work months beyond their contracted tour lengths, with no expectation of any change in their circumstances and additional and cumulative concerns about how their families were faring in the pandemic far away.

The chance of a telephone conversation as the vessel skirted the coasts of Mauritius was something that clearly assumed a lot of importance for this small isolated group of people. There was a birthday on board and some effort to cheer up their unenviable circumstances.

The Panamanian report makes clear all the various things that went badly wrong before the ship came to grief. There was a lack of vigilance, with the watch officer apparently distracted by his phone and unsupported, forgetting the master's order regarding the closest approach to land. The chart was the wrong scale and it appeared that everybody who could have supported the navigation was otherwise occupied. It was in short, a navigational shambles.

You might say that there was a complete dereliction of duty and you would probably be correct, in an accident which just would not have happened in another age, before personal communications became so important to us all. Most people ashore would be appalled at the prospect of being parted from their mobile devices for weeks on end, and the modern seafarer, although having to put up with such isolation, clearly feels the isolation keenly. In earnest discussions about future labour shortages and how recruitment and retention can be encouraged, it is clear that communications with nearest and dearest, in distant memory confined to snail mail and the agent's boat, have become entrenched as essential human rights.

Any survey of seafarer attitudes will confirm the importance of communications with employers being effectively rated by their provision of communication access. And seafarers jolly well know, as they sit aboard ships which are wired up for instant data transmission, that the technology is eminently available to keep them in touch, at a reasonable cost.

It might be suggested that this accident was not the first contributed to by the distractions of communication and will not be the last. There is something about novelty in the maritime world that will inevitably contribute to accidents, which just would not have happened had they not been available. The "radar assisted" collision, misunderstandings caused by VHF, AIS, GPS – now mobile distraction, it's just the latest addition to the technological armoury which

will briefly take our attention, until it is replaced by something else. Artificial intelligence – navigation advised by Alexa – who knows what delights are to come?

Michael Grey is former editor of *Lloyd's List*

This article first appeared in *The Maritime Advocate Online* Issue No 835 of 28 July 2023

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New tonnage – PIL

LNG dual-fuelled container ship

On 13 July Pacific International Lines (PIL) reported that the steel-cutting ceremony to mark the start of construction of PIL's first 14,000 TEU vessel was held at Jiangnan Shipyard two days before.

PIL CEO Lars Kastrup attended the ceremony to commemorate this significant milestone alongside representatives from American Bureau of Shipping (ABS) and Jiangnan Shipyard.

Cutting the first steel

Both Kastrup and Deputy General Manager of Jiangnan Shipyard Hu Hongyu initiated the steel-cutting ceremony, which was followed by a signing ceremony between PIL, Jiangnan Shipyard, and ABS to officially commence the construction. Managing Director of PIL China Klaus Ku and General Manager of PIL Fleet Goh Chung Hun were also present.



Kastrup spoke: *'It has been a number of years since PIL took delivery of new ships. Today, we resume our fleet renewal and expansion programme. This ship will be our first LNG dual-fuelled container ship, and it represents our commitment to sustainability and our vision for a greener and cleaner future. This ship, along with her three sister ships, forms part of our strategy to decarbonize our fleet and achieve net zero carbon emissions by 2050.'*

Four 14,000 TEU vessels

This order of four 14,000 TEU LNG dual-fuel container ships from Jiangnan Shipyard was announced by PIL in March 2022. All four ships will also be equipped with ammonia intermediate ready fuel tank, and they will be progressively delivered from mid-2024 through to early 2025.

When delivered, the vessels will become the largest container vessels in PIL's fleet and the first vessels in the fleet to run on LNG. This is in addition to the four 8,000 TEU LNG dual-fuel container ships which the company has ordered from Yangzijiang Shipbuilding in July 2022, and will be delivered progressively in 2025.

The construction of this new ship marks the start of PIL's fleet renewal and revitalisation. PIL remains committed to driving a safe, reliable and sustainable shipping industry.

About PIL

Incorporated in Singapore in 1967, Pacific International Lines (PIL) is ranked twelfth among the world's top container shipping lines and is also the largest home-grown carrier in Southeast Asia.



From a modest ship-owner in Singapore, PIL has developed into a global carrier with a focus on China, Asia, Africa, Middle East, Latin America and Oceania.

Together with its affiliated companies Mariana Express Lines (MELL) and Malaysia Shipping Corporation, PIL serves customers at over 500 locations in more than 90 countries worldwide with a fleet of around 100 container and multi-purpose vessels.

Apart from the core liner shipping business, PIL also has several other business units such as container manufacturing, depot and logistics services.

The company started out on 16 March 1967 and to commemorate its first 55 years a corporate video was issued in 2022. The 11:48 film is available here:

<https://tinyurl.com/yc2kw9ts>

ONE new service

LUX: Europe to South America

It was announced from Singapore in mid-July that Ocean Network Express (ONE) was due to inaugurate its Latin-East-Coast Express (LUX), a new weekly service connecting Europe and the Mediterranean to the East Coast of South America, providing ONE's customers with greater coverage, connectivity, and flexibility.



The LUX is said to represent ONE's first dedicated service connecting Europe and the Mediterranean to the East Coast of South America. The service is designed to provide a competitive northbound transit time from the East Coast of South America to the Mediterranean and Europe. It is reported to be the only service making a direct call from Lisbon to the East Coast of South America, providing customers with the opportunity to ship from these unique port pairs.

To quote Yu Kurimoto, Managing Director of ONE: *'South America has always been of strategic importance to our global network.'*

'The launch of the LUX service demonstrates ONE's commitment to providing our customers with excellent, reliable, efficient, and comprehensive services. We are constantly looking for ways to enhance our products and offerings, and the LUX service represents a significant step forward in meeting the needs of our customers in this important region.'

The inaugural sailing for LUX will commence from Montevideo on 16 September with the following rotation: Rotterdam – London Gateway – Hamburg – Antwerp – Lisbon – Algeciras – Santos – Paranaguá – Montevideo – Buenos Aires – Itapoa – Paranaguá – Santos – Rio De Janeiro – Algeciras – Rotterdam.

About Ocean Network Express (ONE)

Ocean Network Express (ONE) was created on 7 July 2017 following the liner service integrations of Kawasaki Kisen Kaisha ("K" LINE), Mitsui O.S.K. Lines (MOL) and Nippon Yusen Kaisha (NYK).

This group functions from its global headquarter in Singapore, supported by regional headquarters in Hong Kong, Singapore, the UK, the US and Brazil.



Operating more than 200 vessels it offers an international network of over 170 services to 120 countries and beyond. ONE is the world's seventh largest container carrier with a fleet size of approximately 1.52 million TEU.

ONE is a member of THE Alliance (THEA), a global ocean carrier consortium.

For more information readers are invited to see here: www.one-line.com

NYC as USCG City

On 31 July it was reported by the US Coast Guard that the Service had formally recognized the City of New York as a Coast Guard City during a ceremony at Pier 17 in Manhattan near the historic Coast Guard Cutter *Eagle*.

Vice Admiral Paul Thomas, the Coast Guard deputy commandant for mission support, bestowed this honour to New York City with approval from Congress.

He said: *'Communities around the nation support and contribute to our members and their families.'*

'It is just that some communities do that better than others, with more intentionality and more focused planning. Those communities are designated Coast Guard cities and New York City has certainly done that, and much, much more.'

James Hendon, the commissioner of the New York City Department of Veterans' Services participated in the ceremony. He added: *'The Coast Guard was founded just down the street at Federal Hall. There are so many areas that this relationship touches, and so we're happy to be here today to continue to proclaim it.'*

Recognizing support of local governments and communities

New York City was initially designated as the 25th Coast Guard City during a designation ceremony 4 February 2018. The Coast Guard City programme was established by Congress in 1998 to recognize the support local governments and communities provide to Coast Guard members and their families. There are currently 29 Coast Guard Cities nationwide.

The honour, bestowed by the Commandant of the Coast Guard with approval from Congress, recognizes New York's longstanding efforts to embrace Coast Guard members and their families stationed in New York during their tour of duty.



Vice Admiral Paul Thomas, the Coast Guard deputy commandant for mission support, James Hendon, the commissioner of the New York City Department of Veterans' Services, Rear Admiral John Mauger, the First Coast Guard District commander, and Captain Zeita Merchant, the Coast Guard Sector New York commander and Captain of the Port of New York and New Jersey pose with proclamations redesignating New York City as a Coast Guard City following a ceremony at Pier 17, New York City, on 31 July.

The Coast Guard City programme was established by Congress in 1998 to recognize the support local governments and communities provide to Coast Guard members and their families.

US Coast Guard photo by Petty Officer 2nd Class Ryan Schultz.

USCG ©.

The designation is not intended as a lifetime award, but as recognition of an active and ongoing commitment to support and honour the Coast Guard. The designation remains in effect for five years, after which the city is required to apply for recertification.

Established 1790

From its founding in 1790 by Alexander Hamilton to the present day, the US Coast Guard maintains safety and security on New York City's waterways and protects the city's residents and tourists.

Remembering 9/11

This relationship is demonstrated through events such as the helicopter accident on the East River in March 2018, New York City's and the Coast Guard's response to Hurricane Sandy in October 2012, and historical moments like the evacuation of over 500,000 people from Lower Manhattan following the terrorist attacks on 11 September 2001. The Coast Guard is always ready – alongside the New York Police Department, the Fire Department of New York, and the Department of Emergency Management – to safeguard the city.

For more

More information about Coast Guard cities can be found here: <https://www.uscg.mil/Community/cities/>

Typhoon Khanun

Typhoon Khanun is the sixth typhoon of the season in the Pacific and has been classified as being of "very strong" intensity. The extreme weather event caused the suspension of flights from the city of Naha, knocking out power for more than 200,000 people and causing the evacuation of 600,000 residents. By 3 August the Okinawa archipelago remained on a weather alert for flood and landslide risks until the end of August.



Credit: European Union, Copernicus Sentinel-2 imagery.

On 2 August, one of the Copernicus Sentinel-2 satellites captured this image of the eye of the typhoon which approached Okinawa with speeds of up to 220 km/h.

Copernicus Sentinel satellites provide free and open data that allow the monitoring of hurricanes and typhoons on a global scale.

Canadian wildfires

Months into the Canadian wildfire crisis they continued to rage furiously in Canada. By the end of July fires had erupted along the border between the USA and the Canadian territory of British Columbia, forcing hundreds of evacuations. One of the Copernicus Sentinel-2 satellites revealed wildfires reaching the Arctic territory, northeast of Inuvik on 29 July.

Copernicus satellites play a pivotal role in monitoring burnt areas resulting from wildfires worldwide, providing crucial data for assessing environmental impact, understanding fire spread dynamics, and aiding in effective response and recovery efforts.

USCGC *Bertholf* returns home

USCGC *Healy* and CCGC *Sir Wilfrid Laurier*

On 3 August it was reported from the Beaufort Sea that the US Coast Guard Cutter *Healy* had conducted joint operations with the Canadian Coast Guard vessel *Sir Wilfrid Laurier* while northbound en route to the Arctic Ocean on a month-long science mission in support of the Office of Naval Research (ONR).

Healy, the US Coast Guard's largest polar icebreaker, and crew participated in a personnel exchange off the coast of Utqiagvik, Alaska, and hosted Captain Michele Schallip, commanding officer of *Healy*, hosted Rear Admiral Megan Dean, the 17th Coast Guard District commander; Youssef Mani, the Assistant Commissioner of the Canadian Coast Guard, Arctic Region; Shane Sadoway, regional director of Navigational Programs and Operations Canadian Coast Guard, Arctic Region; and Captain Timothy Williams, CO of Coast Guard Air Station Kodiak.

Healy's unique capabilities

The crew showcased the cutter's unique capabilities, including science laboratories, various conning stations, and extensive engineering spaces. The meeting of the two research-oriented icebreakers deepened their respective flag states' mutual commitment to Arctic stewardship, and fostered *esprit de corps* as the crews reflected on their shared experiences. *Healy* displayed its work with ONR's Arctic Mobile Observing System, which is the cutter's objective in the month of August in the Beaufort Sea.



USCGC *Healy*, left, with CCGC *Sir Wilfrid Laurier*.

Additionally, *Healy* and *Sir Wilfrid Laurier* held exercises including formation steaming, boat operations, and flying the latter's embarked helicopter.

Healy is currently on a five-month deployment in partnership with ONR and the National Science Foundation. Meeting with *Sir Wilfrid Laurier* is the latest iteration of international cooperation and strong partnerships among Arctic nations.

Commissioned in 1986, the 272-foot *Sir Wilfrid Laurier* is based out of Victoria, British Columbia. It executes

scientific research in addition to buoy tending and ice escort missions. Famously, in 2014 *Sir Wilfrid Laurier* embarked on the Victoria Strait Expedition, where the wreck of HMS *Erebus* was rediscovered 166 years after its abandonment, sunken west of the Adelaide Peninsula in Nunavut.

The US Coast Guard's Polar Security Cutter program will continue the legacy of the *Healy* and Coast Guard Cutter *Polar Star*, and several classes of cutters before them, as the next generation of vessels to ensure continued access to both polar regions and uphold sovereign rights, provide national security, and promote economic prosperity in the Arctic.

USCGC *Bertholf* returns home

Coast Guard Cutter *Bertholf* returned to homeport, on 3 August to Coast Guard Island (Alameda, California) after a 120-day Bering Sea patrol in support of United States national security, US fishing fleet safety and prosperity, and the protection of US living marine resources.



USCGC *Bertholf*, left, two JMSDF Training Ships passing, both vessels at the salute.

While patrolling the Bering Sea, *Bertholf's* crew members conducted fifteen boardings of commercial fishing vessels, ensuring compliance with federal fisheries laws, and preserving the highly valuable US living marine resources. These boardings also ensure that the US fishing fleet have sufficient safety equipment to survive in the event of an at-sea emergency.

