# IIMS NEWS BULLETIN

## NOVEMBER 2022

**Dear Member**

Welcome to this News Bulletin from the International Institute of Marine Surveying (IIMS). This and previous bulletins are available in PDF and eReader format at **https://bit.ly/3LQdDOw**. It aims to keep members and non-members up to date with information on a monthly basis. Members are encouraged to share and forward this newsletter to colleagues, who they think might like to join the Institute, or who may be interested in its content. For more information about the Institute visit:

**www.iims.org.uk**

# *VIEW from the HELM*

**Dear Colleague**

Tempus fugit (time flies) is one of few Latin phrases I remember well from my distant schooldays. I find it hard to comprehend that this is the penultimate news bulletin of 2022. And it has been a busy few weeks as the Institute edges into one of the most active periods I have known. Knowing that the year end is fast approaching has reminded me that I need to write my review of 2022 for the Report Magazine edition 102 that will be published on 1 December. Look out for details next month of how to access your copy. There's plenty to share with you in the upcoming publication. Also on that same date, the ***2022 IIMS Safety & Loss Prevention Briefings Compendium (edition II)*** will be published. The first edition of this comprehensive round up of incident and accident reports, coupled with loss prevention guidance, proved to be one of the surprise hits of the year. Many thousands of electronic copies of this edition have been downloaded, which has spurred me on to compile the second edition. It is not an easy read given the harrowing nature of much of the content, but I do believe it is an essential read. For me, it is vital to share such information with the marine industry in the hope that we can all learn and make improvements to reduce the loss of life and valuable marine assets.

On the topic of safety, I would like to steer you towards two very worthwhile safety digests that have been released over the past few weeks. Read elsewhere in the bulletin for details about how to access either or both. The first publication comes from the MAIB - their second digest of the year, which highlights a variety of incidents and safety issues. And just a few days later, the US National Transportation Safety Board published their equivalent version, which gives important information about 31 serious accidents and highlights key lessons learned. I recommend both publications to you.

I made a whistle stop trip to Monaco the day before the influential and world famous yacht show opened its doors to relaunch the Registered Marine Coatings Inspector (RMCI) qualification - after a fallow period of more than two years. Managed by IIMS subsidiary, the Marine Surveying Academy Ltd., it is pleasing to report that 30 plus delegates will be attending the forthcoming courses in the UK, Italy and the Netherlands. Whilst in Monaco, I was able to personally present Ken Hickling with his Honorary Fellowship certificate before a small audience, much to his surprise and delight! Also in this bulletin, you can see some of the impressive vessels on display at the Monaco Yacht Show in a photo montage.

Maritime regulatory framework seems to be constantly in the news as it evolves and so it is this month. After a protracted and difficult birth, the UK Maritime & Coastguard Agency has finally released the new proposed Workboat 3 code for consultation. The aim is to bring several existing codes into one Statutory Instrument and legal document, likely to be ratified by mid-2023 via the UK parliament. There is further information in this bulletin with links to enable you to read the consultation document and details about how you can have your say.

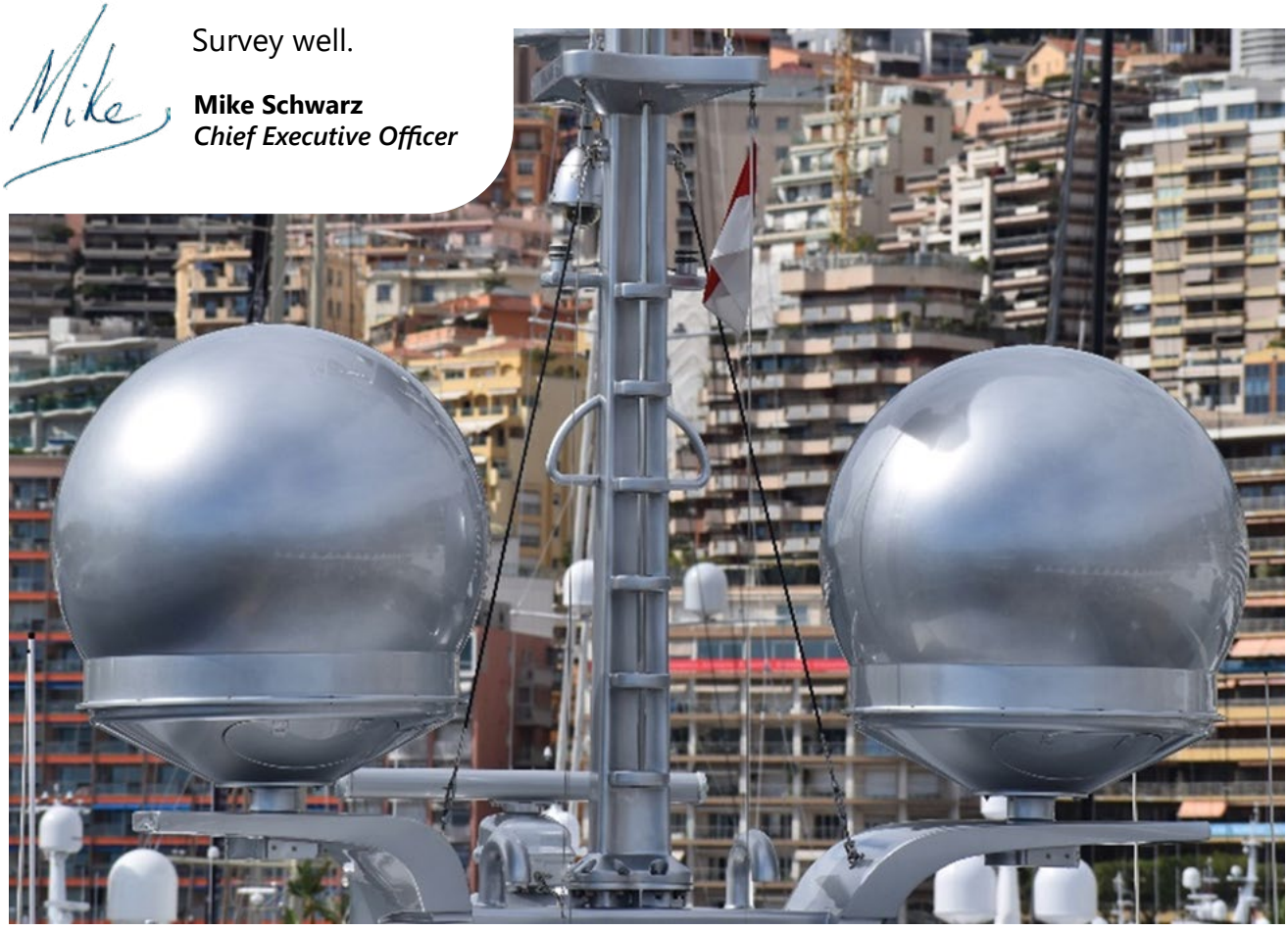
Sticking with the theme of regulations, I had the privilege recently to co-host an influential gathering of experts in the field of autonomous vessels and shipping, including flag state regulators, researchers and representatives from the insurance industry. I have written a short overview about the event to be found in this bulletin.