In a demonstration of the strong trusted partnership between Japan and the United States, *Bertholf* conducted major at-sea and shore side engagements with the Japan Maritime Self Defense Force (JMSDF) training ships *Kashima* and *Hatakaze*.

During the at-sea engagement, *Bertholf*, *Kashima* and *Hatakaze* executed multiple formations, and during a farewell pass, the JMSDF personnel displayed a highly impressive drumline performance on their flight deck.

Afterward, the three ships moored up together in Dutch Harbor, Alaska, and continued to build relationships and shape partnerships. These engagements included reciprocal ship tours, a

baseball game, a fun run up local mountain Ballyhoo, and a Dutch Harbor beach bonfire.

The next day, the Japanese and US crews came together with the Unalaska community and officials from the Qawalangin Tribe during the 81st anniversary of the Second World War Battle of Dutch Harbor ceremony to commemorate the lives lost, the community impacts, and to recognize the healing and partnership that has been built in the decades that followed. Rear Admiral Konno, JMSDF Training Squadron Commander, Rear Admiral Moore, commander of US Coast Guard 17th District, and Mayor Tutiakoff presided over the ceremony and exchanged official gifts.



Boat operations.

Additionally, *Bertholf* guarded the boundary line between the US and Russian Exclusive Economic Zone (EEZ), ensuring that the fish in US waters were protected from illegal, unreported and unregulated fishing from foreign nations.

Bertholf returned to the home port of Coast Guard Island on the eve of the fifteenth anniversary of its commissioning date; August 4th, 2008, which also coincides with the Coast Guard's 233rd birthday of 1790.

*Illustrations per US Coast Guard 17th District Public Affairs.
USCG ©*

The UK's National Risk Register

A nation state in exercising its responsibilities towards its people and the wider global community has to create and maintain a register of the likely horrors or risks that will come its way in time.

As the years have gone by and advances in science and technology have increased the risk of catastrophe increased too. For example, our forefathers in say the 1940s would never have had to consider cybercrime although telephones could and were tapped and business codes broken. From the earliest times nations have had to prepare to confront the personification of the Four Horsemen of the Apocalypse: Death (or Plague), Famine, War, Conquest.

Along with other states the UK is facing an ever-changing and growing set of risks. Even in the three years since its last National Risk Register was published in 2020, the world has seen the barbaric invasion of Ukraine by Russia, the wide-ranging and long-lasting effects of the Covid-19 pandemic, and the increasing impact of climate change on day-to-day lives.

Furthermore, technologies such as artificial intelligence (AI) are transforming the world – bringing with them opportunities but also risks. In his foreword to the National Risk Register the Rt Hon Oliver Dowden MP Deputy Prime Minister and Secretary of State for the Cabinet Office wrote: *'This country has overcome countless challenges before, but I am determined to build on our national resilience so that we are prepared for whatever the future holds.*

'To do that, we need to be more open than ever about the risks we face. Government cannot tackle these challenges alone; due to our increasingly complex and interconnected world, all of society needs to work together to strengthen our defences and build a more resilient nation... This document reflects our sophisticated understanding of the risk landscape following events such as Covid-19.

Pdf version

The 192-page document is available by this link here: <https://tinyurl.com/2tp7fuzz>

Risks included

The risks that meet the threshold for inclusion in the National Risk Register would have a substantial impact on the UK's safety, security and/or critical systems at a national level. The Register includes information approaching two hundred risks, within nine risk themes as here:

- Accidents and system failures
- Conflict and instability
- Cyber
- Geographic and diplomatic
- Human, animal and plant health
- Natural and environmental hazards
- Societal
- State threats
- Terrorism

Of these a representative selection enables an appreciation of topics of interest to our Members, with page numbers where they are to be found in the document:

- Terrorism (page 31)
- International terrorist attack (page 32)
- Malicious maritime incident (page 36)
- Conventional attack: fuel supply infrastructure (page 52)
- Cyber attack: fuel supply infrastructure (page 53)
- Disruption to global oil trade routes (page 67)
- **Large passenger vessel accident** (page 77)*
- Major maritime pollution incident (page 79)
- **Incident (grounding/sinking) of a vessel blocking a major port** (page 81)*
- Accident involving high-consequence dangerous goods (page 83)

- **Loss of Positioning, Navigation and Timing (PNT) services** (page 91)*
- Simultaneous loss of all fixed and mobile forms of communication (page 93)
- Severe space weather (page 142)



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* **Three examples relevant to seafaring are to be found below:**

Page 77, Large passenger vessel incident

There is a risk that a large passenger vessel such as a cruise ship could sink in UK waters. This is a low likelihood risk, with the last major accident on a UK-flagged ship at sea having occurred in March 1987 when the Herald of Free Enterprise capsized shortly after leaving Zeebrugge en route to Dover, killing people. International incidents further highlighted the seriousness of this risk should it manifest in the UK. However, the UK deals with many large passenger vessels – not just cruise ships – and has an exemplary safety record.

Scenario

The reasonable worst-case scenario is based on a large passenger vessel (for example cruise ship or ferry) sinking, potentially caused by a collision with another vessel, fire or grounding. Significant numbers of people are aboard, who rapidly abandon the vessel. There would be no-notice fatalities and a substantial number of survivors requiring medical assistance at a shoreside landing point. Older adults with the potential for age-related health and mobility issues, and who would require extra assistance, would be expected on cruise ships. The provision of immediate humanitarian

assistance could take several days to complete but would likely be longer in remote parts of the UK. Salvage operations could take several years.

Key assumptions for this scenario

It is assumed for the purposes of the assessment that the incident would take place in the UK search and rescue zone, with passengers and crew being a mix of UK and non-UK nationals. The vessel would sink slowly, allowing search and rescue to take place. The damaged vessel would cause environmental damage.

Variations of this scenario

A variation scenario is a blended incident involving very severe weather, partial abandonment, and one where significant pollution is involved. This would alter the capabilities and subsequent incident management required.

Response capability requirements

Local level plans are in place to coordinate and respond to the need to provide medical assistance, decontamination, accommodation and repatriation to people landed; however, there are fewer capabilities to do this in more remote locations. Specific requirements include: casualty triage; decontamination; ability to reunite families; language interpretation for foreign nationals; border force; and Foreign, Commonwealth and Development Office input to assist persons without documentation, medication or accommodation. Port security may need consideration and communications capabilities between agencies landside and maritime at the landing point need to be strong. A robust capability to count and track casualties and survivors is required.

Recovery

Recovery in terms of shoreside impacts where casualties are landed would be in the order of days and weeks and managed through existing plans and recovery arrangements in place at the local level. The exception would be remote, small communities who are involved in the response (for example Western Isles) where the incident may leave a lasting impact on the community. Recovery of the vessel and pollution are managed through the National Contingency Plan and commercial salvage routes (see Maritime Pollution Risk). If access to a port is impacted, recovery may take weeks to months.

Page 81, Incident (grounding / sinking) of a vessel blocking a major port

There is a risk that an accident involving a vessel could block a major UK port. The consequences of this risk were observed in the Suez Canal in 2021, which was blocked by one of the largest container ships in the world as a result of it running aground. This resulted in delays to hundreds of vessels waiting to transit through the canal and had significant impacts on trade. The UK has plans and procedures, maintained and executed through the Secretary of State's Representative (SOSREP), to deal with major salvage incidents. The SOSREP will oversee the

recovery operations developed by vessel owners and any appointed salvors. Where a counter pollution response component exists within these plans, the Maritime and Coastguard Agency's Counter Pollution and Salvage team will ensure that arrangements are in place to quickly respond, limit and reduce impacts on the environment, marine habitats and local coastal communities.

Scenario

The reasonable worst-case scenario is based on a vessel grounding or sinking, which results in the blockade of a major container port. The port would be unable to commercially operate in any significant capacity for a number of months. Cargo would no longer be able to transit through the port to enter into the UK, potentially impacting critical supply chains. Ships would need to be rerouted, which would be challenging due to their size and the infrastructure required to accommodate them and their critical goods. As a result of the grounded or sunk vessel, boat crew and/or passengers would need to be provided with shelter and treatment for any injuries sustained. There may also be a possible environmental impact from the incident where pollutants are spilt into the sea.

Key assumptions for this scenario

The incident would be the result of extreme weather, or human or technological failure. The port would be able to resume limited activity in the short term by dredging or removal of the wreck.

Variations of this scenario

A vessel grounding is more likely than a vessel sinking. Grounding is easier to resolve through refloating rather than the salvage of a wreck. The business operation of the port would be expected to continue at a reduced capacity. Where critical cargo such as ultra-cold supply chains (for example some vaccines) are impacted due to specialist infrastructure required at ports, vital goods may be lost by not being able to store them correctly.

Response capability requirements

Generic emergency response capabilities such as search and rescue and policing would be required, alongside specialist environmental support and support for victims of the accident. Salvage capability and expertise would need to be imported, which could take months. Dredging can be time consuming and bureaucratic; the government may need to intervene to accelerate the process. If an uninsured vessel is involved, the government may need to provide financial assistance. Direction from the government will be vital in ensuring critical goods are given appropriate priority to meet national needs.

Recovery

Recovery length would depend on the nature of the incident, the location, accessibility to the wreck and availability of specialists to conduct the wreck

removal. Partial recovery would be possible by dredging another channel where possible. Insurance would likely protect the facility from financial hardship during this time, but returning to business would be the port's priority.

Page 91 Loss of Positioning, Navigation and Timing (PNT) services

PNT services are a critical component of the UK's infrastructure. They facilitate

a diverse range of essential functions across an increasingly interconnected society. For example, PNT is essential for telecommunications, transport navigation and providing precise timings. A loss of PNT services, either due to technological failures or malicious activity, would have catastrophic and cascading effects across the UK and globally.

Scenario

The reasonable worst-case scenario is based on a severe technical failure, due to either hardware failure or human error, in a Global Navigation Satellite System constellation leading to data corruption of that service. This would result in inaccurate position and timing data being delivered to users in space and around the world. The compound series of both technical failure and human error means the service would have no choice but to cease operations. There would be a significant disruption or complete cessation of transport (including aviation and maritime services), communications networks, financial services, energy and emergency services within a few hours of the incident taking place. There is also possible further disruption to other space-based services.

Key assumptions for this scenario

Sectors would revert to older technologies or alternatives to allow for ground services to resume during an extended outage.

Variations of this scenario

Variations include serious and organised crime, jamming and spoofing activities leading to a loss of PNT services, state threat to PNT services, and severe space weather disrupting satellite provision of PNT services. While the impacts are likely to be similar, there would be differences in responses required and the recovery times.

Response capability requirements

Resilient backup systems for critical infrastructure relying on space-based services would be needed, alongside greater space situational awareness nationally and globally.

Recovery

The restoration of full functionality could take up to several weeks, with some ongoing issues with

services. Mitigation includes access to other space satellite services and other sources of PNT.

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Seafarers Happiness Index

Continued decline shown in Q2 2023

The Mission to Seafarers has published the latest Seafarers Happiness Index (SHI) report for Quarter 2, 2023, revealing a notable decline in overall happiness. The survey, conducted in association with NorthStandard and Idwal, supported by Inmarsat, measures the wellbeing of seafarers worldwide through ten key questions about their work and life. The latest report shows an overall fall in seafarer happiness from 7.1/10 to 6.77/10, compared to Q1 2023.

Decrease

In Q2 2023 (April to June), happiness levels declined across all question areas, with the most significant drops observed in general crew happiness, shore leave, and workload, showing an approximate 8% decrease. Average seafarer happiness levels have now declined from a high of 7.69/10 in Q4 2022 to 7.1/10 in Q1 2023, and now 6.77/10 in Q2. In another marked contrast to previous years, happiness levels have not risen over the course of the calendar year.



In this reporting period, seafarers expressed their struggles at not yet seeing working and living conditions fully return to pre-pandemic standards, particularly in areas such as crew changes, time spent on board, wages, and shore leave. Other key issues raised by respondents included unmanageable workloads, limited internet access, and inadequate gym facilities.

Covid-19 exposure

The Covid-19 pandemic exposed significant challenges for seafarers, including crew change delays, extended time on board, and declining wages, leading to worsened working conditions. Despite emerging from the pandemic, returning to pre-Covid

conditions for seafarers has been difficult, causing frustration among those who work at sea.

A major concern was the shortage of available drinking water. This requires immediate attention, as it was a common problem from those responding to the survey, despite this being explicitly covered by the Maritime Labour Convention (MLC).

Food supply difficulties

Rising global food prices have also impacted seafarers, with low company meal budgets and expense cuts leading to insufficient food supplies, sometimes for periods of up to two to three weeks.

Shore leave need

Seafarers face limited opportunities for shore leave due to ongoing restrictions and company policies, negatively affecting mental health, job satisfaction, and welfare, leading to boredom, frustration, and low morale. Shockingly, some respondents have never experienced shore leave in their careers. Calls for standardised protocols and more shore leave opportunities persist. This issue needs to be addressed to provide seafarers with opportunities for rejuvenation and recreational activities ashore.

Concerns

The lack of work-life balance and violations of work and rest hours are also common concerns, violating the MLC's provisions. In addition, seafarers are concerned about their wages, with some reportedly being paid only once during their time on board, with subsequent periods considered "gaining experience" without payment, akin to modern slavery. Stagnation of wages in some companies over fifteen years led to a significant discrepancy between compensation and workload. This underscores the need for fair and timely adjustments to wages, reflecting the true value of their contributions to the industry.

To conclude

In conclusion, the Quarter 2 2023 Seafarers Happiness Index report shows that seafarers are facing significant challenges, leading to further decline in their satisfaction with work and life at sea. Improving their wellbeing requires addressing these issues.