The last IIMS training day for this year specifically for yacht and small craft surveyors is a hybrid event scheduled to take place at a venue in Portsmouth, UK on Wednesday 16 November. The day is open to everyone and being an IIMS member is not necessary. As well as attending face-to-face, delegates may also opt to join online via Zoom. We have lined up an impressive array of speakers who between them will cover of topics including fire suppression systems, life jacket and life raft maintenance and servicing and Tier III emissions. Karen Brain, known to many IIMS members, will be speaking and Cygnus will be on hand to give a practical demonstration of the latest ultrasonic thickness gauge technology. Full details about the event can be found at **https://bit.ly/3PEjGak**. Or scan the QR code.

And finally, are you a fan of Instagram? A little late in the day, IIMS has become one and has launched a channel on the well-known platform. **@iimsmarine** will find the Institute's channel on Instagram. There are 70 followers already and we'd would love to have many more. It is a great place for IIMS to share images, but I'd like to encourage you to share some of yours too.

Survey well.

**Mike Schwarz**
***Chief Executive Officer***



# Ken Hickling presented with his HonFIIMS award

Mike Schwarz took the opportunity to catch Ken Hickling unaware when the two met at an event recently prior to the Monaco Yacht Show to present him with his award certificate in front of a small audience.

# Two IIMS Fellows caught on camera at the Chartered Master Mariner Alumni & Award Event

Two senior members and Fellows of the IIMS, Captain Allen Brink (South Africa) and Captain Zillur Rahman Bhuiyan (Bangladesh), both awarded Chartered Master Mariner status by the Honourable Company of Master Mariners, attended a special event in London. Allen is pictured extreme right and Zillur extreme left. The immediate past Secretary of State for Transport and the Member of Parliament (MP) for the Witney Constituency Robert Courts was the Chief Guest at the event.


MAIB
MARINE ACCIDENT INVESTIGATION BRANCH

SAFETY DIGEST

Lessons from Marine Accident Reports

2/2022

# MAIB safety digest 2/2022 published

Andrew Moll OBE, Chief Inspector of Marine Accidents at the Marine Accident Investigation Branch writes, "Welcome to MAIB's second Safety Digest of 2022. I will start in the usual manner by thanking Julian Hughes, Jim Portus and Rachel Andrews for their respective introductions to the merchant, fishing and recreational sections of this edition. Each is an expert in their own field, and their industry insights to safety help bring contemporary context to the cautionary tales in the following pages. I hope you will find time to read the whole edition – there is something here for every mariner – but please do read the section introductions. And, when you have finished, please pass the digest on so others can benefit too.

We tend to think of the news as something fairly transient. Our media quickly moves on to the next sensational story and, to use an old saying from the days when chip shops wrapped food in newspaper to keep it warm, "Today's headlines are tomorrow's chip wrappers". But the real world is not like that. Accidents have consequences, and Julian Hughes's description of how passing through a powered watertight door affected him is a fantastic example of how an accident can resonate and impact on people's behaviour long after the event itself."

Download the safety digest at **https://bit.ly/3fIIReS**. Or scan the QR code.

# Safer Seas Digest 2021 published by NTSB


The National Transportation Safety Board (NTSB) has published its 96 page Safer Seas Digest 2021, highlighting the most important lessons learned from 31 maritime tragedies that took place over the course of last year including capsizes, contact, collisions, fires, flooding and groundings.

Among the key investigations included in the report are the sinking of Scandies Rose, where five lives were lost, and the capsizing of Golden Ray, one of the most expensive marine accidents in history.

In brief, some of the key lessons learned that are featured in the Safety Digest are:

**1 Vessel Stability**
A vessel's stability instructions must be accurate, and the crew must use the instructions correctly when determining stability to ensure a vessel is loaded such that it meets the stability criteria intended by the vessel designers and approved by regulators.

**2 Containing Engine Room Fires**
Engine rooms contain multiple fuel sources and are especially vulnerable to rapidly spreading fires. Following the initiation of an engine room fire, it is imperative to remove the source(s) of available fuel to a fire. Designers and operators should evaluate fire hazards and provide effective means to mitigate them.

**3 Icing and Severe Weather**
Severe weather can create challenging conditions, including strong currents and high winds and seas. In cold weather climates, wave-generated sea spray can cause icing, which can severely affect the stability of a vessel.

**4 Risk Management and Project Planning**
A formal risk assessment, which involves identifying hazards and estimating the risk they pose, is a critical component of casualty prevention. By considering the likelihood and severity of each risk, risk matrices increase the visibility of risks and help managers select controls commensurate with the risk level. With such information, a hazard control plan can be developed and implemented.

**5 Cargo Preparation and Securement**
It is important for cargo planners to have tools and procedures, such as stow plans, calculations, and preparation instruction, to assist with determining proper stowage and the sufficiency of securing arrangements for cargo loaded aboard vessels. These tools and procedures must consider the type of cargo and the design of the vessel, as well as the potential hazards presented by the cargo.

**6 Teamwork**
Safe and effective operations are not one person's job. Teamwork is an essential defense against human error, and a good team should anticipate dangerous situations and recognize the development of an error chain. If in doubt, team members should speak up or notify a higher authority

**7 Identifying Navigational Hazards**
Situational awareness demands a mariner should be alert for new hazards that can appear along their intended route. It is important to check the Coast Pilot and navigational charts when developing voyage plans to improve knowledge of an area and prepare for a safe passage

**8 Continuous Monitoring of Unmanned Vessels**
To protect personnel, property, and the environment, it is good marine practice for owners, operators, and shipyard managers to coordinate and implement some form of continuous monitoring for vessels undergoing maintenance in a shipyard, in lay-up, or in some other inactive period without regular crews aboard.

Download the safety digest at **https://bit.ly/3rN0qNy**. Or scan the QR code.

# Autonomous vessels are coming to a harbour near you, but…

Mike Schwarz, IIMS Chief Executive Officer, reflects on a recent workshop with the goal of discussing the latest thinking on the present and future of autonomous ships.

On the last day of September, I found myself surrounded by about 40 learned industry professionals, most of them experts in the field of researching and developing autonomous ship technology and regulation. I had been invited to co-chair and moderate one of the morning sessions at the workshop, organized by Dr Alexandros Ntovas of the Institute of Maritime Law in Southampton, and entitled ***Advancing Ship Technology: Autonomy – moving the discourse from disruption to enablement and the upgrade of human capabilities in the digital era***.

Let's face it, hardly a day goes by these days when the shipping media does not carry another story about the sector development or launch of another autonomous vessel. So, whilst I have been exposed to the development of this technology along with many others, my level of engagement thus far could best be described as superficial.