The Revd Canon Andrew Wright, Secretary General of The Mission to Seafarers, said: *'The Seafarers Happiness Index is a vital resource that allows us to gain invaluable insights into the wellbeing of seafarers and the evolving challenges they face. We are grateful to all seafarers who participated in the survey and shared their experiences, which helps us advocate for meaningful changes on the issues that matter most to them.'*

'It is extremely disappointing to read of contracts being altered or disregarded, leading to payment issues, salary cuts, rising taxes, and increased living costs, as well as such fundamental requirements such as good quality meals, access to shore leave and manageable workloads. All seafarers are fully entitled to expect fair

compensation for their hard work, dedication and commitment to keeping international shipping moving. It is incumbent upon all of us to address these issues and make the improvements required to enhance seafarers' working conditions, wellbeing and job satisfaction.'

Thom Herbert, Idwal Senior Marine Surveyor and Crew Welfare Advocate, commented: *'We at Idwal are deeply concerned by the findings of The Mission to Seafarers' Q2 2023 Seafarers Happiness Index report, which highlights the continued decline in overall happiness among seafarers worldwide. Struggles with working and living conditions, crew changes, time spent on board, wages, and shore leave are particularly disheartening. Issues like unmanageable workloads, limited internet access, and inadequate gym facilities further exacerbate hardship but we are particularly troubled to hear of a lack of available drinking water. All these findings underscore the urgent need for industry-wide efforts to improve the wellbeing of seafarers.'*

Captain Yves Vandeborn, Head of Loss Prevention Asia-Pacific at NorthStandard, added: *'NorthStandard is concerned about the frustrations voiced by seafarers as the Seafarers Happiness Index has fallen for a second consecutive time in 2023. The report spotlights issues in areas such as crew changes, stagnant wages, increased workloads, and limited access to shore leave. Happiness levels falling across all categories signals a sustained drop in positivity and the responses from seafarers paint a worrying snapshot of the conditions they are experiencing. The club will continue to raise awareness of the key issues in a bid to enhance seafarers' working conditions, overall wellbeing and satisfaction within the maritime industry.'*

Addressing Seafarers' Challenges and Next Steps

The Mission to Seafarers, together with industry partners, is committed to using the Seafarers Happiness Index as a crucial tool to highlight seafarers' challenges and improve their welfare. A recent Executive Roundtable on Crew Welfare, held during Singapore Maritime Week 2023, brought together industry leaders, ship owners, managers, and charterers to identify effective solutions for seafarers' challenges and well-being.

The next phase of the initiative will take place during London International Shipping Week in September, where further progress will be made in transforming feedback into concrete action.

The Mission to Seafarers will continue to address the issues highlighted in the SHI report. By working together with industry leaders, ship owners, managers, and charterers, the Mission aims to find actionable solutions that enhance seafarers' overall well-being, safety, and quality of life.

The report

To read the full Seafarers Happiness Index report for Q2 2023, readers are invited to see here: <https://tinyurl.com/bdevwwjz>

UK Marine Guidance Note. Carriage of electric cars

Risks and mitigations

In early August the UK Maritime & Coastguard Agency (MCA) issued a Marine Guidance Note to provide the UK shipping industry with best practice guidance to facilitate safe carriage, and potential charging of, electric vehicles onboard roll-on roll-off (ro-ro) passenger ferries.

Industry input

The MCA has developed this guidance in conjunction with, and at the request of, industry. The guidance is provided to raise awareness of the risks and mitigations for the carriage of electric vehicles on board passenger roll-on roll-off (ro-ro) ferries. Guidance is provided on fire detection and firefighting measures for electric vehicles onboard, the carriage of electric vehicles other than cars, carriage of damaged electric vehicles and advice on charging of electric vehicles onboard.

There are currently no requirements from the IMO specific to the carriage of electric vehicles on passenger or cargo ro-ro vessels. This guidance is provided in advance of any potential future regulation which may be developed at the IMO, which the UK would be engaged with.

Fire risk

Damaged vehicles can represent an increased fire risk and special measures should be in place before they are taken onboard, for example in recovering an accident-damaged vehicle from an island.

Safety provisions

Currently there are few requirements specific to the charging of electric vehicles onboard UK vessels. However, noting the increasing popularity of the electric vehicle, it has become apparent that there is a potential for both the users of these vehicles and the operators of vessels to charge vehicles onboard. Charging should be from dedicated charging stations and offered at the discretion of the ship's master. Charging is already being offered by some operators serving UK ports and guidance is required to ensure there is awareness of minimum expected safety provisions.

Considering wharf-side charging

The limited capacity for charging on board and the charging fuel source of the ro-ro ferry, normally marine fuel oil, should be considered when making decisions on charging of electric vehicles, and may partly negate the environmental benefits of electric vehicles. Charging operations in the port before and / or after the sea-journey, may be more efficient, environmentally friendly, cost effective and have a lower risk profile, than charging onboard, even if that would be more convenient for the vehicle owners.

Eight sections of MGN 653 (M) Amendment 1 as here:

1. Introduction.
2. Identification and Vehicle Positioning.
3. Electric Vehicle Fires – Background, Detection and Fire Prevention Measures.
4. Carriage of Electric Vehicles other than cars.
5. Carriage of Damaged Electric Vehicles.
6. Design, arrangement, and location of charging equipment.
7. Wiring Arrangements.
8. Connections to the ship and charging operations.

Known as: *MGN 653 (M) Amendment 1 electric vehicles onboard passenger roll-on / roll-off (ro-ro ferries)*, the twelve-page document with in the region of 5000 words is available here:

<https://tinyurl.com/e3xd2bwt>

Diligent on human rights

By Michael Grey, IFSMA Honorary Member

There is a great deal of righteousness flowing like a river around the corporate world at present, as everyone flaunts their Environmental, Social and Governance policies to demonstrate their credibility as people with whom you should do business. ESG seems to have rather taken over from efficiency, quality and price as the most important criteria surrounding a purchase of goods or services.

It has crept up on us quite rapidly, pushed by over-promoted HR types, who have squeezed their way into corporate management, through a combination of sharp elbows and a facility with meaningless jargon. It seems to have emerged from the financial world, as it attempted to rehabilitate itself after the shame and degradation of the 2008 crash, but has now spread into all sorts of sectors, as companies seek to assure the world of their diversity, inclusion and huge enthusiasm for the works of Greta Thunberg. You sense, however, with the “de-banking” scandal and a backlash against net zero and the cancellation of women by strident minorities, that all this cultish behaviour might have gone too far.

We have certainly come a long way since people in our industry were quietly outraged by some Norwegian finance house letting it be known that only “green” ships would henceforth qualify for loans and mortgages against them. Some went so far as to suggest that these holier-than-thou Scandinavians were only bankers and technically unqualified to judge on the green-ness of a newbuilding and that their only job was to assess the financial validity of the business plan. Sadly, they probably would not make such views public today.

“No seafarers were harmed in the transport of these products.” Even the daftest HR guru, in these mad times, would not suggest such an advertisement, but reality tells us that the safety and human rights of seafarers, running the ships that feed and fuel the world, are seldom to the fore as the ESG ratings are considered. You only have to recall the way seafarers found themselves treated during the pandemic, and at current complaints about the lack of shore leave in so many places, to realise that while there may be shipping companies which go that extra mile for their employees, plenty of others wouldn’t even cross the road.

The International Transport Workers’ Federation, perhaps because they have seen the many corporate public pronouncements of ESG enthusiasm, has now come up with the suggestion that the big brands ought to be rated on their HRDD – Human Rights Due Diligence. The idea that the welfare of seagoing transport workers should be part of an auditable package is an interesting one, although the measure is currently only guidance and thus can be taken – or left.

It is surely not unreasonable, although on the wilder shores of this international industry, such a notion would occasion only howls of derisive laughter. But in an industry where the best players have embraced their responsibilities to the environment, and wax lyrically about their inclusive and diverse policies, an acknowledgement of the human rights of this unseen and largely unheard workforce might well resonate. Not with the public, perhaps, which mostly believes that some sort of unseen agency transports their imports and exports, but as an example that might spread from the big brands and reputable companies to the wider world. Would it cost much? In that it is asking people to do something that is manifestly right and that public relations benefits might accrue from such a move, what would be the downside?

Sadly, the cynic in me suggests that without the thrust of public opinion, leveraged by lobbies, such guidance might well fall on stony ground. I recall that some years ago there was a brave, small-scale attempt by the officers’ union and the Mission to Seafarers to interest the Fairtrade organisation to extend their remit to the “fair sea transport” of goods. I was present at the meeting and it was clear that the well-meaning representatives of the estimable body failed to understand anything about seafaring conditions and how they might be incorporated. And in any case, it is actions, not some bold slogans about diversity and inclusion, which ultimately matter most. The “mission statement” is meaningless without genuine belief and proper execution. Perhaps strengthening and properly implementing the Maritime Labour Convention would be a vehicle in which the brands could believe.

Michael Grey is former editor of *Lloyd’s List*

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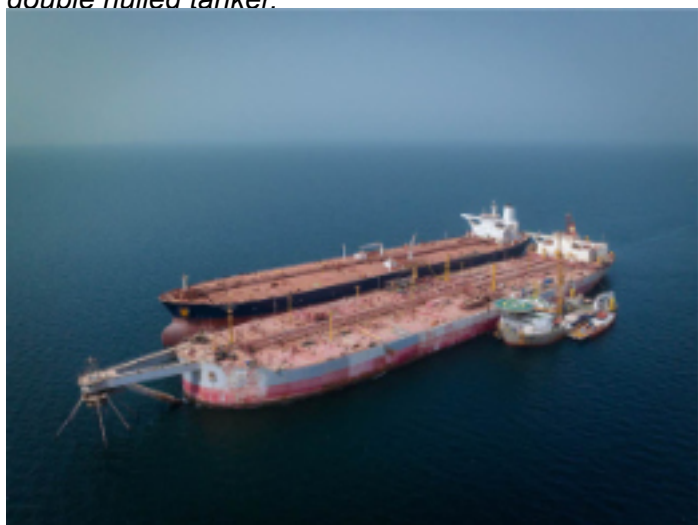
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Boskalis's SMIT Salvage successfully transfers oil

UN S-G's comment

It was reported by Boskalis from Papendrecht in the Netherlands on 11 August that its subsidiary SMIT Salvage has removed all oil from the FSO Safer, located in the Red Seas off the coast of Yemen. During this UN-coordinated operation, over 1.1 million barrels of oil were successfully transferred to a safe modern tanker moored alongside FSO Safer. The successful completion of this complex operation has averted a major disaster that would have had huge humanitarian, environmental and economic consequences.

Peter Berdowski, CEO Boskalis, commented: *'I am very pleased that we have succeeded in removing the oil from the FSO Safer and transferring it to a modern double hulled tanker.'*



'With our salvage activities, we have once again averted a potential environmental disaster of unprecedented proportions. Thanks in part to the efforts of the Dutch Ministry of Ministry of Foreign Trade and Development Cooperation and over two years of preparations by Boskalis, we were able to successfully execute this complex operation on behalf of the United Nations.'

'I would like to compliment our salvage experts in particular for successfully carrying out the work under very challenging conditions in the Red Sea.'

Preparatory activities

Leading up to the transfer of the oil, the salvage team executed several preparatory activities. After the Boskalis multipurpose support vessel *Ndeavor* arrived at the site of FSO Safer in late May, the salvage team conducted a thorough inspection of the vessel and its cargo.

In addition, various measures were taken to ensure a safe working environment. Preparations were then made to transfer the oil to the VLCC purchased by the UN.

Precautions taken

The VLCC was moored alongside FSO Safer on 23 July with the support from two Smit Lamnalco tugs, and oil screens were installed on the bow and stern between the two tankers as a precautionary measure.

Following this mooring operation, oil transfer pipes were connected between the FSO Safer and the VLCC on 25 July and hydraulic pumps were installed to transfer the oil to the VLCC.

The remaining activities of SMIT Salvage include the cleaning of the tanks which is expected to take approximately one week. FSO Safer will be prepared for transport to a green scrapping yard under the responsibility of the UN, it is understood.

UN S-G's comment

UN Secretary-General António Guterres welcomed the news of the successful transfer of oil aboard FSO Safer to a replacement vessel, thus: *'...avoiding what could have been a monumental environmental and humanitarian catastrophe.'*

Mr Guterres also thanked the many countries, corporate and philanthropic donors, as well as ordinary citizens, who contributed funding for the project. He urged donors to step up support towards its full conclusion.

The UN Resident and Humanitarian Coordinator for Yemen, David Gressly, who has led UN system-wide efforts on the Safer since September 2021, echoed his message. He said: *'Today is a great milestone. A remarkable global coalition came together under the UN umbrella to prevent the worst-case scenario of a catastrophic oil spill in the Red Sea. We need to finish the work the UN started.'*

Hopes for peace

Speaking later in the day (12 August) to UN News, Mr Gressly reported that the oil on board the FSO Safer was in good condition, meaning that it could be sold – a process that will require negotiation between Yemen's warring sides.

He said the UN has offered to be a go-between, including potentially setting up a trust fund or an escrow account, but no decisions have yet been reached.

Gressly commented further: *'In fact, one of the reasons we opted for this particular solution was because of the complexity either of both getting the parties to agree to the sale of the oil, but also to not have to confront the legal ownership issues because the oil is actually owned by multiple parties.'*

'So, rather than taking months or even years to resolve that problem, during which time the Safer could have sunk, we opted to get the oil off first by the time required to find a solution to the sale of the oil.'

Gressly also reported that ordinary Yemenis are very happy that the oil transfer operation has concluded, regardless of where they stand on the political spectrum.