This event, surely one of the most influential gatherings of those currently researching and exploring the challenges and opportunities presented by autonomous ship technology outside IMO, really captivated my imagination and left me feeling somewhat reassured too. It is clear that although the technology for fully autonomous ships exists today, other significant hurdles lie in the path and will limit progress. I left sensing that fully autonomous vessels will not become a reality in my lifetime and, perhaps, not in yours either.

In the first presentation, Ørnulf Jan Rødseth, Senior Research Scientist, SINTEF, drew a thought-provoking comparison with automated cars, already a highly developed technology. In his opinion, full automation in that arena was not viable given there are billions of cars on the road, and it is impractical. However, he was very much in favour of automated ships as there are currently no more than 100,000 vessels on the high seas - an entirely different proposition he argued.

Much reference was made to the four classes of autonomous ships. For information, they are 1) a smart ship where the crew is assisted by automation; 2) a periodically unattended bridge where the crew is still on the ship; 3) uncrewed ships where human operators are in a remote location, and 4) fully autonomous ships not having human operators at all. The overwhelming consensus is that scenarios 2 and 3 are the most likely where responsibility for the safe control of the vessel is shared between humans and automation.

So, the encouraging news is that there is no doubt that humans have a key role and will need to be trained accordingly to enable them to play their part fully.

It was agreed that changing the laws of the seas (UNCLOS - United Nations Convention on the Law of the Sea) will not happen. It is more about fitting the new technology into the existing parameters and laws. The consensus was that automated vessels will sail side by side with the existing 'traditional' ships and that the two genres will need to find a way to co-exist as the slow evolution takes place.

The bigger challenges that autonomous technology must grapple with were summed up as a) the cost of investment to shipowners; b) the length of time necessary to make new regulations; c) how the insurance sector will risk assess and underwrite autonomous vessels; d) how maritime law evaluates and responds to the new technology, and e) public perception.

Indeed, public perception was a theme raised by several speakers and is a concern. It seems that until the public embrace and accept- or has a better understanding - the concept of autonomy in general, be it cars, airplanes and/or ships, moving towards fully autonomous vessels will remain a process of slow evolution and only with considerable and ongoing input from humans!

I came to the workshop with two burning questions. Firstly, how important is it to develop a communications strategy to inform and bring the public along with the concept of autonomous ships, especially given what is called 'ship blindness' by those who do not understand what happens at sea? After all, just one disaster making major news and media headlines would set the sector back considerably. And secondly, how will the insurance industry embrace this technology? Point one was answered, but many unanswered questions remain for the insurance industry to ponder and resolve.

# New proposed Workboat 3 code from the Maritime & Coast Guard Agency is open for consultation


*Photo used for illustration purposes only*

Rules governing workboats, pilot boats and remotely operated vessels have been revised and remade to support innovation in industry. The revised Merchant Shipping (Workboats, Pilot Boats and Remotely Operated Unmanned Vessels) Regulations 2022 and accompanying Code is now going out for consultation across the marine industry.

It is felt the new version of the Code will help clarify the survey and inspection requirements and also addresses the growing autonomous vessel industry. Existing rules did not reflect those and other developments which is why the regulations and Code have been revised.

Rob Taylor, Code Vessel Lead for the Maritime and Coastguard Agency said: "We don't compromise on safety. It's as simple as that, so the safety underpinning these regulations will not change.

"However, we needed to reflect the fact that there is innovation happening right across the industry and we want to support that with appropriate regulations and guidelines. That's led to this work to provide a clear framework so that vessel owners and operators can continue to operate in confident that they are fulfilling their legal obligations."

The consultation is due to last for 12 weeks and will close on 29 December 2022 at 11.45pm.

## Background

This is a consultation on revoking and remaking the Merchant Shipping (Small Workboats and Pilot Boats) Regulations 1998 (S.I. 1998/1609) ("the 1998 Regulations") with amendments and modifications that will then provide a coherent legal framework for operators of workboats and pilot boats.

It will clarify the survey and certification requirements and responsibilities and updating the Code of Practice to reflect the current international standards that apply to these vessels and the equipment carried on board. This instrument also introduces new provisions for remotely operated unmanned vessels which now operate in this sector.

The original Code of Practice for the Safety of Small Workboats and Pilot Boats was one of four Codes of Practice published for small commercial vessels operating in UK waters under a common set of standards. The Code set a national standard and was generally accepted by industry because it could be easily referenced and understood, and it created a level playing field within the sector. The Code was also recognised internationally and is used by other national maritime administrations as a basis for standards of their own vessels. As a result, UK flagged workboats were able to win contracts and operate widely across the UK and the rest of Europe.

The instrument also makes consequential amendments to other instruments which are needed to enable the provisions to apply to remotely operated unmanned vessels used as workboats.

Click to view all the documentation regarding the consultation at **https://bit.ly/3eiqNHU**. Or scan the QR code.

Or click to view the main consultation document (including details of how to make your comments to the MCA) at **https://bit.ly/3V9ZCzV**. Or scan the QR code.

## New interim Chief Executive of the Maritime and Coastguard Agency appointed

Damien Oliver has been appointed as the interim Chief Executive of the Maritime and Coastguard Agency (MCA). He begins his new role on Monday 17 October, following the retirement of MCA Chief Executive Brian Johnson.

MCA Chairman and board member Christopher Rodrigues said: "Damien has had a number of high-profile roles within the MCA since joining in 2001 and he will bring a wealth of maritime experience and knowledge.

"Damien has been responsible for major projects and programmes, procurement, commercial management and innovation, maritime business development which includes the UK Shipping Register and Shipping Concierge within the MCA."

"More recently, he has led on the programme to replace the current Coastguard aviation arrangements with the second-generation search and rescue aviation contract (UKSAR2G). He has also been in charge of the project to replace the radio network infrastructure for HM Coastguard".

Damien Oliver said:
"It is a great privilege to be appointed as interim CEO of the MCA. I am very much looking forward to leading the Agency through the coming months."

Transport Secretary Anne-Marie Trevelyan said:
"Damien has achieved great things during his impressive career with the agency to date, and I look forward to seeing the direction he gives to the organisation as interim Chief Executive."

"The UK's maritime industry is among the most advanced in the world, but growth is still so important. We'll continue working together to build a more environmentally friendly sector, support job creation, and promote the UK flag around the globe."

## Tropical storm Ian forces the cancellation of IBEX 2022

The International BoatBuilders' Exhibition and Conference (IBEX) announced the cancellation of this year's show just a couple of days before it was due to open for business. Organisers took this action to prioritise the safety of staff, exhibitors and partners due to adverse weather reports from NOAA that showed the imminent arrival and uncertain nature of tropical storm Ian. Consultation with the City of Tampa, Tampa Convention Centre and other stakeholders also played a part in reaching the decision. The show was scheduled to run from the 27 to 29 of September.

"It is a very difficult decision to cancel IBEX 2022, as we were on track to have an excellent event," said Anne Dunbar, IBEX Show Director. "The entire IBEX team is very disappointed, but the safety of our community is our priority. This was the right choice. Additional information will be shared with exhibitors and visitors as we work through our cancellation process."

"The safety of our team, exhibitors and partners is our top priority and given the significant and unpredictable nature of the coming storm, canceling the show is imperative to keeping everyone out of harm's way," said Frank Hugelmeyer, NMMA President. "IBEX is the premier recreational boating trade event delivering critical business for our industry and as such this decision was not made lightly. Thank you for your continued commitment and support of the IBEX, NMMA, and RAI teams."

# US ports and terminals facing increased cyber security attacks says new survey

JONES WALKER

2022 Ports and Terminals Cybersecurity Survey

Jones Walker LLP released the findings of its 2022 Ports and Terminals Cybersecurity Survey, noting that cyber attacks are on the rise at US ports and terminals.

An overwhelming majority (95%) of port and terminal respondents indicated they believed that their industry is "very" or "somewhat" prepared for any cybersecurity threat. A similarly large majority (90%) reported that their own facilities and organizations are "very" or "somewhat" prepared to withstand a cyber-breach incident.

Despite this level of confidence, keeping pace with the increasing prevalence of cyber attacks remains a significant challenge. 74% of respondents indicated that their systems or data had been the target of a breach or breach attempt within the past year.

Survey participants identified "lone wolf" hackers and organized crime groups as the top threat actors menacing the ports and terminals sector, with nation-state affiliated groups a close third. Still, 35% listed internal staff and employees as a threat. These figures line up with findings in the broader economy.

This perception also aligns with stakeholder experience. Of the respondents who reported being victims of cyber breaches, 64% indicated a solo threat actor/hacker was responsible, while 32% identified an organized crime group.

Fear of ransomware appears to be outpacing actual ransomware events, as only 20% of respondents whose organizations had actually been victimized by a cyber attack listed ransomware as the primary attack vector.

Download the survey and report at **https://bit.ly/3CMcDIR**. Or scan the QR code.

# National Safe Boating Week in Australia and New Zealand


National Safe Boating Week ran from the 1 to 7 October, reminding boaters of the importance of lifejackets ahead of the busy summer season.

The Boating Industry Association partnered with the Australia New Zealand Safe Boating Education Group, and representatives of State and Federal government boating authorities to support the campaign. The key theme is to highlight the importance of wearing a lifejacket and ensuring inflatable models are checked routinely to ensure they are 'good to go' and serviced as required.

The aim of National Safe Boating Week is to increase safer boating practices and promote responsible boat ownership for commercial and recreational use. Whether out on the water to earn a living or just for fun, every skipper/operator has a responsibility for the safe operation of their boat and for everyone on board. The Boating Industry Association is encouraging the industry to get behind this important safety initiative.

# AMSA announces new campaign on passenger tender vessel safety

AMSA announced the launch of a new Focused Inspection Campaign (FIC) on tender vessel safety requirements for domestic commercial vessels over the period 1 October 2022 to 30 May 2023.

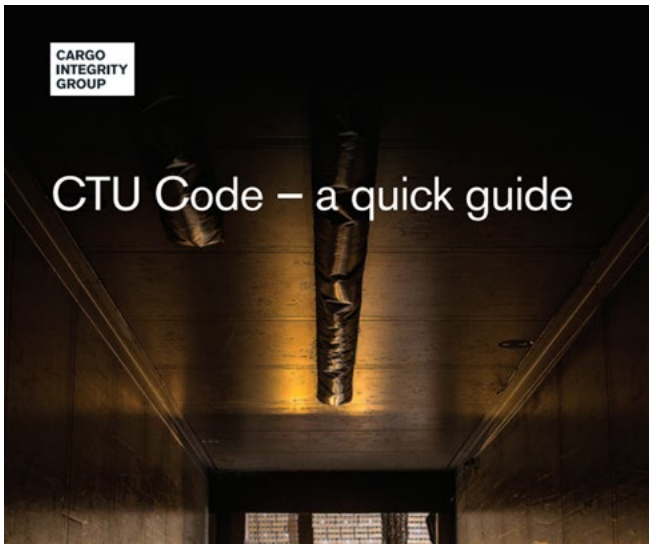
The FIC will consist of inspections targeting safety requirements including safety equipment, certificates of operation, safety management systems, and UVI's.

As explained, marine inspectors will undertake these inspections in conjunction with normal Domestic Commercial Vessel (DCV) inspections or as a standalone inspection. Where an inspector finds a deficiency in relation to the checklist, the inspector will discuss this with the person in charge of the DCV with a view to ensuring the vessel is brought into compliance. The results of the FIC will be analysed following the end of the campaign.

Namely, the inspections will focus on the following items:

- If the tender carries the required safety equipment
- If the tender is marked with UVI or equivalent
- If there is evidence of qualifications for driving tender
- If there is evidence of communication between tender and mothership
- If there is any deficiency recorded
- If there is any national law notice issued

# The Cargo Integrity Group updates its container safety guidance




The multi-faceted group of seven industry organisations produced a Quick Guide to the IMO/ILO/UNECE Code of Practice for Packing of Cargo Transport Units (CTU Code) some two years ago. The Quick Guide is designed to assist those responsible for packing containers and accurately declaring details of their contents to abide by the often-complex regulations contained in the voluminous CTU Code itself. There is also a useful Checklist of actions required by packers and shippers of containers.

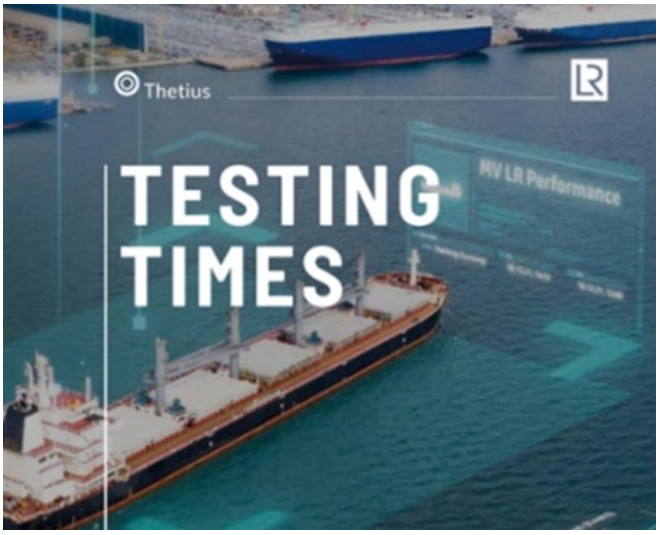
The Group believes that awareness of the CTU Code is pivotal to achieving safe and secure transport and has followed up the Quick Guide's publication with provision of its full text in Arabic, Chinese, English, French, Russian, Spanish and Italian. An update has now been made available, taking account of feedback.