In conclusion Gressly reflected: *'They all know that this is a real threat to the Yemeni people, so, there is relief that it is finally done.'*

'I think, secondly, there is hope that the sale of the oil, if it were to take place, could be of benefit to the people of Yemen as well. And then thirdly, of course, it creates a bit of momentum and anticipation for acceleration of the peace process itself. It creates more hope for that as well.'

About FSO Safer

Safer is a Floating Storage and Offloading (FSO) facility moored approximately nine kilometres off the Red Sea coast of Yemen and 50 kilometres NE of the port of Hodeida.

Constructed in 1976 as an oil tanker and converted in 1987 to be a floating storage facility, *Safer* is single-hulled and contained around 1.14 million barrels of light crude oil. The FSO had not been maintained since 2015 because of the conflict in Yemen, and had decayed to the point where there was a risk it could explode or break apart, which would have disastrous environmental and humanitarian effects on the region.

USCGC *Eagle* returns to home port New London

On 10 August US Coast Guard Public Affairs reported from New London, Connecticut, that the crew of the Coast Guard barque *Eagle* had returned to the ship's homeport that day following a four-month deployment.

This year, crew, cadets, and officer candidates sailed over 16,800 nautical miles, sailing to the Azores, Netherlands, Norway, Denmark, Finland, and Sweden as part of their annual training cruise, after departing New London, on 8 April.

In addition to their primary mission of training, *Eagle* served as a diplomatic asset and global ambassador, embarking over 37,000 visitors during the deployment. *Eagle* helped advance US interests by reinforcing key Arctic partnerships while on deployment to the Baltic and North Sea.

Welcome to Finland in NATO

Eagle welcomed NATO's newest member state, Finland, with a port call in Helsinki alongside the Finnish offshore patrol vessel *Turva*. *Eagle*, correctly a Coast Guard Cutter, also hosted US Secretary of State Antony Blinken and numerous other dignitaries and distinguished guests.

Historic link with Denmark

One historic highlight came this summer when *Eagle* sailed alongside *Danmark*^{*}, a full-rigged Danish sail training vessel, whose captain placed the ship at the

disposal of the United States during the Second World War after Denmark was invaded by Germany. For the remainder of the war, *Danmark* was leased to the US Coast Guard and trained future officers — just as *Eagle* does now.

In the words of Captain Jessica Rozzi-Ochs, *Eagle*'s CO: *'Once again the crew of Eagle trained hundreds of cadets and officer candidates with resounding success.'*

'But this deployment also served to demonstrate to those future officers that, in addition to our statutory missions, the Coast Guard has an important role protecting and advancing US interests around the world with our allies and partners.'



USCGC *Eagle* is the only active square-rigged vessel in US government service. Constructed in 1936 by the Blohm and Voss Shipyard in Hamburg, and originally commissioned by the German Navy, *Eagle* was taken as a war reparation by the United States following the Second World War.

Eagle's transit route home from Europe this year closely mirrored the ship's first post-war passage as a commissioned Coast Guard cutter, when the ship sailed from Europe with port calls in Madeira, Bermuda, and New York City.

America's Tall Ship

Eagle, a 295-foot square-rigged vessel known as America's Tall Ship, has served as a classroom at sea to future Coast Guard officers since 1946, offering a unique leadership and professional development experience to cadets and officer candidates.

Captain Rozzi-Ochs added: *'I am extremely proud of the crew of Eagle. The dedication and commitment of the ship and its crew during this deployment, shows the high level of training and professionalism that embody our Coast Guard core values.'*

'I have no doubt that the future Coast Guard officers that have trained aboard the decks of Eagle, are well prepared for whatever challenges the future brings to our Nation.'

*Built 1933, 65.00 metres loa.

Illustration per United States Coast Guard news. USCG ©.

Means of embarkation and disembarkation from ships in port

No 2023/06

In August the Australian Maritime Safety Authority (AMSA) issued the above Marine Notice in an aim to raise awareness of the risks involved with getting on and off vessels.

Provision of safe access

Accessing a vessel while at berth or anchor is a routine activity which is sometimes taken for granted. The requirement for safe access can be overlooked, particularly where there are limited berthing options, or a vessel is only berthed for a short period. Failing to provide safe access can result in serious injuries and even fatalities—even more so when poor weather or extreme tidal variation are thrown into the mix.

Legislative requirements

SOLAS Chapter II-1 provides requirements for accommodation ladders and gangways. SOLAS Chapter IX gives effect to the International Safety Management (ISM) Code which requires procedures, plans, and instructions for key shipboard operations. Providing safe access to a vessel is considered a key operation under the ISM Code and should be addressed in the vessel's safety management system.



Shore supplied access arrangements.

In addition, *Marine Order 12 (Construction—subdivision and stability, machinery and electrical installations)* imposes responsibilities on the masters of vessels to ensure a vessel's means of access is safe for users. Seafarers need to be familiar with the risks associated with providing a means of access and ensure appropriate risk controls are in place.

Personnel abilities

The type of vessel access should be selected based on the experience and physical abilities of the people boarding the vessel as per ISO 5488:2015 and MSC.1/Circ. 1331. Their capability must be assessed prior to them embarking or disembarking, particularly when using a combination pilot and accommodation ladder. People using these ladders must be confident in using the equipment safely.

Wharf arrangements

When a vessel is alongside at a berth, the provision of safe access is a shared responsibility between the vessel and the provider of the berth. Often, it is poor wharf design that prevents landing a gangway, and this has a significant impact on safe access arrangements. The master and any provider of the means of access are both responsible for ensuring that a safe means of access is used.

Communication

This is important in identifying obstacles to safe access. Items such as water/fuel manifolds, bollards, and electrical installations on the wharf are common obstructions and need to be considered when allocating berths to vessels. Co-ordination between shore-side and the vessel's crew can help to mitigate these issues.

Rigging accommodation ladders and gangways

SOLAS Chapter II-1 Regulation 3.9 and MSC. 1/Circ.1331 include requirements for safely rigging vessel access equipment. In Australia, these standards are implemented through Marine Order 12 (section 24) and include:

- Gangways should not be used at an angle of inclination greater than 30 degrees from the horizontal.
- Ship accommodation ladders should not be used at angles greater than 55 degrees from the horizontal, unless designed and constructed for use at angles greater than these and marked as such.
- Adequate lighting, lifebuoys and a mounted safety net which are sufficient to prevent falls, must be provided.

It is also recommended that accommodation ladders and gangways are positioned well forward of the propeller and avoid the lower part of the ladder and gangway overhanging off steep ship sides.

Gangways should be frequently monitored and adjusted as required to ensure they do not become too steep and are firmly landed on the wharf edge. Gangway providers are responsible to ensure adequate resources are afforded to adjust gangways as required by the master.

Assess the risks of rigging access

Rigging or adjusting gangways, accommodation ladders, or other access methods involves a

heightened level of risks such as entanglement, falling from heights, or falling overboard. It is important to conduct a risk assessment of the rigging, adjusting and derigging of access equipment, including the selection of appropriate equipment and secondary means of support.

Suspended accommodation ladders

Arrangements at some berths in Australia prevent accommodation ladders being safely landed on the wharf edge. In such situations it is common practice to suspend the ship's accommodation ladder at the vessel's side with a short brow or gangway fitted to the lower accommodation ladder platform, to bridge the gap between the vessel and wharf edge.



Suspended accommodation ladder.

Accommodation ladders and gangways are designed and tested to be landed on solid surfaces. Suspending these access arrangements goes against their engineering and presents an unacceptable risk to safety.

Access by pilot ladder

A pilot ladder, or combination ladder, is often provided to access vessels at anchor. Marine Order 12 (subsection 24(9)) makes it clear that the master may provide a pilot ladder as a means of access if they ensure only pilots and other professionals such as crew or cargo masters use the ladder. In an emergency, the master may allow another person to use the ladder (subsection 24(10)).

This is a high-risk activity, validated by recent incidents where non-professionals or people who were unfamiliar with pilot ladders died after falling from these heights.

Marine Notice 04/2023 – Pilot Ladder Transfer Arrangements* and Marine Notice 2021/06 – Fatal accidents from falling off pilot ladders on ships provide further information and guidance on risks associated with using pilot ladders as a means of access**.

Further reading

- MSC.1/Circ.1331 – Guidelines for Construction, Installation, Maintenance, and Inspection/Survey

of means of Embarkation and Disembarkation.

- See here: <https://tinyurl.com/yy73w4ae>
- ILO Code of Practice: Accident prevention on board ship at sea and in port (Section 3.4 - Shore-side access to ships; Section 8 - Safe access to ship). See here: <https://tinyurl.com/wprpnz6u>
- AMSA Maritime Safety Awareness Bulletin issue 10—Safe vessel access. See here: <https://tinyurl.com/mrym5khp>
- ATSB Report - Fall from the pilot ladder on the bulk carrier *Atlantic Princess*, Whyalla, South Australia on 3 July 2013. Investigation Number 300-MO-2013-007. See here: <https://tinyurl.com/2x2smjvr>

* <https://tinyurl.com/ynr2cfyu>

** <https://tinyurl.com/yk3vuv2a>

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Electric vehicles

Ocean transport of lithium-ion batteries

In mid-August the Hamburg-based International Union of Marine Insurance (IUMI) published an introduction to the topic of ocean transport of lithium-ion batteries in electric vehicles.

Fremantle Highway

The fire onboard the car carrier *Fremantle Highway* and the tragic loss of a seafarer has brought the debate surrounding the transport of electric vehicles (EVs) by sea into sharp focus.

Fremantle Highway caught fire off the coast of the Dutch island of Ameland on 26 July. The vessel was carrying nearly 3,800 new cars of which around 500 were EVs. There is speculation that the fire was caused by an EV battery, but the cause of the fire is not actually known yet.

Ship fires are a real concern for marine insurers and the shipping industry as a whole. IUMI has long advocated for better fire detection and extinguishing systems which must be specifically tailored for different vessel types. However, to date, no fire onboard a ro-ro or Pure Car and Truck Carrier (PCTC) has been proven to have been caused by a factory-new EV.

Risks

IUMI understands that the transportation of EVs raises certain risks that are different to those involved in carrying internal combustion engine vehicles (ICEVs) but research suggests that the risks are not heightened or more dangerous.

Focus must be on identifying risks and safety measures related to new energy vehicles such as

EVs, how to mitigate these, and on engaging with class and regulators to develop necessary rules, standards and guidelines to ensure their safe transportation. Work to this end is already on the agenda of the IMO's Sub-Committee on Ship Systems and Equipment.



Extensive research by the EU Project LASHFIRE* in which IUMI was involved shows that neither the growth rate of a fire nor the peak heat release rate or the total energy released during a fire is higher for an EV fire than for an ICEV fire. The toxins released during an EV fire are similar as well. It is also important to remember that the battery itself is only a minor source of the fire load while the majority of the fire energy comes from plastics and other materials that are found equally in EVs and ICEVs.

Thermal runaway

However, exposing batteries to fire may result in thermal runaway – where the lithium-ion cell enters a self-heating, reigniting state – and this requires different fire detection and response. Immediate deployment of fixed fire-fighting systems is the most effective action against vehicle fires regardless of their energy source. In case thermal runaway occurs in an EV, boundary cooling is essential to prevent the fire from spreading. This allows the battery to burn down in a controlled manner.

Still learning

Research shows that EV fires are not more common or more intense than ICEV fires. Traditional fuels such as petrol and diesel are potentially extremely dangerous but we, as a maritime industry, have learnt to understand and mitigate the associated risks. Lithium-ion batteries are still relatively new but have already become a major part of everyday life. The maritime industry is still learning and needs to adapt to these new sets of risks and mitigate them accordingly. Scientific evidence is essential to develop effective risk mitigation strategies.

About IUMI

The International Union of Marine Insurance e.V. is a non-profit association established for the purpose of protecting, safeguarding and advancing insurers' interests in marine and all types of transport insurance. It also provides an essential forum to discuss and exchange ideas, information and

statistics of common interest for marine underwriters and in exchange with other marine professionals.

IUMI currently represents 42 national and marine market insurance and reinsurance associations.

International Union of Marine Insurance is based at Grosse Elbstrasse 36, 22767 Hamburg, Germany and can be contacted thus: +49 (0) 40 2000 747 0

E-mail: info@iumi.com

*LASH FIRE is an international research project aiming to significantly reduce the risk of fires on board ro-ro ships. The project is running from September 2019 to August 2023.

See also here: <https://lashfire.eu/>

There is a 12-minutes fire safety video story behind LASH FIRE and its mission to prevent dangerous fires on board ro-ro ships available here: <https://tinyurl.com/mvw7nr87>

Surface air temperature July 2023

The global average temperature for July 2023 has been confirmed to be the highest on record for any month. The month was 0.7°C warmer than the 1991-2020 average for July, and 0.3°C warmer than the previous warmest month, July 2019. The month was estimated to have been around 1.5°C warmer than the average for 1850-1900.

Northern Hemisphere

Heatwaves were experienced in many regions of the Northern Hemisphere, including southern Europe. Well-above average temperatures occurred over several South American countries and around much of Antarctica. El Niño conditions continued to develop over the equatorial eastern Pacific. Marine air temperatures were well above average in several other regions.

A temperature of 48°C was reported for a site in Sardinia and 47°C was reported from an observatory in Palermo, Sicily. Temperatures peaked at 46°C in Greece.