Failure to follow the CTU Code advice puts the people who keep the supply chain moving at risk, leading to incidents and accidents that are still all too common. The Group believes that such tragedies in the supply chain are to be avoided – most vividly demonstrated by the too frequent occurrence of container ship fires – higher standards of cargo integrity.

"We are providing clearer guidance through our revised Quick Guide and Checklist to help those responsible for packing cargo transport units, and in particular intermodal containers, to understand the standards expected in international trade," stated James Hookham, Director of Global Shippers Forum.

Download the guidance document at **https://bit.ly/3SzDZqS**. Or scan the QR code.

# Report analyzes role of ship fuel oil assessment and quantity verification




A new report from Thetius and Lloyd's Register analyzes the role of ship fuel oil assessment and quantity verification during "uncertain times."

Variations in bunker fuel quality have been a pressing issue for some time and lobbying for tighter bunker licensing and chain of custody schemes aimed at improving supply chain transparency have increased in recent years. But as operators and insurers are witnessing, the problem of off-spec and poor quality bunker fuel is at constant risk of resurgence. Changes to the geographic orientations of global bunker fuel markets are another influential factor.

According to the report, to meet growing local demand, Europe will need to increase imports from North America, South America, and the Middle East and this will increase ton-mile costs for crude and refined stocks, and put further price pressure on fuel supplies.

As fraud and corruption in bunker supply continue to impact operator margins, this increased pressure may provide more oxygen to less scrupulous suppliers in the bunker supply chain, leading to even more variability in quality and quantity.

When evidence shows that in excess of one million metric tons of off-spec or non-compliant fuels are detected each year, the cost to industry is considerable, with the bill to the unwary ship operator estimated at $27k – 50k USD per event.

**Issues operators face**

The issues that operators face need to be considered alongside some of the more positive, but no less influential developments such as:

- The introduction of biofuel oils;
- The increasing prevalence of bunker licensing schemes;
- The increased commonality of mass flow meters;
- Upcoming changes to ISO standards for marine grade fuels;
- The rise of GC-MS and 'lab-on-ship' technologies.

Together, they form a picture of the constantly shifting patterns, parameters, and problems that ship operators face in their bunkering operations whether fully aware of the risks or not.

As regulations, technologies, and market movements conspire, there has never been a more important time for operators to ensure they are receiving the best advice and oversight on bunker procurement and refuelling operations.

**Recommendations for managing fleet fuel oil**

1 Expertise matters: The testing, analysis, and evaluation of bunker fuels requires more than a deep understanding of petro-chemistry and laboratory techniques. It also requires a deep understanding of market forces, regional differences in operation, and when things are found amiss - corrective actions.
2 Work with suppliers to set clear expectations: One example of this could be to agree to longer contracts with trusted suppliers in exchange for installing mass flow metres similar to those set out in the Singapore requirements.
3 Take a Belt and Braces approach to new technology: Where time to result is critical, providing test kits and flow monitoring equipment to crew, training them to use them effectively, and backing up results with laboratory analysis offers a well thought out approach to reducing fuel risks.

Click to access the report at **https://bit.ly/3SHPbBT**. Or scan the QR code.

*Photo credit: Unitrove*

## UK consortium to deliver world's first zero-emission multi-fuel station

A consortium led by zero-emission solutions provider Unitrove has been awarded thousands of pounds by the UK government to explore the development of a zero-emission multi-fuel station (ZEMFS) that would power hydrogen and electric ships.

The design concept, which is planned to be operational by March 2025, will use liquid hydrogen as the basis for providing three fuelling options for powering small craft: liquid hydrogen, compressed gaseous hydrogen, and electric charging.

The project is part of the Clean Maritime Demonstration Competition Round 2 (CMDC2) launched in May 2022, funded by the Department for Transport (DfT), and delivered in partnership with Innovate UK. As part of the CMDC2, the Department allocated over £14 million to 31 projects supported by 121 organisations from across the UK to deliver feasibility studies and collaborative research and development projects in clean maritime solutions.

CMDC2 is part of the UK Shipping Office for Reducing Emissions' (UK SHORE) flagship multi-year programme. In March 2022, the DfT announced the biggest government investment ever in the UK commercial maritime sector, allocating £206 million to UK SHORE, a new division within the Department, focused on decarbonising the maritime sector.

"Everyone connected with the project understands its importance, and it is down to the incredible work and collaboration of all project partners in pulling together such a compelling case that we have been awarded this money," said Steven Lua, CEO of Unitrove.

## River Canal Rescue's callouts set to reach an all-time high by the end of the year

The inland waterways rescue organisation, River Canal Rescue, says figures up to September 30 are already 3318, ahead of 3235 logged for 2021, and 2850 rescues in 2020.

The callouts have generally been for electrical, fuel and engine issues, flat batteries, over-heating and gear box failures, with River Canal Rescue saying the rise is due to the high number of people unable to visit and maintain their boats during lockdown, resulting in minor niggles now becoming larger problems.

"Figures are currently at an unseasonable high and we still have a couple of months to go," said River Canal Rescue MD, Stephanie Horton. "It's worth noting that only 14% of callouts were attended by contractors this year, partially due to their availability."

River Canal Rescue's Canal Contracting service has also arranged 455 visits this year to undertake a variety of work, including: plumbing and electrical installations, gearbox replacements, inverter, solar installations and general engine maintenance as well as 90 rescue jobs.

# Bureau Veritas lays out well-to-wake approach to alternative fuels

Bureau Veritas (BV), a world leader in testing, inspection and certification, has launched a detailed outlook on future maritime fuels in a new white paper, which calls for a "well-to-wake" (WtW) approach to assessing the climate impact and sustainability of alternative fuels.

This is one of the key conclusions of the white paper, which evaluates alternative fuels such as methanol, LNG, biofuels, hydrogen and ammonia, outlining their respective characteristics, advantages, challenges, availability, safety, and greenhouse gas (GHG) emissions.

A well-to-wake approach accounts for all GHG emissions released from the extraction or production phase, the distribution of the fuel, through to the final use onboard vessels, as opposed to just the emissions resulting from combustion on board.

The white paper calls for a sustainable fuel production pathway for alternative fuels, highlighting that even carbon-free fuels may have a carbon-intensive supply chain that means they could generate higher WtW emissions than the fossil fuels they intend to replace. This positions electrofuels (e-fuels), which are produced from renewable energy, as well as sustainably sourced biofuels, as some of the most promising options to decarbonise shipping.

Ulrik Dan Frørup, Chief Commercial Director at Bureau Veritas Marine & Offshore, said: "Changing marine fuels will necessitate major changes to the entire fuel supply and logistics chain. This will have an enormous impact on maritime businesses worldwide. The clock is ticking down to 2050, and the sooner we decarbonise, the better. At BV, we believe that the maritime world will gain in prominence in a decarbonised future, becoming the backbone of low- and zero-carbon transportation."

Access the report at **https://bit.ly/3Tc2hqX**.