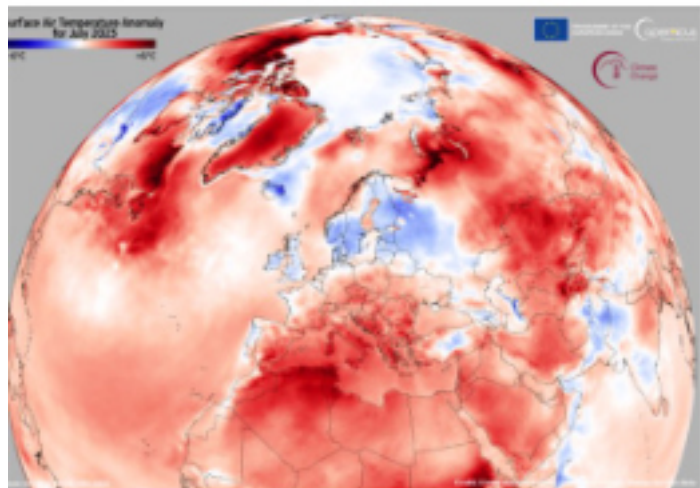
In contrast, much of northern Europe experienced temperatures that were close to or below average.

Northern and central Africa were generally hotter than average. Algeria and Tunisia experienced particularly anomalous conditions, with the World Meteorological Organization reporting daily maximum temperatures as high as 49°C.

Temperatures were also especially high over Eritrea and north-western Ethiopia. Prolonged heatwaves occurred over the south-western USA and over northern Canada, Labrador and Newfoundland.

In Phoenix, Arizona, only the last day of the month registered a daily maximum temperature lower than 110°F (43°C), while all-time temperature records

higher than 37°C were recorded close to the Arctic Circle at two sites in the Canadian Northwest Territories.



Northern Hemisphere.

This visualisation, based on data from the Copernicus Climate Change Service (C3S), shows the surface air temperature anomaly for July 2023 in Europe.

With a deviation of over 0.7°C from the average of the years 1991 to 2020, July 2023 marks the warmest July ever recorded.

Numerous regions in the Northern Hemisphere, particularly in southern Europe, went through severe heatwaves, with anomalies of +4°C in Italy, Greece, and Spain. Additionally, North Africa and the Canadian Arctic saw notably high temperatures, reaching peak anomalies of +5 °C and +7 °C, respectively.

Credit: European Union, Copernicus Climate Change Service data.

It was also much warmer than average over Greenland, where the estimated extent of surface ice melt was high. In Asia, Kazakhstan experienced heatwave conditions, China reported its highest ever measured temperature, 52.2°C, and Japan had its hottest July in a temperature record dating back to 1898. Temperatures were also much above average over parts of Siberia.

Southern Hemisphere

In the Southern Hemisphere mid-winter temperatures were well above average over northern Chile and Argentina, and over Uruguay and southern Brazil. Climate monitoring time series for an extensive set of observing stations in Argentina provide examples of both occasional very high daytime temperatures and of generally mild night-time conditions over the north-west of the country. Many months of above-average temperatures and below-average rainfall have contributed to severe water shortages in Uruguay.

Below-average temperatures occurred over only a small fraction of the land surface, and were largely within 1°C of the average. The Antarctic land mass was the main exception, with a mix of much above- and below-average temperatures, as is often the case there in wintertime.

Air temperatures

Air temperatures were above average over large parts of the ocean, associated with record sea-surface temperatures. Exceptionally high marine temperatures were observed over much of the North Atlantic in particular.

El Niño conditions continued to develop over the equatorial eastern Pacific. Air temperatures were unusually high around Antarctica, where sea-ice cover continued to be far lower than normal. Regions of relatively mild temperature extended northward from the Antarctic over much of the southern Atlantic, Indian and Pacific Oceans.

Air temperatures were also higher than the 1991-2020 average over most of the tropics and North Pacific, with notably warm temperatures east of Japan. Temperatures were below average to the west and south-west of southern South America, off western Australia, to the south-west of the Mexico's Baja California peninsula, north east of Iceland, and to a lesser extent over a number of other regions.

TT Talk - Fatigue can kill

Workforce fatigue is a topic that has been considered in the context of the Covid pandemic and also more generally in past editions of TT Talk. It however remains an important factor in keeping people safe and equipment and property protected.

One of the fundamental challenges associated with fatigue and stress is that they are not easy to identify, quantify or monitor. Signs of fatigue and stress can include irritability, depression, loss of appetite and an increased susceptibility to illness. Awareness therefore of the symptoms and effects of fatigue becomes critical in managing the related workplace risks.

What is fatigue?

Fatigue is the decline in mental and/or physical performance as a result of prolonged exertion, lack of quality sleep, disruption of the body clock or extended periods of stress or anxiety. Fatigue can be described either as an acute or chronic condition. Acute fatigue, often resulting from short term sleep loss or intense short periods of heavy workload, can easily be reversed by sleep and relaxation. Chronic fatigue syndrome is a more severe state of tiredness that is not immediately relieved by rest.

Fatigue should be of concern to those responsible for managing health, safety and wellbeing in the global supply chain for a number of reasons. Primarily operations may naturally be expected to be performed 24 hours a day, seven days per week, 365 days per year, resulting in the need for shift work and people working unnatural hours. Landside operations, whether road transport, warehousing, ports or terminals will typically involve the use of heavy equipment to handle and move cargo, adding increased risk. Tragically, as seen in numerous cases,

fatigue impacts not just the individual concerned, but co-workers and potentially the general public.

The understood effects of fatigue include reduction in decision making ability, poorer communication skills, degraded attention and vigilance, dulled reactions, increased tendency for risk taking and increased errors in judgement. It is not difficult therefore to correlate such effects with risks in the workplace, especially where individuals are working with machinery, moving parts and mobile equipment or needing to react decisively to dynamic situations.



There are a number of known environmental factors which can be assessed and, if required, modified in order to mitigate the associated risks of fatigue. Whilst not an exhaustive list, dim lighting, high temperatures, high levels of comfort, tasks which must be sustained for long periods and tasks which are repetitive, difficult, boring or monotonous can all lead to increased fatigue levels.

Amongst numerous sources with good material to consider, most national health and safety authorities, such as UK Health & Safety Executive (HSE), will have compiled valuable information.

Is the answer simply more sleep?

While a simple answer of course, this is not entirely possible for many in this industry; achieving a perfect work life balance is difficult. So how much sleep do we need? Each individual differs, this should not be underestimated, but studies suggest on average somewhere between 7.5 and 8.5 hours sleep per 24 hour period is preferable. This however is affected by age, what levels of energy have been used through the last waking period and a myriad of other factors - so it is not a simple benchmark.

The amount of sleep actually required by an individual will be influenced by several aspects including heart rate, blood pressure and body temperature. Humans naturally follow a biological clock, a cycle of sleep, wakefulness and alertness that is generally aligned with the hours of daylight.

Studies suggest that periods of intense fatigue are usually experienced during the hours where we instinctively require sleep the most, between 23:00 and 06:00. Furthermore, shift workers suffer from sleep deprivation because their sleep schedule typically changes frequently.

For night workers there are other concerns, not least family life, that will typically continue through the periods when they may seek to sleep – school runs, phone calls and appointments. Simply trying to sleep during daylight hours can be problematic; blackout blinds might be a helpful solution.

Mitigating the risks

While identifying the symptoms of fatigue can be challenging, there are a number of practical steps that can be taken by both the organisation and the individual to mitigate the associated risks.

Organisational

- Engage with the entire workforce to increase awareness and provide a broader recognition of this phenomenon. Workforce awareness about fatigue improves the ability to identify individual issues.
- Inclusion will be key in effective management to overcome barriers related to individual 'coping strategies' and 'presenteeism', where employees are unaware of the risks and continue to work.
- Implement effective monitoring systems and alerts, involving workforce where possible, particularly seeking to design work shifts in recognition of fatigue risks.

Individual

- Take sleep seriously, develop an understanding of your individual requirements under normal and abnormal conditions and make time for sleep.
- Assess your sleeping arrangements; subtle changes, such as blackout blinds, may assist in increasing the quality of sleep you have.
- Keep hydrated since this can assist in combatting some effects of fatigue.
- Eat small portions of food, particularly during unnatural waking hours; this can improve digestion and preclude drowsiness.
- Limit caffeine intake, developing an understanding as to how caffeine affects your body and how long it remains in your bloodstream, including its impact on your ability to sleep.
- Maintain a generally healthy lifestyle to the extent possible; regular exercise can assist in fighting the effects of fatigue.

Fostering a community recognition and culture relating to fatigue risks can pay dividends; it not only is respectful, but also delivers safety for the individual, co-workers and operations generally.

This item first appeared in May 2023 as issued by TT Club and appears here with kind permission.

For more advice readers are invited to see here: www.ttclub.com

Routes to / from the ports of Ukraine

At the beginning of week commencing 13 August Inchcape Shipping Services (www.iss-shipping.com), reported that the Ukraine Navy and the State Hydrographic Service of Ukraine announced new temporary routes for the movement of civilian vessels to and from the Black Sea seaports of Ukraine (specifically Odesa).

It is understood that these routes were previously agreed with IMO. The Ukraine Navy also underlined that all war risks, including mines, are still there, but they will do their best to secure corridors.

On 16 August, container ship mv *Joseph Schulte* (stuck at Odesa since 23 February 2022) departed Odesa for the Turkish port of Ambarli, and successfully reached the Danube-Sulina branch of the delta in Romanian waters at about 2000 local time and continued to pass to her destination.

It should be mentioned that the vessel flag is Hong Kong, and the PRC Embassy in the Russian Federation informed the Russian Ministry of Foreign Affairs about the move and asked for support beforehand.

This is reported to be the first successful move from Ukraine ports since the beginning of the war, apart from the Black Sea Grain Initiative.

Boskalis half-year results 2023

Royal Boskalis B.V. (Boskalis) announced on 17 August that it had completed a good first half year. The utilization of the fleet was high and all divisions posted a higher revenue combined with a sharp result increase.

Compared to the same period last year, revenue increased by 22% to €1.97 billion.

Net profit increased by 56% to €181 million.

Peter Berdowski, CEO Boskalis commented: *'We look back on a very strong first half year with good performance across the company, both operationally and financially. Revenue was up 22% and net profit increased by 56%.'*

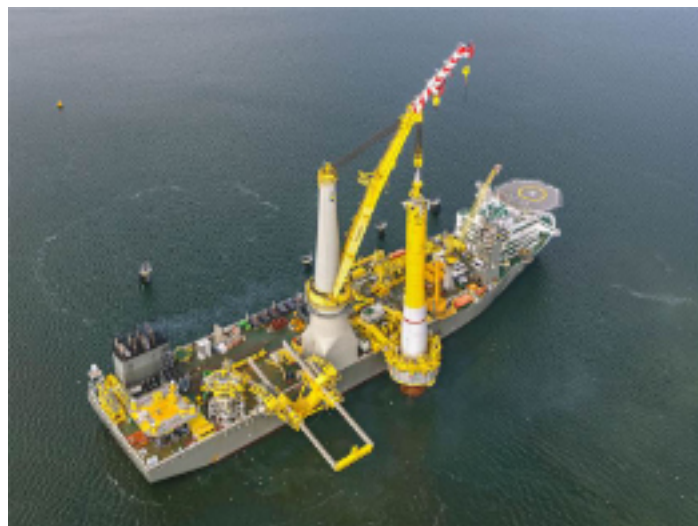
'In the Dredging division, our large vessels were busy in the Middle and Far East, resulting in high fleet utilization. In the Philippines, good progress was made with the construction of the platform for the new Manila International Airport. Closer to home, work on the Fehmarnbelt tunnel between Germany and Denmark is progressing and we started a large-scale beach replenishment programme along the west coast of the island of Ameland.'

'Very recently we were all over the headlines in the news with a number of complex salvage operations.'

'Off the northern coast of Ameland the large car carrier Fremantle Highway caught ablaze leading to a

potential significant environmental and shipping disaster. Following a tense week, we succeeded in towing the ship into a safe harbour together with our partner.'

'In recent months we were busy in the Red Sea in an attempt to avert an environmental disaster of even greater proportions. The FSO Safer has been anchored off the coast of Yemen for 40 years and this decaying storage tanker holding over 1.1 million barrels of oil had become a ticking time bomb. Last week, we succeeded in transferring all the oil from the Safer into a modern tanker. A huge compliment to our salvage teams who were able to complete these jobs under challenging conditions.'



Boskalis Bokalift-2 monopile installation.

Copyright Boskalis©.

'Our Offshore Energy division was also active on numerous projects and contracts in all corners of the world. All our business units were busy and the vessels were well utilized. Earlier this year we completed the conversion of the Bokalift 2, our newest offshore crane vessel, in Schiedam, the Netherlands.'

'Following the conversion she departed late May for her first wind project, Southfork in the United States. Since then, all the foundations for this project off the coast of New York have been successfully installed. Furthermore in Taiwan, we recently completed a large multi-year offshore wind project. Looking at the past six months, we can conclude that the strategic course we set several years ago to serve both the traditional offshore market and the offshore wind market is clearly bearing fruit.'

'Over the past six months we succeeded in preserving the high level of our order book. With a portfolio of €6 billion, we look to the future with great confidence and expect to amply exceed the 2022 result.'

Boskalis is a global marine salvage expert and has a strategic partnership in terminal services (Smit Lamnalco). With a versatile fleet of more than 600 vessels and floating equipment and approximately 10,000 employees, including associates.

Engine room fire on a LPG/ethylene carrier *Moritz Schulte*

Antwerp, Belgium, August 2020

UK MAIB report

On 17 August this year the UK Marine Accident Investigation Branch (MAIB) published its accident investigation report into the fatal engine room fire on board *Moritz Schulte** on 4 August 2020.

The liquefied petroleum gas (LPG)/ethylene carrier *Moritz Schulte* berthed at Esso Terminal 383 in the port of Antwerp, Belgium, with a cargo of 4521 metric tonnes of ethylene that had been loaded at Braefoot Bay, Scotland. The berthing was immediately followed by a ship/shore safety meeting.

The twenty-three crew members on board *Moritz Schulte* comprised nine nationalities, which were mainly East European and African but also South American, Indian and Asian. The nine crew within the Engine Room department were made up of seven nationalities.



Figure 3: Post-fire AE1 fuel filter splash shield and AE2 turbocharger insulated cover

On 4 August 2020, a fire broke out in the engine room of the liquefied petroleum gas/ethylene carrier *Moritz Schulte* when the recently promoted third engineer opened an auxiliary engine's pressurised fuel filter allowing marine gas oil to spray onto an adjacent auxiliary engine's hot exhaust. The third engineer attempted to stop the fuel leak and tried unsuccessfully to escape from the toxic smoke-filled engine room. He was found an hour later by a shore fire and rescue team but did not recover consciousness and died nine days later in hospital.

The Third Engineer's responsibilities included the maintenance and operation of the Auxiliary Engines, fuel purifiers, emergency generator, emergency fire pump, lifeboat and rescue boat engines, fuel bunkering and fuel transfer.

The MAIB conducted this investigation on behalf of the Isle of Man Ship Registry in accordance with the Memorandum of Understanding between the MAIB and the Red Ensign Group Category 1 registries of Isle of Man, Cayman Islands, Bermuda and Gibraltar.

The MAIB report outlines a number of safety issues as here:

- The fire and fatality were due to unintended release of fuel onto an ignition source.
- The crew training scheme contained weaknesses that enabled the crew member to bypass requirements and gain promotion twice when he was not ready.
- Inadequate crew fire training affected the potential for a successful escape and recovery of a crew member from a smoke-filled environment.

In all there were sixteen safety issues directly contributing to the accident that have been addressed.

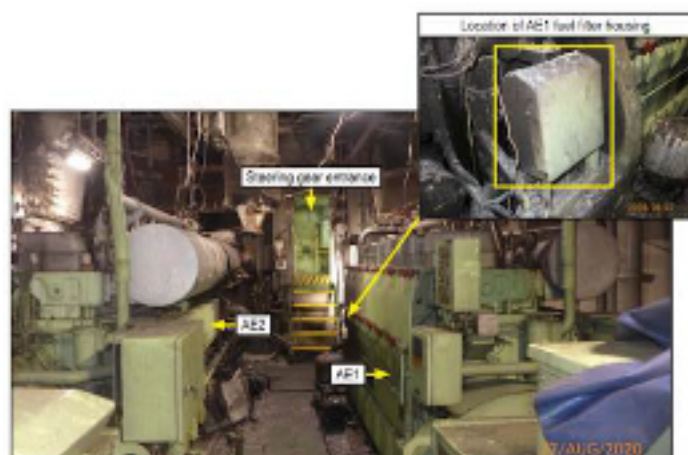


Figure 2: View aft between AE1 and AE2 and (inset) the post-fire AE2 fuel filter housing, representing how AE1 would have locked with its splash shield cover in place.

Recommendations

As a result of the actions already taken, no safety recommendations have been made.

Report

For the MAIB Accident Investigation Report No 4/2023 readers are invited to see here: <https://tinyurl.com/vmsx283e>

Related report

There is a related MAIB report No 2/2021: *Engine failure and subsequent fire on ro-ro cargo vessel Finlandia Seaways with 1 person injured* to be found here: <https://tinyurl.com/bdeysyxu>

* *Moritz Schulte*: Isle of Man-flag; 128.80 metres loa; 8234gt; minimum safe manning; manning on this voyage 23.

Illustrations: MAIB Crown Copyright 2023 ©.

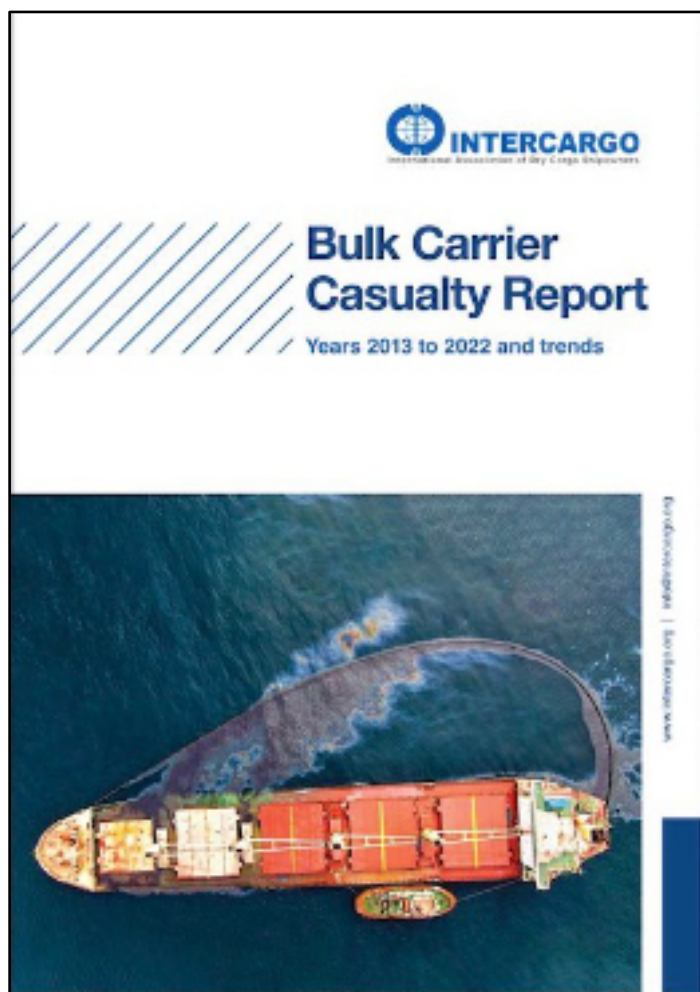
Cargo liquefaction

Best practices and safety considerations for nickel ore shipments

On 15 August SKULD, a leading marine insurance provider (www.skuld.com), issued a notice with advice regarding shipping of nickel ore.

According to news from SKULD the period from April to November marks the traditional typhoon season in the waters of the Philippines and China, coinciding

with the peak season for nickel ore transportation in the Philippines.



Ship masters in the bulk ore trades know only too well that typhoons and tropical storms pose significant challenges to the safe shipment of nickel or similar ore cargoes. This weather increases the risk of moisture content of the cargo before loading and can cause severe rolling and pitching during the voyage. In turn this may result in liquefaction and shifting of the cargo.

Recently, a vessel covered by Skuld experienced a cargo liquefaction incident while en route to the discharge port. A vessel covered by another P&I Club also faced a similar incident.

Occurrence

Liquefaction of nickel ore during shipment can be attributed to two key factors: (a) the moisture content of the cargo and (b) the rolling and pitching of the vessel during the passage.

Such factors, one internal and the other external, are both necessary conditions for cargo liquefaction to occur. However, by effectively monitoring and controlling these factors, the risk of liquefaction can be significantly reduced. Of course close monitoring is necessary.

Other sources

In May 2019 DNV provided this valuable definition: *Liquefaction is a phenomenon in which a soil-like*

material is abruptly transformed from a solid dry state to an almost fluid state.

Many common bulk cargoes, such as iron ore fines, nickel ore and various

mineral concentrates, are examples of materials that may liquefy.

If liquefaction occurs on board a vessel, the stability will be reduced due to the free surface effect and cargo shift, possibly resulting in capsizing of the vessel. The ship structure may also be damaged due to increased cargo pressures.

In the ten years to 2019, cargo liquefaction caused the loss of more than 100 seafarers lives and twelve bulk carrier vessels, and remains the most important

safety issue for bulk carriers.

Awareness of which conditions may cause cargo liquefaction is essential for the safe operation of bulk carriers, which is why DNV GL issued a twenty-page guidance to be requested here: <https://tinyurl.com/36kjhzfz>

IMSBC

The IMO International Maritime Solid Bulk Cargoes (IMSBC) document is to be found here by way of further background: <https://tinyurl.com/2srtunac>

SKULD

A short paper indicating best practice for carriage of nickel ore cargo is available on the SKULD website here: <https://tinyurl.com/55d3avpu>

GARD

In April 2022 GARD issued advice to its members in a document with the title *Is your cargo too wet?* here: <https://tinyurl.com/45va6ytp>

You Tube

(Please excuse the adverts). One example on file to illustrate the problem of bauxite as a cargo is to be found here: <https://tinyurl.com/yx7sxju4>

INTERCARGO

This group of dry cargo ship owners issued its *Bulk Carrier Casualty Report 2013-2022*. The document was submitted to IMO in May, ahead of the 9th session of its Sub-Committee on Implementation of IMO Instruments (III9), which took place at the IMO from 31 July to 4 August and had a key role in casualty analysis and issuing lessons learned from marine incidents.

The Casualty Report provides ten-year information on bulk carrier casualty statistics, looking at trends in casualties in terms of both loss of life and loss of ships, drilling down into the size and age of vessels as well as Flag State performance.

The rolling report also highlights that four of the five bulk carrier casualties, which led to the loss of 70 lives, occurred as a result of cargo liquefaction; four were loaded with nickel ore and one with bauxite.

The INTERCARGO Bulk Carrier Casualty Report can be accessed free of charge here:
<https://tinyurl.com/yurtwmtp>

Green and digital shipping

Looking back to COP 27

Ahead to COP 28

Earlier this year the Maritime and Port Authority of Singapore (MPA), Port of Los Angeles (POLA) and Port of Long Beach (POLB), with the support of C40 Cities, signed an MoU to establish a green and digital shipping corridor between Singapore and the Los Angeles San Pedro Bay port complex to support the decarbonisation of the maritime industry and improve efficiencies through digitalisation.



The MoU was signed by Teo Eng Dih, Chief Executive of MPA, Gene Seroka, Executive Director of POLA, and Mario Cordero, Executive Director of POLB, and witnessed by S Iswaran, Singapore's Minister for Transport and Minister-in-charge of Trade Relations, HE Jonathan Kaplan, Ambassador of the United States to Singapore, Niam Chiang Meng, Chairman of MPA, Sharon Weissman, Long Beach Harbor Commission President, and Edward Renwick, Los Angeles Harbor Commissioner.

Three global hub ports

As leading global hub ports, Singapore, Los Angeles and Long Beach are vital nodes on the trans-Pacific shipping lane and key stakeholders in the maritime sector's green transition.

Ahead of the revision of IMO's Initial Strategy for the Reduction of Greenhouse Gas (GHG) Emissions from Ships in July 2023, the three ports came together with C40 and other stakeholders in the maritime and energy value chains, to jointly accelerate the decarbonisation of the maritime industry in line with the goals of IMO, and Singapore's and the United States' respective Nationally Determined Contributions (NDCs).

Ports long-standing cooperation

The MoU also built on the ports' long-standing cooperation through platforms such as the Port

Authorities' Roundtable (PAR) and chainPORT, and complements bilateral initiatives between Singapore and the United States such as the US-Singapore Climate Partnership and the US-Singapore Partnership for Growth and Innovation.

Singapore Maritime Week 2023

In his message at this year's annual Singapore Maritime Week in April, John Kerry, US Special Presidential Envoy for Climate, said: *'Shipping is responsible for approximately a gigaton of greenhouse gas emissions each year...but the good news is that many shipping companies, ports, and countries are stepping up. Today's MoU is one of those pieces of good news.'*

The green and digital shipping corridor aims to support the transition to low- and zero-emission fuels by ships calling at Singapore and the San Pedro Bay port complex. The parties will work to facilitate the supply and adoption of these fuels and explore the necessary infrastructure and regulations for bunkering. In addition to identifying and collaborating on pilot and demonstration projects, the MoU aims to identify digital shipping solutions and develop standards and best practices for green ports and the bunkering of alternative marine fuels, including sharing experiences at international platforms such as IMO.

The MoU follows an earlier announcement in November 2022 that MPA, POLA, POLB and C40 had begun discussions to establish a green and digital shipping corridor between Singapore and the San Pedro Bay port complex.

COP 27; the Green Shipping Challenge

This announcement was featured in the Green Shipping Challenge, launched by the United States and Norway during the World Leaders' Summit at last year's 27th UN Climate Change Conference (COP27/ CMP17/CMA4) in Sharm el-Sheikh, Egypt.

The Green Shipping Challenge is expected to encourage governments, ports, maritime carriers, cargo owners and other stakeholders across the maritime value chain to commit to concrete steps to galvanise global action to decarbonise the shipping industry.

Teo Eng Dih of **MPA Singapore** added: *'The signing of this MoU signals our collective will to pool our resources, technical insights, industry and research networks to deliver scalable green as well as digital corridor solutions to help the maritime industry attain the 2050 emission reduction targets expected of the International Maritime Organization and help spur the development of green growth opportunities.'*

Port of Los Angeles Executive Director Gene Seroka, added: *'No single port or organisation can tackle the challenge of decarbonising the supply chain alone, no matter how innovative their technology or robust their efforts. The establishment of this green shipping corridor between the San Pedro Bay Port Complex and Singapore will prove to be a living,*

breathing testament to the power of global collaboration.

'I am honoured to be here with key leaders from MPA Singapore, the Port of Long Beach, and C40 Cities to sign this MOU turning a shared commitment to fighting climate change into a meaningful step forward toward the future of global sustainability.'

Port of Long Beach Executive Director Mario Cordero concluded by saying: *'Curbing greenhouse gases from international shipping is essential to fight global warming. Creating this green corridor with our partner ports and C40 Cities is part of our strategy to coalesce all of our efforts here and beyond to help advance our goals for cleaner marine fuels for oceangoing vessels, improve efficiencies for the global movement of goods, and to achieve a carbon-neutral future.'*

From the **C40 Cities** Executive Director Mark Watts concluded with: *'Delivering science-based, rapid and concrete action on shipping emissions is crucial to ensure the shipping sector decarbonisation is aligned with the goal of keeping global heating below 1.5°C. C40 is proud to support this first mover initiative aimed at accelerating the transition to low- and zero-carbon fuels and other decarbonisation technologies.'*

COP 27 Maritime sector given green boost

At COP 27 international zero-emission shipping routes came one step closer to becoming a reality, when the UK made a major pledge alongside the US, Norway, and the Netherlands to roll out green maritime links between these countries.