# Lloyd Werft and Stay Sea Design launch "green yacht" concept

*Photo credit: Lloyd Werft*

Lloyd Werft and the design office Stay Sea Design have launched the "green yacht" concept Albatross. In addition to a conventional propulsion system, powered by marine gasoil, the yacht concept includes the utilisation of rigid sail technology and solar panels. By this, energy consumption and the CO2 footprint is to be reduced by up to 40%, the companies said in a joint statement.

The operational profile of the Albatross is divided into harbour/anchor mode and sea/sailing mode. While in harbour/anchor mode, energy is generated by six methanol fuel cells of 200 kW each, assisted by the sails and solar panels with a 4 MW lithium-ion battery storage application allowing power to be captured 24 hours a day.

In sea/sailing mode, propulsion is generated by four main engines of 1,800 kW each, coupled in pairs to two gearboxes incorporating a PTO / PTI hybrid system for a 1,000 kW generator / motor attached to a controllable pitch propeller system.

The main engines are powered using conventional marine gasoil, as there is little alternative for longer voyages, but consumption is reduced while utilising the rigid wing sail technology.

# IMCA publishes DP System network storm guidance

*Graeme Reid, IMCA Technical Adviser - Marine*

The International Marine Contractors Association (IMCA) has published 'Guidelines for the Management of DP System Network Storms' (IMCA M 259) to raise awareness of the risks presented by the use of data communication networks on dynamically positioned (DP) vessels, especially when used to connect otherwise redundant components of the DP control system, power system or thrusters.

The general effects of so-called 'network storms' are to cause disruption of data communication over a network and/or degradation of network controller performance, although the exact symptoms may be unpredictable, inconsistent and may increase over time or appear instantaneously.

As IMCA Technical Adviser – Marine, Graeme Reid explained: "There have been a number of high-profile DP events attributed to failure of networks in the past. However, knowledge around the subject remains at the basic level for most stakeholders including designers, shipyards, OEMs, operators, and those involved in DP FMEA management. Testing demands imposed by different vessel charters have been reported to be on the increase due to the increasing recognition of the potential risks of network failure, but these demands can be variable and inconsistent, reflecting individual approaches and levels of understanding.

"Our new guidance is the result of the efforts of a dedicated working group comprised of those key stakeholders and the contents and general conclusions of the guidance have been validated by testing performed in the laboratories of major DP Control Systems manufacturers and onboard DP vessels in service. We believe it will not only increase awareness of the issue but encourage the risk to be taken seriously in relation to the safety of both the vessel and its crew."

With its comprehensive contents the 46-page document is aligned with well-established and commonly understood DP industry concepts and terminology, especially with regard to redundancy, fault propagation and cross connections. It provides information on a wide range of concerns, effects and verifiable objectives of network storm management with sections on; faults on data networks; addressing network vulnerabilities; competency profiles; testing; practical considerations for DP vessels in service; highlights common misconceptions such as "But this is not likely to happen in real life" (usually said after an issue has been found during testing); and includes useful and wide-ranging references.

# Lürssen launches 146m superyacht Opera

*Photo credit: Martin Tolle*

The 146 metre superyacht Opera has been launched at the Lürssen shipyard in Bremen. The yacht, which was formerly known as Project Opera, is now understood to be called Opera.

While details about the vessel remain sparse, Opera is understood to have a 20 metre beam and interior volume exceeding 10,000GT. Pictures reveal a pair of helipads on the foredeck and upper deck aft, plus a swimming pool on the main deck and a dedicated observation deck.

The bare hull of the yacht was last seen in May 2021, when she was moved to Bremen in Europe's largest floating dock, which is 290 metres long and needs the assistance of four tug boats.

# Canal & River Trust Annual Report 2021/22 published


The Canal & River Trust 2021/22 Annual Report & Accounts document a continued rise in use of the towpath with nearly 800 million individual visits across the year and a record summer for boating once the waterways were able to re-open in May 2021 for unrestricted navigation. It is also the second year to be severely affected by Covid-19.

Accounting for variances relating to the pandemic, income for the year remained broadly stable, and the Trust was able to increase the amount spent on core maintenance and repair works to keep the network open, safe and navigable.

In a year that saw both drought and further winter storm damage, once again bringing additional unplanned and costly works, the Report highlights the increasing impacts of climate change and how, with continued support and funding, the Trust's 250-year-old network is helping to address the national crises in public health, biodiversity and the climate emergency.

Over 160 large-scale works were completed across the year, including repairing masonry and brickwork, fixing leaks, updating and installing hydraulics and electrics, and fitting 132 lock gate leaves handcrafted at the Trust's specialist workshops.

However, the Trust's largest spend on infrastructure in 2021/22 was again on its high-risk reservoirs, the oldest in the country, continuing a programme of additional works over the decade to minimise any threat to public safety and to safeguard the vital canal water supply that the reservoirs provide.

Richard Parry, chief executive of the Canal & River Trust, comments: "In a year severely affected by the pandemic, the Trust has demonstrated its resilience to the challenges faced and continued to provide opportunities for the nine million people who have waterways on their doorstep, to experience the wellbeing benefits they offer."

Download the report at **https://bit.ly/3SBBtk0**. Or scan the QR code.

Canada

# Canadian Coast Guard makes new moves to reduce fleet emissions

The Canadian Coast Guard (CCG) has announced two significant steps to reduce its emissions in line with the Government of Canada's 2030 and 2050 commitments on greenhouse gases: the start of a biodiesel testing project and the launch of the next phase in the construction of the Government of Canada's first hybrid electric vessel.

Following the award of a contract to procure biodiesel from Windsor, Ontario based Sterling Fuels, CCG became the first Government agency to trial a 20% biodiesel blend in one of its vessels, the CCGS Caribou Isle. Over the next months, various biodiesel ratios will be tested in order to enable the CCG to assess operational feasibility and technological compatibility of higher blend rates across various operational settings. The biodiesel test project will help advance solutions to decrease emissions in the immediate term.

In addition to testing greener fuels, the CCG is preparing for construction of a new hybrid electric Near-Shore Fishery Research Vessel (NSFRV) to reduces consumption of diesel. Following the design and engineering work for a vessel class fitted with a battery energy storage system, the CCG has issued a request for proposal to Canadian shipbuilders to start construction of one vessel.

"This new electric hybrid powered vessel and the use of biodiesel in our fleet have the potential to become a watershed moment in future shipbuilding and green fuel use," said Canadian Coast Guard Commissioner Mario Pelletier, Commissioner. "These initiatives give us reasons to be proud and to be hopeful. Congratulations to all Canadian Coast Guard personnel and project stakeholders on achieving these latest milestones."

# Effective and regular vessel maintenance can prevent machinery failures


The Australian Maritime Safety Authority (AMSA) has published a Maritime Safety Awareness Bulletin to highlight that a lack of planned maintenance can have a significant impact on the safety of the vessel, the people, and the marine environment.