The Port of Singapore, known as The World's Port of call. Here is the world's largest transshipment hub with unrivalled connectivity, facilitating container movements across the world, year round.

In 2022 37million TEU were handled, traffic to and from 600 ports. An average 100,000 TEU are handled each day.

© MPA Singapore.

So-called 'green shipping corridors' are specific maritime routes decarbonised from end to end, including both land-side infrastructure and vessels.

Setting up such routes involves using zero-emission fuel or energy, putting in place refuelling or recharging infrastructure at ports, and deploying zero-emission capable vessels to demonstrate cleaner, more environmentally-friendly shipping on a given route.

At the end of 2022 the UK and the US agreed to launch a special Green Shipping Corridor Task Force focussed on bringing together experts in the sector, encouraging vital research and development, and driving other important work and projects to see these initiatives come to life as quickly as possible.

Committing to roll out green shipping corridors will help the sector to comply with the Paris Agreement goal of limiting global temperature rise to 1.5°C by the end of the century.

This follows the success of the UK-led Clydebank Declaration at COP26 the previous year – the global initiative to provide a framework for governments to establish zero-emission shipping routes between ports.

UK Ministerial comment

The then Transport Secretary Mark Harper commented: *'The challenges posed by climate change are clear and the need to decarbonise maritime has never been greater.'*

'That is why we have committed to work alongside global partners to clean up the sector, improve air quality in and around our ports and coastal communities, and drive green investment into our economy.'

'But we must not lose momentum. I am delighted to say the UK has agreed to begin developing green shipping routes with some of our closest allies, as we work together to realise the ambitions of the Paris Agreement and limit global warming.'

'The international maritime sector is currently responsible for almost 3% of global emissions – if it were a country, it would be the world's eighth largest emitter.'

'However, the UK has already made significant progress, with the Global Maritime Forum calling the UK the most proactive government in the Clydebank Declaration in terms of stakeholder engagement.'

'The UK, alongside its counterparts in the Zero Emission Shipping Mission, also recently published an action plan to remove obstacles to creating a greener maritime sector, from clean energy ports to zero-emission vessels and the green fuels that will be needed to develop green shipping corridors.'

The ship owners' view

UK Chamber of Shipping CEO Sarah Treseder added: *'Green corridors can play an essential role in stimulating early action to adopt low and net-zero emission technologies and fuels. Today's announcement is a welcome step in the international action required to decarbonise shipping.'*

'The UK shipping community is committed to working with the UK government in securing bold action at the International Maritime Organization to provide more ambitious and concrete decarbonisation strategies.'

On C40

C40 is the facilitator of the green and digital shipping corridor, providing support to the cities, ports and their corridor partners by coordinating, convening, facilitating, and providing communications support in furtherance of the corridor's goals.

For more information readers are invited to see here: <https://www.c40.org/about-c40/>

COP 28

The UAE will host the 28th Conference of the Parties to the UN Framework Convention on Climate Change (COP28) from 30 November to 12 December this year at Expo City Dubai to unite the world towards agreement on bold, practical and ambitious solutions to the most pressing global challenge of our time.

According to the organisers: *'...COP28 will be a milestone moment for global climate action. The COP28 Presidency's two-week thematic program is geared towards responding to the Global Stocktake and closing the gaps to 2030. The Presidency has taken an inclusive approach to developing the thematic programme...'*

The programme is available by link here:

<https://www.cop28.com/en/thematic-program>

The COP28 Presidency has set out a plan of action, focused on matching the highest ambition for negotiated outcomes, with a robust action agenda to implement those ambitions in the real world.

The Presidency has called on governments and key climate stakeholders to take action in four areas:

- I. Fast-tracking the energy transition and slashing emissions before 2030.
- II. Transforming climate finance, by delivering on old promises and setting the framework for a new deal on finance.
- III. Putting nature, people, lives and livelihoods at the heart of climate action.
- IV. Mobilizing for the most inclusive COP ever.

An introductory video by the COP 28 President-Designate HE Dr Sultan Ahmed Al Jaber is available here: <https://cop28.com/en/>

Canada's first all-electric tug

Worker and first nation's involvement in climate action

Canada's first all-electric tug, which will soon begin operation in Canadian waters, is an example of what can be achieved on both climate and first nation's justice when workers, first nation's people and companies come together.

Peter Lahay, Coordinator of the ITF's Inspectorate in Canada, told ITF about the inspired action of ILWU Canada Local 400 in bringing the parties together to

drive forward both sustainable transport and job creation for the Haisla Nation.

Lahay said: *'A decade ago, when LNG was still a quiet rumour in Kitimat, ILWU Canada Local 400 Marine Section recognised immediately that the project would include maritime jobs, and that any future tug work belonged, above all, to the First Nations seafarers there.'*

'We set about ensuring the work went to them — and we did so with a sense of purpose, solidarity, and the belief that an injury to one is an injury to all.'

'We began by acknowledging that First Nations peoples were the West Coast's first seafarers. We secured a change to the section of our union constitution governing shipping rules. We travelled to Kitamaat Village to meet with the Haisla Nation to consult on next steps in the process of reconciliation. All this work began before Seaspan launched its own work in the region — something all our members can forever be proud of.'



The union began discussions before Seaspan became involved, but the two sides quickly reached the same conclusions: that the Haisla nation should itself have a stake in the tug business operating from its historical territory and that investments in the service should be at the cutting edge of climate action.

After years of hard work by all parties, ILWU Canada Local 400 President Jason Woods and Secretary Treasurer Ziggy Mangat were present in July to welcome the launch of the first of HaiSea's ground-breaking emissions-free battery electric tugs.

The tug *Haisea Wamis* (**pictured here**), named after Wamis, the first ancestor who sought sanctuary at Kitamaat, is a 28.4m loa, 131 tonne tug, built to service LNG Canada's new export facility in Kitimat. Its crew are all Haisla seafarers and ILWU Canada members.

In the words of ILWU Canada Local 400 president Jason Woods: *'We welcome the HaiSea Wamis to our shores. But more than that, we welcome this new beginning that the partnership of Seaspan, First Nations and our union allows us. We are proud seafarers, every one of us, proud of the work we do, the strength of our solidarity and the value of our contribution to our families, community and country.'*

Jacques Kerkhof, the European Transport Workers' Federation Towage Committee Chair, celebrated ILWU Canada's inspired action. He commented: *'Hats off to the Local 400 who recognised early on that the LNG terminal would be a potentially huge creator of maritime jobs, and for recognising the jurisdiction of the Haisla Nation.'*

'The ILWU began a discussion process a decade ago with the Haisla people at Kitamaat, in a bid to ensure that decent, well-paid work would go to First Nations' mariners. We congratulate ILWU Canada and the Haisla people for leading the world on both First Nations' justice and climate action.'

Kerkhof said that currently shipping accounts for 3% of carbon emissions globally, and that the industry urgently needs to move from conventional fuels if we are to keep global warming in check.

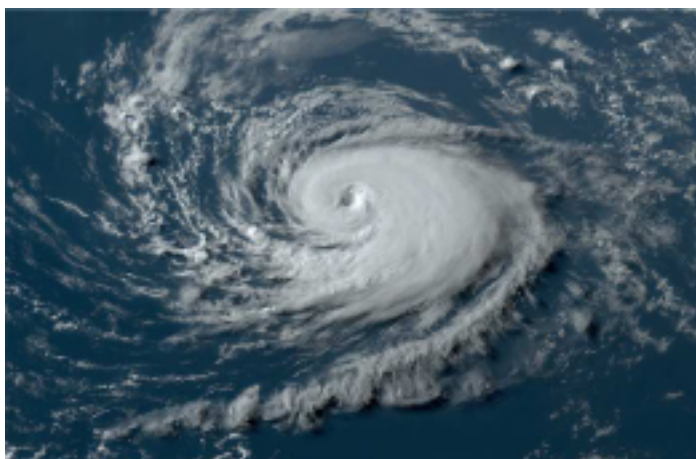
He concluded by saying: *'The Haisla Wamis is a fine example of how things should be done. The union working hand in glove with local communities and an open-minded tug company has given us the most positive outcome. The union and the Haisla nation should be tremendously proud of what they are achieving.'*

NOAA Hurricane season

NOAA forecasters increase Atlantic hurricane season prediction to above normal

Likelihood of greater activity rises due to record-warm sea surface temperatures

Scientists at NOAA's Climate Prediction Center – a division of the US National Weather Service – have increased their prediction for the ongoing 2023 Atlantic hurricane season from a near-normal level of activity to an above-normal level of activity with its update of 10 August.



A GOES-16 (GOES East) visible satellite image of Hurricane Don at 6:20 PM EDT on July 22, 2023 in the Atlantic. Don was the first hurricane of the 2023 Atlantic hurricane season.

(Image credit: NOAA)

Forecasters believe that current ocean and atmospheric conditions, such as record-warm Atlantic sea surface temperatures, are likely to

counterbalance the usually limiting atmospheric conditions associated with the ongoing El Niño event.

NOAA forecasters have increased the likelihood of an above-normal Atlantic hurricane season to 60% (increased from the outlook issued in May, which predicted a 30% chance). The likelihood of near-normal activity has decreased to 25%, down from the 40% chances outlined in May's outlook. This new update gives the Atlantic a 15% chance of seeing a below-normal season.

Season to November

NOAA's update to the 2023 outlook – which covers the entire six-month hurricane season that ends on 30 November – calls for fourteen to twenty-one named storms (winds of 39 mph or greater), of which six to eleven could become hurricanes (winds of 74 mph or greater). Of those, two to five could become major hurricanes (winds of 111 mph or greater). NOAA provides these ranges with a 70% confidence, it reports. These updated ranges include storms that have already formed this season.

Atlantic basin active start

The Atlantic basin experienced an active start to the hurricane season with five storms that have reached at least tropical storm strength, including one hurricane already. An average hurricane season produces fourteen named storms, of which seven become hurricanes, including three major hurricanes.



The 2023 Atlantic tropical cyclone names selected by the World Meteorological Organization.

(Image credit: NOAA)

Matthew Rosencrans, lead hurricane season forecaster with NOAA's Climate Prediction Center, commented: *'The main climate factors expected to influence the 2023 Atlantic hurricane activity are the ongoing El Niño and the warm phase of the Atlantic Multi-Decadal Oscillation, including record-warm Atlantic sea surface temperatures.'*

'Considering those factors, the updated outlook calls for more activity, so we urge everyone to prepare now for the continuing season.'

El Niño impacts

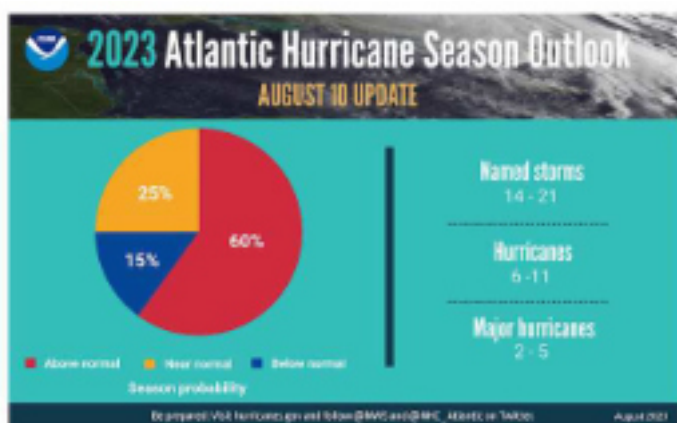
El Niño conditions are currently being observed and there is a greater than 95% chance that El Niño will

continue through the Northern Hemisphere winter, according to the latest ENSO discussion from the Climate Prediction Center. El Niño usually results in atmospheric conditions that help to lessen tropical activity during the Atlantic hurricane season. So far, those limiting conditions have been slow to develop and climate scientists are forecasting that the associated impacts that tend to limit tropical cyclone activity may not be in place for much of the remaining hurricane season.

A below-normal wind shear forecast, slightly below-normal Atlantic trade winds and a near- or above-normal West African Monsoon were also key factors in shaping this updated seasonal forecast.

More about hurricane season outlooks

NOAA's hurricane outlooks are forecasts of overall season activity, not landfalls. A storm's landfall is usually the result of mesoscale weather patterns and are typically predictable within roughly one week of a storm approaching a landmass.



The updated 2023 Atlantic hurricane season probability and number of named storms. (Image credit: NOAA)

Ken Graham, director of NOAA's National Weather Service added: *'The National Weather Service is dedicated to providing timely and accurate forecasts to empower individuals, families and communities to take proactive measures this hurricane season.'*

'New tools such as a new hurricane model, the Hurricane Analysis and Forecast System and the expansion of the National Hurricane Center's Tropical Weather Outlook to seven days are examples of our commitment to enhancing our forecasting capabilities and services.'

New hurricane forecast model

In June, NOAA deployed a new model to help produce hurricane forecasts. The Hurricane Analysis and Forecast System was put into operations on 27 June and will run alongside existing models for the 2023 season before replacing them as NOAA's premier hurricane forecasting model.

NOAA urges all who follow the weather in vulnerable areas to have a well-thought-out hurricane plan and to

stay informed through official channels as this season progresses.

About El Niño and La Niña

Per UK Met Office: <https://tinyurl.com/ynx3tsf7>

El Niño and La Niña are terms which describe the biggest fluctuation in the Earth's climate system and can have consequences across the globe.

What is El Niño?