Maintenance related issues do not always receive the attention they deserve, as these are often difficult to detect and can be regarded as entirely technical matters, unrelated to safety and pollution prevention. As a result, maintenance matters may not be reported or addressed as part of the organisation's safety management system. This increases risks to safety and can result in substantial costs arising from repairs and operational delays.

Nearly three quarters of all marine incident reports received by AMSA between 2019 and 2021 involved deficiencies or failures with onboard equipment, systems, or structure. Between January and February 2022, AMSA conducted focused inspections on planned maintenance which continued to highlight systemic problems with vessel maintenance.

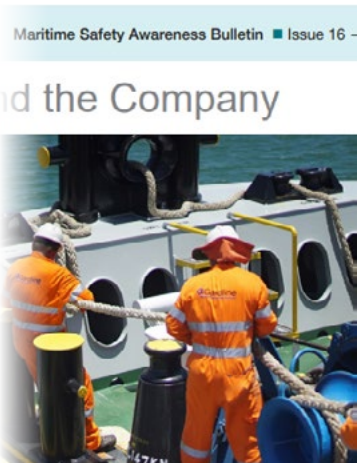
**Port State control (PSC) deficiencies**

In 2020, AMSA recorded 24 detentions attributed to defects relating to maintenance of the vessel and equipment. Six vessels were detained for not maintaining the vessel after survey. On average AMSA recorded 14 maintenance related deficiencies per detention in 2020.

As a result, a focused inspection campaign (FIC) was conducted between January and February 2022. During the inspection period a total of 271 inspections were recorded. 41% of vessels were detained highlighting a continued problem of inappropriate or ineffective maintenance.

An effective maintenance management system will be the result of an assessment of the associated risks. When conducting the assessment, the operator should consider the following:

- the maintenance recommendations and specifications of the equipment manufacturer;
- the history of the equipment, including failures, defects and damage, and the corresponding remedial action;
- the results of third-party inspections;
- the age of the ship;
- identified critical equipment or systems;
- the consequences of the failure of the equipment on the safe operation of the ship.




Download the safety bulletin at **https://bit.ly/3C453HH**. Or scan the QR code.

# IAPH publishes report highlighting port infrastructure gaps


The International Association of Ports & Harbors (IAPH) has published its summary report "Closing the Gaps – key actions in digitalisation, decarbonisation and resilience the maritime sector".

IAPH defined and identified the principal gaps in port and port-related infrastructure on a global scale. These gaps were identified in terms of efficiency, connectivity and accessibility, digitalisation, decarbonisation, shipping costs and regulatory environment. The report serves as a basis for action plans in collaboration with the World Bank Group, with input from 85 maritime and logistics executives from 35 countries.

"Back in 2021 our outgoing and incoming IAPH presidents concurred that ports were not prepared for the pandemic-affected, extreme swings in demand and their impact on the maritime transport chain," wrote Dr. Patrick Verhoeven, Managing Director. "This was principally due to long-term under-investment in port and port-related infrastructure. So, we took the decision to define and identify, on a global level, the principal infrastructure gaps and to envisage a concrete plan, along with the World Bank, to close those gaps. "We are grateful to the global maritime and transport community for responding so openly and enthusiastically to this exercise."

One intriguing element of the report highlights port automation investment and its contrasts from greenfield to brownfield sites.

Download the report at **https://bit.ly/3yign1L**. Or scan the QR code.

# New yacht sustainability notation collaboration

Lloyd's Register (LR) and Capital C Design and Technology are to collaborate to develop a scheme for the yacht sector to define a vessel's sustainability throughout its life. This new notation will help yachts to be built using the most sustainable materials possible

The system, from 'cradle to grave', will enhance LR's existing eco notation and incorporates designs and specifications from Capital C that incorporate technology that demonstrates reduced greenhouse gas emissions, advanced energy recovery systems and the use of certified sustainable materials for superyachts and passenger expedition yachts.

"Capital C is determined is to be at the forefront of green credential Net Carbon Positive yacht designs and builds within the Superyacht and Passenger Expedition Yacht industry," said Cindy Devina, founder and MD, Capital C.

"Working with Lloyd's Register, this joint development partnership will set the groundwork for a decarbonised maritime sector."

The designs have been independently verified to be carbon positive and are compliant for carbon credit trading, green financing and green bonds. The new notation will mean that yachts can be constructed and operated to meet the current IMO 2030 and 2050 requirements and built with the most sustainable materials that are currently available.

# Latest documentation updates from the Maritime & Coastguard Agency (MCA)

**20 September 2022**

MGN 503 (F) - Procedure for Carrying out a Roll or Heel Test to Assess Stability for Fishing Vessel Owners and Skippers (Amendment 1)

Go to **https://bit.ly/3CjpccU**.
Or scan the QR code.

**23 September 2022**

MGN 477 (M) - Maritime Labour Convention, 2006: Seafarers' Employment Agreements (Amendment 4)

Go to **https://bit.ly/3V9p9ZS**.
Or scan the QR code.

**04 October 2022**

MGN 349 (M+F) - Carriage and Use of Radar Reflectors on Small Vessels (Amendment 1)

Go to **https://bit.ly/3rFSJZm**.
Or scan the QR code.

**05 October 2022**

MGN 479 (M) - Maritime Labour Convention, 2006: Repatriation (Amendment 1)

Go to **https://bit.ly/3Tm0LTl**.
Or scan the QR code.

MSN 1877 (M) - Maritime Labour Convention 2006: Hours of Work and Entitlement to Leave (Amendment 2) – plus Annexes A – D

Go to **https://bit.ly/3CgMK27**.
Or scan the QR code.

# Monaco Yacht Show 2022 in pictures

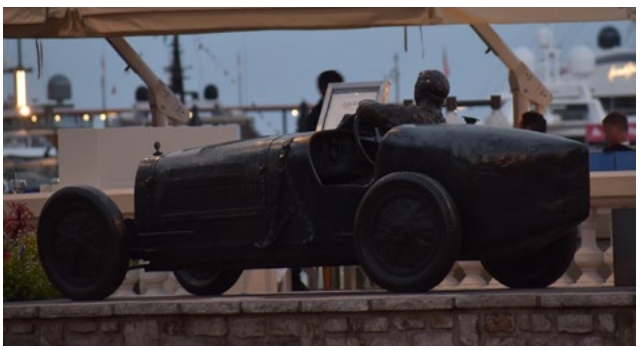
This year's Monaco Yacht Show was once again one of the highlights of the annual superyacht calendar with some of the most impressive vessels in the sector making an appearance. Here is some of what was going on in pictures.



HERMITAGE


Sea Wish


MONTE CARLO



# What caught my eye...

*Mike Schwarz casts his eye back over last month's eye-catching and eventful marine news*

## Renewable energy jobs remain resilient with 12.7 million employed globally

*Image credit: IRENA*

Worldwide renewable energy employment reached 12.7 million last year, a jump of 700,000 new jobs in one year despite the lingering effects of COVID-19 and the growing energy crisis, according to a new report by International Renewable Energy Agency (IRENA).