The name El Niño is widely used to describe the warming of sea surface temperature that occurs every few years, typically concentrated in the central-east equatorial Pacific.

An El Niño is declared when sea temperatures in the tropical eastern Pacific rise 0.5 °C above the long-term average. El Niño is felt strongly in the tropical eastern Pacific with warmer than average weather.

The effects of El Niño often peak during December; its name "the boy" is thought to have originated as *El Niño de Navidad* centuries ago when Peruvian fishermen named the weather phenomenon after the newborn Christ.

What is La Niña?

La Niña or 'the girl' is the term adopted for the opposite side of the fluctuation, which sees episodes of cooler than average sea surface temperature in the equatorial Pacific. The conditions for declaring La Niña differ between different agencies, but during an event sea temperatures can often fall 3-5 °C below average. Cooler, drier than average weather is experienced in the tropical eastern Pacific.

There are also neutral phases of the cycle when conditions are closer to the long-term average (within +/- 0.5 °C). These may be within a period of warming or cooling in the cycle. Approximately half of all years are described as neutral.

False alarm, loss of propulsion leads to cargo ships colliding

US NTSB investigation

A loss of propulsion due to a false alarm led to cargo vessels colliding near Port Arthur, Texas, in 2022. This was stated by the US National Transportation Safety Board (NTSB) on 17 August in reporting its publication of its marine investigation report.

While transiting the Sabine Pass on 21 August, 2022, the cargo ship *Damgracht** lost propulsion when the vessel's main engine shut down due to 'high oil mist density' sensed by its oil mist detector (OMD).

Due to the abrupt loss of propulsion, *Damgracht* began veering into the path of the cargo ship *AP Revelin*** . The pilot aboard *Damgracht* took steps to notify and avoid *AP Revelin*, but without the means to manoeuvre the vessel, *Damgracht* and *AP Revelin*

collided. No injuries were reported. The collision resulted in \$3.4 million in damages to the *AP Revelin*.

The day before the collision, *Damgracht's* main engine alarmed and shortly later shut down due to a high cooling water temperature. That evening, the engine crew cooled down the main engine and repaired a failed cylinder head gasket. The gasket failure likely allowed cooling water to leak into the cylinder and contaminate the engine's lube oil system, and the work to repair it resulted in the interior sections of the engine being exposed to humid conditions.



The same evening the humidity averaged about 90%. It is likely that higher levels of water entered the crankcase than could be removed overnight by the lube oil purifier or evaporate from the heat of the running engine in the short time it was tested post-repair. While *Damgracht* was underway the following morning, the OMD triggered a false alarm after sensing water vapour that had condensed in the sample.

The NTSB determined the probable cause of the collision was *Damgracht's* loss of propulsion caused by an automatic shutdown of the main engine due to a false alarm, likely triggered by water vapour sensed by the oil mist detector shortly after engine maintenance was completed to replace a failed cylinder head gasket during high-humidity conditions.

The report said: *'When certain engine components, such as cylinder head gaskets, fail, cooling water can be introduced into engine lube oil systems.'*

'Ambient air conditions, such as high humidity or extreme cold temperatures, can also increase the water content within engine lube oil sumps.'

'The elevated quantity of water in lube oil systems can trigger false alarms in engine crankcase oil mist detectors (and lead to an engine shutdown), due to water droplets passing through the measuring track or the filter glass detecting condensation (mistaking it for oil mist).'

'After an engine's crankcase is opened and exposed to these conditions during maintenance and repair, it is good practice for engine crews to inspect and test the lubricating oil system for water intrusion and ensure lube oil purifying equipment is functioning properly to remove any water or other contamination in the lube oil.'

At sixteen pages NTSB Marine Investigation Report No 23-16 with the title *Collision between Cargo Ship Damgracht and Cargo Ship AP Revelin MIR-23-16* is available here: <https://tinyurl.com/yc774fwr>

Editorial note

The text here is based up material kindly provided by the US National Transportation Safety Board. NTSB ©.

Illustrations NTSB ©.

**Damgracht:* General cargo; Netherlands-flag; built 2009; 514.9ft / 156.9m loa; 13,588gt.

***AP Revelin:* Dry bulk cargo; Croatian-flag; built 2016; 590.4 ft / 180.9m loa; 25,494gt.

Under construction

Canadian Arctic offshore patrol vessel

On 8 August Mike Kelloway, Parliamentary Secretary to the Minister of Fisheries, Oceans and the Canadian Coast Guard was joined by the Honourable Sean Fraser, Minister of Housing, Infrastructure and Communities to celebrate the steel cutting milestone on the first of the two future Arctic and Offshore Patrol Ships for the Canadian Coast Guard, marking the official start of construction of the vessel undertaken by Irving Shipbuilding Inc. from Halifax, Nova Scotia.

A multitude of operations

The Canadian Coast Guard's new Arctic and Offshore Patrol Ships will operate as a primary platform to support fisheries enforcement missions on Canada's east coast, including Northwest Atlantic Fisheries Organization patrols. They will also support search and rescue and icebreaking operations on the east coast, strengthening Canada's presence in the low Arctic.

In addition to their primary missions, the Arctic and Offshore Patrol Ships will be able to support environmental response and aids to navigation, allowing greater flexibility and adaptability for the Canadian Coast Guard's operations. Outfitted with science equipment and a medical facility onboard, these modern and versatile ships will be able to conduct scientific research and support humanitarian assistance missions.

The two ships are built under the National Shipbuilding Strategy's large vessels construction pillar. Through the National Shipbuilding Strategy, the Government of Canada continues to make significant investments in modernizing the Canadian Coast

Guard fleet while creating good skilled jobs in our shipbuilding and marine industries across the country.

The Canadian Coast Guard's Arctic and Offshore Patrol Ships project will contribute to more than Can\$125million annually to Canada's GDP, and create or maintain close to 1,250 jobs annually in the Canadian shipbuilding industry over the 2022-2030 period.

Delivery in 2026

The first Canadian Coast Guard Arctic and Offshore Patrol Ship is expected to be delivered in 2026. By 2027, the Canadian Coast Guard's fleet is expected to include two new Arctic and Offshore Patrol Ships.

Quotes

The Honourable Diane LeBouthillier, Minister of Fisheries, Oceans, and the Canadian Coast Guard commented: *'Our Coast Guard members are essential in keeping our waterways clean, safe and accessible. Today, as we celebrate the start of the construction of the Arctic and Offshore Patrol Ships, we are proud to invest in the Canadian Coast Guard's fleet of the future and provide state-of-the-art equipment to our personnel.'*



Illustration Government of Canada, Ministry of Fisheries, Oceans and the Canadian Coast Guard ©.

The Honourable Jean-Yves Duclos, Minister of Public Services and Procurement Canada: *'Through the National Shipbuilding Strategy, the Government of Canada is providing the Canadian Coast Guard with the ships needed to carry out work for Canadians, while creating skilled jobs in our shipbuilding and marine industries across the country. The start of construction on the Coast Guard's first Arctic and Offshore Patrol Ship is a milestone worth celebrating. It will give Coast Guard members greater capability to deliver critical services on a wide range of missions.'*

The Honourable Sean Fraser, Minister of Housing, Infrastructure and Communities added: *'Today's announcement will improve critical project infrastructure to enhance and accelerate construction of the Canadian Surface Combatants. Through the National Shipbuilding Strategy, our government is*

helping to restore our shipyards, rebuild our marine industry and create good Canadian jobs, including right here in Nova Scotia, while ensuring our sovereignty and protecting our interests at home and abroad.'

Mario Pelletier, Commissioner of the Canadian Coast Guard reflected: *'Today marks an important milestone for the Canadian Coast Guard as construction of our first Arctic and Offshore Patrol Ship officially begins. With their versatility and endurance, these vessels will serve Canada as an important platform for patrol, icebreaking operations, and science research, while being able to carry out a variety of other vital missions.'*

Background

In May 2019, the Government of Canada announced that, as part of an investment to renew the Canadian Coast Guard fleet, Irving Shipbuilding Inc. would build two Arctic and Offshore Patrol Ships for the Canadian Coast Guard in addition to the six being built for the Royal Canadian Navy. The ships will be adapted to the Canadian Coast Guard's needs, including modifications to the bridge layout, to the accommodations and to mission spaces.

The Arctic and Offshore Patrol Ships will replace two of the Canadian Coast Guard's existing five Offshore Patrol Vessels. The vessels are 103 metres loa, 19 metres beam, with approximately 6,677 metric tons displacement.

To date, three large vessels and sixteen small vessels have been delivered to the Canadian Coast Guard under the National Shipbuilding Strategy. This includes three Offshore Fishery Science Vessels, fourteen Search and Rescue lifeboats and two Channel Survey and Sounding Vessels.

In November 2019, the engineering design contract for the Arctic and Offshore Patrol Ships project was awarded to Irving Shipbuilding Inc. In November 2022, the build contract was amended to include the construction of the two AOPS for the Canadian Coast Guard, in addition to the six AOPS being built for the Royal Canadian Navy.

An introduction to the Canadian Coast Guard fleet is to be found here:

<https://inter-j01.dfo-mpo.gc.ca/fdat/vessels>

Evergreen inaugurates Terminal 7 at Kaohsiung Port

Evergreen Marine Corp. (EMC) held an official opening ceremony for the newly-built Terminal 7 at Kaohsiung Port on 14 August. With the vision of new opportunities for the port and the provision of substantial enhancements to trade, this smart terminal is expected to drive ongoing growth of shipping related industries within southern Taiwan.

The event was presided over by EMC's Chairman, Y I Chang, and President, Eric Hsieh. A host of local

government officials and distinguished guests were also in attendance.

Evergreen Marine worked closely with Taiwan International Ports Corporation (TIPC) to develop Terminal 7. The new facility is considered to be the most important project that Taiwan's shipping industry has undertaken in recent years.

TIPC was responsible for the construction of the port infrastructure while Evergreen invested in operating system and handling equipment such as ship-to-shore (STS) gantry cranes, automated rail-mounted gantry cranes (ARMGC), reach stackers and side loaders.

In line with the trend of the global container shipping industry and the operation demands of mega container ships, Terminal 7 is equipped with five berths with a draft of 18 metres, a quay length of 2,415 meters, and 24 STS gantry cranes, including nineteen remote-controlled ones. Among them, sixteen gantry cranes are 55.5 metres high and can handle ultra-large container ships with 25 rows of containers on deck, effectively improving the quayside operation efficiency.

Five berths, two phases

The five berths of Terminal 7 will be inaugurated in two phases. Currently, Berth S5, S4 and S3B have become operational while Berth S1, S2 and S3A are scheduled to commence operations during July 2024.

When fully operated next year, Terminal 7 will allow four 24,000 TEU container ships and two feeder vessels to berth at the same time. With a yard area of 149 hectares, the facility is able to store 89,238 TEU of laden containers and 43,656 TEU of empty containers.

As the first and largest fully-automated container terminal equipped with remote-controlled gantry cranes in Taiwan, Terminal 7 can significantly improve the efficiency of container handling operations. Over the long term, the terminal is expected to achieve an annual handling volume of 6.5 million TEU.

In his remarks at the opening ceremony, EMC Chairman Y.I. Chang said: *'In line with the trend of the international shipping industry and the operational demand of mega container ships, Evergreen consolidated the cargo handling services in Terminal 4 and Terminal 5 of Kaohsiung Port and moved the operations to the advanced Terminal 7, removing the trucking demand to haul containers between the two separate terminals and cutting carbon emissions from such transportation.'*

'We made a significant investment in automatic and energy-saving equipment and also launched 'Containerlink', an online platform which improves service quality by integrating truck appointments for cargo delivery/pickup, container yard operation and digital payment systems.'

Chairman Chang added: *'By building the new automatic quayside operations and the unmanned yard in Terminal 7, we are able to provide more*

efficient, eco-friendly service to our customers and offer better working environment for local employees, taking yet another step toward our goal of sustainable operations.'

Towards a fully-automated container centre

Setting a goal to build a fully-automated container centre, Evergreen has installed twenty-four STS gantry cranes, including nineteen remote-controlled ones, sixty automated unmanned rail-mounted gantry cranes (ARMGC) and twenty-four smart gates in Terminal 7.

With the introduction of 5G communication systems, optical fibre connectivity, and Internet of Things (IoT) information networks covering the entire site, together with Evergreen's intelligent terminal operating system (EMCTOS), optical character recognition (OCR) technology and real-time power consumption monitoring system, Evergreen can effectively coordinate port operations and improve the efficiency of container yard, making Terminal 7 of Kaohsiung Port one of the most advanced container hubs in the world.

Evergreen embraces the core values of pursuing corporate sustainability and building a green supply chain. To that end, Terminal 7 utilizes various smart technologies and automated equipment, all in line with global carbon reduction initiatives.

Eco-friendly engines

As examples, all gantry cranes at Terminal 7 are electric-powered and reach stackers and side loaders are equipped with high-standard, eco-friendly engines.

In addition, Containerlink connects the data flow of container service chain in real time and enables customers to use the online platform to create truck appointments. This boosts the efficiency of container yard by reducing vehicle turn-around time and eliminates the need for document printing, thereby cutting fuel consumption and carbon emissions. These efforts significantly enhance Evergreen's continual commitment to protecting the environments, from sea to land and within our hardware and software.

Dedicated terminals in US, Panama, Japan and Thailand

Evergreen expects to continue these ongoing efforts and provide the best service to cargo owners and enhance market competitiveness. Along with these new capabilities at Terminal 7 in Kaohsiung Port, Evergreen Group currently operates dedicated terminals in Los Angeles, Oakland and Tacoma on the US West Coast; the Colon Container Terminal (CCT) in Panama; Tokyo and Osaka in Japan; Kaohsiung, Taichung and Taipei Port in Taiwan; and Laem Chabang in Thailand.