The report, Renewable Energy and Jobs: Annual Review 2022, identifies market dynamics as major factors influencing employment generation in renewables, along with labour and other costs.

Solar energy was found to be the fastest-growing sector, providing 4.3 million jobs in 2021, more than a third of the current global renewable workforce.

The report shows that an increasing number of countries are creating jobs in renewables. Almost two-thirds of all these jobs are in Asia, according to the new report. China alone accounts for 42% of the global total, followed by the EU and Brazil with 10% each, and the USA and India with 7% each.

I am always fascinated by statistics for, generally, they prove something. The renewable sector is really still only in its infancy in so many parts of the world (especially in the wind sector) that the number of people employed going forward must surely grow exponentially. I find that both encouraging and exciting.

## Lock gate project shortlisted for technical innovation award

*Image credit: ECS*

An innovative fibre-reinforced polymer (FRP) lock gate project carried out by ECS Engineering Services has been shortlisted for Technical Innovation of the Year at The London Construction Awards. Installed at Sunbury Dry Dock on the River Thames for the Environment Agency, the lock gates are the first set constructed from moulded FRP in the UK. The London Construction Awards celebrate innovation across London's construction industry.

Designed, constructed and installed by ECS on behalf of the Environment Agency, the new FRP lock gates at Sunbury Dry Dock offer reduced maintenance, lower costs and increased sustainability compared with the previously installed timber gates.

The FRP used features 'InfraCore® Inside' technology, patented by FiberCore Europe, with each panel having an expected service life of at least 100 years. Essentially maintenance free, materially sustainable and relatively lightweight, FRP actively reduces the CO2 footprint of installations.

Good job ECS!

## Hurricane Ian wreaks havoc in Florida

Although this storm happened at the end of September, it is only in the past couple of weeks that the full extent of the devastation caused by the innocuous sounding hurricane Ian has become evident. I extend my sympathies to all those affected, and hope life can return to something resembling normality soonest.

It is not the first time I have reported on weather related events in this column, but IIMS had 'skin in the game' as the saying goes with this one. James 'Randy' Renn was due to host the IIMS stand at the major IBEX trade show in Tampa. Indeed, he was in the queue to join the overnight auto train to head south when news of the cancellation of the event was made public.

In coastal Florida, desperate people posted to Facebook and other social sites, pleading for rescue for themselves or loved ones, says the Associated Press. Debris-covered water was surging toward homes' eaves. A coastal sheriff's office says that it was getting many calls from people trapped in flooded homes. Tampa Police Department urged people to stay inside as they released images of storm damage.

## The ride of endurance

In mid-September on the run up to the Monaco Yacht Show over 60 cyclists set off on an epic eight-day ride of endurance from London to Monaco spanning five countries and 1,000 kilometres in aid of ocean conservation charity Blue Marine Foundation. Back on the road for the first time since the COVID pandemic cancelled the two previous events, London to Monaco 2022's £250,000 fundraising target had already been achieved.

The route took the riders east out of London towards the Port of Harwich in Essex, where, after an overnight ferry, the team arrived in the Netherlands. Riders continued through Belgium into France through roads made famous by the Spring Classics, including sections of the Tour of Flanders. After heading south through France, the riders entered the French Alps before finally arriving in Monaco to a champagne finish and personal welcome by HSH Prince Albert II of Monaco.

HSH Prince Albert said: "The London to Monaco cycle ride is a wonderful opportunity to raise awareness of the necessity to protect our fragile oceans."

Well done to all those who rose to the challenge and completed the ride of endurance in aid of a good cause.

# Heerema breaks heavy lift record

*Photo credit: Heerema Marine Contractors*

They say that records are made to be broken, but when I read this story, I just had to applaud those involved in what seems to have been a heroic mission and many years in the making too!

Heerema Marine Contractors has safely installed TotalEnergies' biggest Tyra II topside on the last remaining bare jacket at the Tyra field.

"The safe and successful installation of the 17,000 tonne TEG module is a fantastic milestone for Heerema and Sleipnir. The record-breaking lift demonstrated the vessel's capacity to install enormous structures at sea," said Michel Hendriks, COO for Heerema.

Nothing was left to chance during the lift, when the two crane drivers, with the support of more than 260 offshore workers onboard the vessel Sleipnir, lifted what corresponds to the weight of around two Eiffel Towers. The lift has been prepared for years and every single step prior to, during and post lifting has been outlined in a several hundred pages-long manual prepared by Heerema Marine Contractors and TotalEnergies.

# Belgium planning a man-made island for wind power transmission

In the current era, given the challenges of the world, we seem to be testing and pushing feats of engineering to their limits. Here's yet another example of an innovative project that will change the seascape off Belgium, which really did catch my eye.

Belgium has announced that it is pushing ahead with plans to develop an artificial island off its coast to create a regional grid connector for offshore wind farms and a future hub for European energy transmission. Belgian transmission system operator Elia has unveiled the draft plans for what it believes will be the first artificial energy island of its kind.

According to Elia, the artificial island will occupy an area of approximately five hectares above the waterline and will be constructed from concrete caissons filled with sand. The island will mainly house transmission infrastructure which will be linked to new wind farms under development and will provide a platform for future interconnectors. A small harbor and helicopter pad will provide access for maintenance teams. Construction of the island is slated to commence in 2024 and should be completed in mid-2026.

Artificial islands are not a new concept, but at the current rate of developing windfarms and installations such as this, one wonders if there will be any sea left for ships, boats and yachts to navigate; but one has to admire and applaud their ambition!

Until next month,
***Mike Schwarz***

# Contact the IIMS Head Office team

As always, the IIMS head office team are here to help you on any matters relating to your membership or education needs. Please contact the appropriate person as follows:

**info@iims.org.uk**
for general information and enquiries (Rosie Webb)

**ca@iims.org.uk**
contact for all Certifying Authority work (Dave Parsons)

**accounts@iims.org.uk**
for accounting matters (Jen Argent)

**accountsupport@iims.org.uk**
for accounting matters (Elly Bryant)

**membership@iims.org.uk**
for all membership enquiries (Camella Robertson)

**education@iims.org.uk**
for education course content and training information (Vicki Loizides)

**tonnage@iims.org.uk**
specific email address for tonnage paperwork and enquiries (Dave Parsons)

**msa@iims.org.uk**
for enquiries about Marine Surveying Academy affairs (Hilary Excell)

**info@marinesurveyingacademy.com**
information about the Marine Surveying Academy (Pui Si Chung)

**courses@marinesurveyingacademy.com**
information about Marine Surveying Academy courses (Rachel Moores)

It is important that we keep our database and records up to date. Perhaps you have a web site address to add? If your contact details - address, email and telephone number - should change, please be sure to inform us immediately by email: **info@iims.org.uk** or call +44 23 9238 5223 (answer phone out of office hours).